

Drainage Study

FOR:

T21-00002
3710 Vista Way
Oceanside, CA 92056
Tentative Map

Prepared for:
NEPTUNE INVESTMENTS, LLC
PO Box 9890
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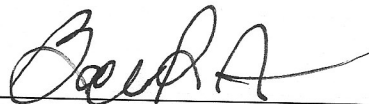
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Project Site Address:
3710 Vista Way
Oceanside, CA 92056
APN: 165-493-47

Preparation Date:
March 2021

Revision Date:
August 2022





Engineer of Work: Bartolome J. Pastor
RCE. 38606

8-30-22

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EXHIBIT B.....	Post-Development Drainage Map
EXHIBIT C.....	Post-Development DMA Map

ATTACHMENTS:

Attachment 1	TM Plans
Attachment 2.....	Soils Plat

1.1 INTRODUCTION

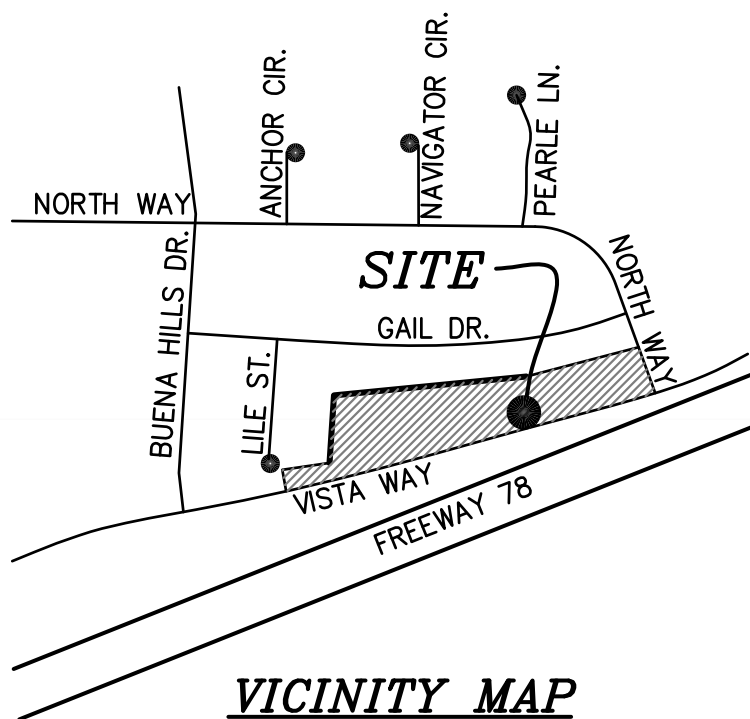
This section describes the project, Vista Way Homes (18 residential units). This project is proposed to be a “*Common Interest Development for Senior Housing*”. This project will include affordable housing. CCR’s will be prepared for this project prior to occupancy. These CCR’s will cover the maintenance of drainage and storm water facilities for this site. The project is on 1.97-acre lot with no existing visible improvements other than some retaining walls. This site was previously a part of a residential development with homes and streets. These improvements have been removed from the site.

The drainage study is based on the County of San Diego Drainage Manual, January 2017. The Rational Method is used to calculate pre and post development runoff for this project. The 6-hour precipitation is as calculated in the Intensity-Duration Design Chart (see section 3.2). The Soil classification used in this study is “D”. The pre-development coefficient of runoff “C” value $C=35$ for pre-development. The post-development coefficient of runoff “C” values for this project are based on the County of San Diego’s Evaluation of Rational Method “C” Values see table 3.1b.

Using a pre-development “C” value of 0.35 will require on-site detention See appendix 3 for the Peak Flow attenuation analysis for this project.

1.2 PROJECT LOCATION

The project is located at 3710 Vista Way adjacent to 78 Freeway. The project is located along the north side of Vista Way, at the northwest corner of Vista Way and North Way. The 78 freeway runs parallel with Vista Way’s southerly right-of-way. Access to the site is from Vista Way. There are duplexes located adjacent to the westerly and northerly boundary of the site. These lots drain away from this site onto their frontage streets (Lile St. to the west and Gail Dr. to the north).



VICINITY MAP
NOT TO SCALE



1.3 PROJECT DESCRIPTION VISTA WAY HOMES

The project site has been previously developed. The previous residential development that was on this site has been removed. The site now is vacante as shown on exhibit "A". Although the storm drain system that fronts this development should have been designed using the previous residentian we used $C=0.35$ value. $C=0.35$ corresponds to the present site conditions (vacante and landscaped) soil type "D". as shown on Exhibit "A".

There is an existing manufactured slope along the north and west side of the project with several large existing trees. The remainder of the site is relatively flat. The site slopes west to east towards the southeast corner of the site (the northwest corner of Vista Way and North Way) where there is an existing cross-gutter that conveys runoff easterly across North Way. Both Vista Way and North Way are fully improved streets no new street dedications or improvements are proposed by this project. The only improvements proposed within the public right-of-way are utility connections, driveway cut and private storm drain connections to the existing public storm drain facilities. No offsite drainage flows onto the site, except at the west side of the project where a small amount of slope within the public right-of-way flows onto the site. This offsite area does not include any hard scape. Since this site does not have any off-site drainage flowing onto it except as described and none of the improvements in the right-of-way proposed by this project will measurably increase runoff the watershed area is bounded by the project boundary and the right-of-way including the small offsite right-of-way area on the west side of the site.

Pre-Development see Exhibit A

The Pre-Development runoff sheet flows to the existing streets. This sheet flow goes into (3) three public storm drain facilities. The west portion of the site sheet flows to the Vista Way gutter where it is collected by an existing inlet (Existing Curb Inlet A) that then flows southerly under Vista Way and into the cal-trans right-of-way. A small area located at the northeast corner of the site sheet flows to North Way gutter and into an existing inlet (Existing Curb Inlet B) that then flows southerly under North Way into a clean out in vista way. From there the runoff flows easterly to another cleanout and a connecting pipe that crosses vista way south and into the cal-trans right-of-way. Vista Way and into the cal-trans right-of-way. The remainder of the site sheet flows to the Vista Way and the curb return gutter at the southeast corner of the site where it enters the existing cross gutter which flows easterly across North Way to an existing inlet on Vista Way which connects to the same storm drain system called out above for the North Way inlet which flows southinto the cal-trans right-of-way.

Post-Development see Exhibit B

The Post-development drainage will also flow to the (3) three public drainage facilities described in the pre-development discussion above. The proposed site improvements for this project will collect the majority of the site runoff on-site where it will then be conveyed to the existing public storm drain facilities.

A portion of the site will continue to sheet flow into the existing gutters. The development of this site requires several retaining walls. Retaining walls will be installed parallel with both the Vista Way and North Way. To keep the footings on private property. There is a minimum of 2 inch setback from the right-of-way to the face of wall (drainage basins A1, B1, C2 & D). Also there are landscaped areas that continue to sheet flow to the Vista Way. Areas A1, B1 and C2 also include site access areas. The on-site drainage is collected and treated prior to entering the public storm drain facilities as follows:

Retaining walls along right-of ways are designed so that the surface drainage flows away from the tops of walls into the onsite drainage facilities. These walls subdrains will outlet to the existing right of way. The interior retaining walls will have wall drains at the base of the walls that will direct any surface runoff from behind walls onto the adjacent pads (see sheet 8 of attachment 1 for detail).

Area A: drainage basins A1-A5 are located at the west end of the site and are equivalent in area to P1. These areas all drain to the Existing Curb Inlet "A". Area A1 by the Vista Way gutter and areas A2-A5 through the on-site storm drain system which connects to the back of the existing inlet "A". Detention is required for Drainage Basin A; Pre-Q100=1.30 CFS, Post Q100=2.90 CFS a net increase in runoff of 1.60 CFS.

Area B: drainage basins B1 & B2 are located at the center of the site. Area B1 drains to the Vista Way Gutter. B2 Drains to a private B inlet in the cul-de-sac then flows east through a storm drain to the Catch basin in area C1.

Area C: drainage basins C1-C2 are located at the East end of the site. These areas all drain to the Existing Vista Way gutter. Area C2 by the Vista Way gutter and areas C1 through the on-site storm drain system which outlets to (2) D-25A curb outlets. The B2 and C1 Drainages combine to outlet to Vista way; Post Q100=6.06 CFS.

Area D: drainage basin D are located at the East end of the site. This area drains to existing inlet "B" on North Way. Post Q100=0.00 CFS.

Post Development drainage basins B + C + D have equivalent area to Pre-development drainage basins P2 + P3. Pre-development Q100=1.33, Post-development Q100=6.10 CFS for a net increase in runoff of 4.77 CFS.

2. HYDRO-MODIFICATION

Hydro-Modification is required for this project. See this project's SWQMP for Hydro Modification.

3. PROCEDURE

In preparation of the pre-development hydrology our calculations are based on the rational method with coefficient of runoff $C=0.35$ for the existing landscaped vacant development. The total pre-development runoff is $Q=2.63$ CFS (100-year storm frequency). See Table 3.3a for a summary of 100, 50, 10, 5 & 2-year storm frequency runoff values

The post-development runoff coefficients are calculated using the County of San Diego's *Evaluation Ration Method "C" Values* method per table 3.2b. The initial time of concentration is based on urban areas overland time of flow curves. The total post-development runoff is $Q=9.00$ CFS (100-year storm frequency). See table 3.3b for a summary of 100, 50, 10, 5 & 2-year storm frequency runoff values.

For a comparison of pre to post development 100, 50, 10, 5 & 2-year storm frequency runoff values see table 3.3c.

3.1 Peak Flows (P6)

Using the Isopluvial Charts the Peak Flows used for this project are as follows:

Table 3.1a: Peak Flows Rainfall Event P24 (24 Hours)				
100 YR	50 YR	10 YR	5 YR	2 YR
5.00	4.50	3.25	2.50	2.00

Table 3.1b: Peak Flows Rainfall Event P6 (6 Hours)				
100 YR	50 YR	10 YR	5 YR	2 YR
2.80	2.50	1.80	1.40	1.10

Table 3.1c: Ratio P6/P24				
100 YR	50 YR	10 YR	5 YR	2 YR
56.0%	55.6%	55.4%	56.0%	55.0%
Adjusted P6				
2.80	2.50	1.80	1.40	1.10

3.2 Coefficient of Runoff "C" Values

Soil Type "D": Cp= 0.35

The Pre-Development "C" values for this site is based on the previous Residential Single family development and is C=0.55 per City OF Oceanside used C=0.35.

Table 3.3a shows the % impervios for the site per Exhibit "A"

Table 3.2a: Pre-Development "C" Values							
Drainage Basin	Area In AC	Area In SF	Impervious Area	% Imp.	Pervious Area	% Per.	"C" Value
P1	0.73	31,687	90	0%	31,597	100%	0.35
P2	1.23	53,626	9	0%	53,617	100%	0.35
P3	0.01	342	15	4%	327	96%	0.35
Total	1.97	85,655	113	0%	85,542	100%	0.35

The Post-development "C" Values for this site were determined using Equation below included in the County of San Diego "Evaluation of Rational Method "C" Values"

Equation 1: $C=0.90(\% \text{ impervious}) + C_p(1-\% \text{ impervious})$

To determine the % impervious for the various drainage basins for this site the See Table 3.3b.

Note: basins A1, B1, C2 & D drain directly to the adjacent streets and are untreated

These areas are included in the HMP calculations for the site.

Minus Area= 2,465 SF or 2.88%

Table 3.2b: Post-Development "C" Values							
Drainage Basin	Area In AC	Area In SF	Impervious Area	% Imp.	Pervious Area	% Per.	"C" Value
A1	0.05	2,052	427	21%	1,625	79%	0.46
A2	0.52	22,806	13,180	58%	9,626	42%	0.67
A3	0.06	2,800	1,324	47%	1,476	53%	0.61
A4	0.05	1,999	1,429	71%	570	29%	0.74
A5	0.05	2,030	1,481	73%	549	27%	0.75
A	0.73	31,687	17,841	56%	13,846	44%	0.66
B1	0.01	288	256	89%	32	11%	0.84
B2	0.69	29,980	22,245	74%	7,735	26%	0.76
B	0.69	30,268	22,501	74%	7,767	26%	0.76
C1	0.54	23,575	18,347	78%	5,228	22%	0.78
C2	0.00	121	58	48%	63	52%	0.61
C	0.54	23,696	18,405	78%	5,291	22%	0.78
D	0.00	4	0	0%	4	100%	0.35
B+C	1.24	53,964	40,906	76%	13,058	24%	0.77
Total	1.97	85,655	58,747	69%	26,908	31%	0.73

Table 3.2c: Post Compared to Pre Drainage			
	P1	A	P1-A=
	31,687	31,687	0
	P2	B+C	P2-B-C
	53,626	53,964	-338
	P3	D	P3-D
	342	4	338
Total	85,655	85,655	0

There is a 338 SF diversion of drainage
 e basin P3(D) to Drainage
 Basin P2(C)

3.3 Summary of Runoff

Table 3.3a: Pre-Development Runoff					
Drainage Basin	Q 100 CFS	Q 50 CFS	Q 10 CFS	Q 5 CFS	Q 2 CFS
P1	1.30	1.16	0.84	0.65	0.51
P2	1.31	1.17	0.84	0.66	0.52
P3	0.02	0.02	0.01	0.01	0.01
Total	2.63	2.35	1.69	1.32	1.03

Table 3.3b: Post-Development Undetained Runoff					
Drainage Basin	Q 100 CFS	Q 50 CFS	Q 10 CFS	Q 5 CFS	Q 2 CFS
A1	0.10	0.09	0.06	0.05	0.04
A2	2.02	1.81	1.30	1.01	0.80
A3	0.24	0.22	0.16	0.12	0.10
A4	0.26	0.23	0.17	0.13	0.10
A5	0.27	0.24	0.17	0.14	0.11
A	2.90	2.59	1.86	1.45	1.14
B1	0.04	0.03	0.02	0.02	0.01
B2	3.55	3.17	2.28	1.77	1.39
B	3.58	3.20	2.30	1.79	1.41
C1	2.51	2.24	1.61	1.25	0.99
C2	0.01	0.01	0.00	0.00	0.00
C	2.52	2.25	1.62	1.26	0.99
D	0.00	0.00	0.00	0.00	0.00
B+C+D	6.10	5.45	3.92	3.05	2.40
Total	9.00	8.04	5.79	4.50	3.54

Table: Comparison of Pre to Post Development Runoffs						
Drainage Basin	Area In SF	Q 100 CFS	Q 50 CFS	Q 10 CFS	Q 5 CFS	Q 2 CFS
P1	31,687	1.30	1.16	0.84	0.65	0.51
A	31,687	2.90	2.59	1.86	1.45	1.14
Pre-Post	0	-1.60	-1.43	-1.03	-0.80	-0.63
P2+P3	53,968	1.33	1.19	0.86	0.67	0.52
B+C+D	53,968	6.10	5.45	3.92	3.05	2.40
Pre-Post	0	-4.77	-4.26	-3.06	-2.38	-1.87
Total Pre-Post	0	-6.37	-5.68	-4.09	-3.18	-2.50

Detention Required

Detention Required

4. CONCLUSION

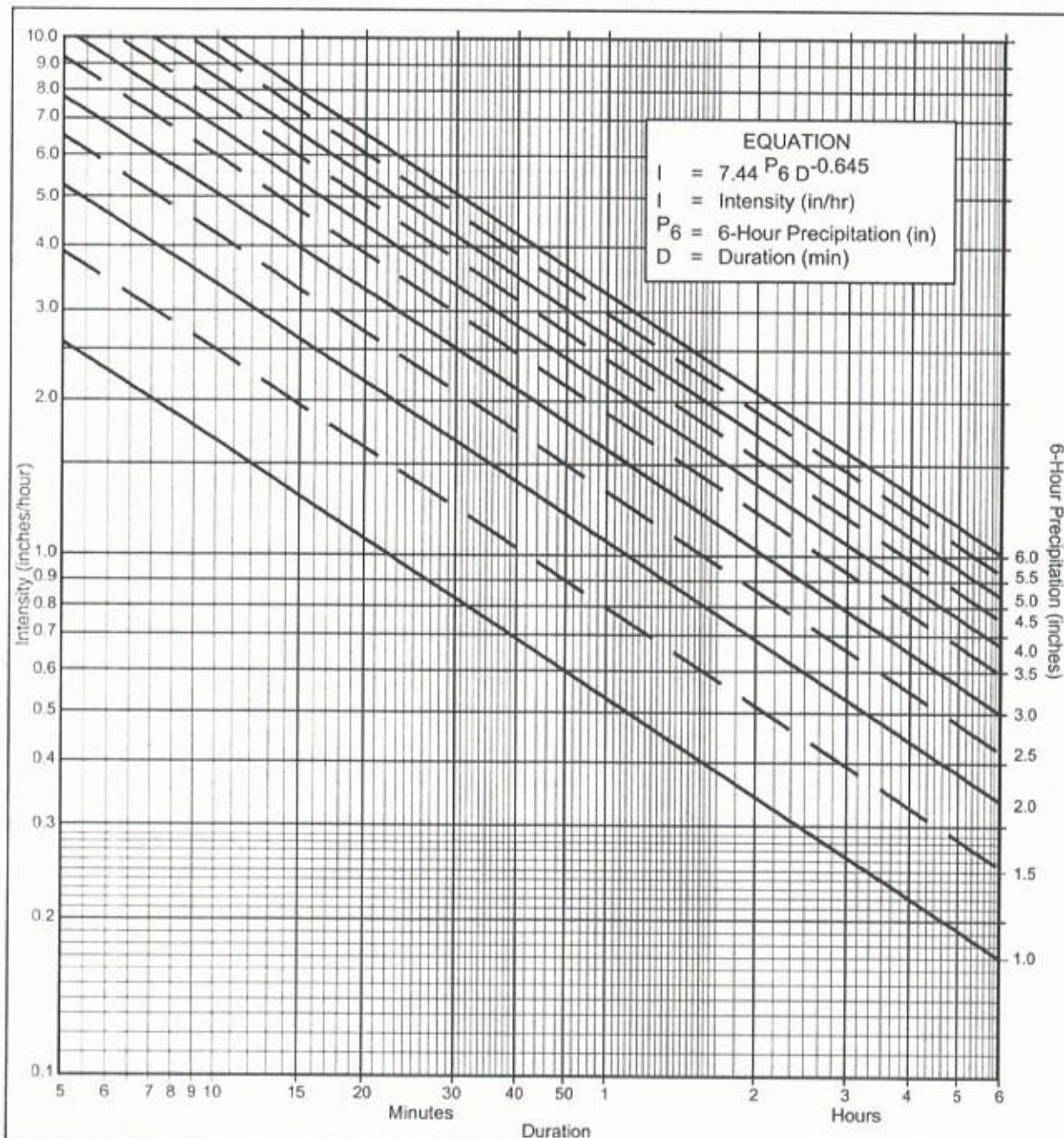
Pre-Development Drainage Basin P3 will no longer flow to inlet "B". This will divert QA100=0.02 CFS to the cross-gutter. All other drainage patterns are maintained. It is our opinion that there is no impact on the downstream existing drainage facilities.

5. REFERENCES

This report has been prepared in accordance with current City of Oceanside regulations and procedures. The following have been used in preparation of this study:

- County of San Diego Drainage Design Manual, January 2017
- Handbook of Hydraulics (7th Edition), Baxter and King

The calculations are based on the Rational Method.



Directions for Application:

- (1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).
- (2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicable to Desert).
- (3) Plot 6 hr precipitation on the right side of the chart.
- (4) Draw a line through the point parallel to the plotted lines.
- (5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

- (a) Selected frequency 2 year
- (b) $P_6 = \underline{1.10}$ in., $P_{24} = \underline{2.00}$, $\frac{P_6}{P_{24}} = \underline{55.0} \%$ (2)
- (c) Adjusted $P_6^{(2)} = \underline{1.10}$ in.
- (d) $t_x = \underline{\hspace{2cm}}$ min.
- (e) $I = \underline{\hspace{2cm}}$ in./hr.

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration	I	I	I	I	I	I	I	I	I	I	I
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE

3-1

County of San Diego Hydrology Manual



Rainfall Isopluvials

2 Year Rainfall Event - 6 Hours

----- Isopluvial (inches)

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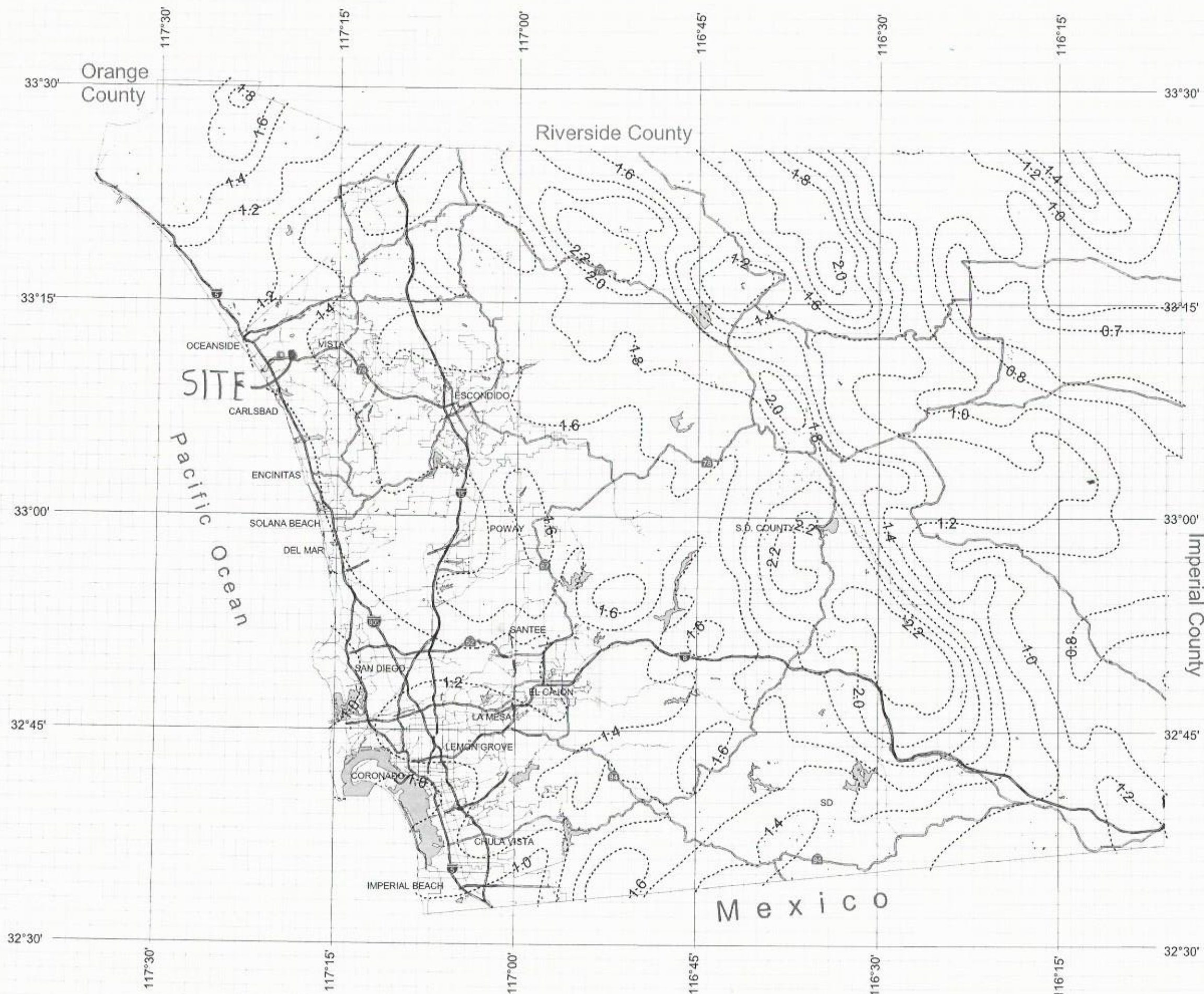


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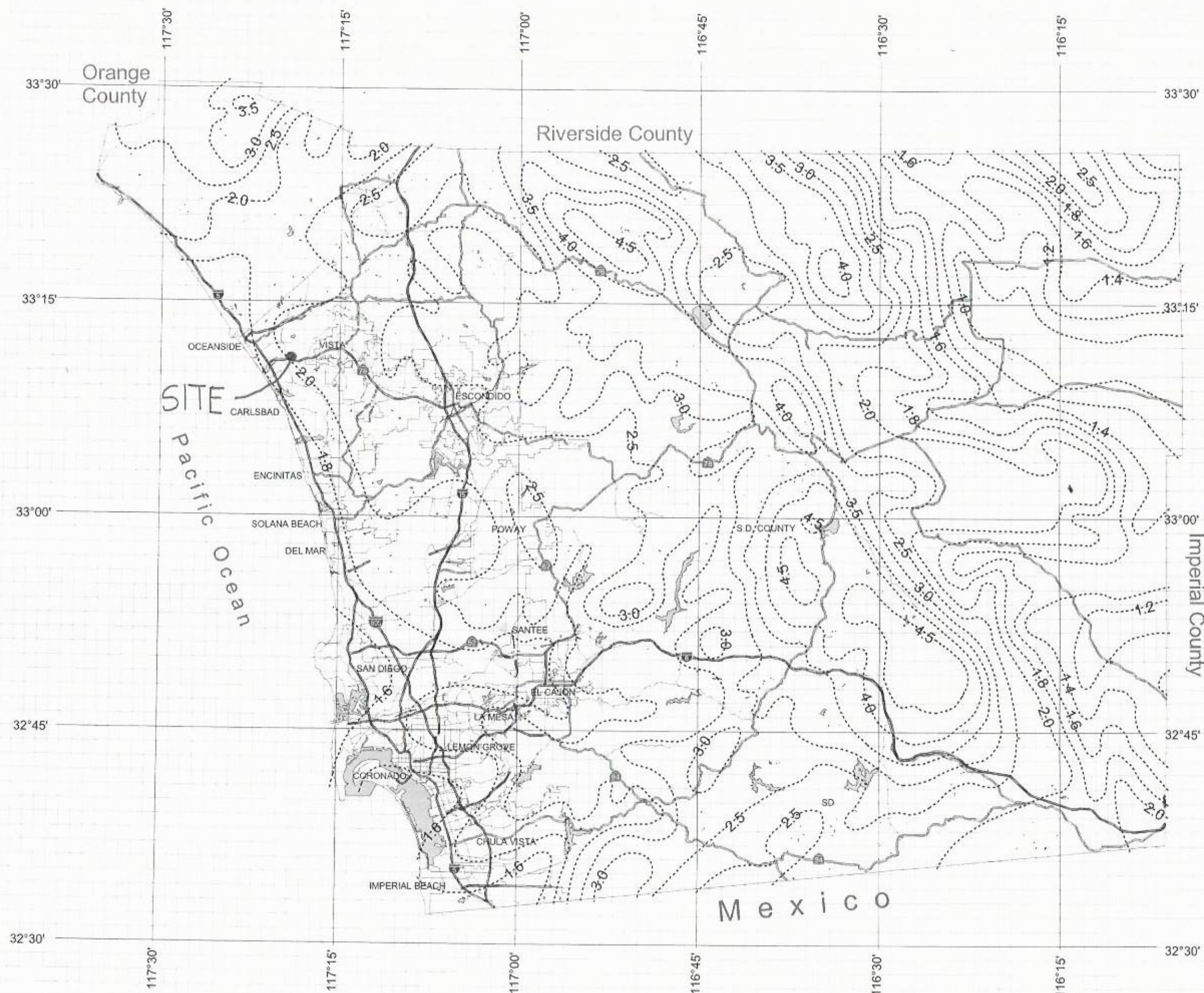
County of San Diego Hydrology Manual



Rainfall Isopluvials

2 Year Rainfall Event - 24 Hours

..... Isopluvial (inches)



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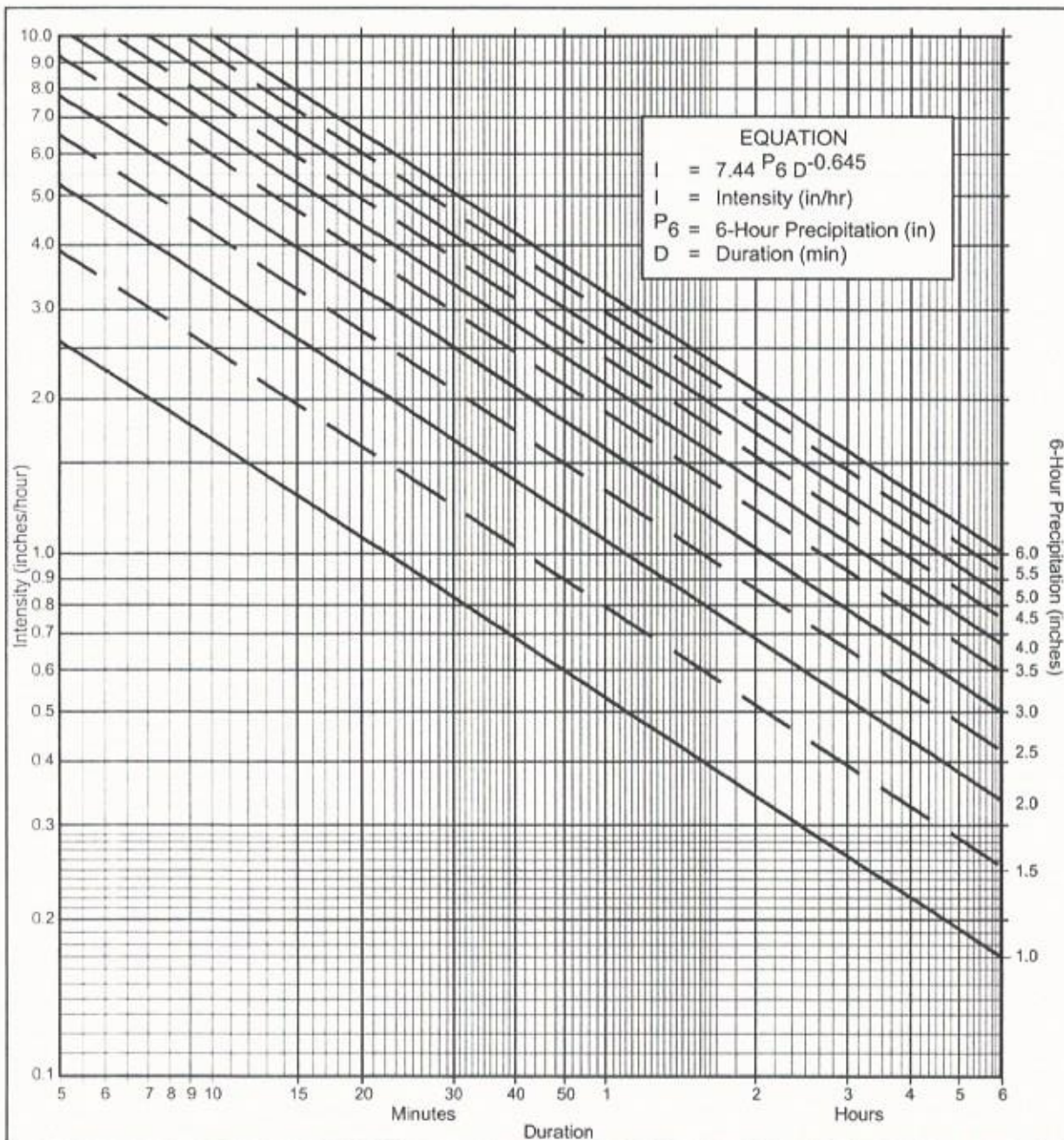


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Directions for Application:

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- (2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicable to Desert).
- (3) Plot 6 hr precipitation on the right side of the chart.
- (4) Draw a line through the point parallel to the plotted lines.
- (5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

- (a) Selected frequency 5 year
- (b) $P_6 = 1.4$ in., $P_{24} = 2.5$, $\frac{P_6}{P_{24}} = 56\%$ ⁽²⁾
- (c) Adjusted P_6 ⁽²⁾ = 1.4 in.
- (d) $t_x =$ _____ min.
- (e) $I =$ _____ in./hr.

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration	I	I	I	I	I	I	I	I	I	I	I
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE

3-1

County of San Diego Hydrology Manual



Rainfall Isopluvials

5 Year Rainfall Event - 6 Hours

..... Isopluvial (inches)

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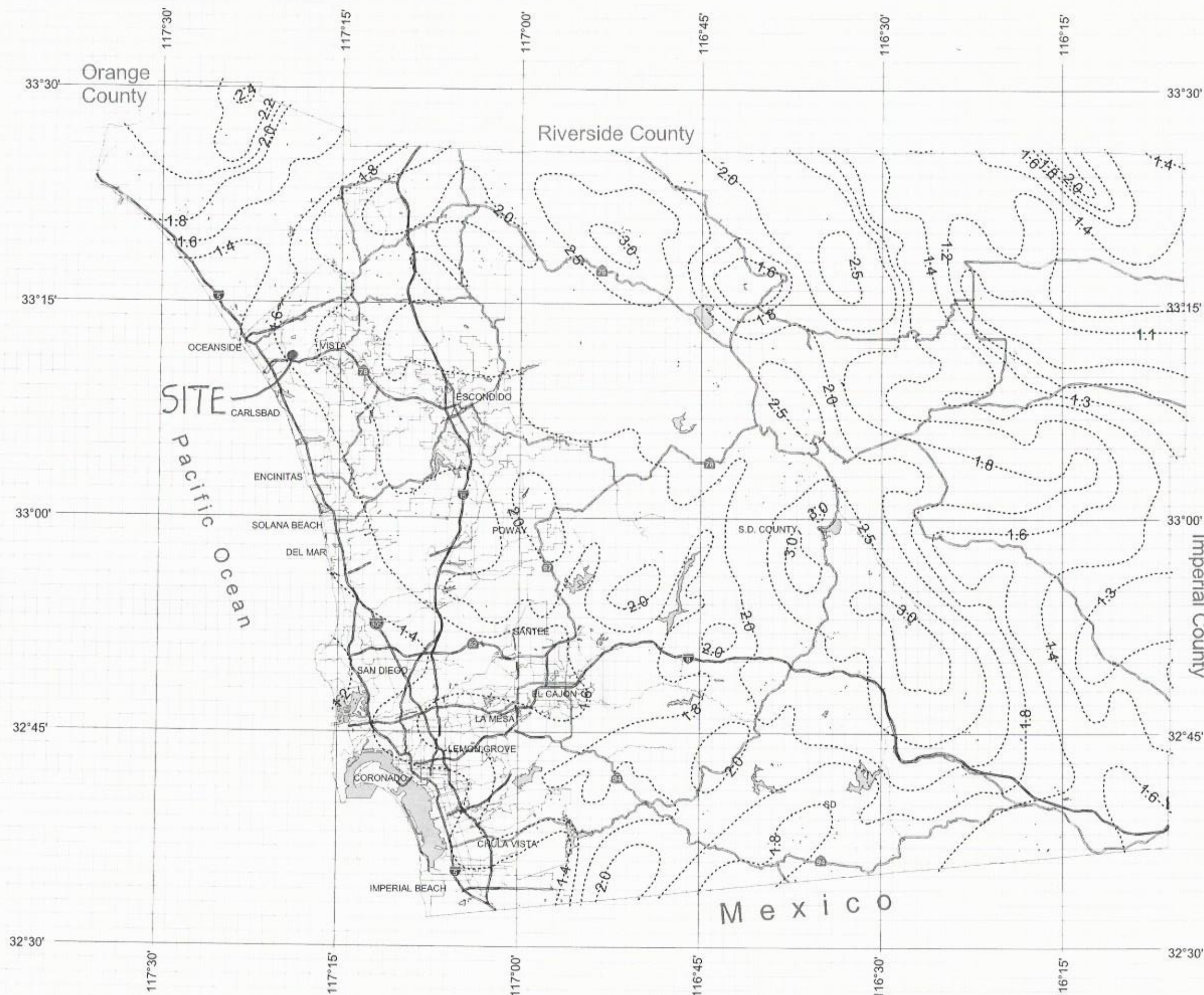


3 0 3 Miles

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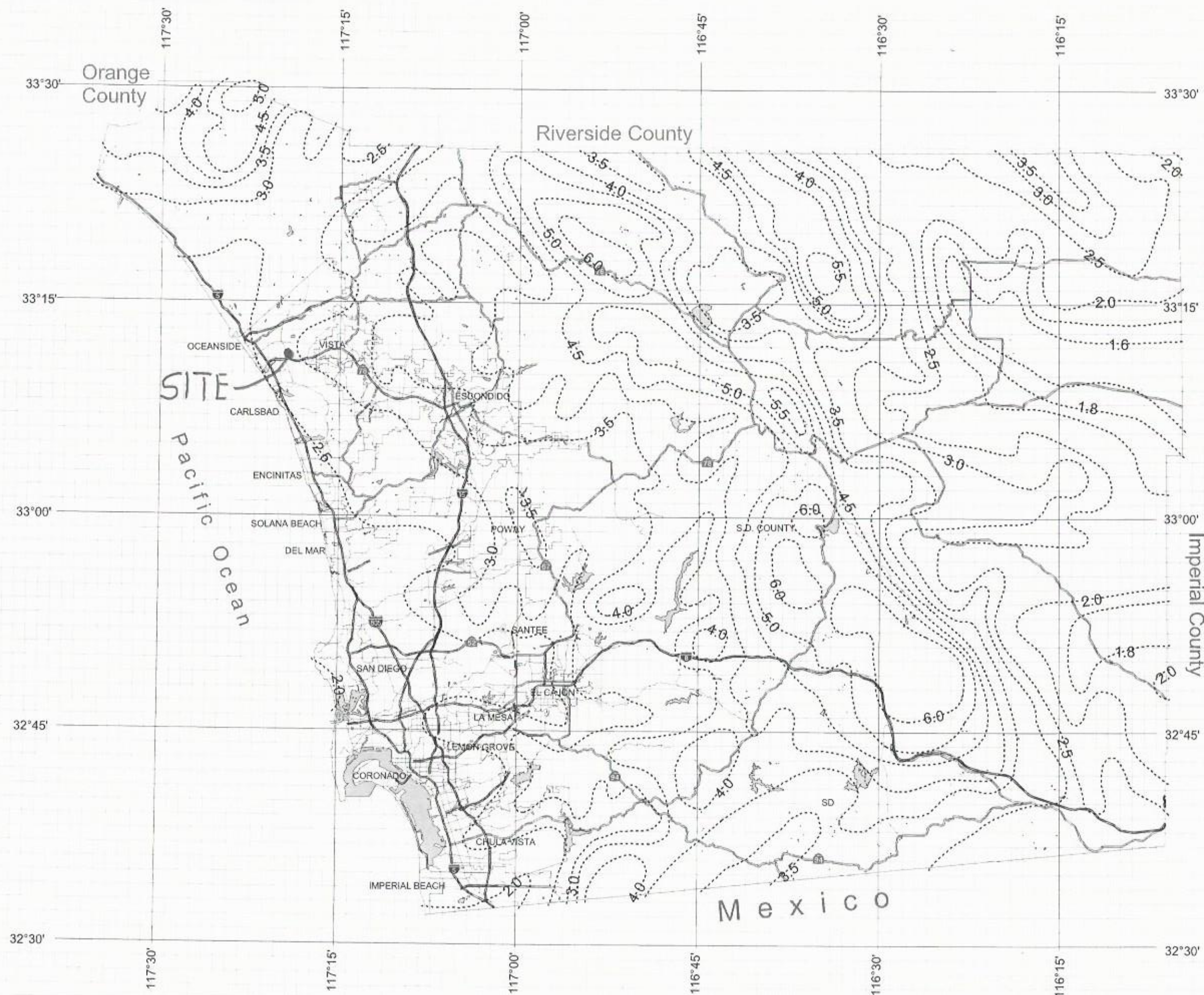
County of San Diego Hydrology Manual



Rainfall Isopluvials

5 Year Rainfall Event - 24 Hours

----- Isopluvial (inches)



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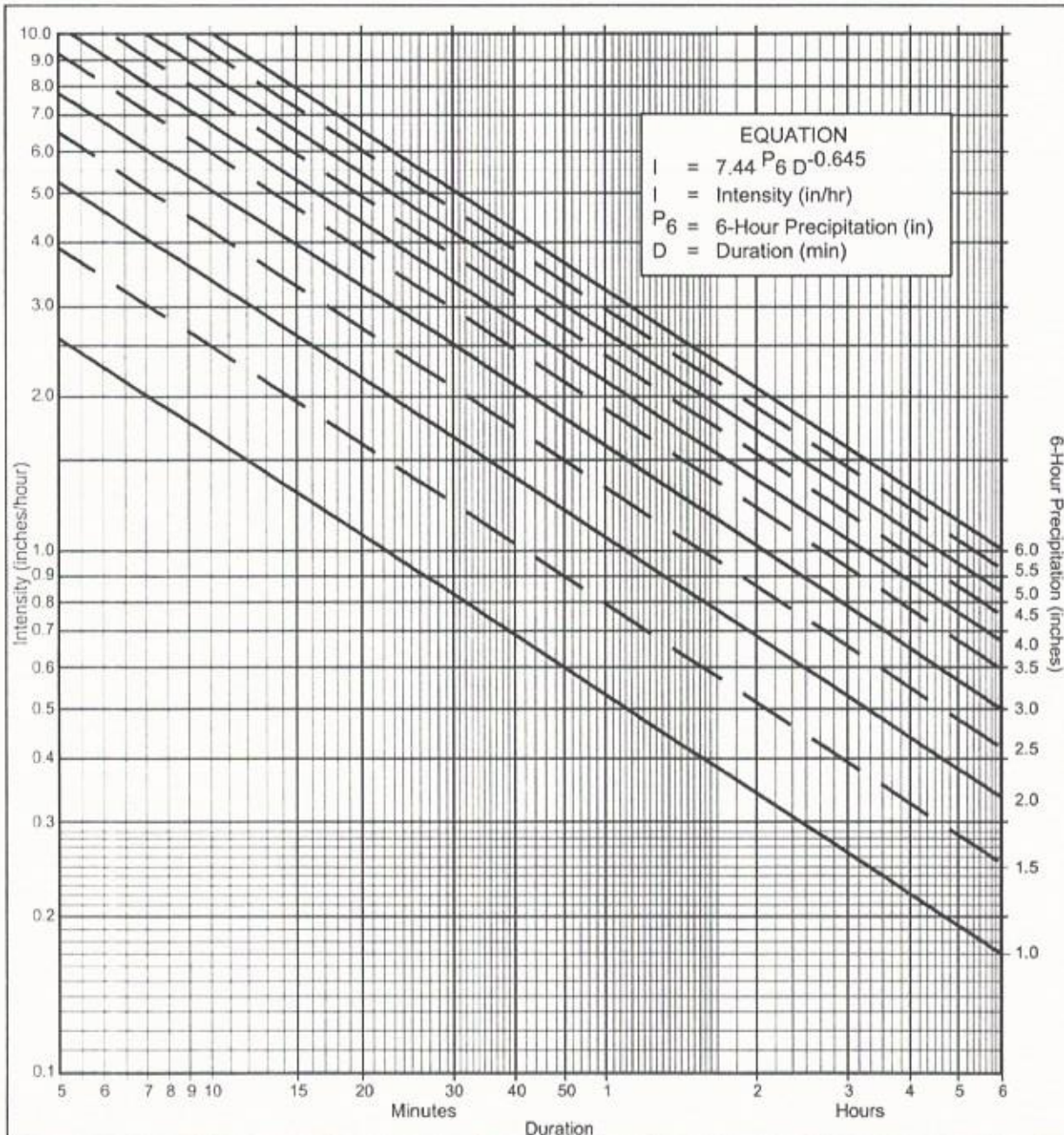


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3 0 3 Miles



Directions for Application:

- (1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).
- (2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicable to Desert).
- (3) Plot 6 hr precipitation on the right side of the chart.
- (4) Draw a line through the point parallel to the plotted lines.
- (5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

- (a) Selected frequency 10 year
- (b) $P_6 = 1.80$ in., $P_{24} = 3.25$, $\frac{P_6}{P_{24}} = 55.4\%$ ⁽²⁾
- (c) Adjusted $P_6^{(2)} = 1.80$ in.
- (d) $t_x =$ _____ min.
- (e) $I =$ _____ in./hr.

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration											
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE

3-1

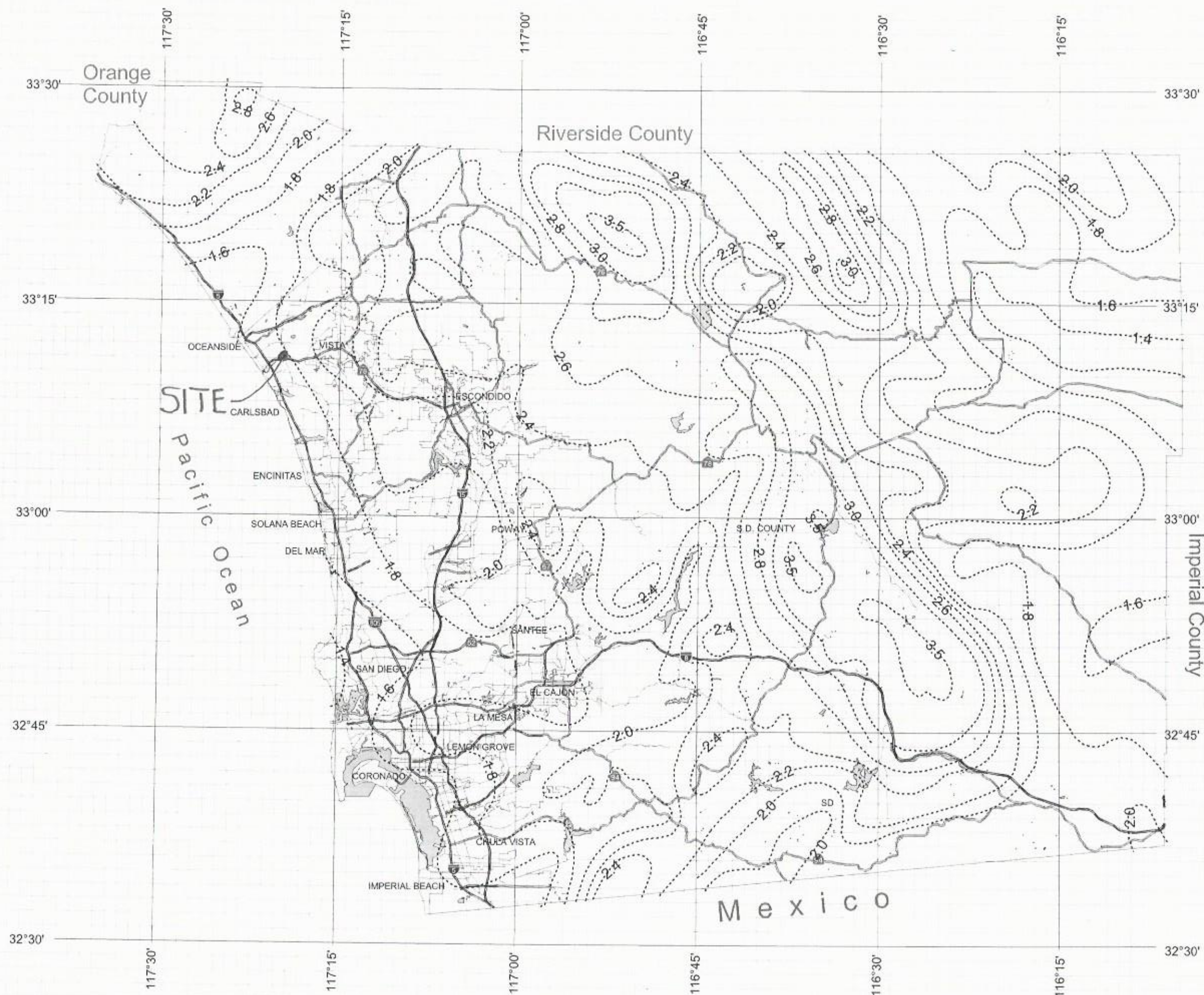
County of San Diego Hydrology Manual



Rainfall Isopluvials

10 Year Rainfall Event - 6 Hours

----- Isopluvial (inches)



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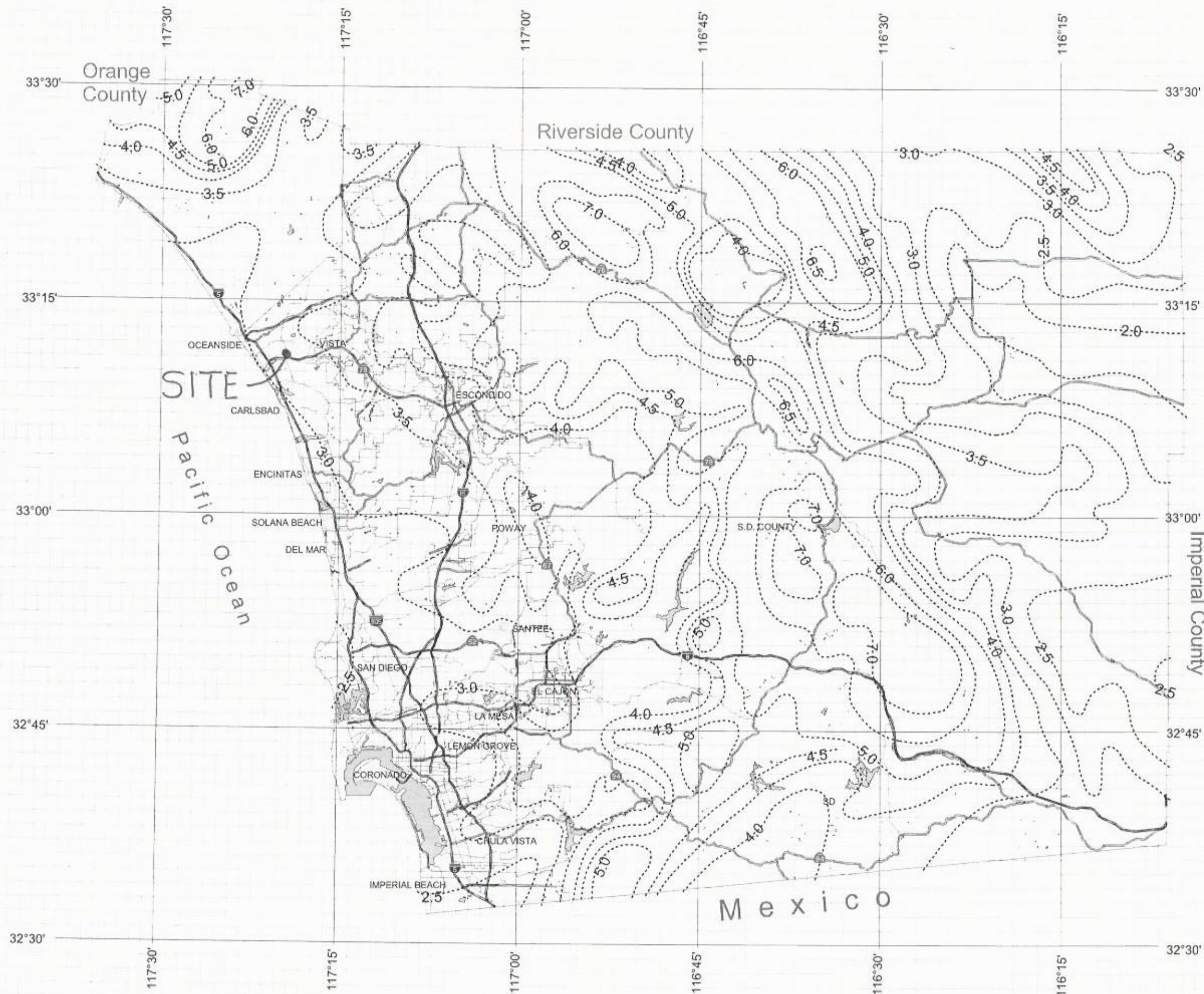
County of San Diego Hydrology Manual



Rainfall Isopluvials

10 Year Rainfall Event - 24 Hours

----- Isopluvial (inches)



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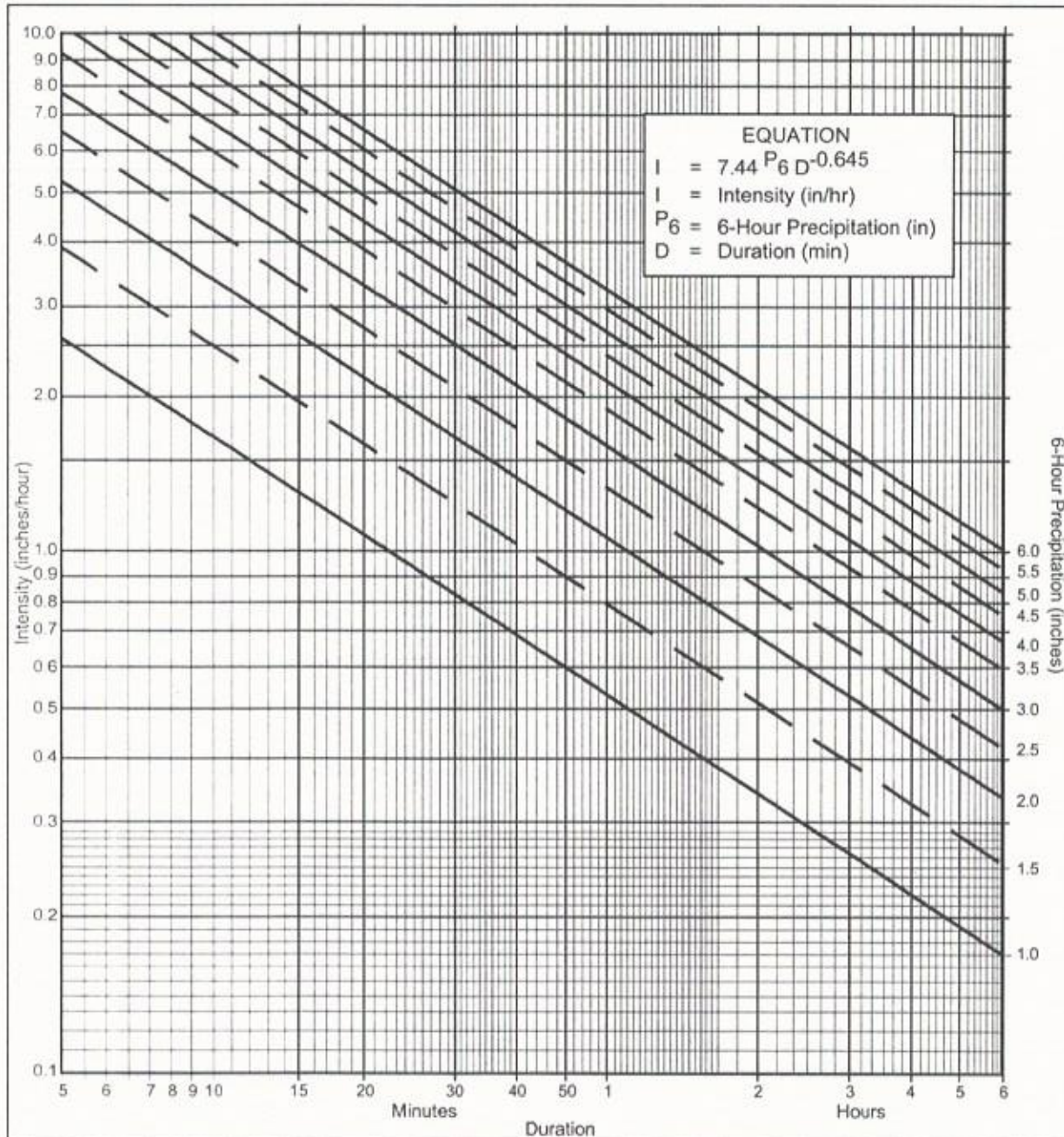


3 0 3 Miles

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Directions for Application:

- (1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).
- (2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicable to Desert).
- (3) Plot 6 hr precipitation on the right side of the chart.
- (4) Draw a line through the point parallel to the plotted lines.
- (5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

- (a) Selected frequency 50 year
- (b) $P_6 = 2.5$ in., $P_{24} = 4.5$, $\frac{P_6}{P_{24}} = 55.6\%$ ⁽²⁾
- (c) Adjusted $P_6^{(2)} = 2.5$ in.
- (d) $t_x = \underline{\hspace{2cm}}$ min.
- (e) $I = \underline{\hspace{2cm}}$ in./hr.

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P_6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration											
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE

3-1

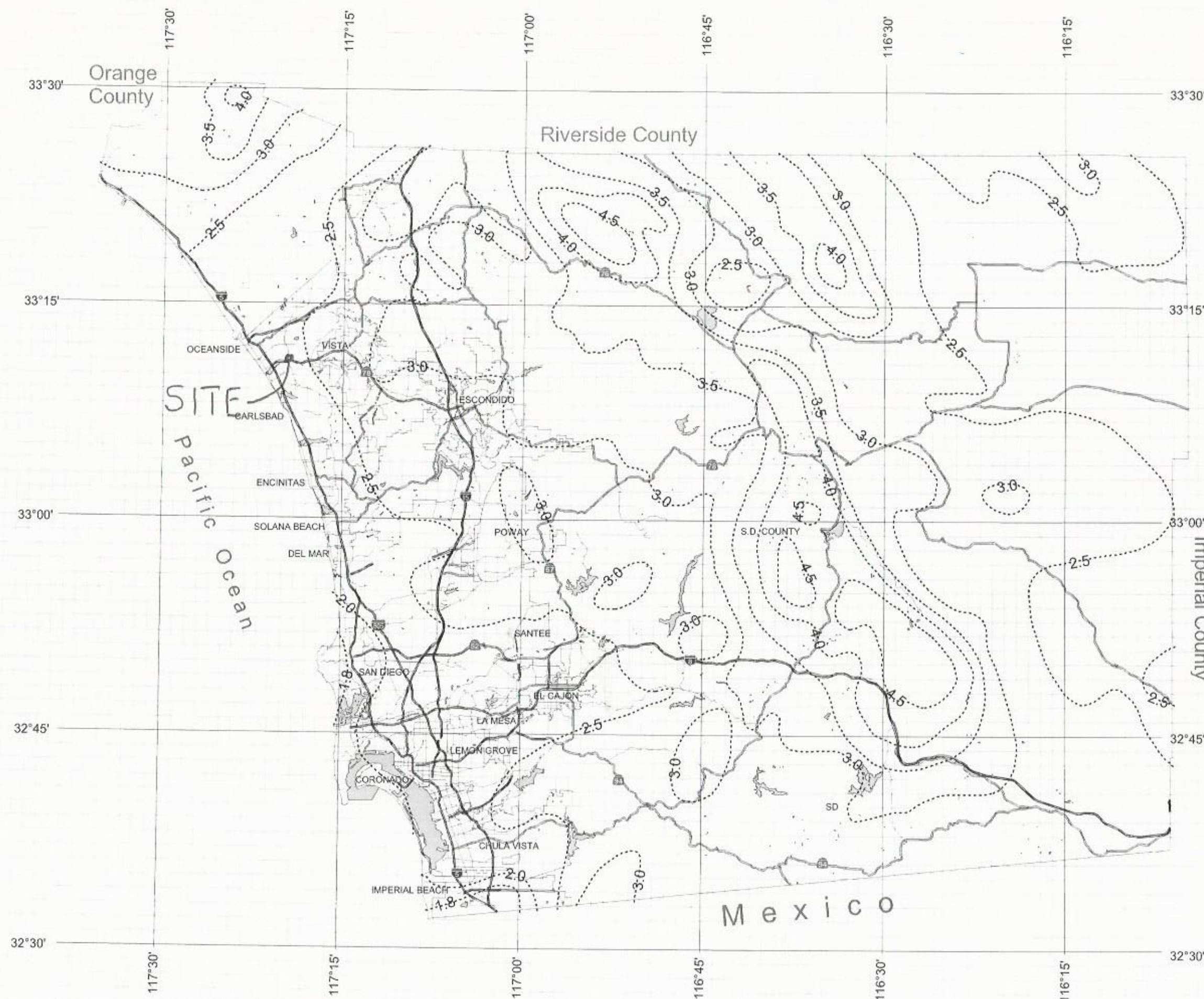
County of San Diego Hydrology Manual



Rainfall Isopluvials

50 Year Rainfall Event - 6 Hours

..... Isopluvial (inches)



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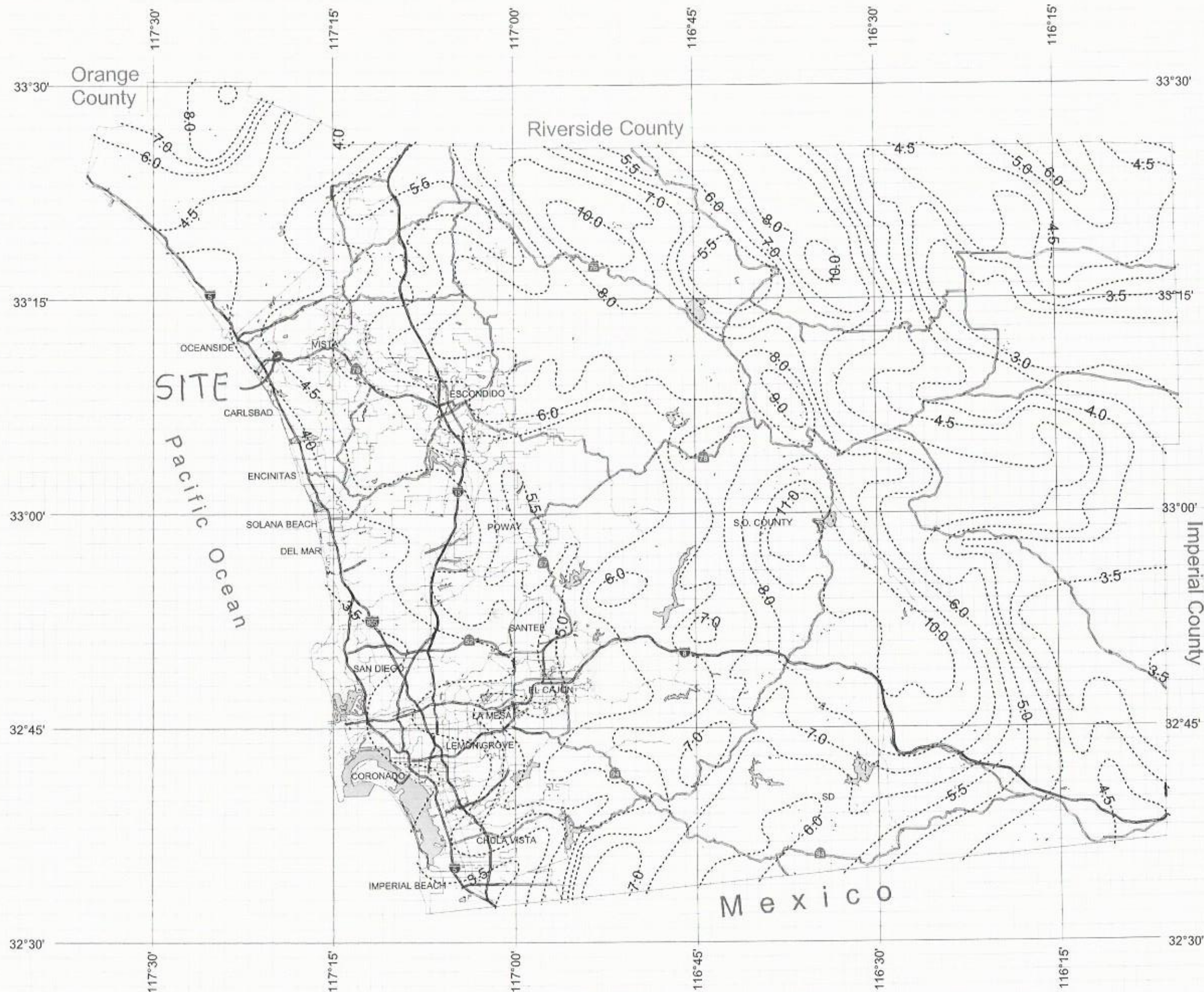
County of San Diego Hydrology Manual



Rainfall Isopluvials

50 Year Rainfall Event - 24 Hours

----- Isopluvial (inches)



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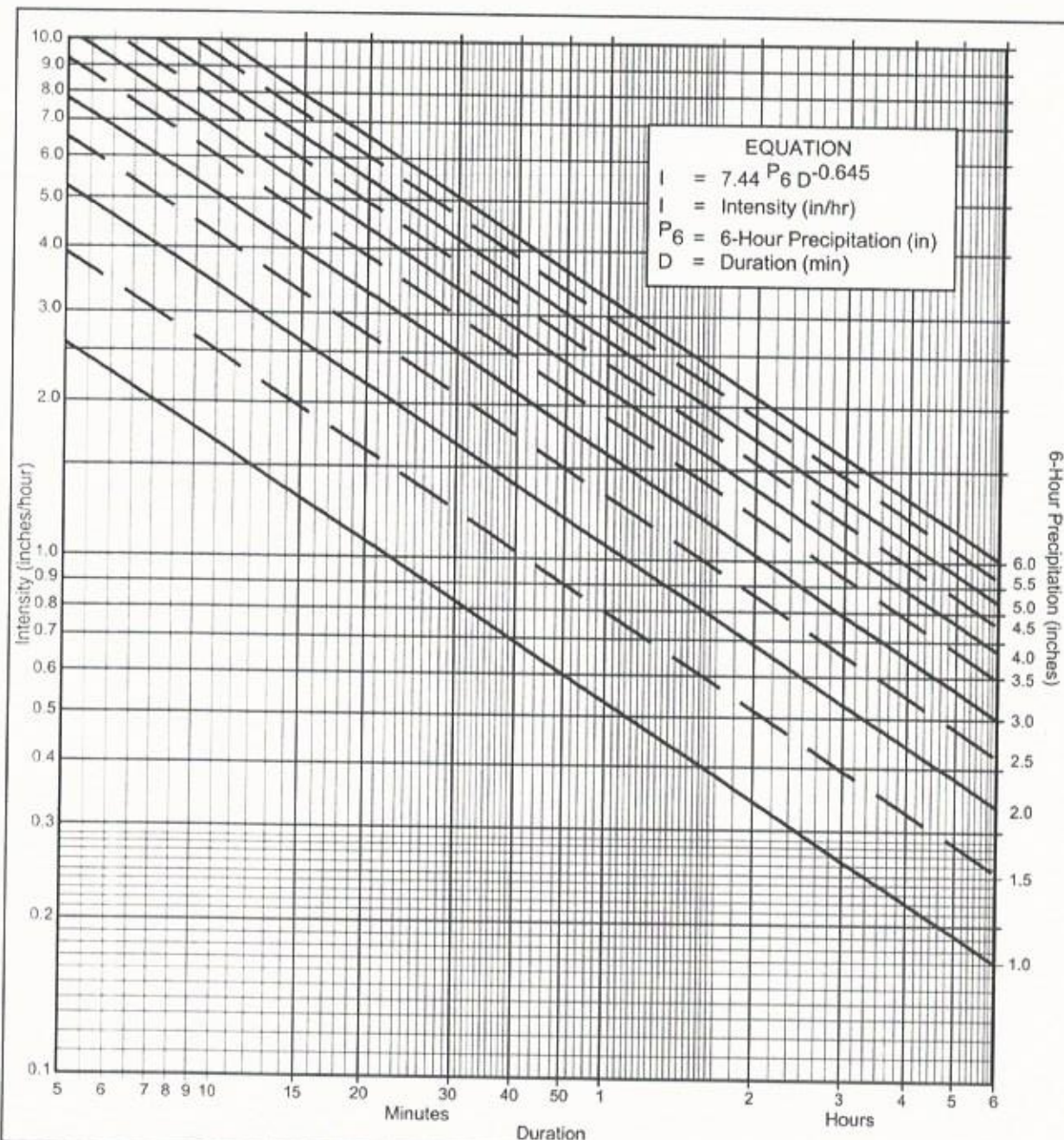


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- (1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).
- (2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicable to Desert).
- (3) Plot 6 hr precipitation on the right side of the chart.
- (4) Draw a line through the point parallel to the plotted lines.
- (5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

- (a) Selected frequency 100 year
- (b) $P_6 = \underline{2.8}$ in., $P_{24} = \underline{5.0}$, $\frac{P_6}{P_{24}} = \underline{56} \%^{(2)}$
- (c) Adjusted $P_6^{(2)} = \underline{2.8}$ in.
- (d) $t_x = \underline{\hspace{2cm}}$ min.
- (e) $I = \underline{\hspace{2cm}}$ in./hr.

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration	I	I	I	I	I	I	I	I	I	I	I
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE

3-1

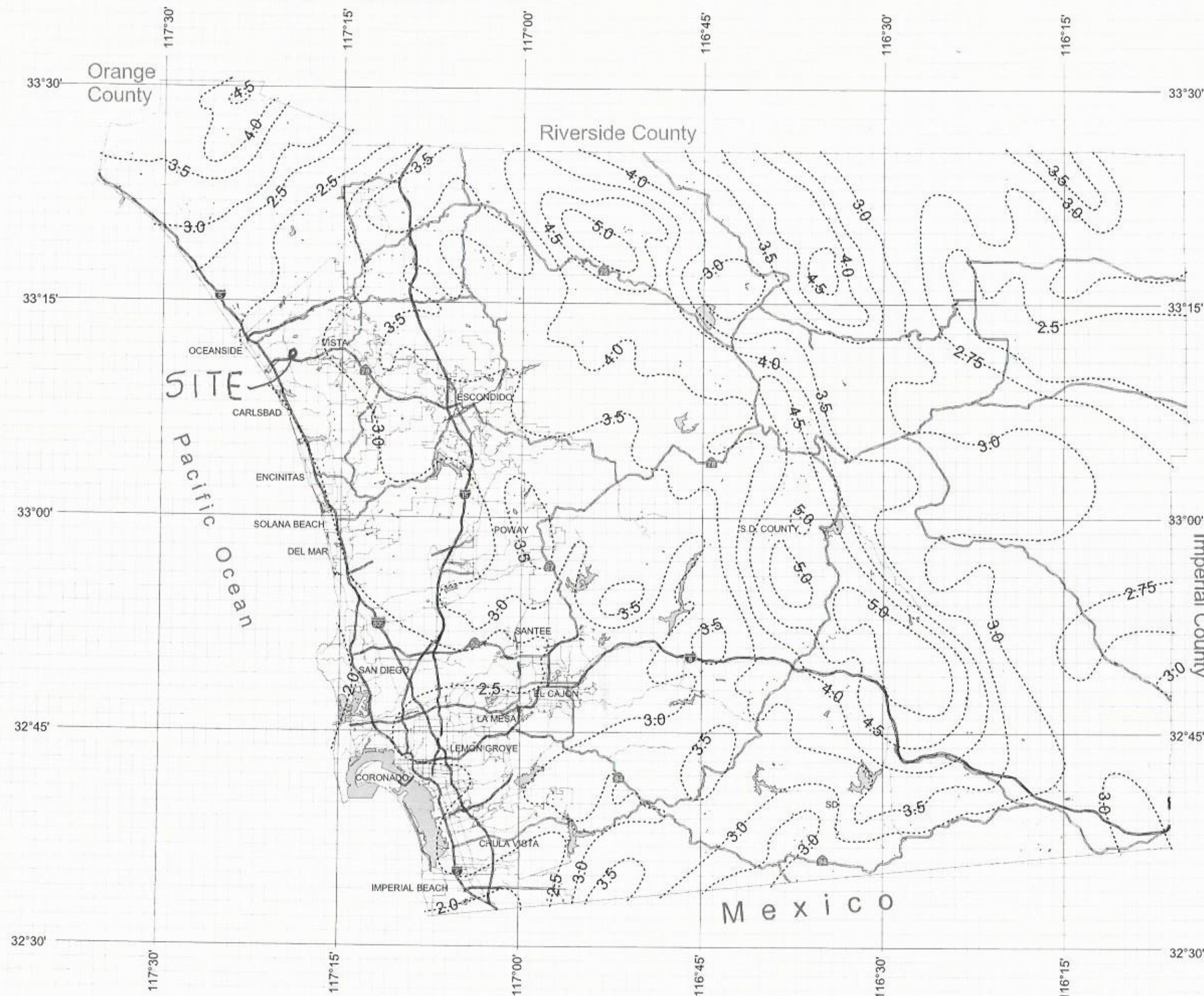
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Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

----- Isopluvial (inches)



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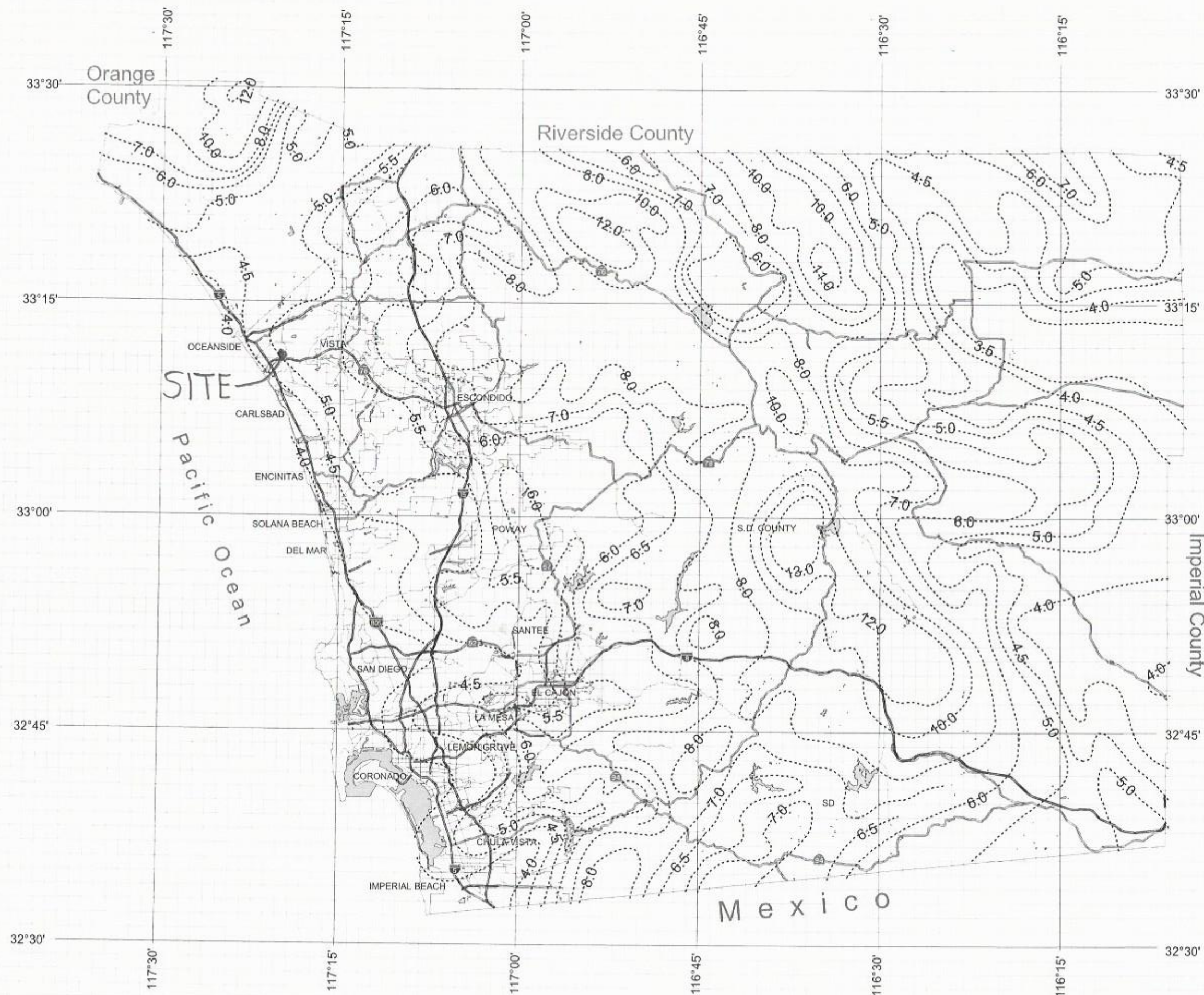
County of San Diego Hydrology Manual



Rainfall Isopluvials

100 Year Rainfall Event - 24 Hours

..... Isopluvial (inches)



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APPENDIX 1

Hydrology Calculations

PRE-DEVELOPMENT HYDROLOGY

P6 = 2.80

[illegible]

EXHIBIT A

[illegible]

P6 = 1.80

[illegible]

Page 4 of 5 Pages

*INTENSITY-DURATION DESIGN CHART

Date: May 13, 2022

Soil Classification = "D"

Appendix 1-1

EXHIBIT A

P6 = 1.40

[illegible]

P6 = 1.10

[illegible]

POST-DEVELOPMENT HYDROLOGY

Project Name: TPM for 3710 Vista Way

Page 1 of 20 Pages

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 100 Yr. Storm

P6 = 2.80

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ SF	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
WATERSHED AREA A																		
							Elev. Node 1	217.0	Dist. Travel =		325.00							
							Elev. Node 2	194.7										
							Elev. Delta	22.30										
1	2	A1	2,052	OS				6.86%			325.00	10.86	10.86	4.47	0.46	0.02	0.10	
Node 2 is Existing B Inlet																		
							Elev. Node 3	206.0	Dist. Travel =		210.00							
							Elev. Node 4	198.2										
							Elev. Delta	7.80										
3	4	A2	22,806	RES				3.71%			210.00	7.28	7.28	5.79	0.67	0.35	2.02	B Inlet
4	5				1.00	0.013	2.02	1.00%	0.54	4.68	36.21	0.13	7.41	5.72				Area Drain
							Elev. Node 6	201.4	Dist. Travel =		60.00							
							Elev. Node 5	200.7										
							Elev. Delta	0.70										
6	5	A3	2,800	RES				1.17%			60.00	6.49	6.49	6.24	0.61	0.04	0.24	Area Drain
																QA2+QA3=	2.27	
4	5				1.00	0.013	2.27	1.00%	0.58	4.81	6.86	0.02	7.43	5.71				C/O
5	11				1.00	0.013	2.27	0.50%	0.74	3.63	8.50	0.04	7.47	5.69				Area Drain
							Elev. Node 8	201.40	Dist. Travel =		60.00							
							Elev. Node 7	200.70										
							Elev. Delta	0.70										
8	7	A4	1,999	RES				1.17%			60.00	4.73	4.73	7.65	0.74	0.03	0.26	Area Drain
																QA2+QA3+QA4=	2.53	

Page 2 of 20 Pages

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

P6 = 2.80

[illegible]

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 100 Yr. Storm

P6 = 2.80

[illegible]

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 100 Yr. Storm

P6 = 2.80

[illegible]

Project Name: TPM for 3710 Vista Way

Page 5 of 20 Pages

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART Date: November 3, 2021

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 50 Yr. Storm

P6 = 2.50

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ SF	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
WATERSHED AREA A																		
							Elev. Node 1	217.0	Dist. Travel =		325.00							
							Elev. Node 2	194.7										
							Elev. Delta	22.30										
1	2	A1	2,052	OS				6.86%			325.00	10.86	10.86	3.99	0.46	0.02	0.09	
Node 2 is Existing B Inlet																		
							Elev. Node 3	206.0	Dist. Travel =		210.00							
							Elev. Node 4	198.2										
							Elev. Delta	7.80										
3	4	A2	22,806	OS				3.71%			210.00	7.28	7.28	5.17	0.67	0.35	1.81	B Inlet
4	5				1.00	0.013	1.81	1.00%	0.51	4.55	36.21	0.13	7.41	5.11				Area Drain
							Elev. Node 6	201.4	Dist. Travel =		60.00							
							Elev. Node 5	200.7										
							Elev. Delta	0.70										
6	5	A3	2,800	RES				1.17%			60.00	6.49	6.49	5.57	0.61	0.04	0.22	Area Drain
															QA2+QA3=		2.03	
4	5				1.00	0.013	2.03	1.00%	0.54	4.68	6.86	0.02	7.44	5.10				C/O
5	11				1.25	0.013	2.03	0.50%	0.58	3.61	8.50	0.04	7.48	5.08				Area Drain
							Elev. Node 9	201.40	Dist. Travel =		60.00							
							Elev. Node 8	200.70										
							Elev. Delta	0.70										
8	7	A4	1,999	RES				1.17%			60.00	4.73	4.73	6.83	0.74	0.03	0.23	Area Drain
															QA2+QA3+QA4=		2.26	

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 50 Yr. Storm

P6 = 2.50

[illegible]

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 50 Yr. Storm

P6 = 2.50

[illegible]

Project Name: TPM for 3710 Vista Way

Page 9 of 20 Pages

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART Date: November 3, 2021

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 10 Yr. Storm

P6 = 1.80

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ SF	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
WATERSHED AREA A																		
							Elev. Node 1	217.0	Dist. Travel =		325.00							
							Elev. Node 2	194.7										
							Elev. Delta	22.30										
1	2	A1	2,052	OS				6.86%			325.00	10.86	10.86	2.88	0.46	0.02	0.06	
Node 2 is Existing B Inlet																		
							Elev. Node 3	206.0	Dist. Travel =		210.00							
							Elev. Node 4	198.2										
							Elev. Delta	7.80										
3	4	A2	22,806	OS				3.71%			210.00	7.28	7.28	3.72	0.67	0.35	1.30	B Inlet
4	5				1.00	0.013	1.30	1.00%	0.42	4.18	36.21	0.14	7.43	3.67				Area Drain
							Elev. Node 6	201.4	Dist. Travel =		60.00							
							Elev. Node 5	200.7										
							Elev. Delta	0.70										
6	5	A3	2,800	RES				1.17%			60.00	6.49	6.49	4.01	0.61	0.04	0.16	Area Drain
																QA2+QA3=	1.46	
4	5				1.00	0.013	1.46	1.00%	0.45	4.31	6.86	0.03	7.45	3.67				C/O
5	11				1.25	0.013	1.46	0.50%	0.49	3.31	8.50	0.04	7.50	3.65				Area Drain
							Elev. Node 9	201.40	Dist. Travel =		60.00							
							Elev. Node 8	200.70										
							Elev. Delta	0.70										
8	7	A4	1,999	RES				1.17%			60.00	4.73	4.73	4.92	0.74	0.03	0.17	Area Drain
																QA2+QA3+QA4=	1.63	

Project Name: TPM for 3710 Vista Way

Page 10 of 20 Pages

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 10 Yr. Storm

P6 = 1.80

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ FT	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
							Elev. Node 11	199.15	Dist. Travel =	60.00								
							Elev. Node 10	198.45										
							Elev. Delta	0.70										
11	10	A5	2,030	RES				1.17%			60.00	4.62	4.62	4.99	0.75	0.04	0.17	Area Drain
													QA2+QA3+QA4+QA5=				1.80	
10	11				0.33	0.013	0.27	2.00%	0.28	3.48	2.00	0.01	7.51	3.65				UG1
12	13				1.00	0.013	2.80	1.00%	0.67	5.02	4.00	0.01	7.52	3.65				Modular Wetland
13	14				1.00	0.013	2.80	1.00%	0.67	5.02	2.00	0.01	7.53	3.64				C/O
14	2				1.00	0.013	2.80	1.40%	0.60	5.74	12.89	0.04	7.56	3.63				Ex. B Inlet
													QA2+QA3+QA4+QA5=				1.80	
																QA1=		0.06
																QA=		1.86
													Pre Development Runoff for Drainage Basin QP1=				0.84	
													Net Increase in Runoff=				1.03	
																Detention Required		
WATERSHED AREA B																		
							Elev. Node 2	194.70	Dist. Travel =	220.00								
							Elev. Node 14	191.30										
							Elev. Delta	3.40										
2	14	B1	288.00	RES				1.55%			220.00	6.03	6.03	4.20	0.84	0.01	0.02	
							Elev. Node 3	216.00	Dist. Travel =	315.00								
							Elev. Node 15	194.70										
							Elev. Delta	21.30										
3	16	B2	30,268	RES				6.76%			315.00	5.77	5.77	4.33	0.76	0.53	2.28	B Inlet

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 10 Yr. Storm

P6 = 1.80

[illegible]

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 10 Yr. Storm

P6 = 1.80

[illegible]

Project Name: TPM for 3710 Vista Way

Page 13 of 20 Pages

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART Date: November 3, 2021

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 5 Yr. Storm

P6 = 1.40

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ SF	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
WATERSHED AREA A																		
							Elev. Node 1	217.0	Dist. Travel =		325.00							
							Elev. Node 2	194.7										
							Elev. Delta	22.30										
1	2	A1	2,052	OS				6.86%			325.00	10.86	10.86	2.24	0.46	0.02	0.05	
Node 2 is Existing B Inlet																		
							Elev. Node 3	206.0	Dist. Travel =		210.00							
							Elev. Node 4	198.2										
							Elev. Delta	7.80										
3	4	A2	22,806	OS				3.71%			210.00	7.28	7.28	2.89	0.67	0.35	1.01	B Inlet
4	5				1.00	0.013	1.01	1.00%	0.37	3.91	36.21	0.15	7.44	2.86				Area Drain
							Elev. Node 6	201.4	Dist. Travel =		60.00							
							Elev. Node 5	200.7										
							Elev. Delta	0.70										
6	5	A3	2,800	RES				1.17%			60.00	6.49	6.49	3.12	0.61	0.04	0.12	Area Drain
															QA2+QA3=		1.13	
4	5				1.00	0.013	1.13	1.00%	0.39	4.03	6.86	0.03	7.46	2.85				C/O
5	11				1.25	0.013	1.13	0.50%	0.42	3.08	8.50	0.05	7.51	2.84				Area Drain
							Elev. Node 9	201.40	Dist. Travel =		60.00							
							Elev. Node 8	200.70										
							Elev. Delta	0.70										
8	7	A4	1,999	RES				1.17%			60.00	4.73	4.73	3.83	0.74	0.03	0.13	Area Drain
															QA2+QA3+QA4=		1.26	

Project Name: TPM for 3710 Vista Way

Page 14 of 20 Pages

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 5 Yr. Storm

P6 = 1.40

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ FT	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
							Elev. Node 11	199.15	Dist. Travel =	60.00								
							Elev. Node 10	198.45										
							Elev. Delta	0.70										
11	10	A5	2,030	RES				1.17%			60.00	4.62	4.62	3.88	0.75	0.04	0.14	Area Drain
																	QA2+QA3+QA4+QA5=	1.40
10	11				0.33	0.013	0.27	2.00%	0.28	3.48	2.00	0.01	7.52	2.83				UG1
12	13				1.00	0.013	2.80	1.00%	0.67	5.02	4.00	0.01	7.53	2.83				Modular Wetland
13	14				1.00	0.013	2.80	1.00%	0.67	5.02	2.00	0.01	7.54	2.83				C/O
14	2				1.00	0.013	2.80	1.40%	0.60	5.74	12.89	0.04	7.57	2.82				Ex. B Inlet
																	QA2+QA3+QA4+QA5=	1.40
																	QA1=	0.05
																	QA=	1.45
																	Pre Development Runoff for Drainage Basin QP1=	0.65
																	Net Increase in Runoff=	0.80
																		Detention Required
WATERSHED AREA B																		
							Elev. Node 2	194.70	Dist. Travel =	220.00								
							Elev. Node 14	191.30										
							Elev. Delta	3.40										
2	14	B1	288.00	RES				1.55%			220.00	6.03	6.03	3.27	0.84	0.01	0.02	
							Elev. Node 3	216.00	Dist. Travel =	315.00								
							Elev. Node 15	194.70										
							Elev. Delta	21.30										
3	16	B2	30,268	RES				6.76%			315.00	5.77	5.77	3.36	0.76	0.53	1.77	B Inlet

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 5 Yr. Storm

P6 = 1.40

[illegible]

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*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

P6 = 1.40

[illegible]

Project Name: TPM for 3710 Vista Way

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Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART Date: November 3, 2021

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 2 Yr. Storm

P6 = 1.10

NODE		Watershed		Land	Pipe		Designed	So or	Water	H or	Dist.	Travel		P6		Σ	Q	
Fr	To	No.	SQ SF	Use	Size	n	Runoff	Sf	"Y"	Vel	Travel	"Ti"	Tc	I	C	CA	TOTAL	Remarks
WATERSHED AREA A																		
							Elev. Node 1	217.0	Dist. Travel =		325.00							
							Elev. Node 2	194.7										
							Elev. Delta	22.30										
1	2	A1	2,052	OS				6.86%			325.00	10.86	10.86	1.76	0.46	0.02	0.04	
Node 2 is Existing B Inlet																		
							Elev. Node 3	206.0	Dist. Travel =		210.00							
							Elev. Node 4	198.2										
							Elev. Delta	7.80										
3	4	A2	22,806	OS				3.71%			210.00	7.28	7.28	2.27	0.67	0.35	0.80	B Inlet
4	5				1.00	0.013	0.80	1.00%	0.32	3.66	36.21	0.16	7.45	2.24				Area Drain
							Elev. Node 6	201.4	Dist. Travel =		60.00							
							Elev. Node 5	200.7										
							Elev. Delta	0.70										
6	5	A3	2,800	RES				1.17%			60.00	6.49	6.49	2.45	0.61	0.04	0.10	Area Drain
															QA2+QA3=		0.89	
4	5				1.00	0.013	0.89	1.00%	0.34	3.77	6.86	0.03	7.48	2.24				C/O
5	11				1.25	0.013	0.89	1.00%	0.31	3.69	8.50	0.04	7.52	2.23				Area Drain
							Elev. Node 9	201.40	Dist. Travel =		60.00							
							Elev. Node 8	200.70										
							Elev. Delta	0.70										
8	7	A4	1,999	RES				1.17%			60.00	4.73	4.73	3.01	0.74	0.03	0.10	Area Drain
															QA2+QA3+QA4=		0.99	

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 2 Yr. Storm

P6 = 1.10

[illegible]

Location: Oceanside Job #499-01

*INTENSITY-DURATION DESIGN CHART

Date: August 31, 2022

Post-Development Hydrology

Soil Classification = "D"

Appendix 1-1

EXHIBIT B

Frequency = 2 Yr. Storm

P6 = 1.10

[illegible]

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Date: August 31, 2022

EXHIBIT B

P6 = 1.10

[illegible]

APPENDIX 2

Inlets

Page 1 of 1 Pages

T21-00002

*INTENSITY-DURATION DESIGN CHART

* INTENSITY-DURATION DESIGN CHART

Sag	Grade
Cu	a
3.00	0.33

Appendix I-1

P6=	2.80
-----	------

Coef. =

[illegible]

APPENDIX 3
Unit Hydrograph and Modified-Puls Detention Routing
Underground Storage UG-1 & UG-2

San Diego County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c)1991-2019 Version 9.1

Rational method hydrology program based on
San Diego County Flood Control Division 2003 hydrology manual
Rational Hydrology Study Date: 08/24/22

***** Hydrology Study Control Information *****

Program License Serial Number 6499

Rational hydrology study storm event year is 100.0
English (in-lb) input data Units used

Map data precipitation entered:
6 hour, precipitation(inches) = 2.800
24 hour precipitation(inches) = 5.000
P6/P24 = 56.0%
San Diego hydrology manual 'C' values used

+++++
Process from Point/Station 5.000 to Point/Station 10.000
**** USER DEFINED FLOW INFORMATION AT A POINT ****

User specified 'C' value of 0.660 given for subarea
Rainfall intensity (I) = 5.53(In/Hr) for a 100.0 year storm
User specified values are as follows:
TC = 7.81 min. Rain intensity = 5.53(In/Hr)
Total area = 0.730(Ac.) Total runoff = 2.900(CFS)

+++++
Process from Point/Station 10.000 to Point/Station 10.000
**** 6 HOUR HYDROGRAPH ****

+++++
Hydrograph Data - Section 6, San Diego County Hydrology manual, June 2003

Time of Concentration = 7.81
Basin Area = 0.73 Acres
6 Hour Rainfall = 2.800 Inches
Runoff Coefficient = 0.660

Peak Discharge =	2.90 CFS
Time (Min)	Discharge (CFS)
0	0.000
7	0.081
14	0.082
21	0.084
28	0.085
35	0.088
42	0.089
49	0.092
56	0.093
63	0.096
70	0.098
77	0.102
84	0.103
91	0.108
98	0.110
105	0.114
112	0.117
119	0.123
126	0.126
133	0.133
140	0.136
147	0.145
154	0.150
161	0.160
168	0.167
175	0.181
182	0.190
189	0.210
196	0.223
203	0.256
210	0.277
217	0.339
224	0.386
231	0.566
238	0.798
245	2.900
252	0.454
259	0.304
266	0.238
273	0.199
280	0.173
287	0.155
294	0.140
301	0.129
308	0.120
315	0.112
322	0.105
329	0.100

336	0.095
343	0.090
350	0.087
357	0.083
364	0.080

+++++

6 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 1 Minute intervals ((CFS))

Time(h+m)	Volume	Ac.Ft	Q(CFS)	0	0.7	1.5	2.2	2.9
0+ 0	0.0000		0.00	Q				
0+ 1	0.0000		0.01	Q				
0+ 2	0.0000		0.02	Q				
0+ 3	0.0001		0.03	Q				
0+ 4	0.0002		0.05	Q				
0+ 5	0.0002		0.06	Q				
0+ 6	0.0003		0.07	Q				
0+ 7	0.0004		0.08	VQ				
0+ 8	0.0006		0.08	VQ				
0+ 9	0.0007		0.08	VQ				
0+10	0.0008		0.08	VQ				
0+11	0.0009		0.08	VQ				
0+12	0.0010		0.08	VQ				
0+13	0.0011		0.08	VQ				
0+14	0.0012		0.08	VQ				
0+15	0.0013		0.08	VQ				
0+16	0.0015		0.08	VQ				
0+17	0.0016		0.08	VQ				
0+18	0.0017		0.08	VQ				
0+19	0.0018		0.08	VQ				
0+20	0.0019		0.08	VQ				
0+21	0.0020		0.08	VQ				
0+22	0.0022		0.08	VQ				
0+23	0.0023		0.08	VQ				
0+24	0.0024		0.08	VQ				
0+25	0.0025		0.08	VQ				
0+26	0.0026		0.09	VQ				
0+27	0.0027		0.09	VQ				
0+28	0.0029		0.09	Q				
0+29	0.0030		0.09	Q				
0+30	0.0031		0.09	Q				
0+31	0.0032		0.09	Q				
0+32	0.0033		0.09	Q				
0+33	0.0034		0.09	Q				
0+34	0.0036		0.09	Q				
0+35	0.0037		0.09	Q				

0+36	0.0038	0.09	Q				
0+37	0.0039	0.09	Q				
0+38	0.0041	0.09	Q				
0+39	0.0042	0.09	Q				
0+40	0.0043	0.09	Q				
0+41	0.0044	0.09	Q				
0+42	0.0045	0.09	Q				
0+43	0.0047	0.09	Q				
0+44	0.0048	0.09	Q				
0+45	0.0049	0.09	Q				
0+46	0.0050	0.09	Q				
0+47	0.0052	0.09	Q				
0+48	0.0053	0.09	Q				
0+49	0.0054	0.09	Q				
0+50	0.0055	0.09	Q				
0+51	0.0057	0.09	QV				
0+52	0.0058	0.09	QV				
0+53	0.0059	0.09	QV				
0+54	0.0061	0.09	QV				
0+55	0.0062	0.09	QV				
0+56	0.0063	0.09	QV				
0+57	0.0064	0.09	QV				
0+58	0.0066	0.09	QV				
0+59	0.0067	0.09	QV				
1+ 0	0.0068	0.10	QV				
1+ 1	0.0070	0.10	QV				
1+ 2	0.0071	0.10	QV				
1+ 3	0.0072	0.10	QV				
1+ 4	0.0074	0.10	QV				
1+ 5	0.0075	0.10	QV				
1+ 6	0.0076	0.10	QV				
1+ 7	0.0078	0.10	QV				
1+ 8	0.0079	0.10	QV				
1+ 9	0.0080	0.10	QV				
1+10	0.0082	0.10	QV				
1+11	0.0083	0.10	QV				
1+12	0.0084	0.10	Q V				
1+13	0.0086	0.10	Q V				
1+14	0.0087	0.10	Q V				
1+15	0.0089	0.10	Q V				
1+16	0.0090	0.10	Q V				
1+17	0.0091	0.10	Q V				
1+18	0.0093	0.10	Q V				
1+19	0.0094	0.10	Q V				
1+20	0.0096	0.10	Q V				
1+21	0.0097	0.10	Q V				
1+22	0.0098	0.10	Q V				
1+23	0.0100	0.10	Q V				
1+24	0.0101	0.10	Q V				
1+25	0.0103	0.10	Q V				

1+26	0.0104	0.10	Q V				
1+27	0.0106	0.11	Q V				
1+28	0.0107	0.11	Q V				
1+29	0.0108	0.11	Q V				
1+30	0.0110	0.11	Q V				
1+31	0.0111	0.11	Q V				
1+32	0.0113	0.11	Q V				
1+33	0.0114	0.11	Q V				
1+34	0.0116	0.11	Q V				
1+35	0.0117	0.11	Q V				
1+36	0.0119	0.11	Q V				
1+37	0.0120	0.11	Q V				
1+38	0.0122	0.11	Q V				
1+39	0.0123	0.11	Q V				
1+40	0.0125	0.11	Q V				
1+41	0.0126	0.11	Q V				
1+42	0.0128	0.11	Q V				
1+43	0.0130	0.11	Q V				
1+44	0.0131	0.11	Q V				
1+45	0.0133	0.11	Q V				
1+46	0.0134	0.11	Q V				
1+47	0.0136	0.12	Q V				
1+48	0.0138	0.12	Q V				
1+49	0.0139	0.12	Q V				
1+50	0.0141	0.12	Q V				
1+51	0.0142	0.12	Q V				
1+52	0.0144	0.12	Q V				
1+53	0.0146	0.12	Q V				
1+54	0.0147	0.12	Q V				
1+55	0.0149	0.12	Q V				
1+56	0.0150	0.12	Q V				
1+57	0.0152	0.12	Q V				
1+58	0.0154	0.12	Q V				
1+59	0.0156	0.12	Q V				
2+ 0	0.0157	0.12	Q V				
2+ 1	0.0159	0.12	Q V				
2+ 2	0.0161	0.12	Q V				
2+ 3	0.0162	0.12	Q V				
2+ 4	0.0164	0.12	Q V				
2+ 5	0.0166	0.13	Q V				
2+ 6	0.0168	0.13	Q V				
2+ 7	0.0169	0.13	Q V				
2+ 8	0.0171	0.13	Q V				
2+ 9	0.0173	0.13	Q V				
2+10	0.0175	0.13	Q V				
2+11	0.0176	0.13	Q V				
2+12	0.0178	0.13	Q V				
2+13	0.0180	0.13	Q V				
2+14	0.0182	0.13	Q V				
2+15	0.0184	0.13	Q V				

2+16	0.0186	0.13	Q	V				
2+17	0.0187	0.13	Q	V				
2+18	0.0189	0.14	Q	V				
2+19	0.0191	0.14	Q	V				
2+20	0.0193	0.14	Q	V				
2+21	0.0195	0.14	Q	V				
2+22	0.0197	0.14	Q	V				
2+23	0.0199	0.14	Q	V				
2+24	0.0201	0.14	Q	V				
2+25	0.0203	0.14	Q	V				
2+26	0.0205	0.14	Q	V				
2+27	0.0207	0.14	Q	V				
2+28	0.0209	0.15	Q	V				
2+29	0.0211	0.15	Q	V				
2+30	0.0213	0.15	Q	V				
2+31	0.0215	0.15	Q	V				
2+32	0.0217	0.15	Q	V				
2+33	0.0219	0.15	Q	V				
2+34	0.0221	0.15	Q	V				
2+35	0.0223	0.15	Q	V				
2+36	0.0225	0.15	Q	V				
2+37	0.0227	0.15	Q	V				
2+38	0.0229	0.16	Q	V				
2+39	0.0231	0.16	Q	V				
2+40	0.0234	0.16	Q	V				
2+41	0.0236	0.16	Q	V				
2+42	0.0238	0.16	Q	V				
2+43	0.0240	0.16	Q	V				
2+44	0.0243	0.16	Q	V				
2+45	0.0245	0.16	Q	V				
2+46	0.0247	0.16	Q	V				
2+47	0.0249	0.17	Q	V				
2+48	0.0252	0.17	Q	V				
2+49	0.0254	0.17	Q	V				
2+50	0.0256	0.17	Q	V				
2+51	0.0259	0.17	Q	V				
2+52	0.0261	0.17	Q	V				
2+53	0.0264	0.18	Q	V				
2+54	0.0266	0.18	Q	V				
2+55	0.0269	0.18	Q	V				
2+56	0.0271	0.18	Q	V				
2+57	0.0274	0.18	Q	V				
2+58	0.0276	0.18	Q	V				
2+59	0.0279	0.19	Q	V				
3+ 0	0.0281	0.19	Q	V				
3+ 1	0.0284	0.19	Q	V				
3+ 2	0.0286	0.19	Q	V				
3+ 3	0.0289	0.19	Q	V				
3+ 4	0.0292	0.20	Q	V				
3+ 5	0.0295	0.20	Q	V				

3+ 6	0.0297	0.20	Q	V			
3+ 7	0.0300	0.20	Q	V			
3+ 8	0.0303	0.21	Q	V			
3+ 9	0.0306	0.21	Q	V			
3+10	0.0309	0.21	Q	V			
3+11	0.0312	0.21	Q	V			
3+12	0.0315	0.22	Q	V			
3+13	0.0318	0.22	Q	V			
3+14	0.0321	0.22	Q	V			
3+15	0.0324	0.22	Q	V			
3+16	0.0327	0.22	Q	V			
3+17	0.0330	0.23	Q	V			
3+18	0.0333	0.23	Q	V			
3+19	0.0336	0.24	Q	V			
3+20	0.0340	0.24	Q	V			
3+21	0.0343	0.25	Q	V			
3+22	0.0347	0.25	Q	V			
3+23	0.0350	0.26	Q	V			
3+24	0.0354	0.26	Q	V			
3+25	0.0357	0.26	Q	V			
3+26	0.0361	0.26	Q	V			
3+27	0.0365	0.27	Q	V			
3+28	0.0368	0.27	Q	V			
3+29	0.0372	0.27	Q	V			
3+30	0.0376	0.28	Q	V			
3+31	0.0380	0.29	Q	V			
3+32	0.0384	0.29	Q	V			
3+33	0.0388	0.30	Q	V			
3+34	0.0392	0.31	Q	V			
3+35	0.0397	0.32	Q	V			
3+36	0.0401	0.33	Q	V			
3+37	0.0406	0.34	Q	V			
3+38	0.0411	0.35	Q	V			
3+39	0.0416	0.35	Q	V			
3+40	0.0421	0.36	Q	V			
3+41	0.0426	0.37	Q	V			
3+42	0.0431	0.37	Q	V			
3+43	0.0436	0.38	Q	V			
3+44	0.0441	0.39	Q	V			
3+45	0.0447	0.41	Q	V			
3+46	0.0453	0.44	Q	V			
3+47	0.0459	0.46	Q	V			
3+48	0.0466	0.49	Q	V			
3+49	0.0473	0.51	Q	V			
3+50	0.0481	0.54	Q	V			
3+51	0.0488	0.57	Q	V			
3+52	0.0497	0.60	Q	V			
3+53	0.0505	0.63	Q	V			
3+54	0.0515	0.67	Q	V			
3+55	0.0524	0.70	Q	V			

3+56	0.0534	0.73		Q	V			
3+57	0.0545	0.77		Q	V			
3+58	0.0556	0.80		Q	V			
3+59	0.0571	1.10			Q	V		
4+ 0	0.0590	1.40			Q	V		
4+ 1	0.0614	1.70				V	Q	
4+ 2	0.0641	2.00				V		
4+ 3	0.0673	2.30				V		
4+ 4	0.0709	2.60					V	Q
4+ 5	0.0749	2.90					V	Q
4+ 6	0.0784	2.55					V	Q
4+ 7	0.0814	2.20					VQ	
4+ 8	0.0840	1.85					V	
4+ 9	0.0860	1.50			Q			
4+10	0.0876	1.15					V	
4+11	0.0887	0.80		Q			V	
4+12	0.0893	0.45					V	
4+13	0.0899	0.43		Q			V	
4+14	0.0905	0.41		Q			V	
4+15	0.0910	0.39		Q			V	
4+16	0.0916	0.37		Q			V	
4+17	0.0920	0.35		Q			V	
4+18	0.0925	0.33		Q			V	
4+19	0.0929	0.30		Q			V	
4+20	0.0933	0.29		Q			V	
4+21	0.0937	0.29		Q			V	
4+22	0.0941	0.28		Q			V	
4+23	0.0944	0.27		Q			V	
4+24	0.0948	0.26		Q			V	
4+25	0.0951	0.25		Q			V	
4+26	0.0955	0.24		Q			V	
4+27	0.0958	0.23		Q			V	
4+28	0.0961	0.23		Q			V	
4+29	0.0964	0.22		Q			V	
4+30	0.0967	0.22		Q			V	
4+31	0.0970	0.21		Q			V	
4+32	0.0973	0.20		Q			V	
4+33	0.0975	0.20		Q			V	
4+34	0.0978	0.20		Q			V	
4+35	0.0981	0.19		Q			V	
4+36	0.0983	0.19		Q			V	
4+37	0.0986	0.18		Q			V	
4+38	0.0988	0.18		Q			V	
4+39	0.0991	0.18		Q			V	
4+40	0.0993	0.17		Q			V	
4+41	0.0996	0.17		Q			V	
4+42	0.0998	0.17		Q			V	
4+43	0.1000	0.17		Q			V	
4+44	0.1002	0.16		Q			V	
4+45	0.1005	0.16		Q			V	

4+46	0.1007	0.16	Q				V
4+47	0.1009	0.15	Q				V
4+48	0.1011	0.15	Q				V
4+49	0.1013	0.15	Q				V
4+50	0.1015	0.15	Q				V
4+51	0.1017	0.15	Q				V
4+52	0.1019	0.14	Q				V
4+53	0.1021	0.14	Q				V
4+54	0.1023	0.14	Q				V
4+55	0.1025	0.14	Q				V
4+56	0.1027	0.14	Q				V
4+57	0.1029	0.14	Q				V
4+58	0.1031	0.13	Q				V
4+59	0.1032	0.13	Q				V
5+ 0	0.1034	0.13	Q				V
5+ 1	0.1036	0.13	Q				V
5+ 2	0.1038	0.13	Q				V
5+ 3	0.1040	0.13	Q				V
5+ 4	0.1041	0.13	Q				V
5+ 5	0.1043	0.12	Q				V
5+ 6	0.1045	0.12	Q				V
5+ 7	0.1046	0.12	Q				V
5+ 8	0.1048	0.12	Q				V
5+ 9	0.1050	0.12	Q				V
5+10	0.1051	0.12	Q				V
5+11	0.1053	0.12	Q				V
5+12	0.1054	0.12	Q				V
5+13	0.1056	0.11	Q				V
5+14	0.1058	0.11	Q				V
5+15	0.1059	0.11	Q				V
5+16	0.1061	0.11	Q				V
5+17	0.1062	0.11	Q				V
5+18	0.1064	0.11	Q				V
5+19	0.1065	0.11	Q				V
5+20	0.1067	0.11	Q				V
5+21	0.1068	0.11	Q				V
5+22	0.1069	0.11	Q				V
5+23	0.1071	0.10	Q				V
5+24	0.1072	0.10	Q				V
5+25	0.1074	0.10	Q				V
5+26	0.1075	0.10	Q				V
5+27	0.1077	0.10	Q				V
5+28	0.1078	0.10	Q				V
5+29	0.1079	0.10	Q				V
5+30	0.1081	0.10	Q				V
5+31	0.1082	0.10	Q				V
5+32	0.1083	0.10	Q				V
5+33	0.1085	0.10	Q				V
5+34	0.1086	0.10	Q				V
5+35	0.1087	0.10	Q				V

5+36	0.1089	0.09	Q				V
5+37	0.1090	0.09	Q				V
5+38	0.1091	0.09	Q				V
5+39	0.1093	0.09	Q				V
5+40	0.1094	0.09	Q				V
5+41	0.1095	0.09	Q				V
5+42	0.1096	0.09	Q				V
5+43	0.1098	0.09	Q				V
5+44	0.1099	0.09	Q				V
5+45	0.1100	0.09	Q				V
5+46	0.1101	0.09	Q				V
5+47	0.1103	0.09	Q				V
5+48	0.1104	0.09	Q				V
5+49	0.1105	0.09	Q				V
5+50	0.1106	0.09	Q				V
5+51	0.1107	0.09	Q				V
5+52	0.1108	0.09	Q				V
5+53	0.1110	0.09	Q				V
5+54	0.1111	0.08	Q				V
5+55	0.1112	0.08	Q				V
5+56	0.1113	0.08	Q				V
5+57	0.1114	0.08	Q				V
5+58	0.1115	0.08	Q				V
5+59	0.1117	0.08	Q				V
6+ 0	0.1118	0.08	Q				V
6+ 1	0.1119	0.08	Q				V
6+ 2	0.1120	0.08	Q				V
6+ 3	0.1121	0.08	Q				V
6+ 4	0.1122	0.08	Q				V

End of computations, total study area = 0.730 (Ac.)

San Diego County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c)1991-2019 Version 9.1

Rational method hydrology program based on
San Diego County Flood Control Division 2003 hydrology manual
Rational Hydrology Study Date: 08/24/22

***** Hydrology Study Control Information *****

Program License Serial Number 6499

Rational hydrology study storm event year is 100.0
English (in-lb) input data Units used

Map data precipitation entered:
6 hour, precipitation(inches) = 2.800
24 hour precipitation(inches) = 5.000
P6/P24 = 56.0%
San Diego hydrology manual 'C' values used

+++++
Process from Point/Station 5.000 to Point/Station 10.000
**** USER DEFINED FLOW INFORMATION AT A POINT ****

User specified 'C' value of 0.730 given for subarea
Rainfall intensity (I) = 5.938(In/Hr) for a 100.0 year storm
User specified values are as follows:
TC = 7.00 min. Rain intensity = 5.94(In/Hr)
Total area = 1.240(Ac.) Total runoff = 6.100(CFS)

+++++
Process from Point/Station 10.000 to Point/Station 10.000
**** 6 HOUR HYDROGRAPH ****

+++++
Hydrograph Data - Section 6, San Diego County Hydrology manual, June 2003

Time of Concentration = 7.00
Basin Area = 1.24 Acres
6 Hour Rainfall = 2.800 Inches
Runoff Coefficient = 0.730

Peak Discharge =	6.10 CFS
Time (Min)	Discharge (CFS)
0	0.000
7	0.152
14	0.154
21	0.158
28	0.160
35	0.165
42	0.167
49	0.173
56	0.175
63	0.181
70	0.184
77	0.191
84	0.194
91	0.202
98	0.206
105	0.215
112	0.220
119	0.230
126	0.236
133	0.249
140	0.256
147	0.272
154	0.281
161	0.301
168	0.313
175	0.340
182	0.356
189	0.395
196	0.419
203	0.480
210	0.521
217	0.636
224	0.725
231	1.064
238	1.500
245	6.100
252	0.854
259	0.571
266	0.447
273	0.374
280	0.326
287	0.291
294	0.264
301	0.242
308	0.225
315	0.211
322	0.198
329	0.187

336	0.178
343	0.170
350	0.163
357	0.156
364	0.150

+++++

6 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 1 Minute intervals ((CFS))

Time(h+m)	Volume	Ac.Ft	Q(CFS)	0	1.5	3.0	4.6	6.1
0+ 0	0.0000		0.00	Q				
0+ 1	0.0000		0.02	Q				
0+ 2	0.0001		0.04	Q				
0+ 3	0.0002		0.07	Q				
0+ 4	0.0003		0.09	Q				
0+ 5	0.0004		0.11	Q				
0+ 6	0.0006		0.13	Q				
0+ 7	0.0008		0.15	Q				
0+ 8	0.0010		0.15	Q				
0+ 9	0.0013		0.15	VQ				
0+10	0.0015		0.15	VQ				
0+11	0.0017		0.15	VQ				
0+12	0.0019		0.15	VQ				
0+13	0.0021		0.15	VQ				
0+14	0.0023		0.15	VQ				
0+15	0.0025		0.15	VQ				
0+16	0.0027		0.16	VQ				
0+17	0.0030		0.16	VQ				
0+18	0.0032		0.16	VQ				
0+19	0.0034		0.16	VQ				
0+20	0.0036		0.16	VQ				
0+21	0.0038		0.16	VQ				
0+22	0.0040		0.16	VQ				
0+23	0.0043		0.16	VQ				
0+24	0.0045		0.16	VQ				
0+25	0.0047		0.16	VQ				
0+26	0.0049		0.16	VQ				
0+27	0.0051		0.16	VQ				
0+28	0.0054		0.16	VQ				
0+29	0.0056		0.16	Q				
0+30	0.0058		0.16	Q				
0+31	0.0060		0.16	Q				
0+32	0.0063		0.16	Q				
0+33	0.0065		0.16	Q				
0+34	0.0067		0.16	Q				
0+35	0.0069		0.16	Q				

0+36	0.0072	0.17	Q				
0+37	0.0074	0.17	Q				
0+38	0.0076	0.17	Q				
0+39	0.0078	0.17	Q				
0+40	0.0081	0.17	Q				
0+41	0.0083	0.17	Q				
0+42	0.0085	0.17	Q				
0+43	0.0088	0.17	Q				
0+44	0.0090	0.17	Q				
0+45	0.0092	0.17	Q				
0+46	0.0095	0.17	Q				
0+47	0.0097	0.17	Q				
0+48	0.0099	0.17	Q				
0+49	0.0102	0.17	Q				
0+50	0.0104	0.17	Q				
0+51	0.0107	0.17	Q				
0+52	0.0109	0.17	QV				
0+53	0.0111	0.17	QV				
0+54	0.0114	0.17	QV				
0+55	0.0116	0.17	QV				
0+56	0.0119	0.18	QV				
0+57	0.0121	0.18	QV				
0+58	0.0123	0.18	QV				
0+59	0.0126	0.18	QV				
1+ 0	0.0128	0.18	QV				
1+ 1	0.0131	0.18	QV				
1+ 2	0.0133	0.18	QV				
1+ 3	0.0136	0.18	QV				
1+ 4	0.0138	0.18	QV				
1+ 5	0.0141	0.18	QV				
1+ 6	0.0143	0.18	QV				
1+ 7	0.0146	0.18	QV				
1+ 8	0.0148	0.18	QV				
1+ 9	0.0151	0.18	QV				
1+10	0.0153	0.18	QV				
1+11	0.0156	0.19	QV				
1+12	0.0159	0.19	QV				
1+13	0.0161	0.19	QV				
1+14	0.0164	0.19	Q V				
1+15	0.0166	0.19	Q V				
1+16	0.0169	0.19	Q V				
1+17	0.0172	0.19	Q V				
1+18	0.0174	0.19	Q V				
1+19	0.0177	0.19	Q V				
1+20	0.0179	0.19	Q V				
1+21	0.0182	0.19	Q V				
1+22	0.0185	0.19	Q V				
1+23	0.0187	0.19	Q V				
1+24	0.0190	0.19	Q V				
1+25	0.0193	0.20	Q V				

1+26	0.0196	0.20	Q V				
1+27	0.0198	0.20	Q V				
1+28	0.0201	0.20	Q V				
1+29	0.0204	0.20	Q V				
1+30	0.0207	0.20	Q V				
1+31	0.0209	0.20	Q V				
1+32	0.0212	0.20	Q V				
1+33	0.0215	0.20	Q V				
1+34	0.0218	0.20	Q V				
1+35	0.0221	0.20	Q V				
1+36	0.0223	0.20	Q V				
1+37	0.0226	0.21	Q V				
1+38	0.0229	0.21	Q V				
1+39	0.0232	0.21	Q V				
1+40	0.0235	0.21	Q V				
1+41	0.0238	0.21	Q V				
1+42	0.0241	0.21	Q V				
1+43	0.0244	0.21	Q V				
1+44	0.0246	0.21	Q V				
1+45	0.0249	0.22	Q V				
1+46	0.0252	0.22	Q V				
1+47	0.0255	0.22	Q V				
1+48	0.0258	0.22	Q V				
1+49	0.0261	0.22	Q V				
1+50	0.0264	0.22	Q V				
1+51	0.0267	0.22	Q V				
1+52	0.0270	0.22	Q V				
1+53	0.0273	0.22	Q V				
1+54	0.0277	0.22	Q V				
1+55	0.0280	0.22	Q V				
1+56	0.0283	0.23	Q V				
1+57	0.0286	0.23	Q V				
1+58	0.0289	0.23	Q V				
1+59	0.0292	0.23	Q V				
2+ 0	0.0295	0.23	Q V				
2+ 1	0.0299	0.23	Q V				
2+ 2	0.0302	0.23	Q V				
2+ 3	0.0305	0.23	Q V				
2+ 4	0.0308	0.23	Q V				
2+ 5	0.0311	0.24	Q V				
2+ 6	0.0315	0.24	Q V				
2+ 7	0.0318	0.24	Q V				
2+ 8	0.0321	0.24	Q V				
2+ 9	0.0325	0.24	Q V				
2+10	0.0328	0.24	Q V				
2+11	0.0331	0.25	Q V				
2+12	0.0335	0.25	Q V				
2+13	0.0338	0.25	Q V				
2+14	0.0342	0.25	Q V				
2+15	0.0345	0.25	Q V				

2+16	0.0349	0.25	Q	V				
2+17	0.0352	0.25	Q	V				
2+18	0.0356	0.25	Q	V				
2+19	0.0359	0.26	Q	V				
2+20	0.0363	0.26	Q	V				
2+21	0.0366	0.26	Q	V				
2+22	0.0370	0.26	Q	V				
2+23	0.0373	0.26	Q	V				
2+24	0.0377	0.27	Q	V				
2+25	0.0381	0.27	Q	V				
2+26	0.0384	0.27	Q	V				
2+27	0.0388	0.27	Q	V				
2+28	0.0392	0.27	Q	V				
2+29	0.0396	0.27	Q	V				
2+30	0.0400	0.28	Q	V				
2+31	0.0403	0.28	Q	V				
2+32	0.0407	0.28	Q	V				
2+33	0.0411	0.28	Q	V				
2+34	0.0415	0.28	Q	V				
2+35	0.0419	0.28	Q	V				
2+36	0.0423	0.29	Q	V				
2+37	0.0427	0.29	Q	V				
2+38	0.0431	0.29	Q	V				
2+39	0.0435	0.30	Q	V				
2+40	0.0439	0.30	Q	V				
2+41	0.0443	0.30	Q	V				
2+42	0.0447	0.30	Q	V				
2+43	0.0451	0.30	Q	V				
2+44	0.0456	0.31	Q	V				
2+45	0.0460	0.31	Q	V				
2+46	0.0464	0.31	Q	V				
2+47	0.0469	0.31	Q	V				
2+48	0.0473	0.31	Q	V				
2+49	0.0477	0.32	Q	V				
2+50	0.0482	0.32	Q	V				
2+51	0.0486	0.32	Q	V				
2+52	0.0491	0.33	Q	V				
2+53	0.0495	0.33	Q	V				
2+54	0.0500	0.34	Q	V				
2+55	0.0504	0.34	Q	V				
2+56	0.0509	0.34	Q	V				
2+57	0.0514	0.34	Q	V				
2+58	0.0519	0.35	Q	V				
2+59	0.0524	0.35	Q	V				
3+ 0	0.0528	0.35	Q	V				
3+ 1	0.0533	0.35	Q	V				
3+ 2	0.0538	0.36	Q	V				
3+ 3	0.0543	0.36	Q	V				
3+ 4	0.0548	0.37	Q	V				
3+ 5	0.0553	0.37	Q	V				

3+ 6	0.0559	0.38	Q	V			
3+ 7	0.0564	0.38	Q	V			
3+ 8	0.0569	0.39	Q	V			
3+ 9	0.0575	0.40	Q	V			
3+10	0.0580	0.40	Q	V			
3+11	0.0586	0.40	Q	V			
3+12	0.0591	0.41	Q	V			
3+13	0.0597	0.41	Q	V			
3+14	0.0603	0.41	Q	V			
3+15	0.0608	0.42	Q	V			
3+16	0.0614	0.42	Q	V			
3+17	0.0620	0.43	Q	V			
3+18	0.0626	0.44	Q	V			
3+19	0.0632	0.45	Q	V			
3+20	0.0638	0.45	Q	V			
3+21	0.0645	0.46	Q	V			
3+22	0.0651	0.47	Q	V			
3+23	0.0658	0.48	Q	V			
3+24	0.0665	0.49	Q	V			
3+25	0.0671	0.49	Q	V			
3+26	0.0678	0.50	Q	V			
3+27	0.0685	0.50	Q	V			
3+28	0.0692	0.51	Q	V			
3+29	0.0699	0.51	Q	V			
3+30	0.0706	0.52	Q	V			
3+31	0.0714	0.54	Q	V			
3+32	0.0721	0.55	Q	V			
3+33	0.0729	0.57	Q	V			
3+34	0.0737	0.59	Q	V			
3+35	0.0746	0.60	Q	V			
3+36	0.0754	0.62	Q	V			
3+37	0.0763	0.64	Q	V			
3+38	0.0772	0.65	Q	V			
3+39	0.0781	0.66	Q	V			
3+40	0.0790	0.67	Q	V			
3+41	0.0800	0.69	Q	V			
3+42	0.0809	0.70	Q	V			
3+43	0.0819	0.71	Q	V			
3+44	0.0829	0.72	Q	V			
3+45	0.0840	0.77	Q	V			
3+46	0.0851	0.82	Q	V			
3+47	0.0863	0.87	Q	V			
3+48	0.0876	0.92	Q	V			
3+49	0.0889	0.97	Q	V			
3+50	0.0903	1.02	Q	V			
3+51	0.0918	1.06	Q	V			
3+52	0.0933	1.13	Q	V			
3+53	0.0950	1.19	Q	V			
3+54	0.0967	1.25	Q	V			
3+55	0.0985	1.31	Q	V			

3+56	0.1004	1.38		Q		V			
3+57	0.1024	1.44		Q		V			
3+58	0.1044	1.50		Q		V			
3+59	0.1074	2.16			Q	V			
4+ 0	0.1113	2.81				Q	V		
4+ 1	0.1161	3.47					VQ		
4+ 2	0.1217	4.13					V		
4+ 3	0.1283	4.79						Q	
4+ 4	0.1358	5.44					V		Q
4+ 5	0.1442	6.10					V		Q
4+ 6	0.1516	5.35						V	Q
4+ 7	0.1579	4.60						VQ	
4+ 8	0.1633	3.85					Q	V	
4+ 9	0.1675	3.10						V	
4+10	0.1708	2.35			Q			V	
4+11	0.1730	1.60		Q				V	
4+12	0.1741	0.85	Q					V	
4+13	0.1753	0.81	Q					V	
4+14	0.1763	0.77	Q					V	
4+15	0.1773	0.73	Q					V	
4+16	0.1783	0.69	Q					V	
4+17	0.1792	0.65	Q					V	
4+18	0.1800	0.61	Q					V	
4+19	0.1808	0.57	Q					V	
4+20	0.1816	0.55	Q					V	
4+21	0.1823	0.54	Q					V	
4+22	0.1830	0.52	Q					V	
4+23	0.1837	0.50	Q					V	
4+24	0.1844	0.48	Q					V	
4+25	0.1850	0.46	Q					V	
4+26	0.1856	0.45	Q					V	
4+27	0.1862	0.44	Q					V	
4+28	0.1868	0.43	Q					V	
4+29	0.1874	0.42	Q					V	
4+30	0.1880	0.41	Q					V	
4+31	0.1885	0.40	Q					V	
4+32	0.1890	0.38	Q					V	
4+33	0.1896	0.37	Q					V	
4+34	0.1901	0.37	Q					V	
4+35	0.1906	0.36	Q					V	
4+36	0.1910	0.35	Q					V	
4+37	0.1915	0.35	Q					V	
4+38	0.1920	0.34	Q					V	
4+39	0.1924	0.33	Q					V	
4+40	0.1929	0.33	Q					V	
4+41	0.1933	0.32	Q					V	
4+42	0.1938	0.32	Q					V	
4+43	0.1942	0.31	Q					V	
4+44	0.1946	0.31	Q					V	
4+45	0.1950	0.30	Q					V	

4+46	0.1954	0.30	Q				V
4+47	0.1958	0.29	Q				V
4+48	0.1962	0.29	Q				V
4+49	0.1966	0.28	Q				V
4+50	0.1970	0.28	Q				V
4+51	0.1974	0.28	Q				V
4+52	0.1978	0.27	Q				V
4+53	0.1981	0.27	Q				V
4+54	0.1985	0.26	Q				V
4+55	0.1989	0.26	Q				V
4+56	0.1992	0.26	Q				V
4+57	0.1996	0.25	Q				V
4+58	0.1999	0.25	Q				V
4+59	0.2003	0.25	Q				V
5+ 0	0.2006	0.25	Q				V
5+ 1	0.2009	0.24	Q				V
5+ 2	0.2013	0.24	Q				V
5+ 3	0.2016	0.24	Q				V
5+ 4	0.2019	0.23	Q				V
5+ 5	0.2022	0.23	Q				V
5+ 6	0.2025	0.23	Q				V
5+ 7	0.2029	0.23	Q				V
5+ 8	0.2032	0.23	Q				V
5+ 9	0.2035	0.22	Q				V
5+10	0.2038	0.22	Q				V
5+11	0.2041	0.22	Q				V
5+12	0.2044	0.22	Q				V
5+13	0.2047	0.21	Q				V
5+14	0.2050	0.21	Q				V
5+15	0.2053	0.21	Q				V
5+16	0.2055	0.21	Q				V
5+17	0.2058	0.21	Q				V
5+18	0.2061	0.21	Q				V
5+19	0.2064	0.20	Q				V
5+20	0.2067	0.20	Q				V
5+21	0.2069	0.20	Q				V
5+22	0.2072	0.20	Q				V
5+23	0.2075	0.20	Q				V
5+24	0.2078	0.20	Q				V
5+25	0.2080	0.19	Q				V
5+26	0.2083	0.19	Q				V
5+27	0.2086	0.19	Q				V
5+28	0.2088	0.19	Q				V
5+29	0.2091	0.19	Q				V
5+30	0.2093	0.19	Q				V
5+31	0.2096	0.18	Q				V
5+32	0.2098	0.18	Q				V
5+33	0.2101	0.18	Q				V
5+34	0.2103	0.18	Q				V
5+35	0.2106	0.18	Q				V

5+36	0.2108	0.18	Q				V
5+37	0.2111	0.18	Q				V
5+38	0.2113	0.18	Q				V
5+39	0.2116	0.17	Q				V
5+40	0.2118	0.17	Q				V
5+41	0.2120	0.17	Q				V
5+42	0.2123	0.17	Q				V
5+43	0.2125	0.17	Q				V
5+44	0.2127	0.17	Q				V
5+45	0.2130	0.17	Q				V
5+46	0.2132	0.17	Q				V
5+47	0.2134	0.17	Q				V
5+48	0.2136	0.16	Q				V
5+49	0.2139	0.16	Q				V
5+50	0.2141	0.16	Q				V
5+51	0.2143	0.16	Q				V
5+52	0.2145	0.16	Q				V
5+53	0.2148	0.16	Q				V
5+54	0.2150	0.16	Q				V
5+55	0.2152	0.16	Q				V
5+56	0.2154	0.16	Q				V
5+57	0.2156	0.16	Q				V
5+58	0.2158	0.16	Q				V
5+59	0.2161	0.15	Q				V
6+ 0	0.2163	0.15	Q				V
6+ 1	0.2165	0.15	Q				V
6+ 2	0.2167	0.15	Q				V
6+ 3	0.2169	0.15	Q				V
6+ 4	0.2171	0.15	Q				V

End of computations, total study area = 1.240 (Ac.)

FLOOD HYDROGRAPH ROUTING PROGRAM
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Study date: 08/24/22

Program License Serial Number 6499

***** HYDROGRAPH INFORMATION *****

From study/file name: POC1.rte
*****HYDROGRAPH DATA*****
Number of intervals = 364
Time interval = 1.0 (Min.)
Maximum/Peak flow rate = 2.900 (CFS)
Total volume = 0.112 (Ac.Ft)
Status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
Process from Point/Station 10.000 to Point/Station 10.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 364
Hydrograph time unit = 1.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:
Basin Depth Storage Outflow (S-O*dt/2) (S+O*dt/2)
(Ft.) (Ac.Ft) (CFS) (Ac.Ft) (Ac.Ft)

0.000	0.000	0.000	0.000	0.000
0.500	0.010	0.009	0.010	0.010
1.500	0.031	0.016	0.031	0.031
2.500	0.052	0.021	0.052	0.052
3.500	0.072	0.025	0.072	0.072
3.600	0.074	0.368	0.074	0.074
3.700	0.076	0.996	0.075	0.077
3.800	0.079	1.809	0.078	0.080

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	0.7	1.45	2.17	2.90	Depth (Ft.)
0.017	0.01	0.00	0.000	0					0.00
0.033	0.02	0.00	0.000	0					0.00
0.050	0.03	0.00	0.000	0					0.00
0.067	0.05	0.00	0.000	0					0.01
0.083	0.06	0.00	0.000	0					0.01
0.100	0.07	0.00	0.000	0					0.01
0.117	0.08	0.00	0.000	0					0.02
0.133	0.08	0.00	0.001	0					0.03
0.150	0.08	0.00	0.001	0					0.03
0.167	0.08	0.00	0.001	0					0.04
0.183	0.08	0.00	0.001	0					0.04
0.200	0.08	0.00	0.001	0					0.05
0.217	0.08	0.00	0.001	0					0.05
0.233	0.08	0.00	0.001	0					0.06
0.250	0.08	0.00	0.001	0					0.06
0.267	0.08	0.00	0.001	0					0.07
0.283	0.08	0.00	0.002	0					0.08
0.300	0.08	0.00	0.002	0					0.08
0.317	0.08	0.00	0.002	0					0.09
0.333	0.08	0.00	0.002	0					0.09
0.350	0.08	0.00	0.002	0					0.10
0.367	0.08	0.00	0.002	0					0.10
0.383	0.08	0.00	0.002	0					0.11
0.400	0.08	0.00	0.002	0					0.11
0.417	0.08	0.00	0.002	0					0.12
0.433	0.09	0.00	0.003	0					0.13
0.450	0.09	0.00	0.003	0					0.13
0.467	0.09	0.00	0.003	0					0.14
0.483	0.09	0.00	0.003	0					0.14
0.500	0.09	0.00	0.003	0					0.15
0.517	0.09	0.00	0.003	0					0.15
0.533	0.09	0.00	0.003	0					0.16
0.550	0.09	0.00	0.003	0					0.17

0.567	0.09	0.00	0.003	O					0.17
0.583	0.09	0.00	0.004	O					0.18
0.600	0.09	0.00	0.004	O					0.18
0.617	0.09	0.00	0.004	O					0.19
0.633	0.09	0.00	0.004	O					0.20
0.650	0.09	0.00	0.004	O					0.20
0.667	0.09	0.00	0.004	O					0.21
0.683	0.09	0.00	0.004	O					0.21
0.700	0.09	0.00	0.004	O					0.22
0.717	0.09	0.00	0.004	O					0.22
0.733	0.09	0.00	0.005	O					0.23
0.750	0.09	0.00	0.005	O					0.24
0.767	0.09	0.00	0.005	OI					0.24
0.783	0.09	0.00	0.005	OI					0.25
0.800	0.09	0.00	0.005	OI					0.25
0.817	0.09	0.00	0.005	OI					0.26
0.833	0.09	0.00	0.005	OI					0.27
0.850	0.09	0.00	0.005	OI					0.27
0.867	0.09	0.01	0.006	OI					0.28
0.883	0.09	0.01	0.006	OI					0.28
0.900	0.09	0.01	0.006	OI					0.29
0.917	0.09	0.01	0.006	OI					0.30
0.933	0.09	0.01	0.006	OI					0.30
0.950	0.09	0.01	0.006	OI					0.31
0.967	0.09	0.01	0.006	OI					0.31
0.983	0.09	0.01	0.006	OI					0.32
1.000	0.10	0.01	0.007	OI					0.33
1.017	0.10	0.01	0.007	OI					0.33
1.033	0.10	0.01	0.007	OI					0.34
1.050	0.10	0.01	0.007	OI					0.35
1.067	0.10	0.01	0.007	OI					0.35
1.083	0.10	0.01	0.007	OI					0.36
1.100	0.10	0.01	0.007	OI					0.36
1.117	0.10	0.01	0.007	OI					0.37
1.133	0.10	0.01	0.008	OI					0.38
1.150	0.10	0.01	0.008	OI					0.38
1.167	0.10	0.01	0.008	OI					0.39
1.183	0.10	0.01	0.008	OI					0.40
1.200	0.10	0.01	0.008	OI					0.40
1.217	0.10	0.01	0.008	OI					0.41
1.233	0.10	0.01	0.008	OI					0.41
1.250	0.10	0.01	0.008	OI					0.42
1.267	0.10	0.01	0.009	OI					0.43
1.283	0.10	0.01	0.009	OI					0.43
1.300	0.10	0.01	0.009	OI					0.44
1.317	0.10	0.01	0.009	OI					0.45
1.333	0.10	0.01	0.009	OI					0.45
1.350	0.10	0.01	0.009	OI					0.46
1.367	0.10	0.01	0.009	OI					0.47
1.383	0.10	0.01	0.009	OI					0.47

1.400	0.10	0.01	0.010	OI					0.48
1.417	0.10	0.01	0.010	OI					0.49
1.433	0.10	0.01	0.010	OI					0.49
1.450	0.11	0.01	0.010	OI					0.50
1.467	0.11	0.01	0.010	OI					0.51
1.483	0.11	0.01	0.010	OI					0.51
1.500	0.11	0.01	0.010	OI					0.52
1.517	0.11	0.01	0.011	OI					0.52
1.533	0.11	0.01	0.011	OI					0.53
1.550	0.11	0.01	0.011	OI					0.54
1.567	0.11	0.01	0.011	OI					0.54
1.583	0.11	0.01	0.011	OI					0.55
1.600	0.11	0.01	0.011	OI					0.56
1.617	0.11	0.01	0.011	OI					0.56
1.633	0.11	0.01	0.011	OI					0.57
1.650	0.11	0.01	0.012	OI					0.58
1.667	0.11	0.01	0.012	OI					0.58
1.683	0.11	0.01	0.012	OI					0.59
1.700	0.11	0.01	0.012	OI					0.60
1.717	0.11	0.01	0.012	OI					0.60
1.733	0.11	0.01	0.012	OI					0.61
1.750	0.11	0.01	0.012	OI					0.62
1.767	0.11	0.01	0.013	OI					0.62
1.783	0.12	0.01	0.013	OI					0.63
1.800	0.12	0.01	0.013	OI					0.64
1.817	0.12	0.01	0.013	OI					0.64
1.833	0.12	0.01	0.013	OI					0.65
1.850	0.12	0.01	0.013	OI					0.66
1.867	0.12	0.01	0.013	OI					0.67
1.883	0.12	0.01	0.014	OI					0.67
1.900	0.12	0.01	0.014	OI					0.68
1.917	0.12	0.01	0.014	OI					0.69
1.933	0.12	0.01	0.014	OI					0.69
1.950	0.12	0.01	0.014	OI					0.70
1.967	0.12	0.01	0.014	OI					0.71
1.983	0.12	0.01	0.015	OI					0.72
2.000	0.12	0.01	0.015	OI					0.72
2.017	0.12	0.01	0.015	OI					0.73
2.033	0.12	0.01	0.015	OI					0.74
2.050	0.12	0.01	0.015	OI					0.75
2.067	0.12	0.01	0.015	OI					0.75
2.083	0.13	0.01	0.015	OI					0.76
2.100	0.13	0.01	0.016	OI					0.77
2.117	0.13	0.01	0.016	OI					0.78
2.133	0.13	0.01	0.016	OI					0.78
2.150	0.13	0.01	0.016	OI					0.79
2.167	0.13	0.01	0.016	OI					0.80
2.183	0.13	0.01	0.016	OI					0.81
2.200	0.13	0.01	0.017	OI					0.81
2.217	0.13	0.01	0.017	OI					0.82

2.233	0.13	0.01	0.017	OI					0.83
2.250	0.13	0.01	0.017	OI					0.84
2.267	0.13	0.01	0.017	OI					0.85
2.283	0.13	0.01	0.017	OI					0.85
2.300	0.14	0.01	0.018	OI					0.86
2.317	0.14	0.01	0.018	OI					0.87
2.333	0.14	0.01	0.018	OI					0.88
2.350	0.14	0.01	0.018	OI					0.89
2.367	0.14	0.01	0.018	OI					0.90
2.383	0.14	0.01	0.018	OI					0.90
2.400	0.14	0.01	0.019	OI					0.91
2.417	0.14	0.01	0.019	OI					0.92
2.433	0.14	0.01	0.019	OI					0.93
2.450	0.14	0.01	0.019	OI					0.94
2.467	0.15	0.01	0.019	OI					0.95
2.483	0.15	0.01	0.020	OI					0.96
2.500	0.15	0.01	0.020	OI					0.96
2.517	0.15	0.01	0.020	OI					0.97
2.533	0.15	0.01	0.020	OI					0.98
2.550	0.15	0.01	0.020	OI					0.99
2.567	0.15	0.01	0.020	OI					1.00
2.583	0.15	0.01	0.021	OI					1.01
2.600	0.15	0.01	0.021	OI					1.02
2.617	0.15	0.01	0.021	OI					1.03
2.633	0.16	0.01	0.021	OI					1.04
2.650	0.16	0.01	0.021	OI					1.05
2.667	0.16	0.01	0.022	OI					1.06
2.683	0.16	0.01	0.022	OI					1.07
2.700	0.16	0.01	0.022	OI					1.07
2.717	0.16	0.01	0.022	OI					1.08
2.733	0.16	0.01	0.022	OI					1.09
2.750	0.16	0.01	0.023	OI					1.10
2.767	0.16	0.01	0.023	OI					1.11
2.783	0.17	0.01	0.023	OI					1.12
2.800	0.17	0.01	0.023	OI					1.13
2.817	0.17	0.01	0.024	OI					1.14
2.833	0.17	0.01	0.024	OI					1.15
2.850	0.17	0.01	0.024	OI					1.16
2.867	0.17	0.01	0.024	OI					1.18
2.883	0.18	0.01	0.024	OI					1.19
2.900	0.18	0.01	0.025	OI					1.20
2.917	0.18	0.01	0.025	OI					1.21
2.933	0.18	0.01	0.025	O I					1.22
2.950	0.18	0.01	0.025	O I					1.23
2.967	0.18	0.01	0.026	O I					1.24
2.983	0.19	0.01	0.026	O I					1.25
3.000	0.19	0.01	0.026	O I					1.26
3.017	0.19	0.01	0.026	O I					1.27
3.033	0.19	0.01	0.027	O I					1.29
3.050	0.19	0.01	0.027	O I					1.30

3.067	0.20	0.01	0.027	0	I					1.31
3.083	0.20	0.01	0.027	0	I					1.32
3.100	0.20	0.01	0.028	0	I					1.33
3.117	0.20	0.01	0.028	0	I					1.35
3.133	0.21	0.02	0.028	0	I					1.36
3.150	0.21	0.02	0.028	0	I					1.37
3.167	0.21	0.02	0.029	0	I					1.38
3.183	0.21	0.02	0.029	0	I					1.40
3.200	0.22	0.02	0.029	0	I					1.41
3.217	0.22	0.02	0.029	0	I					1.42
3.233	0.22	0.02	0.030	0	I					1.44
3.250	0.22	0.02	0.030	0	I					1.45
3.267	0.22	0.02	0.030	0	I					1.46
3.283	0.23	0.02	0.031	0	I					1.48
3.300	0.23	0.02	0.031	0	I					1.49
3.317	0.24	0.02	0.031	0	I					1.51
3.333	0.24	0.02	0.031	0	I					1.52
3.350	0.25	0.02	0.032	0	I					1.54
3.367	0.25	0.02	0.032	0	I					1.55
3.383	0.26	0.02	0.032	0	I					1.57
3.400	0.26	0.02	0.033	0	I					1.58
3.417	0.26	0.02	0.033	0	I					1.60
3.433	0.26	0.02	0.033	0	I					1.61
3.450	0.27	0.02	0.034	0	I					1.63
3.467	0.27	0.02	0.034	0	I					1.65
3.483	0.27	0.02	0.034	0	I					1.66
3.500	0.28	0.02	0.035	0	I					1.68
3.517	0.29	0.02	0.035	0	I					1.70
3.533	0.29	0.02	0.036	0	I					1.72
3.550	0.30	0.02	0.036	0	I					1.73
3.567	0.31	0.02	0.036	0	I					1.75
3.583	0.32	0.02	0.037	0	I					1.77
3.600	0.33	0.02	0.037	0	I					1.79
3.617	0.34	0.02	0.038	0	I					1.81
3.633	0.35	0.02	0.038	0	I					1.84
3.650	0.35	0.02	0.039	0	I					1.86
3.667	0.36	0.02	0.039	0	I					1.88
3.683	0.37	0.02	0.039	0	I					1.90
3.700	0.37	0.02	0.040	0	I					1.92
3.717	0.38	0.02	0.040	0	I					1.95
3.733	0.39	0.02	0.041	0	I					1.97
3.750	0.41	0.02	0.041	0	I					2.00
3.767	0.44	0.02	0.042	0	I					2.02
3.783	0.46	0.02	0.043	0	I					2.05
3.800	0.49	0.02	0.043	0	I					2.08
3.817	0.51	0.02	0.044	0	I					2.11
3.833	0.54	0.02	0.045	0	I					2.15
3.850	0.57	0.02	0.045	0	I					2.18
3.867	0.60	0.02	0.046	0	I					2.22
3.883	0.63	0.02	0.047	0	I					2.26

3.900	0.67	0.02	0.048	0	I					2.30
3.917	0.70	0.02	0.049	0	I					2.34
3.933	0.73	0.02	0.050	0	I					2.39
3.950	0.77	0.02	0.051	0	I					2.44
3.967	0.80	0.02	0.052	0	I					2.49
3.983	1.10	0.02	0.053	0		I				2.55
4.000	1.40	0.02	0.055	0			I			2.63
4.017	1.70	0.02	0.057	0				I		2.74
4.033	2.00	0.02	0.059	0					I	2.86
4.050	2.30	0.02	0.062	0					I	3.01
4.067	2.60	0.02	0.066	0					I	3.18
4.083	2.90	0.02	0.069	0	I		I		I	3.37
4.100	2.55	0.19	0.073	0					I	3.55
4.117	2.20	0.84	0.076		0			I		3.68
4.133	1.85	1.23	0.077			0		I		3.73
4.150	1.50	1.37	0.077				0I			3.75
4.167	1.15	1.36	0.077	I	I	I	0	I	I	3.74
4.183	0.80	1.24	0.077		I		0			3.73
4.200	0.45	1.05	0.076		I		0			3.71
4.217	0.43	0.84	0.075		I		0			3.67
4.233	0.41	0.69	0.075		I	0				3.65
4.250	0.39	0.59	0.075		I	0				3.63
4.267	0.37	0.51	0.074		I	0				3.62
4.283	0.35	0.46	0.074		I	0				3.61
4.300	0.33	0.41	0.074		I	0				3.61
4.317	0.30	0.38	0.074		I	0				3.60
4.333	0.29	0.36	0.074		0					3.60
4.350	0.29	0.34	0.074		0					3.59
4.367	0.28	0.33	0.074		0					3.59
4.383	0.27	0.32	0.074		I	0				3.59
4.400	0.26	0.31	0.074		I	0				3.58
4.417	0.25	0.29	0.074		I	0				3.58
4.433	0.24	0.28	0.074		I	0				3.58
4.450	0.23	0.27	0.073		I	0				3.57
4.467	0.23	0.26	0.073		0					3.57
4.483	0.22	0.26	0.073		0					3.57
4.500	0.22	0.25	0.073		0					3.56
4.517	0.21	0.24	0.073		0					3.56
4.533	0.20	0.23	0.073		0					3.56
4.550	0.20	0.23	0.073		0					3.56
4.567	0.20	0.22	0.073		0					3.56
4.583	0.19	0.21	0.073		0					3.56
4.600	0.19	0.21	0.073		0					3.55
4.617	0.18	0.20	0.073		0					3.55
4.633	0.18	0.20	0.073	I	0					3.55
4.650	0.18	0.20	0.073	I	0					3.55
4.667	0.17	0.19	0.073	I	0					3.55
4.683	0.17	0.19	0.073	I	0					3.55
4.700	0.17	0.18	0.073	I	0					3.55
4.717	0.17	0.18	0.073	0						3.55

4.733	0.16	0.18	0.073	0					3.54
4.750	0.16	0.17	0.073	0					3.54
4.767	0.16	0.17	0.073	0					3.54
4.783	0.15	0.17	0.073	0					3.54
4.800	0.15	0.16	0.073	0					3.54
4.817	0.15	0.16	0.073	0					3.54
4.833	0.15	0.16	0.073	0					3.54
4.850	0.15	0.16	0.073	0					3.54
4.867	0.14	0.15	0.073	0					3.54
4.883	0.14	0.15	0.073	0					3.54
4.900	0.14	0.15	0.073	0					3.54
4.917	0.14	0.15	0.073	0					3.54
4.933	0.14	0.15	0.073	0					3.54
4.950	0.14	0.14	0.073	0					3.53
4.967	0.13	0.14	0.073	0					3.53
4.983	0.13	0.14	0.073	0					3.53
5.000	0.13	0.14	0.073	0					3.53
5.017	0.13	0.14	0.073	0					3.53
5.033	0.13	0.13	0.073	0					3.53
5.050	0.13	0.13	0.073	0					3.53
5.067	0.13	0.13	0.073	0					3.53
5.083	0.12	0.13	0.073	0					3.53
5.100	0.12	0.13	0.073	0					3.53
5.117	0.12	0.13	0.073	0					3.53
5.133	0.12	0.13	0.073	0					3.53
5.150	0.12	0.12	0.073	0					3.53
5.167	0.12	0.12	0.073	0					3.53
5.183	0.12	0.12	0.073	0					3.53
5.200	0.12	0.12	0.073	0					3.53
5.217	0.11	0.12	0.073	0					3.53
5.233	0.11	0.12	0.073	0					3.53
5.250	0.11	0.12	0.073	0					3.53
5.267	0.11	0.12	0.073	0					3.53
5.283	0.11	0.11	0.073	0					3.53
5.300	0.11	0.11	0.073	0					3.53
5.317	0.11	0.11	0.073	0					3.53
5.333	0.11	0.11	0.073	0					3.53
5.350	0.11	0.11	0.072	0					3.52
5.367	0.11	0.11	0.072	0					3.52
5.383	0.10	0.11	0.072	0					3.52
5.400	0.10	0.11	0.072	0					3.52
5.417	0.10	0.11	0.072	0					3.52
5.433	0.10	0.11	0.072	0					3.52
5.450	0.10	0.11	0.072	0					3.52
5.467	0.10	0.10	0.072	0					3.52
5.483	0.10	0.10	0.072	0					3.52
5.500	0.10	0.10	0.072	0					3.52
5.517	0.10	0.10	0.072	0					3.52
5.533	0.10	0.10	0.072	0					3.52
5.550	0.10	0.10	0.072	0					3.52

79.733	0.00	0.00	0.001	0					0.06
79.750	0.00	0.00	0.001	0					0.06
79.767	0.00	0.00	0.001	0					0.06
79.783	0.00	0.00	0.001	0					0.06
79.800	0.00	0.00	0.001	0					0.06
79.817	0.00	0.00	0.001	0					0.06
79.833	0.00	0.00	0.001	0					0.06
79.850	0.00	0.00	0.001	0					0.06
79.867	0.00	0.00	0.001	0					0.06
79.883	0.00	0.00	0.001	0					0.06
79.900	0.00	0.00	0.001	0					0.06
79.917	0.00	0.00	0.001	0					0.06
79.933	0.00	0.00	0.001	0					0.06
79.950	0.00	0.00	0.001	0					0.06
79.967	0.00	0.00	0.001	0					0.06
79.983	0.00	0.00	0.001	0					0.06
80.000	0.00	0.00	0.001	0					0.06
80.017	0.00	0.00	0.001	0					0.06
80.033	0.00	0.00	0.001	0					0.06
80.050	0.00	0.00	0.001	0					0.06
80.067	0.00	0.00	0.001	0					0.06
80.083	0.00	0.00	0.001	0					0.06
80.100	0.00	0.00	0.001	0					0.06
80.117	0.00	0.00	0.001	0					0.06
80.133	0.00	0.00	0.001	0					0.06
80.150	0.00	0.00	0.001	0					0.06
80.167	0.00	0.00	0.001	0					0.06
80.183	0.00	0.00	0.001	0					0.06
80.200	0.00	0.00	0.001	0					0.06
80.217	0.00	0.00	0.001	0					0.06
80.233	0.00	0.00	0.001	0					0.06
80.250	0.00	0.00	0.001	0					0.06
80.267	0.00	0.00	0.001	0					0.06
80.283	0.00	0.00	0.001	0					0.06
80.300	0.00	0.00	0.001	0					0.06
80.317	0.00	0.00	0.001	0					0.06
80.333	0.00	0.00	0.001	0					0.06
80.350	0.00	0.00	0.001	0					0.06
80.367	0.00	0.00	0.001	0					0.06
80.383	0.00	0.00	0.001	0					0.06
80.400	0.00	0.00	0.001	0					0.06
80.417	0.00	0.00	0.001	0					0.06
80.433	0.00	0.00	0.001	0					0.06
80.450	0.00	0.00	0.001	0					0.06
80.467	0.00	0.00	0.001	0					0.06
80.483	0.00	0.00	0.001	0					0.06
80.500	0.00	0.00	0.001	0					0.06
80.517	0.00	0.00	0.001	0					0.06
80.533	0.00	0.00	0.001	0					0.06
80.550	0.00	0.00	0.001	0					0.06

80.567	0.00	0.00	0.001	0					0.06
80.583	0.00	0.00	0.001	0					0.06
80.600	0.00	0.00	0.001	0					0.06
80.617	0.00	0.00	0.001	0					0.06
80.633	0.00	0.00	0.001	0					0.06
80.650	0.00	0.00	0.001	0					0.06
80.667	0.00	0.00	0.001	0					0.06
80.683	0.00	0.00	0.001	0					0.06
80.700	0.00	0.00	0.001	0					0.06
80.717	0.00	0.00	0.001	0					0.06
80.733	0.00	0.00	0.001	0					0.06
80.750	0.00	0.00	0.001	0					0.06
80.767	0.00	0.00	0.001	0					0.06
80.783	0.00	0.00	0.001	0					0.06
80.800	0.00	0.00	0.001	0					0.06
80.817	0.00	0.00	0.001	0					0.06
80.833	0.00	0.00	0.001	0					0.06
80.850	0.00	0.00	0.001	0					0.06
80.867	0.00	0.00	0.001	0					0.06
80.883	0.00	0.00	0.001	0					0.06
80.900	0.00	0.00	0.001	0					0.06
80.917	0.00	0.00	0.001	0					0.06
80.933	0.00	0.00	0.001	0					0.06
80.950	0.00	0.00	0.001	0					0.06
80.967	0.00	0.00	0.001	0					0.06

Remaining water in basin = 0.00 (Ac.Ft)

*****HYDROGRAPH DATA*****

Number of intervals = 4858

Time interval = 1.0 (Min.)

Maximum/Peak flow rate = 1.371 (CFS)

Total volume = 0.111 (Ac.Ft)

Status of hydrographs being held in storage

Stream 1 Stream 2 Stream 3 Stream 4 Stream 5

Peak (CFS) 0.000 0.000 0.000 0.000 0.000

Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

FLOOD HYDROGRAPH ROUTING PROGRAM
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Study date: 08/24/22

Program License Serial Number 6499

***** HYDROGRAPH INFORMATION *****

From study/file name: OC.rte
*****HYDROGRAPH DATA*****
Number of intervals = 364
Time interval = 1.0 (Min.)
Maximum/Peak flow rate = 6.100 (CFS)
Total volume = 0.217 (Ac.Ft)
Status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
Process from Point/Station 10.000 to Point/Station 10.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 364
Hydrograph time unit = 1.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth	Storage	Outflow	(S-O*dt/2)	(S+O*dt/2)
(Ft.)	(Ac.Ft)	(CFS)	(Ac.Ft)	(Ac.Ft)

0.000	0.000	0.000	0.000	0.000
0.500	0.022	0.022	0.022	0.022
1.500	0.065	0.040	0.065	0.065
2.500	0.109	0.051	0.109	0.109
3.500	0.153	0.061	0.153	0.153
3.600	0.157	0.454	0.157	0.157
3.700	0.161	1.172	0.160	0.162
3.800	0.166	2.101	0.165	0.167

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	1.5	3.05	4.57	6.10	Depth (Ft.)
0.017	0.02	0.00	0.000	0					0.00
0.033	0.04	0.00	0.000	0					0.00
0.050	0.07	0.00	0.000	0					0.00
0.067	0.09	0.00	0.000	0					0.01
0.083	0.11	0.00	0.000	0					0.01
0.100	0.13	0.00	0.001	0					0.01
0.117	0.15	0.00	0.001	0					0.02
0.133	0.15	0.00	0.001	0					0.02
0.150	0.15	0.00	0.001	0					0.03
0.167	0.15	0.00	0.001	0					0.03
0.183	0.15	0.00	0.002	0					0.04
0.200	0.15	0.00	0.002	0					0.04
0.217	0.15	0.00	0.002	0					0.05
0.233	0.15	0.00	0.002	0					0.05
0.250	0.15	0.00	0.002	0					0.05
0.267	0.16	0.00	0.003	0					0.06
0.283	0.16	0.00	0.003	0					0.06
0.300	0.16	0.00	0.003	0					0.07
0.317	0.16	0.00	0.003	0					0.07
0.333	0.16	0.00	0.003	0					0.08
0.350	0.16	0.00	0.004	0					0.08
0.367	0.16	0.00	0.004	0					0.09
0.383	0.16	0.00	0.004	0					0.09
0.400	0.16	0.00	0.004	0					0.10
0.417	0.16	0.00	0.005	0					0.10
0.433	0.16	0.00	0.005	0					0.11
0.450	0.16	0.00	0.005	0					0.11
0.467	0.16	0.01	0.005	0					0.12
0.483	0.16	0.01	0.005	0					0.12
0.500	0.16	0.01	0.006	0					0.13
0.517	0.16	0.01	0.006	0					0.13
0.533	0.16	0.01	0.006	0					0.14
0.550	0.16	0.01	0.006	0					0.14

0.567	0.16	0.01	0.006	0					0.15
0.583	0.16	0.01	0.007	0					0.15
0.600	0.17	0.01	0.007	0					0.16
0.617	0.17	0.01	0.007	0					0.16
0.633	0.17	0.01	0.007	0					0.17
0.650	0.17	0.01	0.008	0					0.17
0.667	0.17	0.01	0.008	0					0.18
0.683	0.17	0.01	0.008	0					0.18
0.700	0.17	0.01	0.008	0					0.19
0.717	0.17	0.01	0.008	0					0.19
0.733	0.17	0.01	0.009	0					0.20
0.750	0.17	0.01	0.009	0					0.20
0.767	0.17	0.01	0.009	0					0.21
0.783	0.17	0.01	0.009	0					0.21
0.800	0.17	0.01	0.010	0					0.22
0.817	0.17	0.01	0.010	0					0.22
0.833	0.17	0.01	0.010	0					0.23
0.850	0.17	0.01	0.010	0					0.23
0.867	0.17	0.01	0.010	0					0.24
0.883	0.17	0.01	0.011	0					0.24
0.900	0.17	0.01	0.011	0					0.25
0.917	0.17	0.01	0.011	0					0.25
0.933	0.18	0.01	0.011	0					0.26
0.950	0.18	0.01	0.012	0					0.26
0.967	0.18	0.01	0.012	0					0.27
0.983	0.18	0.01	0.012	0					0.27
1.000	0.18	0.01	0.012	0					0.28
1.017	0.18	0.01	0.012	0					0.28
1.033	0.18	0.01	0.013	0					0.29
1.050	0.18	0.01	0.013	0					0.29
1.067	0.18	0.01	0.013	0					0.30
1.083	0.18	0.01	0.013	0					0.30
1.100	0.18	0.01	0.014	0					0.31
1.117	0.18	0.01	0.014	0					0.32
1.133	0.18	0.01	0.014	0					0.32
1.150	0.18	0.01	0.014	0					0.33
1.167	0.18	0.01	0.015	0					0.33
1.183	0.19	0.01	0.015	0					0.34
1.200	0.19	0.02	0.015	0					0.34
1.217	0.19	0.02	0.015	0					0.35
1.233	0.19	0.02	0.016	0					0.35
1.250	0.19	0.02	0.016	0					0.36
1.267	0.19	0.02	0.016	0					0.36
1.283	0.19	0.02	0.016	OI					0.37
1.300	0.19	0.02	0.016	OI					0.37
1.317	0.19	0.02	0.017	OI					0.38
1.333	0.19	0.02	0.017	OI					0.39
1.350	0.19	0.02	0.017	OI					0.39
1.367	0.19	0.02	0.017	OI					0.40
1.383	0.19	0.02	0.018	OI					0.40

1.400	0.19	0.02	0.018	OI					0.41
1.417	0.20	0.02	0.018	OI					0.41
1.433	0.20	0.02	0.018	OI					0.42
1.450	0.20	0.02	0.019	OI					0.42
1.467	0.20	0.02	0.019	OI					0.43
1.483	0.20	0.02	0.019	OI					0.44
1.500	0.20	0.02	0.019	OI					0.44
1.517	0.20	0.02	0.020	OI					0.45
1.533	0.20	0.02	0.020	OI					0.45
1.550	0.20	0.02	0.020	OI					0.46
1.567	0.20	0.02	0.020	OI					0.46
1.583	0.20	0.02	0.021	OI					0.47
1.600	0.20	0.02	0.021	OI					0.48
1.617	0.21	0.02	0.021	OI					0.48
1.633	0.21	0.02	0.021	OI					0.49
1.650	0.21	0.02	0.022	OI					0.49
1.667	0.21	0.02	0.022	OI					0.50
1.683	0.21	0.02	0.022	OI					0.50
1.700	0.21	0.02	0.022	OI					0.51
1.717	0.21	0.02	0.023	OI					0.52
1.733	0.21	0.02	0.023	OI					0.52
1.750	0.22	0.02	0.023	OI					0.53
1.767	0.22	0.02	0.023	OI					0.53
1.783	0.22	0.02	0.024	OI					0.54
1.800	0.22	0.02	0.024	OI					0.55
1.817	0.22	0.02	0.024	OI					0.55
1.833	0.22	0.02	0.025	OI					0.56
1.850	0.22	0.02	0.025	OI					0.57
1.867	0.22	0.02	0.025	OI					0.57
1.883	0.22	0.02	0.025	OI					0.58
1.900	0.22	0.02	0.026	OI					0.59
1.917	0.22	0.02	0.026	OI					0.59
1.933	0.23	0.02	0.026	OI					0.60
1.950	0.23	0.02	0.026	OI					0.60
1.967	0.23	0.02	0.027	OI					0.61
1.983	0.23	0.02	0.027	OI					0.62
2.000	0.23	0.02	0.027	OI					0.62
2.017	0.23	0.02	0.028	OI					0.63
2.033	0.23	0.02	0.028	OI					0.64
2.050	0.23	0.02	0.028	OI					0.64
2.067	0.23	0.02	0.028	OI					0.65
2.083	0.24	0.02	0.029	OI					0.66
2.100	0.24	0.02	0.029	OI					0.66
2.117	0.24	0.03	0.029	OI					0.67
2.133	0.24	0.03	0.030	OI					0.68
2.150	0.24	0.03	0.030	OI					0.68
2.167	0.24	0.03	0.030	OI					0.69
2.183	0.25	0.03	0.031	OI					0.70
2.200	0.25	0.03	0.031	OI					0.71
2.217	0.25	0.03	0.031	OI					0.71

2.233	0.25	0.03	0.031	OI					0.72
2.250	0.25	0.03	0.032	OI					0.73
2.267	0.25	0.03	0.032	OI					0.73
2.283	0.25	0.03	0.032	OI					0.74
2.300	0.25	0.03	0.033	OI					0.75
2.317	0.26	0.03	0.033	OI					0.76
2.333	0.26	0.03	0.033	OI					0.76
2.350	0.26	0.03	0.034	OI					0.77
2.367	0.26	0.03	0.034	OI					0.78
2.383	0.26	0.03	0.034	OI					0.79
2.400	0.27	0.03	0.035	OI					0.79
2.417	0.27	0.03	0.035	OI					0.80
2.433	0.27	0.03	0.035	OI					0.81
2.450	0.27	0.03	0.036	OI					0.82
2.467	0.27	0.03	0.036	OI					0.82
2.483	0.27	0.03	0.036	OI					0.83
2.500	0.28	0.03	0.037	OI					0.84
2.517	0.28	0.03	0.037	OI					0.85
2.533	0.28	0.03	0.037	OI					0.86
2.550	0.28	0.03	0.038	OI					0.86
2.567	0.28	0.03	0.038	OI					0.87
2.583	0.28	0.03	0.038	OI					0.88
2.600	0.29	0.03	0.039	OI					0.89
2.617	0.29	0.03	0.039	OI					0.90
2.633	0.29	0.03	0.039	OI					0.91
2.650	0.30	0.03	0.040	OI					0.91
2.667	0.30	0.03	0.040	OI					0.92
2.683	0.30	0.03	0.041	OI					0.93
2.700	0.30	0.03	0.041	OI					0.94
2.717	0.30	0.03	0.041	OI					0.95
2.733	0.31	0.03	0.042	OI					0.96
2.750	0.31	0.03	0.042	OI					0.97
2.767	0.31	0.03	0.042	OI					0.98
2.783	0.31	0.03	0.043	OI					0.98
2.800	0.31	0.03	0.043	OI					0.99
2.817	0.32	0.03	0.044	OI					1.00
2.833	0.32	0.03	0.044	OI					1.01
2.850	0.32	0.03	0.044	OI					1.02
2.867	0.33	0.03	0.045	OI					1.03
2.883	0.33	0.03	0.045	OI					1.04
2.900	0.34	0.03	0.046	OI					1.05
2.917	0.34	0.03	0.046	OI					1.06
2.933	0.34	0.03	0.046	OI					1.07
2.950	0.34	0.03	0.047	OI					1.08
2.967	0.35	0.03	0.047	OI					1.09
2.983	0.35	0.03	0.048	OI					1.10
3.000	0.35	0.03	0.048	OI					1.11
3.017	0.35	0.03	0.049	OI					1.12
3.033	0.36	0.03	0.049	OI					1.13
3.050	0.36	0.03	0.050	OI					1.14

3.067	0.37	0.03	0.050	OI					1.15
3.083	0.37	0.03	0.050	OI					1.16
3.100	0.38	0.03	0.051	OI					1.17
3.117	0.38	0.03	0.051	O I					1.18
3.133	0.39	0.03	0.052	O I					1.20
3.150	0.40	0.03	0.052	O I					1.21
3.167	0.40	0.03	0.053	O I					1.22
3.183	0.40	0.04	0.053	O I					1.23
3.200	0.41	0.04	0.054	O I					1.24
3.217	0.41	0.04	0.054	O I					1.25
3.233	0.41	0.04	0.055	O I					1.27
3.250	0.42	0.04	0.055	O I					1.28
3.267	0.42	0.04	0.056	O I					1.29
3.283	0.43	0.04	0.057	O I					1.30
3.300	0.44	0.04	0.057	O I					1.32
3.317	0.45	0.04	0.058	O I					1.33
3.333	0.45	0.04	0.058	O I					1.34
3.350	0.46	0.04	0.059	O I					1.35
3.367	0.47	0.04	0.059	O I					1.37
3.383	0.48	0.04	0.060	O I					1.38
3.400	0.49	0.04	0.061	O I					1.40
3.417	0.49	0.04	0.061	O I					1.41
3.433	0.50	0.04	0.062	O I					1.43
3.450	0.50	0.04	0.062	O I					1.44
3.467	0.51	0.04	0.063	O I					1.46
3.483	0.51	0.04	0.064	O I					1.47
3.500	0.52	0.04	0.064	O I					1.49
3.517	0.54	0.04	0.065	O I					1.50
3.533	0.55	0.04	0.066	O I					1.52
3.550	0.57	0.04	0.066	O I					1.53
3.567	0.59	0.04	0.067	O I					1.55
3.583	0.60	0.04	0.068	O I					1.57
3.600	0.62	0.04	0.069	O I					1.59
3.617	0.64	0.04	0.070	O I					1.60
3.633	0.65	0.04	0.070	O I					1.62
3.650	0.66	0.04	0.071	O I					1.64
3.667	0.67	0.04	0.072	O I					1.66
3.683	0.69	0.04	0.073	O I					1.68
3.700	0.70	0.04	0.074	O I					1.70
3.717	0.71	0.04	0.075	O I					1.72
3.733	0.72	0.04	0.076	O I					1.74
3.750	0.77	0.04	0.077	O I					1.77
3.767	0.82	0.04	0.078	O I					1.79
3.783	0.87	0.04	0.079	O I					1.82
3.800	0.92	0.04	0.080	O I					1.84
3.817	0.97	0.04	0.081	O I					1.87
3.833	1.02	0.04	0.083	O I					1.90
3.850	1.06	0.04	0.084	O I					1.93
3.867	1.13	0.05	0.085	O I					1.96
3.883	1.19	0.05	0.087	O I					2.00

3.900	1.25	0.05	0.089	0	I					2.04
3.917	1.31	0.05	0.090	0	I					2.07
3.933	1.38	0.05	0.092	0	I					2.11
3.950	1.44	0.05	0.094	0	I					2.16
3.967	1.50	0.05	0.096	0	I					2.20
3.983	2.16	0.05	0.098	0		I				2.26
4.000	2.81	0.05	0.102	0			I			2.33
4.017	3.47	0.05	0.106	0				I		2.43
4.033	4.13	0.05	0.111	0					I	2.55
4.050	4.79	0.05	0.117	0					I	2.69
4.067	5.44	0.05	0.124	0					I	2.84
4.083	6.10	0.06	0.132	0		I	I	I	I	3.02
4.100	5.35	0.06	0.140	0					I	3.20
4.117	4.60	0.06	0.147	0				I		3.35
4.133	3.85	0.06	0.152	0				I		3.48
4.150	3.10	0.43	0.157	0			I			3.59
4.167	2.35	0.92	0.160		0		I			3.67
4.183	1.60	1.15	0.161		0	I				3.70
4.200	0.85	1.17	0.161	I	I	0	I	I	I	3.70
4.217	0.81	1.10	0.161		IO					3.69
4.233	0.77	1.03	0.160		IO					3.68
4.250	0.73	0.97	0.160		I	0				3.67
4.267	0.69	0.91	0.160		IO					3.66
4.283	0.65	0.86	0.159		IO					3.66
4.300	0.61	0.81	0.159		IO					3.65
4.317	0.57	0.76	0.159		IO					3.64
4.333	0.55	0.72	0.158		IO					3.64
4.350	0.54	0.68	0.158		IO					3.63
4.367	0.52	0.65	0.158		IO					3.63
4.383	0.50	0.62	0.158		IO					3.62
4.400	0.48	0.59	0.158		IO					3.62
4.417	0.46	0.56	0.158		0					3.62
4.433	0.45	0.54	0.157		0					3.61
4.450	0.44	0.52	0.157		0					3.61
4.467	0.43	0.50	0.157		0					3.61
4.483	0.42	0.48	0.157		0					3.60
4.500	0.41	0.47	0.157		0					3.60
4.517	0.40	0.45	0.157		0					3.60
4.533	0.38	0.44	0.157		0					3.60
4.550	0.37	0.44	0.157		IO					3.60
4.567	0.37	0.43	0.157		IO					3.59
4.583	0.36	0.42	0.157		IO					3.59
4.600	0.35	0.41	0.157		IO					3.59
4.617	0.35	0.40	0.156		IO					3.59
4.633	0.34	0.40	0.156		IO					3.59
4.650	0.33	0.39	0.156		IO					3.58
4.667	0.33	0.38	0.156		0					3.58
4.683	0.32	0.37	0.156		0					3.58
4.700	0.32	0.37	0.156		0					3.58
4.717	0.31	0.36	0.156		0					3.58

4.733	0.31	0.35	0.156	0					3.57
4.750	0.30	0.35	0.156	0					3.57
4.767	0.30	0.34	0.156	0					3.57
4.783	0.29	0.33	0.156	0					3.57
4.800	0.29	0.33	0.156	0					3.57
4.817	0.28	0.32	0.156	0					3.57
4.833	0.28	0.32	0.156	0					3.57
4.850	0.28	0.31	0.156	0					3.56
4.867	0.27	0.31	0.156	0					3.56
4.883	0.27	0.30	0.155	0					3.56
4.900	0.26	0.30	0.155	0					3.56
4.917	0.26	0.29	0.155	0					3.56
4.933	0.26	0.29	0.155	0					3.56
4.950	0.25	0.29	0.155	0					3.56
4.967	0.25	0.28	0.155	0					3.56
4.983	0.25	0.28	0.155	0					3.55
5.000	0.25	0.27	0.155	0					3.55
5.017	0.24	0.27	0.155	0					3.55
5.033	0.24	0.27	0.155	0					3.55
5.050	0.24	0.26	0.155	0					3.55
5.067	0.23	0.26	0.155	0					3.55
5.083	0.23	0.26	0.155	0					3.55
5.100	0.23	0.25	0.155	0					3.55
5.117	0.23	0.25	0.155	0					3.55
5.133	0.23	0.25	0.155	0					3.55
5.150	0.22	0.24	0.155	0					3.55
5.167	0.22	0.24	0.155	0					3.55
5.183	0.22	0.24	0.155	0					3.55
5.200	0.22	0.24	0.155	0					3.54
5.217	0.21	0.23	0.155	0					3.54
5.233	0.21	0.23	0.155	0					3.54
5.250	0.21	0.23	0.155	0					3.54
5.267	0.21	0.23	0.155	0					3.54
5.283	0.21	0.22	0.155	0					3.54
5.300	0.21	0.22	0.155	0					3.54
5.317	0.20	0.22	0.155	0					3.54
5.333	0.20	0.22	0.155	0					3.54
5.350	0.20	0.22	0.155	0					3.54
5.367	0.20	0.21	0.155	0					3.54
5.383	0.20	0.21	0.155	0					3.54
5.400	0.20	0.21	0.155	0					3.54
5.417	0.19	0.21	0.154	0					3.54
5.433	0.19	0.21	0.154	0					3.54
5.450	0.19	0.20	0.154	10					3.54
5.467	0.19	0.20	0.154	10					3.54
5.483	0.19	0.20	0.154	10					3.54
5.500	0.19	0.20	0.154	10					3.53
5.517	0.18	0.20	0.154	10					3.53
5.533	0.18	0.20	0.154	10					3.53
5.550	0.18	0.19	0.154	10					3.53

5.567	0.18	0.19	0.154	10					3.53
5.583	0.18	0.19	0.154	0					3.53
5.600	0.18	0.19	0.154	0					3.53
5.617	0.18	0.19	0.154	0					3.53
5.633	0.18	0.19	0.154	0					3.53
5.650	0.17	0.18	0.154	0					3.53
5.667	0.17	0.18	0.154	0					3.53
5.683	0.17	0.18	0.154	0					3.53
5.700	0.17	0.18	0.154	0					3.53
5.717	0.17	0.18	0.154	0					3.53
5.733	0.17	0.18	0.154	0					3.53
5.750	0.17	0.18	0.154	0					3.53
5.767	0.17	0.18	0.154	0					3.53
5.783	0.17	0.17	0.154	0					3.53
5.800	0.16	0.17	0.154	0					3.53
5.817	0.16	0.17	0.154	0					3.53
5.833	0.16	0.17	0.154	0					3.53
5.850	0.16	0.17	0.154	0					3.53
5.867	0.16	0.17	0.154	0					3.53
5.883	0.16	0.17	0.154	0					3.53
5.900	0.16	0.17	0.154	0					3.53
5.917	0.16	0.17	0.154	0					3.53
5.933	0.16	0.16	0.154	0					3.53
5.950	0.16	0.16	0.154	0					3.53
5.967	0.16	0.16	0.154	0					3.53
5.983	0.15	0.16	0.154	0					3.53
6.000	0.15	0.16	0.154	0					3.53
6.017	0.15	0.16	0.154	0					3.53
6.033	0.15	0.16	0.154	0					3.52
6.050	0.15	0.16	0.154	0					3.52
6.067	0.15	0.16	0.154	0					3.52
6.083	0.00	0.15	0.154	0					3.52
6.100	0.00	0.13	0.154	0					3.52
6.117	0.00	0.11	0.154	0					3.51
6.133	0.00	0.10	0.153	0					3.51
6.150	0.00	0.09	0.153	0					3.51
6.167	0.00	0.07	0.153	0					3.50
6.183	0.00	0.06	0.153	0					3.50
6.200	0.00	0.06	0.153	0					3.50
6.217	0.00	0.06	0.153	0					3.50
6.233	0.00	0.06	0.153	0					3.50
6.250	0.00	0.06	0.153	0					3.49
6.267	0.00	0.06	0.153	0					3.49
6.283	0.00	0.06	0.153	0					3.49
6.300	0.00	0.06	0.152	0					3.49
6.317	0.00	0.06	0.152	0					3.49
6.333	0.00	0.06	0.152	0					3.48
6.350	0.00	0.06	0.152	0					3.48
6.367	0.00	0.06	0.152	0					3.48
6.383	0.00	0.06	0.152	0					3.48

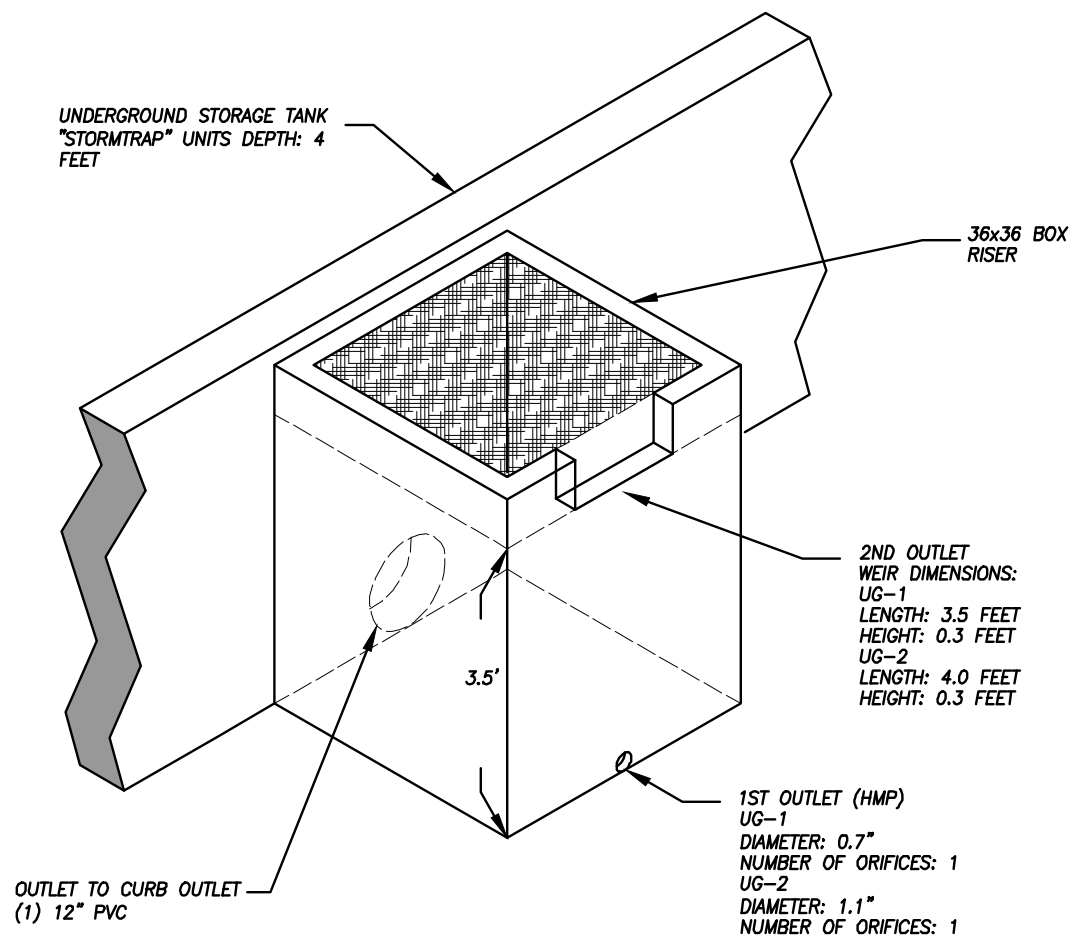
81.400	0.00	0.00	0.001	0					0.02
81.417	0.00	0.00	0.001	0					0.02
81.433	0.00	0.00	0.001	0					0.02
81.450	0.00	0.00	0.001	0					0.02
81.467	0.00	0.00	0.001	0					0.02
81.483	0.00	0.00	0.001	0					0.02
81.500	0.00	0.00	0.001	0					0.02
81.517	0.00	0.00	0.001	0					0.02
81.533	0.00	0.00	0.001	0					0.02
81.550	0.00	0.00	0.001	0					0.02
81.567	0.00	0.00	0.001	0					0.02
81.583	0.00	0.00	0.001	0					0.02
81.600	0.00	0.00	0.001	0					0.02
81.617	0.00	0.00	0.001	0					0.02
81.633	0.00	0.00	0.001	0					0.02
81.650	0.00	0.00	0.001	0					0.02
81.667	0.00	0.00	0.001	0					0.02
81.683	0.00	0.00	0.001	0					0.02
81.700	0.00	0.00	0.001	0					0.02
81.717	0.00	0.00	0.001	0					0.02
81.733	0.00	0.00	0.001	0					0.02
81.750	0.00	0.00	0.001	0					0.02
81.767	0.00	0.00	0.001	0					0.02
81.783	0.00	0.00	0.001	0					0.02
81.800	0.00	0.00	0.001	0					0.02
81.817	0.00	0.00	0.001	0					0.02
81.833	0.00	0.00	0.001	0					0.02
81.850	0.00	0.00	0.001	0					0.02
81.867	0.00	0.00	0.001	0					0.02
81.883	0.00	0.00	0.001	0					0.02
81.900	0.00	0.00	0.001	0					0.02
81.917	0.00	0.00	0.001	0					0.02
81.933	0.00	0.00	0.001	0					0.02
81.950	0.00	0.00	0.001	0					0.02
81.967	0.00	0.00	0.001	0					0.02
81.983	0.00	0.00	0.001	0					0.02
82.000	0.00	0.00	0.001	0					0.02
82.017	0.00	0.00	0.001	0					0.02
82.033	0.00	0.00	0.001	0					0.02
82.050	0.00	0.00	0.001	0					0.02
82.067	0.00	0.00	0.001	0					0.02
82.083	0.00	0.00	0.001	0					0.02
82.100	0.00	0.00	0.001	0					0.02
82.117	0.00	0.00	0.001	0					0.02
82.133	0.00	0.00	0.001	0					0.02
82.150	0.00	0.00	0.001	0					0.02
82.167	0.00	0.00	0.001	0					0.02

*****HYDROGRAPH DATA*****

Number of intervals = 4930

Time interval = 1.0 (Min.)
Maximum/Peak flow rate = 1.170 (CFS)
Total volume = 0.216 (Ac.Ft)
Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000



OUTLET DETAIL
NTS

UG1

Elevation	Elev. Difference	Area (sf)	Acre-feet
0.00	0.00	900	0.0000
0.50	0.50	900	0.0103
1.00	0.50	900	0.0207
1.50	0.50	900	0.0310
2.00	0.50	900	0.0413
2.50	0.50	900	0.0517
3.00	0.50	900	0.0620
3.50	0.50	900	0.0723
3.60	0.10	900	0.0744
3.70	0.10	900	0.0764
3.80	0.10	900	0.0785

Outlet structure for Discharge of UG1

Discharge vs Elevation Table

Low orifice:

Number: 1

Cg-low:

h (ft)	Qlow-orif (cfs)	Qemer (cfs)	Qtot (cfs)
0.500	0.009	0.000	0.009
1.500	0.016	0.000	0.016
2.500	0.021	0.000	0.021
3.500	0.025	0.000	0.025
3.600	0.025	0.343	0.368
3.700	0.025	0.970	0.996
3.800	0.026	1.783	1.809

Emergency Weir

Invert:

B: 3.500 ft

B: 3.5 ft

UG2

Elevation	Elev. Difference	Area (sf)	Acre-feet
0.00	0.00	1900	0.0000
0.50	0.50	1900	0.0218
1.00	0.50	1900	0.0436
1.50	0.50	1900	0.0654
2.00	0.50	1900	0.0872
2.50	0.50	1900	0.1090
3.00	0.50	1900	0.1309
3.50	0.50	1900	0.1527
3.60	0.10	1900	0.1570
3.70	0.10	1900	0.1614
3.80	0.10	1900	0.1657

Outlet structure for Discharge of UG2

Discharge vs Elevation Table

Low orifice

Number: 1

Cg-low:

h (ft)	Qlow-orif (cfs)	Qemer (cfs)	Qtot (cfs)
0.500	0.022	0.000	0.022
1.500	0.040	0.000	0.040
2.500	0.051	0.000	0.051
3.500	0.061	0.000	0.061
3.600	0.062	0.392	0.454
3.700	0.063	1.109	1.172
3.800	0.064	2.038	2.101

Emergency Weir:

Invert:

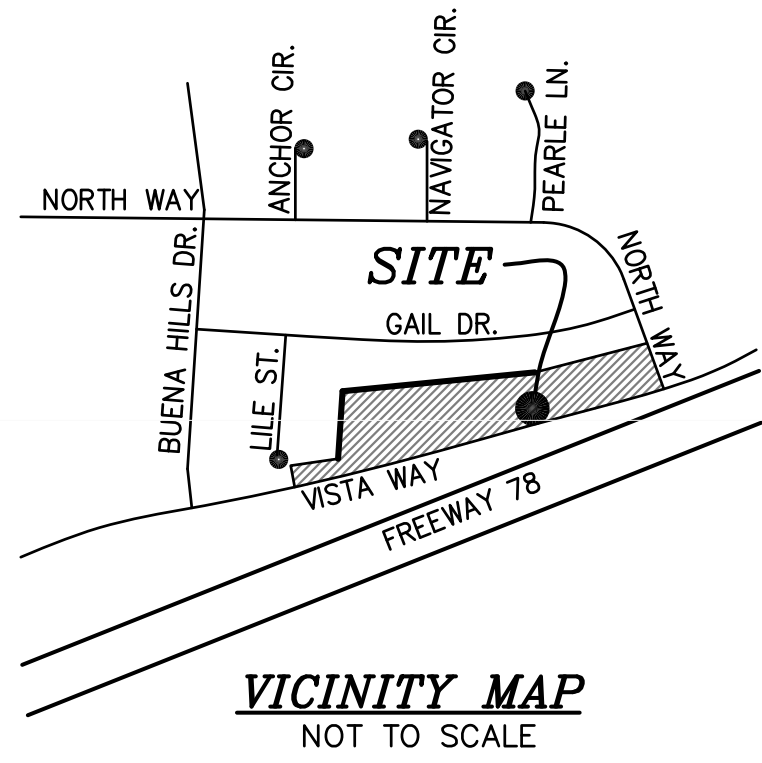
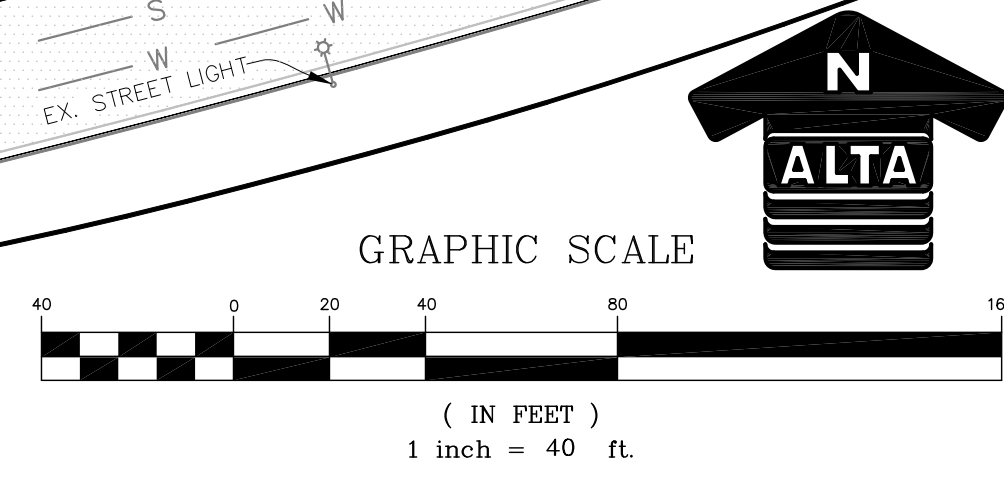
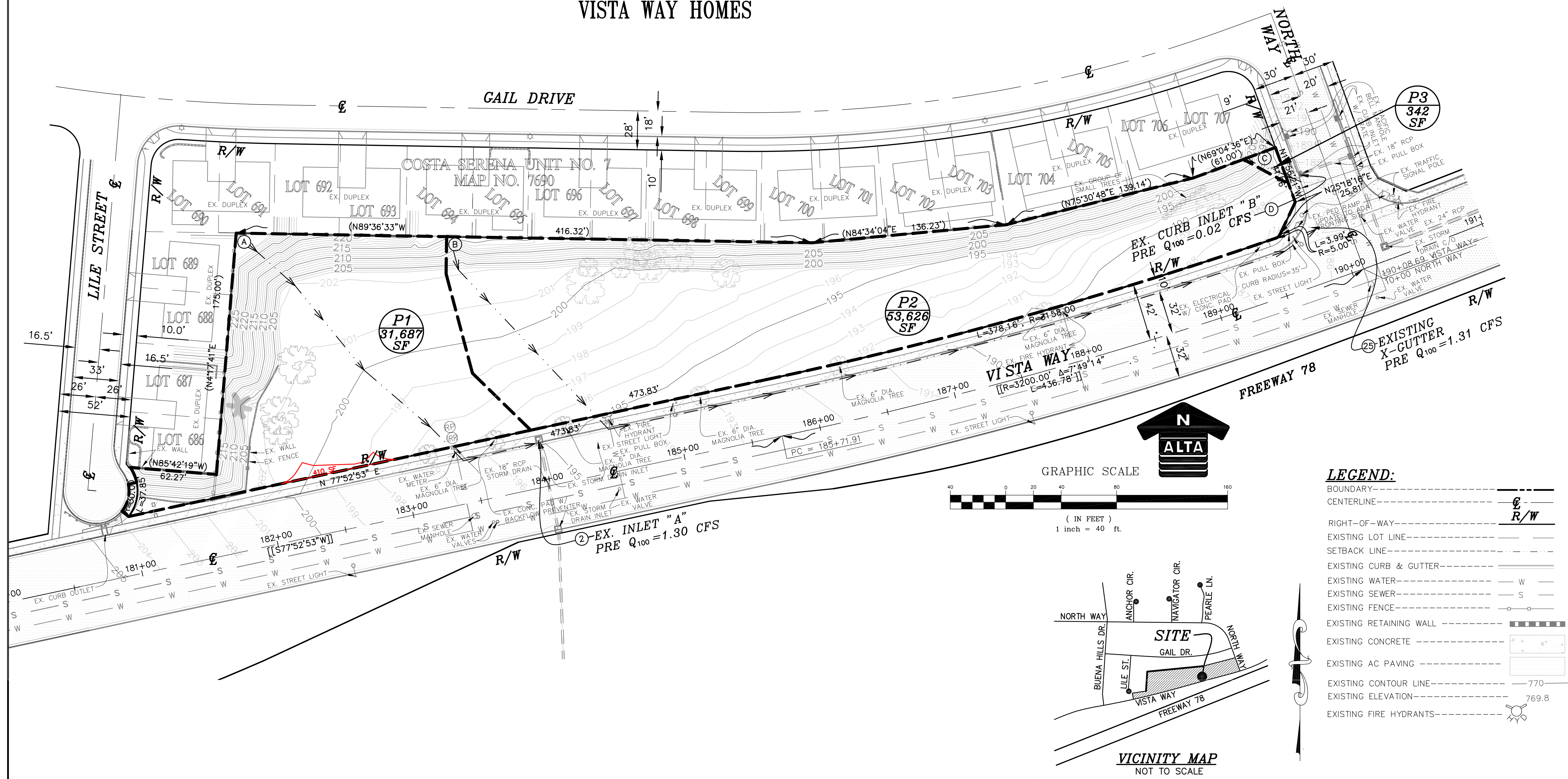
B: 3.500 ft

B: 4 ft

Table: Comparion of Overall Pre and Post Development Mitigated Peakflows				
BASIN	Area (sf)	Q(100 PRE) cfs	Q(100 MITIGATED) cfs	DELTA cfs
A	31,687	1.30	---	
P1	31,687	---	1.15	
P2+P3	53,968	1.33	---	
B+C+D	53,968	---	0.85	
		2.63	2.00	0.63

EXHIBIT A
Pre-Development Drainage Map

VISTA WAY HOMES



LEGEND:

BOUNDARY-----	-----
CENTERLINE-----	-----
RIGHT-OF-WAY-----	-----
EXISTING LOT LINE-----	-----
SETBACK LINE-----	-----
EXISTING CURB & GUTTER-----	-----
EXISTING WATER-----	W
EXISTING SEWER-----	S
EXISTING FENCE-----	-----
EXISTING RETAINING WALL-----	-----
EXISTING CONCRETE-----	-----
EXISTING AC PAVING-----	-----
EXISTING CONTOUR LINE-----	770
EXISTING ELEVATION-----	769.8
EXISTING FIRE HYDRANTS-----	-----

EXHIBIT "A"
PRE-DEVELOPMENT
DRAINAGE AREA MAP
FOR TENTATIVE MAP

- POST DAM LEGEND:**
100 YEAR FREQUENCY
- WATERSHED BOUNDARY-----
- WATERSHED NAME-----
- WATERSHED DESIGNATION-----
- WATERSHED AREA-----
- DRAINAGE NODE-----
- FLOW PATH FOR To-----
- HYDROLOGIC SOIL GROUP "D"
DEPTH TO GROUNDWATER > 12'

- General Notes**
- THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003).
- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
 - ASSESSOR'S PARCEL NUMBER: 165-493-47
 - SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
 - PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
 - BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
 - SOURCE OF TOPOGRAPHY: ALTA CONSULTANTS
SURVEYED ON: 02/20/2020
 - TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
 - THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
 - FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G DATED: 2/16/12

ENGINEER OF WORK

BARTOLOME J. PASTOR, RCE 38606

DATED: MAY 24, 2022

T21-00002
D21-00005
DB21-00003

EXHIBIT B
Post-Development Drainage Map

VISTA WAY HOMES

EXHIBIT "B"
POST-DEVELOPMENT
DRAINAGE AREA MAP
FOR TENTATIVE MAP

POST DAM LEGEND:
100 YEAR FREQUENCY

- WATERSHED BOUNDARY-----
WATERSHED NAME-----
WATERSHED DESIGNATION-----
WATERSHED AREA-----
SUBBASIN BOUNDARY-----
SUBBASIN NAME-----
WATERSHED DESIGNATION-----
SUBBASIN AREA-----
DRAINAGE NODE-----
FLOW PATH FOR To-----
HYDROLOGIC SOIL GROUP "D"
DEPTH TO GROUNDWATER > 12'

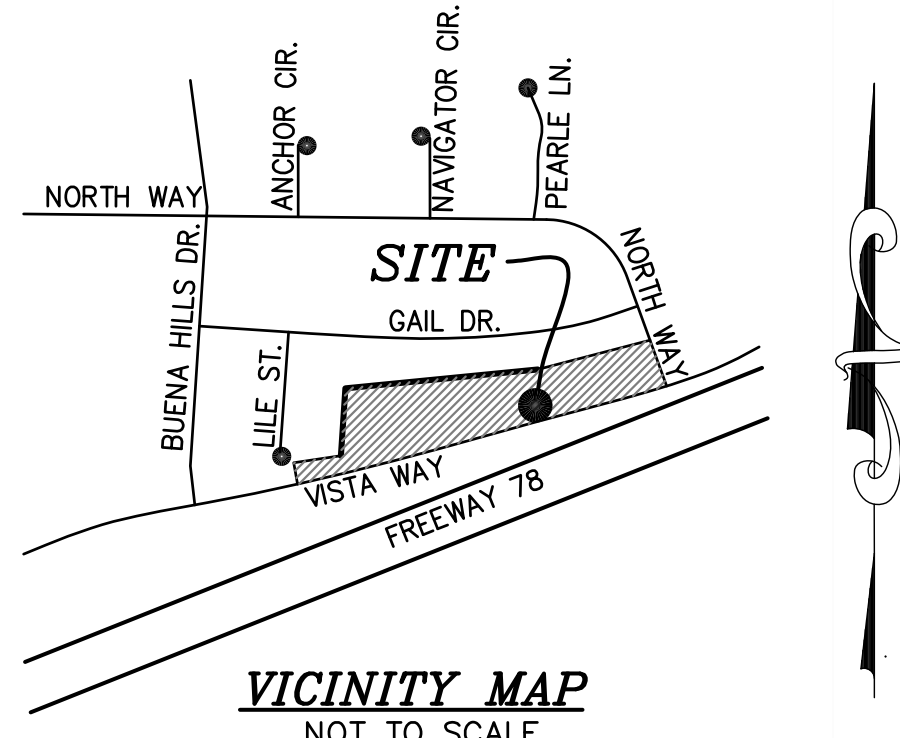
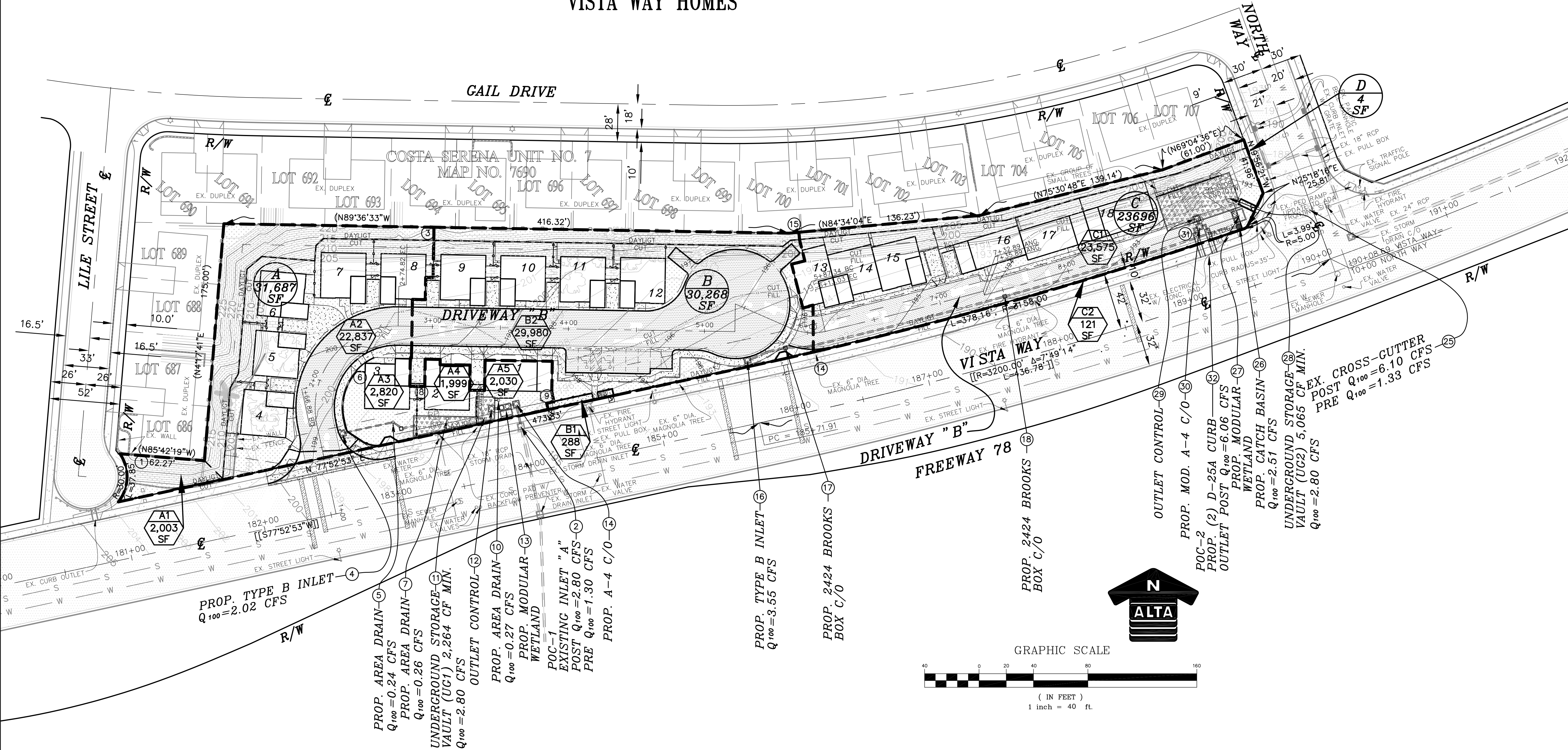
General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED PUBLIC STREET DEDICATION: 0 AC
- PROPOSED PRIVATE STREET AREA: 0 AC
- TOTAL NUMBER OF EXISTING LOTS: 1
- TOTAL NUMBER OF PROPOSED LOTS: 1
- TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
- PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=19
UNATTACHED COMPACT PARKING SPACES (16'x8')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=43
PARKING SPACES PER UNIT=2.39
- ASSESSOR'S PARCEL NUMBER: 165-493-47
- SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
- PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
- EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
- PROPOSED GENERAL PLAN LAND USE: RESIDENTIAL-SENIOR HOUSING
- EXISTING ZONING: RM-A
- PROPOSED ZONING: RM-A
- PROPOSED DENSITY: 9.14 DU/AC
- STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
- BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC STAMPED 15-4506
LOCATION: INT VISTA WAY AND BUENA HILLS RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1024
- SOURCE OF TOPOGRAPHY: ALTA CONSULTANTS
SURVEYED ON: 02/20/2020
- TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
- THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
- MAXIMUM SLOPE GRADIENT: 2:1
- AREA/PERCENT OF SITE IN DRIVEWAYS & PARKING: 22,588 SF OR 26%
- MINIMUM REQUIRED OPEN SPACE IS 300 SF PER UNIT=18x300=5,400 SF
COMMON OPEN SPACE IS LOCATED IN TWO AREAS OF 1,521 SF+1,203 SF=2,724 SF
EACH UNIT WILL HAVE A MINIMUM OF 150 SF OF PRIVATE OPEN SPACE
- AREA/PERCENT OF SITE IN LANDSCAPING: 28,588 SF OR 33%
AREA/PERCENT OF SITE IN PAVERS: 27,815 SF OR 32%
- ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT)
CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y.
NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
- GRADED AREA: 1.63 AC=82% OF SITE
- FOR PROPOSED FENCING & SIGNAGE SEE LANDSCAPE PLANS FOR THIS PROJECT.
- FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G DATED: 2/16/12
- SOLAR ACCESS: ALL LOTS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF 100 SQUARE FEET OF SOLAR ACCESS FOR EACH FUTURE DWELLING ALLOWED BY THIS SUBDIVISION.

T21-00002 D21-00005 DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 105, Escondido, CA 92025 (619) 749-8816 Fax (619) 749-8818
JOB NO. 498-01, DATE AUGUST 31, 2022



ENGINEER OF WORK
BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST 2022



LEGEND:

- BOUNDARY-----
CENTERLINE-----
RIGHT-OF-WAY-----
EXISTING LOT LINE-----
SETBACK LINE-----
EXISTING CURB & GUTTER-----
EXISTING WATER-----
EXISTING SEWER-----
EXISTING FENCE-----
EXISTING RETAINING WALL-----
EXISTING CONCRETE-----
EXISTING AC PAVING-----
EXISTING CONTOUR LINE-----
EXISTING ELEVATION-----
EXISTING FIRE HYDRANTS-----
EXISTING STREET SIGN-----
EXISTING WATER SERVICE W/ EX. BACKFLOW PREVENTER TO BE USED FOR IRRIGATION-----
PROPOSED 2" WATER SERVICE W/ BACKFLOW PREVENTER-----
PROPOSED 8" FIRE SERVICE FOR PVT. FIRE HYDRANT-----
PROPOSED 1" WATER SERVICE W/ PRIVATE WATER METER TO BE MAINTAINED BY HOA-----
PROPOSED PRIVATE 4" SEWER LATERAL-----
8" PRIVATE SEWER MAIN W/ SEWER MH-----

- PARKING SPACE NUMBER-----
PROPOSED G-2 CURB & GUTTER-----
PROPOSED G-1 GUTTER-----
PROPOSED ROLLED CURB-----
PROPOSED FENCE SEE LANDSCAPE PLANS FOR DETAILS-----
PROPOSED LANDSCAPING-----
PROPOSED CONCRETE-----
PROPOSED AC PAVING-----
PROPOSED PAVER PER DETAIL ON SHEET NO. 10 OF TM-----
TRENCH RESURFACING M_3A-----
PROPOSED WATER STORAGE SEE SWAMP FOR DETAILS-----
PROPOSED RETAINING WALL-----
2:1 SLOPE-----
DAYLIGHT LINE-----
DIRECTION OF FLOW-----
(PVT.) PROPOSED STORM DRAIN-----
CURB OUTLET PER D-25A-----
(PVT.) PROPRIETARY TREATMENT UNIT PER DETAIL ON SHEET NO. 10 OF TM-----
(PVT.) MODIFIED TYPE A CLEANOUT W/ SUMP PUMP-----
(PVT.) 3636 OR 1818 BROOKS BOX W/ TRAFFIC GRATE PER DETAILS ON SHEET 11 OF TM-----
(PVT.) 2424 BROOKS BOX W/ PARKWAY GRATE PER DETAILS ON SHEET 11 OF TM-----
AREA DRAIN PER DETAIL ON SHEET 10 OF TM-----

EXHIBIT C
Post-Development DMA Map

VISTA WAY HOMES DMA PLAN

General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED PUBLIC STREET DEDICATION: 0 AC
- PROPOSED PRIVATE STREET AREA: 0 AC
- TOTAL NUMBER OF EXISTING LOTS: 1
- TOTAL NUMBER OF PROPOSED LOTS: 1
- TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18

- PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED SATNDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x8')=2
VAN ACCESSABLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
- ASSESSOR'S PARCEL NUMBER: 165-493-47
- SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
- PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
- STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
- BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
- SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
- TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
- THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
- MAXIMUM SLOPE GRADIENT: 2:1
- ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT)
CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y.
NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
- GRADED AREA: 1.63 AC=82% OF SITE
- FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G

DMA LEGEND:

DMA AREA -----
WATERSHED NAME -----
WATERSHED DESIGNATION -----
WATERSHED AREA -----
HYDROLOGIC SOIL GROUP "D"
DEPTH TO GROUNDWATER > 12

ENGINEER OF WORK

BARTOLOME J. PASTOR, RCE 38606

DATED: AUGUST 2022



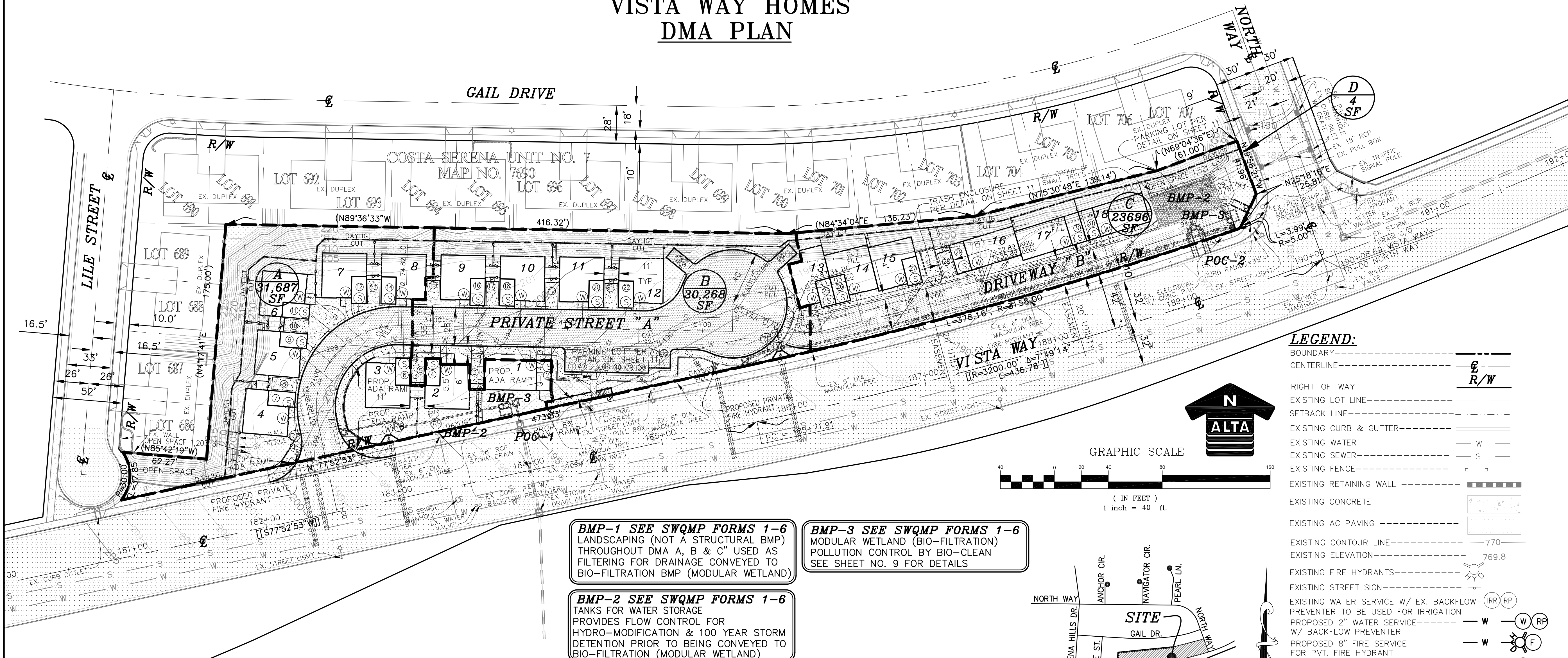
T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS

PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 100, Escondido, CA 92025 (619) 749-8816 Fax: (619) 749-8818
JOB NO. 490-01, DATE AUGUST 16, 2022

Date: 8/16/2022

SHEET 12 OF 12



BMP-1 SEE SWQMP FORMS 1-6
LANDSCAPING (NOT A STRUCTURAL BMP)
THROUGHOUT DMA A, B & C" USED AS
FILTERING FOR DRAINAGE CONVEYED TO
BIO-FILTRATION BMP (MODULAR WETLAND)

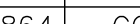
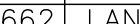
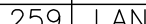
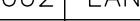
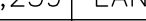
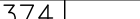
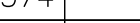
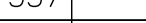
BMP-3 SEE SWQMP FORMS 1-6
MODULAR WETLAND (BIO-FILTRATION)
POLLUTION CONTROL BY BIO-CLEAN
SEE SHEET NO. 9 FOR DETAILS

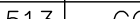
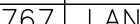
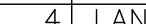
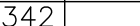
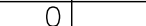
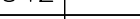
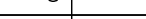
BMP-2 SEE SWQMP FORMS 1-6
TANKS FOR WATER STORAGE
PROVIDES FLOW CONTROL FOR
HYDRO-MODIFICATION & 100 YEAR STORM
DETENTION PRIOR TO BEING CONVEYED TO
BIO-FILTRATION (MODULAR WETLAND)

POLLUTANT	POTENTIAL SOURCE	SOURCE CONTROLS
SEDIMENT	DURING GRADING OPERATIONS	CONST. BMP'S PERMANENT LANDSCAPING AND HARDSCAPE
NUTRIENTS	FERTILIZER	TO BE APPLIED ONLY AS NEEDED
TRASH & DEBRIS	GENERAL TRASH	REMOVE & DISPOSE IN A PROPER MANOR
OXYGEN DEMANDING SUBSTANCES	GENERAL	TO REMOVE & DISPOSE IN A PROPER MAONOR
BACTERIA & VIRUSES	GENERAL	ALL RUNOFF IS DIRECTED TO BIO-FILTRATION UNITS
PESTICIDES	LANDSCAPING	ALL RUNOFF IS DIRECTED TO BIO-FILTRATION UNITS

REQUIRED NOTES FOR THIS EXHIBIT:

- THE UNDERLYING HYDROLOGIC SOIL GROUP IS "D".
- THE GROUNDWATER IN THIS AREA IS DEEP ENOUGH NOT TO IMPACT SITE DEVELOPMENT.
- THERE ARE NO NATURAL HYDROLOGIC FEATURES ON THIS SITE.
- THERE ARE NO CRITICAL COURSE SEDIMENT YIELD AREAS ON THE PROJECT.
- THE EXISTING TOPOGRAPHY AND PROPOSED IMPEROVUS AREAS ARE INDICATED ON THE EXHIBIT.
- THE EXISTING AND PROPOSED SITE DRAINAGE NETWORK AND CONNECTIONS TO OFFSITE ARE SHOWN.
- THERE IS NO PROPOSED DEMOLITION ON THIS SITE. OTHER THAN CLEARING & GRUBING, REMOVAL OF EXISTING WALLS, AND SAWCUT AND REMOVAL OF EXISTING PUBLIC IMPROVEMENTS AS NEEDED TO PROVIDE ACCESS AND UTILITIES FOR THIS SITE.
- THE PROPOSED GRADING IS SHOWN ON THIS EXHIBIT, INCLUDING PROPOSED RETAINING WALLS.
- THE PROPOSED IMPEROVUS FEATURES ON THIS PROJECT ARE SHOWN ON THIS EXHIBIT.
- THE DESIGN FEATURES AND SURFACE TREATMENTS USED TO MAINTAIN IMPEROVUSNESS ARE SHOWN ON THIS EXHIBIT.
- DRAINAGE MANAGEMENT AREAS ARE SHOWN AND IDENTIFIED. MINAULMIST AREAS ARE INDICATED.
- THERE ARE NO POLLUTANT SOURCE AREAS REQUIRING SOURCE CONTROLS ON THIS PROJECT.
- THE STRUCTURAL (PERMANENT) BMPs ARE SHOWN AND IDENTIFIED ON THIS EXHIBIT.

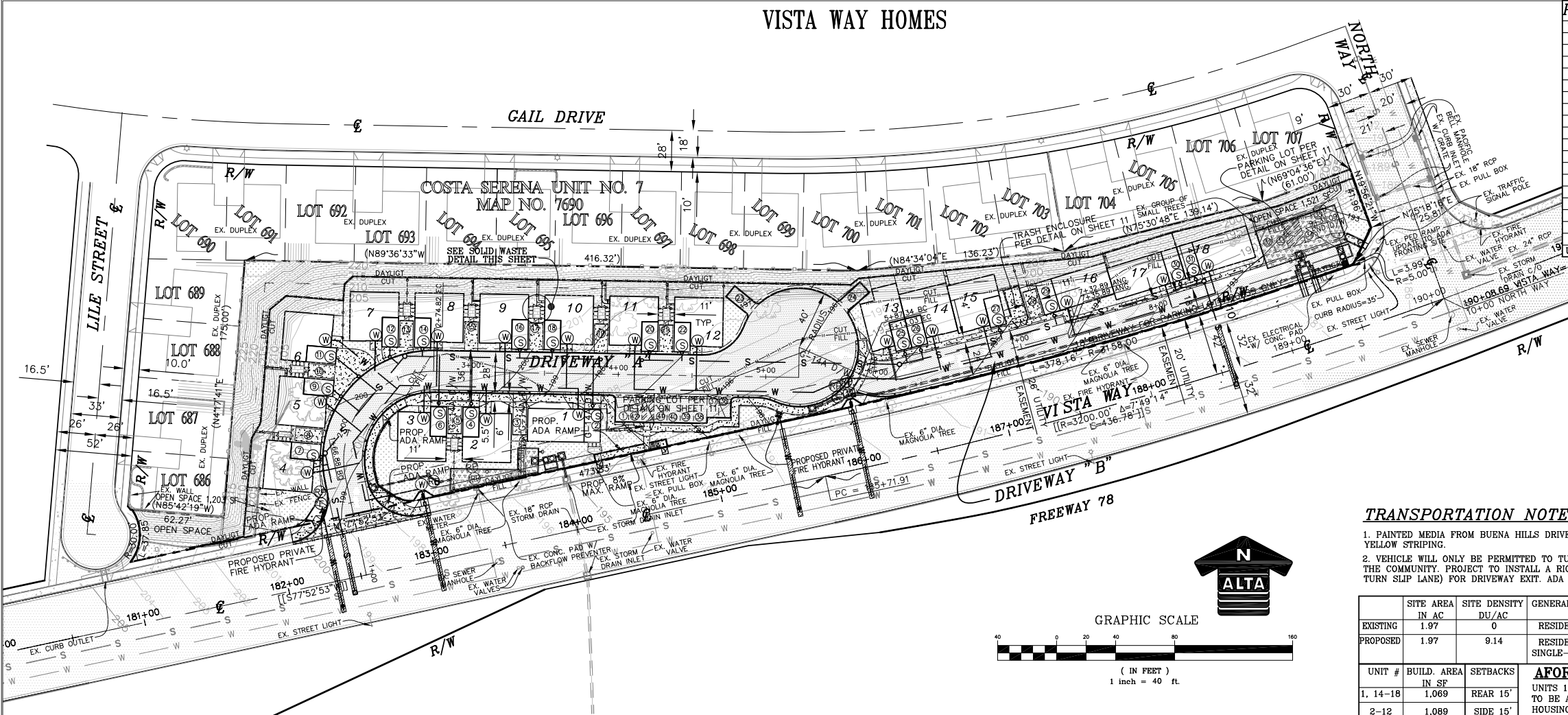
AREA A LOW IMPACT DEVELOPMENT DESIGN								AREA C LOW IMPACT DEVELOPMENT DESIGN									
DMA NAME		DMA AREA SF	POST PROJECT SURFACE TYPE	% OF A2	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	% OF A2	SOIL TYPE "D"	DMA NAME		DMA AREA SF	POST PROJECT SURFACE TYPE	% OF A1 & A3	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	% OF A1 & A3	SOIL TYPE "D"
ASPHALT		3,598	ASPHALT	0%	1.0	3,598	11%	C=0.56	ASPHALT		7,222	ASPHALT	31%	1.0	7,222	31%	C=0.57
BUILDINGS		9,053	BUILDINGS	29%	1.0	9,053	29%		BUILDINGS		6,620	BUILDINGS	28%	1.0	6,620	28%	
CONCRETE		2,864	CONCRETE	9%	1.0	2,864	9%		CONCRETE		2,448	CONCRETE	10%	1.0	2,448	10%	
LANDSCAPING		13,662	LANDSCAPING	49%	0.1	1,366	5%		LANDSCAPING		5,259	LANDSCAPING	22%	0.1	526	2%	
WALLS		374	WALLS	1%	1.0	374	1%		WALLS		537	WALLS	2%	1.0	537	2%	
WALKWAYS & PATIOS*		2,104	PAVERS	15%	1.0	2,104	7%		WALKWAYS & PATIOS*		1,578	PAVERS	7%	1.0	1,578	6%	
TREATMENT		32	PROPRIETARY	0%	0.1	3	0%	TREATMENT		32	PROPRIETARY	0%	0.1	3	0%		
TOTAL DMA AREA		31,687	37% OF TOTAL AREA	100%	SEE SWQMP FOR SITE SPECIFIC POLLUTION CONTROL & FLOW CONTROL	SIZING FACTOR	MINIMUM AREA	TOTAL DMA AREA		23,696	28% OF TOTAL AREA	100%	SEE SWQMP FOR SITE SPECIFIC POLLUTION CONTROL & FLOW CONTROL	SIZING FACTOR	MINIMUM AREA		
TOTAL DMA AREA						19,393	0.04	775	TOTAL DMA AREA						18,934	0.04	757

AREA B LOW IMPACT DEVELOPMENT DESIGN								AREA D LOW IMPACT DEVELOPMENT DESIGN									
DMA NAME		DMA AREA SF	POST PROJECT SURFACE TYPE	% OF B1	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	% OF B1	SOIL TYPE "D"	DMA NAME		DMA AREA SF	POST PROJECT SURFACE TYPE	% OF A1 & A3	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	% OF A1 & A3	SOIL TYPE "D"
ASPHALT		13,050	ASPHALT	43%	1.0	13,050	43%	C=0.52	ASPHALT		0	ASPHALT	0%	1.0	0	0%	C=0.35
BUILDINGS		4,544	BUILDINGS	15%	1.0	4,544	15%		BUILDINGS		0	BUILDINGS	0%	1.0	0	0%	
CONCRETE		3,513	CONCRETE	12%	1.0	3,513	12%		CONCRETE		0	CONCRETE	0%	1.0	0	0%	
LANDSCAPING		7,767	LANDSCAPING	26%	0.1	777	5%		LANDSCAPING		4	LANDSCAPING	100%	0.1	0	0%	
WALLS		342	WALLS	1%	1.0	342	1%		WALLS		0	WALLS	0%	1.0	0	0%	
WALKWAYS & PATIOS*		1,052	PAVERS	4%	1.0	1,052	4%		WALKWAYS & PATIOS*		0	PAVERS	0%	1.0	0	0%	
TREATMENT		0	PROPRIETARY	0%	0.1	0	0%	TREATMENT		0	PROPRIETARY	0%	0.1	0	0%		
TOTAL DMA AREA		30,268	35% OF TOTAL AREA	100%	SEE SWQMP FOR SITE SPECIFIC POLLUTION CONTROL & FLOW CONTROL	SIZING FACTOR	MINIMUM AREA	TOTAL DMA AREA		4	0% OF TOTAL AREA	100%	SEE SWQMP FOR SITE SPECIFIC POLLUTION CONTROL & FLOW CONTROL	SIZING FACTOR	MINIMUM AREA		
TOTAL DMA AREA						23,278	0.04	931	TOTAL DMA AREA						0	0.04	

* AREA RTESERVED FOR WALKWAYS AND PATIOS TO BE SHOWN ON FINAL PLANS

ATTACHMENT 1
TM Plans

VISTA WAY HOMES



PARKING SCHEDULE		
UNIT NO.	GARAGE	DETACHED
1	2	1
2	4	3
3	6	5
4	7	8
5	9	10
6	11	40
7	12	13
8	14	15
9	16	17
10	18	19
11	20	21
12	22	23
13	25	24
14	26	39
15	27	28
16	29	32
17	30	33
18	31	34
UNASSIGNED PARKING SPACES 35-38		

General Notes

- THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)
- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED PUBLIC STREET DEDICATION: Q AC
 - PROPOSED PRIVATE STREET AREA: Q AC
 - TOTAL NUMBER OF EXISTING LOTS: 1
 - TOTAL NUMBER OF PROPOSED LOTS: 1
 - TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
 - PROPOSED PARKING:
 - ATTACHED GARAGE SPACE PER UNIT=18
 - UNATTACHED STANDARD PARKING SPACES (18'x9')=20
 - UNATTACHED COMPACT PARKING SPACES (18'x8')=2
 - VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
 - TOTAL PARKING SPACES PROPOSED=42
 - PARKING SPACES PER UNIT=2.33
 - ASSESSOR'S PARCEL NUMBER: 165-493-47
 - SITE ADDRESS: 3710 VISTA WAY OCEANSIDE, CA 92056
 - PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7680, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
 - EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
 - PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
 - EXISTING ZONING: RM-A
 -
 - PROPOSED DENSITY: 18/1.97=9.14 DU/AC
 - STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
 - BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: BUEN 88
CITY OF OCEANSIDE #1024
 - SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
 - TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
 - THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7680 I.E. NORTH 69°04'36" EAST.
 - MAXIMUM SLOPE GRADIENT: 2:1
 - AREA/PERCENT OF SITE IN DRIVEWAYS & PARKING: 22,588 SF OR 26%
 - MINIMUM REQUIRED OPEN SPACE IS 300 SF PER UNIT=18x300=5,400 SF
COMMON OPEN SPACE IS LOCATED IN TWO AREAS OF 1,521 SF+1,203 SF=2,724 SF
EACH UNIT WILL HAVE A MINIMUM OF 150 SF OF PRIVATE OPEN SPACE
 - AREA/PERCENT OF SITE IN LANDSCAPING: 28,588 SF OR 33%
AREA/PERCENT OF SITE IN PAVERS: 27,815 SF OR 32%
 - ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT)
CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y.
NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
 - GRADED AREA: 1.63 AC=82% OF SITE
 - FOR PROPOSED FENCING & SIGNAGE SEE LANDSCAPE PLANS FOR THIS PROJECT.
 - FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G DATED: 2/16/12
 - SOLAR ACCESS: ALL LOTS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF 100 SQUARE FEET OF SOLAR ACCESS FOR EACH FUTURE DWELLING ALLOWED BY THIS SUBDIVISION.
 - RENEWABLE ENERGY: SECTION 3047 OF THE ZONING ORDINANCE WILL BE A CONDITIONED FOR THIS PROJECT

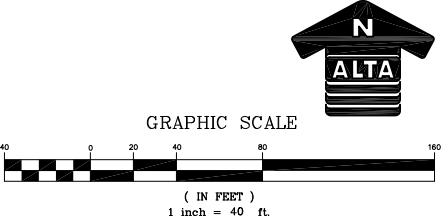
TRANSPORTATION NOTES:

- PAINTED MEDIA FROM BUENA HILLS DRIVE TO NORTH WAY YELLOW STRIPING.
- VEHICLE WILL ONLY BE PERMITTED TO TURN RIGHT WHEN EXITING THE COMMUNITY. PROJECT TO INSTALL A RIGHT TURN PORK CHOP (RIGHT TURN SLIP LANE) FOR DRIVEWAY EXIT. ADA COMPLIANCE IS REQUIRED.

	SITE AREA IN AC	SITE DENSITY DU/AC	GENERAL PLAN	ZONING	LANDSCAPING
EXISTING	1.97	0	RESIDENTIAL	RM-A	VACANT
PROPOSED	1.97	9.14	RESIDENTIAL SINGLE-FAMILY	RM-A	40%

UNIT #	BUILD. AREA IN SF	SETBACKS
1, 14-18	1,069	REAR 15'
2-12	1,089	SIDE 15'
13	1,114	FRONT 20'
18 UNITS TOTAL		

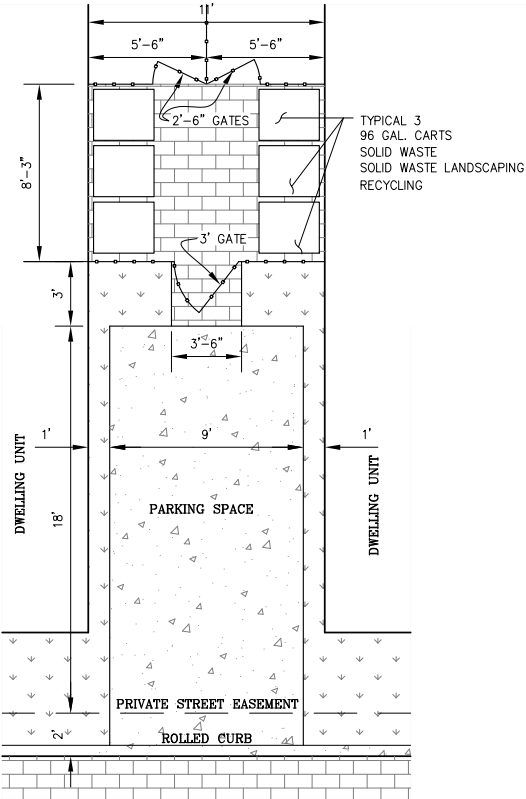
AFFORDABLE HOUSING
UNITS 16, 17 & 18 ARE PROPOSED TO BE AFFORDABLE. THE AFFORDABLE HOUSING UNITS FOR THIS SITE. 3/18=16.7% OF THE PROPOSED DWELLINGS FOR THIS SITE WILL BE AFFORDABLE HOUSING.



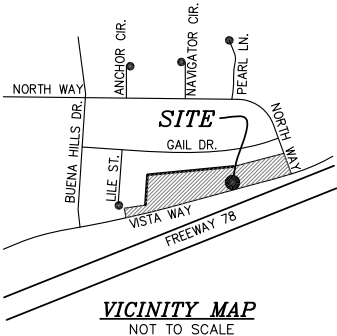
LEGEND:

- BOUNDARY-----
CENTERLINE-----
RIGHT-OF-WAY-----
EXISTING LOT LINE-----
SETBACK LINE-----
EXISTING CURB & GUTTER-----
EXISTING WATER-----
EXISTING SEWER-----
EXISTING FENCE-----
EXISTING RETAINING WALL-----
EXISTING CONCRETE-----
EXISTING AC PAVING-----
EXISTING CONTOUR LINE-----
EXISTING ELEVATION-----
EXISTING FIRE HYDRANTS-----
EXISTING STREET SIGN-----
EXISTING WATER SERVICE W/ EX. BACKFLOW-
PREVENTER TO BE USED FOR IRRIGATION
PROPOSED 2" WATER SERVICE-----
W/ BACKFLOW PREVENTER
PROPOSED 8" FIRE SERVICE-----
FOR PVT. FIRE HYDRANT
PROPOSED 1" WATER SERVICE W/-----
PRIVATE WATER METER TO BE MAINTAINED BY HOA
PROPOSED PRIVATE 4"SEWER LATERAL-----
8" PRIVATE SEWER MAIN W/ SEWER MH-----
PARKING SPACE NUMBER-----
PROPOSED G-2 CURB & GUTTER-----
PROPOSED G-1 GUTTER-----
PROPOSED ROLLED CURB-----
PROPOSED FENCE-----
SEE LANDSCAPE PLANS FOR DETAILS

- PROPOSED LANDSCAPING-----
PROPOSED CONCRETE-----
PROPOSED AC PAVING-----
PROPOSED PAVER-----
TRENCH RESURFACING M_3A-----
PROPOSED WATER STORAGE
SEE SWOMP FOR DETAILS
PROPOSED RETAINING WALL-----
2:1 SLOPE-----
DAYLIGHT LINE-----
DIRECTION OF FLOW-----
(PVT.) PROPOSED STORM DRAIN-----
CURB OUTLET PER D-25A-----
(PVT.) PROPRIETARY TREATMENT UNIT
PER DETAIL ON SHEET NO. 10
(PVT.)MODIFIED TYPE A-4 CLEANOUT-----
W/SUMP PUMP
(PVT.) 3636 OR 1818 BROOKS BOX-----
W/ TRAFFIC GRATE PER DETAILS ON SHEET 11
(PVT.) 2424 BROOKS BOX W/-----
PARKWAY GRATE PER DETAILS ON SHEET 11
AREA DRAIN PER DETAIL ON SHEET 10-----



TYPICAL SOLID WASTE DETAIL
UNITS 1-12 (CART SERVICE)
SCALE 1"=4'



EXISTING EASEMENTS NOTES

SEE SHEET NO. 2 FOR LOCATIONS
THE FOLLOWING EASEMENTS ARE SHOWN ON THE TITLE REPORT
PREPARED BY FIRST NATIONAL TITLE, ORDER NO. 00147440-996-
AND SD1-CF2 DATED FEBRUARY 25, 2012 EASEMENTS SHOWN HEREON
USE THE SAME ITEMS NUMBERS AS REFERENCED IN SAID REPORT.

SHEET INDEX

TENTATIVE PARCEL MAP	SHEET 1
SITE TOPO & EX. EASEMENTS	SHEET 2
FIRE ACCESS PLAN, ADA ACCES.....	SHEET 3
& TYPICAL STREET SECTIONS	
CONCEPT WATER & SEWER PLANS.....	SHEET 4-5
CONCEPT GRADING PLAN.....	SHEET 6-7
CONCEPT SECTIONS AND DRIVEWAY "B"	SHEET 8
PRIVATE STREET "A" PROFILE & SITE SECTIONS	
CONCEPT STORM DRAIN PROFILES	SHEET 9
CONCEPT STORM WATER DETAILS	SHEET 10
MISC. DETAILS	SHEET 11
DMA PLAN REFERENCE ONLY.....	SHEET 12

ENGINEER OF WORK

BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST, 2022

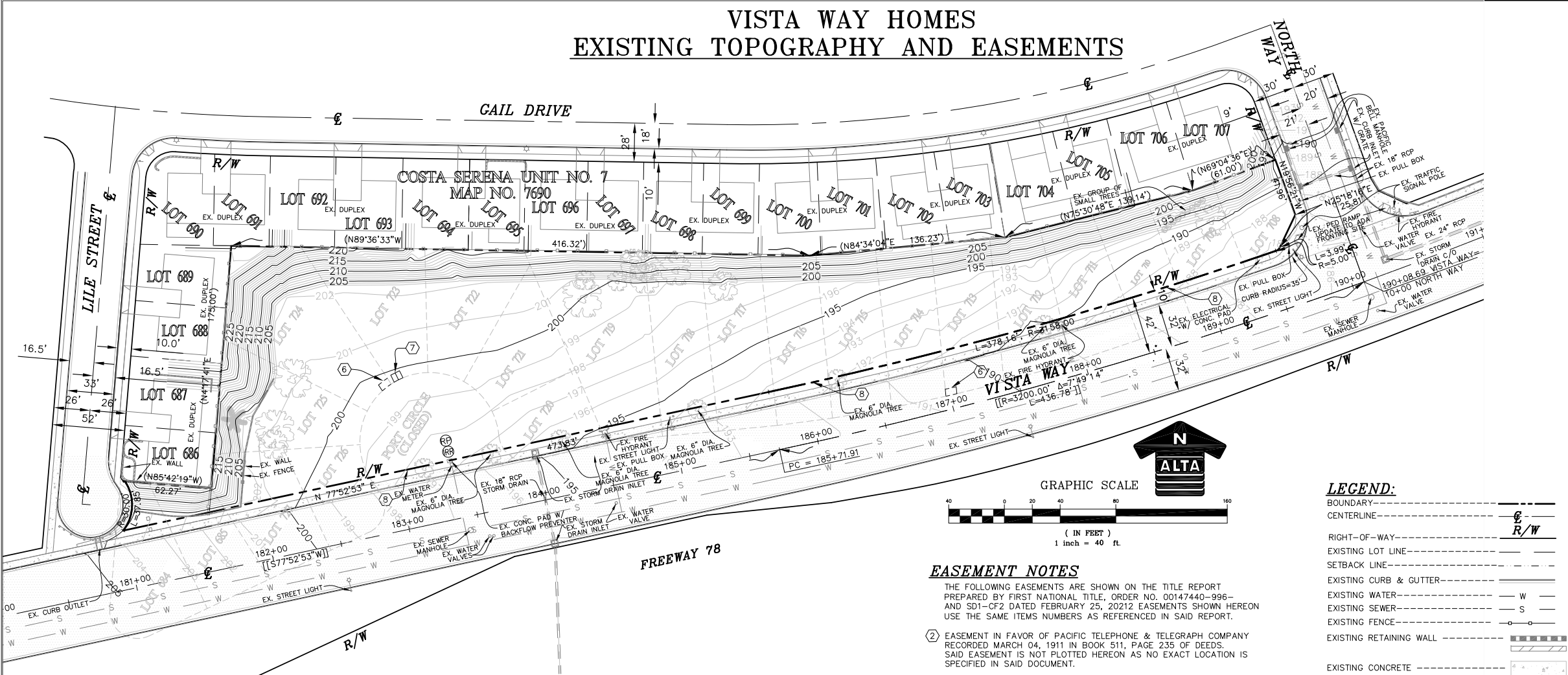
OWNER

OWNER: NEPTUNE INVESTMENTS, LLC
ADDRESS: POB BOX 9890
RANCHO SANTA FE, CA 92067
TELEPHONE: (858) 401-9090
E-MAIL: rezashera@gmail.com

BY: REZA SHERA

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, Escondido, CA 92021 (619) 748-8618 Fax (619) 748-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

VISTA WAY HOMES
EXISTING TOPOGRAPHY AND EASEMENTS



EASEMENT NOTES

- THE FOLLOWING EASEMENTS ARE SHOWN ON THE TITLE REPORT PREPARED BY FIRST NATIONAL TITLE, ORDER NO. 00147440-996- AND SD1-CF2 DATED FEBRUARY 25, 20212 EASEMENTS SHOWN HEREON USE THE SAME ITEMS NUMBERS AS REFERENCED IN SAID REPORT.
- (2) EASEMENT IN FAVOR OF PACIFIC TELEPHONE & TELEGRAPH COMPANY RECORDED MARCH 04, 1911 IN BOOK 511, PAGE 235 OF DEEDS. SAID EASEMENT IS NOT PLOTTED HEREON AS NO EXACT LOCATION IS SPECIFIED IN SAID DOCUMENT.
- (6) EASEMENT IN FAVOR OF THE SAN DIEGO GAS & ELECTRIC COMPANY RECORDED AUGUST 14, 1973 AS DOCUMENT NO. 73-226902 OF OFFICIAL RECORDS.
- (7) EASEMENT IN FAVOR OF THE SAN DIEGO GAS & ELECTRIC COMPANY RECORDED DECEMBER 10, 1976 AS DOCUMENT NO. 76-414701 OF OFFICIAL RECORDS.
- (8) AN EASEMENT FOR PUBLIC STREET AND HIGHWAY IN FAVOR OF THE CITY OCEANSIDE PER DOCUMENT RECORDED FEBRUARY 26, 2002 AS DOCUMENT NO. 2002-0159406 OF OFFICIAL RECORDS. THE NORTH LINE OF SAID DOCUMENT IS THE SOUTH LINE OF THIS PROJECT SITE.

LEGEND:

BOUNDARY-----	
CENTERLINE-----	
RIGHT-OF-WAY-----	
EXISTING LOT LINE-----	
SETBACK LINE-----	
EXISTING CURB & GUTTER-----	
EXISTING WATER-----	
EXISTING SEWER-----	
EXISTING FENCE-----	
EXISTING RETAINING WALL-----	
EXISTING CONCRETE-----	
EXISTING AC PAVING-----	
EXISTING CONTOUR LINE-----	
EXISTING ELEVATION-----	
EXISTING FIRE HYDRANTS-----	
EXISTING STREET SIGN-----	

General Notes

- THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)
1. EXISTING GROSS SUBDIVISION AEREA: 1.97 AC
2. PROPOSED GROSS SUBDIVISION AEREA: 1.97 AC
9. ASSESSOR'S PARCEL NUMBER: 165-493-47
10. SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
11. PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
18. BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
19. SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
20. TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
21. THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
28. FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0786G DATED: 5/16/12

ENGINEER OF WORK

BARTOLOME J. PASTOR, RCE 38606

DATED: AUGUST, 2022



T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, E. Oceanside, CA 92021 (619) 748-8616 Fax (619) 748-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
- TOTAL NUMBER OF EXISTING LOTS: 1
- TOTAL NUMBER OF PROPOSED LOTS: 1
- TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
- PROPOSED PARKING:
 - 1 ATTACHED GARAGE SPACE PER UNIT=18
 - UNATTACHED STANDARD PARKING SPACES (18'x9')=20
 - UNATTACHED COMPACT PARKING SPACES (14'x8')=2
 - VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
 - TOTAL PARKING SPACES PROPOSED=42
 - PARKING SPACES PER UNIT=2.33
- ASSESSOR'S PARCEL NUMBER: 165-493-47
- SITE ADDRESS: 3710 VISTA WAY OCEANSIDE, CA 92056
- PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
- EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
- PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
- EXISTING ZONING: RM-A
- PROPOSED DENSITY: 18/1.97=9.14 DU/AC
- STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
- FOR PROPOSED FENCING SEE LANDSCAPE PLANS FOR THIS PROJECT.

FIRE NOTES:

- ALL HOMES ARE REQUIRED TO HAVE FIRE SPRINKLERS PER NFPA 13.
- WATER METER SIZE TO BE DETERMINED BY FIRE SPRINKLER DEMAND.
- FIRE ACCESS ROADWAYS SHALL BE A MINIMUM 28' WIDE WITH NO PARKING SIGNS POSTED ON EITHER SIDE OF THE STREET.
- TURNING RADIUS SAHLE BE 30' INSIDE AND 50' OUTSIDE.
- ADDRESSES SHALL BE 4' IN HEIGHT AND VISIBLE FROM STREET WITH CONTRASTING COLORS.
- SMOKE AND CARBON MONOXIDE ALARMS REQUIRED PER 2019 CALIFORNIA FIRE CODE, CALIFORNIA BUILDING CODE AND CALIFORNIA RESIDENTIAL CODE.
- KNOX KEY SWITCH AND OPTICOM REQUIRED FOR SITE ACCESS GATES.
- HYDRANTS MUST BE WITH 400' OF WTERIOR WALLS OF THE STRUCTURE. HYDRANTS ARE PRIVATE ON A LOOPED PUBLIC WATER MAIN.
- ALL DRIVEWAY SURFACES WILL BE DESIGNED FOR H-20 LOADING.
- (2) PRIVATE FIRE HYDRANTS WITH PRIVATE FIRE SERVICE LATERALS ARE PROPOSED FOR THIS PROJECT.
- FIRE MASTER PLAN IS REQUIRED AS PART OF FINAL DESIGN.
- PRIOR TO DELIVERY OF COMBUSTIBLE MATERIALS OR START OF COMBUSTIBLE CONSTRUCTION, PAVED VEHICLE ACCESS ROADS CAPABLE OF SUPPORTING VEHICLE LOADING (78,000 LBS) MUST BE INSTALLED. IN ADDITION THE APPROVED, PERMANENT WATER SUPPLY (FIRE HYDRANTS MUST BE INSTALLED, TESTED AND PLACED IN SERVICE PRIOR TO DELIVERY OF COMBUSTIBLE MATERIALS OR START OF COMBUSTIBLE CONSTRUCTION.
- PRE-CON MEETING WILL ALSO BE REQUIRED PRIOR TO COMBUSTIBLES BEING DROPPED ON SITE.
- THE CITY OF OCEANSIDE IS IN THE PROCESS OF IMPLEMENTING A CITYWIDE CFD IT IS EXPECTED THAT THIS PROJECT WILL BE REQUIRED TO ANNEX INTO THE CFD S A CONDITION OF APPROVAL.

ENGINEER OF WORK

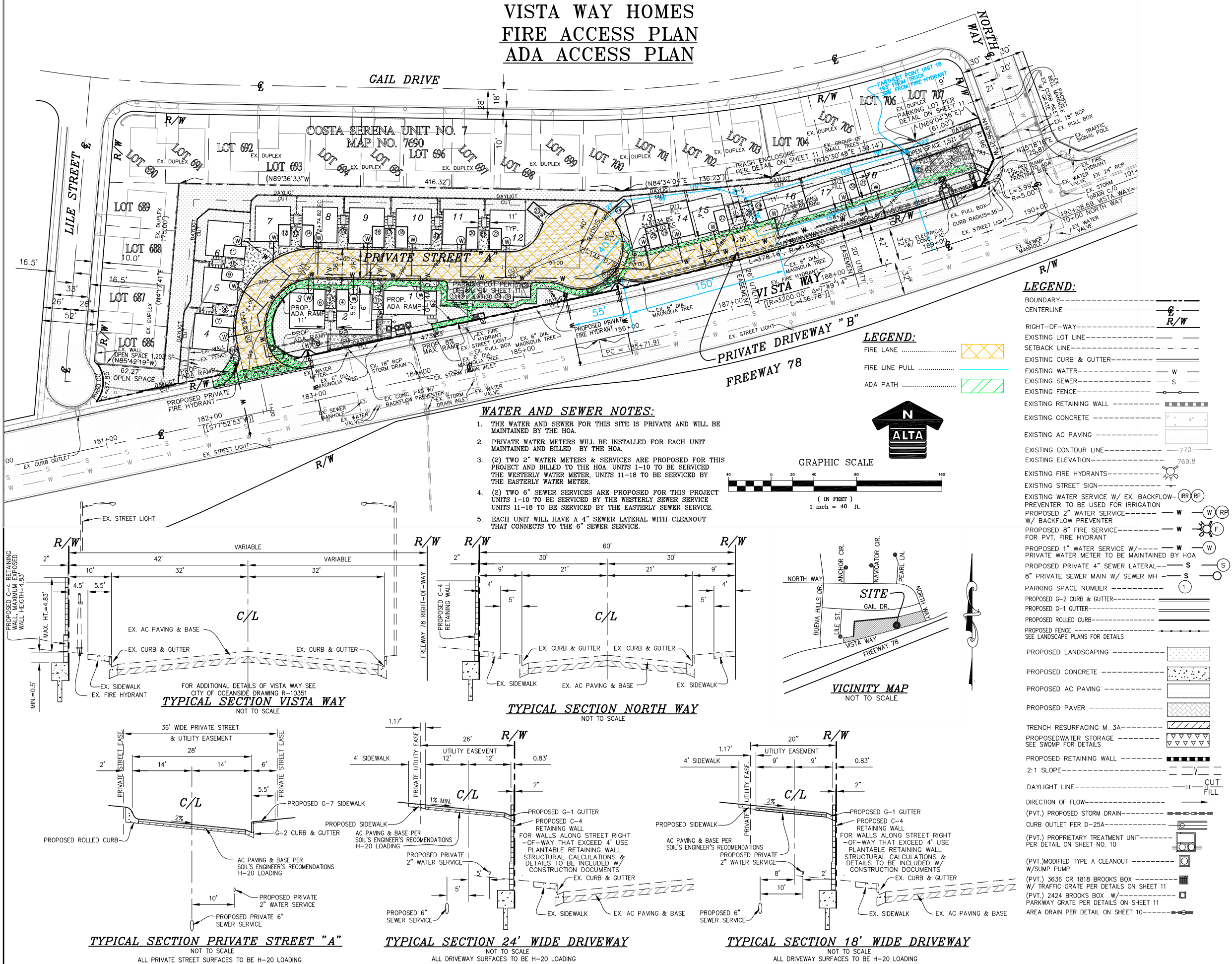
BARTOLOME J. PASTOR, RCE 35606
DATED: AUGUST 2022



T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 100, E. Oceanside, CA 92031 (619) 749-8618 Fax (619) 749-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

VISTA WAY HOMES
FIRE ACCESS PLAN
ADA ACCESS PLAN



General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED PUBLIC STREET DEDICATION: 0 AC
- PROPOSED PRIVATE STREET AREA: 0 AC
- TOTAL NUMBER OF EXISTING LOTS: 1
- TOTAL NUMBER OF PROPOSED LOTS: 1
- TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
- PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (18'x8')=2
VAN ACCESSABLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
- ASSESSOR'S PARCEL NUMBER: 165-493-47
- SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
- PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
- EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
- PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
- EXISTING ZONING: RM-A
-
- PROPOSED DENSITY: 18/1.97=9.14 DU/AC
- STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
- BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
- SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
- TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
- THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
- MAXIMUM SLOPE GRADIENT: 2:1
- AREA/PERCENT OF SITE IN DRIVEWAYS & PARKING: 22,588 SF OR 26%
- AREA/PERCENT OF SITE IN OPEN SPACE: 0
- AREA/PERCENT OF SITE IN LANDSCAPING: 37,993 OR 44%
- FOR PROPOSED FENCING & SIGNAGE SEE LANDSCAPE PLANS
- PLANS FOR THIS PROJECT.
- FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G DATED: 5/16/12

ENGINEER OF WORK

BARTOLOME J. PASTOR, RCE 38606

DATED: AUGUST ,2022



T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS

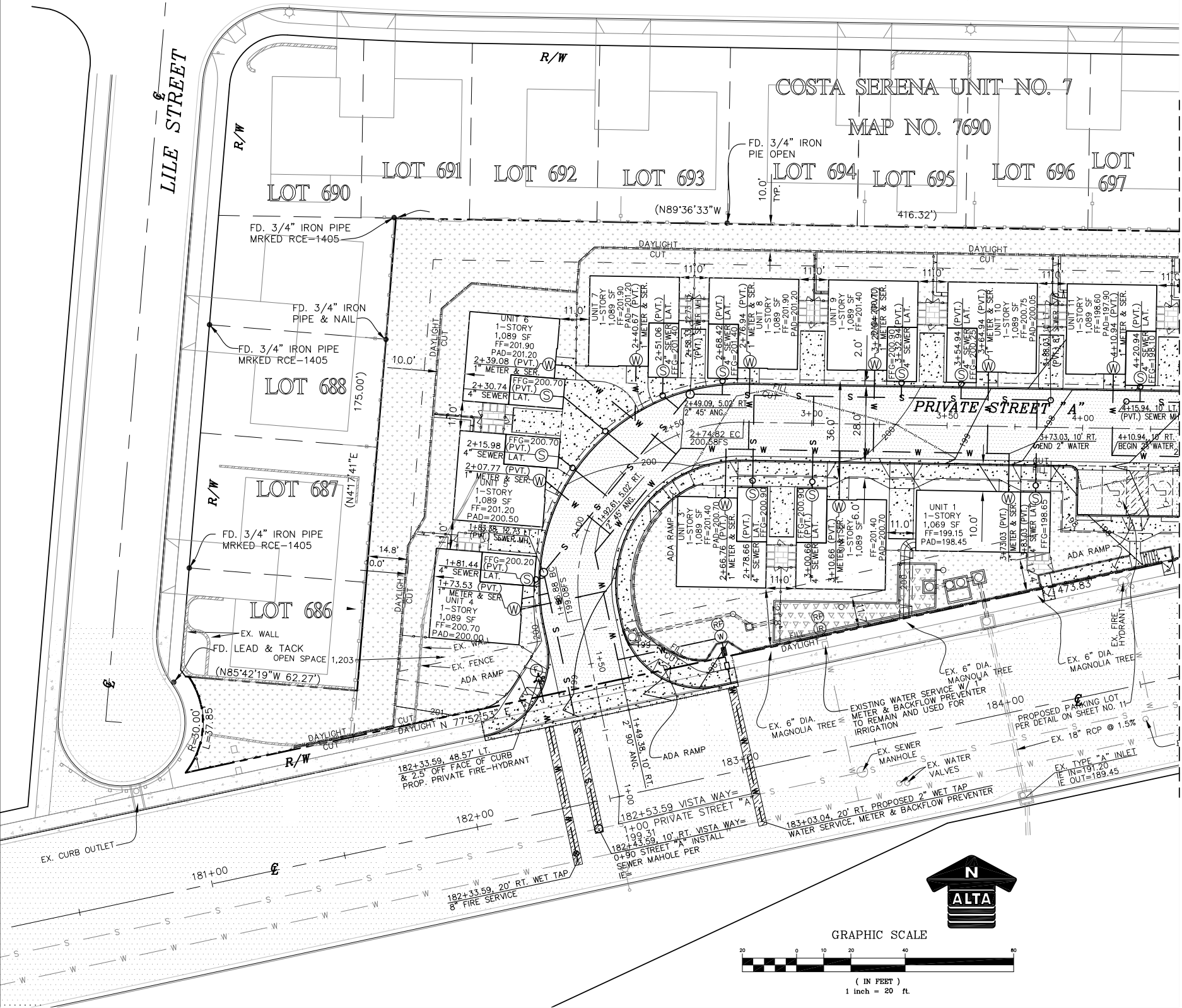
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, Escondido, CA 92021 (619) 748-8618 Fax (619) 748-8618
JOB NO. 499-01, DATAUGUST 31, 2022

VISTA WAY HOMES
CONCEPT SEWER & WATER PLAN

GAIL DRIVE

COSTA SERENA UNIT NO. 7

MAP NO. 7690



MATCH LINE SEE SHEET NO. 5

WATER NOTES:

- CPC 2013, SECTION 603.5.11: NO RECLAIMED WATER IS AVAILABLE FOR THIS PROJECT. NO RECLAIMED WATER IS PROPOSED FOR THIS PROJECT.
- CPC 2013, SECTION 603.5.11: NO RECLAIMED WATER IS AVAILABLE FOR THIS PROJECT. THERE ARE NO CONNECTIONS TO NON-POTABLE WATER.
- CPC 2013, SECTION 601.2: IDENTIFICATION OF POTABLE AND NON-POTABLE WATER SYSTEM (NO NON-POTABLE WATER SYSTEM IN THIS PROJECT) EACH SYSTEM SHALL BE COLOR COATED AS FOLLOWS:
 - POTABLE WATER: GREEN BACKGROUND WITH WHITE LETTERING
 - NON-POTABLE WATER: YELLOW BACKGROUND WITH BLACK LETTERING WITH THE WORDS "CAUTION: NON-POTABLE WATER, DO NOT DRINK". "A UNIVERSAL POISON SYMBOL OF SKULL AND CROSSBONES SHALL BE PROVIDED" [HCD 1 & 2]
- 601.2.2 MINIMUM LENGTH OF COLOR FIELD AND SIZE OF LETTERS, SEE TABLE
- RECLAIMED WATER: PURPLE IN COLOR (PANTONE #512) AND SHALL BE IMPRINTED IN NORMAL 1/2 INCH HIGH, BLACK, UPPER CASE LETTERS, WITH THE WORDS "CAUTION: RECLAIMED WATER, DO NOT DRINK". "A UNIVERSAL POISON SYMBOL OF SKULL AND CROSSBONES SHALL BE PROVIDED" [HCD 1 & 2]
- CPC 2013, SECTION 611.1: WATER TREATMENT UNITS, REVERSE OSMOSIS DRINKING WATER TREATMENT UNITS SHALL MEET THE REQUIREMENTS OF THE APPROPRIATE STANDARDS) REFERENCED IN TABLE 611.4. WASTE DISCHARGE FROM REVERSE OSMOSIS OR OTHER TYPES OF WATER TREATMENT UNITS SHALL ENTER THE DRAINAGE SYSTEM THROUGH AN AIRGAP.
- CPC 2013, SECTION 603.3: APPROVAL OF BACKFLOW DEVICES OR ASSEMBLIES, BEFORE ANY DEVICE OR ASSEMBLY IS INSTALLED FOR THE PREVENTION OF BACKFLOW, IT SHALL FIRST BE APPROVED BY THE AUTHORITY HAVING JURISDICTION. DEVICES OR ASSEMBLIES SHALL BE TESTED FOR CONFORMING RECOGNIZED STANDARDS OR OTHER STANDARDS ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION THAT ARE CONSISTENT WITH THE INTENT OF THIS CODE.
 - TESTING OF BACKFLOW DEVICES OR ASSEMBLIES SHALL BE PERFORMED BY A CERTIFIED BACKFLOW ASSEMBLY CHECKER (CPC SECTION 603.2).
 - COPIES OF TESTING OF BACKFLOW DEVICES OR ASSEMBLIES SHALL BE PROVIDED.
- PRIVATE WATER METERS WILL BE INSTALLED FOR EACH PROPOSED UNIT. THESE PRIVATE WATER METERS WILL BE MAINTAINED AND MANAGED BY THE HOA FOR THIS PROJECT.
- THERE ARE (2) 2" PUBLIC WATER METERS PROPOSED FOR THIS SITE. THE PROPOSED 2" WATER METER AT STA. 183+04.04 SERVES UNITS 1-10. THE PROPOSED 2" WATER METER AT STA. 185+99.64 SERVES UNITS 11-18.
- PUBLIC WATER METERS SHALL A MINIMUM 3' SPACING / CLEARANCE ALL AROUND METER FOR MAINTENANCE
- FIRE HYDRANTS SHALL A MINIMUM 5' SPACING / CLEARANCE ALL AROUND FIRE HYDRANTS FOR MAINTENANCE

LEGEND:

BOUNDARY	---
CENTERLINE	---
RIGHT-OF-WAY	---
EXISTING LOT LINE	---
SETBACK LINE	---
EXISTING CURB & GUTTER	---
EXISTING WATER	---
EXISTING SEWER	---
EXISTING FENCE	---
EXISTING RETAINING WALL	---
EXISTING CONCRETE	---
EXISTING AC PAVING	---
EXISTING CONTOUR LINE	---
EXISTING ELEVATION	---
EXISTING FIRE HYDRANTS	---
EXISTING STREET SIGN	---
EXISTING WATER SERVICE W/ EX. BACKFLOW PREVENTER TO BE USED FOR IRRIGATION	---
PROPOSED 2" WATER SERVICE W/ BACKFLOW PREVENTER	---
PROPOSED 8" FIRE SERVICE FOR PVT. FIRE HYDRANT	---
PROPOSED 1" WATER SERVICE W/ PRIVATE WATER METER TO BE MAINTAINED BY HOA	---
PROPOSED PRIVATE 4" SEWER LATERAL	---
8" PRIVATE SEWER MAIN W/ SEWER MH	---
PARKING SPACE NUMBER	---
PROPOSED G-2 CURB & GUTTER	---
PROPOSED G-1 GUTTER	---
PROPOSED ROLLED CURB	---
PROPOSED FENCE	---
SEE LANDSCAPE PLANS FOR DETAILS	---
PROPOSED LANDSCAPING	---
PROPOSED CONCRETE	---
PROPOSED AC PAVING	---
PROPOSED PAVER	---
TRENCH RESURFACING M.3A	---
PROPOSED WATER STORAGE SEE SWOMP FOR DETAILS	---
PROPOSED RETAINING WALL	---
2:1 SLOPE	---
DAYLIGHT LINE	---
DIRECTION OF FLOW	---
(PVT.) PROPOSED STORM DRAIN	---
CURB OUTLET PER D-25	---
(PVT.) PROPRIETARY TREATMENT UNIT PER DETAIL ON SHEET NO. 10	---
(PVT.) MODIFIED TYPE A CLEANOUT W/SUMP PUMP	---
(PVT.) 3636 OR 1818 BROOKS BOX W/ TRAFFIC GRATE PER DETAILS ON SHEET 11	---
(PVT.) 2424 BROOKS BOX W/ PARKWAY GRATE PER DETAILS ON SHEET 11	---
AREA DRAIN PER DETAIL ON SHEET 10	---

General Notes

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- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED PUBLIC STREET DEDICATION: 0 AC
- PROPOSED PRIVATE STREET AREA: 0 AC
- TOTAL NUMBER OF EXISTING LOTS: 1
- TOTAL NUMBER OF PROPOSED LOTS: 1
- TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18

- PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x8')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
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- EXISTING ZONING: RM-A
-
- PROPOSED DENSITY: 18/1.97=9.14 DU/AC
- STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
- BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
- SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
- TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
- THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
- MAXIMUM SLOPE GRADIENT: 2:1
- AREA/PERCENT OF SITE IN DRIVEWAYS & PARKING: 22,588 SF OR 26%
- AREA/PERCENT OF SITE IN OPEN SPACE: 0
- AREA/PERCENT OF SITE IN LANDSCAPING: 37,993 OR 44%
- ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT) CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y. NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
- GRADED AREA: 1.63 AC=82% OF SITE
- FOR PROPOSED FENCING & SIGNAGE SEE LANDSCAPE PLANS FOR THIS PROJECT.
- FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0786G DATED: 5/16/12

ENGINEER OF WORK

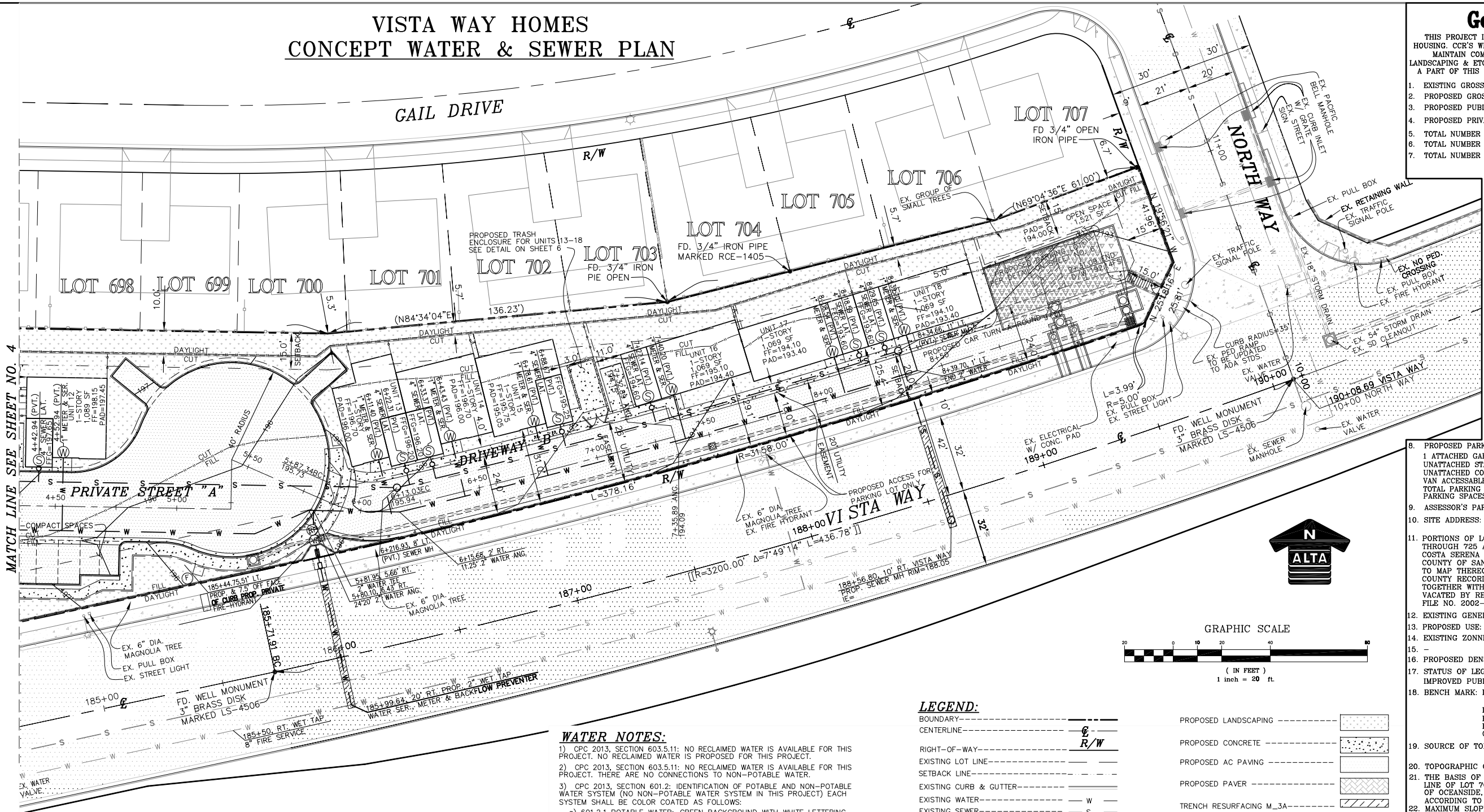
BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST, 2022



D21-00005
T21-00002 DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, Escondido, CA 92021 (619) 748-8618 Fax (619) 748-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

VISTA WAY HOMES
CONCEPT WATER & SEWER PLAN



MATCH LINE SEE SHEET NO. 4

WATER NOTES:

- CPC 2013, SECTION 603.5.11: NO RECLAIMED WATER IS AVAILABLE FOR THIS PROJECT. NO RECLAIMED WATER IS PROPOSED FOR THIS PROJECT.
- CPC 2013, SECTION 603.5.11: NO RECLAIMED WATER IS AVAILABLE FOR THIS PROJECT. THERE ARE NO CONNECTIONS TO NON-POTABLE WATER.
- CPC 2013, SECTION 601.2: IDENTIFICATION OF POTABLE AND NON-POTABLE WATER SYSTEM (NO NON-POTABLE WATER SYSTEM IN THIS PROJECT) EACH SYSTEM SHALL BE COLOR COATED AS FOLLOWS:
 - 601.2.1 POTABLE WATER: GREEN BACKGROUND WITH WHITE LETTERING
 - NON-POTABLE WATER: YELLOW BACKGROUND WITH BLACK LETTERING WITH THE WORDS "CAUTION: NON-POTABLE WATER, DO NOT DRINK". "A UNIVERSAL POISON SYMBOL OF SKULL AND CROSSBONES SHALL BE PROVIDED" [HCD 1 & 2]
 - 601.2.2 MINIMUM LENGTH OF COLOR FIELD AND SIZE OF LETTERS, SEE TABLE
- CPC 2013, SECTION 611.1: WATER TREATMENT UNITS, REVERSE OSMOSIS DRINKING WATER TREATMENT UNITS SHALL MEET THE REQUIREMENTS OF THE APPROPRIATE STANDARDS) REFERENCED IN TABLE 611.4. WASTE DISCHARGE FROM REVERSE OSMOSIS OR OTHER TYPES OF WATER TREATMENT UNITS SHALL ENTER THE DRAINAGE SYSTEM THROUGH AN AIRGAP.
- CPC 2013, SECTION 603.2: APPROVAL OF BACKFLOW DEVICES OR ASSEMBLIES, BEFORE ANY DEVICE OR ASSEMBLY IS INSTALLED FOR THE PREVENTION OF BACKFLOW, IT SHALL FIRST BE APPROVED BY THE AUTHORITY HAVING JURISDICTION. DEVICES OR ASSEMBLIES SHALL BE TESTED FOR CONFORMING RECOGNIZED STANDARDS OR OTHER STANDARDS ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION THAT ARE CONSISTENT WITH THE INTENT OF THIS CODE.
 - TESTING OF BACKFLOW DEVICES OR ASSEMBLIES SHALL BE PERFORMED BY A CERTIFIED BACKFLOW ASSEMBLY CHECKER (CPC SECTION 603.2).
 - COPIES OF TESTING OF BACKFLOW DEVICES OR ASSEMBLIES SHALL BE PROVIDED.
- PRIVATE WATER METERS WILL BE INSTALLED FOR EACH PROPOSED UNIT. THESE PRIVATE WATER METERS WILL BE MAINTAINED AND MANAGED BY THE HOA FOR THIS PROJECT.
- THERE ARE (2) 2" PUBLIC WATER METERS PROPOSED FOR THIS SITE. THE PROPOSED 2" WATER METER AT STA. 183+04.04 SERVES UNITS 1-10. THE PROPOSED 2" WATER METER AT STA. 185+99.64 SERVES UNITS 11-18
- PUBLIC WATER METERS SHALL A MINIMUM 3' SPACING / CLEARANCE ALL AROUND METER FOR MAINTENANCE
- FIRE HYDRANTS SHALL A MINIMUM 5' SPACING / CLEARANCE ALL AROUND FIRE HYDRANTS FOR MAINTENANCE

LEGEND:

- BOUNDARY -----
- CENTERLINE -----
- RIGHT-OF-WAY -----
- EXISTING LOT LINE -----
- SETBACK LINE -----
- EXISTING CURB & GUTTER -----
- EXISTING WATER ----- W
- EXISTING SEWER ----- S
- EXISTING FENCE -----
- EXISTING RETAINING WALL -----
- EXISTING CONCRETE -----
- EXISTING AC PAVING -----
- EXISTING CONTOUR LINE ----- 770
- EXISTING ELEVATION ----- 769.8
- EXISTING FIRE HYDRANTS -----
- EXISTING STREET SIGN -----
- EXISTING WATER SERVICE W/ EX. BACKFLOW PREVENTER TO BE USED FOR IRRIGATION ----- W
- PROPOSED 2" WATER SERVICE W/ BACKFLOW PREVENTER ----- W
- PROPOSED 8" FIRE SERVICE ----- W
- FOR PVT. FIRE HYDRANT ----- W
- PROPOSED 1" WATER SERVICE W/ PRIVATE WATER METER TO BE MAINTAINED BY HOA ----- W
- PROPOSED PRIVATE 4" SEWER LATERAL ----- S
- 8" PRIVATE SEWER MAIN W/ SEWER MH ----- S
- PARKING SPACE NUMBER ----- 1
- PROPOSED G-2 CURB & GUTTER -----
- PROPOSED G-1 GUTTER -----
- PROPOSED ROLLED CURB -----
- PROPOSED FENCE -----
- SEE LANDSCAPE PLANS FOR DETAILS

- PROPOSED LANDSCAPING -----
- PROPOSED CONCRETE -----
- PROPOSED AC PAVING -----
- PROPOSED PAVER -----
- TRENCH RESURFACING M_3A -----
- PROPOSED WATER STORAGE SEE SWMP FOR DETAILS -----
- PROPOSED RETAINING WALL -----
- 2:1 SLOPE -----
- DAYLIGHT LINE -----
- DIRECTION OF FLOW -----
- (PVT.) PROPOSED STORM DRAIN -----
- CURB OUTLET PER D-25 -----
- (PVT.) PROPRIETARY TREATMENT UNIT PER DETAIL ON SHEET NO. 10 -----
- (PVT.) MODIFIED TYPE A CLEANOUT W/ SUMP PUMP -----
- (PVT.) 3636 OR 1818 BROOKS BOX W/ TRAFFIC GRATE PER DETAILS ON SHEET 11 -----
- (PVT.) 2424 BROOKS BOX W/ TRAFFIC GRATE PER DETAILS ON SHEET 11 -----
- PARKWAY GRATE PER DETAILS ON SHEET 11 -----
- AREA DRAIN PER DETAIL ON SHEET 10 -----

VISTA WAY HOMES
CONCEPT GRADING PLAN

GAIL DRIVE

COSTA SERENA UNIT NO. 7

MAP NO. 7690

MATCH LINE SEE SHEET NO. 7

LEGEND:

- BOUNDARY-----
CENTERLINE-----
RIGHT-OF-WAY-----
EXISTING LOT LINE-----
SETBACK LINE-----
EXISTING CURB & GUTTER-----
EXISTING WATER-----
EXISTING SEWER-----
EXISTING FENCE-----
EXISTING RETAINING WALL-----
EXISTING CONCRETE-----
EXISTING AC PAVING-----
EXISTING CONTOUR LINE-----
EXISTING ELEVATION-----
EXISTING FIRE HYDRANTS-----
EXISTING STREET SIGN-----
EXISTING WATER SERVICE W/ EX. BACKFLOW PREVENTER TO BE USED FOR IRRIGATION-----
PROPOSED 2" WATER SERVICE W/ BACKFLOW PREVENTER-----
PROPOSED 8" FIRE SERVICE FOR PVT. FIRE HYDRANT-----
PROPOSED 1" WATER SERVICE W/ PRIVATE WATER METER TO BE MAINTAINED BY HOA-----
PROPOSED PRIVATE 4" SEWER LATERAL-----
8" PRIVATE SEWER MAIN W/ SEWER MH-----
PARKING SPACE NUMBER-----
PROPOSED G-2 CURB & GUTTER-----
PROPOSED G-1 GUTTER-----
PROPOSED ROLLED CURB-----
PROPOSED FENCE SEE LANDSCAPE PLANS FOR DETAILS-----
PROPOSED LANDSCAPING-----
PROPOSED CONCRETE-----
PROPOSED AC PAVING-----
PROPOSED PAVES PER DETAIL ON SHEET NO. 10-----
TRENCH RESURFACING M.3A-----
PROPOSED WATER STORAGE SEE SMQMP FOR DETAILS-----
PROPOSED RETAINING WALL-----
2:1 SLOPE-----
DAYLIGHT LINE-----
DIRECTION OF FLOW-----
(PVT.) PROPOSED STORM DRAIN-----
CURB OUTLET PER D-25A-----
(PVT.) PROPRIETARY TREATMENT UNIT PER DETAIL ON SHEET NO. 10-----
(PVT.) MODIFIED TYPE A CLEANOUT W/ SUMP PUMP-----
(PVT.) 3636 OR 1818 BROOKS BOX W/ TRAFFIC GRATE PER DETAILS ON SHEET 11-----
(PVT.) 2424 BROOKS BOX W/ PARKWAY GRATE PER DETAILS ON SHEET 11-----
AREA DRAIN PER DETAIL ON SHEET 10-----

General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
- PROPOSED PUBLIC STREET DEDICATION: 0 AC
- PROPOSED PRIVATE STREET AREA: 0 AC
- TOTAL NUMBER OF EXISTING LOTS: 1
- TOTAL NUMBER OF PROPOSED LOTS: 1
- TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
- PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x8')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
- ASSESSOR'S PARCEL NUMBER: 165-493-47
- SITE ADDRESS: 3710 VISTA WAY OCEANSIDE, CA 92056
- PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
- EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
- PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
- EXISTING ZONING: RM-A
-
- PROPOSED DENSITY: 18/1.97=9.14 DU/AC
- STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
- BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
- SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
- TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
- THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
- MAXIMUM SLOPE GRADIENT: 2:1
- AREA/PERCENT OF SITE IN DRIVEWAYS & PARKING: 22,588 SF OR 26%
- MINIMUM REQUIRED OPEN SPACE IS 300 SF PER UNIT=18x300=5,400 SF
COMMON OPEN SPACE IS LOCATED IN TWO AREAS OF 1,521 SF+1,203 SF=2,724 SF
EACH UNIT WILL HAVE A MINIMUM OF 150 SF OF PRIVATE OPEN SPACE
- AREA/PERCENT OF SITE IN LANDSCAPING: 37,993 SF OR 44%
- ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT)
CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y.
NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
- GRADED AREA: 1.63 AC=82% OF SITE
- FOR PROPOSED FENCING & SIGNAGE SEE LANDSCAPE PLANS FOR THIS PROJECT
- FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G DATED: 2/16/12

ENGINEER OF WORK

BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST, 2022

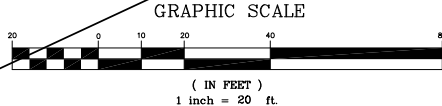


T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, Escondido, CA 92021 (619) 749-8618 Fax (619) 749-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

PRIVATE STORM DRAIN: LINE "A" DATA
SEE SHRT 8 FOR PROFILE

- 1+56.60 PROP. 6" B-1 INLET PER D-2
TC=199.03, FL=199.20, IE=194.86 Q₁₀₀=2.02 CFS
- PROP. 36.21 LF N77°52'53"E OF 12" PVC STORM
DRAIN @ 1.00% Q₁₀₀=2.02 CFS, V₁₀₀=4.68 F/S
- 1+94.81 PROP. AREA DRAIN & 45' ANG. TG=200.70
IE=194.50 Q₁₀₀=0.24 CFS PER DETAIL ON SHEET 10
- PROP. 6.86 LF N57°07'07"E OF 12" PVC STORM
DRAIN @ 1.00% Q₁₀₀=2.27 CFS, V₁₀₀=4.81 F/S
- 2+02.64 PROP. 2424 BROOKS BOX C/O W/
PARKWAY SOLID COVER TG=201.20, IE IN=194.43
IE OUT=194.33 PER DETAIL SHEET 11
- PROP. 8.5' LF N77°52'53"E OF 12" PVC STORM
DRAIN @ 0.50% Q₁₀₀=2.27 CFS, V₁₀₀=3.63 F/S
- PROP. AREA DRAIN TG=200.70 DRAINS DIRECTLY
INTO PROP. UNDERGROUND STORAGE VAULT (UG)
IE=194.16, Q₁₀₀=0.25 CFS PER DETAIL ON SHEET 10
- 2+71.50 PROP. AREA DRAIN TG=198.45
IE=193.99, Q₁₀₀=0.27 CFS PER DETAIL ON SHEET 10
- PROP. 2.0 LF N89°02'30"W OF 4" PVC STORM
DRAIN @ 2.00% Q₁₀₀=0.27 CFS, V₁₀₀=3.66 F/S
- PROP. UNDERGROUND STORAGE VAULT WITH OPEN BOTTM
MINIMUM VOLUME =2,264 CF BOTTOM ELEV.=194
IE IN=194.28, IE OUT=194.0
- PROP. OUTLET CONTROL FL=194.00
- PROP. 4.0 LF N77°52'53"E OF 12" PVC STORM
DRAIN @ 1.00% Q₁₀₀=2.80 CFS, V₁₀₀=5.02 F/S
- 2+80.60 STORMWATER BIO-FILTRATION
SYSTEM BIO-CLEAN UNIT MWS L-8-B-4"-6"-V
RIM=198.95 SEE DETAILS ON SHEET 10
IE IN=193.96, IE OUT=192.63
- PROP. 2.0 LF N77°52'53"E OF 12" PVC STORM



VISTA WAY HOMES
CONCEPT GRADING PLAN

General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

1. EXISTING GROSS SUBDIVISION AREA: 1.97 AC
2. PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
3. PROPOSED PUBLIC STREET DEDICATION: 0 AC
4. PROPOSED PRIVATE STREET AREA: 0 AC
5. TOTAL NUMBER OF EXISTING LOTS: 1
6. TOTAL NUMBER OF PROPOSED LOTS: 1
7. TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18

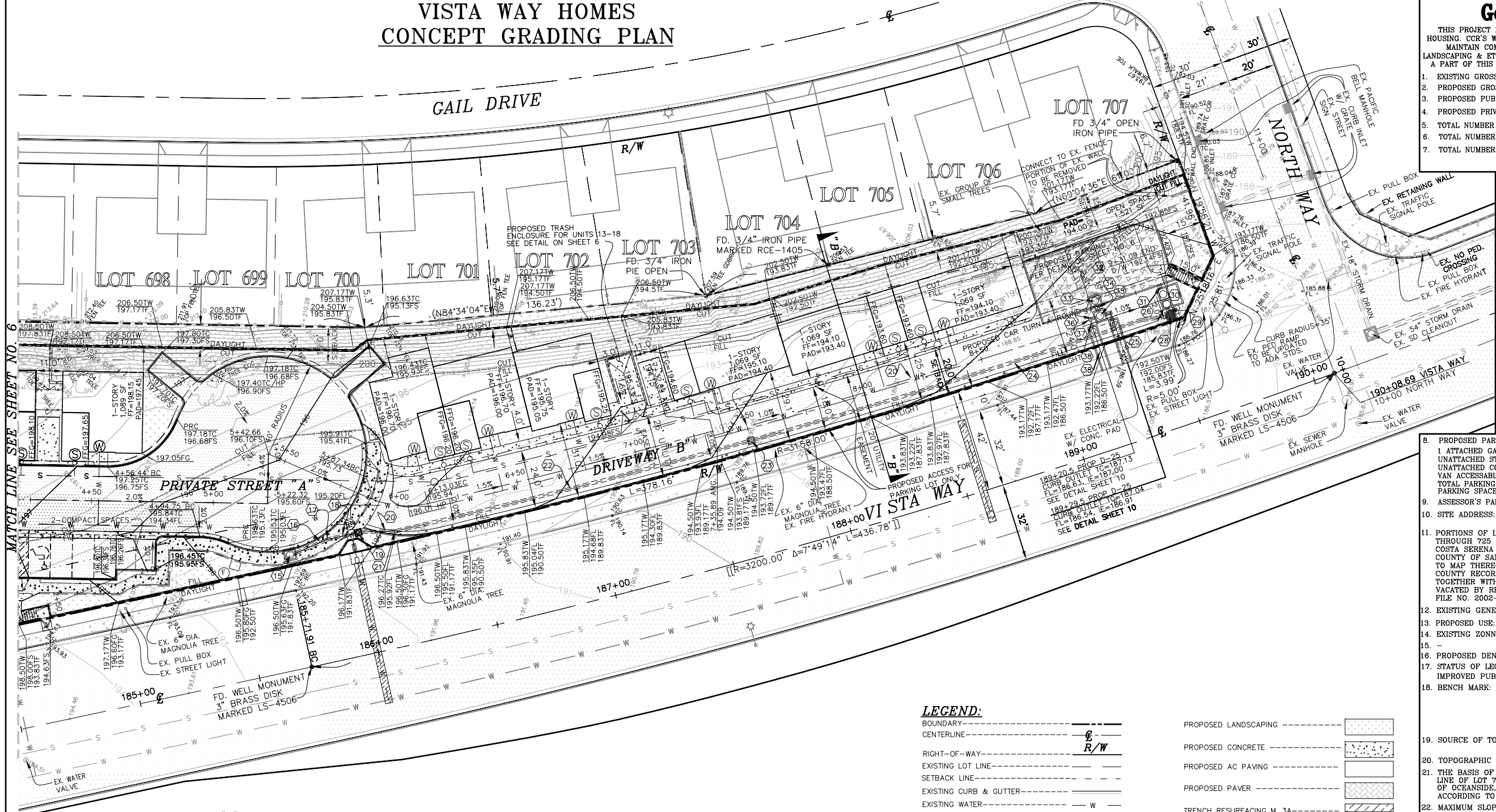
8. PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x8')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
9. ASSESSOR'S PARCEL NUMBER: 165-493-47
10. SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
11. PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
12. EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
13. PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
14. EXISTING ZONING: RM-A
15. -
16. PROPOSED DENSITY: 18/1.97=9.14 DU/AC
17. STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
18. BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
19. SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
20. TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
21. THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
22. MAXIMUM SLOPE GRADIENT: 2:1
23. AREA/PERCENT OF SITE IN DRIVEWAYS & PARKING: 22,588 SF OR 26%
24. MINIMUM REQUIRED OPEN SPACE IS 300 SF PER UNIT=18x300=5,400 SF
COMMON OPEN SPACE IS LOCATED IN TWO AREAS OF 1,521 SF+1,203 SF=2,724 SF
EACH UNIT WILL HAVE A MINIMUM OF 150 SF OF PRIVATE OPEN SPACE
25. AREA/PERCENT OF SITE IN LANDSCAPING: 37,993 SF OR 44%
26. ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT)
CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y.
NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
27. GRADED AREA: 1.63 AC=82% OF SITE
28. FOR PROPOSED FENCING & SIGNAGE SEE LANDSCAPE PLANS FOR THIS PROJECT.
29. FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C07866
DATED: 2/16/12

ENGINEER OF WORK
BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST, 2022

T21-00002 D21-00005 DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, B. Canyon, CA 92001 (919) 749-8618 Fax (919) 749-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

Date: 8/31/2022 SHEET 7 OF 12



- PRIVATE STORM DRAIN: LINE "B" DATA
SEE SHEET 8 FOR PROFILE**
- 15 5+67.28, 34.24' RT. PROP. 5' B INLET PER D-2
TC=195.51, FL=194.68, IE=191.73, Q₁₀₀=3.55 CFS
 - 16 PROP. 14.50 LF N66°37'53"E OF 15" PVC STORM
DRAIN @ 0.50% Q₁₀₀=3.55 CFS, V₁₀₀=4.11 F/S
 - 17 5+78.80, 24.48 RT. PROP. 12" PVC 11.25' ANG
IE=191.85
 - 18 PROP. 12.00 LF N77°23'05"E OF 15" PVC STORM
DRAIN @ 0.50% Q₁₀₀=3.55 CFS, V₁₀₀=4.11 F/S
 - 19 5+88.70, 14.83 RT. PROP. 2424 BROOKS BOX C/O
W/ TRAFFIC COVER RIM=195.80, IE IN=191.59
IE OUT=191.49 PER DETAIL ON SHEET 11
 - 20 PROP. 14.13 LF N88°38'05"E OF 15" PVC STORM
DRAIN @ 0.50% Q₁₀₀=3.55 CFS, V₁₀₀=4.11 F/S
 - 21 5+99.93, 10.70' RT. PROP. 12" PVC 11.25' ANG
IE=191.42
 - 22 PROP. 149.73 LF R=3,153.17' DELTA=02°13'15"E
OF 15" PVC STORM DRAIN @ 0.50% Q₁₀₀=3.55 CFS
V₁₀₀=4.11 F/S
 - 23 7+50, 5.0' RT. PROP. 2424 BROOKS BOX C/O
W/ TRAFFIC COVER RIM=193.97, IE IN=190.67
IE OUT=190.57 PER DETAIL ON SHEET 11
 - 24 PROP. 166.34 LF R=3,153.17' DELTA=03°01'21"E
OF 15" HDPE STORM DRAIN @ 0.50% Q₁₀₀=3.55 CFS
V₁₀₀=4.11 F/S
 - 25 9+17.07, 5.0' RT. PROP. 12" HDPE 11.25' ANG
IE=189.73
 - 26 PROP. 10.83 LF N82°17'43"E OF 15" HDPE STORM
DRAIN @ 0.50% Q₁₀₀=3.55 CFS, V₁₀₀=4.11 F/S
- PRIVATE STORM DRAIN: LINE "C" DATA
SEE SHEET 8 FOR PROFILE**
- 27 9+29.18, 7.08' RT. DRIVEWAY B
1+98.44' PROP. 3636 BROOKS BOX W/
TRAFFIC GRATE TC=192.00, IE IN=189.68, IE OUT=189.58
Q₁₀₀=2.51 CFS PER DETAIL SHEET 11
 - 28 PROP. 1.80 LF N28°52'18"W OF 15" HDPE STORM
DRAIN @ 5.00% Q₁₀₀=6.06 CFS, V₁₀₀=11.25 F/S
 - 29 1+91.08 STORMWATER BIO-FILTRATION SYSTEM
BIO-CLEAN UNIT MWS L-8-8-4'-6"-V
RIM=192.14 SEE DETAILS ON SHEET 11
IE IN=189.49, IE OUT=188.06
 - 30 PROP. 2.00 LF N28°52'18"W OF 15" PVC STORM
DRAIN @ 1.50% Q₁₀₀=6.06 CFS, V₁₀₀=7.10 F/S
 - 31 PROP. UNDERGROUND STORAGE VAULT WITH OPEN BOTTOM
MINIMUM VOLUME = 5,065 OF BOTTOM ELEV.=187.16
IE IN=188.06, IE OUT=187.16
 - 32 PROP. OUTLET CONTROL FL=187.16
 - 33 PROP. 6.25 LF N18°29'53"W OF 15" PVC STORM
DRAIN @ 1.50% Q₁₀₀=6.06 CFS, V₁₀₀=7.10 F/S
 - 34 9+01.87, 2.00' LT. D/W B
 - 35 1+58.15 PROP. MOD. A-4 CLEANOUT
PER D-9 RIM=192.57, IE IN=187.20
IE OUT=187.10 / 187.01
 - 36 2-PROP. 2.50 LF N71°29'07"W OF 15" PVC STORM
DRAIN @ 1.00% Q₁₀₀=3.03 CFS, V₁₀₀=5.09 F/S
 - 37 5+78.80, 24.48 RT. 2-PROP. 15" PVC 11.25' ANG
IE=187.04 / 186.95
 - 38 2-PROP. 3.50 LF N18°30'53"W OF 15" PVC STORM
DRAIN @ 1.00% Q₁₀₀=3.03 CFS, V₁₀₀=5.09 F/S
 - 39 2-PROP. 18.50 LF N18°30'53"W OF (2) D-25A CURB
OUTLET @ 2.00% Q₁₀₀=3.03 CFS, V=5.11 F/S
UNDETAINED FL=186.63 / 186.54
IE=187.00 / 186.91

LEGEND:

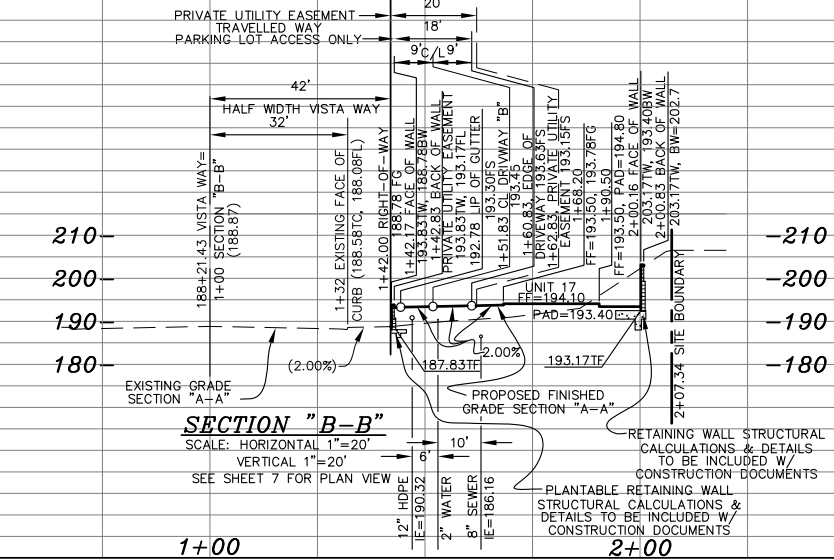
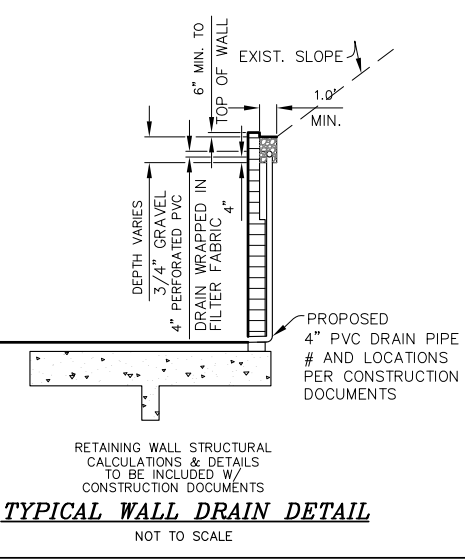
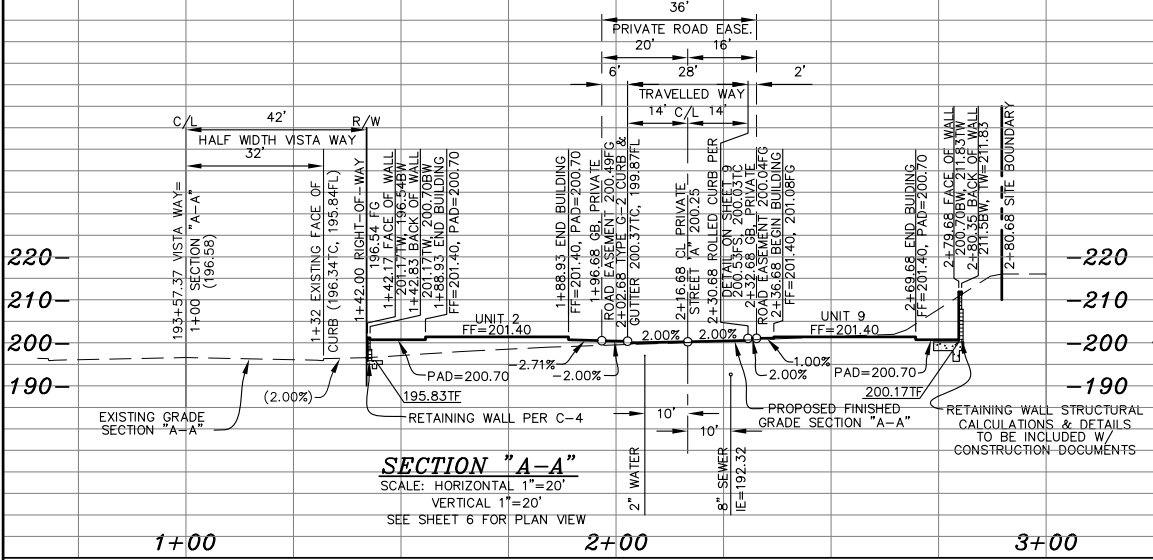
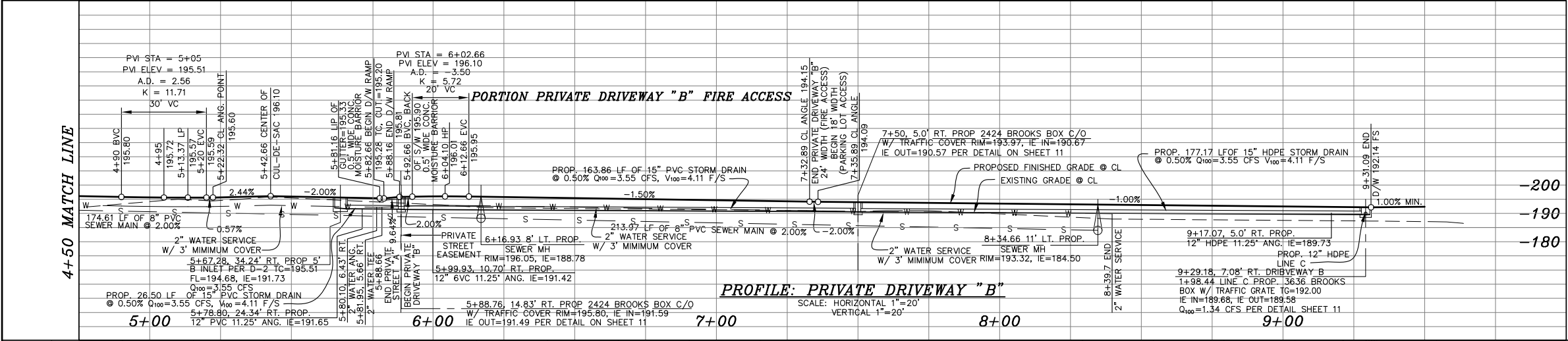
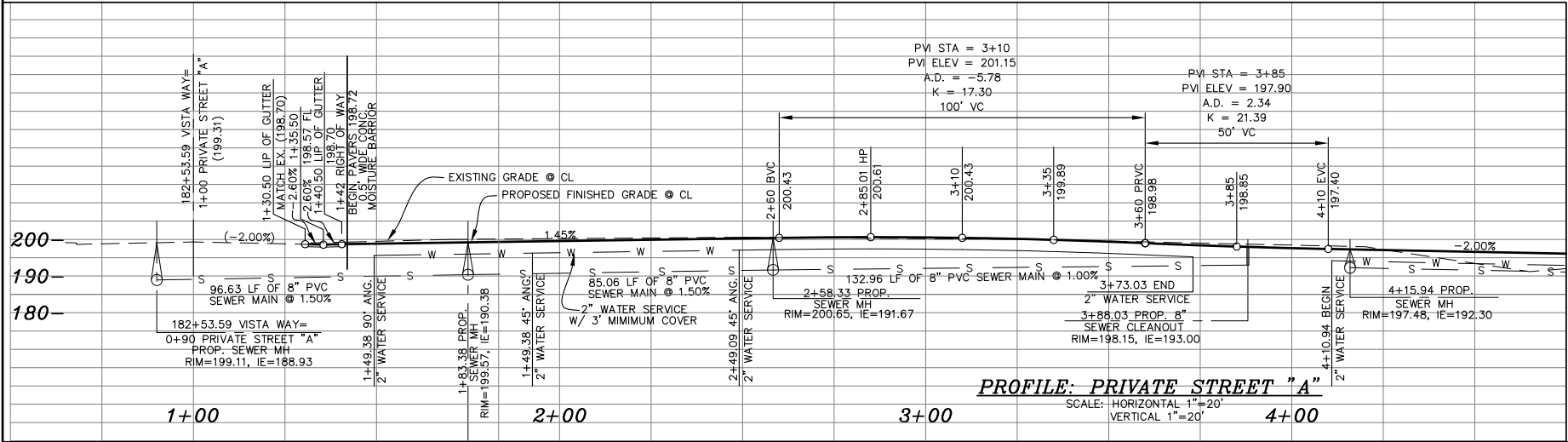
BOUNDARY	---
CENTERLINE	---
RIGHT-OF-WAY	---
EXISTING LOT LINE	---
SETBACK LINE	---
EXISTING CURB & GUTTER	---
EXISTING WATER	---
EXISTING SEWER	---
EXISTING FENCE	---
EXISTING RETAINING WALL	---
EXISTING CONCRETE	---
EXISTING AC PAVING	---
EXISTING CONTOUR LINE	---
EXISTING ELEVATION	---
EXISTING FIRE HYDRANTS	---
EXISTING STREET SIGN	---
EXISTING WATER SERVICE W/ EX. BACKFLOW PREVENTER TO BE USED FOR IRRIGATION	---
PROPOSED 2" WATER SERVICE W/ BACKFLOW PREVENTER	---
PROPOSED 8" FIRE SERVICE FOR PVT. FIRE HYDRANT	---
PROPOSED 1" WATER SERVICE W/ PRIVATE WATER METER TO BE MAINTAINED BY HOA	---
PROPOSED PRIVATE 4" SEWER LATERAL	---
8" PRIVATE SEWER MAIN W/ SEWER MH	---
PARKING SPACE NUMBER	---
PROPOSED G-2 CURB & GUTTER	---
PROPOSED G-1 GUTTER	---
PROPOSED ROLLED CURB	---
PROPOSED FENCE	---
SEE LANDSCAPE PLANS FOR DETAILS	---

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft

VISTA WAY HOMES
CONCEPT PROFILES AND SECTIONS

General Notes

- THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)
- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED PUBLIC STREET DEDICATION: Q AC
 - PROPOSED PRIVATE STREET AREA: Q AC
 - TOTAL NUMBER OF EXISTING LOTS: 1
 - TOTAL NUMBER OF PROPOSED LOTS: 1
 - TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
 - PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x6')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
 - ASSESSOR'S PARCEL NUMBER: 165-493-47
 - SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
 - PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
 - EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
 - PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
 - EXISTING ZONING: RM-A
 -
 - PROPOSED DENSITY: 18/1.97=9.14 DU/AC
 - STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
 - BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
 - SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
 - TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
 - THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.



ENGINEER OF WORK

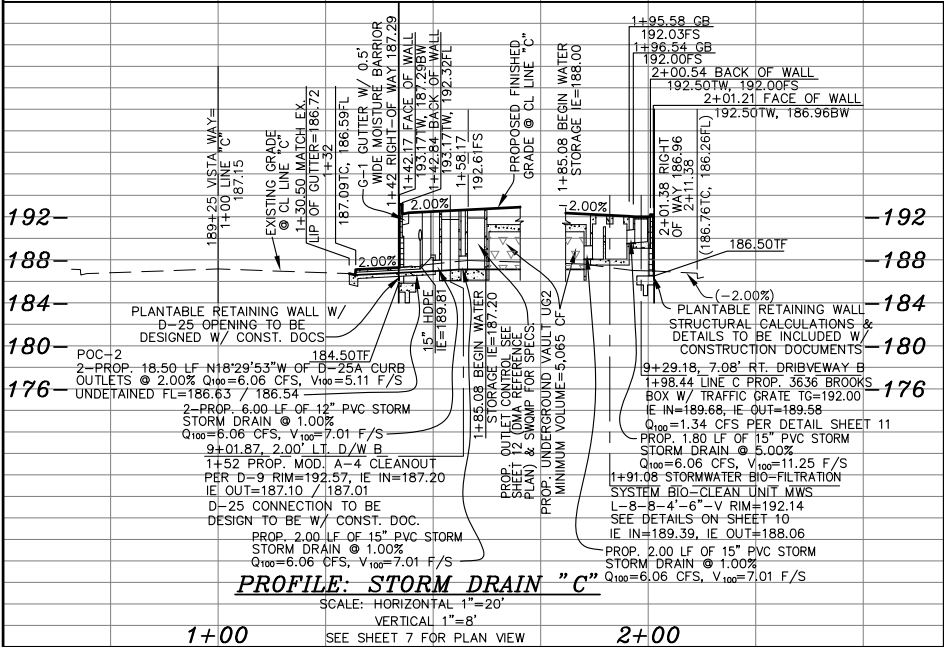
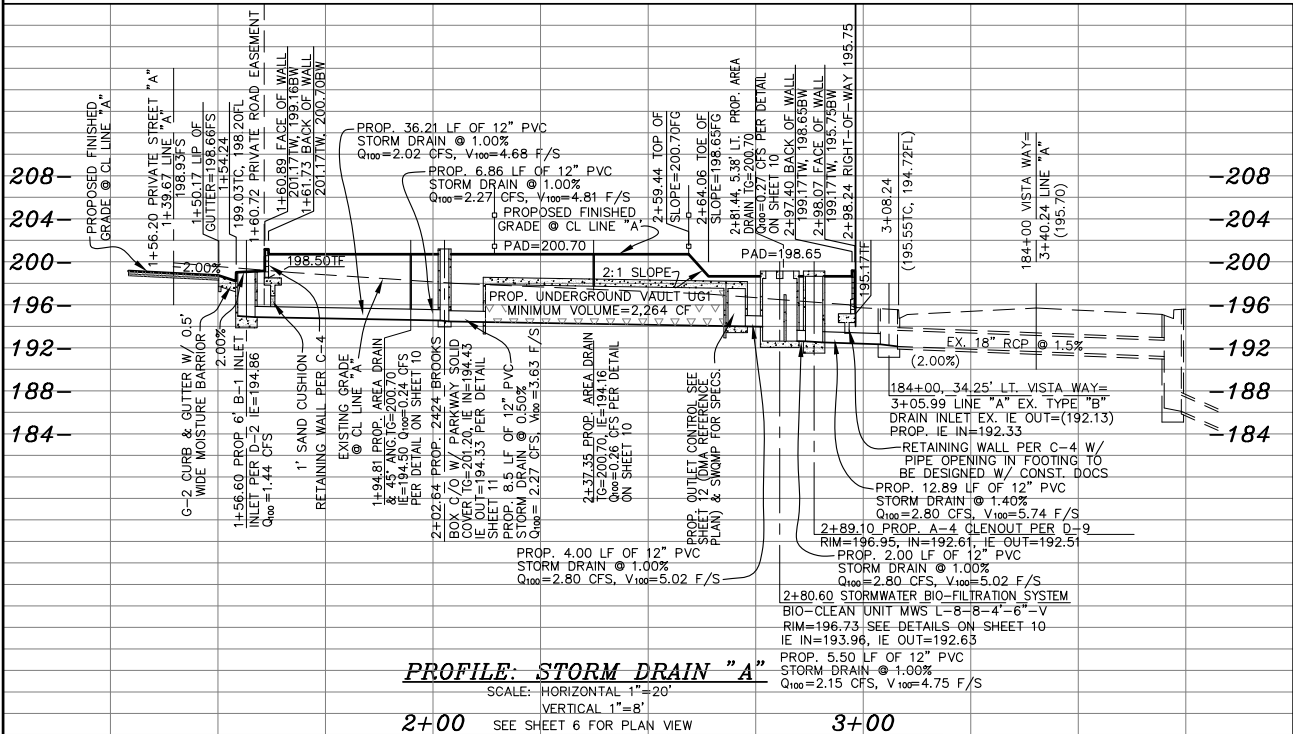
BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST, 2022



T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, Escondido, CA 92021 (619) 748-8618 Fax (619) 748-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

VISTA WAY HOMES
CONCEPT STORM DRAIN PROFILES



TENTATIVE MAP T21-00002

General Notes

- THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)
- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED PUBLIC STREET DEDICATION: 0 AC
 - PROPOSED PRIVATE STREET AREA: 0 AC
 - TOTAL NUMBER OF EXISTING LOTS: 1
 - TOTAL NUMBER OF PROPOSED LOTS: 1
 - TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
 - PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x6')=2
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 - EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
 - PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
 - EXISTING ZONING: RM-A
 -
 - PROPOSED DENSITY: 18/1.97=9.14 DU/AC
 - STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
 - BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
 - SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
 - TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
 - THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.

ENGINEER OF WORK

Bartolome J. Pastor

BARTOLOME J. PASTOR, RCE 38606

DATED: AUGUST, 2022



T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS

PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 100, E. Oceanside, CA 92021 (619) 748-8618 Fax (619) 748-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

Date: 8/31/2022

SHEET 9 OF 12

General Notes

THIS PROJECT IS A COMMON INTEREST DEVELOPMENT FOR SENIOR HOUSING. CCR'S WILL BE PREPARED FOR THIS PROJECT TO DEFINE AND MAINTAIN COMMON USE AREAS SUCH AS DRIVEWAYS, PARKING, LANDSCAPING & ETC. AFFORDABLE HOUSING (D21-00005) IS INCLUDED AS A PART OF THIS PROJECT ALONG WITH BONUS DENSITY (DB21-00003)

1. EXISTING GROSS SUBDIVISION AREA: 1.97 AC
2. PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
3. PROPOSED PUBLIC STREET DEDICATION: 0 AC
4. PROPOSED PRIVATE STREET AREA: 0 AC
5. TOTAL NUMBER OF EXISTING LOTS: 1
6. TOTAL NUMBER OF PROPOSED LOTS: 1
7. TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
8. PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (15'x6')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
9. ASSESSOR'S PARCEL NUMBER: 165-493-47
10. SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
11. PORTIONS OF LOTS 684, 685, 708 THROUGH 720, LOTS 721 THROUGH 725 AND PORTIONS OF LOTS 726 AND 727 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 7690, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 3, 1973, TOGETHER WITH THAT PORTION OF PORT CIRCLE STREET AS VACATED BY RESOLUTION RECORDED FEBRUARY 26, 2002 AS FILE NO. 2002-0159407 OF OFFICIAL RECORDS.
12. EXISTING GENERAL PLAN LAND USE: RESIDENTIAL
13. PROPOSED USE: RESIDENTIAL-SENIOR HOUSING
14. EXISTING ZONING: RM-A
15. -
16. PROPOSED DENSITY: 18/1.97=9.14 DU/AC
17. STATUS OF LEGAL ACCESSION: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
18. BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC
STAMPED LS-4506
LOCATION: INT. VISTA WAY AND BUENA HILLS
RECORD, CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
19. SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
20. TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
21. THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.

ENGINEER OF WORK

Part 1 of 7

BARTOLOME J. PASTOR, RCE 38606

DATED: AUGUST , 2022



T21-00002
D21-00005
DB21-00003

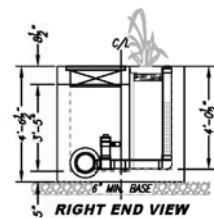
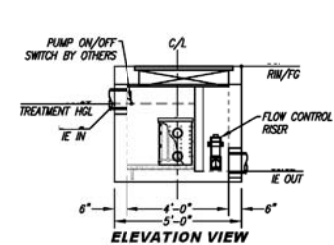
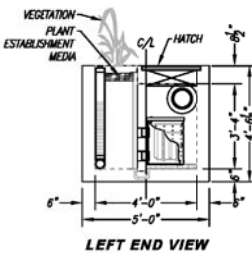
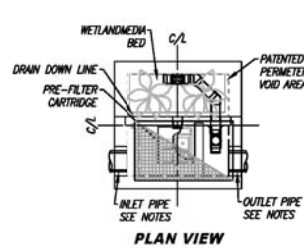
ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, El Cajon, CA 92021 (619) 749-6618 Fax (619) 749-6618
JOB NO. 499-01, DATE AUGUST 31, 2022

Date: 8/31/2022

SHEET 10 OF 12

SITE SPECIFIC DATA			
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
1,248		N/A	
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE		OFFLINE	
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE		PVC	8"
OUTLET PIPE		PVC	8"
PRETREATMENT		BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD		PEDESTRIAN	PEDESTRIAN
FRAME & COVER		24" x 42"	N/A
WETLAND/MEDIA VOLUME (CY)		0.83	
OFFICE SIZE (SQA INCHES)		#0.48'S	

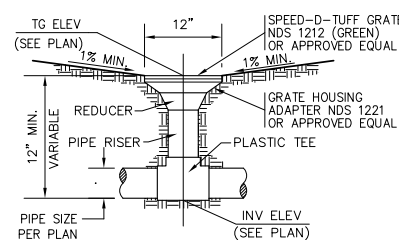
NOTES: PRELIMINARY NOT FOR CONSTRUCTION.



REQUIRED TREATMENT VOLUME (CF)	
DRAINDOWN DURATION (HOURS)	36
AVERAGE DISCHARGE RATE PER MIN'S UNIT (GPM)	
OPERATING HEAD (FT)	2.5
WETLAND/MEDIA INFILTRATION RATE (IN/HR)	26
WETLAND/MEDIA LOADING RATE (GPM/SF)	OR 0.26

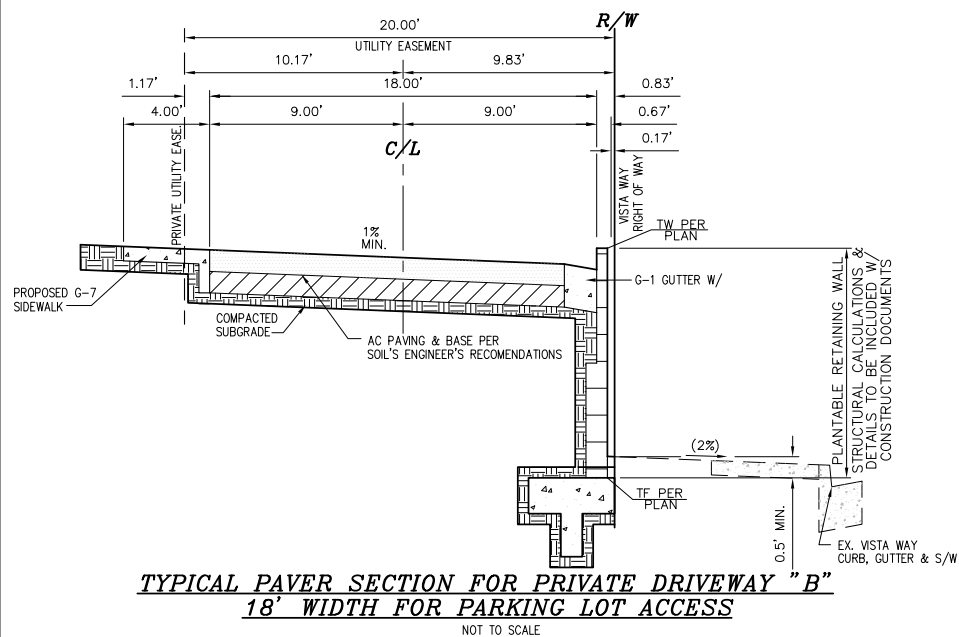
MWS-L-4-4-4'-1"-V
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

MODULAR WETLAND



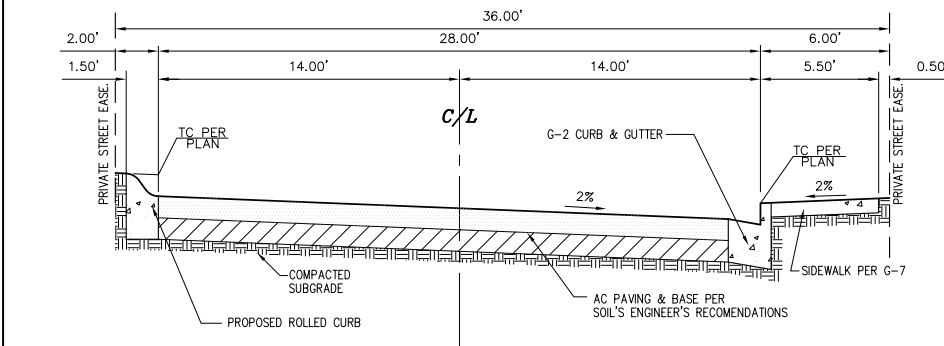
NOTE: FOR BINDING ABS TO PVC
CONTRACTOR TO USE WELD-ON 194
SOLVENT OR EQUAL.

PRIVATE
LANDSCAPE AREA DRAIN DETAIL
NO SCALE



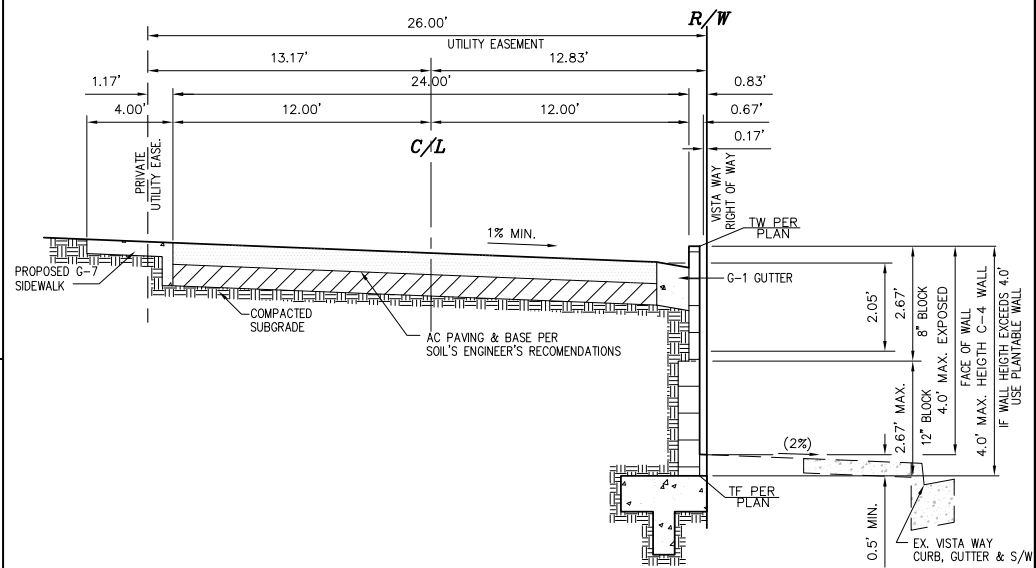
TYPICAL SECTION FOR PRIVATE DRIVEWAY "B"
24' WIDTH FOR EMERGENCY (FIRE) ACCESS

NOT TO SCALE
PRIVATE DRIVEWAY SURFACES TO BE H-20 LOADING

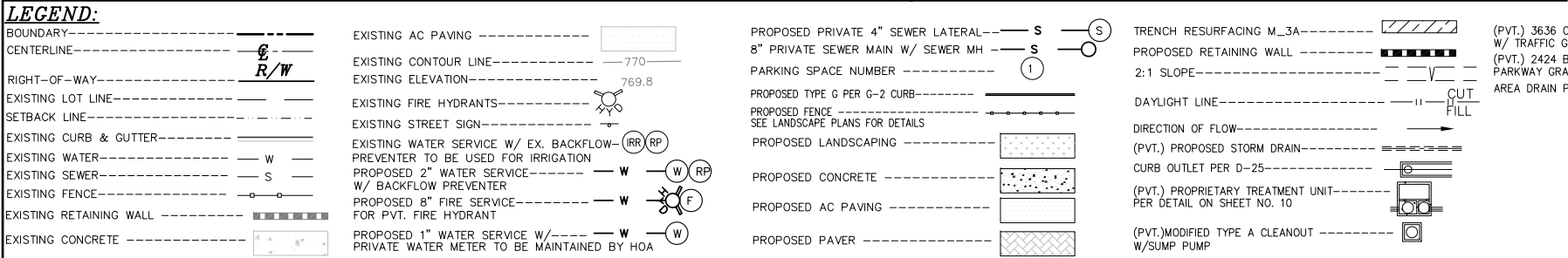
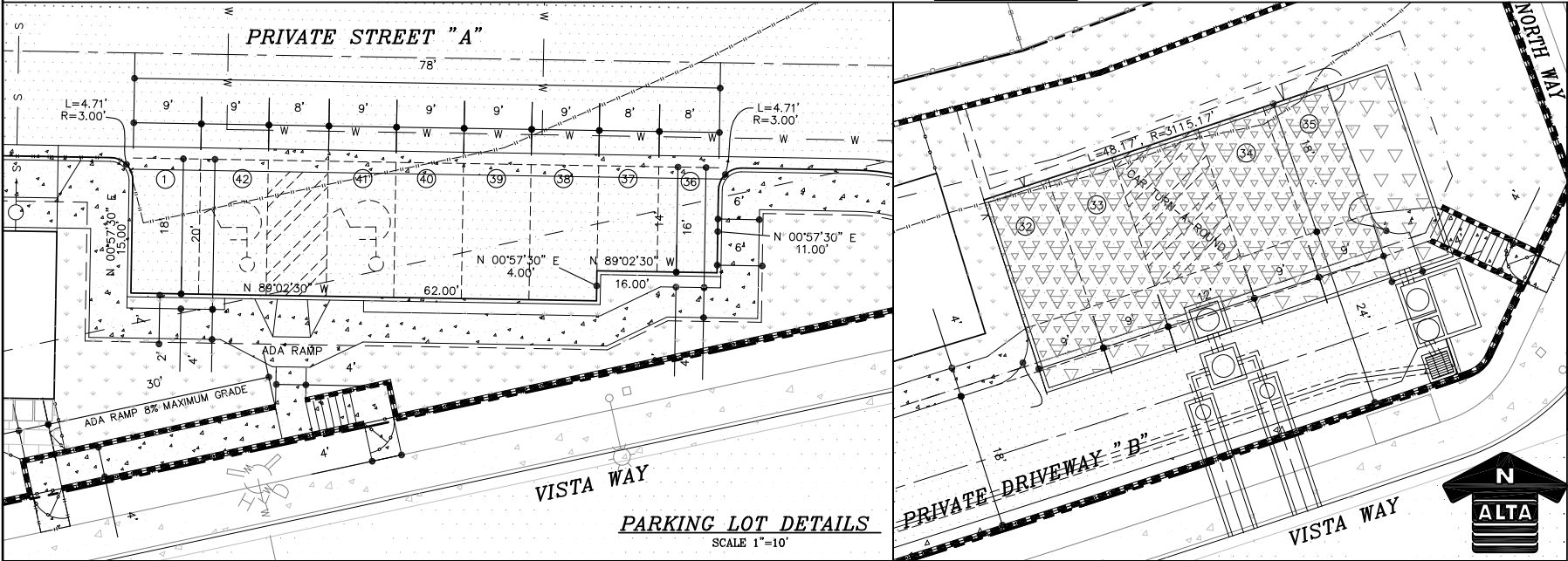


TYPICAL SECTION FOR PRIVATE STREET "A"

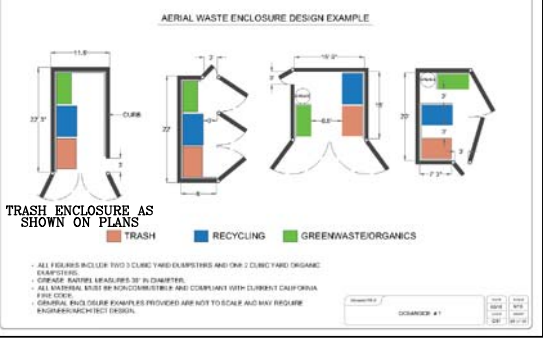
NOT TO SCALE
ALL PRIVATE STREET SURFACES TO BE H-20 LOADING



VISTA WAY HOMES
DETAILS

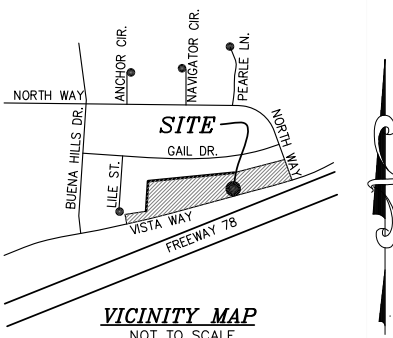
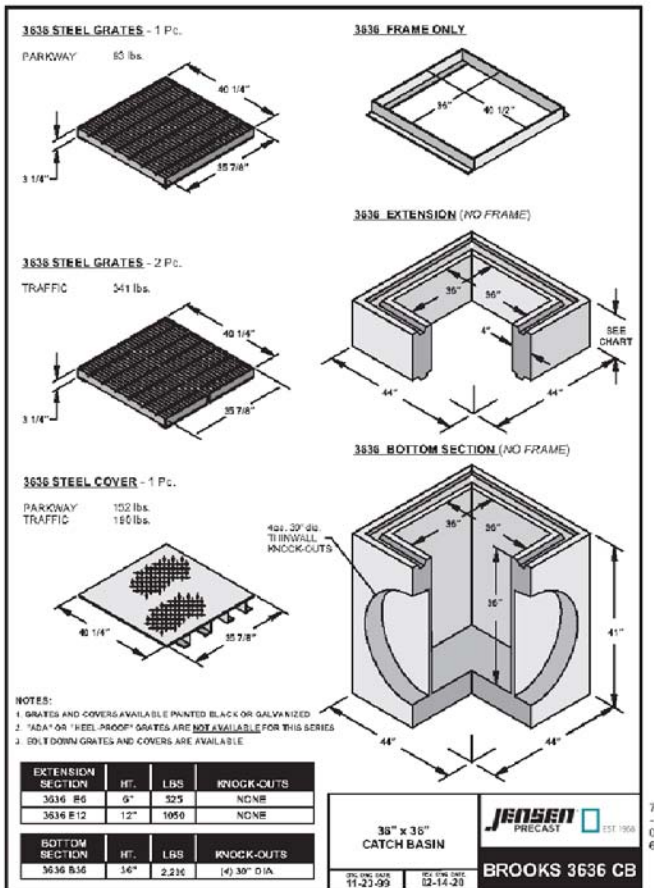
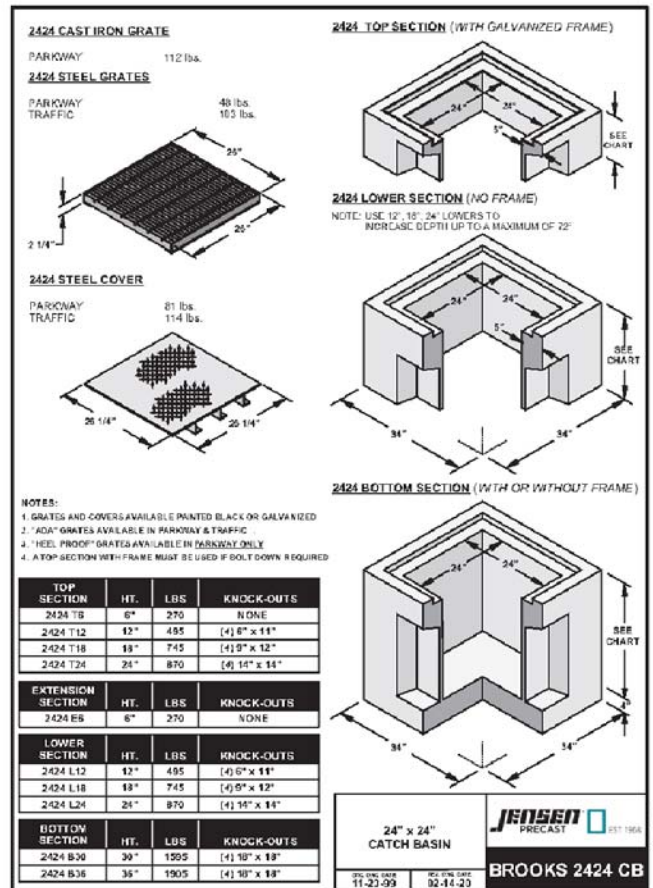
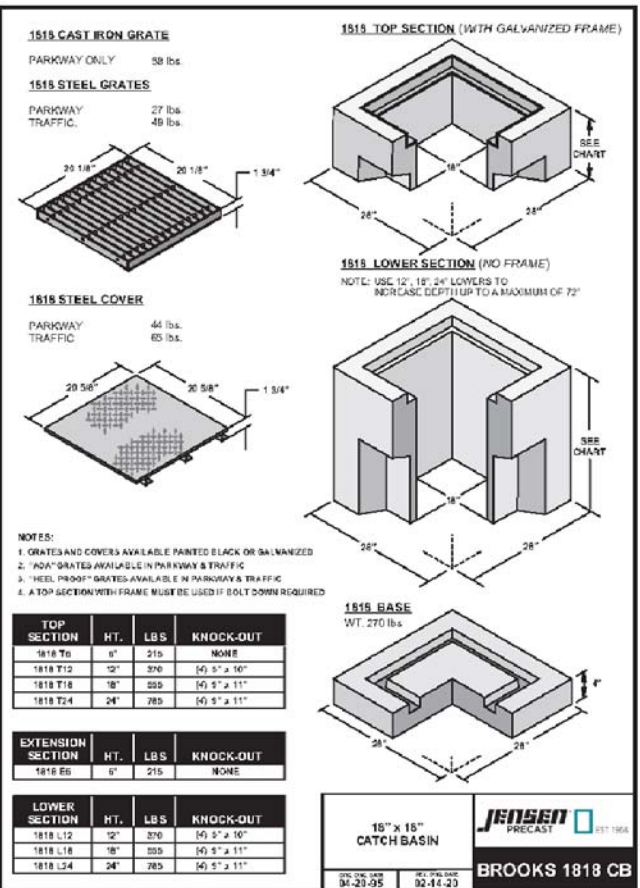


Enclosure Construction Design Example



General Notes

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- EXISTING GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED GROSS SUBDIVISION AREA: 1.97 AC
 - PROPOSED PUBLIC STREET DEDICATION: Q AC
 - PROPOSED PRIVATE STREET AREA: Q AC
 - TOTAL NUMBER OF EXISTING LOTS: 1
 - TOTAL NUMBER OF PROPOSED LOTS: 1
 - TOTAL NUMBER OF PROPOSED PROPOSED UNITS: 18
 - PROPOSED PARKING:
1 ATTACHED GARAGE SPACE PER UNIT=18
UNATTACHED STANDARD PARKING SPACES (18'x9')=20
UNATTACHED COMPACT PARKING SPACES (16'x8')=2
VAN ACCESSIBLE HANDICAPPED PARKING SPACES=2
TOTAL PARKING SPACES PROPOSED=42
PARKING SPACES PER UNIT=2.33
 - ASSESSOR'S PARCEL NUMBER: 165-493-47
 - SITE ADDRESS: 3710 VISTA WAY
OCEANSIDE, CA 92056
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 - STATUS OF LEGAL ACCESS: VISTA WAY AN EXISTING & FULLY IMPROVED PUBLIC STREET
 - BENCH MARK: DESCRIPTION: CL MONUMENT 3.5" BRASS DISC STAMPED LS-4506
LOCATION: INT VISTA WAY AND BUENA HILLS
RECORD: CITY OF OCEANSIDE
ELEVATION: 206.80 DATUM: NAV 88
CITY OF OCEANSIDE #1020
 - SOURCE OF TOPOGRAPHY: ALATA CONSULTANTS
SURVEYED ON: 02/20/2020
 - TOPOGRAPHIC CONTOUR INTERVAL: 1 FOOT
 - THE BASIS OF BEARINGS FOR THIS SUBDIVISION IS THE SOUTH LINE OF LOT 707 OF COSTA SERENA UNIT NO. 7, IN THE CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP HEREOF NO. 7690 I.E. NORTH 69°04'36" EAST.
 - MAXIMUM SLOPE GRADIENT: 2:1
 - ONSITE GRADING FOR THIS PROJECT: (8% SHRINKAGE FOR CUT) CUT= 3,000 C.Y. FILL= 4,000 C.Y. IMPORT= 1,000 C.Y.
NOTE: ALL QUANTITIES ARE BASED ON FINISH GRADE. NO ALLOWANCE MADE FOR SHRINKAGE OR BULKING OF MATERIAL.
 - GRADED AREA: 1.63 AC=82% OF SITE
 - FEMA FLOOD DESIGNATION: THIS SITE IS NOT WITH A 100-YEAR FLOODWAY OR FLOODPLAIN PER FEMA MAP 06073C0766G DATED: 5/12/16



ENGINEER OF WORK

Bartolome J. Pastor
BARTOLOME J. PASTOR, RCE 38606
DATED: AUGUST 2022



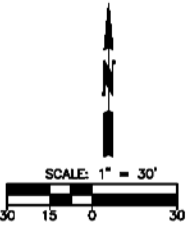
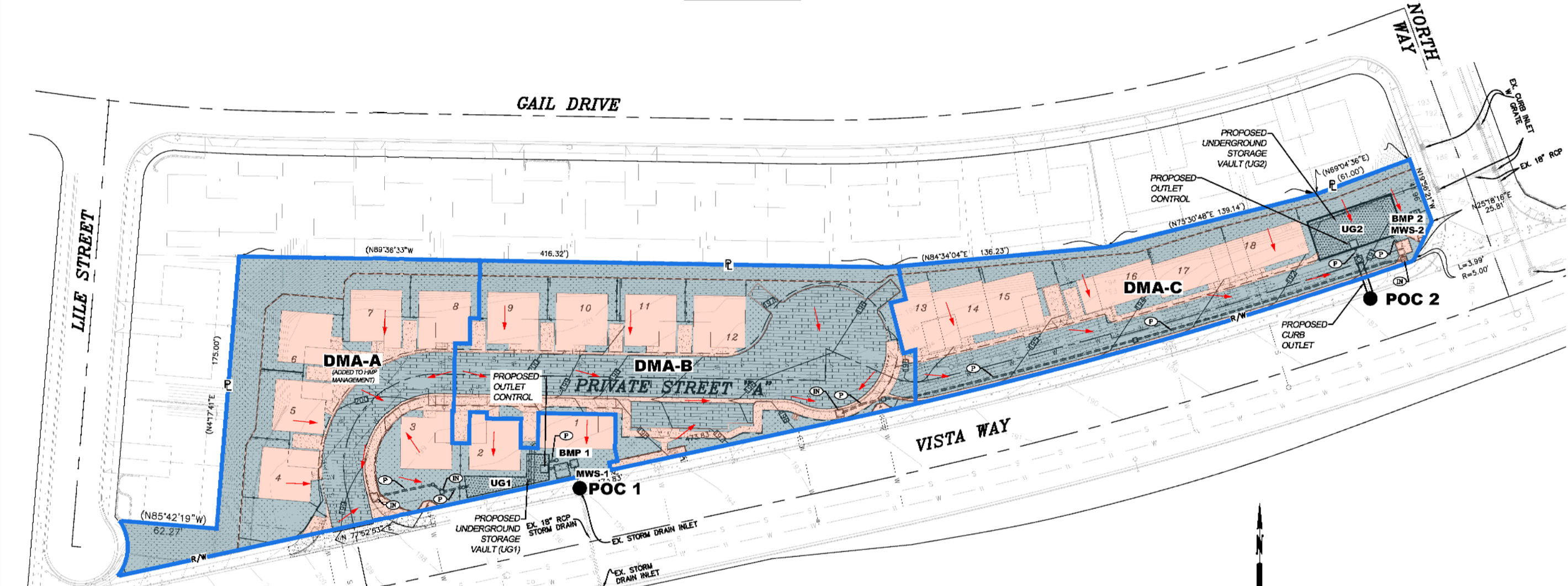
T21-00002
D21-00005
DB21-00003

ALTA CONSULTANTS
PLANNING ENGINEERING SURVEYING
1283 E. Main St., Ste. 109, Escondido, CA 92021 (619) 749-8618 Fax (619) 749-8618
JOB NO. 499-01, DATE AUGUST 31, 2022

General Notes

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VISTA WAY HOMES
DMA PLAN



- NOTES:
1. THE UNDERLYING SOIL TYPE GROUPS IS "D" FOR THE ENTIRE PROPERTY AND SURROUNDING PARCELS
 2. THE APPROXIMATE DEPTH TO GROUND WATER IS EXPECTED TO BE LESS THAN 15 FEET
 3. NO CRITICAL COARSE SEDIMENT YIELD AREAS TO BE PROTECTED BASED ON SEDIMENT TRANSPORT ANALYSIS (SEE PROJECT SWQMP).
 4. THE SITE DOES NOT CONTAIN ANY EXISTING NATURAL HYDROLOGIC FEATURES. (WATERCOURSES, SEEPS, SPRINGS, WETLANDS)

- LEGEND
- POC 1 ● POINT OF COMPLIANCE
 - MWS-# MODULAR WETLAND SYSTEM
 - PERVIOUS AREAS
 - IMPERVIOUS AREAS
 - PROPOSED PIPE
 - PROPOSED INLET
 - DRAINAGE MANAGEMENT AREA (DMA)
 - FLOW DIRECTION

DMA AREA SUMMARY					
DMA ID	DRAINS TO	DMA IMPERVIOUS AREA (SF)	DMA PERVIOUS AREA (SF)	TOTAL	TYPE OF BMP
A	BMP 1 / POC 1	17,481	13,848	31,327	PROPRIETARY RETENTION & BIO-FILTRATION(MWS)
B	BMP 2 / POC 2	22,501	7,767	30,268	PROPRIETARY RETENTION & BIO-FILTRATION(MWS)
C	BMP 2 / POC 2	9,605	18,405	28,010	PROPRIETARY RETENTION & BIO-FILTRATION(MWS)

1. DMA Type can only be: 1) Drains to BMP, 2) Self-mitigating, 3) De Minimis, or 4) Self-retaining
2. BMP Type must be consistent with terminology in the BMP Design Manual and/or CASQA Fact Sheets
3. Structural BMP Size is typically presented as an area (sq. ft.) or size (e.g., proprietary devices)

TRIPLE PURPOSE BMP				
BMP	TRIBUTARY AREA (SF)	FOOTPRINT AREA (FT²)	DEPTH (FT)	TOTAL VOLUME (FT³)
UG1	31,327	647	3.5	2,264
UG2	53,964	1447	3.5	5,065

SUMMARY OF RISER			
BMP	LOWER ORIFICE		UPPER WHIR
	DIAMETER (IN)	ELEV. (FT)	LENGTH (FT)
UG1	1.4	18	6
UG2	1.4	18	6



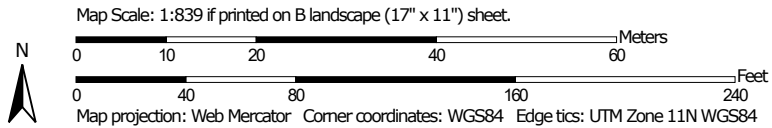
REFERENCE ONLY

ATTACHMENT 2
Soils Plat

Soil Map—San Diego County Area, California
(3710 Vista Way)



Soil Map may not be valid at this scale.



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

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 1:24,000.

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: San Diego County Area, California

Survey Area Data: Version 16, Sep 13, 2021

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

Date(s) aerial images were photographed: Jan 24, 2020—Feb 12, 2020

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LeE3	Las Flores loamy fine sand, 9 to 30 percent slopes, severely eroded	2.0	100.0%
Totals for Area of Interest		2.0	100.0%