Appendix G

Preliminary Hydrology and LID Report

PRELIMINARY HYDROLOGY & LID REPORT

PREPARE FOR:

MLC HOLDINGS, INC.

5 Peters Canyon Road Suite 310
Irvine, CA 92606
(310) 293-8463

FOR THE PROJECT:

Tract No. 83166

Vincent Ave. Development
City of West Covina
County of Los Angeles

PREPARED BY:

BLUE ENGINEERING AND CONSULTING, INC

12223 Highland Avenue #106-594
RANCHO CUCAMONGA, CA 91739
(909) 248-6557

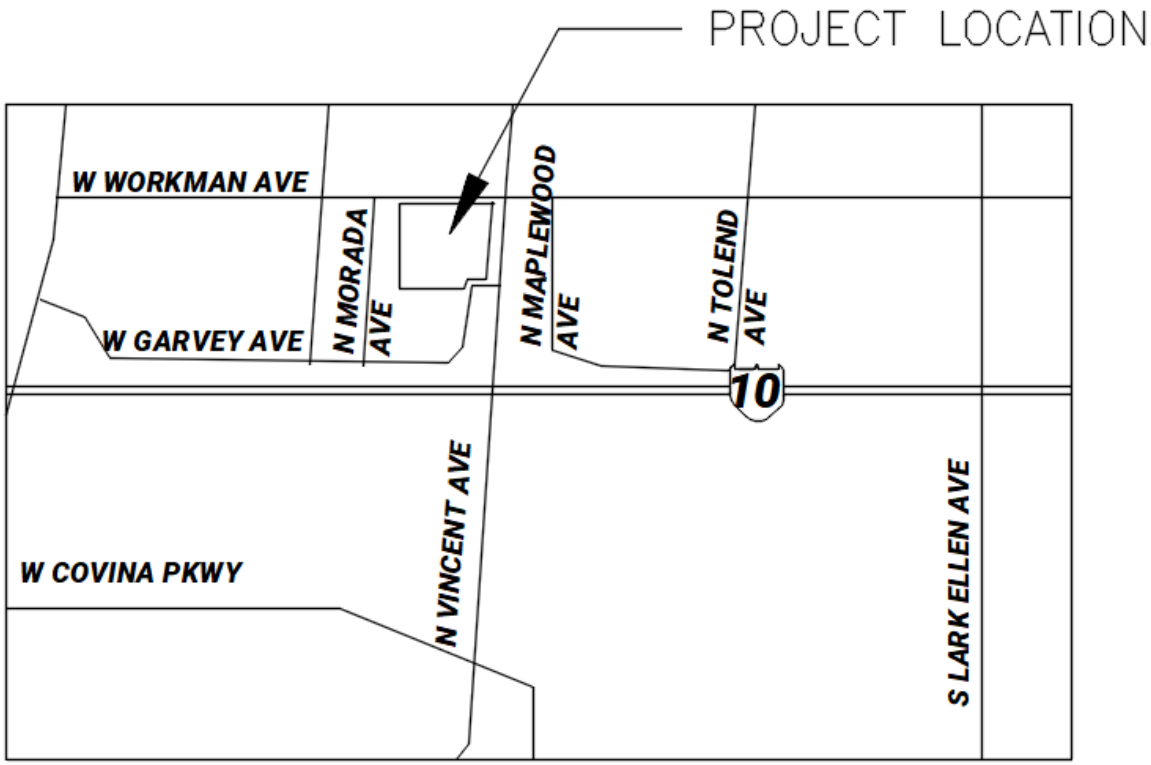
PREPARED UNDER THE SUPERVISION OF:

ANGEL CESAR P.E., RCE 87222

July, 2020

REGISTERED PROFESSIONAL ENGINEER
ANGEL CESAR
No. 87222
CIVIL
STATE OF CALIFORNIA

INDEX



VICINITY MAP

N.T.S.

I. INTRODUCTION

Tract No. 83166 is approximately 8.05 acres and is located at the southwest corner of West Workman Avenue and North Vincent Avenue within the City of West Covina in the County of Los Angeles (see the attached Vicinity map). The site is bordered to the west by single-family homes, to the North by West Workman Avenue, to the east by North Vincent Ave and to the south by apartments.

The purpose of this report is to study the flows from both pre-development and post-development conditions for the 25-year storm frequency. The second part of this report will determine the 85th percentile rainfall volume which is required to be mitigated in order to comply with Low Impact Development (LID) requirements.

II. DESCRIPTION OF THE ONSITE CONDITIONS

The site consists of six parcels that are attached and are in a rectangular shape. The six parcels contain only one APN. The site consists of a school and large open grassy field south of the school.

The site currently slopes northeast to southwest. The school is relatively flat. There is an estimated 8 feet of elevation differential across the site. The school and open space are separated by a slope. Drainage north of the school, sheet flows into Workman Avenue. It appears that the existing improvements do not include a storm drain system.

The proposed developed will be multi-family attached and single-family detached homes. There will be 47 lots for single family detached homes and 10 buildings in individual lots for multi-family attached homes. The multi-family lots will contain a total of 72 units. There will be a large open space, at the center of the development, that will contain an amenity center.

III. HYDROLOGY DESIGN CRITERIA

The following Hydrology Data criteria was provided by the LADPW online Hydrology Map 1-H1.4 provided at: http://dpw.lacounty.gov/wrd/hydrologygis/. These values are used as inputs into the HydroCalc as shown in the calculations in Appendices B and C.

Runoff Calculation: LADPW HydroCalc
Design 50-year 24-hour Isohyet: 6.88”
Soil Type: 006
85th Percentile Isohyet: 1.05”
Pre-Development Imperviousness: 37.4%
Post-Development Imperviousness: 69%

IV. EXISTING DRAINAGE CONDITIONS

The existing site contains two sub areas: Subarea A, a 2.5-acre area that drains to West Workman Avenue at the northwest corner of the property. Subarea B, a 5.59-acre area that drains to the southwest corner of the property. Subarea B drains onto an adjacent property. The following table summarizes the existing conditions found:

Condition	Subarea number	Area (acres)	25-year Peak Flowrate (Q_{25})	25-year Clear Runoff Volume (cf)
Pre-Development	A	2.5	7.341	40,763
	B	5.59	10.663	42,027
		8.09		82,790

V. PROPOSED DRAINAGE CONDITIONS

OFFSITE HYDROLOGY

The project is adjacent to three fully developed roads with curb and gutters. Along the westerly property line, the homes appear to drain east to west. A valley gutter will be proposed along the westerly property line to catch any drainage that may drain into the project site. The drainage will be directed into the storm drain line in Vincent Avenue.

ONSITE HYDROLOGY

The proposed development will generally maintain the existing drainage pattern. Runoff from the proposed development will be collected in multiple on-site catch basins and discharge to a new connection into LACFCD Line B, Project No. 9707. Prior to entering Line B, runoff will be collected in two retention basins before flowing into Wetland MODs for mitigation. Per the County, Q will be allowed to be released at a maximum rate of 2.50 cfs/acre to Line "B". Documentation form the County is attached.

Area	Allowable Q per Acre	Allowable Q
8.09 acres	2.50 cfs/acre	20.225 cfs

The table below shows the 25-year peak flowrate and the runoff volume that was calculated. Post-development drainage areas are shown in the Post-development Hydrology Exhibit located in the Appendix. The flowrate that the project will generate is slightly below the allowable Q into Line "B". No further mitigation will be required.

Conditions	Subarea	Area (Acres)	25-year Peak Flowrate (Q_{25})	25-year Clear Runoff Volume (cf)
Post- Development	A	5.70	13.57	86,414
	B	2.4	6.46	34,842
			20.03	117,995

VI. WATER QUALITY/ LOW IMPACT DEVELOPMENT (LID) REVIEW

This project falls under Designated Project for LID purposes. The category is redevelopment projects, which are developments that result in creation or additional or replacement of either 10,000 square feet or more of impervious surface area on a site that was previously developed as a school.

CALCULATION SUMMARY

Using the LA County 85th Percentile Isohyet Map, the water quality design rainfall depth for the project was determined to be 1.05 inches (85th percentile, 24-hr storm event). All water quality calculations were conducted using the Hydrocalc software shown in Appendix D. A summary is below:

Condition	Subarea Number	Area (Acres)	Clear Peak Flow Rate (cfs)	Clear Runoff Volume (24-hr)	Mitigated Volume
Water Quality (85th Percentile)	A	5.70	1.0202	14,289 cf	21,434 cf
	B	2.4	0.3724	5,683 cf	8,525 cf
				Total Volume	29,959 cf

STORMWATER QUALITY CONTROL MEASURES

The following Stormwater Quality Control Measures, infiltration, harvest and use and biofiltration were evaluated for mitigation of the required volume. Summaries are listed below of each of the options.

First, we looked at infiltrating the volume. Infiltration was deemed infeasible due to the low infiltration rates. The rate of infiltration, per the Percolation Test, was recorded at 0.10 in/hr. The report recommended design Infiltration rate is 0.05 in/hr. Percolation Test results are attached.

Second, we looked at Harvest and use. This project would not provide sufficient irrigation due to limited landscaping and the use of low water plants in landscaped areas. Harvest and use is deemed infeasible.

Lastly, biofiltration was evaluated and found to be an appropriate solution from the mitigation of the required volume. A summary of the chosen biofiltration systems are as follows:

Two bio-filtration systems (WetlandMOD) will be utilized for this project to treat 150% of the required V_{LID} volume. The V_{LID} volume is calculated to be 14,289 cf for sub area A and 5,683 cf for subarea B. The treated volume will be 14,289 cf x 1.5 = 21,434 and 5,683 cf x 1.5 = 8,525 cf.

For Subarea A , Q_{LID} = 1.02 cfs will go to WetlandMOD A and Subarea B, Q_{LID} = 0.3724 cfs will go to WetlandMOD B. During high flow events, Q will be directed via a diversion structure to the existing storm drain in Vincent Ave.

SOURCE CONTROL MEASURES

Source control measures that will be implemented are as followed:

- Storm Drain Message and Signage (S-1)

    - Storm drain stencils or signage prohibiting dumping and discharge of materials ("No Dumping – Drains to Ocean") shall be provided adjacent to each of the project's proposed inlets. The stencils shall be inspected and re-stenciled as needed to maintain legibility.
- Landscape Irrigation Practices (S-8)
    - In conjunction with routine landscaping maintenance activities, inspect irrigation for signs of leaks, overspray and repair or adjust accordingly. Adjust system cycle to accommodate seasonal fluctuations in water demand and temperatures. Ensure use of native or drought tolerant/non-invasive plant species to minimize water consumption.

Non-Structural Source Control BMPs.

- Education for Property owners, Tenants and Occupants
- Activity Restrictions
- Common Area Landscape Management
- Common Area Litter Control
- Street Sweeping Private Streets and Parking lots

VII. CONCLUSION

The calculations provided within this report provide an understanding that the post-development conditions will generally maintain similar drainage patterns to the pre-development drainage conditions.

The Allowable Q to the existing storm drain in Vincent will be restricted to 20.225 cfs as provided by LADPW. Thus, the tributary storm water runoff from this project will not adversely affect persons, downstream properties or drainage facilities and is in adequate conformance with the LA County design criteria, guidelines, policies and procedures.

VI. APPENDIX

a. Pre-development calculations

b. Post-development calculations

c. Low impact development calculations

d. Pre-development hydrology exhibit

e. Post-development hydrology exhibit

f. LA County Hydrology Map 85th Percentile 24-hour rainfall

g. LA County Hydrology Map 50-year 24-hour rainfall

h. LA County Hydrology Map Soils Map

i. Information request summary from la county includes allowable q

j. Percolation Test calculation results from Group Delta

Peak Flow Hydrologic Analysis

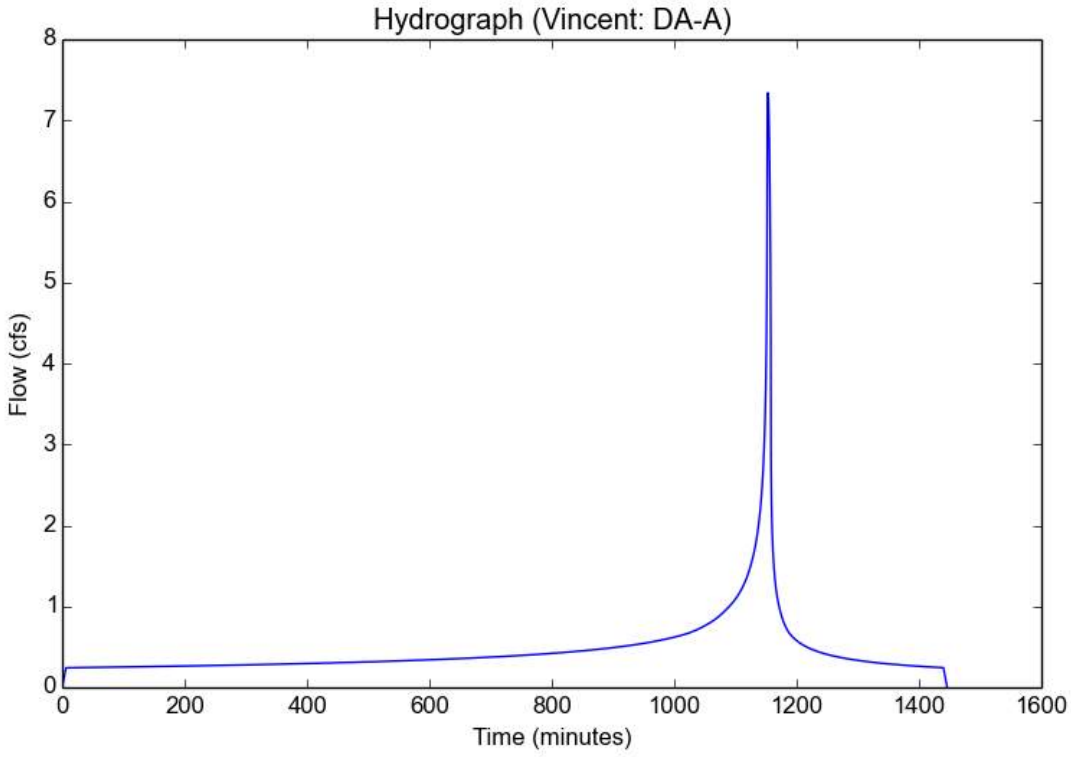
File location: G:/Shared drives/Blue/2020037 - Vincent - MLC/_Reports/_Preliminary Hydrology Report/Vincent - DA-A 25 yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Vincent
Subarea ID	DA-A
Area (ac)	2.5
Flow Path Length (ft)	418.19
Flow Path Slope (vft/hft)	0.014
50-yr Rainfall Depth (in)	6.88
Percent Impervious	0.78
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	6.0406
Peak Intensity (in/hr)	3.308
Undeveloped Runoff Coefficient (Cu)	0.8439
Developed Runoff Coefficient (Cd)	0.8877
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	7.341
Burned Peak Flow Rate (cfs)	7.341
24-Hr Clear Runoff Volume (ac-ft)	0.9358
24-Hr Clear Runoff Volume (cu-ft)	40762.7664



Peak Flow Hydrologic Analysis

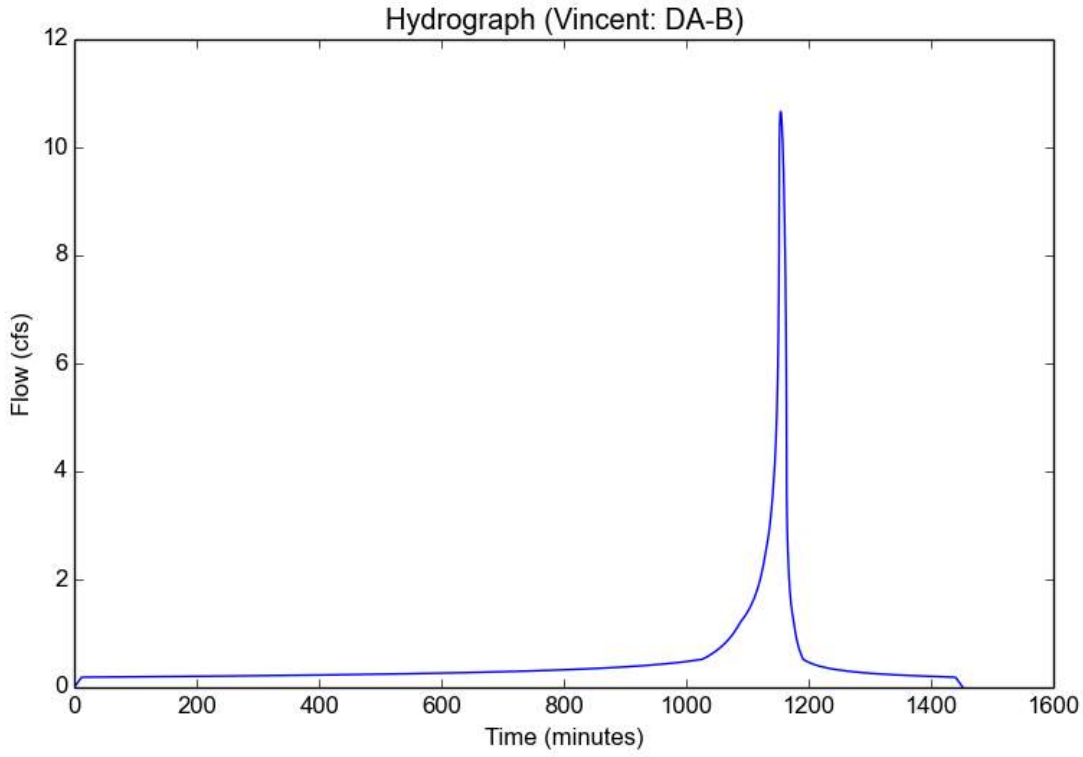
File location: G:/Shared drives/Blue/2020037 - Vincent - MLC/_Reports/_Preliminary Hydrology Report/Vincent - DA-B 25 yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Vincent
Subarea ID	DA-B
Area (ac)	5.59
Flow Path Length (ft)	986.77
Flow Path Slope (vft/hft)	0.0084
50-yr Rainfall Depth (in)	6.88
Percent Impervious	0.19
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	6.0406
Peak Intensity (in/hr)	2.3883
Undeveloped Runoff Coefficient (Cu)	0.7749
Developed Runoff Coefficient (Cd)	0.7987
Time of Concentration (min)	12.0
Clear Peak Flow Rate (cfs)	10.6628
Burned Peak Flow Rate (cfs)	10.6628
24-Hr Clear Runoff Volume (ac-ft)	0.9648
24-Hr Clear Runoff Volume (cu-ft)	42027.1927



Peak Flow Hydrologic Analysis

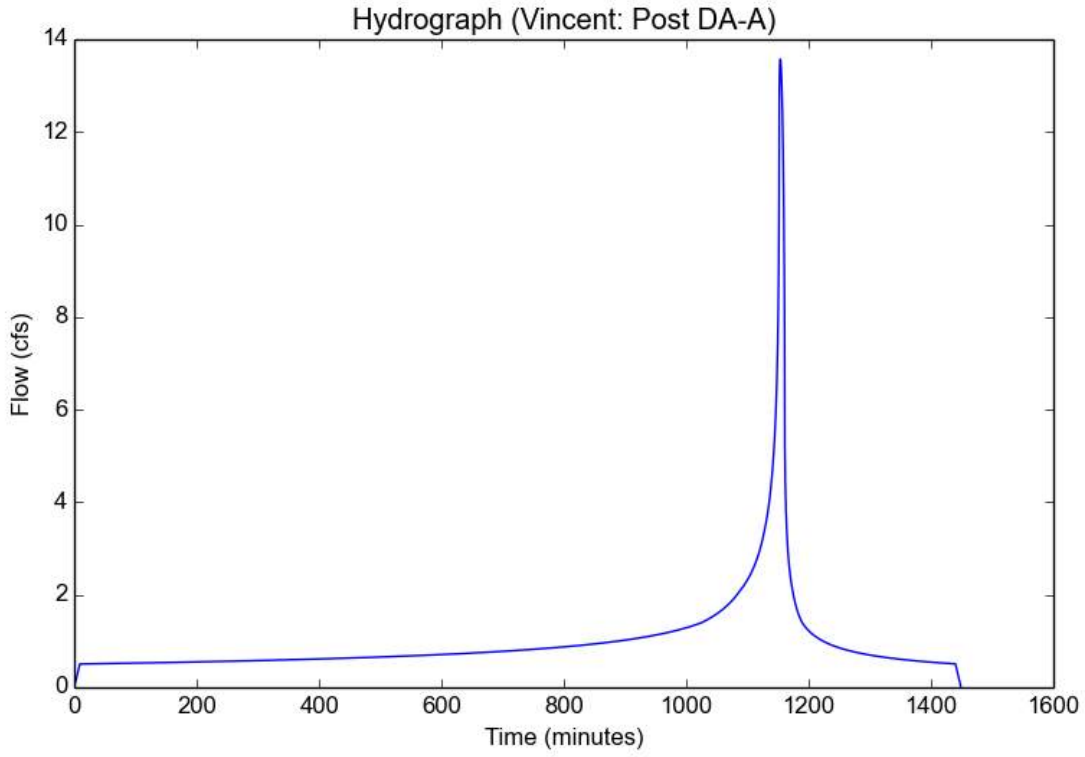
File location: G:/Shared drives/Blue/2020037 - Vincent - MLC/_Reports/_Preliminary Hydrology Report/_Post Calcs/Vincent - Post DA-A.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Vincent
Subarea ID	Post DA-A
Area (ac)	5.69573
Flow Path Length (ft)	617.54
Flow Path Slope (vft/hft)	0.0058
50-yr Rainfall Depth (in)	6.88
Percent Impervious	0.704
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	6.0406
Peak Intensity (in/hr)	2.7341
Undeveloped Runoff Coefficient (Cu)	0.8036
Developed Runoff Coefficient (Cd)	0.8715
Time of Concentration (min)	9.0
Clear Peak Flow Rate (cfs)	13.5709
Burned Peak Flow Rate (cfs)	13.5709
24-Hr Clear Runoff Volume (ac-ft)	1.9838
24-Hr Clear Runoff Volume (cu-ft)	86414.1001



Peak Flow Hydrologic Analysis

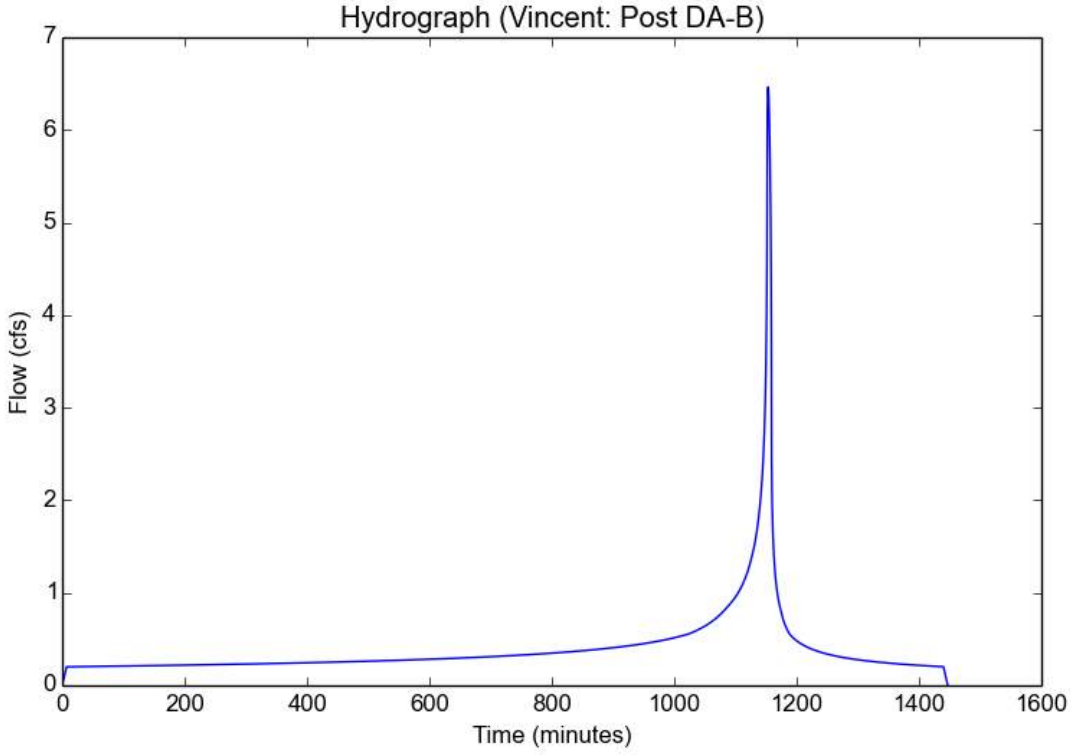
File location: G:/Shared drives/Blue/2020037 - Vincent - MLC/_Reports/_Preliminary Hydrology Report/_Post Calcs/Vincent - Post DA-B.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Vincent
Subarea ID	Post DA-B
Area (ac)	2.4
Flow Path Length (ft)	480.38
Flow Path Slope (vft/hft)	0.0057
50-yr Rainfall Depth (in)	6.88
Percent Impervious	0.6575
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	6.0406
Peak Intensity (in/hr)	3.0768
Undeveloped Runoff Coefficient (Cu)	0.8277
Developed Runoff Coefficient (Cd)	0.8752
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	6.4631
Burned Peak Flow Rate (cfs)	6.4631
24-Hr Clear Runoff Volume (ac-ft)	0.798
24-Hr Clear Runoff Volume (cu-ft)	34761.5525



Peak Flow Hydrologic Analysis

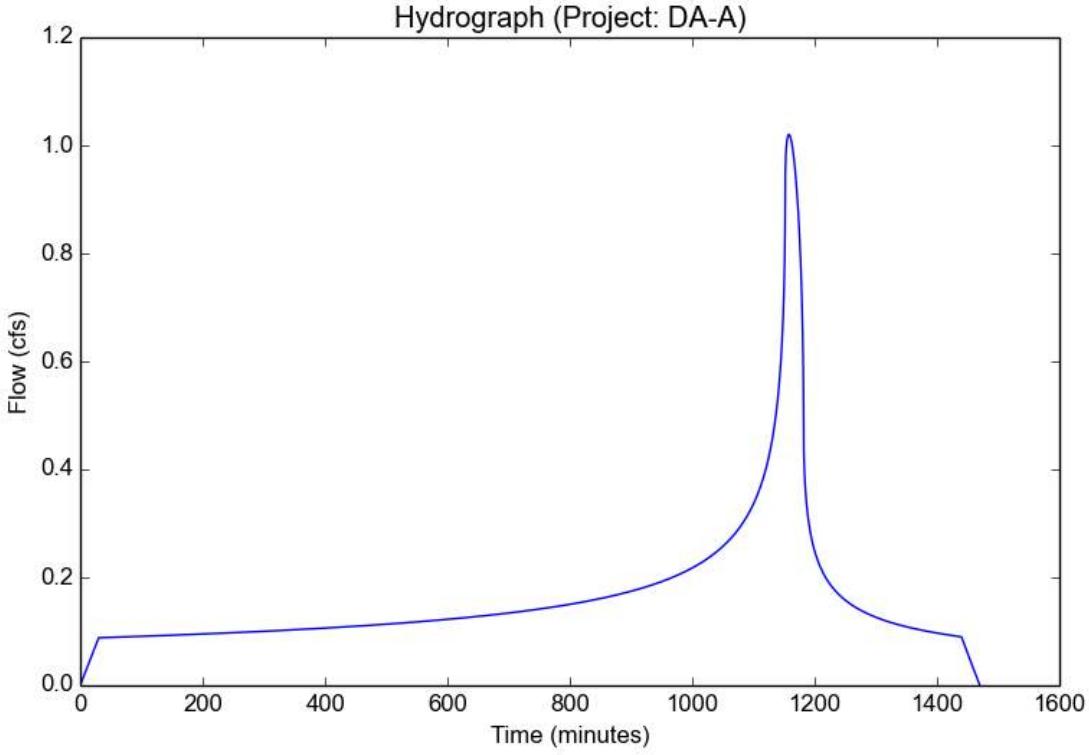
File location: G:/Shared drives/Blue/2020037 - Vincent - MLC/_Reports/_Preliminary Hydrology Report/Preliminary Calcs/Project - DA-A - LID.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Project
Subarea ID	DA-A
Area (ac)	5.7
Flow Path Length (ft)	522.11
Flow Path Slope (vft/hft)	0.0081
85th Percentile Rainfall Depth (in)	1.05
Percent Impervious	0.704
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.05
Peak Intensity (in/hr)	0.2699
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.6632
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	1.0202
Burned Peak Flow Rate (cfs)	1.0202
24-Hr Clear Runoff Volume (ac-ft)	0.328
24-Hr Clear Runoff Volume (cu-ft)	14289.4713



Peak Flow Hydrologic Analysis

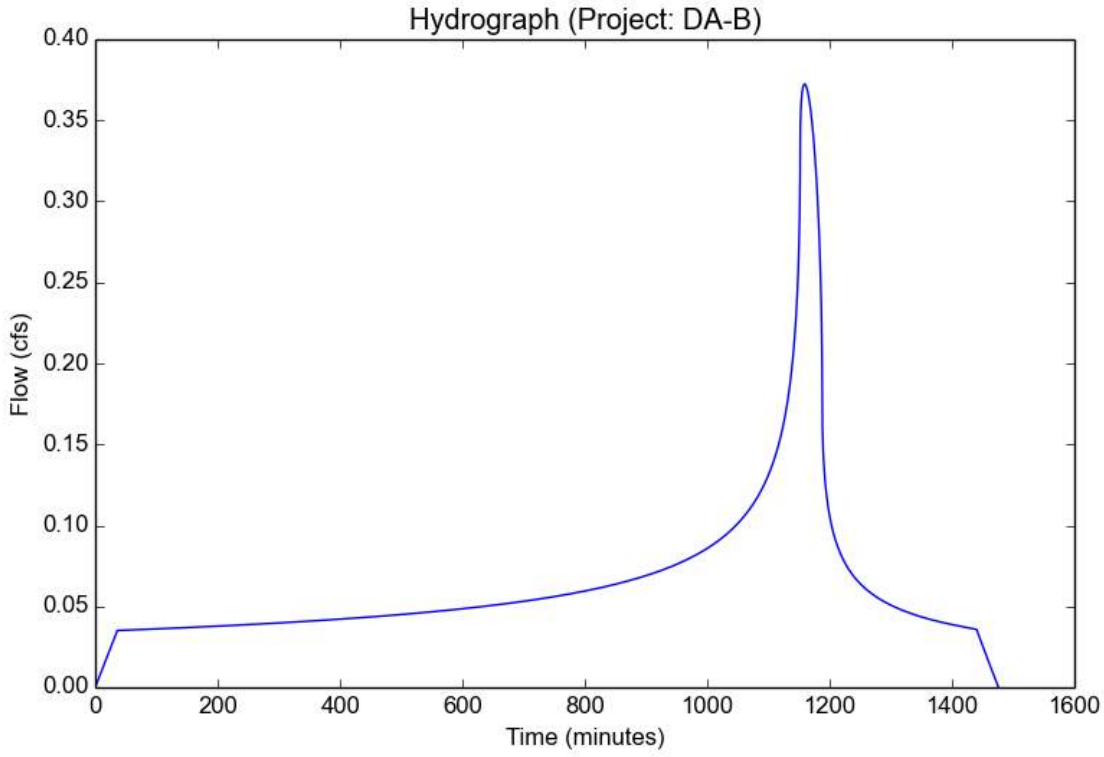
File location: G:/Shared drives/Blue/2020037 - Vincent - MLC/_Reports/_Preliminary Hydrology Report/Preliminary Calcs/Project - DA-B-LID.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Project
Subarea ID	DA-B
Area (ac)	2.4
Flow Path Length (ft)	535.89
Flow Path Slope (vft/hft)	0.0038
85th Percentile Rainfall Depth (in)	1.05
Percent Impervious	0.658
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.05
Peak Intensity (in/hr)	0.2477
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.6264
Time of Concentration (min)	36.0
Clear Peak Flow Rate (cfs)	0.3724
Burned Peak Flow Rate (cfs)	0.3724
24-Hr Clear Runoff Volume (ac-ft)	0.1305
24-Hr Clear Runoff Volume (cu-ft)	5682.7951



PRECISE PLAN FOR TRACT NO. 83166

LOCATED IN THE CITY OF WEST COVINA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

LEGEND

Q25 =	RUNOFF IN CFS FOR 25 YR, FREQUENCY
1A / 0.82	SUBAREA NUMBER SUB AREA IN ACRES
5	TIME OF CONCENTRATION (FOR Q25)
	SUBAREA BOUNDARY
	FLOW LINE PATH

HYDROLOGIC DESIGN DATA	
STORM FREQUENCY	25-YR
RAINFALL DEPTH	6.88"
SOIL TYPE	6
PERCENT IMPERVIOUSNESS	37.4%

PRE-DEVELOPMENT HYDROLOGY EXHIBIT

REGISTERED PROFESSIONAL ENGINEER
ANGEL CESAR
No. 87222
CIVIL
STATE OF CALIFORNIA

PREPARED BY:

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7-28-2020
ANGEL CESAR, P.E. RCE 87222 — DATE

MAJOR LAND DIVISION

TENTATIVE TRACT MAP NO. 83166
IN THE CITY OF WEST COVINA
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PLAN NO.

SCALE: *SEE PLAN*

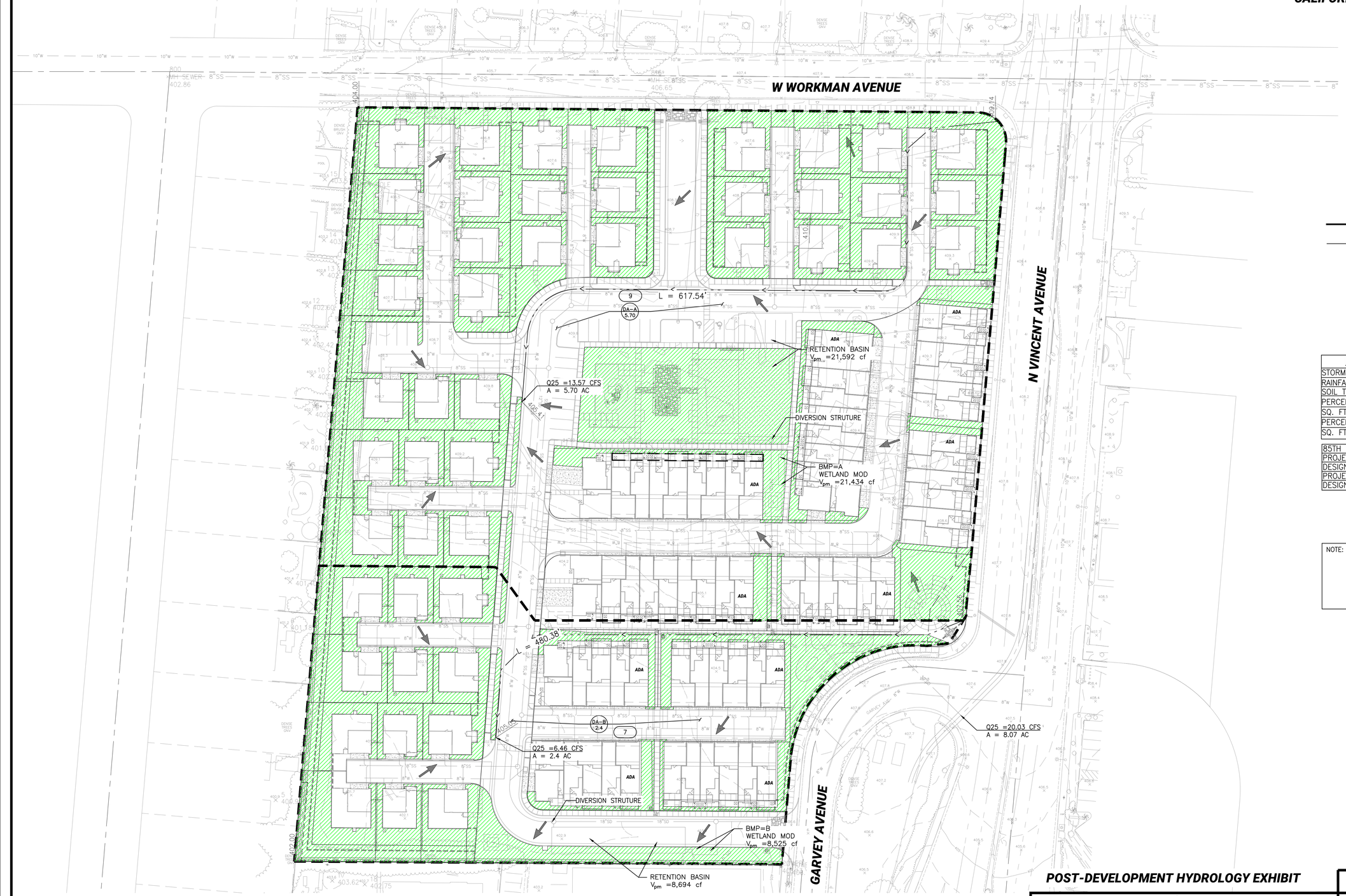
DATE: *July 28, 2020*

SHEET: *C5* OF

SCALE: *SEE PLAN*

PRECISE PLAN FOR TRACT NO. 83166

LOCATED IN THE CITY OF WEST COVINA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA



0 20 40 80 Feet
SCALE 1" = 40'

LEGEND

Q25 =	RUNOFF IN CFS FOR 25 YR, FREQUENCY
1A / 0.82	SUBAREA NUMBER SUB AREA IN ACRES
5	TIME OF CONCENTRATION (FOR Q25)
	SUBAREA BOUNDARY
	FLOW LINE PATH
	PERMEABLE/LANDSCAPING

HYDROLOGIC DESIGN DATA	
STORM FREQUENCY	25-YR
RAINFALL DEPTH	6.88"
SOIL TYPE	6
PERCENT IMPERVIOUS	(A)70.4% (B) 65.8%
SQ. FT. IMPERVIOUS	(A) 174,672 (B) 68,741
PERCENT PERVIOUS	(A) 29.6% (B) 34.2%
SQ. FT. PERVIOUS	(A) 73,434 (B) 35,803

85TH PERCENTILE RAINFALL DEPTH	1.05"
PROJECT DESIGN V LID A	21,434 CF
DESIGN VOLUME – WETLAND MOD A	21,592 CF
PROJECT DESIGN V LID B	8,525 CF
DESIGN VOLUME – WETLAND MOD B	8,694 CF

NOTE:
1. NOT WITHIN COUNTY ADOPTED FLOODWAY.
2. NOT WITHIN FEMA FLOOD ZONE "A".
3. HOA TO MAINTAIN DRAINAGE DEVICES.

POST-DEVELOPMENT HYDROLOGY EXHIBIT

PREPARED BY:

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7-28-2020
ANGEL CESAR, P.E. RCE 87222 DATE

MAJOR LAND DIVISION

TENTATIVE TRACT MAP NO. 83166
IN THE CITY OF WEST COVINA
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PLAN NO.
SCALE: *SEE PLAN*
DATE: *July 28, 2020*
SHEET: C6 OF
SCALE: *SEE PLAN*

TENTATIVE TRACT MAP NO. 83166

LOCATED IN THE CITY OF WEST COVINA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PARCEL AREA TABLE		
PARCEL #	AREA	LOT COVERAGE
1	2,946	58.0%
2	2,182	61.2%
3	2,602	58.1%
4	2,767	48.2%
5	2,754	54.9%
6	2,250	67.3%
7	2,000	66.8%
8	2,803	61.0%
9	2,900	59.0%
10	2,000	66.8%
11	3,364	45.0%
12	3,059	49.5%
13	2,228	59.9%
14	2,912	58.7%
15	3,232	52.9%
16	2,228	59.9%
17	2,734	55.3%
18	2,745	55.3%
19	2,000	66.8%
20	2,617	65.3%

PARCEL AREA TABLE		
PARCEL #	AREA	LOT COVERAGE
21	2,900	59.0%
22	2,000	66.8%
23	2,454	61.7%
24	3,480	43.5%
25	2,506	53.3%
26	3,082	55.5%
27	2,631	57.5%
28	2,003	66.7%
29	2,443	61.9%
30	2,625	57.6%
31	2,000	66.8%
32	2,698	63.4%
33	2,898	52.2%
34	2,003	66.7%
35	2,449	61.8%
36	2,670	56.7%
37	2,002	66.7%
38	2,701	63.3%
39	2,945	51.4%
40	2,000	66.8%

PARCEL AREA TABLE		
PARCEL #	AREA	LOT COVERAGE
41	2,450	61.8%
42	2,713	55.8%
43	2,003	66.7%
44	2,697	63.4%
45	3,261	46.4%
46	2,195	60.8%
47	2,676	56.5%
48	6,552	N/A
49	7,325	N/A
50	7,158	N/A
51	7,856	N/A
52	12,844	N/A
53	7,753	N/A
54	7,070	N/A
55	6,998	N/A
56	10,886	N/A
57	12,924	N/A

EXISTING EASEMENTS

9. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED OCTOBER 14, 1953 AS INSTRUMENT NO. 3599, IN BOOK 42917, PAGE 159 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1

10. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED OCTOBER 14, 1953 AS INSTRUMENT NO. 3600, IN BOOK 42917, PAGE 160 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.

13. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 26, 1955 AS INSTRUMENT. NO. 3190, IN BOOK 46742, PAGE 167 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.

14. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 26, 1955 AS INSTRUMENT NO. 3191, IN BOOK 46742, PAGE 168 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.

15. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 26, 1955 AS INSTRUMENT NO. 3192, IN BOOK 46742, PAGE 169 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 1.

16. AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 2, 1955 AS BOOK 46806, PAGE 436 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION 1.

(17) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 13, 1959 AS INSTRUMENT NO. 3379 OF OFFICIAL RECORDS. IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION. AFFECTS A PORTION OF PARCEL 6.

PROPOSED EASEMENTS

(1) RECIPROCAL INGRESS/EGRESS EASEMENT FOR PUBLIC AND EMERGENCY ACCESS TO CITY OF WEST COVINA

(2) PUBLIC UTILITY EASEMENT DOMESTIC WATER ACCESS AND MAINTENANCE PURPOSES TO AZUSA LIGHT AND WATER.

(3) PUBLIC UTILITY EASEMENT FOR SANITARY SEWER ACCESS AND MAINTENANCE PURPOSES TO CITY OF WEST COVINA.

BENCHMARK

CITY OF WEST COVINA BR DISC IN WEST CATCH BASIN SUNSET AVE. 39 FT W/O C/L & 6.6 FT S/O C/L PROD WORKMAN AVE MKD (BM NO 18)
LACO MB G4452
EL=394.833 NAVD88

BASIS OF BEARINGS

THE BEARING N4°48'00" E OF THE C/L MORADA AVE. AS SHOWN ON THE MAP OF TRACT 42861 RECORDED IN BOOK 1028 PAGES 98 AND 99 OF MAPS, RECORDS OF LOS ANGELES COUNTY WAS USED AS THE BASIS OF BEARING.

PROJECT SUMMARY

MAIN ACCESS FROM WEST WORKMAN AVENUE
EVA ACCESS FROM W. GARVEY AVENUE

APN 8457-029-906
STREET ADDRESS: 1024 W. WORKMAN AVENUE, WEST COVINA, CA 91790

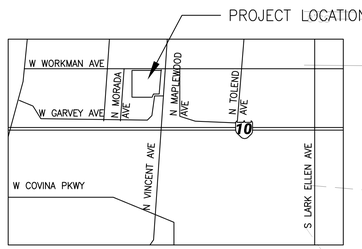
TOTAL NET DEVELOPABLE AREA	7.67 AC.
NUMBER OF LOTS (RESIDENTIAL)	57
NUMBER OF LOTS (DETACHED)	47
NUMBER OF LOTS (ATTACHED)	10
NUMBER OF H.O.A. OPEN SPACE	1
NUMBER OF PRIVATE STREET LOTS	3
NUMBER OF PRIVATE ALLEY LOTS	9
NUMBER OF LANDSCAPE LOTS	2 ('L' & 'M')
TOTAL NUMBER OF MULTIFAMILY UNITS	72
TOTAL NUMBER OF UNITS	119
TOTAL GROSS AREA:	8.05 AC.
COMMON OPEN SPACE PROVIDED	0.38 AC. (15,580 SF)
NET DENSITY	14.8 DU/AC
BUILDING COVERAGE:	138,639 SF
GROSS BUILDING AREA:	201,192 SF
SPRINKLER SYSTEM:	NFPA 13D
NUMBER OF STORIES	2-3
AVERAGE LOT SIZE (SFD)	2,544
MINIMUM LOT SIZE (SFH)	2,000
AVERAGE LOT SIZE (MULTIFAMILY)	10,078
MINIMUM LOT SIZE (MULTIFAMILY)	6,552
EXISTING ZONING DESIGNATION:	(R-1), AREA DISTRICT 1
PROPOSED ZONING DESIGNATION:	SPECIFIC PLAN
EXISTING LAND USE	EDUCATION/DAYCARE
PROPOSED LAND USE	RESIDENTIAL
EXISTING GENERAL PLAN	CIVIC: SCHOOL (S)
PROPOSED GENERAL PLAN	NEIGHBORHOOD MEDIUM (9-20 DU/AC)

PARKING

TOTAL REQUIRED PARKING:	268
TOTAL PROVIDED NUMBER OF PARKING STALL:	294
GARAGE/DRIVEWAY PARKING:	242
GUEST PARKING:	31
PARALLEL PARKING ON WORKMAN:	21

COMMON OPEN SPACE

TOTAL REQUIRED:	17,850 SF
TOTAL PROVIDED:	25,540 SF



VICINITY MAP
N.T.S.

LEGEND

	RIGHT OF WAY LINE/ PROPERTY LINE
	CENTERLINE
(101)	EXISTING CONTOUR
101	PROPOSED CONTOUR
12"SD	EXISTING STORMDRAIN LINE
S	EXISTING SEWER LINE
W	EXISTING WATER LINE
12"SD	PROPOSED STORMDRAIN LINE
8"SS	PROPOSED SEWER LINE
8"W	PROPOSED WATER LINE
	PROPOSED WATER METER
	PROPOSED HYDRANT ASSEMBLY
	SIGN
	POWER POLE
	A/C UNIT
	CATCH BASIN
XX	LOT NUMBER

SCALE 1" = 40'

GENERAL NOTES:

1. SEWER DISPOSAL TO BE BY SANITARY SEWER PROVIDED BY THE CITY OF WEST COVINA. ALL SANITARY SEWER PROPOSED WILL BE PUBLIC.

2. WATER PURVEYOR IS AZUSA LIGHT & WATER. ALL WATER LINES PROPOSED WILL BE PUBLIC.

3. A HOMEOWNERS ASSOCIATION SHALL BE FORMED TO MAINTAIN THE PRIVATE DRIVEWAY, PRIVATE ALLEYS, FIRE LANES AND LANDSCAPING/COMMON AREAS.

4. ALL EXISTING UTILITIES, IMPROVEMENTS, AND STRUCTURES WITHIN THE BOUNDARY OF THIS TENTATIVE TRACT MAP WILL BE DEMOLISHED AND REMOVED FROM THE SITE. EXISTING UTILITY CONNECTIONS THROUGH THE TENTATIVE MAP BOUNDARY SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES AND FINAL PROJECT CONDITIONS.

5. VACATE SCE EASEMENT 17 ON TITLE REPORT ON THE FINAL MAP.

6. MINIMUM PRIVATE STREET AND ALLEY GRADE IS 0.5%.

7. ALL FINISH FLOOR ELEVATIONS SHALL BE HIGHER THAN NEAREST DOWNSTREAM SEWER MANHOLE RIM ELEVATION. IF NOT, A SEWER BACK-FLOW DEVICE WILL BE REQUIRED ON ALL SEWER LATERALS THAT DO NOT MEET THIS REQUIREMENT.

8. ALL PROPOSED UTILITIES WILL BE UNDERGROUND.

9. DEVELOPMENT TO INCLUDE NEW DRIVEWAY APPROACH PER SPPWC STANDARD PLAN 110-2.

10. DEVELOPMENT INCLUDES CLOSING EXISTING DRIVEWAY APRON ALONG PROJECT FRONTAGE THAT WILL NOT BE USED. IMPROVEMENTS TO MATCH REQUIRED ADJACENT SECTIONS.

11. IMPROVEMENTS ALONG PROJECT FRONTAGE TO INCLUDE REMOVAL AND REPLACE BROKEN AND OFF GRADE SIDEWALK, CURB AND GUTTER IN ACCORDANCE WITH SPPWC STANDARD PLAN 113-2 AND 120-2 RESPECTIVELY.

12. DEVELOPMENT TO REPLACE EXISTING CURB RAMP AT THE CORNER OF WORKMAN AVE AND VINCENT AVENUE WITH NEW CURB RAMP PER SPPWC STANDARD PLAN 111-5.

13. ACCESS RIGHTS TO INTERIOR LOTS AND PRIVATE STREETS FROM PUBLIC ROADWAYS SHALL BE DEDICATED TO THE CITY OF WEST COVINA.

APPLICANT/DEVELOPER:
MLC HOLDINGS, INC.
5 PETERS CANYON ROAD SUITE 310
IRVINE, CA 92606
ATTN: MATT MAEHARA
949-372-3310

ARCHITECT:
KEVIN L. CROOK ARCHITECTS, INC
CONTACT JEFF ADDISON
1360 REYNOLDS AVENUE SUITE 110
IRVINE, CA 92614

LANDSCAPE ARCHITECT:
STUDIO PAD, INC
CONTACT: PETER DUARTE
23276 S. POINTE DR., STE 103
LAGUNA HILLS, CA 92653

OWNER:
COVINA VALLEY UNIFIED SCHOOL DISTRICT
1024 W. WORKMAN AVE,
WEST COVINA, CA 91790

ABBREVIATIONS

AC	ASPHALT CONCRETE	HZ	HORIZONTAL CONTROL
ADA	AMERICAN DISABILITY ACT	INV	INVERT
BW	BACK OF WALK	LP	LOW POINT
BCR	BEGIN CURB RETURN	PA	PLANTER AREA
CL	CENTER LINE	PVMT	PAVEMENT
ECR	END CURB RETURN	PCC	PORTLAND CEMENT CONCRETE
EG	EXISTING GROUND	P/L	PROPERTY LINE
ELEV	ELEVATION	R/W	RIGHT OF WAY
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
FF	FINISH FLOOR	SERV	SERVICE
FG	FINISH GROUND	SF	SQUARE FEET
FL	FLOWLINE	SS	SANITARY SEWER
FS	FINISH SURFACE	STA	STATION
GB	GRADE BREAK	STD	STANDARD
HDPE	HIGH-DENSITY POLYTHEYLENE	TC	TOP OF CURB
HP	HIGH POINT		

TENTATIVE TRACT MAP

REGISTERED PROFESSIONAL ENGINEER — ANGEL CESAR — No. 87222 — CIVIL — STATE OF CALIFORNIA

PREPARED BY:
BLUE Engineering & Consulting, Inc
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7-28-2020
ANGEL CESAR, P.E. RCE 87222 — DATE

MAJOR LAND DIVISION

TENTATIVE TRACT MAP NO. 83166
IN THE CITY OF WEST COVINA
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PLAN NO.	SCALE: 1" = 40'
	DATE: July 28, 2020
SHEET: C1 OF	SCALE:

TENTATIVE TRACT MAP NO. 83166

LOCATED IN THE CITY OF WEST COVINA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1:

THAT PORTION OF LOT 4 OF 576.50 ACRE TRACT, KNOWN AS W. R. ROWLAND TRACT, IN THE RANCHO LA PUENTE, IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP RECORDED IN BOOK 42 PAGE 45 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BOUNDED BY THE FOLLOWING DESCRIBED LINES:

BEGINNING AT A POINT IN THE CENTER LINE OF VINCENT AVENUE, 66 FEET WIDE (SAID CENTER LINE BEING AS DELINEATED ON THE MAP OF TRACT 13964, RECORDED IN BOOK 293 PAGE 32 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER) DISTANT NORTH 4° 09' 48" EAST 925 FEET (MEASURED ALONG SAID CENTER LINE) FROM THE CENTER LINE OF GARVEY BOULEVARD, AS SHOWN ON SAID MAP OF TRACT 13964; THENCE NORTH 89° 50' 12" WEST 33 FEET TO THE EASTERLY LINE OF SAID LOT, BEING THE TRUE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 9° 29' 44" WEST 75.33 FEET; THENCE SOUTH 20° 51' 45" WEST 52.20 FEET; THENCE SOUTH 33° 28' 24" WEST 65.37 FEET TO A LINE PARALLEL WITH AND DISTANT WESTERLY 87.00 FEET, MEASURED AT RIGHT ANGLES FROM SAID CENTER LINE OF VINCENT AVENUE; THENCE ALONG SAID PARALLEL LINE SOUTH 4° 09' 48" WEST 32 FEET; THENCE FROM A TANGENT WHICH BEARS NORTH 85° 50' 12" WEST, SOUTHWESTERLY ALONG A CURVE CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 111 FEET THROUGH A CENTRAL ANGLE OF 90° AND AN ARC DISTANCE OF 174.36 FEET TO THE POINT OF TANGENCY WITH A LINE PARALLEL WITH AND DISTANT WESTERLY 198 FEET (MEASURED AT RIGHT ANGLES) FROM SAID CENTER LINE OF VINCENT AVENUE; THENCE ALONG SAID LAST DESCRIBED LINE SOUTH 4° 09' 48" WEST 92.06 FEET TO A LINE PARALLEL WITH AND DISTANT SOUTHERLY 694.98 FEET (MEASURED ALONG SAID EASTERLY LINE) FROM THE NORTHERLY LINE OF SAID LOT; THENCE ALONG SAID LAST DESCRIBED LINE SOUTH 89° 50' 40" WEST 428.17 FEET TO THE WESTERLY LINE OF SAID LOT; THENCE ALONG SAID WESTERLY LINE NORTH 4° 09' 48" EAST 487.50 FEET TO A LINE WHICH IS PARALLEL WITH THE NORTH LINE OF SAID LOT WHICH PASSES THROUGH A POINT IN THE EAST LINE OF SAID LOT DISTANT SOUTHERLY THEREON 207.48 FEET FROM THE NORTHEAST CORNER OF SAID LOT; THENCE ALONG SAID PARALLEL LINE NORTH 89° 50' 40" EAST TO THE EAST LINE OF SAID LOT; THENCE SOUTH 4° 09' 48" WEST TO THE TRUE POINT OF BEGINNING.

EXCEPT THEREFROM THE "PRECIOUS METALS AND ORES THEREOF", AS EXCEPTED FROM THE PARTITION BETWEEN JOHN ROWLAND SR., AND WILLIAM WORKMAN, IN THE PARTITION DEED RECORDED IN BOOK 10, PAGE 39 OF DEEDS.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED MAY 29, 1964 IN BOOK D2491 PAGE 563, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED JUNE 17, 1971 AS INSTRUMENT NO. 4329, OFFICIAL RECORDS.

PARCEL 2:

THE NORTHERLY 207.48 FEET, MEASURED ALONG THE EASTERLY LINE OF LOT 4 OF THE 576.50 ACRE TRACT KNOWN AS W. R. ROWLAND TRACT, IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 42 PAGE 45 OF MISCELLANEOUS RECORDS.

IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THE WESTERLY 406 FEET MEASURED ALONG THE NORTHERLY LINE OF SAID LAND.

ALSO EXCEPT THE NORTHERLY 10 FEET OF SAID NORTHERLY 207.48 FEET WITHIN THE LINES OF WORKMAN AVENUE.

ALSO EXCEPTING THEREFROM THE "PRECIOUS METALS AND ORES THEREOF" AS EXCEPTED FROM THE PARTITION BETWEEN JOHN ROWLAND, SR., AND WILLIAM WORKMAN, IN THE PARTITION DEED RECORDED IN BOOK 10 PAGE 39 OF DEEDS.

ALSO EXCEPT THEREFORM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED MAY 29, 1964 IN BOOK D2491 PAGE 563, OFFICIAL RECORDS.

ALSO EXCEPT THEREFORM THAT PORTION CONVEYED TO HE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED JUNE 17, 1971 AS INSTRUMENT NO. 4329, OFFICIAL RECORDS.

PARCEL 3:

THE EASTERLY 104 FEET OF THE WESTERLY 406 FEET MEASURED ALONG THE NORTH LINE THEREOF OF THAT PART OF LOT 4 OF THE 576.50 ACRE TRACT KNOWN AS THE W. R. ROWLAND TRACT, IN THE RANCHO LA PUENTE, IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 42 PAGE 45 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 4; THENCE SOUTH 4° 16' WEST ALONG THE EASTERLY LINE OF SAID LOT 346.48 FEET; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF SAID 593.69 FEET TO THE WESTERLY LINE OF SAID LOT; THENCE NORTH 4° 16' EAST ALONG SAID WESTERLY LINE TO THE NORTHWEST CORNER OF SAID LOT; THENCE EASTERLY ALONG THE NORTH LINE OF SAID LOT TO THE POINT OF BEGINNING.

EXCEPT THE SOUTHERLY 139 FEET MEASURED ALONG THE EAST LINE THEREOF.

ALSO EXCEPT THEREFROM THE "PRECIOUS METALS AND ORES THEREOF", AS EXCEPTED FROM THE PARTITION BETWEEN JOHN ROWLAND, SR., AND WILLIAM WORKMAN, IN THE PARTITION DEED RECORDED IN BOOK 10, PAGE 39 OF DEEDS.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED MAY 29, 1964 IN BOOK D2491 PAGE 563, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED JUNE 17, 1971 AS INSTRUMENT NO. 4329, OFFICIAL RE

PARCEL 4:
THAT PORTION OF LOT 4 OF THE 576.50 ACRE TRACT KNOWN AS THE W. R. ROWLAND TRACT, IN THE RANCHO LA PUENTE, IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 42 PAGE 45 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOW

BEGINNING AT THE INTERSECTION OF THE SOUTH LINE OF THE NORTH 30 FEET OF SAID LOT WITH THE WESTERLY LINE OF THE LAND DESCRIBED IN THE DEED TO MARLE E. ROARTY AND WIFE, RECORDED ON FEBRUARY 14, 1947 IN BOOK 24213 PAGE 352, OFFICIAL RECORDS OF SAID COUNTY; THENCE WESTERLY ALONG SAID SOUTH LINE 85 FEET; THENCE PARALLEL WITH THE WESTERLY LINE OF SAID LOT, SOUTH 4° 16' WEST 177.40 FEET TO A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID LOT AND WHICH PASSES THROUGH A POINT IN THE EASTERLY LINE OF SAID LOT THAT IS DISTANT THEREON SOUTH 4° 16' WEST 207.48 FEET FROM THE NORTHEAST CORNER OF SAID LOT; THENCE EASTERLY ALONG SAID PARALLEL LINE, 85 FEET TO SAID WESTERLY LINE OF THE LAND SO DESCRIBED IN THE ABOVE MENTIONED DEED; THENCE ALONG SAID WESTERLY LINE, NORTH 4° 16' EAST 177.40 FEET TO THE POINT OF BEGINNING

EXCEPTING THEREFROM THE "PRECIOUS METALS AND ORES THEREOF", AS EXCEPTED FROM THE PARTITION BETWEEN JOHN ROWLAND, SR., AND WILLIAM WORKMAN, IN THE PARTITION DEED RECORDED IN BOOK 10, PAGE 39 OF DEEDS.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED JUNE 17, 1971 AS INSTRUMENT NO. 4329, OFFICIAL RECORDS.

PARCEL 5:

THAT PORTION OF LOT 4 OF THE 576.50 ACRE TRACT KNOWN AS THE W. R. ROWLAND TRACT, IN THE RANCHO LA PUENTE, IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 42 PAGE 45 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTH LINE OF THE NORTH 30 FEET OF SAID LOT WITH THE WESTERLY LINE OF THE LAND DESCRIBED IN THE DEED TO JAMES WILKINS AND WIFE, RECORDED ON AUGUST 21, 1951 IN BOOK 37036 PAGE 303 OF OFFICIAL RECORDS OF SAID COUNTY; THENCE WESTERLY ALONG SAID SOUTH LINE 85 FEET TO THE EASTERLY LINE OF THE WESTERLY 132 FEET OF SAID LOT (MEASURED ALONG THE NORTH LINE THEREOF); THENCE PARALLEL WITH THE WESTERLY LINE OF SAID LOT SOUTH 4° 16' WEST 177.40 FEET TO A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID LOT AND WHICH PASSES THROUGH A POINT IN THE EASTERLY LINE OF SAID LOT THAT IS DISTANT THEREON SOUTH 4° 16' WEST 207.48 FEET FROM THE NORTHEAST CORNER OF SAID LOT; THENCE EASTERLY ALONG SAID PARALLEL LINE 85 FEET TO SAID WESTERLY LINE OF THE LAND SO DESCRIBED IN THE ABOVE MENTIONED DEED; THENCE ALONG SAID WESTERLY LINE, NORTH 4° 16' EAST 177.40 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED MAY 29, 1964 IN BOOK D2491 PAGE 563, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED JUNE 17, 1971 AS INSTRUMENT NO. 4329, OFFICIAL RECORDS.

PARCEL 6:

THE WESTERLY 132 FEET MEASURED ALONG THE NORTH LINE THEREOF, OF THAT PART OF LOT 4 OF THE 576.50 ACRE TRACT KNOWN AS THE W. R. ROWLAND TRACT, IN THE RANCHO LA PUENTE, IN THE CITY OF WEST COVINA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 42 PAGE 45 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 4; THENCE SOUTH 4° 16' WEST ALONG THE EASTERLY LINE OF SAID LOT, 346.48 FEET; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF SAID LOT, 593.69 FEET TO THE WESTERLY LINE OF SAID LOT; THENCE NORTH 4° 16' EAST ALONG SAID WESTERLY LINE TO THE NORTHWEST CORNER OF SAID LOT; THENCE EASTERLY ALONG THE NORTH LINE OF SAID LOT TO THE POINT OF BEGINNING.

EXCEPT THE INTEREST IN THE NORTHERLY 10 FEET AS GRANTED TO THE CITY OF WEST COVINA, BY

DEED RECORDED MARCH 16, 1932 IN BOOK 11493 PAGE 112, OFFICIAL RECORDS.

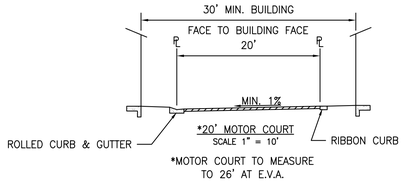
ALSO EXCEPT THEREFROM THE INTEREST GRANTED TO THE CITY OF WEST COVINA, BY DEED RECORDED AUGUST 28, 1951 IN BOOK 37090 PAGE 374, OFFICIAL RECORDS.

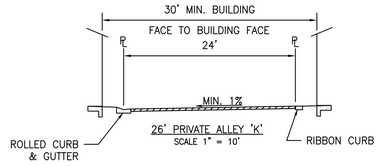
ALSO EXCEPT THEREFROM THAT PORTION CONVEYED TO THE CITY OF WEST COVINA, AS SHOWN BY DEED RECORDED JUNE 17, 1971 AS INSTRUMENT NO. 4329, OFFICIAL RECORDS.

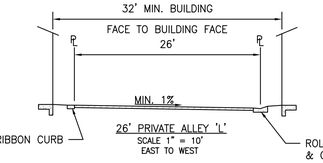
ALSO EXCEPT THE SOUTHERLY 139 FEET MEASURED ALONG THE EAST LINE THEREOF.

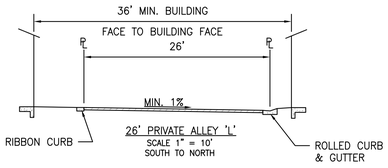
ALSO EXCEPT THEREFROM THE "PRECIOUS METALS AND ORES THEREOF", AS EXCEPTED FROM THE PARTITION BETWEEN JOHN ROWLAND, SR., AND WILLIAM WORKMAN, IN THE PARTITION DEED RECORDED IN BOOK 10 PAGE 39 OF DEEDS.

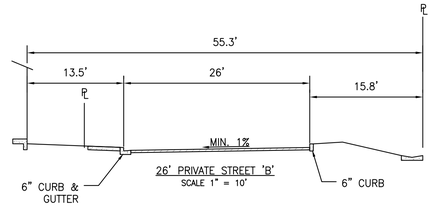
APN: 8457-029-906

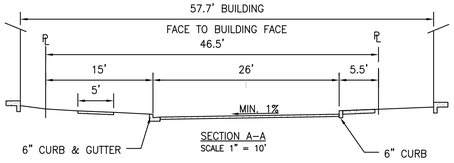


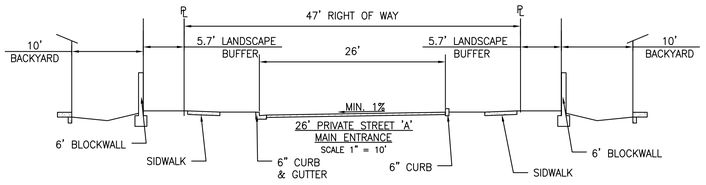


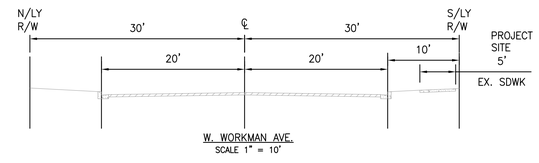


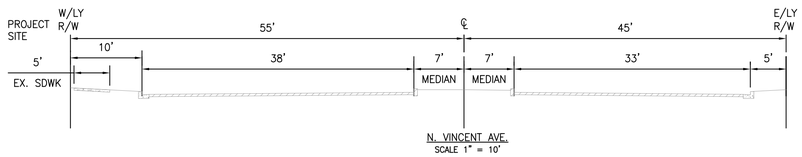


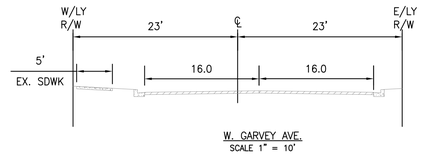












TENTATIVE TRACT MAP SECTION

PREPARED BY:

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REGISTERED PROFESSIONAL ENGINEER — ANGEL CESAR — No. 87222 — CIVIL — STATE OF CALIFORNIA

7-28-2020
ANGEL CESAR, P.E. RCE 87222 — DATE

MAJOR LAND DIVISION

TENTATIVE TRACT MAP NO. 83166
IN THE CITY OF WEST COVINA
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

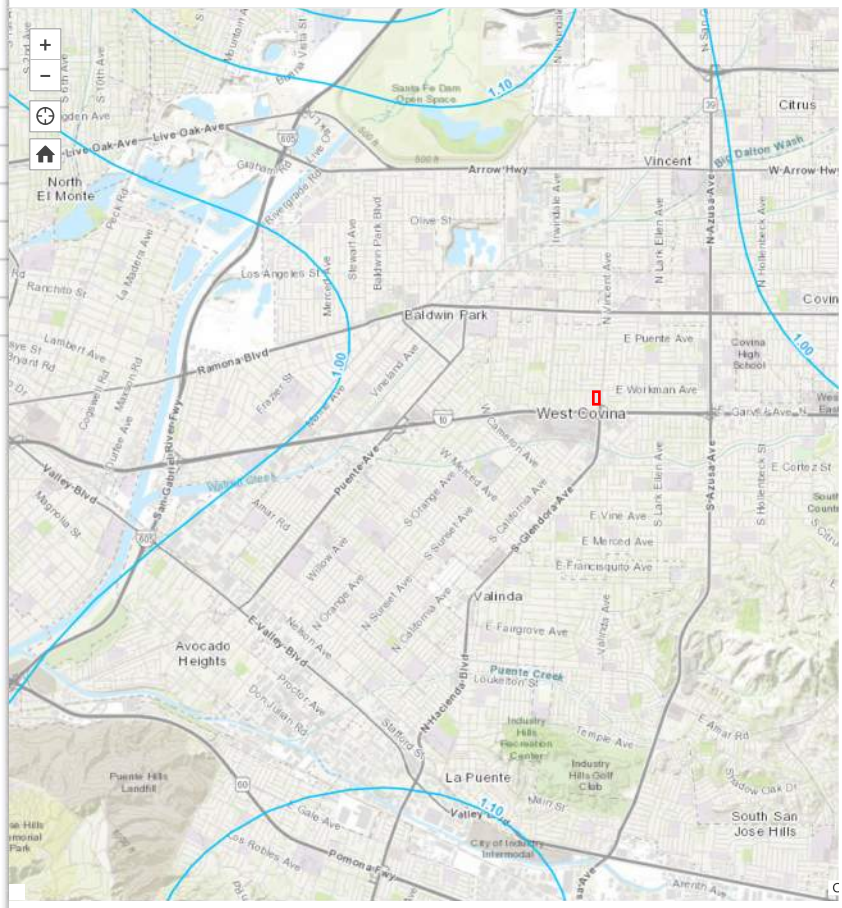
	PLAN NO.	SCALE: *SEE SHEET*
		DATE: *July 28, 2020*
	SHEET: **C2** OF	SCALE: *SEE SHEET*

About | Legend | Layers

Layers

- [ ] 50yr Two Tenths (Rainfall)
- [ ] DPA Zones
- [ ] Soils 2004
- [x] Final 85th Percentile, 24-hr Rainfall
- [ ] Final 95th Percentile, 24-hr Rainfall
- [ ] 1-year, 1-hour Rainfall Intensity
- [ ] LA County Parcel

LA County Hydrology Map



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- [ ] Final 95th Percentile, 24-hr Rainfall
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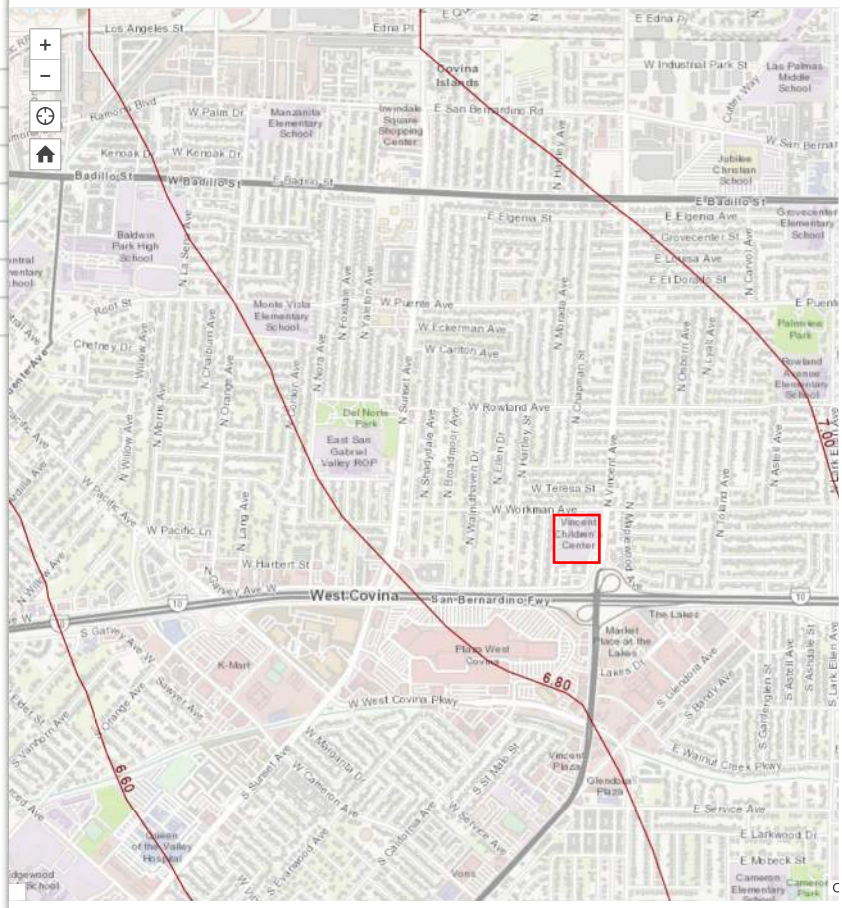
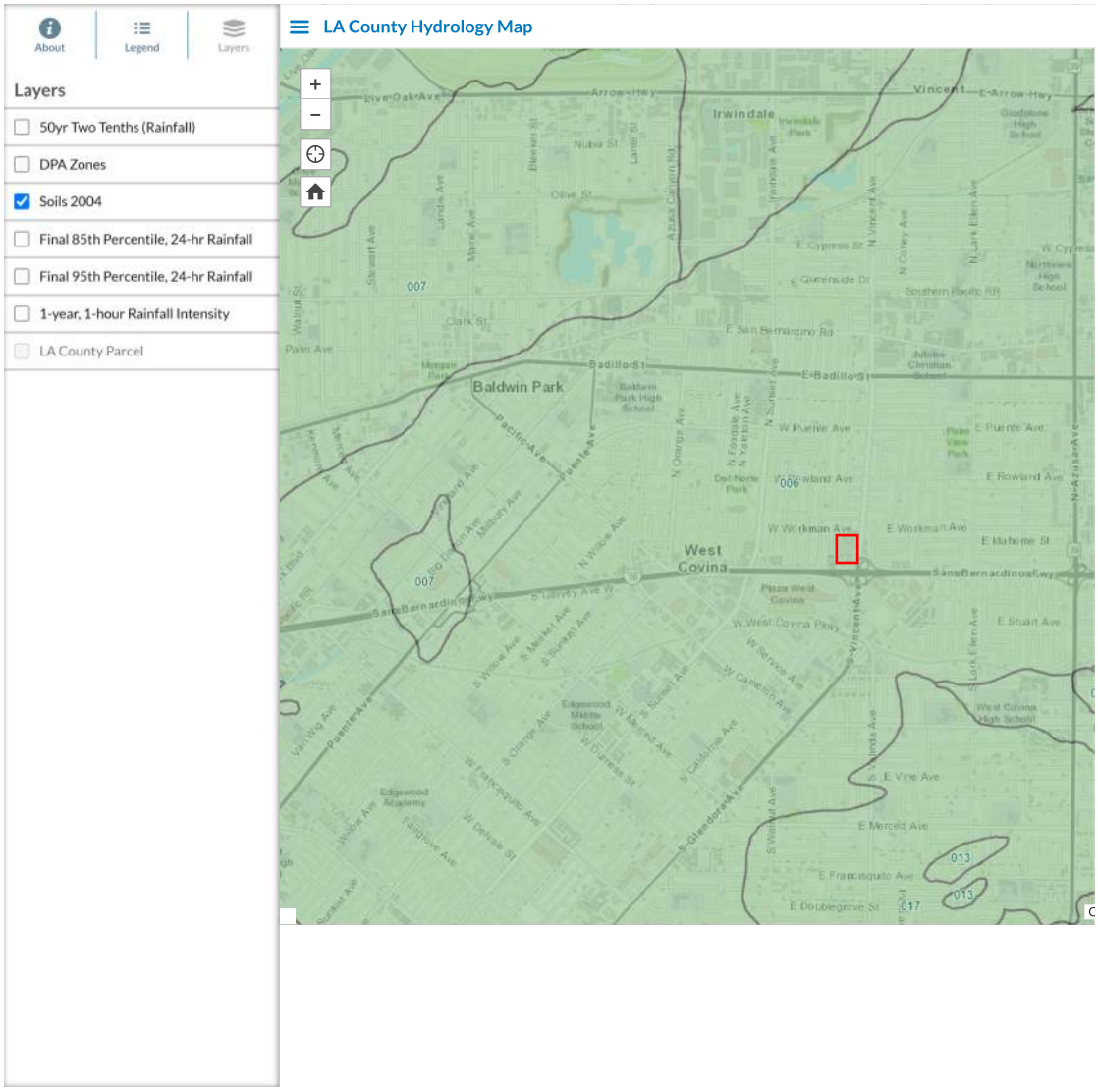
LA County Hydrology Map

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Soils 2004
Final 85th Percentile, 24-hr Rainfall
Final 95th Percentile, 24-hr Rainfall
1-year, 1-hour Rainfall Intensity
LA County Parcel
LA County Hydrology Map
Irwindale
Vincent
Baldwin Park
West Covina
Arrow Hwy
E Arrow Hwy
Olive St
Badillo St
E Badillo St
E San Bernardino Rd
W Puente Ave
E Puente Ave
E Rowland Ave
W Workman Ave
E Workman Ave
E Idaho St
San Bernardino Fwy
E Stuart Ave
E Vine Ave
E Merced Ave
E Francisquito Ave
E Doubegrove St
007
006
013
017

Office Use Only
☒ Sent Initials: _____
☐ Fax ☒ Email ☐ Other: _____
Date: _____ Time: _____

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION – HYDRAULIC ANALYSIS UNIT

INFORMATION REQUEST SUMMARY

INFORMATION REQUESTED BY

*Requester's Name: Angel Cesar, P.E.
Company: Blue Engineering and Consulting, Inc
*Phone Number: 909-248-6557 Fax Number: _____
*Email: angel@bluecivileng.com

Method of Contact: ☐ Walk-in ☐ Phone ☐ Fax ☒ Email ☐ Prelim. Mtg. Date: _____

Intended Use: develop hydrology report for proposed residential project

Proposed Project Type: Mixed multi family and single family developme Acreage Involved: 8.09

*Will information be used in any litigation? ☐ YES ☒ NO
Case Info. Name: _____ No: _____ Location: _____

INFORMATION REQUESTED (Attach Assessor Map)

LACFCD Facility: Name: Project 9709
Unit: _____ Line: B Station: _____
City: West Covina
*Street/Cross-street: Workman Ave and Vincent Ave.
*Thomas Guide: Page: 764 Grid: A7 ☒ Site Map/Plans Submitted
Info. Requested: Allowable Q

***Required Information. See Page 2 of 2 for Instructions.**

BELOW SECTION TO BE COMPLETED BY THE HYDRAULIC ANALYSIS UNIT

INFORMATION PROVIDED:
Drainage Map, Hydrology Data, As built Drawing, and Location Map

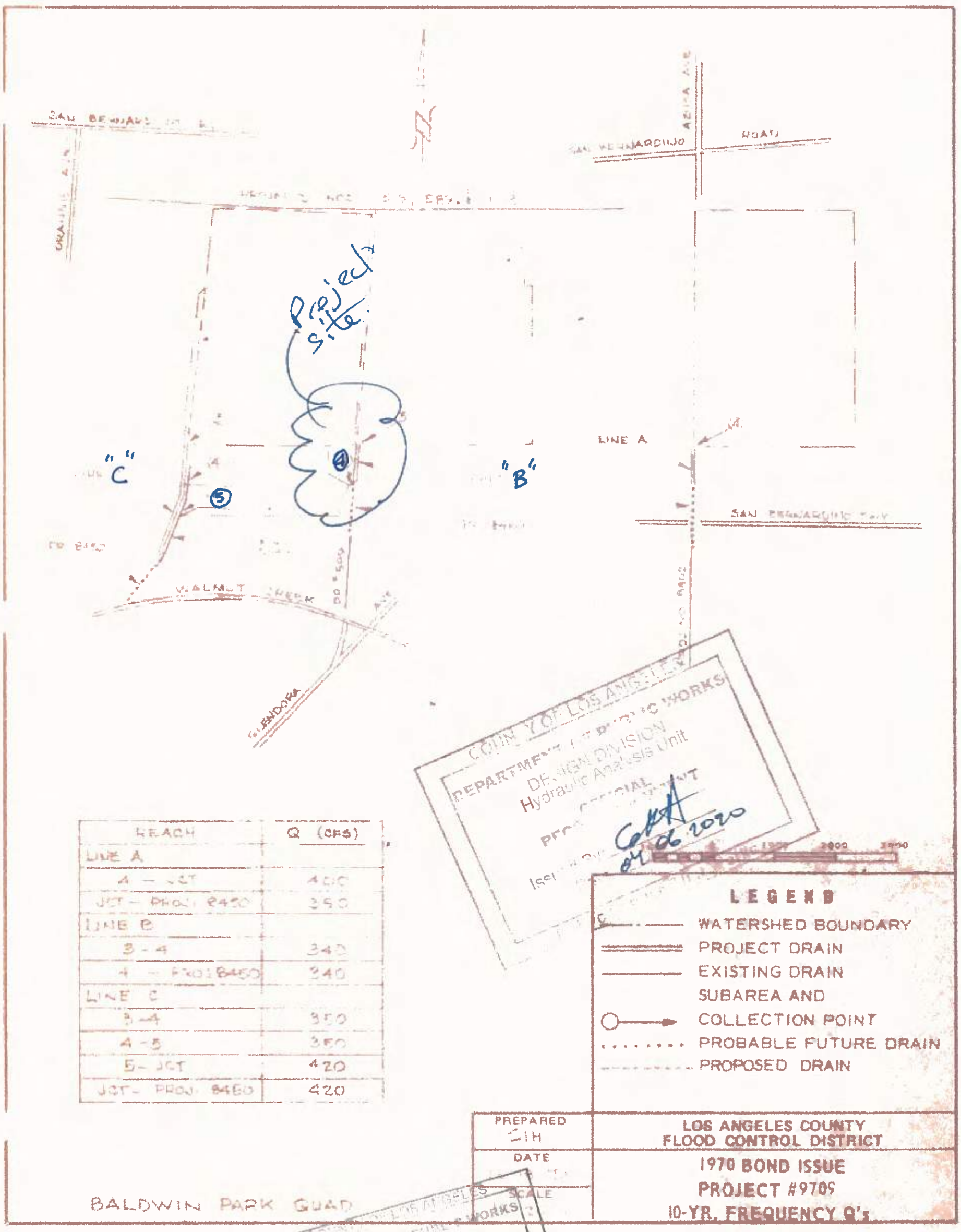
REFERENCES SEARCHED:
Project No. 9709 Files

COMMENTS, ETC:
1- Areas within Subarea No. 4 is tributary to Line "B". Allowable Q=2.50cfs/acre.
2- Areas within Subarea No. 5 is tributary to Line "C". Allowable Q=1.55cfs/acre
3- Subarea No. 4 Allowable Discharge Flow Q=2.50cfs/acre.
4- Subarea No. 5

Issued By GKA Date 6/25/2020

INFORMATION PROVIDED BY: George K Aintablian Date: 06/25/2020
INFORMATION REVIEWED BY: Date:

Print Save a Copy



REACH	Q (CFS)
LINE A	
1 – JCT	400
JCT – PROJ. B450	350
LINE B	
3 – 4	340
4 – PROJ. B450	340
LINE C	
3 – 4	350
4 – 5	350
5 – JCT	420
JCT – PROJ. B450	420

PREPARED CIH	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
DATE	1970 BOND ISSUE
SCALE	PROJECT #9709
	10-YR. FREQUENCY Q's

BALDWIN PARK QUAD

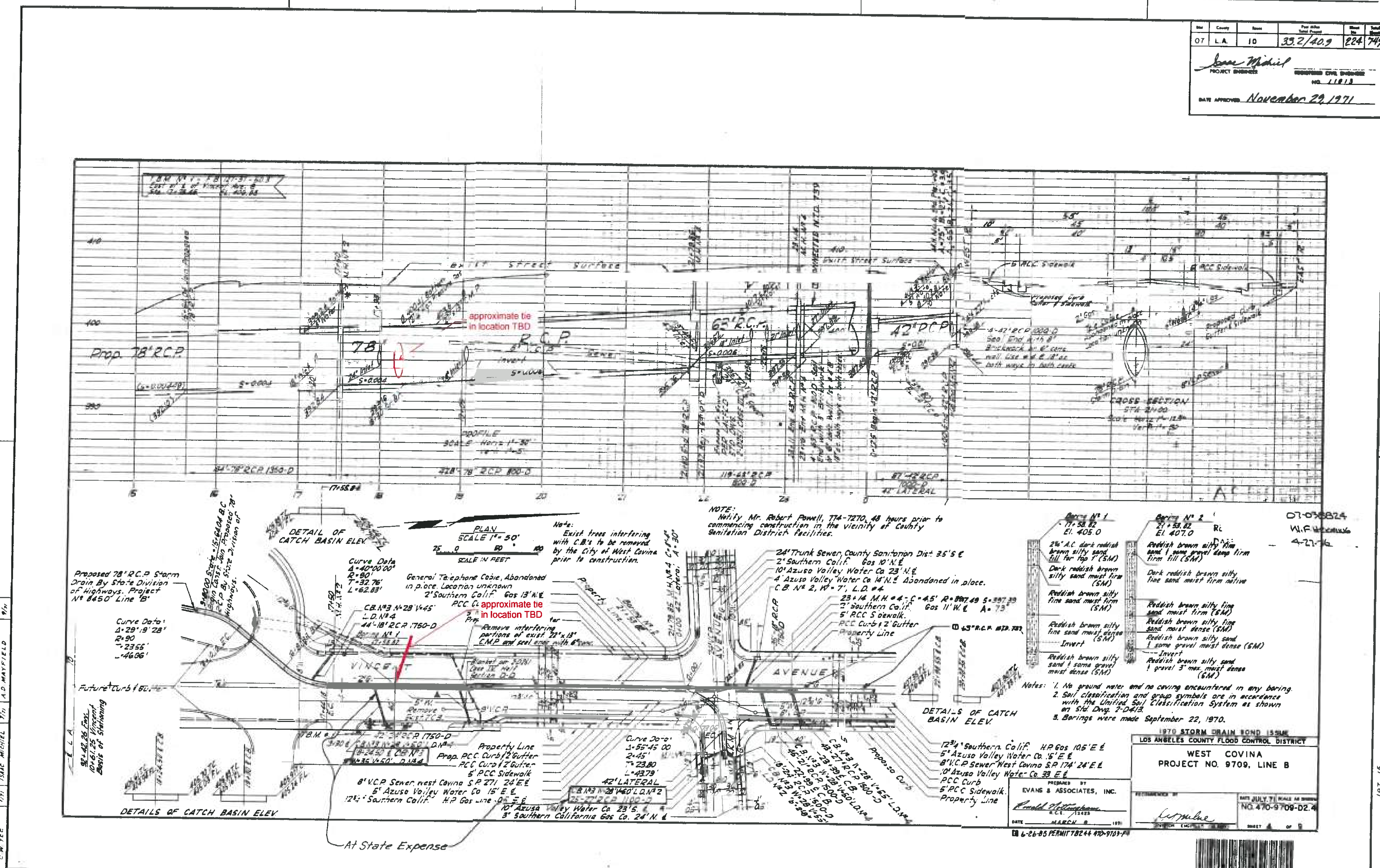
Los Angeles County Flood Control District
Hydraulic Division

Channel Design Data

Project 9709 Sheet 1 of 1

Channel Types
4. Pipe
5. Rectangular
6. Trapezoidal 10 Year Frequency Rainfall Date December 18, 1970

Reach or Subarea	Channel			Slope	Area (acres)		Q (cfs)	
	Length (feet)	Type	Size (feet)		Subarea	Total	Subarea	Reach
Line A								
4						2.3	40	
4-Jct.	70			.0750		2.3		100
Jct.-Proj.	0							100
Line L								
1						2.7	34	
3-4	700					2.7		340
4					.0		25	
4-Jct. Proj.				.0200		2.1		340
						2.8	350	
	700			.0450		2.8		350
					.6		35	
4-5	300					2.2		350
					.8		4	
5-Jct.			10	.00320		318		420
Jct.-Proj.				.00320		315		420



07 L.A. 10 33.2/40.9 224 749
PROJECT ENGINEER
NO. 11813
DATE APPROVED November 29, 1971
Exist. Street Surface
Prop. 78" R.C.P.
R.C.P.
63" R.C.P.
42" R.C.P.
5' P.C.C. Sidewalk
Proposed Curb Gutter & Sidewalk
approximate tie in location TBD
PROFILE
CROSS SECTION
DETAIL OF CATCH BASIN ELEV.
PLAN
SCALE 1" = 50'
SCALE IN FEET
Note: Exist. trees interfering with C.B.'s to be removed by the City of West Covina prior to construction.
NOTE: Notify Mr. Robert Powell, 774-7270, 48 hours prior to commencing construction in the vicinity of County Sanitation District facilities.
Proposed 78" R.C.P. Storm Drain By State Division of Highways. Project Nº 8450 Line 'B'
Curve Data
General Telephone Cable, Abandoned in place. Location unknown
2" Southern Calif. Gas 13' N.E.
approximate tie in location TBD
24" Trunk Sewer, County Sanitation Dist. 35' S E
2" Southern Calif. Gas 10' N E
10" Azusa Valley Water Co. 23' N E
4" Azusa Valley Water Co. 14' N E Abandoned in place.
5' P.C.C. Sidewalk
P.C.C. Curb & 2' Gutter
Property Line
VINCENT
AVENUE
Future Curb
Property Line
Prop. P.C.C. Curb/2' Gutter
P.C.C. Curb & 2' Gutter
5' P.C.C. Sidewalk
8" V.C.P. Sewer West Covina S.P. 271 24' E E
5" Azusa Valley Water Co. 15' E E
12 3/4" Southern Calif. H.P. Gas Line
42" LATERAL
10" Azusa Valley Water Co. 23' S.
3" Southern California Gas Co. 24' N.
At State Expense
DETAILS OF CATCH BASIN ELEV.
12 3/4" Southern Calif. H.P. Gas 105' E E
5" Azusa Valley Water Co. 5' E E
8" V.C.P. Sewer West Covina S.P. 174' 24' E E
10" Azusa Valley Water Co. 33 E E
P.C.C. Curb
5' P.C.C. Sidewalk
Property Line
DETAILS OF CATCH BASIN ELEV.
Boring Nº 1
El. 405.0
Boring Nº 2
El. 407.0
Notes: 1. No ground water and no caving encountered in any boring.
2. Soil classification and group symbols are in accordance with the Unified Soil Classification System as shown on Std. Dwg. 2-D413.
3. Borings were made September 22, 1970.
1970 STORM DRAIN BOND ISSUE
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
WEST COVINA
PROJECT NO. 9709, LINE B
EVANS & ASSOCIATES, INC.
NO. 470-9709-D2.4
07-038824

Summary

Total Site Area: 8.05 Acres

Total Units: 119 Homes

SFD Cluster: 47 homes
- 16 - Plan 1 (1465 SF, 3 bed, 2.5 ba)
- 9 - Plan 3 (1955 SF, 4 bed, 3 ba)
- 11 - Plan 3x (1955 SF, 4 bed, 3 ba)
- 11 - Plan 4 (2,125 SF, 4 bed, 3 ba)

Townhomes: 72 homes (2 bldg types)
- 10 - Plan 1: 1210 SF/2 bed/s-s garage
- 31 - Plan 2: 1494 SF/3 bed/tandem
- 31 - Plan 4: 1802 SF/3 bed/s-s garage

Density: 14.8 DU/AC

Parking Required per MF-20:
2 garage space per unit x 119 = 238
+ 0.25 guest x 119 = 29.75
267.75 Space Total

Parking Provided:
238 Garage space (2 per unit)
4 Driveway Spaces
+ 31 Guest (0.26 per unit)
273 Spaces Total

Open Space Required: Per Specific Plan

Common Open Space Provided:
15,580 SF (130 SF per unit)

Notes:
1. Boundary, setbacks, rights-of-way and area calculations to be confirmed by civil engineer.
2. Existing General Plan Designation: Civic: School (S)
3. Proposed General Plan Designation: Neighborhood Medium (9-20 du/ac)
4. Existing Zoning Designation: R-1
5. Proposed Zoning Designation: Specific Plan
6. Footprints based on prototype townhomes plans dated 8/28/2019 and prototype SFD Cluster Plans dated 11/18/2019. Footprints to be confirmed by architect.
7. S/S indicates a standard 2-car garage that parks both cars side-by-side.
8. Site Plan is for illustrative purposes only and does not represent actual landscaping.

Conceptual Site Plan

Vincent Avenue

West Covina, California

0 25 50 100
Scale 1" = 50'

Application No.: PreApp
Submittal No.: PreApp
May 28, 2020
Prepared by JSCC Consulting
Prepared for MLC Holdings, Inc.

Sheet 1 of 1

Boring Percolation Test Data Sheet

Project Number:	IR739	**Test Hole Number:**	B-1
Project Name:	W 1024 Workman	**Date Excavated:**	28-Feb-20
Soil Description:	SM	**Date Tested:**	28-Feb-20
Liquid Description:	Clean Water	**Depth of Boring (ft):**	50
Tested By:	Y Gao	**Diameter of boring (in):**	8
Test Time Interval:	10 minutes	**Diameter of casing (in):**	4
Start Time for Pre-Soak:	12:10 PM	**Length of perforated casing (ft):**	5
Start Time for Test:	13:10 pm	**Depth to Initial Water Depth (ft):**	5.5
Screened Interval :	5.0 ft to 10.0 ft bgs		

Percolation Data

Sandy Soil Criteria Test

Trial No.	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level ΔD (in)	Greater than or equal to 6 inches ?
1	1:30 PM	1:55 PM	25	223.2	310.8	87.6	Yes
2	11:30 AM	11:55 AM	25	168.0	235.2	67.2	Yes

Deep Percolation Test

Trial No.	Start Time	Stop Time	Time Interval (min)	Initial Depth of Water (ft)	Final Depth of Water (ft)	Change in Water Level ΔD (in)	Percolation Rate (in/hr)
1	1:53 PM	2:03 PM	10	5.50	5.98	5.7	0.29
2	2:04 PM	2:14 PM	10	5.50	5.60	1.2	0.06
3	2:14 PM	2:24 PM	10	5.50	5.77	3.2	0.16
4	2:26 PM	2:36 PM	10	5.50	5.66	1.9	0.10
5	2:39 PM	2:49 PM	10	5.50	5.65	1.8	0.09
6	2:50 PM	3:00 PM	10	5.50	5.67	2.0	0.10
7	3:03 PM	3:13 PM	10	5.40	5.56	1.9	0.10
8	3:14 PM	3:24 PM	10	5.52	5.69	2.0	0.10

Unfactored Percolation Rate, I = **0.1** **in/hr**

Figure A-7-a

Design Infiltration Rate

Project Number: IR739

Project Number: W 1024 Workman Ave

Infiltration Number: **B-1**

Diameter of Boring (in):	8
Diameter of Casing (in):	4
Depth of Casing Above Ground (ft):	0
Depth of Boring (ft):	50
Bentonite Plug at bottom of test section?:	Yes
Length of Test Section (ft):	5
Standard Time Interval Between Readings (min):	10
Average Water Drop (in):	2

Volume of Water Dischaged (in^3):	25.13	in^3
Surface Area of Test Section (in^2):	1507.96	in^2

Raw Percolation Rate (in/hr): **0.10** in/hr

Reduction Factors

Boring Percolation (RFt=2)	RF_t=	2
Site variability, number of tests, and thoroughness of subsurface investigation (RFv= 1 to 3)	RF_v=	1
Long-term siltation, plugging and maintenance (RFs= 1 to 3):	RF_s=	1
Total Reduction Factor, RF = RFt x RFv x RFs	RF=	2

Design Infiltration Rate = Raw Percolation Rate / RF

Design Infiltration Rate (in/hr): **0.05** in/hr

GROUP DELTA

Calculation method taken from the "Administrative Manual County of Los Angeles Department of Public Works Geotechnical and Materials Engineering Division" (GS200.2 6/30/17)