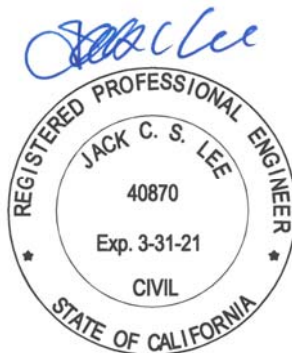


Hydrology Report

PROVIDES DATE 05/08/2020

JOB ADDRESS:

8589 GARVEY AVE. AND 3001 WALNUT GOVE AVE.
ROSEMEAD, CA 91770



BY
CAL LAND ENGINEERING, INC.

Introduction

The project site is located at the northwest corner of Walnut Grove Ave and Garvey Ave, City of Rosemead.

The project is relatively flat, existing drainage flow drains to southeast direction from northwest. The proposed development runoff will be collected in the basement storage and infiltrated by drywell then overflowed to street through parkway drain. Hydraulic calculation is based on 50-year storm event. There is no off-site drainage for this project. The proposed development is to construct a mix-use residential and commercial building.

Existing Hydrology StudyA-ex

Soil Type: 003
 Total Area = 1.057 acres
 Percent Impervious = 93.62%
 Average Rainfall Depth = 6.20 in.
 Using Tc Calculator
 Tc = 5 min.
 $Q_{ex} = 3.4234$ cfs

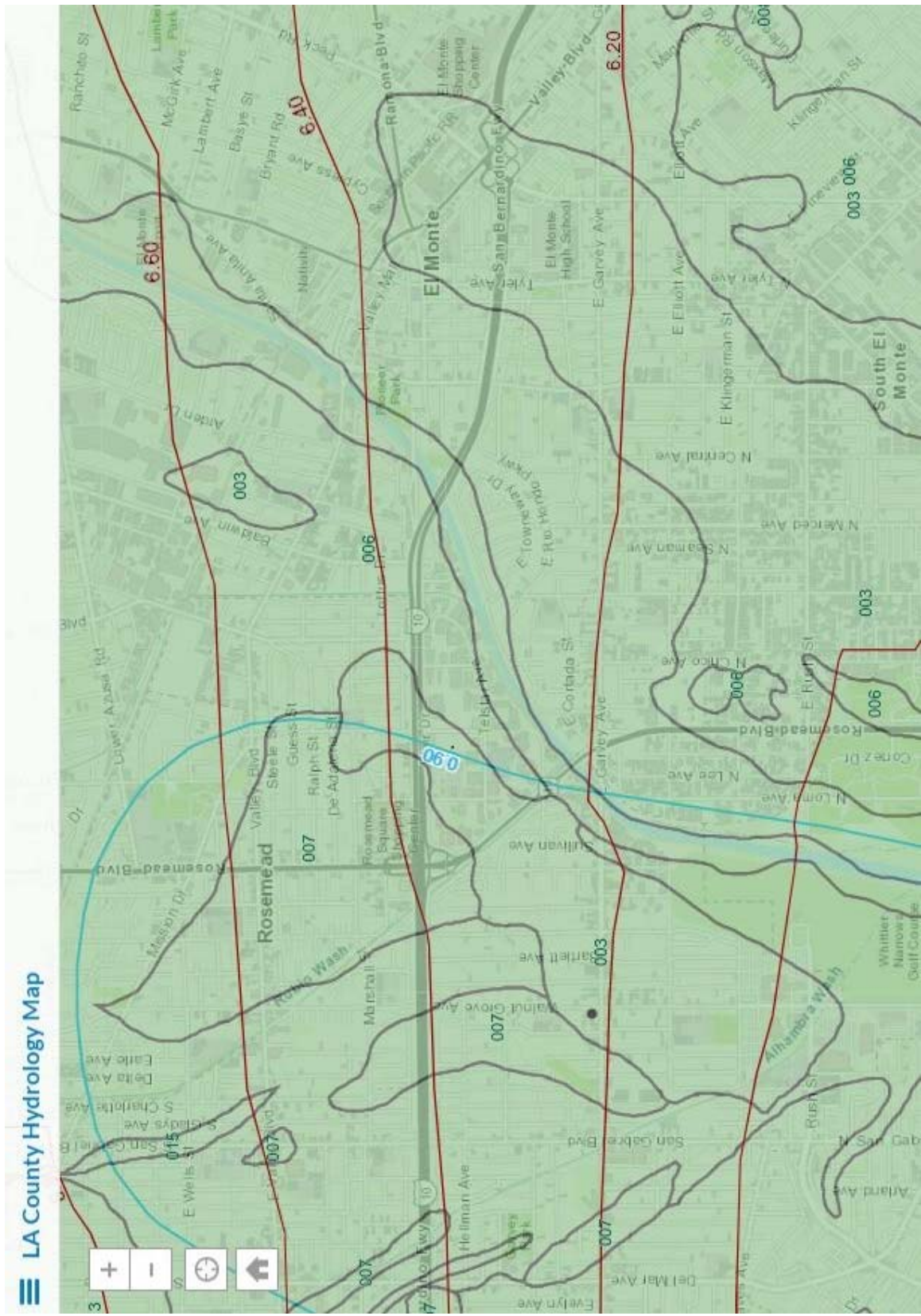
Proposed Hydrology StudyA-1

Soil Type: 003
 Total Area = 1.057 acres
 Percent Impervious = 97.48%
 Average Rainfall Depth = 6.20 in.
 Using Tc Calculator
 Tc = 5 min.
 $Q_{pro} = 3.4812$ cfs

$$Q_{pro} - Q_{ex} = 3.4812 - 3.4234 = 0.0578 \text{ cfs}$$

Parkway Drain

$Q = 3.765$ cfs > 3.4812 cfs OK for 30"x4" parkway drain.



Peak Flow Hydrologic Analysis

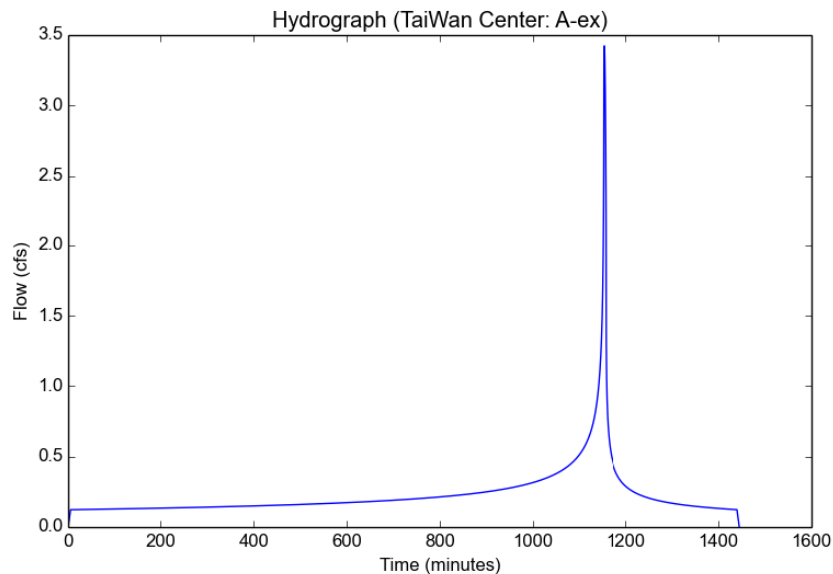
File location: U:/2019/Rosemead/3001 Walnut Grove - Taiwan Center/Hydrology/TaiWan Center - A-ex.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	TaiWan Center
Subarea ID	A-ex
Area (ac)	1.057
Flow Path Length (ft)	96.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	6.2
Percent Impervious	0.9362
Soil Type	3
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.2
Peak Intensity (in/hr)	3.6991
Undeveloped Runoff Coefficient (Cu)	0.5172
Developed Runoff Coefficient (Cd)	0.8756
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	3.4234
Burned Peak Flow Rate (cfs)	3.4234
24-Hr Clear Runoff Volume (ac-ft)	0.4607
24-Hr Clear Runoff Volume (cu-ft)	20068.0415



Peak Flow Hydrologic Analysis

File location: U:/2019/Rosemead/3001 Walnut Grove - Taiwan Center/Hydrology/TaiWan Center - A-pro.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	TaiWan Center
Subarea ID	A-pro
Area (ac)	1.057
Flow Path Length (ft)	65.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	6.2
Percent Impervious	0.9748
Soil Type	3
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.2
Peak Intensity (in/hr)	3.6991
Undeveloped Runoff Coefficient (Cu)	0.5172
Developed Runoff Coefficient (Cd)	0.8904
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	3.4812
Burned Peak Flow Rate (cfs)	3.4812
24-Hr Clear Runoff Volume (ac-ft)	0.4769
24-Hr Clear Runoff Volume (cu-ft)	20772.8733

