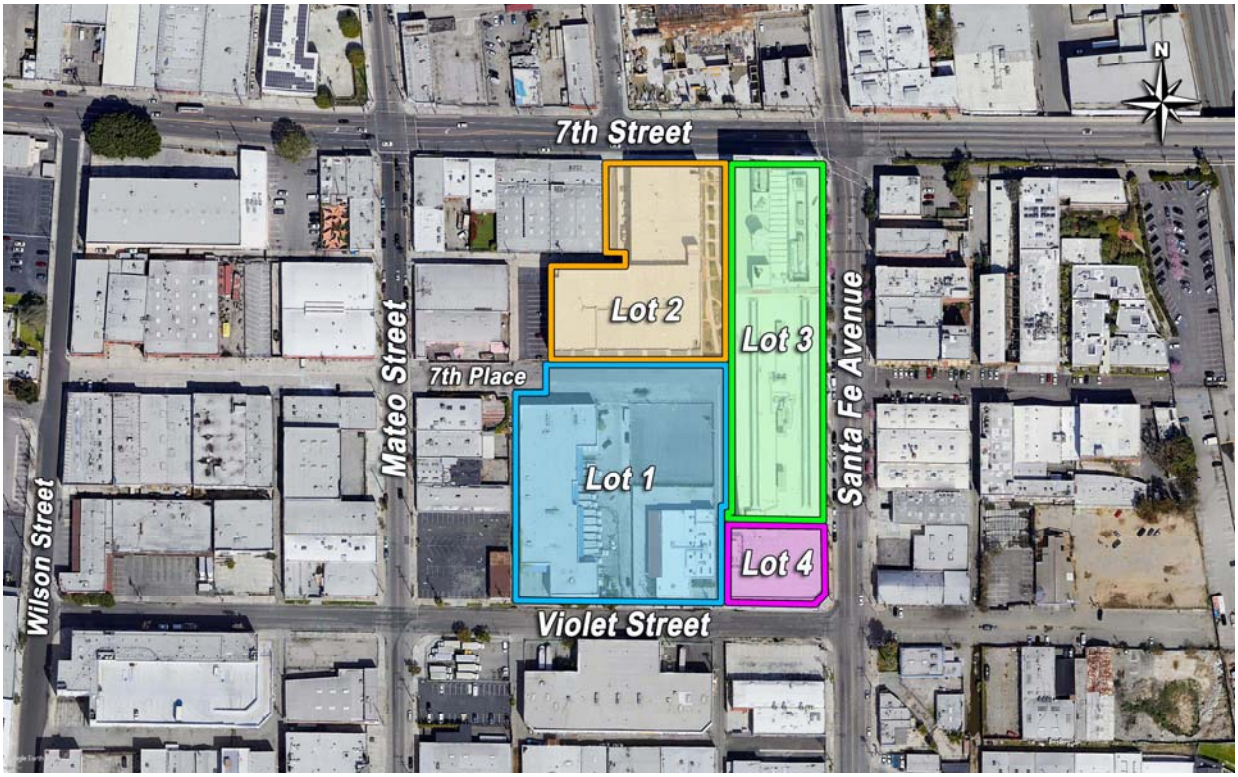
Appendix IS-6

Hydrology Report

Hydrology & Stormwater Quality Study

Violet Street Tower

Violet Street and Santa Fe Avenue
Los Angeles, California



May 28, 2021

Prepared for

HINES

Prepared by

KHR ASSOCIATES
Consulting Engineers - Surveyors - Planners

ATTESTATION

This report has been prepared by, and under the direction of, the undersigned, a duly Registered Civil Engineer in the State of California. Except as noted, the undersigned attests to the technical information contained herein, and has judged to be acceptable the qualifications of any technical specialists providing engineering data for this report, upon which findings, conclusions, and recommendations are based.

James H. Kawamura, P.E.
Registered Civil Engineer No. C30560
Exp. 3/31/22

TABLE OF CONTENTS

APPENDIX

Section 1 Executive Summary

This Hydrology & Stormwater Quality Study presents an analysis of the hydrologic and surface water quality effects associated with the proposed unified development located northwest of the intersection of Violet Street and Santa Fe Avenue, in the City of Los Angeles, County of Los Angeles. The study details the general project characteristics, design, criteria, and methodology applied to the analysis of the subject area in terms of drainage and associated conveyance and treatment facilities.

The plans and specifications in the Hydrology & Stormwater Quality Study are not for construction purposes; the contractor shall refer to final approved construction documents for plans and specifications.

The project area consists of 2 Lots (2.94 acres) that are proposed to be demolished and redeveloped into a unified development with 2 previously developed lots. Lot 1 will be redesigned into a 13-story creative office tower with retail over a new subterranean parking structure. Lot 4 is being considered for redevelopment and is included within this analysis, but the scope is still being finalized. Lot 2 is an existing parking structure and open space area that will remain. Lot 3 is an existing office building that will remain. The project is located near the northwest corner of Violet Street and Santa Fe Avenue in downtown Los Angeles within the Los Angeles River watershed.

The following assumptions were made while preparing this report: (1) Off-site runoff will be considered. (2) The area was depicted by utilizing provided surveying points and record drawings. (3) The 25-year and 50-year, 24-hour storm events will be considered, consistent with the Los Angeles County methodology. (4) The stormwater quality design volume resulting from the 85th percentile 24-hour runoff event will be mitigated for the proposed redeveloped portions of the site in accordance with the City's LID Ordinance. (5) It is assumed that infiltration will be feasible for the project due to the current use of drywells for stormwater mitigation within Lot 2.

The existing and proposed drainage conditions were analyzed by using the Los Angeles County Hydrology Manual rational method and the modified rationale method through the HydroCalc software to obtain computations for peak runoff and stormwater mitigation volume.

The existing drainage conditions for lots 1, 3 and 4 is a combination of sheet flow to adjacent streets or collection of runoff by roof drains that discharge at curb face into adjacent streets. These discharges occur without stormwater treatment and are collected by a city owned catch basin that connects to the city's maintained storm drain system. Lot 2 collects stormwater via inlets and directs the flows into a series of drywell systems for stormwater treatment. High flows bubble up and out a riser that drains into the alley in Lot 1, and then sheet flows into Violet Street for collection by the city owned catch basin.

Under the proposed conditions Lots 1, 2, & 4 will include a new stormwater conveyance network consisting of a gutter, roof drains, inlets, and a storm drain system. In Lot 1, the proposed gutter will be redirected from draining out to the curb face to draining southerly for collection by a proposed grated inlet where the stormwater quality design flow will be directed to an infiltration

system. Similarly with Lot 4, roof drains from the building will be hard piped into the proposed storm drain system where the stormwater quality design flow will be redirected into an infiltration system. Specifically for Lot 1 and Lot 4, all high flows will be conveyed by an inlet diverter to a parkway culvert discharging into Violet Street. For Lot 2, in order to avoid mixing runoff from this lot with the untreated runoff from Lot 1, the high flow bubble system will be replaced by a proposed storm drain line connection that will flow southerly down the alley were it will be discharged to curb face via proposed parkway culvert. The existing drainage conditions for Lot 3 will remain unchanged and will continue to discharge into Santa Fe Avenue and E 7th Street via roof drains to curb face.

The proposed project will slightly decrease the peak flow rate from 16.92 cfs in the existing condition to 16.90 cfs for the proposed. Being that the peak flow rates for existing and proposed conditions are similar, the proposed hydrologic conditions will not have an increased negative effect on the City's existing storm drain infrastructure. In addition, the implementation of drywells to infiltrate the stormwater quality design volume of approximately 9,525 cf will mitigate the project's impact on downstream water quality. Hence, the proposed project will reduce the site's flow rate and water quality impacts from that of the existing conditions.

Section 2 Project Information

2.1 Project Description

Hines is proposing to redevelop Lots 1 and 4 of TTM No. 83382 to create a unified development with the existing uses of Lots 2 and 3 (Ford Factory/Warner Music Group) within the tract. The total tract area is approximately 271,815 square feet (6.24 acres). The two existing buildings totaling approximately 35,035 square feet and the parking area within the 2.53-acre (110,300 square feet) Lot 1 will be demolished for a new 13-story creative office tower with retail over a new subterranean parking structure. The existing building totaling approximately 17,677 square feet on the 0.41 acre Lot 4 will be demolished and redeveloped with the final use still being determined. The options currently are to redevelop as fully an office building, fully a multi-family residential building, or a half multi-family residential building and half hotel. Lot 2 consists of an existing multi-level parking structure and open space area used by Lot 3, and will not be disturbed and will maintain its current use. Lot 3 consists of an existing office tower and annex building (Ford Factory/Warner Music Group) that will not be disturbed and will maintain its current use. A summary of the unified development can be found in **Table 1**.

Table 1: Unified Development Summary

Lot #	*Existing Land Use*	*Proposed Land Use*	*Existing Stormwater Mitigation BMP*	*Proposed Stormwater Mitigation BMP*
Lot 1	2 Commercial/ Industrial Buildings	Office Tower with Retail	None	Infiltration
Lot 2	Parking Structure & Open Space	To Remain	Infiltration	N/A (To Remain the Same)
Lot 3	Office Tower and Office Building	To Remain	None	None (To Remain the Same)
Lot 4	Office Building	Office Building; or Multi-Family; or Multi-Family/Hotel	None	Infiltration

2.1.1 Project Location

The site is located on the northwest corner of Violet Street and Santa Fe Avenue in Los Angeles, as shown in Figure 1. Figure 2 provides an aerial perspective of the project site and immediate surroundings.

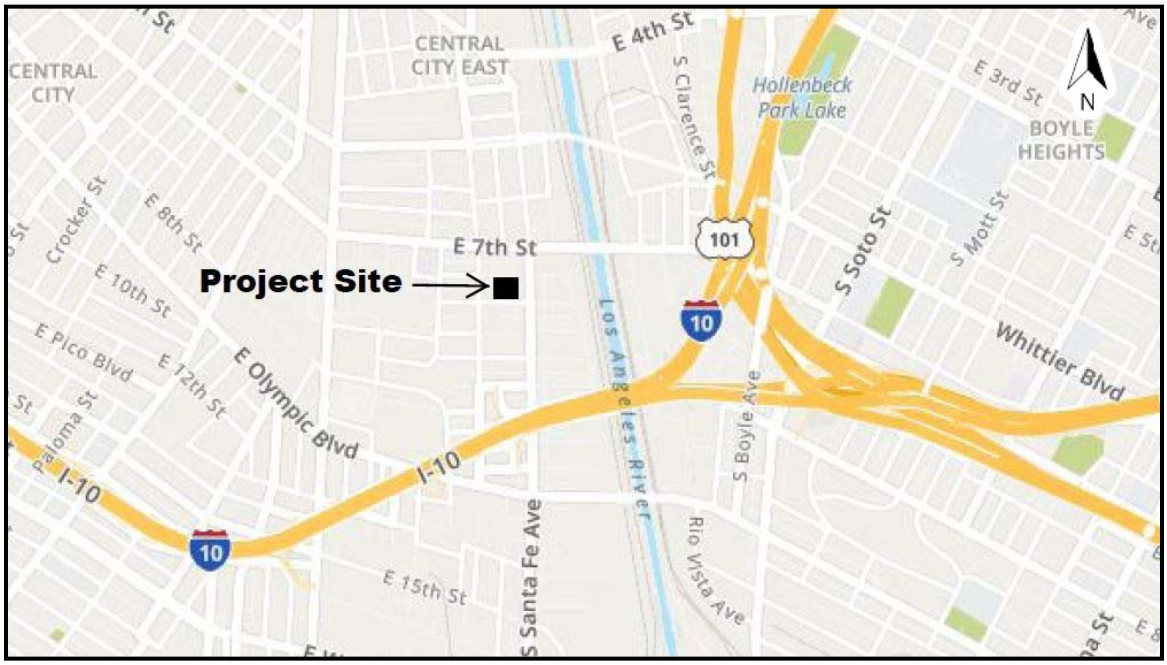


Figure 1 – Project Location Map

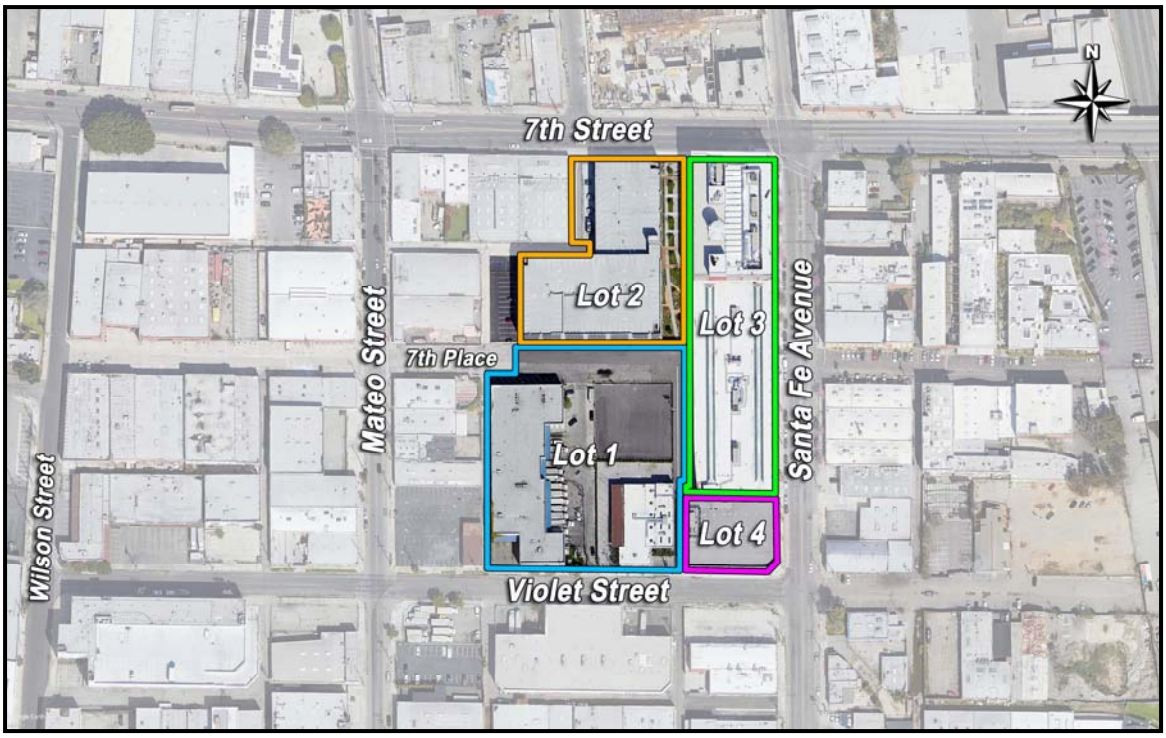


Figure 2 – Aerial Perspective of Project Site

2.2 Hydrologic Setting

This section summarizes the area's size and location in the context of the larger watershed perspective, topography, soil and vegetation conditions, percent impervious area, natural and infrastructure drainage features, and other relevant hydrologic and environmental factors to be protected specific to the project area's watershed.

2.2.1 Watershed

The proposed project is located within the 834 square mile Los Angeles River watershed and drains to the Los Angeles River.

2.2.2 Existing Topography, Drainage Patterns, and Facilities (Narrative)

Hydrology
Adjacent the subject property, E. 7th Street and Violet Street slope from west to east and Santa Fe Avenue slopes southerly. The off-site portion of E. 7th Place drains westerly into Mateo Street.

The portion of E. 7th Place vacated in favor of Lot 1 drains easterly to a southerly draining alley (also vacated to Lot 1) that discharges into Violet Street. Runoff from the remaining areas of Lot 1 are collected by inlets that discharges into Violet Street via an existing curb outlet. Lot 2 collects stormwater via inlets that direct the first flush (0.75-inch rainfall depth at time of construction) to drywells for infiltration with larger rain events bubbling up through an overflow inlet where the runoff enters E. 7th Place within Lot 1, and ultimately flows southerly within a

ribbon gutter down the alley to Violet Street. The tower in Lot 3 discharges to curb face in both E. 7th Street and Santa Fe Avenue via downspouts to curb drains. The two story building in Lot 3 discharges only to curb face into Santa Fe Avenue via downspouts to curb drains. The two story building in Lot 4 discharges to curb face into Santa Fe Avenue and Violet Street via downspouts to curb drains, and discharges to the alley within Lot 1 via downspouts.

Discharge into E. 7th Street is collected by City of Los Angeles catch basin located in E. 7th Street near the corner of Santa Fe Avenue. Discharges into Santa Fe Avenue and Violet Street are collected by one of the City of Los Angeles catch basins located on Violet Street near the corner of Santa Fe Avenue. Once the storm water reaches a catch basin, it is then routed through City of Los Angeles storm drain lines that vary in size from 18", 24", and 27" located on Violet Street and continues onto Santa Fe Avenue. Figure 3 illustrates the flow patterns in the area

Stormwater Quality

Stormwater runoff from Lots 1, 3, and 4 discharge off-site without treatment. Lot 2 collects stormwater via inlets that direct the first flush (0.75-inch rainfall depth at time of construction) to drywells for infiltration of the stormwater quality design volume.

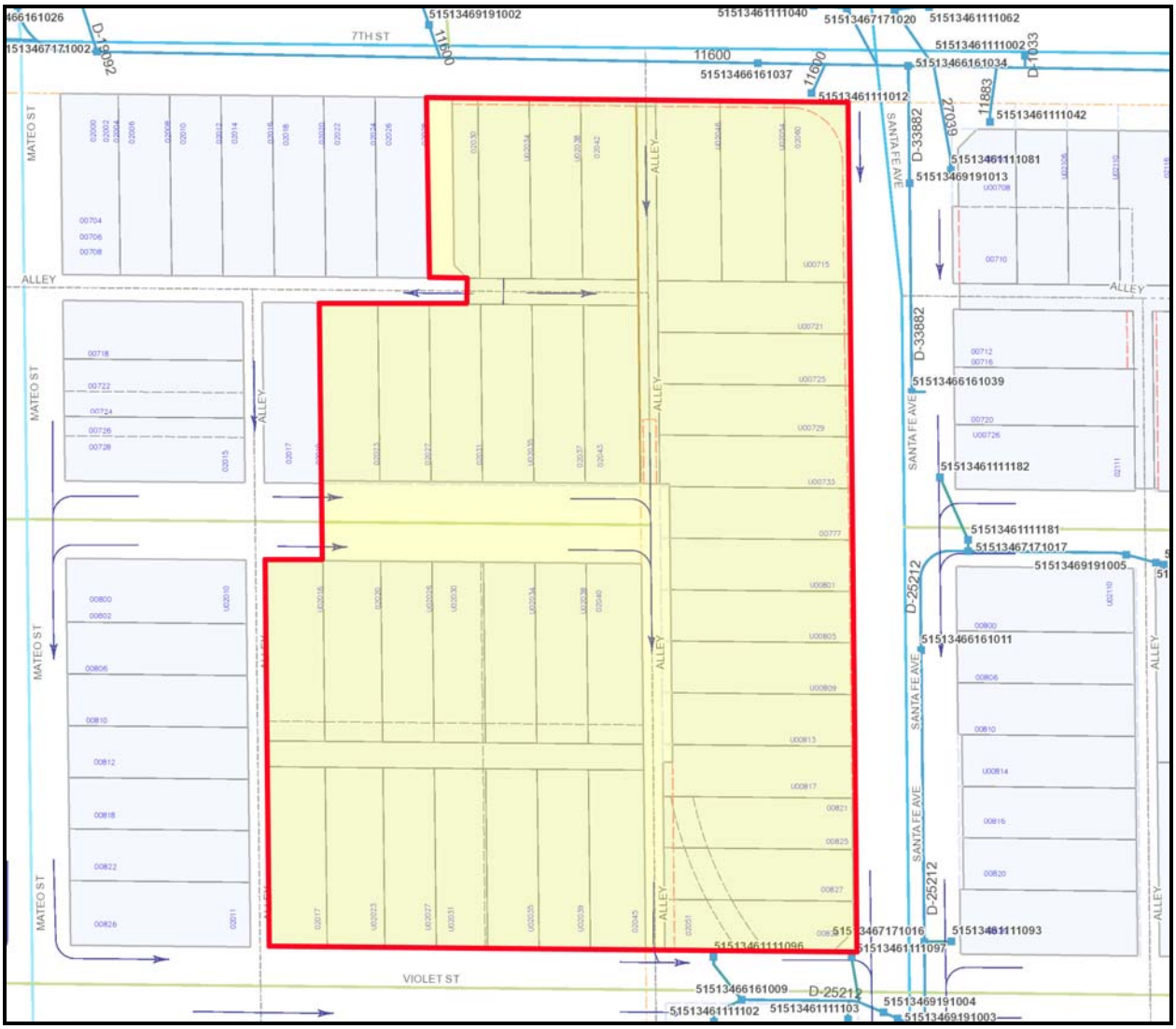


Figure 3 – Flow Patterns

2.2.3 Adjacent Land Use

The project area of work is bounded by E 7th Place to the north, Violet Street to the south, Mateo Street to the west, and Santa Fe Avenue to the east. Additionally, the project site is bordered by commercially zoned sites.

2.2.4 Soil Conditions

According to the County of Los Angeles Isohyet map, the soil near the project site generally consists of soil type 6 (see **Appendix 1** for Soils Map). Geotechnologies Inc., prepared a soils report dated October 19th, 2020 for a proposed site located at 2045 Violet Street. The artificial fill encountered in the borings generally ranges from 5 to 10 feet, the natural alluvial soils and consisted primarily of medium dense silty sands with occasional beds of soft and wet silts. Below the artificial fill, very dense, fine to coarse grained sand, gravel, and cobbles was

encountered in all of the borings to a depth of 5 to 10 feet below existing grade. Groundwater was encountered at a depth of 91 feet below ground surface.

Although an infiltration test was not performed during the soils investigation, it is assumed that infiltration will be feasible for the site due to the current use of drywells for stormwater mitigation within Lot 2.

2.2.5 Downstream Conditions

This section summarizes the existing downstream conditions and any conditions of concern with respect to erosion and/or sedimentation due to the proposed project.

The area's stormwater will ultimately be collected by the City of Los Angeles' maintained storm drain system that eventually discharges into a lined portion of the Los Angeles River. There will be no noticeable impacts to downstream conveyances due to similar flow patterns between existing and proposed conditions and that the downstream storm drain system is a stabilized channel until its confluence with Queens Bay Estuary.

2.2.6 Impervious Cover

The proposed project will not add any significant impervious area that will negatively impact the existing infrastructure located downstream of the project site.

2.3 Proposed Runoff Management Facilities

The proposed facilities managing runoff from the area include:

- Low-impact Development (LID) Best Management Practices (BMPs); specifically, hydrodynamic separator pretreatment devices and drywell systems for infiltration will be installed for Lots 1 and 4.

- Detention tanks will be used to detain the Low-impact Development (LID) volume for Lots 1 and 4 prior to infiltration by drywells.

- A proposed drainage system for Lot 1 will collect the project's stormwater by means of roof drains, a ribbon gutter, and a catch basin prior to discharge of high flows at curb face into Violet Street via a parkway culvert.

- A proposed storm drain system will collect the overflow from Lot 2 for discharge at curb face into Violet Street via a parkway culvert to prevent mixing the runoff with the stormwater in Lot 1 that has yet to be treated. This system will also be used for the high flows from Lot 4.

Section 3 Design Criteria and Methodology

This section summarizes the design criteria and methodology applied during the drainage analysis of the project site. The design criteria and methodology follows the County of Los Angeles Drainage Design Manual (January 2006) for hydrology and the Planning and Land Development Handbook for Low Impact Development, Part B Planning Activities, 5th Edition (May 9, 2016) for Stormwater Quality.

3.1 Design Criteria

3.1.1 Drainage Design Criteria

Local storm drain facilities have been designed to conform to standards found in the County of Los Angeles Drainage Design Manual.

3.2 Methodology

3.2.1 HydroCalc Software

The HydroCalc software, developed and provided by Los Angeles County Public Works, calculates various parameters using the modified rational method, which is an iterative process. The following table shows the input data that is entered into the program and the output data that is produced.

Input Data	**Output Data**
Area (ac)	Modeled (Chosen Frequency) Rainfall Depth (in)
Flow Path Length (ft)	Peak Intensity (in/hr)
Flow Path Slope (vft/hft)	Undeveloped Runoff Coefficient (Cu)
50-yr, 24-hr; 0.75-inch, 24-hr; or 85th Percentile, 24-hr Storm Rainfall Depth (in)	Developed Runoff Coefficent (Cd)
Percent Impervious (0.01-1.0)	Time of Concentration (min)
Soil Type (2-180)	Clear Peak Flow Rate (cfs)
Design Storm Frequency (#-year Storm; 0.75-inch Storm; or 85th Percentile Storm)	Burned Peak Flow Rate (cfs)
Fire Factor	24-Hr Clear Runoff Volume (ac-ft)
	24-Hr Clear Runoff Volume (cu-ft)

Once the input data has been entered, HydroCalc then computes the output data using the following steps:

1. Assumes an initial time of concentration (T_c)

2. Uses the assumed T_c to calculate rainfall intensity (I_t) with the following equation:

$$I_t = I_{1440} \times (1440/t)^{0.47}$$

Where... t = assumed initial time of concentration (min)
I_t = rainfall intensity for the duration (in/hr)
I_{1440} = 24-hour rainfall intensity (in/hr)

3. Calculates impervious area and stormwater runoff coefficient using the following equation:

$$IMP = [\sum^{n}_{i=1}(IMP_i \times A_i)/A_T]$$

Where... IMP = site percent impervious
IMP_i = impervious area (i)
A_i = area, i (ft^2)
A_T = total project site area (ft^2)

$$C_d = (0.9 \times IMP) + (1.0 - IMP) \times C_u$$

Where... C_d = developed site stormwater runoff coefficient
IMP = site percent impervious
C_u = undeveloped site stormwater runoff coefficient
(Obtained from soil curve data)

4. Calculates the time of concentration (T_c) and compares it to the initial assumption using the following equation:

$$T_c = [0.31 \times L^{0.483}]/[(C_d \times I_t)^{0.519} \times S^{0.135}]$$

Where... T_c = time of concentration (min)
L = longest flow path length
C_d = developed site stormwater runoff coefficient
I_t = rainfall intensity for the duration (in/hr)
S = slope of longest flow path (ft/ft)

If the calculated T_c and the assumed T_c are more than 0.5 minutes apart then the process is repeated by rounding the calculated T_c to the nearest minute and using it as the assumed value. The process is complete once the calculated T_c and the assumed T_c are within 0.5 minutes of each other.

3.2.2 Runoff Calculation Method: Peak Flow

Runoff calculations for this study were accomplished using the Rational Method. The Rational Method is a physically-based numerical method where runoff is assumed to be directly proportional to rainfall and area, less losses for infiltration and depression storage. Flows were computed based on the rational formula:

$$Q = C \times I \times A$$

Where... Q = Peak discharge (cfs);
C = runoff coefficient, based on land use and soil type;

I = Rainfall intensity (in/hr);
A = watershed area (acre)

The runoff coefficient represents the ratio of rainfall that runs off the watershed versus the portion that infiltrates into the soil or is held in depression storage. The runoff coefficient is dependent on the land use coverage and soil type. The County of Los Angeles Drainage Design Manual methodology assumes hydrologic Soil Type 6 for all soils near the project site (see **Appendix 1** for the Isohyet Map).

For a typical drainage study, rainfall intensity varies with the watershed time of concentration. The watershed time of concentration at any given point is defined as the time it would theoretically take runoff to travel from the most upstream point in the watershed to a concentration point, as calculated by the HydroCalc software, provided by the County.

Rational Method calculations were accomplished using hand calculations and the HydroCalc software. Peak discharges were computed for 25-year and 50-year hypothetical storm return frequencies and can be seen in the Hydrology and Drainage Analysis section of this report. The output results of the HydroCalc can be found in the Appendix section of this report.

Section 4 Hydrology and Drainage Analysis

This section summarizes the quantitative hydrologic analysis of the existing and proposed conditions of the site.

4.1 Summary of Drainage Delineation

Existing Analysis

Project Site (Lots 1 and 4):

To analyze the existing conditions, the site was broken into five subareas: EX-A, EX-B, EX-C, EX-D, and EX-E (see **Appendix 4** for the Existing Conditions Hydrology Map).

Hydrology
Runoff from subarea EX-A is collected by multiple inlets located within the project site that ultimately discharge to Violet Street at curb face. Subarea EX-B drains towards the south onto Violet Street via surface runoff. Subarea EX-C sheet flows easterly and then southerly within an existing ribbon gutter that discharges to Violet Street. Subarea EX-D, the runoff for half of an existing building, discharges via downspouts to the alley in subarea EX-C. Subarea EX-E, the other half of the building, discharges via downspouts to curb face within into Santa Fe Avenue and Violet Street. Violet Street drains easterly where it is collected by the city's catch basin in Violet Street. Once it is reached to the city catch basin it is then routed to the city's existing 18"-27" RCP storm drain and flows southerly along Santa Fe Avenue.

Stormwater Quality
The project site's runoff is currently not being treated before being discharged off-site under existing conditions.

Existing Parking Structure and Ford Factory Building (Lots 2 and 3):

Under the existing conditions, the site was broken into two subareas: EX-F and EX-G (see **Appendix 5** for the Existing Conditions Ford Factory & Parking Structure Hydrology Map.

Hydrology
Subarea EX-F collects stormwater via inlets that discharges larger rain events through a bubbler that drains into subarea EX-C (mixing the treated runoff from Lot 2 with the untreated runoff from Lot 1), and ultimately flows southerly within a ribbon gutter down the alley to Violet Street. Subarea EX-G is collected by roof drains that discharge at curb face into Santa Fe Avenue and E. 7th Street.

Stormwater Quality
Subarea EX-F collects stormwater via inlets that direct the first flush (0.75-inch rainfall depth at time of construction) to drywells for infiltration. Runoff from Subarea EX-G is not treated prior to being discharged off-site.

Proposed Analysis

Under the proposed conditions, the project site is broken into 3 new subareas while maintaining 2 existing subareas: EX-F, EX-G, P-A, P-B and P-C (see **Appendix 6** for the Proposed Conditions Hydrology Map).

Hydrology
Project Site (Lots 1 and 4):

Runoff from Subarea P-A, the new office tower building, will be collected by roof drains that direct the stormwater outside of the building to a grated inlet that is also used as a high/low flow diverter located near the end of the alley near Violet Street. Runoff from subarea P-B will sheet flow into a gutter that flows southerly where it is collected by the inlet used as a diverter. Flows that exceed the stormwater quality design flow will be directed by the inlet diverter to a parkway culvert that discharges at curb face into Violet Street.

Runoff from Subarea P-C will be collected by roof drains that direct the stormwater outside of the building to a grated inlet that is also used as a high/low flow diverter located in the alley near the northwest corner of the building. Flows that exceed the stormwater quality design flow will be directed by the inlet diverter to a private storm drain system (that is also being used by Subarea EX-F), which discharges at curb face via a parkway culvert into Violet Street.

Stormwater Quality
The stormwater quality design volume for Subareas P-A and P-B is directed from the inlet diverter to a hydrodynamic separator for pretreatment prior to infiltration by means of drywells.

A corrugated metal pipe (CMP) will be used to detain the stormwater quality design volume to ensure the required volume will be infiltrated. The Stormwater Quality Design Volume for this area is 8,197 cubic feet.

The stormwater quality design flow for Subarea P-C is directed from the inlet diverter to a hydrodynamic separator for pretreatment prior to infiltration by means of drywells. A corrugated metal pipe (CMP) will be used to detain the stormwater quality design volume to ensure the required volume will be infiltrated. The Stormwater Quality Design Volume for this area is 1,328 cubic feet.

Existing Parking Structure and Ford Factory Building (Lots 2 and 3):

While the ultimate drainage condition of Subarea EX-F (Lot 2) will remain the same, the high flow bubbler system will be replaced by a direct storm drain line connection to prevent mixing the runoff from Lot 2 with the untreated runoff from Subarea P-B (Lot 1). The proposed storm drain line will flow southerly down the alley where it will be directed to curb face in Violet Street by means of a parkway culvert. High flows from Subarea P-C will be discharged through this storm drain system.

The existing drainage patterns for Subarea EX-G will not be altered by the proposed project. Subarea EX-G is collected by roof drains that discharge at curb face into Santa Fe Avenue and E. 7th Street.

Stormwater Quality
Drainage patterns within Subarea EX-F will remain the same and continue to infiltrate the first flush volume of 3,230 cubic feet. The volume was attained from the LID sheet of the As-Built Plans for the Parking Structure project. Drainage patterns within Subarea EX-G will remain the same and will continue to not be treated prior to being discharged off-site.

4.2 Summary of Results

The following tables summarize the results of the 25-year and 50-year, 24-hour storm events for the existing and proposed conditions along with the stormwater quality design volume for the proposed project area (see **Appendix 2, 3, 7, and 8** for the HydroCalc results).

Hydrology
The existing conditions hydrology results for the 25-year and 50-year, 24-hour storm events for the proposed area of work (Lots 1 & 4) are summarized in **Table 2**, and those conditions for the existing property area to remain as is (Ford Factory Building and Parking Structure on Lots 2 & 3) are summarized in **Table 3**. The combined totals of the existing conditions for all four lots is summarized in **Table 4**.

Table 2: Existing Conditions Hydrology – Lots 1 & 4

Subarea	Area (acres)	% Impervious	Q_{25} (cfs)	Q_{50} (cfs)
EX-A	1.95	100	5.38	6.13
EX-B	0.06	100	0.17	0.19
EX-C	0.52	100	1.15	1.31
EX-D	0.206	100	0.57	0.65
EX-E	0.206	100	0.57	0.65
Total	***2.94***		***7.84***	***8.93***

Table 3: Existing Conditions Hydrology – Ford Factory Building & Parking Structure – Lots 2 & 3 (No changes proposed)

Subarea	Area (acres)	% Impervious	Q_{25} (cfs)	Q_{50} (cfs)
EX-F	1.55	92	4.25	4.85
EX-G	1.75	100	4.83	5.50
Total	***3.30***		***9.08***	***10.35***

Table 4: Existing Conditions Hydrology – Lots 1-4

Subarea	Area (acres)	% Impervious	Q_{25} (cfs)	Q_{50} (cfs)
Lots 1 & 4	2.94	100	7.84	8.93
Lots 2 & 3	3.30	96	9.08	10.35
Total	***6.24***		***16.92***	***19.28***

The proposed conditions hydrology results for the 25-year and 50-year, 24-hour storm events for the proposed area of work (Lots 1 & 4) are summarized in **Table 5**. The Ford Factory Building and Parking Structure (Lots 2 & 3) are to remain in their current conditions, therefore, the hydrologic conditions summarized in Table 3 will remain the same for the proposed conditions. The combined totals of the proposed conditions for Lots 1 and 3 and the existing conditions of Lots 2 and 3 (see previous statement) are summarized in **Table 6**.

Table 5: Proposed Conditions Hydrology – Lots 1 & 4

Subarea	Area (acres)	% Impervious	Q_{25} (cfs)	Q_{50} (cfs)
P-A	2.01	100	5.54	6.31
P-B	0.52	100	1.15	1.31
P-C	0.41	100	1.13	1.29
Total	***2.94***		***7.82***	***8.91***

Table 6: Proposed Conditions Hydrology – Lots 1-4

Subarea	Area (acres)	% Impervious	Q_{25} (cfs)	Q_{50} (cfs)
Lots 1 & 4	2.94	100	7.82	8.91
Lots 2 & 3	3.30	96	9.08	10.35
Total	***6.24***		***16.90***	***19.26***

A comparison between the existing and proposed hydrologic conditions is summarized in **Table 7** below.

Table 7: Existing & Proposed Conditions Comparison

Condition	Area (acres)	Q_{25} (cfs)	Q_{50} (cfs)
Existing	6.24	16.92	19.28
Proposed	6.24	16.90	19.26
Difference +/-	***0***	***-0.02***	***-0.02***

Stormwater Quality
A summary of the proposed Low Impact Development (LID) BMP types and stormwater quality design volumes to be mitigated (V_m) for Lots 1 and 4, along with the existing BMPs for Lot 2 are in **Table 8** below.

Table 8: LID BMPs & $SWQD_V$

Subarea	Area (acres)	Q_{pm} (cfs)	V_m (cf)	BMP Type
P-A & P-B	2.53	1.36	8,197	Infiltration
P-C	0.41	0.22	1,328	Infiltration
EX-F	1.55	0.58	3,423	Infiltration
Total	***4.49***	***2.16***	***12,948***	

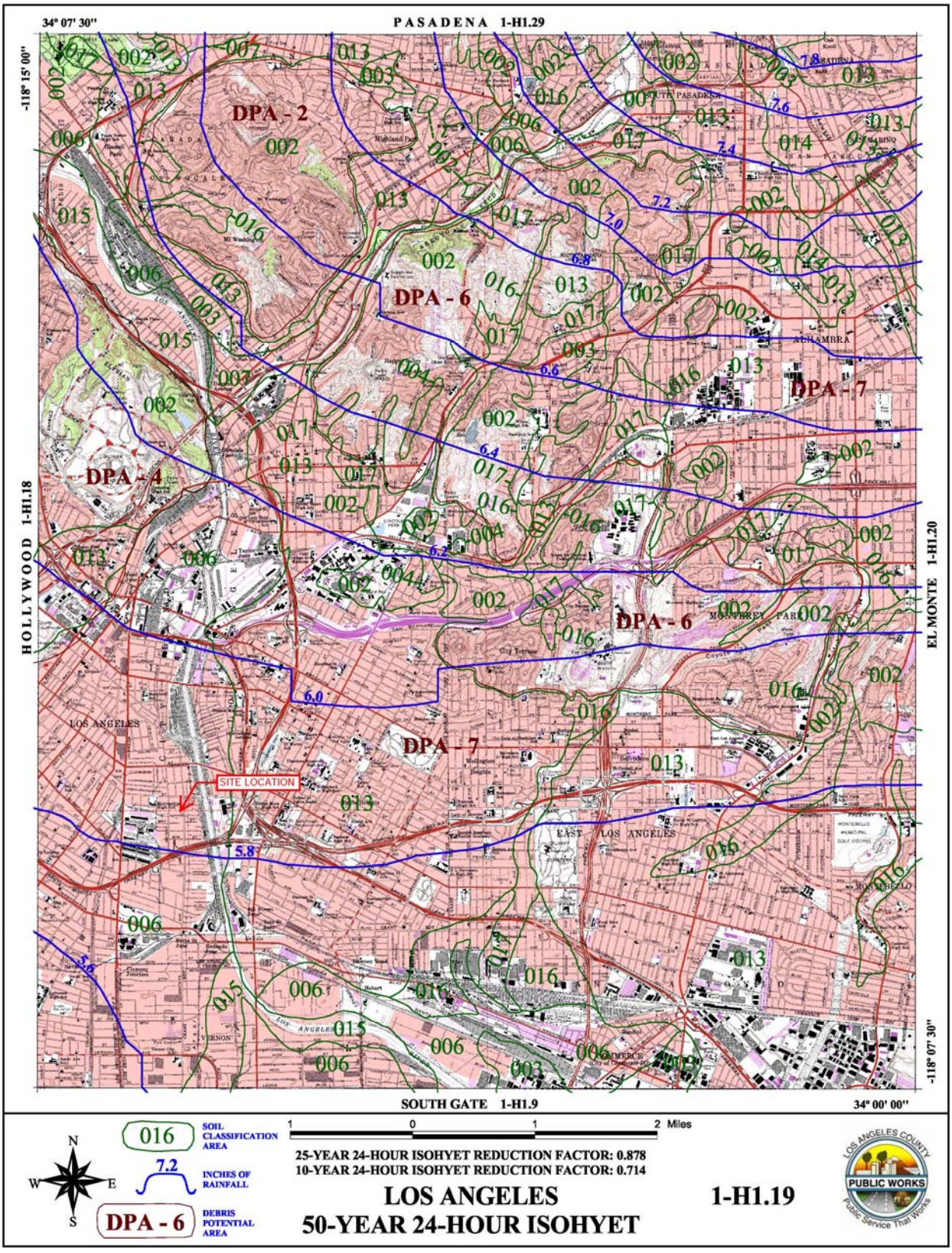
4.3 Conclusion

Hydrology
As shown in the Summary of Results, the existing and proposed conditions are almost identical. The proposed results do not take into consideration that some of the volume of runoff will be reduced further due to infiltration of the stormwater quality design volume. The proposed development will not experience much of a change in peak discharge and no negative impacts are expected to the downstream storm drain system or receiving waters.

Stormwater Quality
Under the City's LID requirements, the proposed project area is required to mitigate stormwater pollution by using LID BMPs to treat the 85th percentile, 24-hour storm event. The project is proposing to infiltrate, at a minimum, the mitigation volume thereby reducing the site's water quality impacts on the overall watershed.

APPENDIX

Appendix 1 - Isohyet Map


34° 07' 30"
PASADENA 1-H1.29
-118° 15' 00"
HOLLYWOOD 1-H1.18
EL MONTE 1-H1.20
-118° 07' 30"
SOUTH GATE 1-H1.9
34° 00' 00"
DPA - 2
DPA - 6
DPA - 7
DPA - 4
SITE LOCATION
LOS ANGELES
EAST LOS ANGELES
ALHAMBRA
MONTEREY PARK
016 SOIL CLASSIFICATION AREA
7.2 INCHES OF RAINFALL
DPA - 6 DEBRIS POTENTIAL AREA
N
S
E
W
1 0 1 2 Miles
25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714
LOS ANGELES
50-YEAR 24-HOUR ISOHYET
1-H1.19
LOS ANGELES COUNTY PUBLIC WORKS
Public Service That Works

Appendix 2 - Existing Conditions HydroCalc Results

Peak Flow Hydrologic Analysis

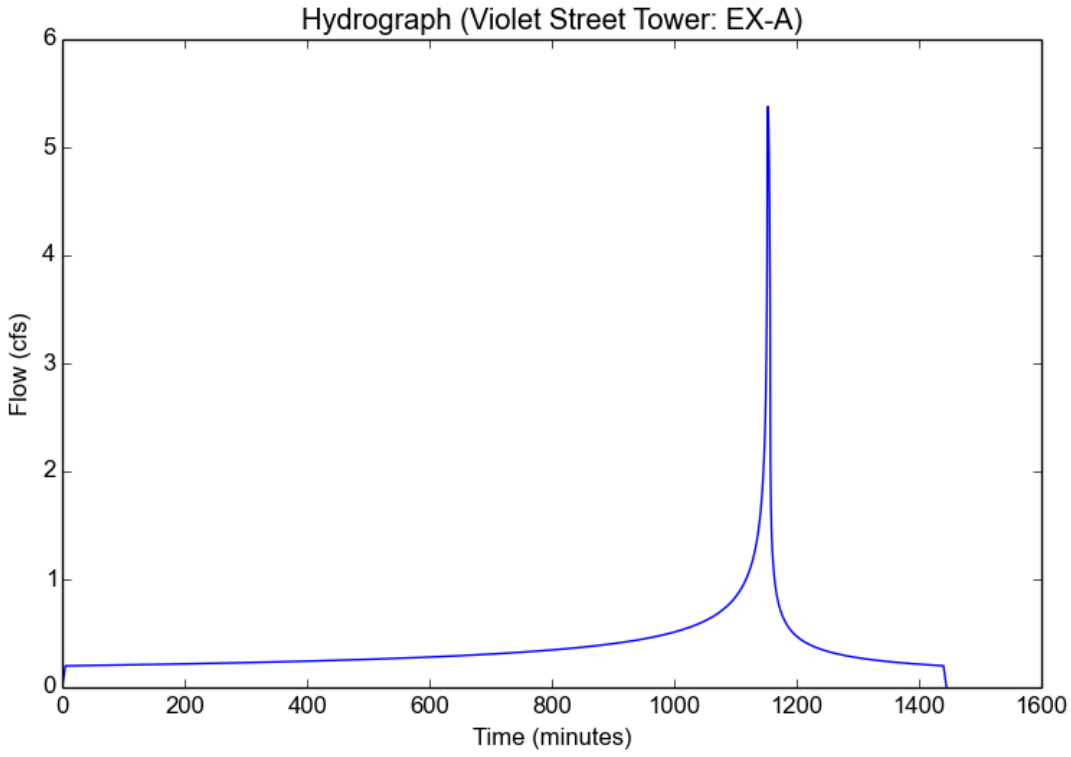
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Violet Street Tower - EX-A-25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-A
Area (ac)	1.95
Flow Path Length (ft)	293.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	5.3781
Burned Peak Flow Rate (cfs)	5.3781
24-Hr Clear Runoff Volume (ac-ft)	0.745
24-Hr Clear Runoff Volume (cu-ft)	32451.1536



Peak Flow Hydrologic Analysis

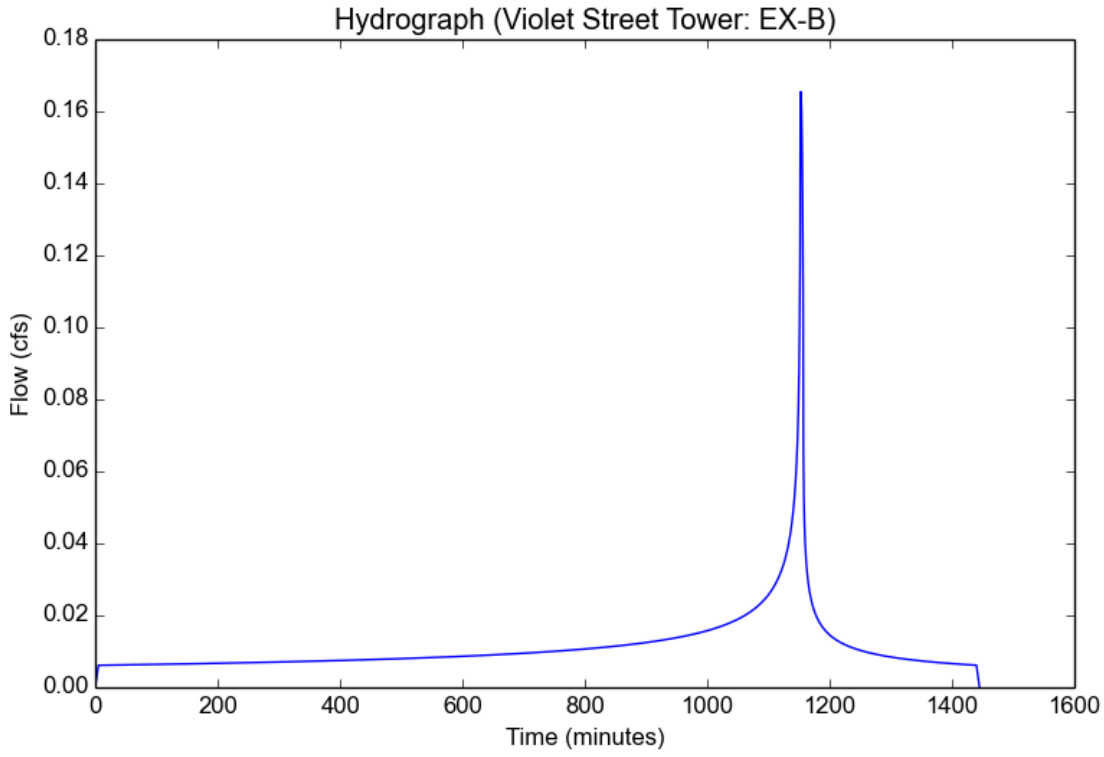
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Project Site/Violet Street Tower - EX-B.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-B
Area (ac)	0.06
Flow Path Length (ft)	20.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.1655
Burned Peak Flow Rate (cfs)	0.1655
24-Hr Clear Runoff Volume (ac-ft)	0.0229
24-Hr Clear Runoff Volume (cu-ft)	998.497



Peak Flow Hydrologic Analysis

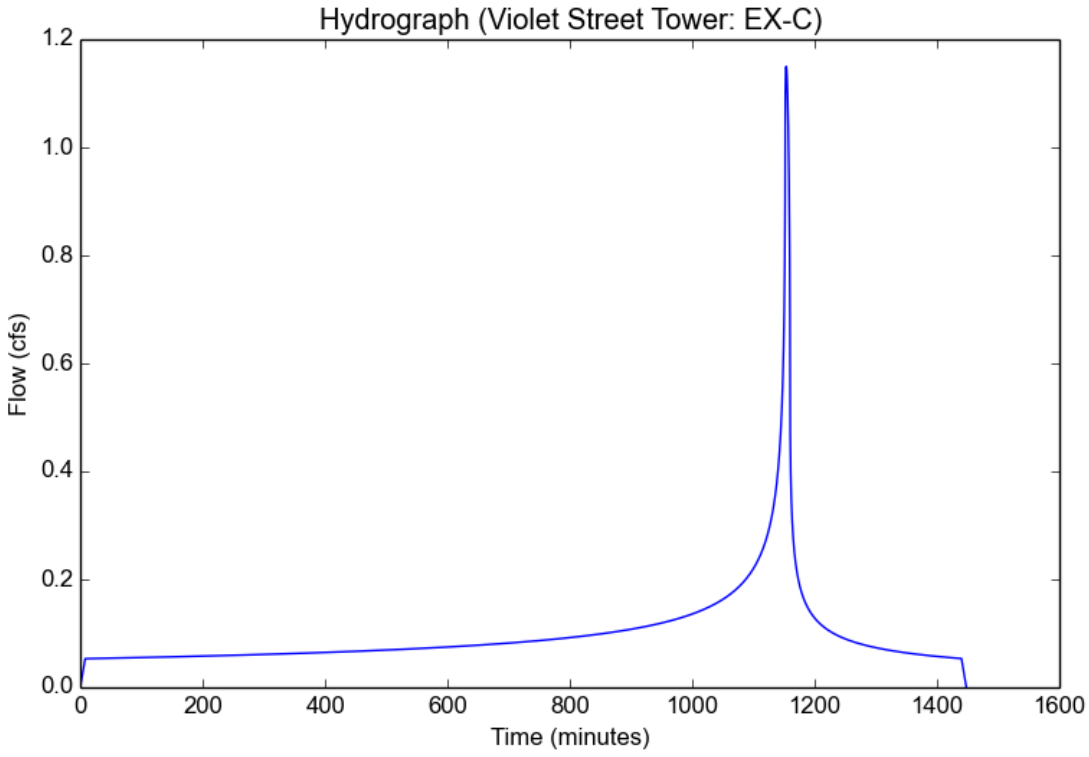
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Violet Street Tower - EX-C -25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-C
Area (ac)	0.52
Flow Path Length (ft)	580.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	2.4571
Undeveloped Runoff Coefficient (Cu)	0.7825
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	1.1499
Burned Peak Flow Rate (cfs)	1.1499
24-Hr Clear Runoff Volume (ac-ft)	0.1987
24-Hr Clear Runoff Volume (cu-ft)	8653.6452



Peak Flow Hydrologic Analysis

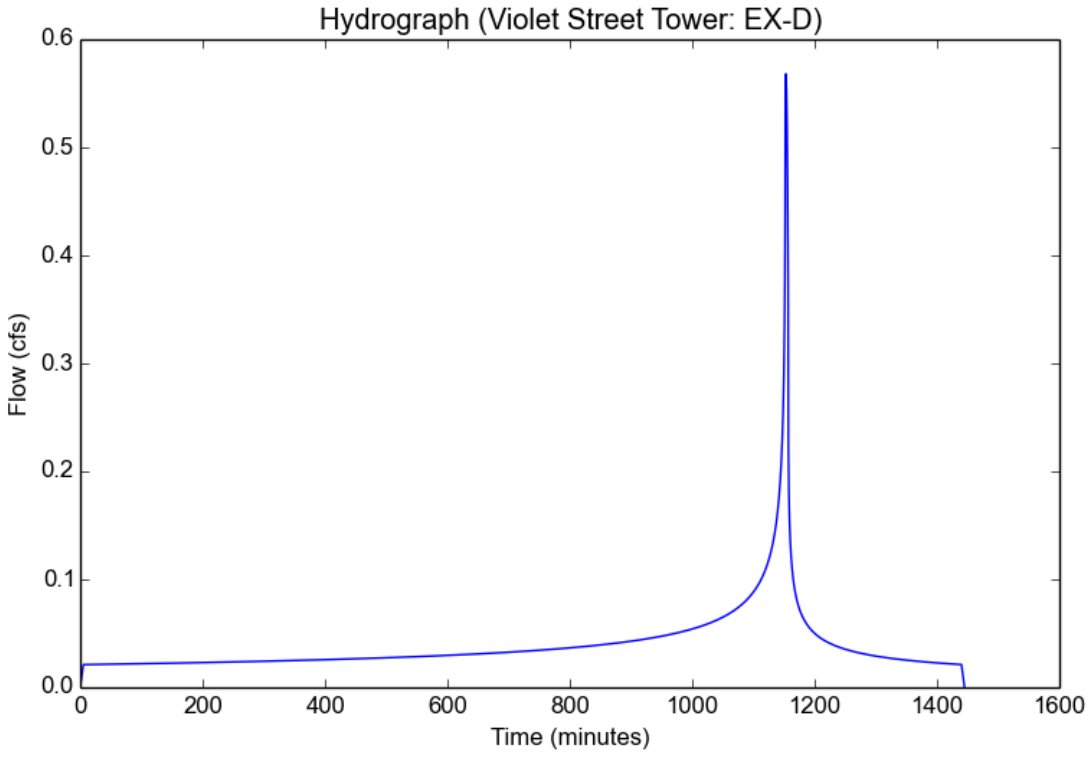
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Project Site/Violet Street Tower - EX-D-25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-D
Area (ac)	0.206
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.5682
Burned Peak Flow Rate (cfs)	0.5682
24-Hr Clear Runoff Volume (ac-ft)	0.0787
24-Hr Clear Runoff Volume (cu-ft)	3428.1731



Peak Flow Hydrologic Analysis

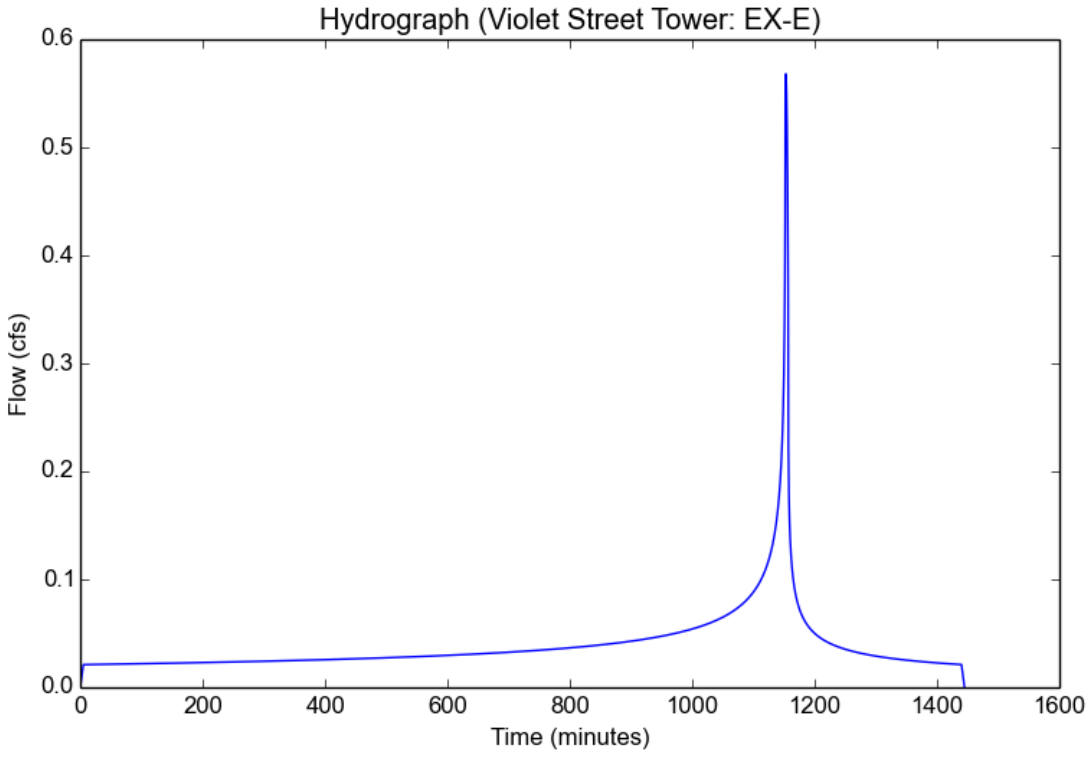
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Violet Street Tower - EX-E -25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-E
Area (ac)	0.206
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.5682
Burned Peak Flow Rate (cfs)	0.5682
24-Hr Clear Runoff Volume (ac-ft)	0.0787
24-Hr Clear Runoff Volume (cu-ft)	3428.1731



Peak Flow Hydrologic Analysis

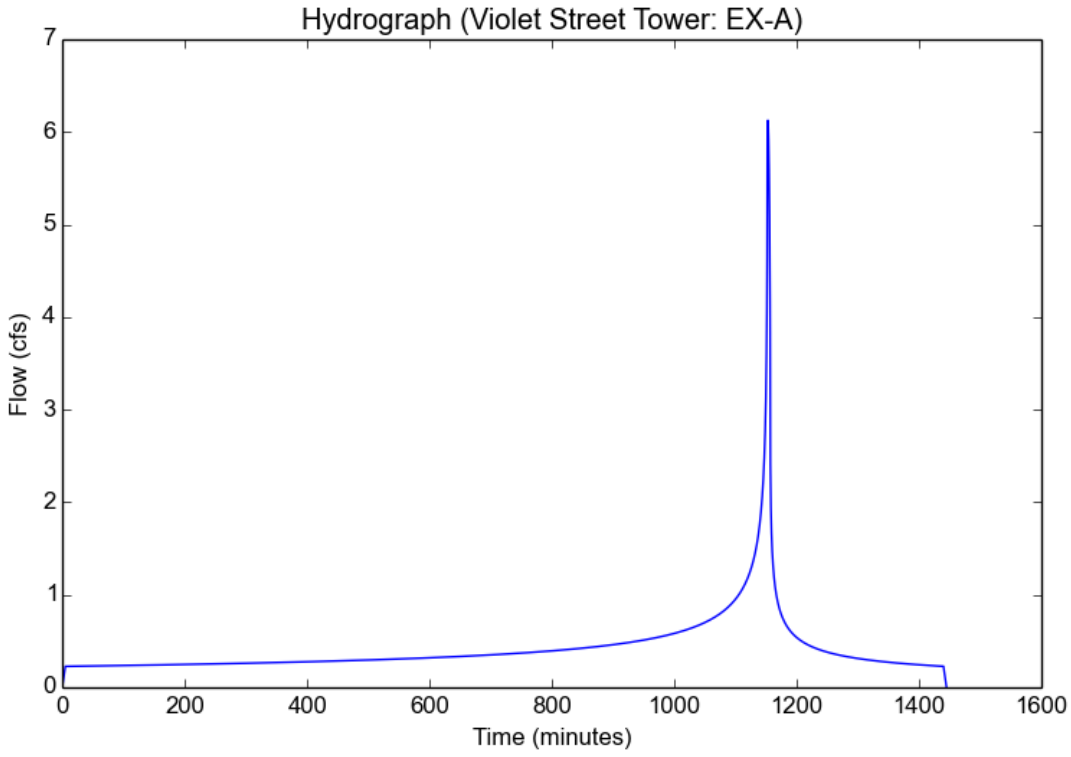
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Violet Street Tower - EX-A-50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-A
Area (ac)	1.95
Flow Path Length (ft)	293.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	6.1254
Burned Peak Flow Rate (cfs)	6.1254
24-Hr Clear Runoff Volume (ac-ft)	0.8485
24-Hr Clear Runoff Volume (cu-ft)	36960.3116



Peak Flow Hydrologic Analysis

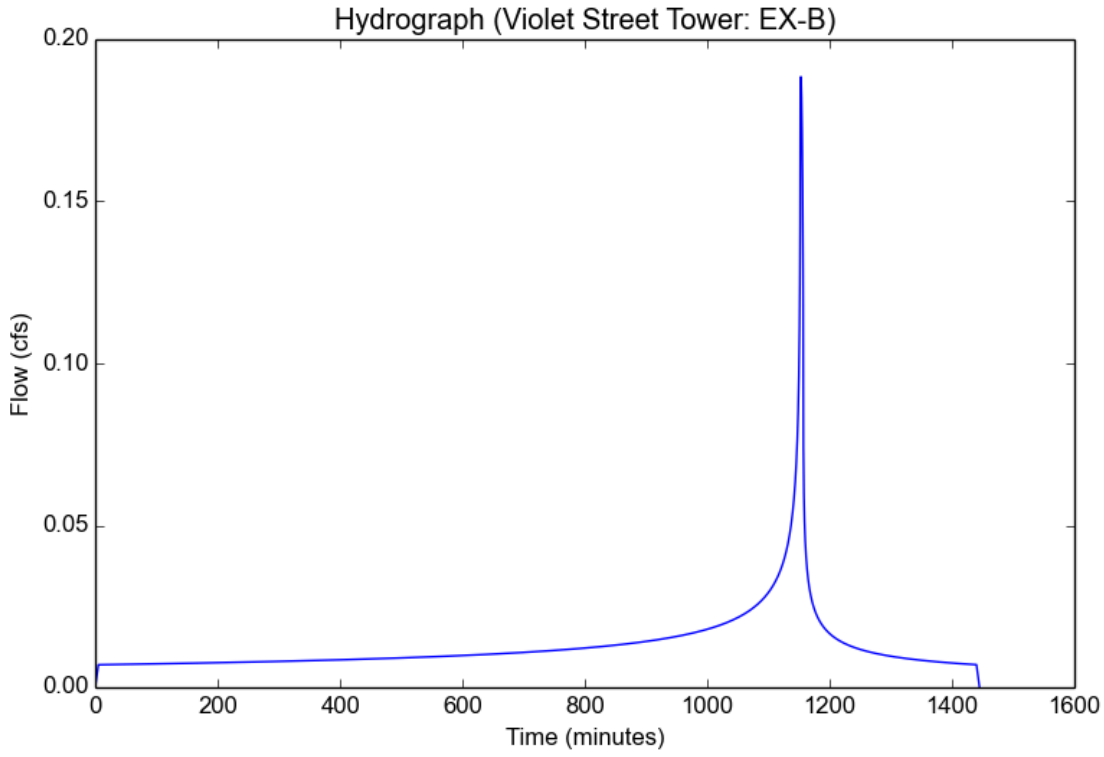
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Project Site/Violet Street Tower - EX-B.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-B
Area (ac)	0.06
Flow Path Length (ft)	20.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.1885
Burned Peak Flow Rate (cfs)	0.1885
24-Hr Clear Runoff Volume (ac-ft)	0.0261
24-Hr Clear Runoff Volume (cu-ft)	1137.2404



Peak Flow Hydrologic Analysis

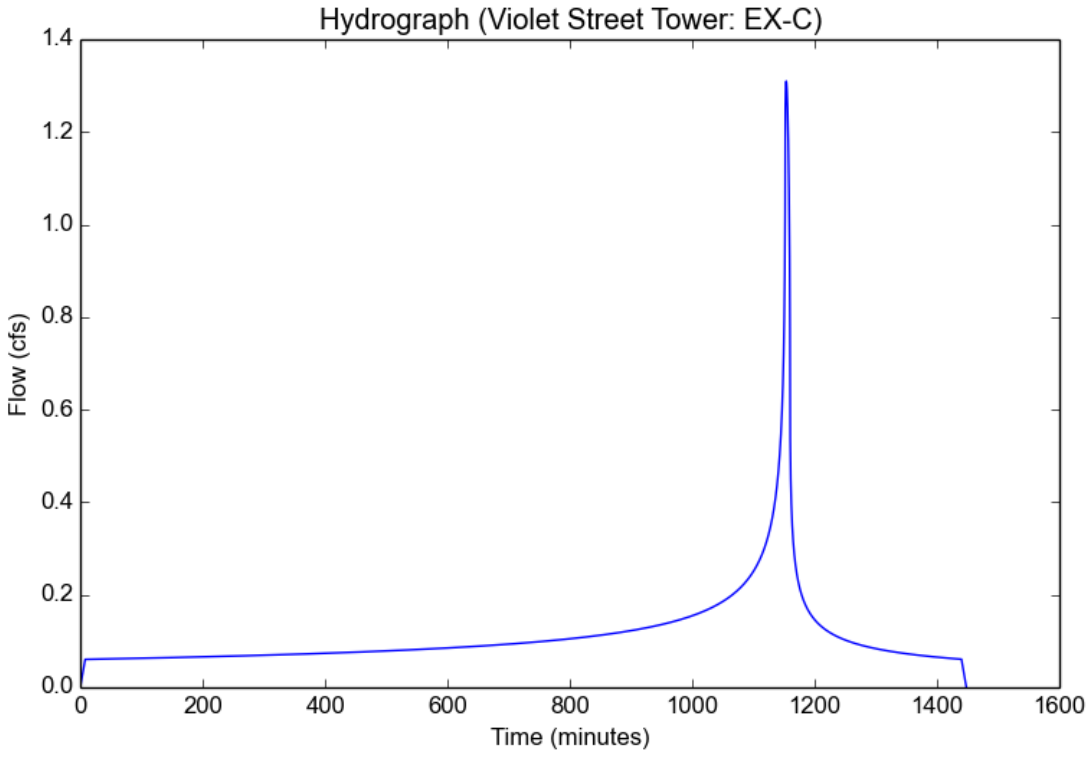
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Violet Street Tower - EX-C -50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-C
Area (ac)	0.52
Flow Path Length (ft)	580.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	2.7985
Undeveloped Runoff Coefficient (Cu)	0.8081
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	1.3097
Burned Peak Flow Rate (cfs)	1.3097
24-Hr Clear Runoff Volume (ac-ft)	0.2263
24-Hr Clear Runoff Volume (cu-ft)	9856.0879



Peak Flow Hydrologic Analysis

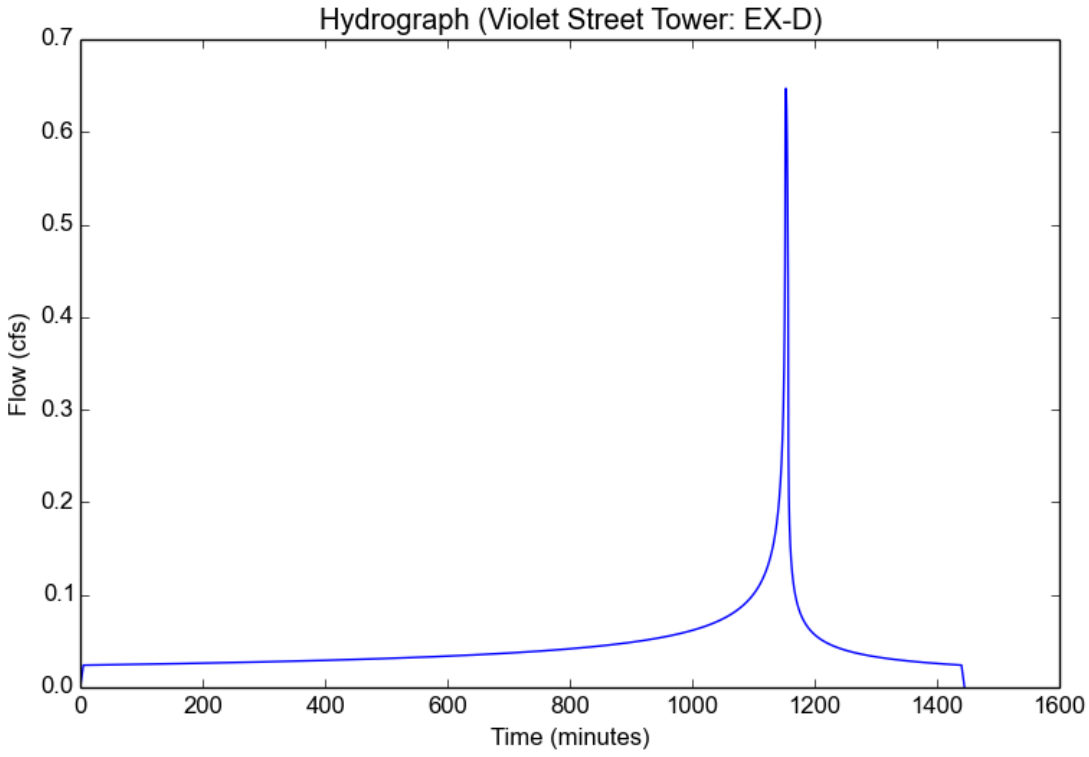
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Project Site/Violet Street Tower - EX-D-50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-D
Area (ac)	0.206
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.6471
Burned Peak Flow Rate (cfs)	0.6471
24-Hr Clear Runoff Volume (ac-ft)	0.0896
24-Hr Clear Runoff Volume (cu-ft)	3904.5252



Peak Flow Hydrologic Analysis

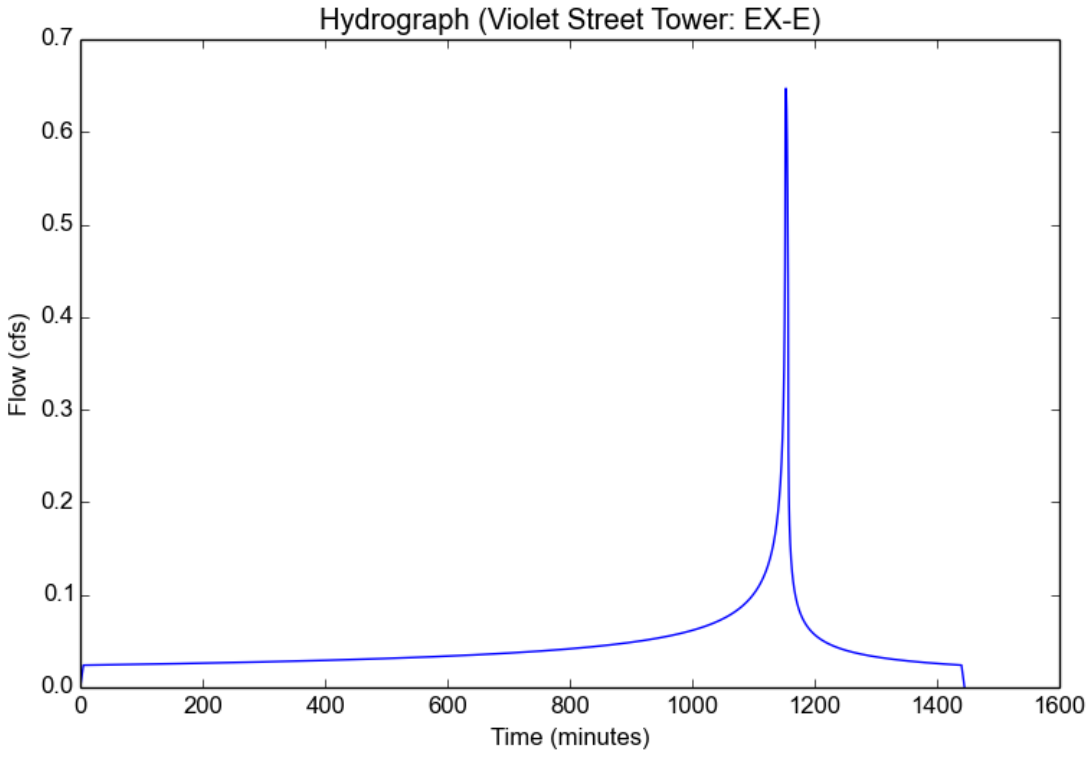
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Violet Street Tower - EX-E -50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	EX-E
Area (ac)	0.206
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.6471
Burned Peak Flow Rate (cfs)	0.6471
24-Hr Clear Runoff Volume (ac-ft)	0.0896
24-Hr Clear Runoff Volume (cu-ft)	3904.5252



Appendix 3 - Proposed Conditions HydroCalc Results

Peak Flow Hydrologic Analysis

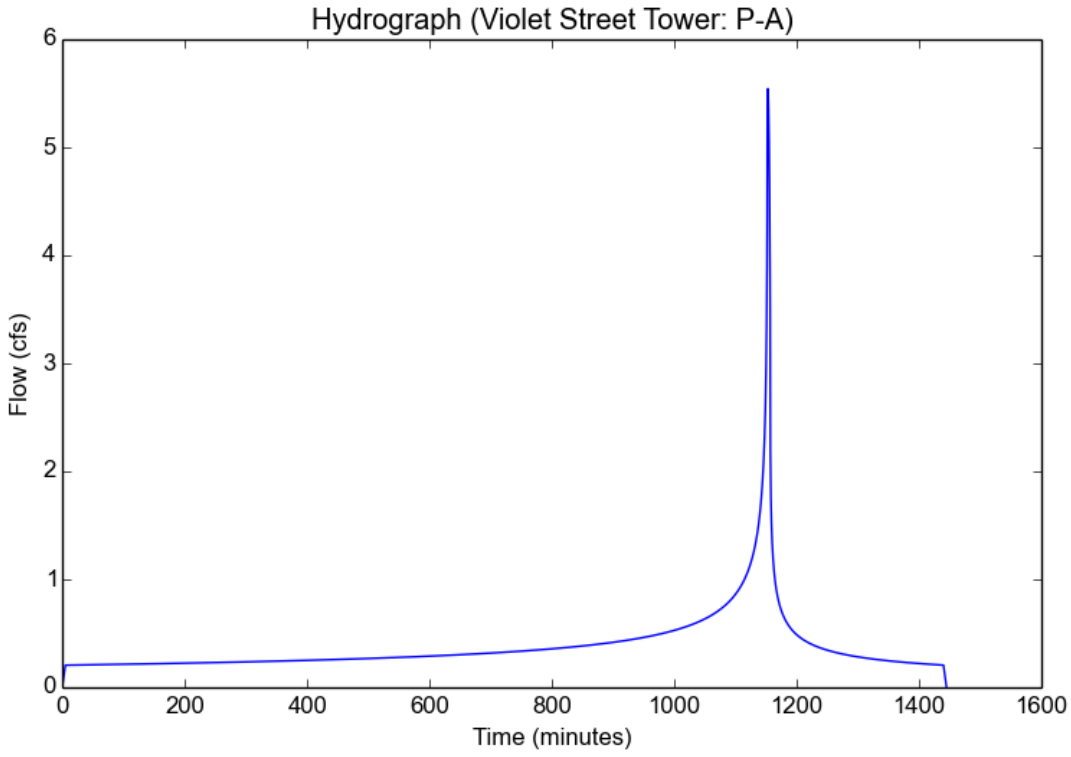
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Proposed-Violet Street Tower - 25yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-A
Area (ac)	2.01
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	5.5436
Burned Peak Flow Rate (cfs)	5.5436
24-Hr Clear Runoff Volume (ac-ft)	0.7679
24-Hr Clear Runoff Volume (cu-ft)	33449.6506



Peak Flow Hydrologic Analysis

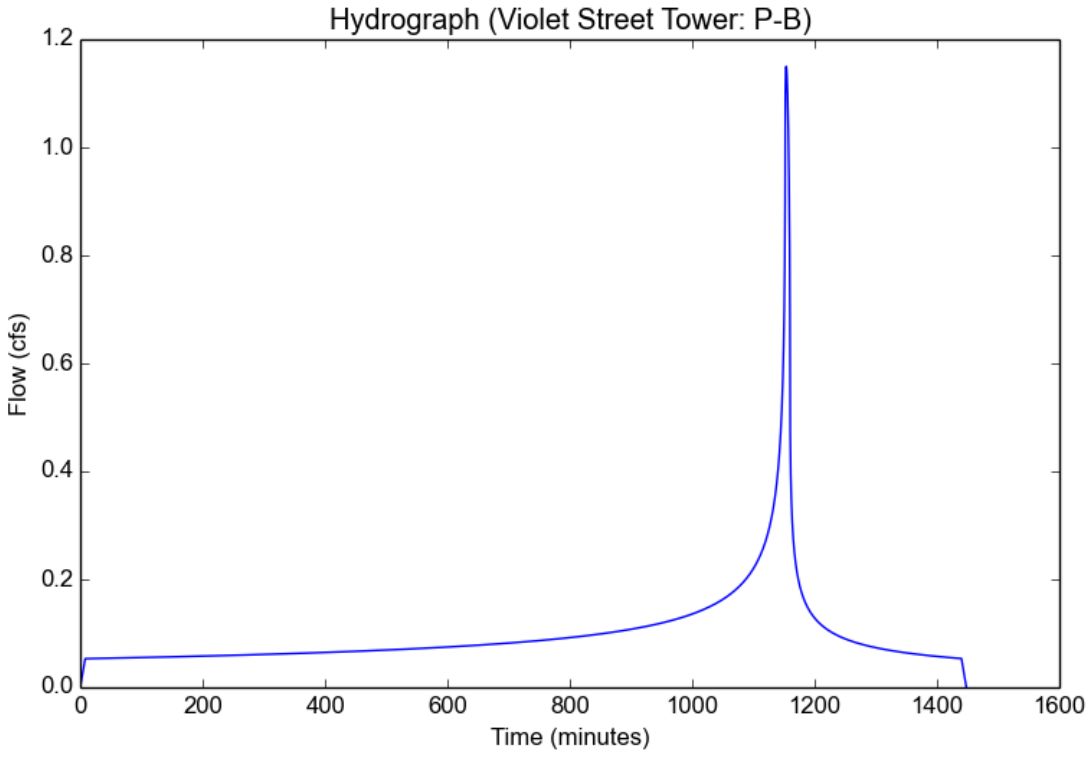
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Violet Street Tower - P-B-25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-B
Area (ac)	0.52
Flow Path Length (ft)	580.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	2.4571
Undeveloped Runoff Coefficient (Cu)	0.7825
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	1.1499
Burned Peak Flow Rate (cfs)	1.1499
24-Hr Clear Runoff Volume (ac-ft)	0.1987
24-Hr Clear Runoff Volume (cu-ft)	8653.6452



Peak Flow Hydrologic Analysis

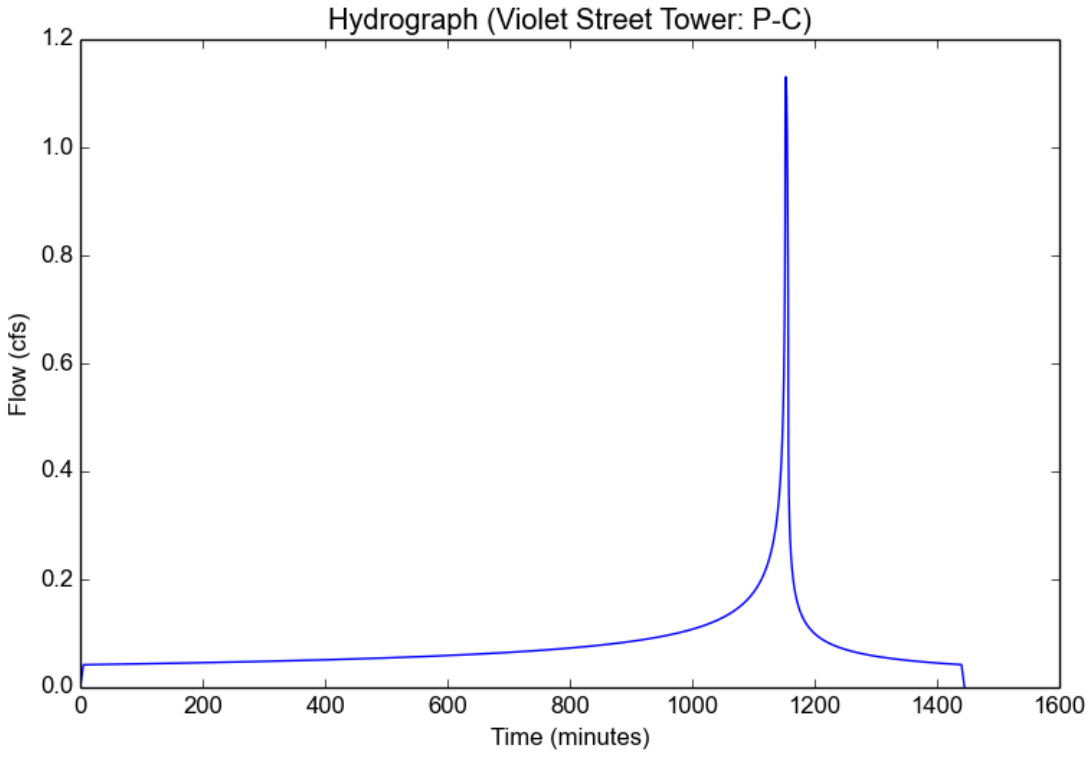
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Violet Street Tower - P-C-25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-C
Area (ac)	0.41
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.1308
Burned Peak Flow Rate (cfs)	1.1308
24-Hr Clear Runoff Volume (ac-ft)	0.1566
24-Hr Clear Runoff Volume (cu-ft)	6823.0631



Peak Flow Hydrologic Analysis

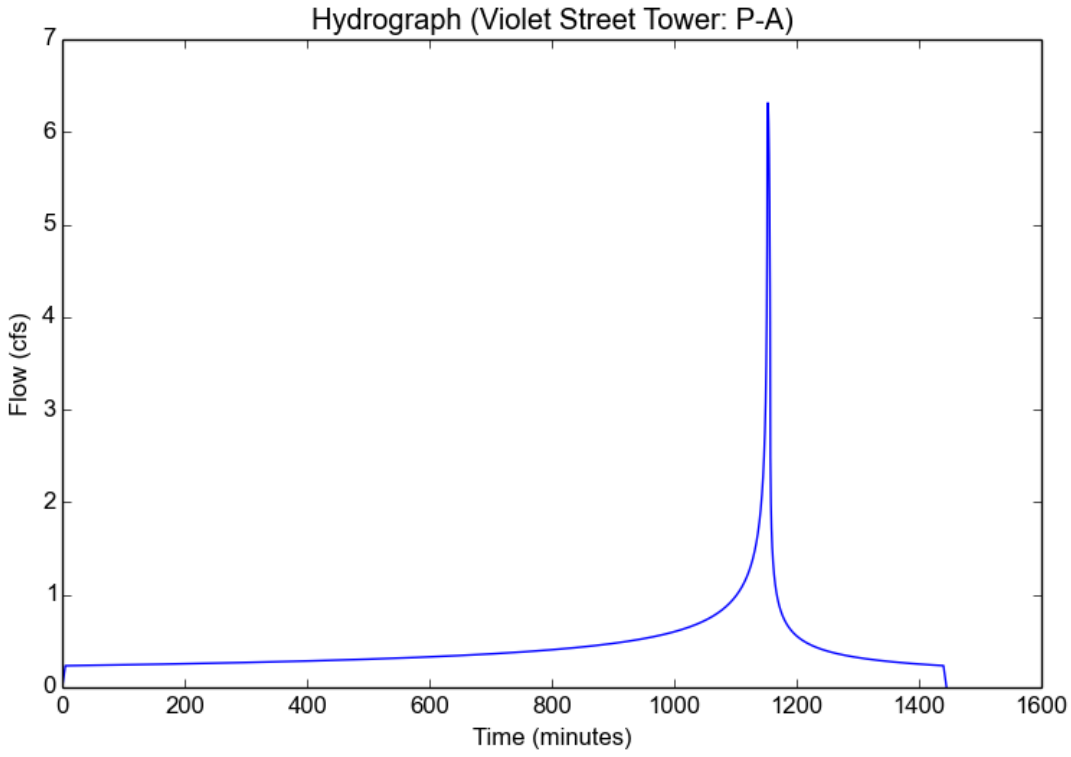
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Proposed-Violet Street Tower - 50yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-A
Area (ac)	2.01
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	6.3139
Burned Peak Flow Rate (cfs)	6.3139
24-Hr Clear Runoff Volume (ac-ft)	0.8746
24-Hr Clear Runoff Volume (cu-ft)	38097.5519



Peak Flow Hydrologic Analysis

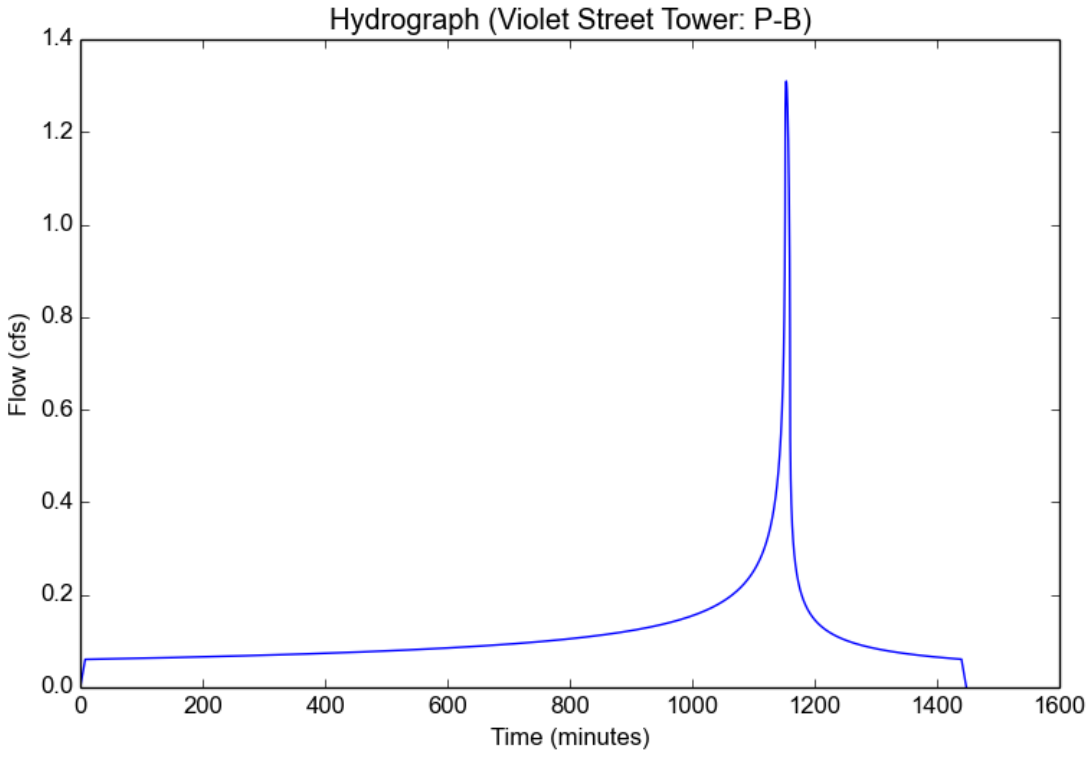
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Violet Street Tower - P-B-50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-B
Area (ac)	0.52
Flow Path Length (ft)	580.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	2.7985
Undeveloped Runoff Coefficient (Cu)	0.8081
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	1.3097
Burned Peak Flow Rate (cfs)	1.3097
24-Hr Clear Runoff Volume (ac-ft)	0.2263
24-Hr Clear Runoff Volume (cu-ft)	9856.0879



Peak Flow Hydrologic Analysis

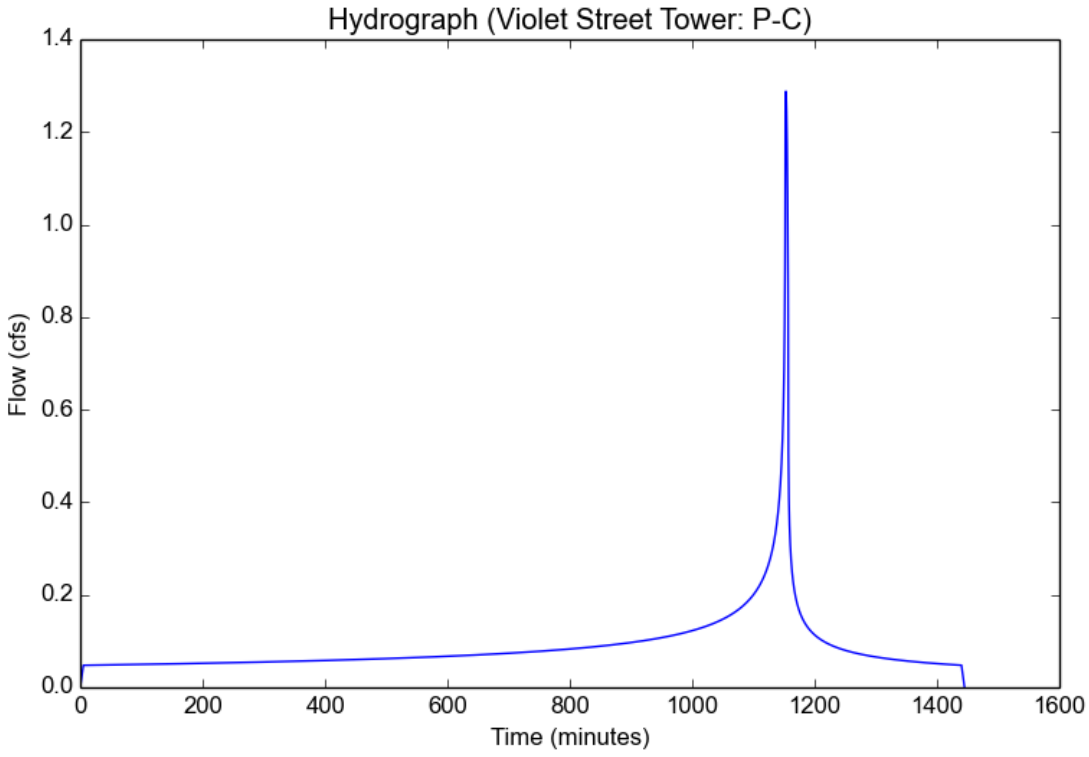
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Proposed/Violet Street Tower - P-C-50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-C
Area (ac)	0.41
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.2879
Burned Peak Flow Rate (cfs)	1.2879
24-Hr Clear Runoff Volume (ac-ft)	0.1784
24-Hr Clear Runoff Volume (cu-ft)	7771.1424



Appendix 4 - Existing Conditions Hydrology Map

LEGEND

- SUBAREA BOUNDARY
- SURFACE FLOW PATH ONSITE
- SURFACE FLOW PATH OFFSITE
- X / X.XXAC — SUBAREA LABEL

LOT 2
EX. 5-STORY PARKING STRUCTURE FF=(±248.3')

PROP. P/L N89°28'40"W 270.32'

PROP. P/L N00°38'22"W 62.01'

E. 7TH PLACE

EX-C 0.52AC

L=580'

S=0.01

$Q_{25\ YR(AREA\ EX-F)}$=4.25 CFS

EX. SD OVERFLOW

PROP. P/L N89°28'40"W 451.03'

LOT 1

LOT 3
EX. FORD FACTORY/ WARNER MUSIC GROUP 2-STORY BLDG. FF=(±248.0)

7TH PLACE

PROP. P/L N00°36'35"W 215.91'

ALLEY

EX-A 1.95AC

LOT 1

L=293'

EX. INLET

EX. INLET

EX. INLET

PROP. P/L N89°23'41"W 7.50'

146.53'

$Q_{25\ YR(AREA\ EX-E)}$=0.28 CFS

EX. DOWNSPOUT

LOT 4
EX. FORD FACTORY/ WARNER MUSIC GROUP 2-STORY BLDG. FF=(±243.7')

EX. DOWNSPOUT

N00°36'35"W

PROP. P/L

SANTA FE AVENUE

$Q_{25\ YR(AREA\ EX-E)}$=0.57 CFS

EX-D 0.206AC

EX-E 0.206AC

$Q_{25\ YR(AREA\ EX-E)}$=0.29 CFS

EX. DOWNSPOUT

EX. DOWNSPOUT

EX-B 0.06AC

LOT 1

EX. GRATE

PROP. P/L N89°24'00"W 307.72'

$Q_{25\ YR(AREA\ EX-B)}$=0.17 CFS

$Q_{25\ YR(AREA\ EX-A)}$=5.38 CFS

EX. OUTLET POINT CURB DRAIN

$Q_{25\ YR(AREA\ EX-C,\ EX-D\ \&\ EX-F)}$=5.97 CFS

VIOLET STREET

0 15 30 60 90

SCALE: 1"=30' DATE: 2/05/21

VIOLET STREET TOWER

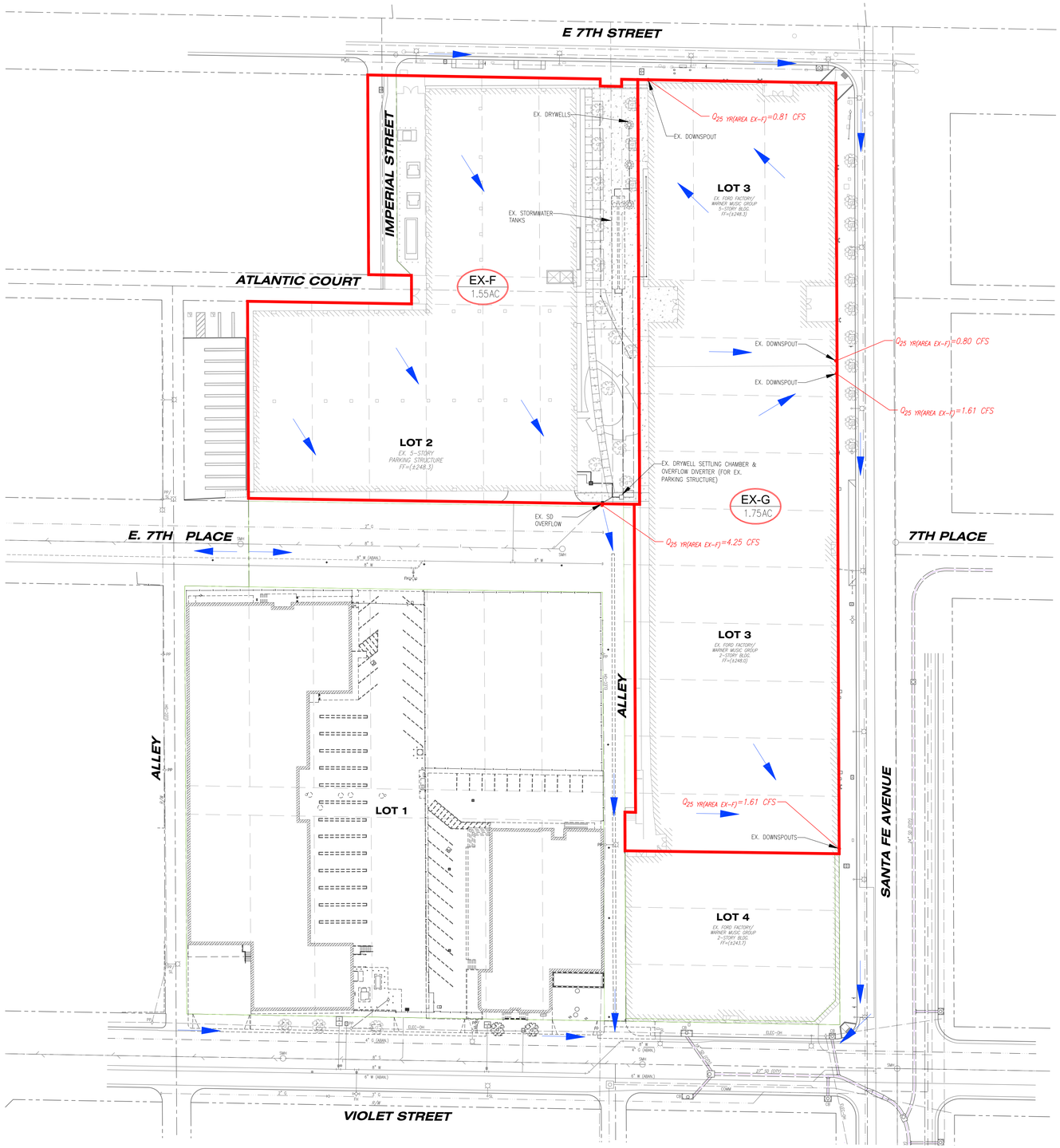
HINES

EXISTING CONDITIONS HYDROLOGY MAP

LOS ANGELES, CALIFORNIA

KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
17530 Von Karman Ave. - Suite 200 Tel (949) 756-6440
Irvine, California 92614

Appendix 5 - Existing Conditions Ford Factory & Parking Structure Hydrology Map



LEGEND

- SUBAREA BOUNDARY
- SURFACE FLOW PATH ONSITE
- SURFACE FLOW PATH OFFSITE
- X / X.XXAC — SUBAREA LABEL

0 20 40 80 120

SCALE: 1"=40' DATE: 2/05/21

VIOLET STREET TOWER

HINES

EXISTING CONDITIONS FORD BUILDING HYDROLOGY MAP

LOS ANGELES, CALIFORNIA

KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
17530 Von Karman Ave. - Suite 200 Tel (949) 756-6440
Irvine, California 92614 Fax (949) 756-6444

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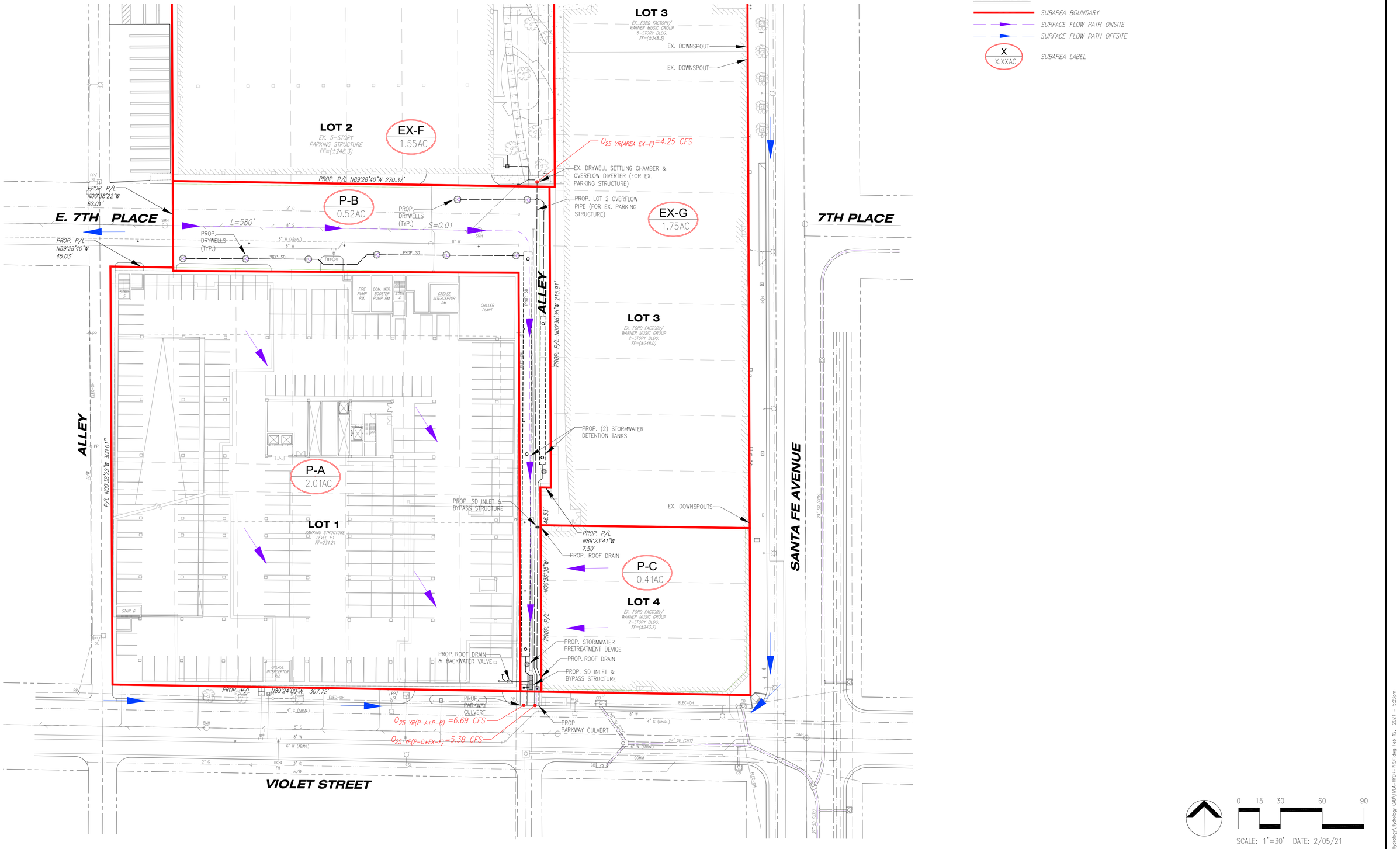
Appendix 6 - Proposed Conditions Hydrology Map



VIOLET STREET TOWER

HINES

PROPOSED CONDITIONS HYDROLOGY MAP

LOS ANGELES, CALIFORNIA

KHR ASSOCIATES
CONSULTING ENGINEERS/SURVEYORS/PLANNERS
17530 Von Karman Ave. - Suite 200 Tel (949) 756-6440
Irvine, California 92614 Fax (949) 756-6444

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Appendix 7 - Existing Conditions Ford Factory & Parking Structure HydroCalc Results

Peak Flow Hydrologic Analysis

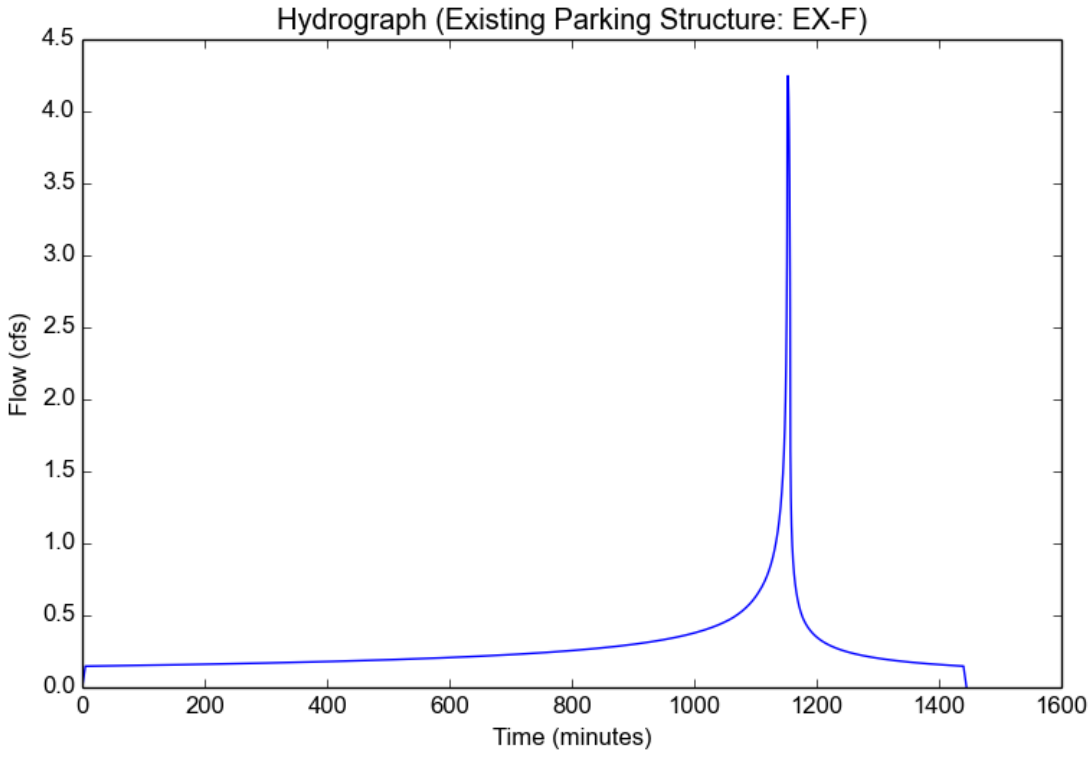
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Existing Buildings (Ford Factory & Parking Structure)/Existing Ford F
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Existing Parking Structure
Subarea ID	EX-F
Area (ac)	1.55
Flow Path Length (ft)	100.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	0.92
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.8941
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	4.2471
Burned Peak Flow Rate (cfs)	4.2471
24-Hr Clear Runoff Volume (ac-ft)	0.5552
24-Hr Clear Runoff Volume (cu-ft)	24183.4644



Peak Flow Hydrologic Analysis

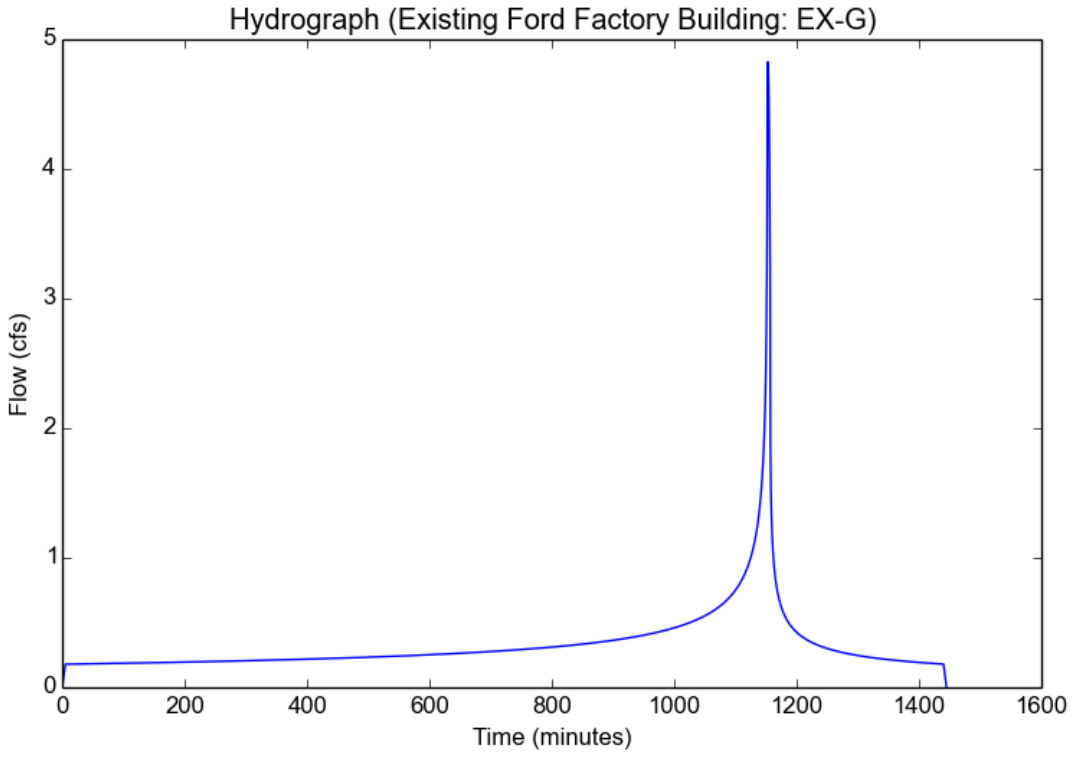
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Existing Buildings (Ford Factory & Parking Structure)/Existing Parkin
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Existing Ford Factory Building
Subarea ID	EX-G
Area (ac)	1.75
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	5.1363
Peak Intensity (in/hr)	3.0645
Undeveloped Runoff Coefficient (Cu)	0.8268
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	4.8265
Burned Peak Flow Rate (cfs)	4.8265
24-Hr Clear Runoff Volume (ac-ft)	0.6686
24-Hr Clear Runoff Volume (cu-ft)	29122.8301



Peak Flow Hydrologic Analysis

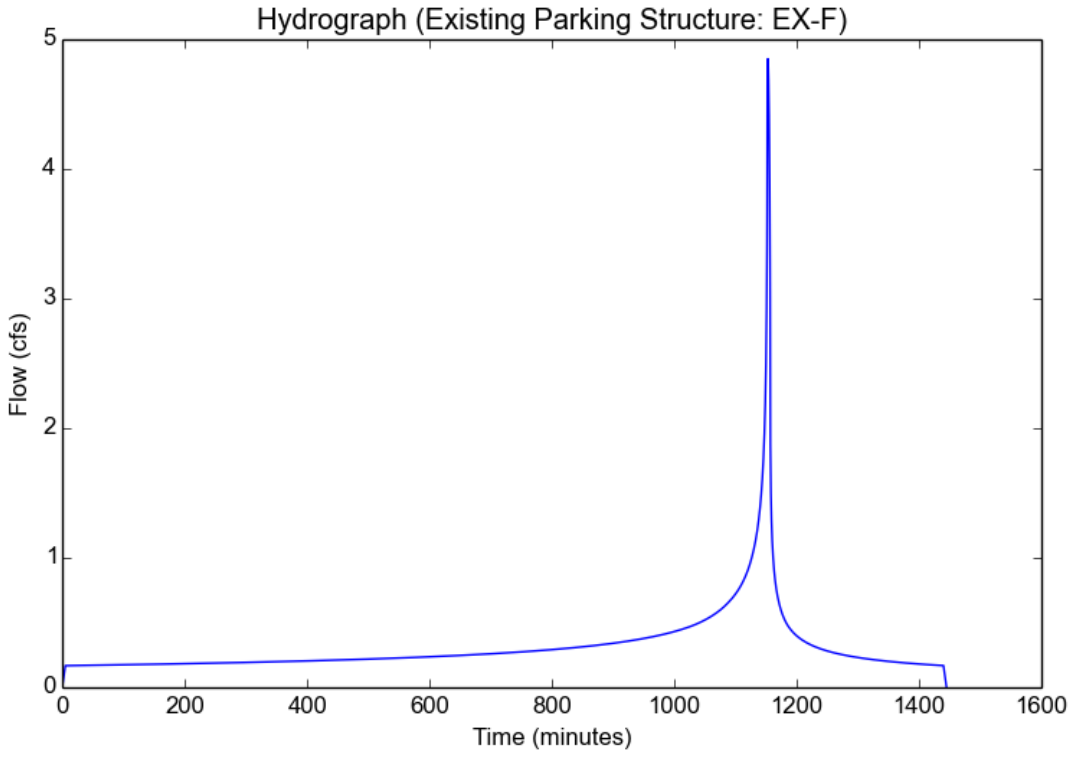
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Existing Buildings (Ford Factory & Parking Structure)/Existing Ford F
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Existing Parking Structure
Subarea ID	EX-F
Area (ac)	1.55
Flow Path Length (ft)	100.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	0.92
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.8965
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	4.8502
Burned Peak Flow Rate (cfs)	4.8502
24-Hr Clear Runoff Volume (ac-ft)	0.6333
24-Hr Clear Runoff Volume (cu-ft)	27585.3655



Peak Flow Hydrologic Analysis

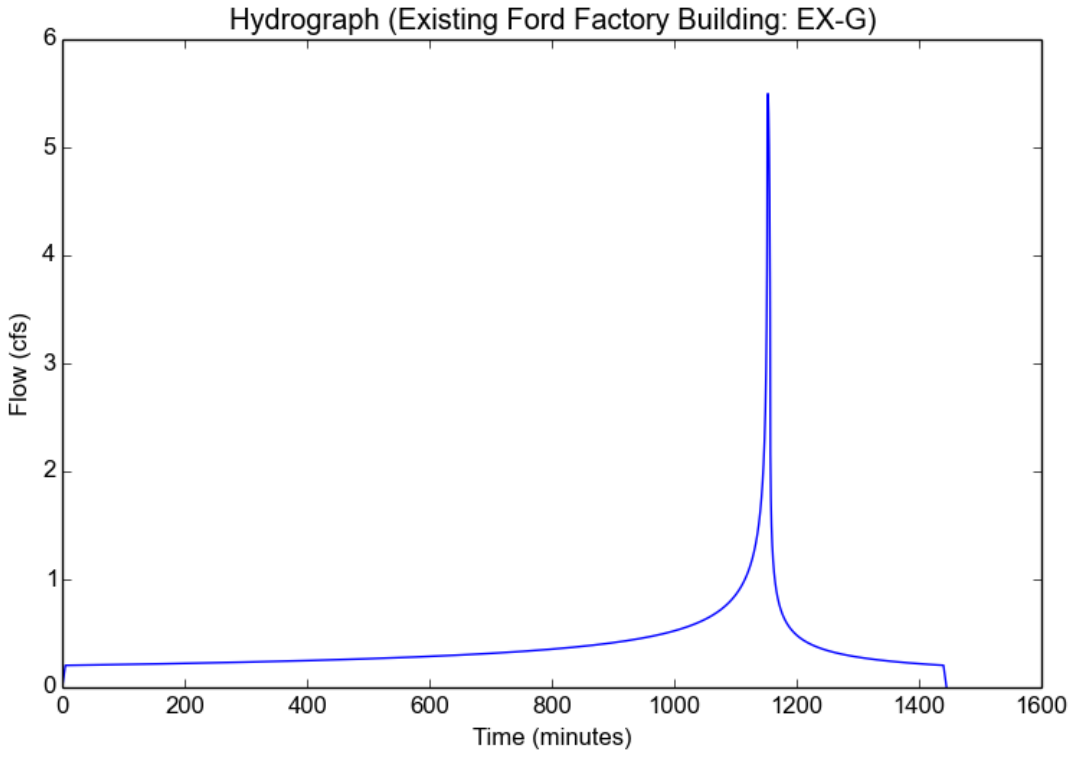
File location: R:/Hines/Violet Office/Documents/Hydrology/Hydrology Calcs/Existing/Existing Buildings (Ford Factory & Parking Structure)/Existing Parkin
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Existing Ford Factory Building
Subarea ID	EX-G
Area (ac)	1.75
Flow Path Length (ft)	50.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.85
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.85
Peak Intensity (in/hr)	3.4903
Undeveloped Runoff Coefficient (Cu)	0.8567
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	5.4972
Burned Peak Flow Rate (cfs)	5.4972
24-Hr Clear Runoff Volume (ac-ft)	0.7615
24-Hr Clear Runoff Volume (cu-ft)	33169.5104



Appendix 8 – Proposed Conditions Stormwater Quality Design Volume HydroCalc Results

Peak Flow Hydrologic Analysis

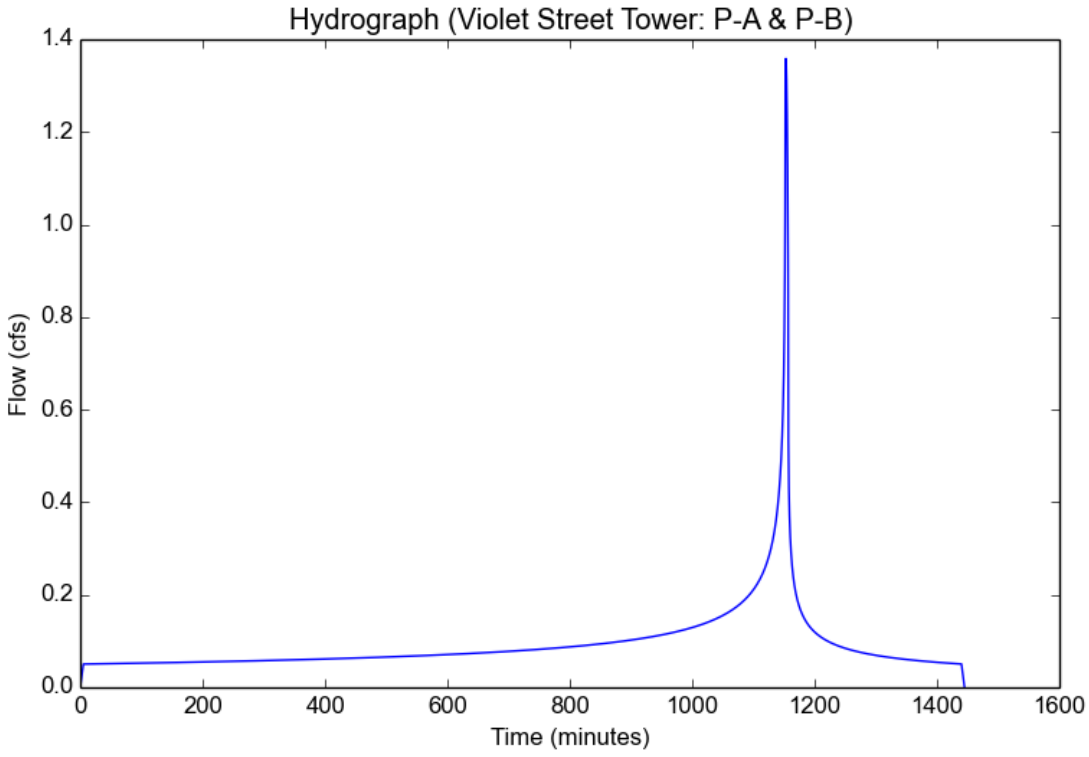
File location: R:/Hines/Violet Office/Documents/LID/Calcs/21.02.11/Violet Street Tower - P-A & P-B.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-A & P-B
Area (ac)	2.53
Flow Path Length (ft)	30.0
Flow Path Slope (vft/hft)	0.02
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.5966
Undeveloped Runoff Coefficient (Cu)	0.3916
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.3585
Burned Peak Flow Rate (cfs)	1.3585
24-Hr Clear Runoff Volume (ac-ft)	0.1882
24-Hr Clear Runoff Volume (cu-ft)	8197.2026



Peak Flow Hydrologic Analysis

File location: R:/Hines/Violet Office/Documents/LID/Calcs/21.02.11/Violet Street Tower - P-C.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Violet Street Tower
Subarea ID	P-C
Area (ac)	0.41
Flow Path Length (ft)	30.0
Flow Path Slope (vft/hft)	0.02
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.5966
Undeveloped Runoff Coefficient (Cu)	0.3916
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	0.2202
Burned Peak Flow Rate (cfs)	0.2202
24-Hr Clear Runoff Volume (ac-ft)	0.0305
24-Hr Clear Runoff Volume (cu-ft)	1328.4004