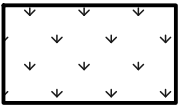


LEGEND



IMPERVIOUS AREA



PERVIOUS AREA

AREA TAKEOFF

PERVIOUS AREA: 1,987SF
IMPERVIOUS AREA: 0SF
TOTAL AREA: 1,987SF

PRE DEVELOPMENT IMPERVIOUS AREA EXHIBIT

**PATRICIA DIAZ
GRONWALL LANE**

LOS ALTOS

CALIFORNIA

SHEET

1

OF **2** SHEETS



DATE: 10/20/2020
SCALE: 1"=20'
DRAWN BY: AP
APPROVED BY: CB
DRAWING NO: EXHIBIT

\\SLV-Veter-White-Lettering-Logo.jpg

CIVIL ENGINEERING
SANDIS
1700 S. Winchester Blvd.
Suite 200, Campbell, CA 95008
408.234.0900
408.234.0909
www.sandis.net

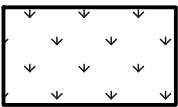
SECOND VALLEY TRAIL, CENTRAL VALLEY
SANDIS



LEGEND



IMPERVIOUS AREA



PERVIOUS AREA

AREA TAKEOFF

PERVIOUS AREA: 667SF
IMPERVIOUS AREA: 1,320SF
TOTAL AREA: 1,987SF

POST DEVELOPMENT IMPERVIOUS AREA EXHIBIT

**PATRICIA DIAZ
GRONWALL LANE**

LOS ALTOS

CALIFORNIA

SHEET

2

OF **2** SHEETS



DATE: 10/20/2020
SCALE: 1"=20'
DRAWN BY: AP
APPROVED BY: CB
DRAWING NO.:
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SILICON VALLEY TRAIL VALLEY CENTRAL VALLEY
SANDIS ENGINEERING

Drainage Summary Table - Gronwall Lane						
Drainage Area	TOTAL AREA		IMPERVIOUS AREA		PERVIOUS AREA	
	sq. ft.	Ac.	sq. ft.	Ac.	sq. ft.	Ac.
<i>Pre Development</i>	1,987	0.05	0	0.00	1,987	0.05
<i>Post Development</i>	1,987	0.05	1,320	0.03	667	0.02

CALCULATION OF WEIGHTED "C", C_w

The following equation is used to compute the weighted "c":

$$C_w = \frac{C_a A_a + C_b A_b + C_i A_i}{A_T}$$

- C_w = Weighted runoff coefficient for drainage area A
C_i = Impervious Area Runoff Coefficient (c varies, see below)
C_p = Pervious Area Runoff coefficient (c varies, see below)
A_i = Impervious Drainage Area (acres)
A_p = Pervious Drainage Area (acres)
A_T = Total Drainage Area (acres)

Site Pre-Development Weighted "C"

Pervious Area = 0.05 ac c = 0.30
Impervious Area = 0.00 ac c = 0.90
Total Area = 0.05 ac

C_{w(pre)} = 0.30

Site Post-Development Weighted "C"

Landscape Area = 0.02 ac c = 0.30
Impervious Area = 0.03 ac c = 0.90
Total Area = 0.05 ac

C_{w(post)} = 0.70

CALCULATION OF RAINFALL INTENSITY, i

i = Intensity (in/hr) based on Santa Clara County's IDF Curve

TC = Time of Concentration (minutes), assumed to be 10 mins

Calculation of 10-Year Rainfall Intensity

TC _{pre} =	10.00 minutes	TC _{post} =	10.00 minutes
i _{10year(pre)}	1.70 in/hr	i _{10year(post)}	1.70 in/hr

CALCULATION OF 10-YEAR PEAK FLOW

Use the Rational Equation for Peak Flow Calculation:

$$Q = C_w * i * A_t$$

Q = Peak Flow (cfs) for drainage area "A"

C_w = Weighted runoff coefficient for drainage area A

i = Intensity (in/hr) for the given design frequency and storm duration per Santa Clara County Design Criteria IDF Curves.

A_T = Total Drainage Area (acres)

10-Year Pre-Development Rainfall Peak Flow

C_w = 0.30

i = 1.7 in/hr

A_T = 0.05 acres

Q_{pre-10year} = 0.3 * 1.7 * 0.05 0.02 cfs

10-Year Post-Development Rainfall Peak Flow











C_w = 0.70

i = 1.7 in/hr

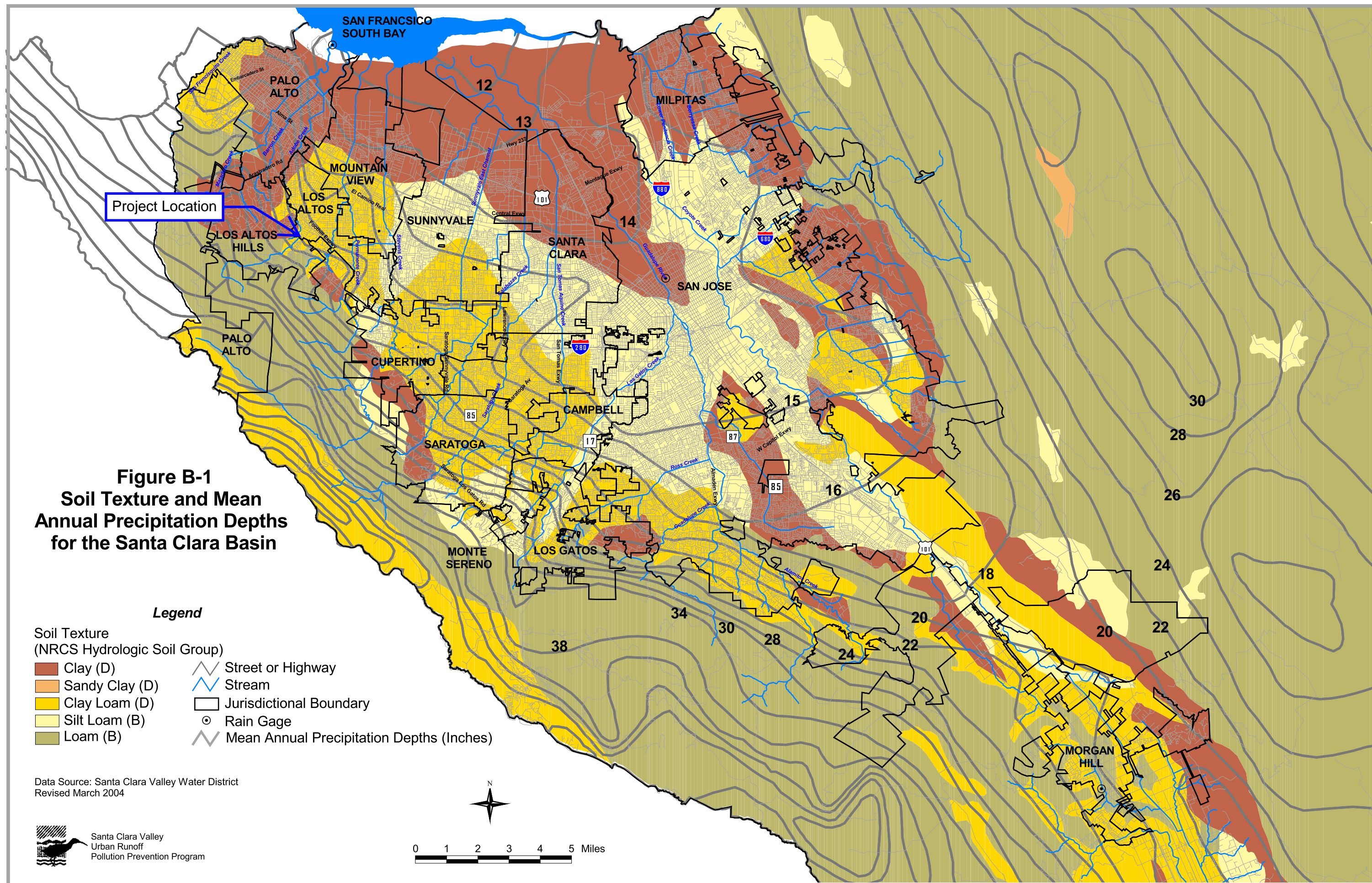
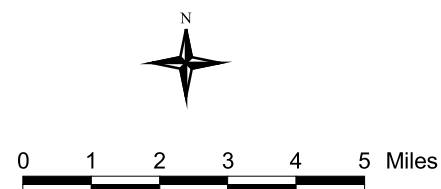
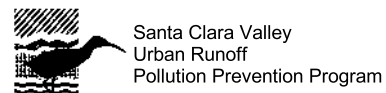
A_T = 0.05 acres

Q_{post-10year} = 0.7 * 1.7 * 0.05 0.05 cfs

Figure B-1
Soil Texture and Mean
Annual Precipitation Depths
for the Santa Clara Basin

- Legend**
- | | |
|--|---|
| Soil Texture
(NRCS Hydrologic Soil Group) | |
|  Clay (D) |  Street or Highway |
|  Sandy Clay (D) |  Stream |
|  Clay Loam (D) |  Jurisdictional Boundary |
|  Silt Loam (B) |  Rain Gage |
|  Loam (B) |  Mean Annual Precipitation Depths (Inches) |

Data Source: Santa Clara Valley Water District
 Revised March 2004



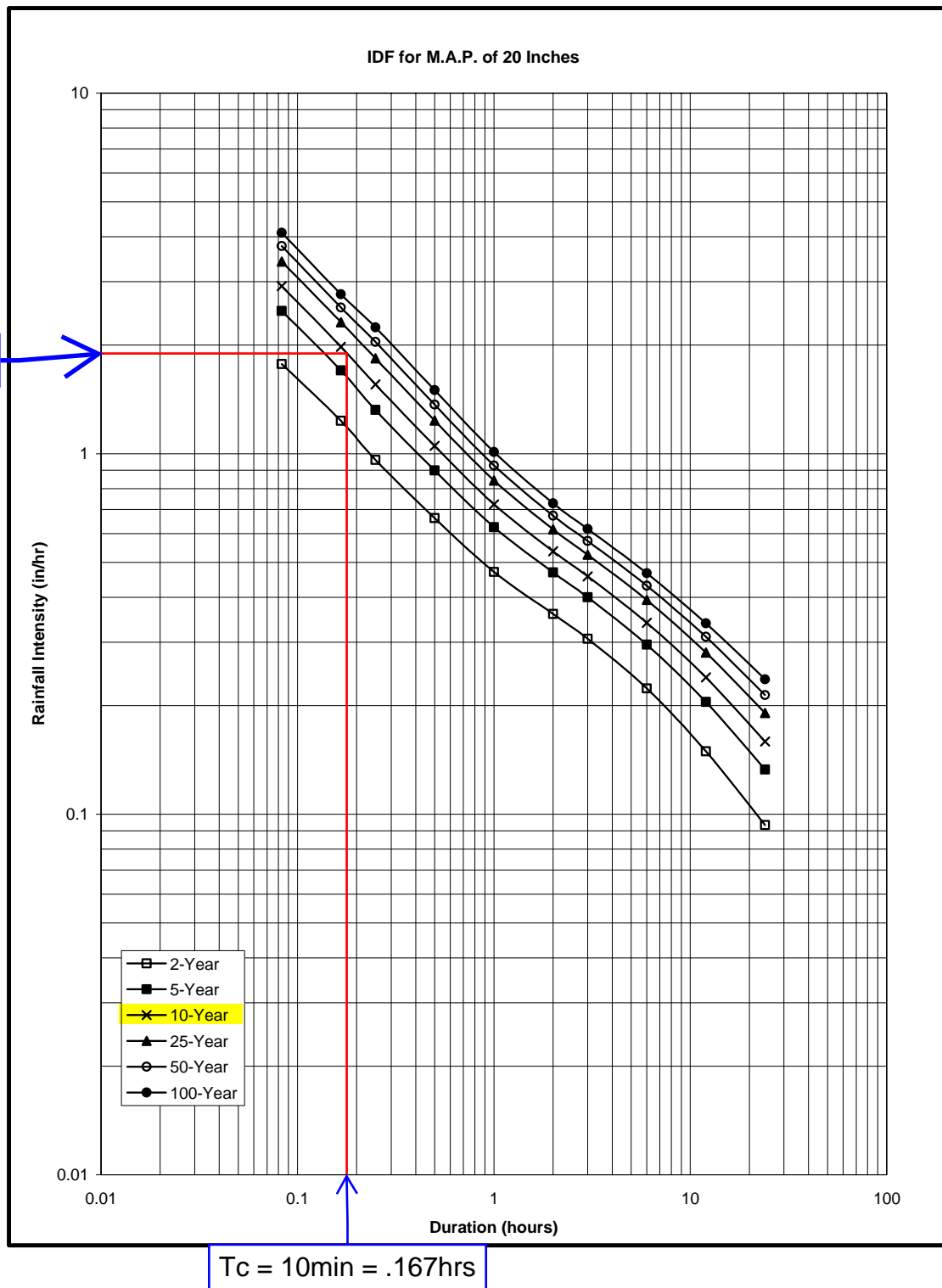


Figure B-5: IDF for M.A.P. of 20 Inches