

- ### KEYNOTES:
- USE EXISTING SITE WATER SERVICE FOR DOMESTIC OR IRRIGATION SERVICE, IF SIZE, LOCATION AND CONDITION OF EXISTING SERVICE ALLOWS FOR REUSE. IF NOT, ABANDON EXISTING WATER SERVICE PER CITY OF DAVIS REQUIREMENTS AND INSTALL NEW WATER SERVICES, AS SHOWN.
 - VISUALLY VERIFY LOCATION AND CONDITION OF EXISTING SANITARY SEWER SERVICE AND USE EXISTING SITE SEWER SERVICE #, SIZE, DEPTH AND CONDITION OF EXISTING SERVICE ALLOWS FOR REUSE. IF NOT, REMOVE EXISTING SANITARY SEWER SERVICE AND INSTALL NEW SEWER SERVICE IN SAME LOCATION, AS SHOWN.
 - PROVIDE REQUIRED VOLUME FOR STORMWATER QUALITY PER BIO-RETENTION PLANTER DETAIL ON THIS SHEET.

SITE SWQ CALCULATION - BIORETENTION PLANTER

Calculation Table for Determination of Design Imperviousness (I_{DESIGN})

Site Element	Unit Area (ft ²)	Percent Imperviousness	Weighting Factor ^a	Weighted % Imperviousness ^b
Road/Asphalt/Concrete	32,000	100	0.85	85
Decomposed Granite/Gravel	0	40	0.05	0
Pavement	0	25	0.05	0
Lawn/turf	1,612	0	0.15	0
Total Contributing Area^c	37,612			85

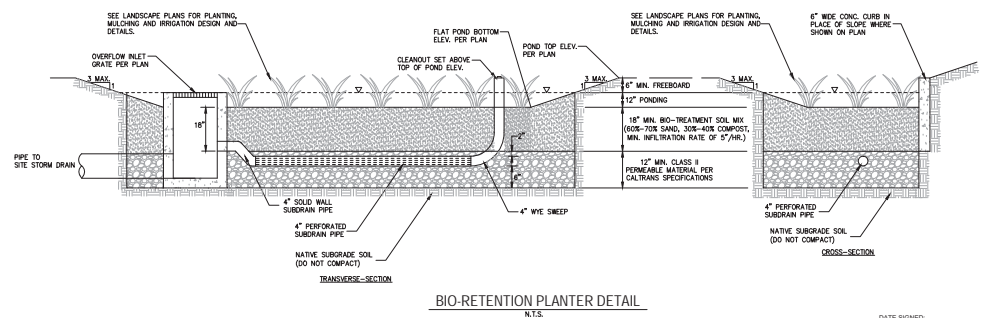
- Total contributing area = sum of unit areas
- Weighting factor = unit area / total tributary area
- Weighted imperviousness = weighting factor x percent imperviousness
- Design imperviousness = sum of weighted imperviousness

Retention Calculations

Shed Area	C	0.85 ac
desired capture (for 48 hr storm)		80%

V ₂ (in ³) (From graph on page 333 of CASQA BMP Handbook, 48-hr drawdown)	Required Volume (in ³)	Design Volume (in ³)
0.48	1,504	1,565 MINIMUM

Notes:
 Calculations based on section 5.5 of the California Stormwater BMP Handbook, dated January 2003 per
 V = required Capture Volume (in³)
 V = Unit Basin Storage Volume (in³) (From graph on page 333 of CASQA BMP Handbook)
 I_{DESIGN} = Design Imperviousness
 C = runoff coefficient = 0.85 (I_{DESIGN})^{0.7} - 0.76 (I_{DESIGN})^{0.4} + 0.74 (I_{DESIGN}) + 0.34



BIO-RETENTION PLANTER DETAIL
N.E.S.

DATE SIGNED: 1/09/18
 THESE DRAWINGS ARE NOT TO BE REPRODUCED OR COPIED WITHOUT THE ENGINEER'S SEAL BELOW HAS BEEN SIGNED AND DATED.

DESIGNED BY: RT
 DRAWN BY: RT
 CHECKED BY: DF
 SCALE: 1"=20'
 PROJECT: DAVIS LIVE
 SHEET: C1.01
 OF: 1
 DATE: 1/09/18
 JOB NO: 1677.01

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 PRELIMINARY CIVIL SITE PLAN
 CALIFORNIA
 DAVIS