PRELIMINARY HYDROLOGY AND STORM WATER MANAGEMENT REPORT

for

4200 DOVE HILL ROAD
City of San Jose
Santa Clara County
California

Prepared For:

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May 2016
Project No.: 770619901

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SUMMARY

Project Description

This report is provided for the project titled 4200 Dove Hill Rd., developed by WHL 28, LLC. The project contains approximately 3.5 acres and is located approximately 500 feet north of Hassler Parkway. The site will be rezoned from the A-Agriculture Zoning District to the A (PD) Planned Development Zoning District to allow up to 290 units of assisted senior housing on 3.5 acres of a 21 gross acre site. The purpose of this report is to show the ability and intent to comply with City and County requirements for storm water quality treatment and hydrologic considerations

Existing Conditions

The existing site consists of a parking lot that drains by natural channels to existing Caltrans catch basins located in the Highway 101 right-of-way. There is an on-site headwall and 18" culvert inlet near the center of the western property line: the 18" culvert crosses under the existing on-site frontage driveway and daylights through a second headwall on the Caltrans side of the property line. The 18" culvert outfalls into a shallow field inlet at the entrance to a Caltrans 24" culvert inlet: the 24" culvert crosses west under Highway 101. In the northern portion of the property, in the plant nursery area, there is a low section that also drains west off of the property into the Caltrans inlet. On the southern end of the property there is a culvert under Dove Hill Road which also discharges into the Caltrans right-of-way. All drainage appears to drain into the Caltrans drainage system which eventually discharges into Coyote Creek with no existing detention or retention on site.

The project proposes to detain on-site drainage such that post development discharge rates will be no greater than pre-development values.

Proposed Conditions

The proposed development will collect storm waters from the roof level and direct runoff to in-ground treatment planters. Storm water from the subdrain pipe will leave the property through a new 12-inch pipe connected to a Caltrans catch basin which discharges into the Caltrans right-of-way and eventually into Coyote Creek.

Flood Zone

The project site is located in the Flood Zone "X", which are areas determined to be outside the 500-year flood plain per Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Community Panel No. 06085C0266H dated May 2009. Therefore flood insurance is not a requirement for the proposed development.

HYDROLOGY

Pre and Post Development Conditions

The existing conditions on-site include approximately 1.28 acres of impervious surfaces, resulting in an effective pre-development runoff coefficient of 0.33. The proposed post-development runoff coefficient is estimated to be 0.63 (see Table 1).

Detention Sizing

Using the unit hydrograph method, the required detention volume for the site is calculated to be 4,902 cubic feet (see Table 1). Storage for the detained storm waters will be provided in a bioretention planters and at-grade bioretention planters. The bioretention planters and at-grade bioretention planter have a total storage capacity of 7,169 cubic feet for storm waters with a depth of ponding of 10". Bypass features are provided to allow larger storm events to gravity discharge to the street.

STORM WATER QUALITY

Storm Water Treatment

In conference with C3 regulations, the City of San Jose requires 100% of site runoff to be treated before discharge. The storm drain runoff will sheet flow and be directed to the bioretention planters and at-grade bioretention planters. Flow through planters will be designed in accordance with chapter 6.2 of the C3 Stormwater Handbook, updated April 2012. Treatment will be provided thought an 18" layer of loamy sand and collected through a 12" thick layer of drain rock such as Caltrans Standard Section 68-1.025 permeable material Class 2 or equivalent before collection and discharge through a subdrain pipe. Required treatment flow for the site will be 1.00 cfs (see Table 2). A 12" storm drain pipe can provide sufficient treatment flow from the site. Bypass features are provided to allow larger storm events to gravity discharge from the site.

Inspection and Maintenance

Post-construction treatment control measures shall be maintained and inspected once a year and before and after a storm event to ensure the post-construction treatment control measures are clear of debris and trash. Inspection and maintenance information can be found in Appendix C.

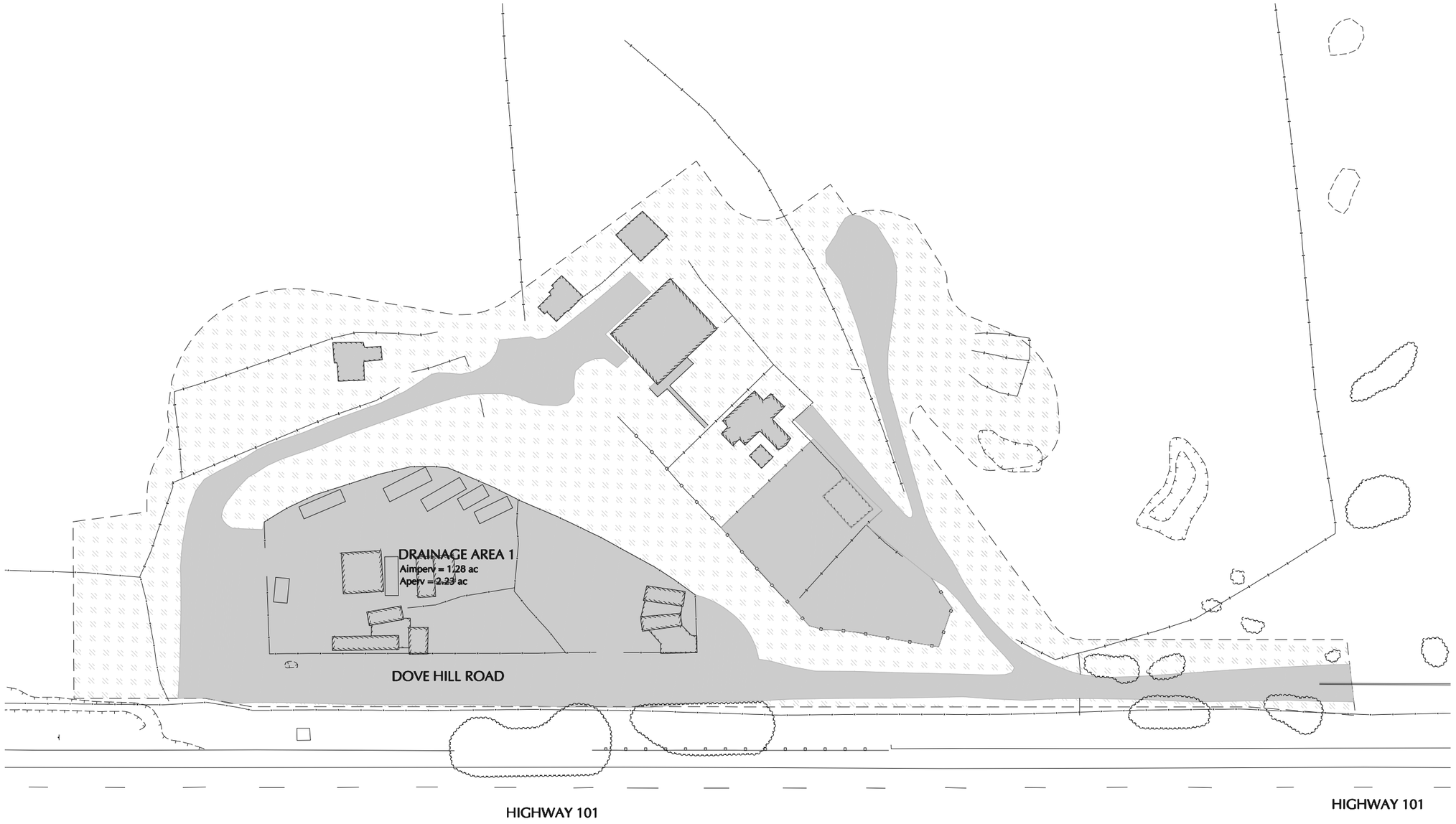
CONCLUSION

The proposed project is designed to comply with all applicable storm water quality and hydrologic requirements. Due to treatment features and increase in storm water run-off as proposed, redevelopment of the site will improve regional storm drainage and water quality conditions

FIGURE 1 : PRE-DEVELOPMENT CONDITIONS

SITE LEGEND

- PROJECT SITE BOUNDARY
- IMPERVIOUS AREA
- PERVIOUS AREA



30 0 15 30
SCALE IN FEET

PRELIMINARY DRAFT, NOT FOR CONSTRUCTION

Date	Description	No.
REVISIONS		

SIGNATURE DATE SIGNED
PROFESSIONAL XXXXXXXXXX
STATE LIC. No. XXXXX

LANGAN
4030 Moorpark Avenue, Suite 210, San Jose, CA 95117
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Langan Engineering and Environmental Services, Inc.
Langan v.I.
Langan International LLC
Collectively known as Langan

Project	4200 DOVE HILL RD SAN JOSE SANTA CLARA COUNTY CALIFORNIA
Drawing Title	PRE-DEVELOPMENT CONDITIONS
Project No.	770619901
Date	1/29/2016
Scale	1" = 30'
Drawn By	DKS
Checked By	DJH
Submission Date	X
Drawing No.	1
Sheet	1 of 2

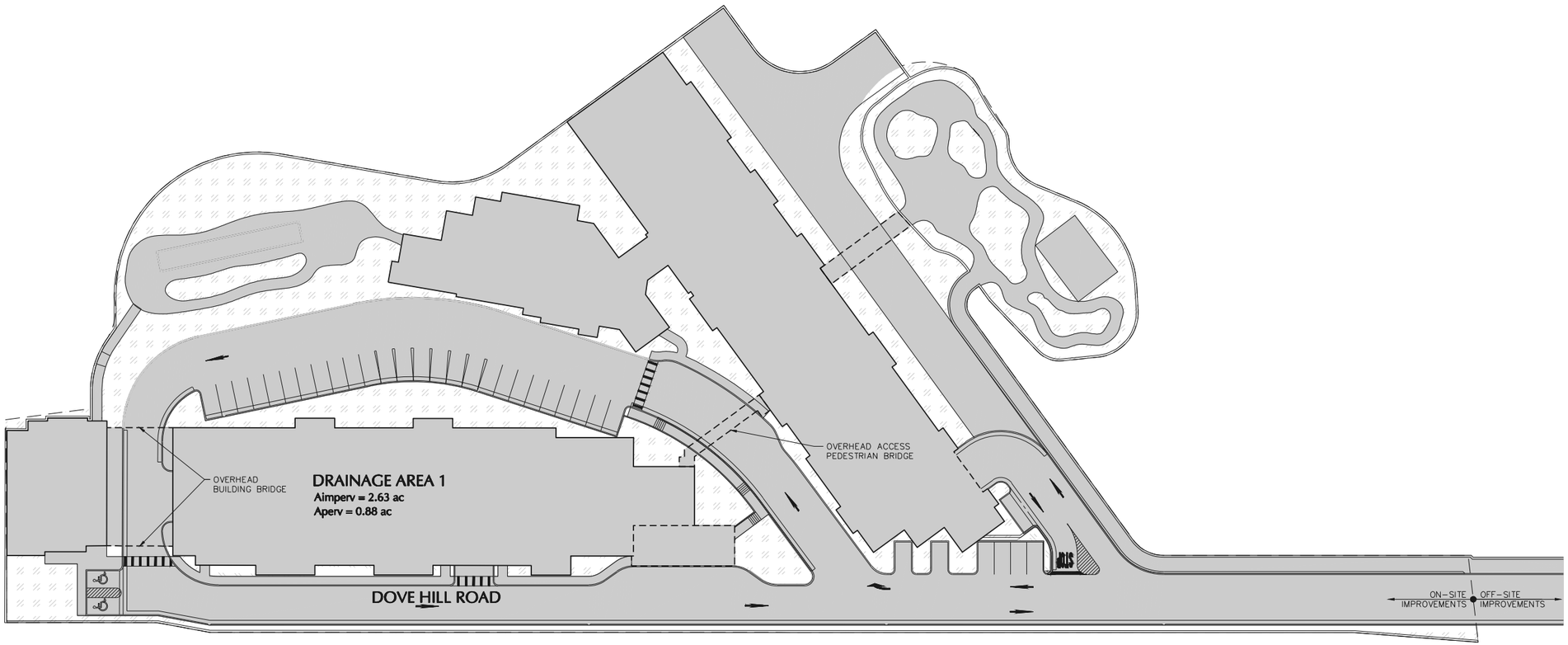
FIGURE 2 : POST-DEVELOPMENT CONDITIONS

SITE LEGEND

PROJECT SITE BOUNDARY

IMPERVIOUS AREA

PERVIOUS AREA



HIGHWAY 101

HIGHWAY 101

30 0 15 30

SCALE IN FEET

PRELIMINARY DRAFT, NOT FOR CONSTRUCTION

Date	Description	No.

REVISIONS

SIGNATURE DATE SIGNED

PROFESSIONAL XXXXXXXXXX
STATE LIC. No. XXXXX

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Project	4200 DOVE HILL RD SAN JOSE SANTA CLARA COUNTY CALIFORNIA
Drawing Title	POST-DEVELOPMENT CONDITIONS
Project No.	770619901
Date	05/20/2016
Scale	1" = 30'
Drawn By	DKS
Checked By	DJH
Submission Date	X
Drawing No.	2
Sheet	2 of 2

Filename: \\langan.com\data\SJ\data\770619901\Cadd Data - 770619901\Exhibits\Stormwater\Post-Development Conditions.dwg Date: 5/19/2016 Time: 13:14 User: dshitanishi Style Table: Langan.stb Layout: C3.01

FIGURE 3 : FIGURE B-3: IDF FOR M.A.P. OF 16 INCHES

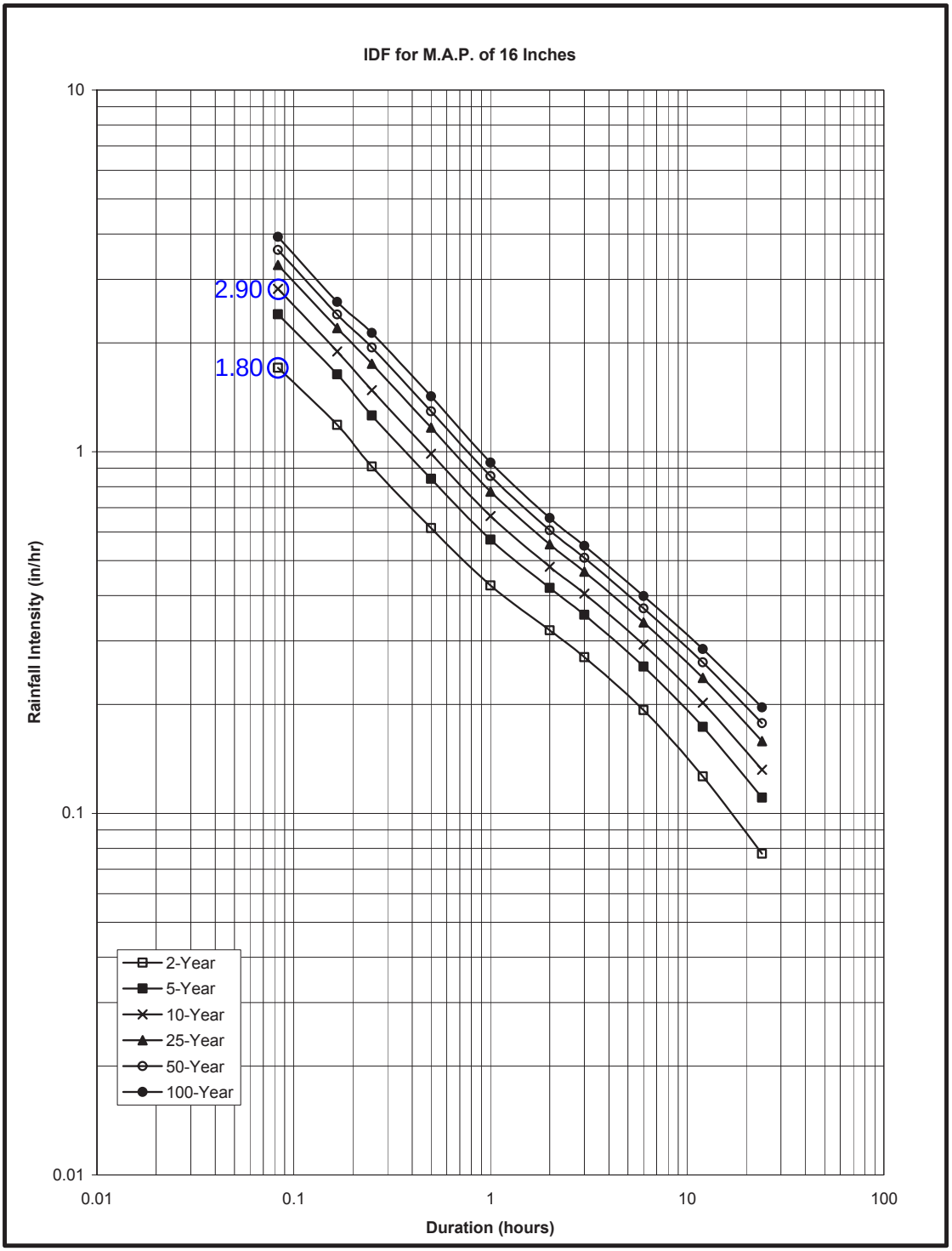

Figure B-3: IDF for M.A.P. of 16 Inches

TABLE 1
HYDROLOGY AND DETENTION CALCULATIONS
DRAINAGE AREA #1

Pre-Development Hydrology

Surface	Coeff.	Area (sf)
Roofs	0.90	6,918
Concrete	0.80	251
Stone, brick, or concrete pavers with mortared joints and bedding	0.80	0
Asphalt	0.70	48,540
Stone, brick, or concrete pavers with sand joints and bedding	0.70	0
Pervious Concrete	0.10	0
Porous asphalt	0.10	0
Permeable interlocking concrete pavement	0.10	0
Grid Pavements with grass or aggregrate surface	0.10	0
Crushed aggregrate	0.10	0
Grass	0.10	96,956
	0.33	***152,665***

Cex*A (acres) =

I_2 =

Qex = Cex*I*A =

Post-Development Hydrology

Surface	C-Value	Area (sf)
Roofs	0.90	51,849
Concrete	0.80	19,735
Stone, brick, or concrete pavers with mortared joints and bedding	0.80	0
Asphalt	0.70	42,920
Stone, brick, or concrete pavers with sand joints and bedding	0.70	0
Pervious Concrete	0.10	0
Porous asphalt	0.10	0
Permeable interlocking concrete pavement	0.10	0
Grid Pavements with grass or aggregrate surface	0.10	0
Crushed aggregrate	0.10	0
Grass	0.10	38,161
	0.63	***152,665***

Cpd*A (acres) =

I_{10} =

Qpd = Cpd*I*A =

Required Detention Volume - Unit Hydrograph Sizing

Qpd =	6.41	cfs
Qex =	2.07	cfs
L=	420	
S=	0.05	
Tc =	12.5	min
V = (Qpd-Qex)*3/2Tc =	**4,902**	**cu.ft**

TABLE 2
TREATMENT AREA COMBINATION SIZING CRITERIA
DRAINAGE AREA #1

Refer to Section 5.1 "Hydraulic Sizing Criteria" found in the C.3 Stormwater Handbook for Santa Clara County, dated April, 2012.

1. Composite Runoff Coefficient (C)

Treatment Storm (C-values per SCVURPPP Table B-3)			
Surface	**C-value**	**Area (sf)**	**C*A (sf)**
Roofs	0.90	51,849	46,664
Concrete	0.80	19,735	15,788
Stone, brick, or concrete pavers with mortared joints and bedding	0.80	0	0
Asphalt	0.70	42,920	30,044
Stone, brick, or concrete pavers with sand joints and bedding	0.70	0	0
Pervious concrete	0.10	0	0
Porous asphalt	0.10	0	0
Permeable interlocking concrete pavement	0.10	0	0
Grid Pavements with grass or aggregrate surface	0.10	0	0
Crushed aggregate	0.10	0	0
Grass	0.10	38,161	3,816
Total	***0.63***	**152,665**	**96,312**

2. Required Treatment - Volume Based (Adapted CASQA Stormwater BMP Handbook Approach)

Mean Annual Precipitation (San Jose Airport)	13.9	in	
Mean Annual Precipitation (San Jose)	15.5		1
Rain Gage Correction Factor	1.12		
Soil Type	Clay Loam (D)		
Percent Impervious	75%		
Average Slope (X)	6%		
Unit Basin Storage Volume for 1% Slope	0.46	in	
Unit Basin Storage Volume for 15% Slope	0.48		
Unit Basin Storage Volume for X% Slope	0.46	in	
Adjusted Unit Basin Storage Volume for X% Slope	0.52	in	
Water Quality Design Volume = Adjusted Unit Basin Storage Volume x Drainage Area	**6,556**	**cubic feet**	

3. Amount of Runoff Treated by Flow-Through Filtration (Uniform Intensity Approach)

Bioretention Area	**8,603**	**sf**
Rainfall intenstiy	0.2	in/hr
Duration of rain event	2.58	hours
Treatment Flow Rate	5.0	in/hr
Volume of runoff that's detained in the treatment soil	9,237	cubic feet
Amount remaining after treatment is accomplished by filtering	0	cubic feet
Minimum Ponding Depth (additional detention excluded)	0.00	in
Design Flow (or Pumping) Rate	**1.00**	**cfs**

4. Amount of Runoff Detained in Bioretention Area

Required Detention Volume	4,902	cubic feet
Depth of Ponding	10	in
Volume of Ponding	7,169	cubic feet
Volume to Detain (remainder)	-2,267	cubic feet
Additional Detention in Bioretention Area (Ponding)	**7,169**	**cubic feet**
Time to Treat (Detention Only)	2.0	hours
Detention Required	**4,902**	**cubic feet**
Detention Provided	**7,169**	**cubic feet**

APPENDIX A : CITY OF SAN JOSE FORMS AND WORKSHEETS

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

PROJECT DATA FORM

Which Projects Must Comply with Stormwater Requirements?

All projects that create and/or replace **10,000 sq. ft.** or more of **impervious surface** on a project site are Regulated Projects, and must fill out this worksheet.

All projects involving restaurants, auto service facilities, retail gasoline outlets, and uncovered parking lots (stand-alone or part of another development project, including the top uncovered portion of a parking structure) that create and/or replace **5,000 sq. ft.** or more of impervious surface on a project site are Special Land Use Categories (which are also Regulated Projects), and must fill out this worksheet.

The purpose of this worksheet is to describe and document a Regulated Project's compliance with Provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP), including the listing of its specific stormwater-related site design, source control, and treatment measures, treatment system sizing requirements, hydromodification management applicability, and operation and maintenance data. All Regulated Projects must fill out this worksheet and submit it to the Planning Division of the Department of Planning, Building and Code Enforcement with the development project application.

Interior remodeling projects, routine maintenance or repair projects such as re-roofing and re-paving, and single family homes that are not part of a larger plan of development are **NOT** required to complete this worksheet.

Contact Planning Division staff to determine if the project meets Smart Growth **Special Projects** criteria to potentially receive LID treatment reduction credits.

What is an Impervious Surface?

An impervious surface is a surface covering or pavement that prevents the land's natural ability to absorb and infiltrate rainfall/stormwater. Impervious surfaces include, but are not limited to rooftops, driveways, parking lots, walkways, and any other continuous watertight pavement or covering. However, pervious pavement, underlain with pervious soil or pervious storage material (e.g., drain rock), that infiltrates rainfall at a rate equal to or greater than surrounding unpaved areas OR that stores and infiltrates the water quality design volume specified in Provision C.3.d of the MRP, is not considered an impervious surface.

For More Information

For more information, refer to San Jose's *City Council Policy 6-29: Post Construction Urban Runoff Management* and *City Council Policy 8-14: Post-Construction Hydromodification Management*, both of which are available online at San Jose Planning's Stormwater Management webpage.

1. Project Information:

Project Name: 4200 DOVE HILL ROAD **APN #:** 679-08-002/003 679-09-001/002 **File No.:** 14 031933 ZN

Project Address: 4200 DOVE HILL ROAD, SAN JOSE, CA

Cross Streets: HASSLER PARKWAY

Applicant/Developer Name: WHL28, LLC

Project Engineer: VITINA MANDELLA

Project Type (Check all that apply)**:**

☒ Residential ☐ Commercial ☐ Industrial ☐ Mixed Use ☐ Public ☐ Institutional

☐ Restaurant ☐ Uncovered Parking ☐ Retail Fuel Outlet ☐ Other: _____

☐ Auto Service, categorized as Standard Industrial Classification (SIC) Codes: 5013-5014, 5541, 7532-7534, 7536-7539 (list applicable SIC Code(s)): _____

Project Description: THE SITE IS APPROXIMATELY 21 ACRES, BUT ONLY AROUND 3.5 ACRES THAT ARE CURRENTLY DEVELOPED WOULD BE REDEVLOPED TO ACCOMODATE 290 ASSISTED LIVING UNITS WITH A TOTAL OF 340 BEDS. THE CURRENTLY BLIGHTED SITE WOULD BE TRANSFORMED INTO A NOBLE, ARCHITECTURALLY PLEASING GATEWAY PROJECT.

Project Watershed (Baylands, Calabazas, Coyote, Guadalupe, or San Tomas)**:** COYOTE

2. Project Data:

PERVIOUS AND IMPERVIOUS SURFACES COMPARISON TABLE			
a. Project Phase Number (N/A, 1, 2, 3, etc.):	N/A	**b. Total Site (acres):**	21
c. Total Site Existing Impervious Surfaces (square feet):	55,709	**d. Total Area of Site Disturbed (acres):**	3.5

e. Impervious Surfaces	**Existing Condition of Site Area Disturbed (square feet)**	**Proposed Condition of Site Area Disturbed (square feet)**	
		Replaced[1]	**New[2]**
Roof Area(s)	6,918	6,918	44,931
Parking	0	0	0
Sidewalks, Patios, Driveways, etc.	251	251	19,484
Streets (public)	0	0	0
Streets (private)	48,540	42,920	0
Total Impervious Surfaces:	**e.1:** 55,709	**e.2:** 50,089	**e.3:** 64,415
f. Pervious Surfaces			
Landscaped Areas	96,956	38,161	0
Pervious Paving	0	0	0
Other Pervious Surfaces (green roof, etc.)	0	0	0
Total Pervious Surfaces:	**f.1:** 96,956	**f.2:** 38,161	**f.3:** 0

g. Total Proposed Replaced + New Impervious Surfaces (e.2 + e.3):	114,504
h. Total Proposed Replaced + New Pervious Surfaces (f.2 + f.3):	38,1661

i. Percent of Replacement of Impervious Area in redevelopment projects (e.2 ÷ c x 100):	90 **%**

Table Footnotes:

[1]**Proposed Replaced Impervious Surface:** All impervious surfaces added to any area of the site that was a previously existing impervious surface.

[2]**Proposed New Impervious Surface:** All impervious surfaces added to any area of the site that was a previously existing pervious surface.

3. MRP Provision C.3 Applicability:

a. Is #2.g. equal to **10,000** sq. ft. or more, or **5,000** sq. ft. or more for restaurants, auto service facilities, retail gas outlets, and uncovered parking?

☒ Yes, C.3. source control, site design and treatment requirements apply.

☐ No, C.3. source control and site design requirements apply.

b. Is #2.i. equal to or greater than 50%?

☒ Yes, C.3. site design, source control, and treatment requirements apply to entire site.

☐ No, C.3. site design, source control, and treatment requirements only apply to the area of site disturbed.

4. Selection of Specific Stormwater Control Measures (Check all that apply):

Site Design Measures

- ☒ Protect existing trees, vegetation, and soil.
- ☒ Preserve open space and natural drainage patterns.
- ☐ Reduce existing impervious surfaces.
- ☐ Create new pervious areas:
  - ☐ Landscaping.
  - ☐ Parking stalls.
  - ☐ Walkways and patios.
  - ☐ Emergency vehicle access.
  - ☐ Private streets and sidewalks.
- ☒ Direct runoff from roofs, sidewalks, patios to landscaped areas.
- ☒ Cluster structures/pavement.
- ☒ Plant trees adjacent to and in parking areas and adjacent to other impervious areas.
- ☒ Parking:
  - ☒ On top of or under buildings.
  - ☒ Not provided in excess of Code.
- ☐ Rainwater harvesting and use (e.g., rain barrel, cistern connected to roof drains).[1]
- ☐ Install a Green Roof on all or a portion of the roof.
- ☐ Protected riparian and wetland areas/ buffers.
- ☐ Other: _____

Source Control Measures

- ☒ Connect the following features to sanitary sewer:[2]
  - ☒ Covered trash/ recycling enclosures.
  - ☒ Interior parking structures.
  - ☐ Wash area/ racks.
  - ☐ Pools, spas, fountains.
  - ☐ Covered loading docks and maintenance bays.
  - ☐ Pumped groundwater.
- ☐ Service stations/ fueling areas (must include all four below):

Grade fueling areas to prevent ponding.	Use concrete for the fuel area surface.
Separate the fueling area from the rest of the site by a grade breaks that prevent run-on.	Cover the fueling areas with a canopy extending a minimum of ten feet from each pump.

- ☐ Industrial, outdoor material storage, and recycling facilities (must include all four below):

Stockpile material on an impervious surface or under permanent roof or covering, as appropriate.	Direct ponded water to the sanitary sewer,[2] onsite treatment system(s), or to offsite disposal.
Install berms or curbing to prevent runoff from the storage/ processing areas.	Segregate pollutant generating activities into a distinct drainage management area(s) and provide treatment.

- ☒ Beneficial landscaping.[3]
- ☒ Use of water efficient irrigation systems.

Source Control Measures (continued)

- ☒ Maintenance (pavement sweeping, catch basin cleaning, good housekeeping).
- ☒ Storm drain labeling.
- ☐ Other: _____

Treatment Systems

LID Treatment

- ☒ Impervious surface(s) drains to a self-retaining area(s) that is sized per the design criteria listed in the SCVURPPP C.3 Stormwater Handbook.
- ☐ Rainwater harvest and use (e.g., cistern or rain barrel sized for C.3.d treatment).
- ☐ Infiltration basin.
- ☐ Infiltration trench.
- ☐ Exfiltration trench.
- ☐ Underground detention and infiltration system (e.g. pervious pavement drain rock, large diameter pipe).

Biotreatment [4]

- ☒ Bioretention area.
- ☐ Flow-through planter.
- ☐ Tree box w/ bioretention soil.[5]
- ☐ Other: _____

Other Treatment Methods

- ☐ Proprietary tree box filter.[6]
- ☐ Media filter (sand, compost, or proprietary media).[6]
- ☐ Vegetated filter strip.[7]
- ☐ Dry detention basin.[7]
- ☐ Other: _____

[1] As a site design measure, it does not have to be sized to comply with Provision C.3.d treatment requirements.
[2] Subject to sanitary sewer authority requirements.
[3] Landscaping that minimizes irrigation and runoff, promotes surface infiltration where possible, and minimizes the use of pesticides and fertilizers.
[4] Biotreatment measures are allowed only with completed feasibility analysis showing that infiltration and rainwater harvest and use are infeasible
[5] Bioretention soils shall infiltrate runoff at a minimum of 5 inches per hour during the life of the facility and sustain healthy, vigorous plant growth.
[6] These treatment measures are only allowed if the project qualifies as a "Special Project".
[7] These treatment measures are only allowed as part of a multi-step treatment process.

5. Treatment System Sizing for Projects with Treatment Requirements:

Indicate the hydraulic sizing criteria used and provide the calculated design flow or volume to be treated (Complete the table below, and then continue to Section 6):

Treatment System Component	Hydraulic Sizing Criteria Used[8]	Design Flow or Volume (cfs or cu.ft.)
BIORETENTION	3	1.00 cfs

[8]Key: 1a: Volume – WEF Method
1b: Volume – CASQA BMP Handbook Method
2a: Flow – Factored Flood Flow Method
2b: Flow – CASQA BMP Handbook Method
2c: Flow – Uniform Intensity Method
3: Combination Flow and Volume Design Basis

6. Hydromodification Management (HM) Applicability:

a. Does project create and/or replace one acre or more of impervious surface AND create an increase in total impervious surface from the pre-project condition (i.e., is 2.g. > 2.e.1 and > one acre)?

☒ Yes, continue to Section 6.b.

☐ No, exempt from HM. Continue to Section 8.

b. Is the project located in an area of HM applicability (green area) on the HM Applicability Map?

☒ Yes, project must implement HM requirements. Continue to Section 7.

☐ No, project is exempt from HM requirements. Continue to Section 8.

7. Selection of Specific Flow Duration Controls for Hydromodification Management (HM) (Check all that apply and then continue to Section 8):

❑ Detention basin. ❑ Underground tank or vault. ☒ Bioretention with outlet control. ❑ Other:_____

8. Operation & Maintenance (O&M) Information:

a. Property Owner's Information:
1. Name: STAHN KUHNE
2. Company: _____
3. Address: 31553 HUGH WAY, HAYWARD, CA 94544
4. Phone/E-mail: (510) 459-8821

b. Responsible Party (if different than the Property Owner) for Stormwater Treatment/ Hydromodification Control O&M:
1. Name: _____
2. Company: _____
3. Address: _____
4. Phone/E-mail: _____

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Screening Worksheet for Determining Infiltration and/or Harvesting and Use Feasibility for Compliance with C.3 Treatment Requirements

Complete this form to determine if Infiltration and/or Rainwater Harvesting and Use are feasible or infeasible Low Impact Development (LID) treatment measures for your C.3 Regulated Project. See the Glossary (Attachment 1) for definitions of terms marked with an asterisk (*). Contact the Planning Project Manager to determine if the project is smart growth development that meets Special Project* criteria included in the Municipal Regional Permit. If the project meets Special Project criteria, it may receive LID treatment reduction credits.*

APPLICATION INFORMATION

1. Contact Information

Contact Person Name: VITINA MANDELLA Project Name: 4200 DOVE HILL ROAD
Site Address: 4200 DOVE HILL ROAD APN: 679-08-002/003 679-09-001/002 File No.: 14 031933 ZN
Phone No.: (415) 955-5235 E-Mail: VMANDELLA@LANGAN.COM
Mailing Address: 4030 MOORPARK AVENUE, SUITE 210, SAN JOSE, CA 95117

INFILTRATION FEASIBILITY ANALYSIS

2. Evaluate the Feasibility for Infiltration

Do site soils either (a) have a saturated hydraulic conductivity* (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?[1]

- ☒ Yes – Infiltration is infeasible. Continue to Section 3.
- ☐ No – Infiltration might be feasible. Complete the Infiltration Feasibility Worksheet and Continue to Section 6.

RECYCLED WATER USE

3. Recycled Water Use

Check one of the boxes below to indicate if the project is installing and using a recycled water plumbing system for non-potable water use.

- ☐ Yes – The project is installing a recycled water plumbing system, and the installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Continue to Section 6.
- ☒ No – The project is not installing a recycled water plumbing system. Continue to Section 4.

RAINWATER CAPTURE ANALYSIS

4. Calculate the Potential Rainwater Capture Area* for Screening of Potential Rainwater Harvesting and Use

Complete this section for the entire project area. Note: If rainwater harvesting and use is infeasible for the entire site, ***and*** *the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then it will be necessary to complete Sections 4 and 5 of this form for each of these buildings (after completing the 'entire project area' analysis).*

[1] Base this response on the site-specific soil report. If this is not available, consult the soil hydraulic conductivity map in Attachment 3.
*For definitions, see Glossary (Attachment 1).

4.1 Complete Table 1. This table represents the **entire project area**.

Table 1: Calculation of the Potential Rainwater Capture Area* *The Potential Rainwater Capture Area may consist of the **entire project area**.*	1	2	3	4
	Pre-Project Total Site Existing Impervious Surfaces[2] (sq. ft.)	Proposed Impervious Surfaces[2] (IS) of Site Area Disturbed (sq. ft.)		Post-Project Landscaped Areas for Site Area Disturbed (sq. ft.)
		Replaced[3] IS	New[4] IS	
a. Enter the totals for the area to be evaluated:	55,709	50,089	64,415	38,161
b. Sum of replaced and new impervious surfaces:	N/A	114,504		N/A
c. Area of existing impervious surfaces that will NOT be replaced by the project:	0	N/A		N/A

4.2 Answer this question for the entire project area ONLY. If existing impervious surface will be replaced by the project, does the area to be replaced equal 50% or more of the total existing impervious surface? *(Refer to Table 1, Row "a". Is the area in Column 2 > 50% of Column 1?)*

☒ Yes – C.3 stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced.

☐ No – C.3 requirements apply only to the impervious area created and/or replaced because the project **does not** include alteration of more than 50% of the total existing impervious surfaces.

4.3 Enter the square footage of the Potential Rainwater Capture Area*. If you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1: 114,504 sq. ft.

4.4 Convert the measurement of the Potential Rainwater Capture Area* from square feet to acres (divide the amount in Item 4.3 by 43,560): 2.63 acres.

4.5 Does the project have at least one **building roof area of 10,000 square feet** or more? If so, **complete Table 2 and Items 4.6 and 4.7 below** (if not, continue to Item 5). Attach additional tables for each additional individual building roof area of 10,000 sq. ft. or more, as applicable.

Table 2: Calculation of the Potential Rainwater Capture Area* (BUILDING B) *The Potential Rainwater Capture Area may consist of a **building(s) with a roof area(s) of 10,000 sq. ft. or more**.*	1	2	3	4
	Pre-Project Total Site Existing Impervious Surfaces[5] (sq. ft.)	Proposed Impervious Surfaces[2] (IS) of the Building Roof Area (sq. ft.)		Post-Project Landscaped Areas for Site Area Disturbed (sq. ft.)
		Replaced[3] IS	New[4] IS	
a. Enter the totals for the area to be evaluated:	N/A	6,918	18,669	19,081
b. Sum of replaced and new impervious surfaces:	N/A	25,587		N/A
c. Area of existing impervious surfaces that will NOT be replaced by the project:	N/A	N/A		N/A

4.6 Enter the square footage of the Potential Rainwater Capture Area* from Row "b" in Table 2: 25,587 sq. ft.

4.7 Convert the measurement of the Potential Rainwater Capture Area* from square feet to acres (divide the amount in Item 4.6 by 43,560): 0.59 acres.

[2] Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the C.3.d amount of runoff*.

[3] "Replaced" means that the project will install impervious surface where existing impervious surface is removed.

[4] "New" means the project will install impervious surface where there is currently no impervious surface.

[5] Enter the total of the building's roof area. Impervious surfaces do NOT include appropriately-designed vegetated roofs.

*For definitions, see Glossary (Attachment 1).

4.5 Does the project have at least one **building roof area of 10,000 square feet** or more? If so, **complete Table 2 and Items 4.6 and 4.7 below** (if not, continue to Item 5). Attach additional tables for each additional individual building roof area of 10,000 sq. ft. or more, as applicable.

Table 2: Calculation of the Potential Rainwater Capture Area* (BUILDING A)

*The Potential Rainwater Capture Area may consist of a **building(s) with a roof area(s) of 10,000 sq. ft. or more**.*

	1	2	3	4
	Pre-Project Total Site Existing Impervious Surfaces[5] (sq. ft.)	Proposed Impervious Surfaces[2] (IS) of the Building Roof Area (sq. ft.)		Post-Project Landscaped Areas for Site Area Disturbed (sq. ft.)
		Replaced[3] IS	New[4] IS	
a. Enter the totals for the area to be evaluated:	N/A	0	25,397	19,080
b. Sum of replaced and new impervious surfaces:	N/A	25,397		N/A
c. Area of existing impervious surfaces that will NOT be replaced by the project:	N/A	N/A		N/A

4.6 Enter the square footage of the Potential Rainwater Capture Area* from Row "b" in Table 2: 25,397 sq. ft.

4.7 Convert the measurement of the Potential Rainwater Capture Area* from square feet to acres (divide the amount in Item 4.6 by 43,560): 0.58 acres.

[2] Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the C.3.d amount of runoff*.

[3] "Replaced" means that the project will install impervious surface where existing impervious surface is removed.

[4] "New" means the project will install impervious surface where there is currently no impervious surface.

[5] Enter the total of the building's roof area. Impervious surfaces do NOT include appropriately-designed vegetated roofs.

*For definitions, see Glossary (Attachment 1).

RAINWATER HARVESTING AND USE FOR LANDSCAPE IRRIGATION FEASIBILITY ANALYSIS

5. Evaluate the Feasibility for Rainwater Harvesting and Use

5.1 Is the onsite Post-Project Landscaping Area (*refer to the number in Column 4 of Table 1 if evaluating for entire site area, **or** the number in Column 4 of Table 2 if evaluating for an individual roof area*) LESS than 2.5 times the size of the Potential Rainwater Capture Area* (*refer to the number in Section 4.3 if evaluating for entire site area, **or** the number in Section 4.6 if evaluating for an individual roof area*)? (Note: landscape area(s) have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

☒ Yes – Harvesting and Use for landscape irrigation is infeasible. Continue to Section 5.2.

☐ No – Harvesting and Use for landscape irrigation might be feasible. Direct runoff from impervious areas to self-retaining areas* OR refer to Table 11 on page 33 and the curves in Appendix F of the BASMAA Feasibility Criteria Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

RAINWATER HARVESTING AND USE FOR TOILET FLUSHING OR NON-POTABLE INDUSTRIAL USES FEASIBILITY ANALYSIS

5.2 Depending on the type for project you are evaluating, complete the appropriate Subsection(s) below (5.2.a through 5.2.e) to determine if harvested rainwater can be used for toilet flushing or non-potable industrial uses:

a. Residential Projects: Proposed number of dwelling units: 138 (BLDG. A) & 152 (BLDG. B)

Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the Potential Rainwater Capture Area* in Item 4.4 (if evaluating the entire project area) or in Item 4.7 (if evaluating the roof area of a building).

When evaluating the entire project area, enter the result here: N/A

When evaluating the roof area of a building, enter the result here: 0.58 (BLDG. A) & 0.59 (BLDG. B)

Is the number of dwelling units per impervious acre LESS than 120 (assumes 2.34 occupants/unit[6])?

☐ Yes – Harvest and Use is infeasible. Continue to Section 6.

☒ No – Harvest and Use might be feasible. Complete the Rainwater Harvesting and Use Feasibility Worksheet.

b. Commercial/Industrial Projects: Proposed interior floor area: N/A sq. ft.

Calculate the proposed interior floor area (sq. ft.) per acre of impervious surface by dividing the interior floor area (sq. ft.) by the acres of the Potential Rainwater Capture Area* in Item 4.4 (if evaluating the entire project area) or in Item 4.7 (if evaluating the roof area of a building).

When evaluating the entire project area, enter the result here: N/A

When evaluating the roof area of a building, enter the result here: N/A

Does square footage of the interior floor space per impervious acre equal LESS than 70,000?

☐ Yes – Harvest and Use is infeasible. Continue to Section 6.

☐ No – Harvest and Use might be feasible. Complete the Rainwater Harvesting and Use Feasibility Worksheet.

c. School Projects: Proposed interior floor area: N/A sq. ft.

Calculate the proposed interior floor area per acre of impervious surface by dividing the interior floor area (sq. ft.) by the acres of the Potential Rainwater Capture Area* in Item 4.4 (if evaluating the entire project area) or in Item 4.7 (if evaluating the roof area of a building).

When evaluating the entire project area, enter the result here: N/A

When evaluating the roof area of a building, enter the result here: N/A

Does square footage of the interior floor space per impervious acre equal LESS than 21,000?

☐ Yes – Harvest and Use is infeasible. Continue to Section 6.

☐ No – Harvest and Use might be feasible. Complete the Rainwater Harvesting and Use Feasibility Worksheet.

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[6] Source: U.S. Census Bureau, 2006-2010 American Community Survey.

*For definitions, see Glossary (Attachment 1).

d. Mixed Commercial and Residential Use Projects:

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.b, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

e. Industrial Projects: Estimated non-potable water demand (gallons/day): N/A

Is the non-potable demand LESS than 2,400 gallons/day per acre of the Potential Rainwater Capture Area?

☐ Yes – Harvest and Use is infeasible. Continue to Section 6.

☐ No – Harvest and Use might be feasible. Refer to the curves in Appendix F of the BASMAA Feasibility Criteria Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

BIOTREATMENT DETERMINATION

6. Complete Sections 6.1 through 6.4 below to determine if Biotreatment facilities can be used to comply with C.3 treatment requirements

6.1 Were all the "Yes" boxes in Section 2: Feasibility for Infiltration checked?

☒ Yes – Continue to Section 6.2.

☐ No – Complete the Infiltration Feasibility Worksheet.

6.2 Were all the "Yes" boxes in Section 3: Recycled Water Use checked?

☐ Yes – Continue to Section 7.

☒ No – Complete to Section 6.3.

6.3 Were all the "Yes" boxes in Section 5: Feasibility for Rainwater Harvesting and Use checked?

☐ Yes – Continue to Section 6.4.

☒ No – Complete the Rainwater Harvesting and Use Feasibility Worksheet.

6.4 If only "Yes" boxes were checked for questions 6.1 through 6.3 above, then the applicant may use appropriately designed **biotreatment facilities** for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater as site conditions allow.

SUMMARY RESULTS OF THE ENTIRE SCREENING WORKSHEET ANALYSIS

7. Based on this screening worksheet, the following steps will be taken (check all that apply)

☒ Infiltration and/or Harvest and Use are infeasible. Appropriately-designed biotreatment measures will be used to comply with C.3 treatment requirements.

☐ Infiltration might be feasible. Applicant will conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.

☒ Harvest and Use might be feasible. Applicant will conduct further analysis of rainwater harvesting and use by (check one):

- ☒ Completing the Rainwater Harvesting and Use Feasibility Worksheet for:
  - ☐ The entire project area.
  - ☒ Individual building(s) with a roof area(s) of 10,000 sq. ft. or more, if applicable, describe: TWO INDIVIDUAL BUILDINGS: BLDG. A = 25,397 SQ. FT , BLDG. B = 25,587 SQ. FT.
- ☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 (on page 33) and the curves in Appendix F of the BASMAA LID Feasibility Criteria Report.
- ☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the BASMAA LID Feasibility Criteria Report.

*For definitions, see Glossary (Attachment 1).

SPECIAL PROJECTS WORKSHEET

Complete this worksheet to determine if the Regulated Project meets the Special Project criteria to receive LID treatment reduction credits. Special Projects are smart growth projects (e.g., small urban infill, high density, or transit oriented development) that can receive LID treatment reduction credits and use specific types of non-LID treatment, but only after the use of onsite and offsite LID treatment is evaluated. This Special Projects determination, and whether onsite and offsite LID treatment is feasible or infeasible, is subject to the Planning Division's review and approval.

1. Project Information:

Project Name: 4200 DOVE HILL ROAD **APN #:** 679-08-002/003 679-09-001/002 **File No.:** 14 031933 ZN

Project Address: 4200 DOVE HILL ROAD, SAN JOSE, CA

Applicant/Developer Name: WHL28, LLC

2. Feasibility/Infeasibility of Onsite and Offsite LID Treatment:

☒ A Narrative Discussion is attached that describes the feasibility or infeasibility of using 100% LID treatment, onsite and offsite, as part of the project's stormwater management plan. (Note: See Appendix J, Section J.7 of the SCVURPPP C.3 Stormwater Handbook for complete narrative discussion instructions in order to use any LID treatment reduction credits identified in Section 4 below).

3. "Special Project" Determination:

Special Project Category "A" – Small Infill Projects:

Does the project have ALL of the following characteristics?

- ☐ Located in a San José designated downtown core area or downtown core zoning district, neighborhood business district, or historic preservation district;[1]
- ☐ Creates and/or replaces 0.5 acres or less of impervious surface;
- ☐ Includes no surface parking;[2] and
- ☐ Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment.

☒ No – Continue to Special Project Category "B" below.

☐ Yes – Complete Section 4, Category A below of the LID Treatment Reduction Credit Calculation.

Special Project Category "B" – High Density Projects:

Does the project have ALL of the following characteristics?

- ☐ Located in a San José designated downtown core area or downtown core zoning district, neighborhood business district, or historic preservation district[1];
- ☐ Creates and/or replaces an area of impervious surface that is greater than 0.5 acres, and no more than 2.0 acres;
- ☐ Includes no surface parking[2];
- ☐ Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment; and
- ☐ Minimum density of either 50 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects).

☐ No – Continue to Special Project Category "C" below.

☒ Yes – Complete Section 4, Category B below of the LID Treatment Reduction Credit Calculation.

[1] See Special Projects Criteria Maps located at the following links: Special Projects Category A (Small Infill) and B (High Density) Location Criteria and Special Projects Category C Transit Oriented Development Location Criteria.

[2] Except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones.

Special Project Category "C" – Transit Oriented Development Projects:

Does the project have ALL of the following characteristics?

- ☐ At least 50% of the project area is within 1/2 mile of an existing or planned transit hub[3] or 100% within a Priority Development Area (PDA)[4];
- ☐ The project is characterized as a non-auto-related use[5]; and
- ☐ Minimum density of either 25 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects).

☒ No (if "No" was selected in Categories A, B and C, the project does not qualify as a Special Project).

☐ Yes – Complete Section 4, Category C below of the LID Treatment Reduction Credit Calculation.

4. LID Treatment Reduction Credit Calculation:

(Note: Projects that qualify in multiple Special Project Categories may use the LID Treatment Reduction Credit from only one category.)

Category	Impervious Area Created/Replaced[6] (acres)	Site Coverage (%)	Project Density (DU/Ac or FAR)	Density/Criteria	Allowable Credit (%)	Applied Credit (%)
A			N.A.	N.A.	100%	
					Total Category A Credit:	
B				Res ≥ 50 DU/ac or FAR ≥ 2:1	50%	
				Res ≥ 75 DU/ac or FAR ≥ 3:1	75%	
				Res ≥ 100 DU/ac or FAR ≥ 4:1	100%	
					Total Category B Credit:	
C	N.A.	N.A.	N.A.	**Location credit (select one):**[7]		
				Within ¼ mile of existing/planned transit hub	50%	
				Within ½ mile of existing/planned transit hub	25%	
				Within a PDA	25%	
				Density credit (select one):		
				Res ≥ 30 DU/ac or FAR ≥ 2:1	10%	
				Res ≥ 60 DU/ac or FAR ≥ 4:1	20%	
				Res ≥ 100 DU/ac or FAR ≥ 6:1	30%	
			N.A.	**Parking credit (select one):**		
				≤ 10% at-grade surface parking[8]	10%	
				No surface parking[9]	20%	
					Total Category C Credit:	

[3] Existing "Transit hub" is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes (Note: A bus stop with no supporting services does not qualify). Planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006).

[4] "PDA" is an infill development area formally designated by the ABAG/MTC's FOCUS regional planning program.

[5] Category C excludes stand-alone surface parking lots; car dealerships; auto and truck rental facilities with onsite surface storage; restaurants, banks or pharmacies with drive-through lanes; gas stations; car washes; auto repair and service facilities; or other auto-related projects that are unrelated to the concept of transit oriented development.

[6] To calculate impervious area created/replaced, use the square footage shown in 2.g of the Pervious and Impervious Surfaces Comparison Table of the City of San Jose Project Data Form and then convert it to acres (÷ by 43,560).

[7] To qualify for the Transit Hub location credit, at least 50% of the project's site must be located within the ¼ mile or ½ mile radius of an existing or planned transit hub. To qualify for the PDA location credit, 100% of the project site must be located within a PDA.

[8] The at-grade surface parking must be treated with LID treatment measures.

[9] Except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Rainwater Harvesting and Use Feasibility Worksheet

Municipal Regional Stormwater NPDES Permit (MRP)

Stormwater Controls for Development Projects

ENTIRE PROJECT AREA

Complete this worksheet for all C.3 Regulated Projects* for which the project density exceeds the screening density* provided by municipal staff. Use this worksheet to determine the feasibility of treating the C.3.d amount of runoff* with rainwater harvesting and use for indoor, non-potable water uses. Where it is infeasible to treat the C.3.d amount of runoff with either harvesting and use or infiltration, stormwater may be treated with biotreatment* measures.

See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).

Complete this worksheet for the entire project area. If rainwater harvesting and use is infeasible for the entire project, and the project includes one or more buildings that each individually has a roof area of 10,000 square feet, then complete a separate copy of this form for each of these buildings (in this case, complete only the sections of the form that make sense for the roof area evaluation).

1. Enter Project Data

1.1	Project Name:	4200 DOVE HILL ROAD
1.2	Project Address:	4200 DOVE HILL ROAD
1.3	Applicant/Agent Name:	VITINA MANDELLA
1.4	Applicant/Agent Address:	4030 MOORPARK AVENUE, SUITE 210, SAN JOSE, CA 95117

(For projects with a potential non-potable water use other than toilet flushing, skip to Question 5.1)

1.5	Project Type:	RESIDENTIAL	If residential or mixed use, enter # of dwelling units:	290
1.6			Enter square footage of non-residential interior floor area:	33,123
1.7	**Potential rainwater capture area*:**			50,984 sq.ft.
1.8	If it is a Special Project*, indicate the percentage of LID treatment* reduction: *(Item 1.8 applies only to entire project evaluations, not individual roof area evaluations.)*			0 percent
1.9	Total potential rainwater capture area that will require LID treatment: *(This is the total rain capture area remaining after any Special Project LID treatment reduction is applied.)*			50,984 sq.ft.

2. Calculate Area of Self-Treating Areas, Self-Retaining Areas, and Areas Contributing to Self-Retaining Areas

2.1	Enter square footage of any self-treating areas* in the area that is being evaluated:	0 sq.ft.
2.2	Enter square footage of any self-retaining areas* in the area that is being evaluated:	0 sq.ft.
2.3	Enter the square footage of areas contributing runoff to self-retaining area*:	0 sq.ft.
2.4	TOTAL of Items 2.1, 2.2, and 2.3:	0 sq.ft.

3. Subtract Credit for Self-Treating/Self-Retaining Areas from Area Requiring Treatment

3.1	Subtract the TOTAL in Item 2.4 from the potential rainwater capture area in Item 1.9:	50,984 sq.ft.
3.3	Convert the remaining area required for treatment in Item 3.1 from square feet to acres:	1.17 acres

4. Determine Feasibility of Use for Toilet Flushing Based on Demand

4.1	Project's dwelling units per acre of adjusted potential rain capture area (Divide the number in 1.5 by the number in 3.3):	247.77 dwelling units/acre
4.2	Non-residential interior floor area per acre of adjusted potential rain capture area (Divide the number in 1.6 by the number in 3.3):	28,299.82 Int. non-res. floor area/acre

Note: formulas in Items 4.1 and 4.2 are set up, respectively, for a residential or a non-residential project. Do not use these pre-set formulas for mixed use projects. ***For mixed use projects****, evaluate the residential toilet flushing demand based on the dwelling units per acre for the residential portion of the project (use a prorated acreage, based on the percentage of the project dedicated to residential use). Then evaluate the commercial toilet flushing demand per acre for the commercial portion of the project (use a prorated acreage, based on the percentage of the project dedicated to commercial use).*

Rainwater Harvesting and Use Feasibility Worksheet

4.3	Refer to the applicable countywide table in Attachment 2. Identify the number of dwelling units per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility:	96	dwelling units/acre
4.4	Refer to the applicable countywide table in Attachment 2. Identify the square feet of non-residential interior floor area per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility:	280	int. non-res. floor area/acre

Check "Yes" or "No" to indicate whether the following conditions apply. If "Yes" is checked for any question, then rainwater harvesting and use is infeasible. As soon as you answer "Yes", you can skip to Item 6.1. If "No" is checked for all items, then rainwater harvesting and use is feasible and you must harvest and use the C.3.d amount of stormwater, unless you infiltrate the C.3.d amount of stormwater.*

4.5	Is the project's number of dwelling units per acre of adjusted area requiring treatment (listed in Item 4.1) LESS than the number identified in Item 4.3?	☐ Yes	☒ No
4.6	Is the project's square footage of non-residential interior floor area per acre of adjusted area requiring treatment (listed in Item 4.2) LESS than the number identified in Item 4.4?	☐ Yes	☒ No

5. Determine Feasibility of Rainwater Harvesting and Use Based on Factors Other Than Demand

5.1	Does the requirement for rainwater harvesting and use at the project conflict with local, state, or federal ordinances or building codes?	☐ Yes	☒ No
5.2	Would the technical requirements cause the harvesting system to exceed 2% of the Total Project Cost, or has the applicant documented economic hardship in relation to maintenance costs? (*If so, attach an explanation.*)	☐ Yes	☒ No
5.3	Do constraints, such as a slope above 10% or lack of available space at the site, make it infeasible to locate on the site a cistern of adequate size to harvest and use the C.3.d amount of water? (*If so, attach an explanation.*)	☒ Yes	☐ No
5.4	Are there geotechnical/stability concerns related to the surface (roof or ground) where a cistern would be located that make the use of rainwater harvesting infeasible? (*If so, attach an explanation.*)	☐ Yes	☐ No
5.5	Does the location of utilities, a septic system and/or **heritage trees*** limit the placement of a cistern on the site to the extent that rainwater harvesting is infeasible? (*If so, attach an explanation.*)	☐ Yes	☐ No
5.6	Does the project include other features (i.e., waterless urinals, composting toilets) that reduce the non-potable water demand below the Required Demands identified in Table 10 on page 32 of the BASMAA LID Feasibility Criteria Report?	☐ Yes	☐ No

Note 1: It is assumed that projects with significant amounts of landscaping will either treat runoff with landscape dispersal (self-treating and self-retaining areas) or will evaluate the feasibility of havesting and using rainwater for irrigation using the curves in Appendix F of the BASMAA LID Feasibility Ciriteria Report.

6. Results of Feasibility Determination

		Infeasible	Feasible
6.1	Based on the results of the feasibility analysis in Item 4.4 and Section 5, rainwater harvesting/use is (check one):	☒	☐

→ *If "FEASIBLE" is indicated for Item 6.1 the amount of stormwater requiring treatment must be treated with harvesting/use, unless it is infiltrated into the soil.*

→ *If "INFEASIBLE" is checked for Item 6.1, then the applicant may use appropriately designed bioretention*,[1] facilities for compliance with C.3 treatment requirements. If Ksat > 1.6 in./hr., and infiltration is unimpeded by subsurface conditions, then the bioretention facilities are predicted to infiltrate 80% or more average annual runoff. If Ksat < 1.6, maximize infiltration of stormwater by using bioretention if site conditions allow, and remaining runoff will be discharged to storm drains via facility underdrains. If site conditions preclude infiltration, a lined bioretention area or flow-through planter may be used.*

VITINA MANDELLA

Name of Applicant (Print)

Vitina Mandella

Name of Applicant (Sign)

05/19/2016

Date

1 Bioretention facilities designed to maximize infiltration with a raised underdrain may also be called bioinfiltration facilities*.

* See definitions in Glossary (Attachment 1).

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Rainwater Harvesting and Use Feasibility Worksheet

Municipal Regional Stormwater NPDES Permit (MRP)

Stormwater Controls for Development Projects

BUILDING A

Complete this worksheet for all C.3 Regulated Projects* for which the project density exceeds the screening density* provided by municipal staff. Use this worksheet to determine the feasibility of treating the C.3.d amount of runoff* with rainwater harvesting and use for indoor, non-potable water uses. Where it is infeasible to treat the C.3.d amount of runoff with either harvesting and use or infiltration, stormwater may be treated with biotreatment* measures.

See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).

Complete this worksheet for the entire project area. If rainwater harvesting and use is infeasible for the entire project, and the project includes one or more buildings that each individually has a roof area of 10,000 square feet, then complete a separate copy of this form for each of these buildings (in this case, complete only the sections of the form that make sense for the roof area evaluation).

1. Enter Project Data

1.1	Project Name:	4200 DOVE HILL ROAD
1.2	Project Address:	4200 DOVE HILL ROAD
1.3	Applicant/Agent Name:	VITINA MANDELLA
1.4	Applicant/Agent Address:	4030 MOORPARK AVENUE, SUITE 210, SAN JOSE, CA 95117

(For projects with a potential non-potable water use other than toilet flushing, skip to Question 5.1)

1.5	Project Type:	RESIDENTIAL	If residential or mixed use, enter # of dwelling units:	138
1.6			Enter square footage of non-residential interior floor area:	21,334
1.7	**Potential rainwater capture area*:**			25,397 sq.ft.
1.8	If it is a Special Project*, indicate the percentage of LID treatment* reduction: *(Item 1.8 applies only to entire project evaluations, not individual roof area evaluations.)*			0 percent
1.9	Total potential rainwater capture area that will require LID treatment: *(This is the total rain capture area remaining after any Special Project LID treatment reduction is applied.)*			25,397 sq.ft.

2. Calculate Area of Self-Treating Areas, Self-Retaining Areas, and Areas Contributing to Self-Retaining Areas

2.1	Enter square footage of any self-treating areas* in the area that is being evaluated:	0 sq.ft.
2.2	Enter square footage of any self-retaining areas* in the area that is being evaluated:	0 sq.ft.
2.3	Enter the square footage of areas contributing runoff to self-retaining area*:	0 sq.ft.
2.4	TOTAL of Items 2.1, 2.2, and 2.3:	0 sq.ft.

3. Subtract Credit for Self-Treating/Self-Retaining Areas from Area Requiring Treatment

3.1	Subtract the TOTAL in Item 2.4 from the potential rainwater capture area in Item 1.9:	25,397 sq.ft.
3.3	Convert the remaining area required for treatment in Item 3.1 from square feet to acres:	0.58 acres

4. Determine Feasibility of Use for Toilet Flushing Based on Demand

4.1	Project's dwelling units per acre of adjusted potential rain capture area (Divide the number in 1.5 by the number in 3.3):	236.69 dwelling units/acre
4.2	Non-residential interior floor area per acre of adjusted potential rain capture area (Divide the number in 1.6 by the number in 3.3):	36,591.29 Int. non-res. floor area/acre

Note: formulas in Items 4.1 and 4.2 are set up, respectively, for a residential or a non-residential project. Do not use these pre-set formulas for mixed use projects. ***For mixed use projects****, evaluate the residential toilet flushing demand based on the dwelling units per acre for the residential portion of the project (use a prorated acreage, based on the percentage of the project dedicated to residential use). Then evaluate the commercial toilet flushing demand per acre for the commercial portion of the project (use a prorated acreage, based on the percentage of the project dedicated to commercial use).*

Rainwater Harvesting and Use Feasibility Worksheet

4.3	Refer to the applicable countywide table in Attachment 2. Identify the number of dwelling units per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility:	96	dwelling units/acre
4.4	Refer to the applicable countywide table in Attachment 2. Identify the square feet of non-residential interior floor area per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility:	280	int. non-res. floor area/acre

Check "Yes" or "No" to indicate whether the following conditions apply. If "Yes" is checked for any question, then rainwater harvesting and use is infeasible. As soon as you answer "Yes", you can skip to Item 6.1. If "No" is checked for all items, then rainwater harvesting and use is feasible and you must harvest and use the C.3.d amount of stormwater, unless you infiltrate the C.3.d amount of stormwater.*

4.5	Is the project's number of dwelling units per acre of adjusted area requiring treatment (listed in Item 4.1) LESS than the number identified in Item 4.3?	☐ Yes	☒ No
4.6	Is the project's square footage of non-residential interior floor area per acre of adjusted area requiring treatment (listed in Item 4.2) LESS than the number identified in Item 4.4?	☐ Yes	☒ No

5. Determine Feasibility of Rainwater Harvesting and Use Based on Factors Other Than Demand

5.1	Does the requirement for rainwater harvesting and use at the project conflict with local, state, or federal ordinances or building codes?	☐ Yes	☒ No
5.2	Would the technical requirements cause the harvesting system to exceed 2% of the Total Project Cost, or has the applicant documented economic hardship in relation to maintenance costs? (*If so, attach an explanation.*)	☐ Yes	☒ No
5.3	Do constraints, such as a slope above 10% or lack of available space at the site, make it infeasible to locate on the site a cistern of adequate size to harvest and use the C.3.d amount of water? (*If so, attach an explanation.*)	☒ Yes	☐ No
5.4	Are there geotechnical/stability concerns related to the surface (roof or ground) where a cistern would be located that make the use of rainwater harvesting infeasible? (*If so, attach an explanation.*)	☐ Yes	☐ No
5.5	Does the location of utilities, a septic system and/or **heritage trees*** limit the placement of a cistern on the site to the extent that rainwater harvesting is infeasible? (*If so, attach an explanation.*)	☐ Yes	☐ No
5.6	Does the project include other features (i.e., waterless urinals, composting toilets) that reduce the non-potable water demand below the Required Demands identified in Table 10 on page 32 of the BASMAA LID Feasibility Criteria Report?	☐ Yes	☐ No

Note 1: It is assumed that projects with significant amounts of landscaping will either treat runoff with landscape dispersal (self-treating and self-retaining areas) or will evaluate the feasibility of havesting and using rainwater for irrigation using the curves in Appendix F of the BASMAA LID Feasibility Ciriteria Report.

6. Results of Feasibility Determination

		Infeasible	Feasible
6.1	Based on the results of the feasibility analysis in Item 4.4 and Section 5, rainwater harvesting/use is (check one):	☒	☐

➔ *If "FEASIBLE" is indicated for Item 6.1 the amount of stormwater requiring treatment must be treated with harvesting/use, unless it is infiltrated into the soil.*

➔ *If "INFEASIBLE" is checked for Item 6.1, then the applicant may use appropriately designed bioretention*,[1] facilities for compliance with C.3 treatment requirements. If Ksat > 1.6 in./hr., and infiltration is unimpeded by subsurface conditions, then the bioretention facilities are predicted to infiltrate 80% or more average annual runoff. If Ksat < 1.6, maximize infiltration of stormwater by using bioretention if site conditions allow, and remaining runoff will be discharged to storm drains via facility underdrains. If site conditions preclude infiltration, a lined bioretention area or flow-through planter may be used.*

VITINA MANDELLA

Name of Applicant (Print)

Vitina Mandella

Name of Applicant (Sign)

05/19/2016

Date

1 Bioretention facilities designed to maximize infiltration with a raised underdrain may also be called bioinfiltration facilities*.

* See definitions in Glossary (Attachment 1).

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Rainwater Harvesting and Use Feasibility Worksheet

Municipal Regional Stormwater NPDES Permit (MRP)

Stormwater Controls for Development Projects

BUILDING B

Complete this worksheet for all C.3 Regulated Projects* for which the project density exceeds the screening density* provided by municipal staff. Use this worksheet to determine the feasibility of treating the C.3.d amount of runoff* with rainwater harvesting and use for indoor, non-potable water uses. Where it is infeasible to treat the C.3.d amount of runoff with either harvesting and use or infiltration, stormwater may be treated with biotreatment* measures.

See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).

Complete this worksheet for the entire project area. If rainwater harvesting and use is infeasible for the entire project, and the project includes one or more buildings that each individually has a roof area of 10,000 square feet, then complete a separate copy of this form for each of these buildings (in this case, complete only the sections of the form that make sense for the roof area evaluation).

1. Enter Project Data

1.1	Project Name:	4200 DOVE HILL ROAD
1.2	Project Address:	4200 DOVE HILL ROAD
1.3	Applicant/Agent Name:	VITINA MANDELLA
1.4	Applicant/Agent Address:	4030 MOORPARK AVENUE, SUITE 210, SAN JOSE, CA 95117

(For projects with a potential non-potable water use other than toilet flushing, skip to Question 5.1)

1.5	Project Type:	RESIDENTIAL	If residential or mixed use, enter # of dwelling units:	152
1.6			Enter square footage of non-residential interior floor area:	11,789
1.7	**Potential rainwater capture area*:**		25,587	sq.ft.
1.8	If it is a Special Project*, indicate the percentage of LID treatment* reduction: *(Item 1.8 applies only to entire project evaluations, not individual roof area evaluations.)*		0	percent
1.9	Total potential rainwater capture area that will require LID treatment: *(This is the total rain capture area remaining after any Special Project LID treatment reduction is applied.)*		25,587	sq.ft.

2. Calculate Area of Self-Treating Areas, Self-Retaining Areas, and Areas Contributing to Self-Retaining Areas

2.1	Enter square footage of any self-treating areas* in the area that is being evaluated:	0	sq.ft.
2.2	Enter square footage of any self-retaining areas* in the area that is being evaluated:	0	sq.ft.
2.3	Enter the square footage of areas contributing runoff to self-retaining area*:	0	sq.ft.
2.4	TOTAL of Items 2.1, 2.2, and 2.3:	0	sq.ft.

3. Subtract Credit for Self-Treating/Self-Retaining Areas from Area Requiring Treatment

3.1	Subtract the TOTAL in Item 2.4 from the potential rainwater capture area in Item 1.9:	25,887	sq.ft.
3.3	Convert the remaining area required for treatment in Item 3.1 from square feet to acres:	0.59	acres

4. Determine Feasibility of Use for Toilet Flushing Based on Demand

4.1	Project's dwelling units per acre of adjusted potential rain capture area (Divide the number in 1.5 by the number in 3.3):	258.77	dwelling units/acre
4.2	Non-residential interior floor area per acre of adjusted potential rain capture area (Divide the number in 1.6 by the number in 3.3):	20,069.91	Int. non-res. floor area/acre

Note: formulas in Items 4.1 and 4.2 are set up, respectively, for a residential or a non-residential project. Do not use these pre-set formulas for mixed use projects. ***For mixed use projects****, evaluate the residential toilet flushing demand based on the dwelling units per acre for the residential portion of the project (use a prorated acreage, based on the percentage of the project dedicated to residential use). Then evaluate the commercial toilet flushing demand per acre for the commercial portion of the project (use a prorated acreage, based on the percentage of the project dedicated to commercial use).*

Rainwater Harvesting and Use Feasibility Worksheet

4.3	Refer to the applicable countywide table in Attachment 2. Identify the number of dwelling units per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility:	96	dwelling units/acre
4.4	Refer to the applicable countywide table in Attachment 2. Identify the square feet of non-residential interior floor area per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility:	280	int. non-res. floor area/acre

Check "Yes" or "No" to indicate whether the following conditions apply. If "Yes" is checked for any question, then rainwater harvesting and use is infeasible. As soon as you answer "Yes", you can skip to Item 6.1. If "No" is checked for all items, then rainwater harvesting and use is feasible and you must harvest and use the C.3.d amount of stormwater, unless you infiltrate the C.3.d amount of stormwater.*

4.5	Is the project's number of dwelling units per acre of adjusted area requiring treatment (listed in Item 4.1) LESS than the number identified in Item 4.3?	☐ Yes	☒ No
4.6	Is the project's square footage of non-residential interior floor area per acre of adjusted area requiring treatment (listed in Item 4.2) LESS than the number identified in Item 4.4?	☐ Yes	☒ No

5. Determine Feasibility of Rainwater Harvesting and Use Based on Factors Other Than Demand

5.1	Does the requirement for rainwater harvesting and use at the project conflict with local, state, or federal ordinances or building codes?	☐ Yes	☒ No
5.2	Would the technical requirements cause the harvesting system to exceed 2% of the Total Project Cost, or has the applicant documented economic hardship in relation to maintenance costs? (*If so, attach an explanation.*)	☐ Yes	☒ No
5.3	Do constraints, such as a slope above 10% or lack of available space at the site, make it infeasible to locate on the site a cistern of adequate size to harvest and use the C.3.d amount of water? (*If so, attach an explanation.*)	☒ Yes	☐ No
5.4	Are there geotechnical/stability concerns related to the surface (roof or ground) where a cistern would be located that make the use of rainwater harvesting infeasible? (*If so, attach an explanation.*)	☐ Yes	☐ No
5.5	Does the location of utilities, a septic system and/or **heritage trees*** limit the placement of a cistern on the site to the extent that rainwater harvesting is infeasible? (*If so, attach an explanation.*)	☐ Yes	☐ No
5.6	Does the project include other features (i.e., waterless urinals, composting toilets) that reduce the non-potable water demand below the Required Demands identified in Table 10 on page 32 of the BASMAA LID Feasibility Criteria Report?	☐ Yes	☐ No

Note 1: It is assumed that projects with significant amounts of landscaping will either treat runoff with landscape dispersal (self-treating and self-retaining areas) or will evaluate the feasibility of havesting and using rainwater for irrigation using the curves in Appendix F of the BASMAA LID Feasibility Ciriteria Report.

6. Results of Feasibility Determination

		Infeasible	Feasible
6.1	Based on the results of the feasibility analysis in Item 4.4 and Section 5, rainwater harvesting/use is (check one):	☒	☐

➔ *If "FEASIBLE" is indicated for Item 6.1 the amount of stormwater requiring treatment must be treated with harvesting/use, unless it is infiltrated into the soil.*

➔ *If "INFEASIBLE" is checked for Item 6.1, then the applicant may use appropriately designed bioretention*,[1] facilities for compliance with C.3 treatment requirements. If Ksat > 1.6 in./hr., and infiltration is unimpeded by subsurface conditions, then the bioretention facilities are predicted to infiltrate 80% or more average annual runoff. If Ksat < 1.6, maximize infiltration of stormwater by using bioretention if site conditions allow, and remaining runoff will be discharged to storm drains via facility underdrains. If site conditions preclude infiltration, a lined bioretention area or flow-through planter may be used.*

VITINA MANDELLA

Name of Applicant (Print)

Vitina Mandella

Name of Applicant (Sign)

05/19/2016

Date

1 Bioretention facilities designed to maximize infiltration with a raised underdrain may also be called bioinfiltration facilities*.

* See definitions in Glossary (Attachment 1).

NARRATIVE DISCUSSION OF LID FEASIBILITY OR INFEASIBILITY

4200 Dove Hill Road

1. **Feasibility/Infeasibility of Onsite Filtration, Evapotranspiration, and Harvesting/Use**

   The City of San Jose Screening Worksheet for Determining Infiltration and/or Harvesting and Use Feasibility for Compliance with C.3 Treatment Requirements and Rainwater Harvesting and Use Feasibility Worksheet were completed for the project. The results of this analysis showed that it was infeasible to treat the C.3.d amount of runoff with infiltration or harvesting and use. The findings of this review are presented below.

   a. **Site Soils.** Site soils consist of Type D soils which make infiltration infeasible.

   b. **Potential Rainwater Capture Area.** The onsite Post-Project Landscaping Area is less than 2.5 times the size of the Potential Rainwater Capture Area when evaluated for both the entire site area and when evaluating for the individual roof areas making Harvesting and Use for landscape irrigation infeasible.

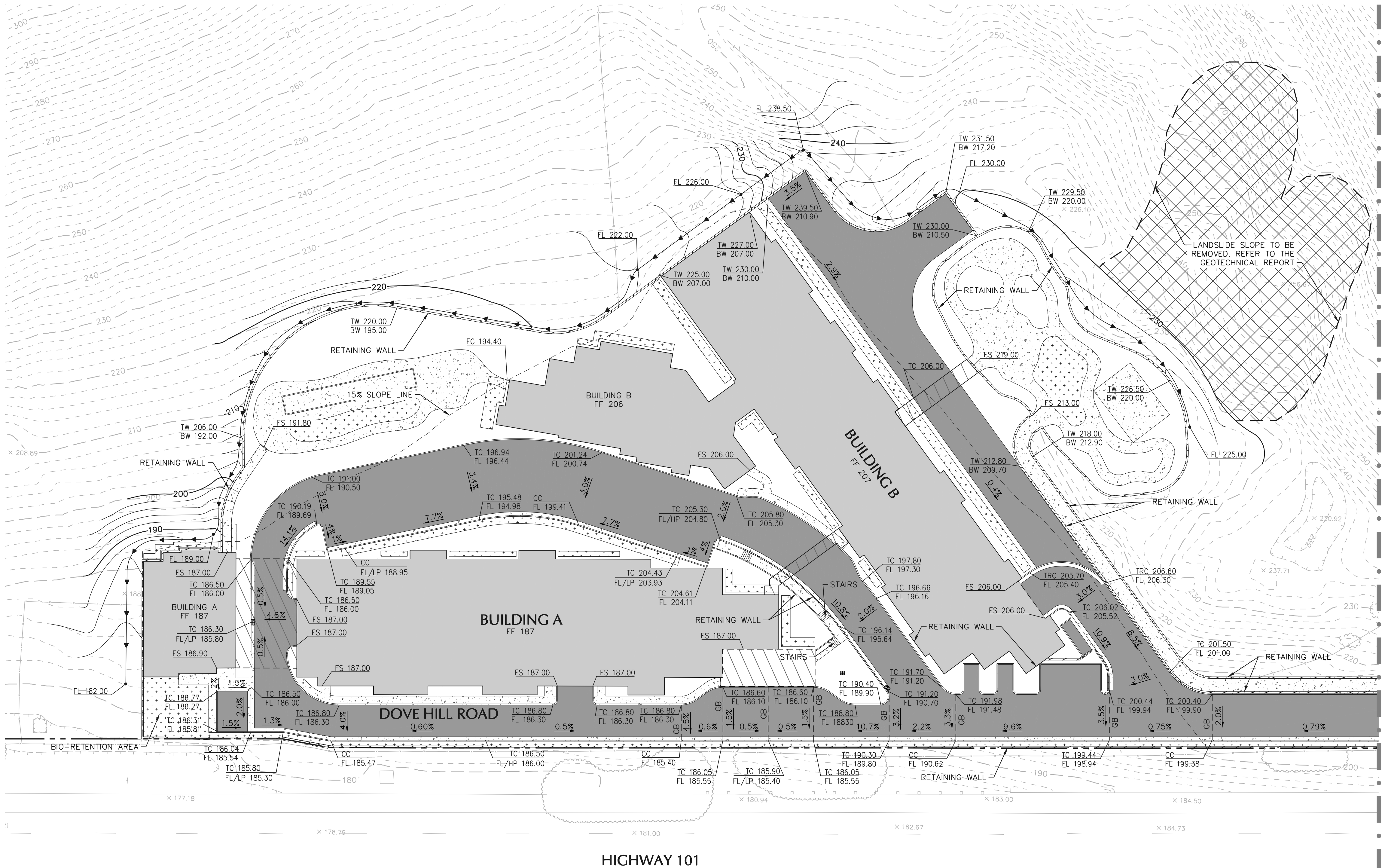
   c. **Terrain.** The site contains slopes above 10% which would make it infeasible to locate on the site a cistern of adequate size to harvest and use the C.3.d amount of water. The proposed buildings are to be placed on flat areas created on the site through the use of retaining walls. The amount of flat area on the site is being attempted to be minimized to accommodate the buildings and would not be feasible to add the necessary amount of space for adequately sized cisterns onsite.

2. **Feasibility/Infeasibility of Onsite LID Treatment**

   The project site was reviewed with regard to the feasibility and infeasibility of onsite LID treatment. The results of this review showed that it was feasible to treat 100 percent (100%) of the C.3.d amount of runoff with LID treatment.

GRADING LEGEND

(line symbol)	PROPERTY LINE
TC 200.50 / FL 200.00	ELEVATIONS
2.0%	SLOPES
—230—	CONTOURS
(swale symbol)	GRADED SWALE
× 186.76	(E) ELEVATIONS
— —230— —	(E) CONTOURS



PRELIMINARY DRAFT, NOT FOR CONSTRUCTION

NOTE:

1. FOR ABBREVIATIONS, SEE TITLE SHEET, SHEET C1.01.

Date	Description	No.
REVISIONS		

SIGNATURE DATE SIGNED
PROFESSIONAL CIVIL ENGINEER
STATE LIC. No. C78817

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

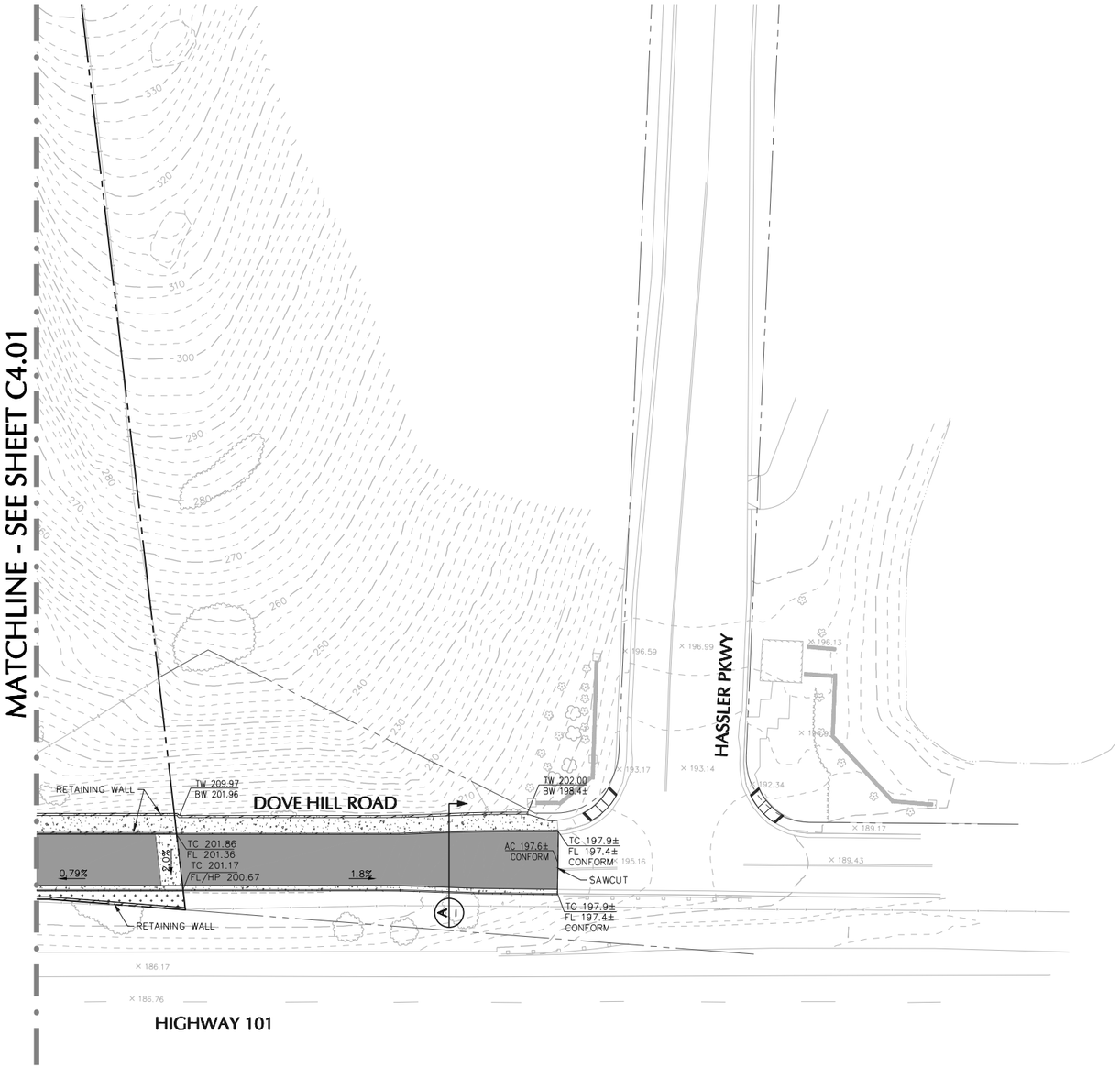
Project
PLANNED DEVELOPMENT PERMIT
4200 DOVE HILL RD
SAN JOSE
SANTA CLARA COUNTY CALIFORNIA

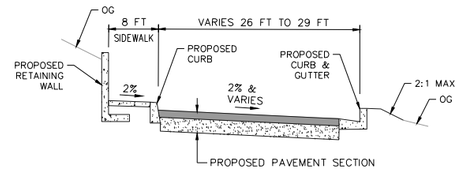
Drawing Title
GRADING PLAN

Project No. 770619901	Drawing No. C4.01
Date 5/20/2016	
Scale 1" = 30'	
Drawn By STAFF / Checked By VNM	
Submission Date X	Sheet 5 of 13

GRADING LEGEND

PROPERTY LINE	
TC 200.50 / FL 200.00	ELEVATIONS
2.0%	SLOPES
230	CONTOURS
	GRADED SWALE
× 186.76	(E) ELEVATIONS
230	(E) CONTOURS





SECTION A-A
NTS

30 0 15 30
SCALE IN FEET

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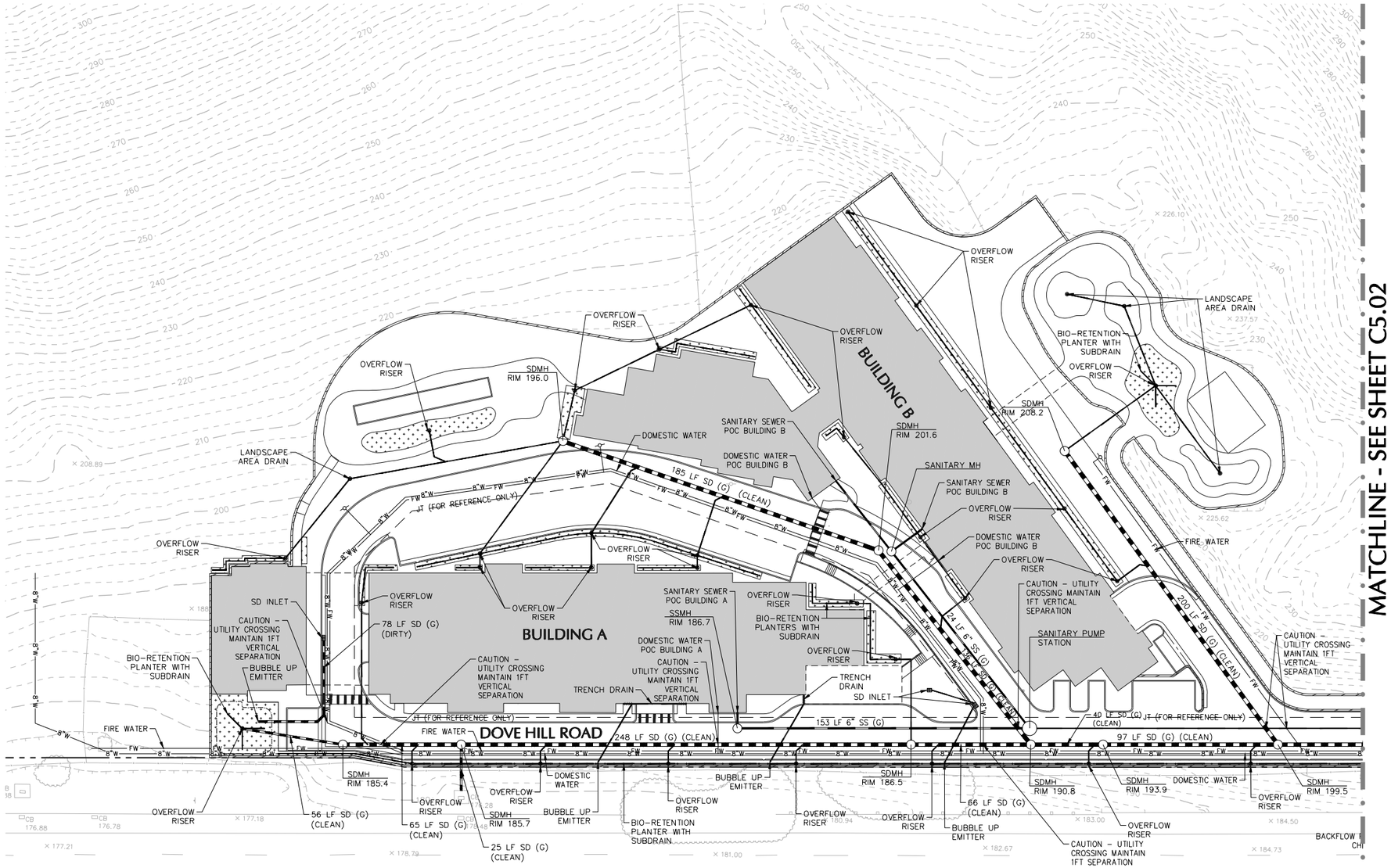
Project	PLANNED DEVELOPMENT PERMIT 4200 DOVE HILL RD SAN JOSE SANTA CLARA COUNTY CALIFORNIA
Drawing Title	GRADING PLAN
Project No.	770619901
Date	5/20/2016
Scale	1" = 30'
Drawn By	STAFF
Checked By	VNM
Submission Date	X
Drawing No.	C4.02
Sheet	6 of 13



UTILITY LEGEND

- PROPERTY LINE
- (E) SANITARY SEWER
- (E) STORM DRAIN
- (E) WATER MAIN
- (E) ELECTRIC LINE
- (E) GAS MAIN
- 6" SS (G) — SANITARY SEWER (GRAVITY)
- 4" SS (FM) — SANITARY SEWER (FORCE MAIN)
- SD (G) (DIRTY) — STORM DRAIN (GRAVITY) (DIRTY)
- SD (G) (CLEAN) — STORM DRAIN (GRAVITY) (CLEAN)
- 8"W — WATER LINE
- FW — 8" FIRE LINE
- 4"W — IRRIGATION LINE
- JOINT TRENCH (FOR REFERENCE ONLY)
- MANHOLE
- INLET
- RISER
- GATE VALVE

SCALE IN FEET: 30 0 15 30

NOTES:

1. FOR ABBREVIATIONS, SEE TITLE SHEET, SHEET C101.
2. ALL OFFSITE IMPROVEMENTS SHALL BE PERFORMED PER CITY OF SAN JOSE STANDARD DETAILS.

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Project	PLANNED DEVELOPMENT PERMIT 4200 DOVE HILL RD SAN JOSE SANTA CLARA COUNTY CALIFORNIA
Drawing Title	UTILITY PLAN
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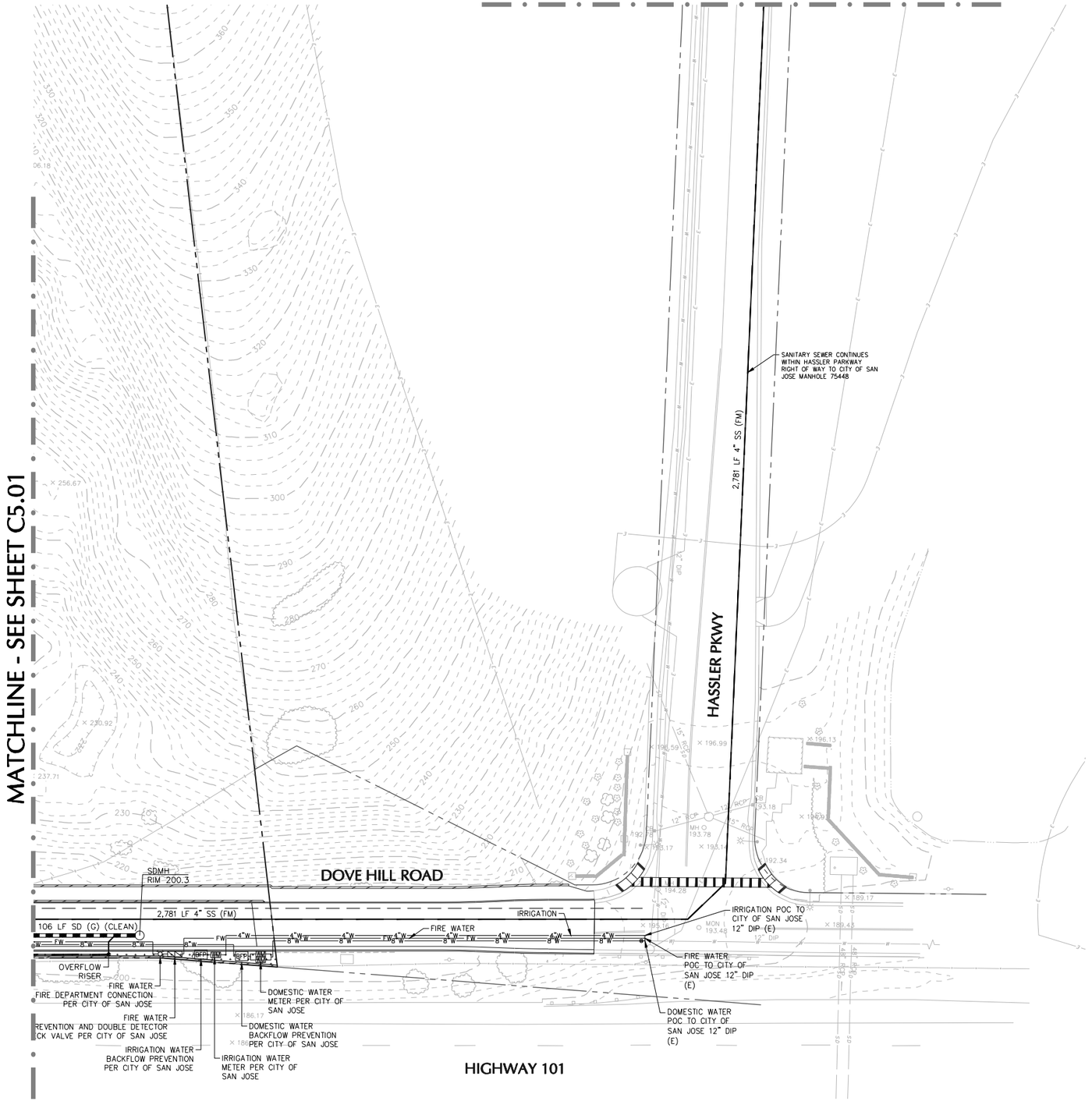
Drawn By / Checked By	STAFF / VNM
Submission Date	X
Drawing No.	C5.01
Sheet	7 of 13

MATCHLINE - SEE SHEET C5.03

MATCHLINE - SEE SHEET C5.01



UTILITY LEGEND

- PROPERTY LINE
- (E) SANITARY SEWER
- (E) STORM DRAIN
- (E) WATER MAIN
- (E) ELECTRIC LINE
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- 6" SS (G) — SANITARY SEWER (GRAVITY)
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- SD (G) (DIRTY) — STORM DRAIN (GRAVITY) (DIRTY)
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- 8"W — WATER LINE
- FW — 8" FIRE LINE
- 4"W — IRRIGATION LINE
- JOINT TRENCH (FOR REFERENCE ONLY)
- MANHOLE
- INLET
- RISER
- GATE VALVE

SCALE IN FEET: 30 0 15 30

NOTES:

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REVISIONS		

SIGNATURE DATE SIGNED
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Project
PLANNED DEVELOPMENT PERMIT
4200 DOVE HILL RD
SAN JOSE
SANTA CLARA COUNTY CALIFORNIA

Drawing Title
UTILITY PLAN

Project No.	770619901
Date	5/20/2016
Scale	1" = 30'
Drawn By	STAFF
Checked By	VNM
Submission Date	X

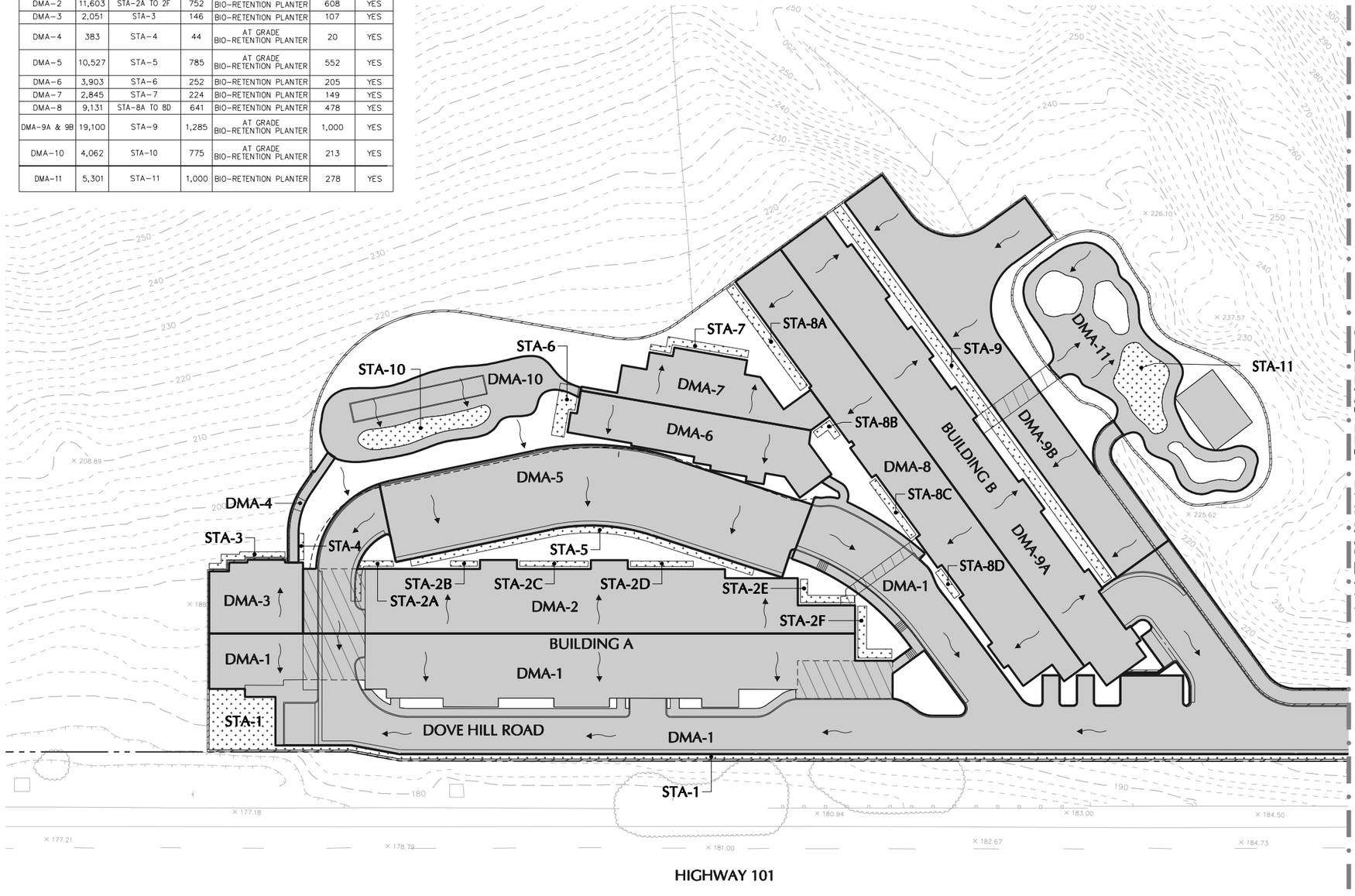
Drawing No. **C5.02**

Sheet 8 of 13

DRAINAGE MANAGEMENT AREAS	DMA AREA (SF)	STORMWATER TREATMENT AREAS	STA AREA (SF)	TREATMENT TYPE	REQUIRED SIZING (SF)	SIZING MET
DMA-1	45,598	STA-1	3,279	AT GRADE BIO-RETENTION PLANTER	2,389	YES
DMA-2	11,603	STA-2A TO 2F	752	BIO-RETENTION PLANTER	608	YES
DMA-3	2,051	STA-3	146	BIO-RETENTION PLANTER	107	YES
DMA-4	383	STA-4	44	AT GRADE BIO-RETENTION PLANTER	20	YES
DMA-5	10,527	STA-5	785	AT GRADE BIO-RETENTION PLANTER	552	YES
DMA-6	3,903	STA-6	252	BIO-RETENTION PLANTER	205	YES
DMA-7	2,845	STA-7	224	BIO-RETENTION PLANTER	149	YES
DMA-8	9,131	STA-8A TO 8D	641	BIO-RETENTION PLANTER	478	YES
DMA-9A & 9B	19,100	STA-9	1,285	AT GRADE BIO-RETENTION PLANTER	1,000	YES
DMA-10	4,062	STA-10	775	AT GRADE BIO-RETENTION PLANTER	213	YES
DMA-11	5,301	STA-11	1,000	BIO-RETENTION PLANTER	278	YES

STORM WATER MANAGEMENT LEGEND

- PROPERTY LINE
- DRAINAGE MANAGEMENT AREA
- IMPERVIOUS AREA
- BIO-RETENTION PLANTER



NOTE:

1. FOR ABBREVIATIONS, SEE TITLE SHEET, SHEET C1.01.

PRELIMINARY DRAFT, NOT FOR CONSTRUCTION

Date	Description	No.
REVISIONS		

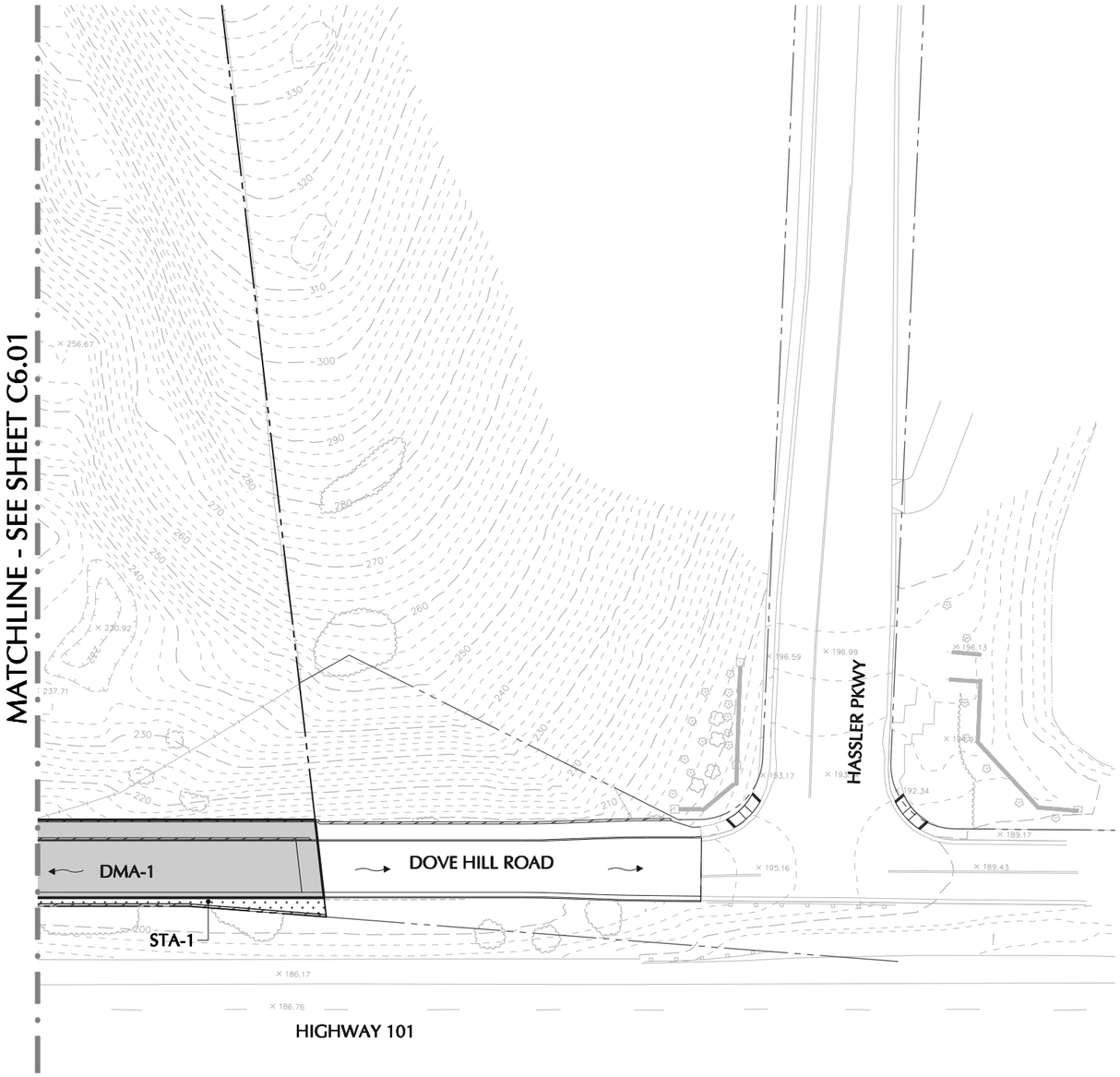
SIGNATURE DATE SIGNED
PROFESSIONAL CIVIL ENGINEER
STATE LIC. No. C78817

LANGAN
4030 Moorpark Avenue, Suite 210, San Jose, CA 95117
T: 408.551.6700 F: 408.551.0344 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CL Imperial Services, Inc. Langan International LLC Collectively known as Langan

Project
PLANNED DEVELOPMENT PERMIT
4200 DOVE HILL RD
SAN JOSE
SANTA CLARA COUNTY CALIFORNIA

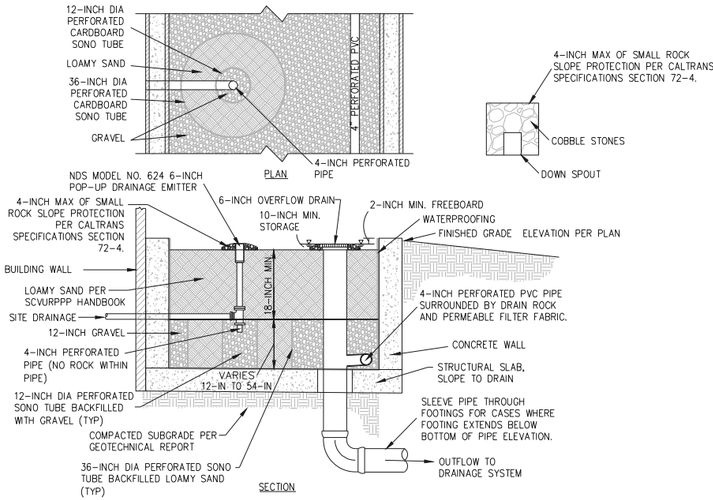
Drawing Title
STORMWATER MANAGEMENT PLAN

Project No.	Drawing No.
770619901	C6.01
Date: 5/20/2016	
Scale: 1" = 30'	
Drawn By: STAFF / Checked By: VNM	
Submission Date: X	Sheet 10 of 13

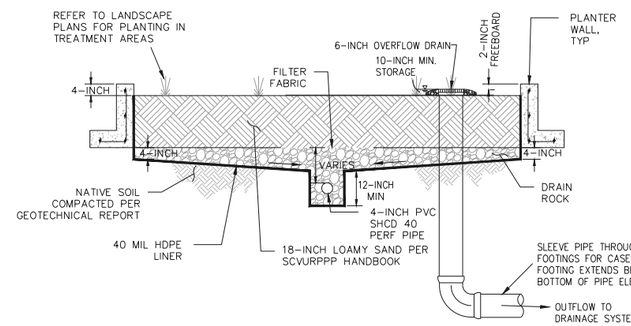


STORM WATER MANAGEMENT LEGEND

- PROPERTY LINE
- DRAINAGE MANAGEMENT AREA
- IMPERVIOUS AREA
- BIO-RETENTION PLANTER



A BIO-RETENTION PLANTER WITH BUBBLE UP
NOT TO SCALE



B AT GRADE BIO-RETENTION PLANTER
NOT TO SCALE

30 0 15 30
SCALE IN FEET

NOTE:

1. FOR ABBREVIATIONS, SEE TITLE SHEET, SHEET C1.01.

PRELIMINARY DRAFT, NOT FOR CONSTRUCTION

Date	Description	No.
REVISIONS		

SIGNATURE DATE SIGNED
PROFESSIONAL CIVIL ENGINEER
STATE LIC. No. C78817

LANGAN
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Project
PLANNED DEVELOPMENT PERMIT
4200 DOVE HILL RD
SAN JOSE
SANTA CLARA COUNTY CALIFORNIA

Drawing Title
STORMWATER MANAGEMENT PLAN

Project No.	Drawing No.
770619901	C6.02
Date: 5/20/2016	
Scale: 1" = 30'	
Drawn By: STAFF / Checked By: VNM	
Submission Date: X	Sheet 11 of 13

APPENDIX B : FIRM # 06085C0266H

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 10. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the USDA National Agriculture Imagery Program (NAIP). This information was photogrammetrically compiled at a scale of 1:24,000 from aerial photography dated 2005.

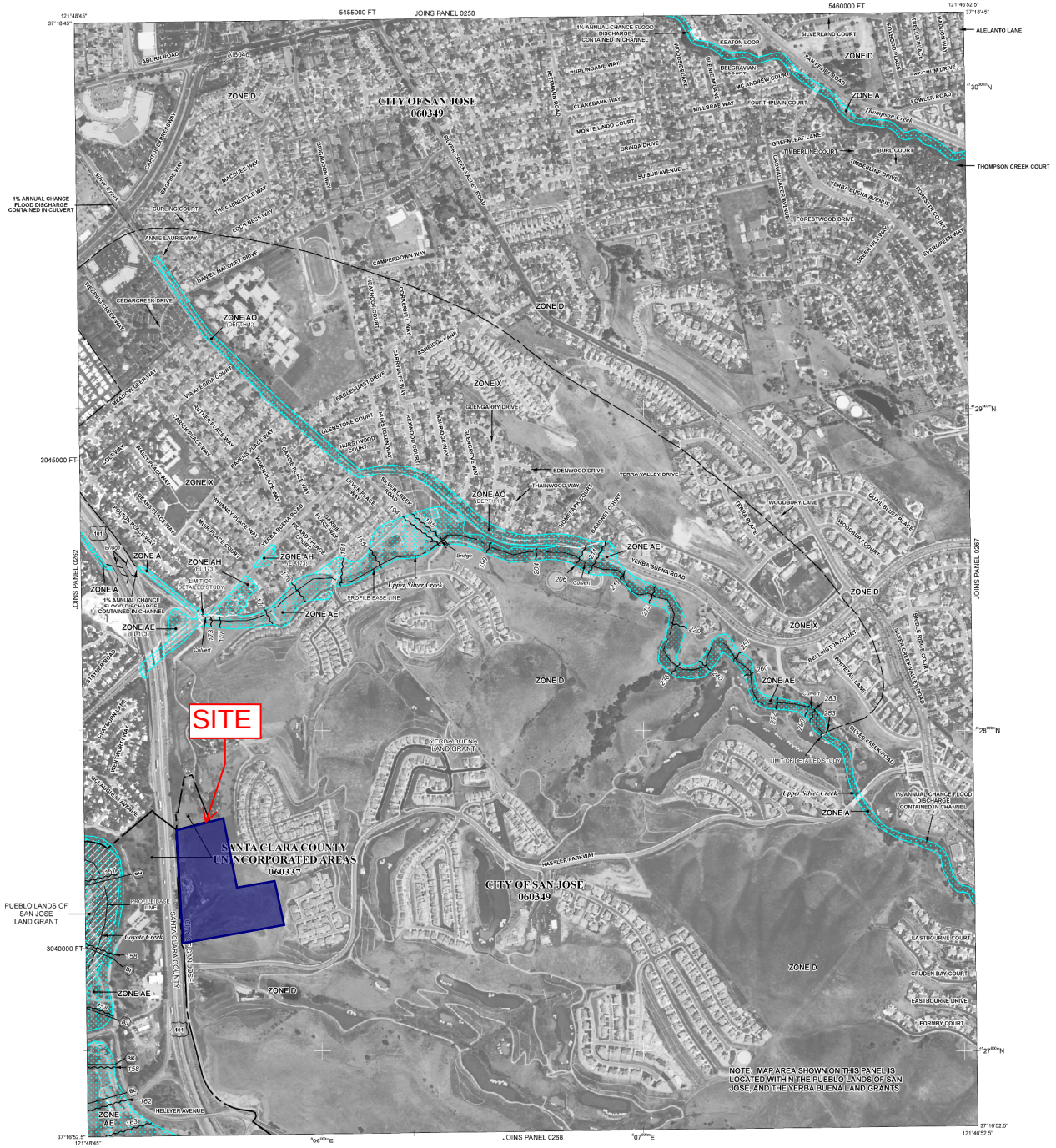
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- (A) — (A) — Cross section line
- (B) — — — (B) — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4376000mN — 1000-meter Universal Transverse Mercator grid values, zone 10N
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone III (FIPSZONE 0403), Lambert Conformal Conic projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
May 18, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0266H

FIRM

FLOOD INSURANCE RATE MAP

SANTA CLARA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 266 OF 830

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN JOSE, CITY OF	060349	0266	H
SANTA CLARA COUNTY	060337	0266	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06085C0266H

EFFECTIVE DATE
MAY 18, 2009

Federal Emergency Management Agency

APPENDIX C : INSPECTION AND MAINTENANCE INFORMATION

Stormwater Treatment Measure Operation and Maintenance Inspection Report to the City of San Jose, California

This report and attached Inspection and Maintenance Checklists document the inspection and maintenance conducted for the identified stormwater treatment measure(s) subject to the Maintenance Agreement between the City and the property owner during the annual reporting period indicated below.

I. Property Information:

Property Address or APN: 670-08-002, 679-08-003, 679-09-001, 679-09-002

Property Owner: Stahn Kuhne

II. Contact Information:

Name of person to contact regarding this report: Stahn Kuhne

Phone number of contact person:(510) 549-8821 Email: N/A

Address to which correspondence regarding this report should be directed:

31553 Hugh Way

Hayward, CA 94544

III. Reporting Period:

This report, with the attached completed inspection checklists, documents the inspections and maintenance of the identified treatment measures during the time period from _____ _____ to _____.

IV. Stormwater Treatment Measure Information:

The following stormwater treatment measures (identified treatment measures) are located on the property identified above and are subject to the Maintenance Agreement:

Identifying Number of Treatment Measure	Type of Treatment Measure	Location of Treatment Measure on the Property
STA-1	Bioretention Planter	Along western property line following Dove Hill Road
STA-2A TO 2F	Bioretention Planter	Along eastern border of Building A
STA-3	Bioretention Planter	Northeast corner of Building A
STA-4	Bioretention Planter	Along sidewalk from Building A to the landscape area

STA-5	Bioretention Planter	Along parking stalls between Building A and Building B
STA-6	Bioretention Planter	Northern corner of Building B
STA-7	Bioretention Planter	Northeast corner of Building B
STA-8A TO 8D	Bioretention Planter	Along Building B following the driveway between Building A and Building B
STA-9	Bioretention Planter	Along the fire access road
STA-10	Bioretention Planter	Within landscaping common area north of Building B
STA-11	Bioretention Planter	Within private senior landscape garden & recreation area south of Building B

V. Summary of Inspections and Maintenance:

Summarize the following information using the attached Inspection and Maintenance Checklists:

Identifying Number of Treatment Measure	Date of Inspection	Operation and Maintenance Activities Performed and Date(s) Conducted	Additional Comments
STA-1			
STA-2A TO 2F			
STA-3			
STA-4			
STA-5			
STA-6			
STA-7			
STA-8A TO 8D			

STA-9			
STA-10			
STA-11			

VI. Sediment Removal:

Total amount of accumulated sediment removed from the stormwater treatment measure(s) during the reporting period: _____ cubic yards.

How was sediment disposed?

- ☐ landfill
- ☐ other location on-site as described in and allowed by the maintenance plan
- ☐ other, explain _____

VII. Inspector Information:

The inspections documented in the attached Inspection and Maintenance Checklists were conducted by the following inspector(s):

Inspector Name and Title	Inspector's Employer and Address

VIII. Certification:

I hereby certify, under penalty of perjury, that the information presented in this report and attachments is true and complete:

_____ _____

Signature of Property Owner or Other Responsible Party Date

_____

Type or Print Name

_____

Company Name

_____

Address

Phone number:_____ Email:_____

Bioretention Area Maintenance Plan for 4200 Dove Hill Road

May 20, 2016

Project Address and Cross Streets 4200 Dove Hill Road, San Jose, CA 95121 at the corner of Dove Hill Road and Hassler Parkway

Assessor's Parcel No.: 670-08-002, 679-08-003, 679-09-001, 679-09-002

Property Owner: Stahn Kuhne Phone No.: (510) 459-8821

Designated Contact: Stahn Kuhne Phone No.: (510) 459-8821

Mailing Address: 31553 Hugh Way, Hayward, CA 94544

The property contains seventeen (17) bioretention area(s), located as described below and as shown in the attached site plan[1].

- **Bioretention Area No. 1** is located at the western property line following Dove Hill Road.
- **Bioretention Area No. 2A to 2F** is located along the eastern border of Building A.
- **Bioretention Area No. 3** is located along the northeast corner of Building A.
- **Bioretention Area No. 4** is located along the sidewalk from Building A to the landscaped area.
- **Bioretention Area No. 5** is located along the parking stalls between Building A and Building B.
- **Bioretention Area No. 6** is located at the northern corner of Building B.
- **Bioretention Area No. 7** is located at the northeast corner of Building B.
- **Bioretention Area No. 8A to 8F** is located along Building B following the driveway between Building A and Building B
- **Bioretention Area No. 9** is located along the fire access road.
- **Bioretention Area No. 10** is located within the landscaping common area north of Building B.
- **Bioretention Area No. 11** is located within the private senior landscape garden and recreational area south of Building B.

I. Routine Maintenance Activities

The principal maintenance objective is to prevent sediment buildup and clogging, which reduces pollutant removal efficiency and may lead to bioretention area failure. Routine maintenance activities, and the frequency at which they will be conducted, are shown in Table 1.

Table 1
Routine Maintenance Activities for Bioretention Areas

No.	Maintenance Task	Frequency of Task
1	Remove obstructions, debris and trash from bioretention area and dispose of properly.	Monthly, or as needed after storm events
2	Inspect bioretention area for ponded water. If ponded water does not drain within 2-3 days, till and replace the surface soil and replant.	Monthly, or as needed after storm events
3	Inspect inlets for channels, soil exposure or other evidence of erosion. Clear obstructions and remove sediment.	Monthly, or as needed after storm events
4	Remove and replace all dead and diseased vegetation.	Twice a year
5	Maintain vegetation and the irrigation system. Prune and weed to keep bioretention area neat and orderly in appearance. Remove and or replace any dead plants.	Twice a year
6	Check that mulch is at appropriate depth (2 inches per soil specifications) and replenish as necessary before wet season begins.	Monthly

Table 1 Routine Maintenance Activities for Bioretention Areas		
7	Inspect the energy dissipation at the inlet to ensure it is functioning adequately, and there is no scour of the surface mulch.	Annually, before the wet season begins.
8	Inspect bioretention area using the attached inspection checklist.	Monthly, or after large storm events, and after removal of accumulated debris or material.

II. Prohibitions

The use of pesticides and quick release fertilizers shall be minimized, and the principles of integrated pest management (IPM) followed:

1. Employ non-chemical controls (biological, physical and cultural controls) before using chemicals to treat a pest problem.
2. Prune plants properly and at the appropriate time of year.
3. Provide adequate irrigation for landscape plants. Do not over water.
4. Limit fertilizer use unless soil testing indicates a deficiency. Slow-release or organic fertilizer is preferable. Check with municipality for specific requirements.
5. Pest control should avoid harming non-target organisms, or negatively affecting air and water quality and public health. Apply chemical controls only when monitoring indicates that preventative and non-chemical methods are not keeping pests below acceptable levels. When pesticides are required, apply the least toxic and the least persistent pesticide that will provide adequate pest control. Do not apply pesticides on a prescheduled basis.
6. Sweep up spilled fertilizer and pesticides. Do not wash away or bury such spills.
7. Do not over apply pesticide. Spray only where the infestation exists. Follow the manufacturer's instructions for mixing and applying materials.
8. Only licensed, trained pesticide applicators shall apply pesticides.
9. Apply pesticides at the appropriate time to maximize their effectiveness and minimize the likelihood of discharging pesticides into runoff. With the exception of pre-emergent pesticides, avoid application if rain is expected.
10. Unwanted/unused pesticides shall be disposed as hazardous waste.

III. Vector Control

Standing water shall not remain in the treatment measures for more than five days, to prevent mosquito generation. Should any mosquito issues arise, contact the Santa Clara Valley Vector Control District (District). Mosquito larvicides shall be applied only when absolutely necessary, as indicated by the District, and then only by a licensed professional or contractor. Contact information for the District is provided below.

Santa Clara Valley Vector Control District
1580 Berger Dr,
San Jose, California 95112
Phone: (408) 918-4770 / (800) 675-1155 – Fax: (408) 298-6356
www.sccgov.org/portal/site/vector

IV. Inspections

The attached Bioretention Area Inspection and Maintenance Checklist shall be used to conduct inspections monthly (or as needed), identify needed maintenance, and record maintenance that is conducted.

Bioretention Area
Inspection and Maintenance Checklist

Property Address: 4200 Dove Hill Road, San Jose, CA 95121 Property Owner: Stahn Kuhne

Treatment Measure No.: _____ Date of Inspection: _____ Type of Inspection: □ Monthly □ Pre-Wet Season
□ After heavy runoff □ End of Wet Season

Inspector(s): _____ □ Other:_____

Defect	**Conditions When Maintenance Is Needed**	**Maintenance Needed? (Y/N)**	**Comments** (Describe maintenance completed and if needed maintenance was not conducted, note when it will be done)	**Results Expected When Maintenance Is Performed**
1. Standing Water	When water stands in the bioretention area between storms and does not drain within 2-3 days after rainfall.			There should be no areas of standing water once inflow has ceased. Any of the following may apply: sediment or trash blockages removed, improved grade from head to foot of bioretention area, or added underdrains.
2. Trash and Debris Accumulation	Trash and debris accumulated in the bioretention area.			Trash and debris removed from bioretention area and disposed of properly.
3. Sediment	Evidence of sedimentation in bioretention area.			Material removed so that there is no clogging or blockage. Material is disposed of properly.
4. Erosion	Channels have formed around inlets, there are areas of bare soil, and/or other evidence of erosion.			Obstructions and sediment removed so that water flows freely and disperses over a wide area. Obstructions and sediment are disposed of properly.
5. Vegetation	Vegetation is dead, diseased and/or overgrown.			Vegetation is healthy and attractive in appearance.
6. Mulch	Mulch is missing or patchy in appearance. Areas of bare earth are exposed, or mulch layer is less than 2 inches in depth.			All bare earth is covered, except mulch is kept 6 inches away from trunks of trees and shrubs. Mulch is even in appearance, at a depth of 3 inches.
7. Miscellaneous	Any condition not covered above that needs attention in order for the bioretention area to function as designed.			Meet the design specifications.

APPENDIX D : BAHM REPORT

BAHM2013

PROJECT REPORT

General Model Information

Project Name:	4200 Dove Hill Road
Site Name:	4200 Dove Hill
Site Address:	4200 Dove Hill Road
City:	San Jose
Report Date:	5/19/2016
Gage:	San Jose
Data Start:	1959/10/01
Data End:	2000/09/30
Timestep:	Hourly
Precip Scale:	1.069
Version Date:	2016/05/12

POC Thresholds

Low Flow Threshold for POC1:	10 Percent of the 2 Year
High Flow Threshold for POC1:	10 Year

Landuse Basin Data

Predeveloped Land Use

Basin 1

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Grass,Mod(5-10%)	2.2258
Pervious Total	2.2258

Impervious Land Use	acre
Roof Area	0.1588
Driveways,Mod(5-10%)	1.1143
Sidewalks,Mod(5-10%)	0.0058
Impervious Total	1.2789
Basin Total	3.5047

Element Flows To:

Surface	Interflow	Groundwater

Mitigated Land Use

DMA-1

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.3163
Driveways,Mod(5-10%)	0.5012
Sidewalks,Mod(5-10%)	0.2293
Impervious Total	1.0468
Basin Total	1.0468

Element Flows To:

Surface	Interflow	Groundwater
STA-1 Surface-1	STA-1 Surface-1	

DMA-2

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.2395
Driveways,Mod(5-10%)	0.0268
Impervious Total	0.2663
Basin Total	0.2663

Element Flows To:

Surface	Interflow	Groundwater
STA-2A TO Surface-F	STA-2A TO Surface-F	

DMA-3

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.0471
Impervious Total	0.0471
Basin Total	0.0471

Element Flows To:

Surface	Interflow	Groundwater
STA-3 Surface-3	STA-3 Surface-3	

DMA-4

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Mod(5-10%)	0.0088
Impervious Total	0.0088
Basin Total	0.0088

Element Flows To:

Surface	Interflow	Groundwater
STA-4 Surface-4	STA-4 Surface-4	

DMA-5

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Driveways,Mod(5-10%)	0.2417
Impervious Total	0.2417
Basin Total	0.2417

Element Flows To:

Surface	Interflow	Groundwater
STA-5 Surface-5	STA-5 Surface-5	

DMA-6

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.0896
Impervious Total	0.0896
Basin Total	0.0896

Element Flows To:

Surface	Interflow	Groundwater
STA-6 Surface-6	STA-6 Surface-6	

DMA-7

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.0653
Impervious Total	0.0653
Basin Total	0.0653

Element Flows To:

Surface	Interflow	Groundwater
STA-7 Surface-7	STA-7 Surface-7	

DMA-8

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.2096
Impervious Total	0.2096
Basin Total	0.2096

Element Flows To:

Surface	Interflow	Groundwater
STA-8A TO Surface8D	STA-8A TO Surface8D	

DMA-9

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Roof Area	0.2229
Driveways,Mod(5-10%)	0.2156
Impervious Total	0.4385
Basin Total	0.4385

Element Flows To:

Surface	Interflow	Groundwater
STA-9 Surface-9	STA-9 Surface-9	

DMA-10

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.0933
Impervious Total	0.0933
Basin Total	0.0933

Element Flows To:

Surface	Interflow	Groundwater
STA-10 Surface10	STA-10 Surface10	

DMA-11

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.1217
Impervious Total	0.1217
Basin Total	0.1217

Element Flows To:

Surface	Interflow	Groundwater
STA-11 Surface11	STA-11 Surface11	

Routing Elements
Predeveloped Routing

Mitigated Routing

STA-2A TO 2-F

Bottom Length:	150.40 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	7.401
Total Outflow (ac-ft.):	12.316
Percent Through Underdrain:	60.09
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0173	0.0000	0.0000	0.0000
0.0476	0.0173	0.0003	0.0000	0.0000
0.0952	0.0173	0.0006	0.0000	0.0000
0.1428	0.0173	0.0009	0.0000	0.0000
0.1905	0.0173	0.0012	0.0000	0.0000
0.2381	0.0173	0.0016	0.0000	0.0000
0.2857	0.0173	0.0019	0.0000	0.0000
0.3333	0.0173	0.0022	0.0000	0.0000
0.3809	0.0173	0.0025	0.0000	0.0000
0.4285	0.0173	0.0028	0.0000	0.0000
0.4762	0.0173	0.0031	0.0000	0.0000
0.5238	0.0173	0.0034	0.0000	0.0000
0.5714	0.0173	0.0037	0.0000	0.0000
0.6190	0.0173	0.0041	0.0000	0.0000
0.6666	0.0173	0.0044	0.0000	0.0000
0.7142	0.0173	0.0047	0.0000	0.0000
0.7618	0.0173	0.0050	0.0000	0.0000
0.8095	0.0173	0.0053	0.0000	0.0000
0.8571	0.0173	0.0056	0.0000	0.0000
0.9047	0.0173	0.0059	0.0000	0.0000
0.9523	0.0173	0.0062	0.0000	0.0000
0.9999	0.0173	0.0066	0.0000	0.0000
1.0475	0.0173	0.0069	0.0000	0.0000
1.0952	0.0173	0.0072	0.0000	0.0000
1.1428	0.0173	0.0075	0.0000	0.0000
1.1904	0.0173	0.0078	0.0000	0.0000
1.2380	0.0173	0.0081	0.0000	0.0000
1.2856	0.0173	0.0084	0.0000	0.0000
1.3332	0.0173	0.0087	0.0000	0.0000

1.3808	0.0173	0.0091	0.0000	0.0000
1.4285	0.0173	0.0094	0.0000	0.0000
1.4761	0.0173	0.0097	0.0000	0.0000
1.5237	0.0173	0.0100	0.0000	0.0000
1.5713	0.0173	0.0104	0.0000	0.0000
1.6189	0.0173	0.0107	0.0000	0.0000
1.6665	0.0173	0.0110	0.0000	0.0000
1.7142	0.0173	0.0114	0.0000	0.0000
1.7618	0.0173	0.0117	0.0000	0.0000
1.8094	0.0173	0.0121	0.0000	0.0000
1.8570	0.0173	0.0124	0.0000	0.0000
1.9046	0.0173	0.0128	0.0000	0.0000
1.9522	0.0173	0.0131	0.0000	0.0000
1.9998	0.0173	0.0134	0.0000	0.0000
2.0475	0.0173	0.0138	0.0000	0.0000
2.0951	0.0173	0.0141	0.0000	0.0000
2.1427	0.0173	0.0145	0.0000	0.0000
2.1903	0.0173	0.0148	0.0000	0.0000
2.2379	0.0173	0.0151	0.0000	0.0000
2.2855	0.0173	0.0155	0.0000	0.0000
2.3332	0.0173	0.0158	0.0000	0.0000
2.3808	0.0173	0.0162	0.0000	0.0000
2.4284	0.0173	0.0165	0.0000	0.0000
2.4760	0.0173	0.0168	0.0000	0.0000
2.5000	0.0173	0.0170	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0173	0.0170	0.0000	0.0017	0.0000
2.5476	0.0173	0.0178	0.0000	0.0017	0.0000
2.5952	0.0173	0.0187	0.0000	0.0017	0.0000
2.6428	0.0173	0.0195	0.0000	0.0017	0.0000
2.6905	0.0173	0.0203	0.0000	0.0017	0.0000
2.7381	0.0173	0.0211	0.0000	0.0017	0.0000
2.7857	0.0173	0.0220	0.0000	0.0017	0.0000
2.8333	0.0173	0.0228	0.0000	0.0017	0.0000
2.8809	0.0173	0.0236	0.0000	0.0017	0.0000
2.9285	0.0173	0.0244	0.0000	0.0017	0.0000
2.9762	0.0173	0.0252	0.0000	0.0017	0.0000
3.0238	0.0173	0.0261	0.0003	0.0017	0.0000
3.0714	0.0173	0.0269	0.0004	0.0017	0.0000
3.1190	0.0173	0.0277	0.0005	0.0017	0.0000
3.1666	0.0173	0.0285	0.0005	0.0017	0.0000
3.2142	0.0173	0.0293	0.0006	0.0017	0.0000
3.2618	0.0173	0.0302	0.0006	0.0017	0.0000
3.3095	0.0173	0.0310	0.0007	0.0017	0.0000
3.3571	0.0173	0.0318	0.0007	0.0017	0.0000
3.4047	0.0173	0.0326	0.0008	0.0017	0.0000
3.4523	0.0173	0.0335	0.0008	0.0017	0.0000
3.4999	0.0173	0.0343	0.0009	0.0017	0.0000
3.5475	0.0173	0.0351	0.0009	0.0017	0.0000
3.5952	0.0173	0.0359	0.0010	0.0017	0.0000
3.6428	0.0173	0.0367	0.0010	0.0017	0.0000
3.6904	0.0173	0.0376	0.0010	0.0017	0.0000
3.7380	0.0173	0.0384	0.0011	0.0017	0.0000
3.7856	0.0173	0.0392	0.0011	0.0017	0.0000
3.8332	0.0173	0.0400	0.0011	0.0017	0.0000
3.8808	0.0173	0.0409	0.0012	0.0017	0.0000

3.9285	0.0173	0.0417	0.0012	0.0017	0.0000
3.9761	0.0173	0.0425	0.0012	0.0017	0.0000
4.0237	0.0173	0.0433	0.0012	0.0017	0.0000
4.0713	0.0173	0.0441	0.0013	0.0017	0.0000
4.1189	0.0173	0.0450	0.0013	0.0017	0.0000
4.1665	0.0173	0.0458	0.0013	0.0017	0.0000
4.2142	0.0173	0.0466	0.0013	0.0017	0.0000
4.2618	0.0173	0.0474	0.0014	0.0017	0.0000
4.3094	0.0173	0.0483	0.0014	0.0017	0.0000
4.3330	0.0173	0.0487	0.0014	0.0017	0.0000

STA-2A TO Surface-F

Element Flows To:

Outlet 1	Outlet 2
	STA-2A TO 2-F

STA-3

Bottom Length:	29.20 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	1.937
Total Outflow (ac-ft.):	2.183
Percent Through Underdrain:	88.74
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0034	0.0000	0.0000	0.0000
0.0476	0.0034	0.0001	0.0000	0.0000
0.0952	0.0034	0.0001	0.0000	0.0000
0.1428	0.0034	0.0002	0.0000	0.0000
0.1905	0.0034	0.0002	0.0000	0.0000
0.2381	0.0034	0.0003	0.0000	0.0000
0.2857	0.0034	0.0004	0.0000	0.0000
0.3333	0.0034	0.0004	0.0000	0.0000
0.3809	0.0034	0.0005	0.0000	0.0000
0.4285	0.0034	0.0005	0.0000	0.0000
0.4762	0.0034	0.0006	0.0000	0.0000
0.5238	0.0034	0.0007	0.0000	0.0000
0.5714	0.0034	0.0007	0.0000	0.0000
0.6190	0.0034	0.0008	0.0000	0.0000
0.6666	0.0034	0.0008	0.0000	0.0000
0.7142	0.0034	0.0009	0.0000	0.0000
0.7618	0.0034	0.0010	0.0000	0.0000
0.8095	0.0034	0.0010	0.0000	0.0000
0.8571	0.0034	0.0011	0.0000	0.0000
0.9047	0.0034	0.0012	0.0000	0.0000
0.9523	0.0034	0.0012	0.0000	0.0000
0.9999	0.0034	0.0013	0.0000	0.0000
1.0475	0.0034	0.0013	0.0000	0.0000
1.0952	0.0034	0.0014	0.0000	0.0000
1.1428	0.0034	0.0015	0.0000	0.0000
1.1904	0.0034	0.0015	0.0000	0.0000
1.2380	0.0034	0.0016	0.0000	0.0000
1.2856	0.0034	0.0016	0.0000	0.0000
1.3332	0.0034	0.0017	0.0000	0.0000
1.3808	0.0034	0.0018	0.0000	0.0000
1.4285	0.0034	0.0018	0.0000	0.0000

1.4761	0.0034	0.0019	0.0000	0.0000
1.5237	0.0034	0.0019	0.0000	0.0000
1.5713	0.0034	0.0020	0.0000	0.0000
1.6189	0.0034	0.0021	0.0000	0.0000
1.6665	0.0034	0.0021	0.0000	0.0000
1.7142	0.0034	0.0022	0.0000	0.0000
1.7618	0.0034	0.0023	0.0000	0.0000
1.8094	0.0034	0.0023	0.0000	0.0000
1.8570	0.0034	0.0024	0.0000	0.0000
1.9046	0.0034	0.0025	0.0000	0.0000
1.9522	0.0034	0.0025	0.0000	0.0000
1.9998	0.0034	0.0026	0.0000	0.0000
2.0475	0.0034	0.0027	0.0000	0.0000
2.0951	0.0034	0.0027	0.0000	0.0000
2.1427	0.0034	0.0028	0.0000	0.0000
2.1903	0.0034	0.0029	0.0000	0.0000
2.2379	0.0034	0.0029	0.0000	0.0000
2.2855	0.0034	0.0030	0.0000	0.0000
2.3332	0.0034	0.0031	0.0000	0.0000
2.3808	0.0034	0.0031	0.0000	0.0000
2.4284	0.0034	0.0032	0.0000	0.0000
2.4760	0.0034	0.0033	0.0000	0.0000
2.5000	0.0034	0.0033	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0034	0.0033	0.0000	0.0017	0.0000
2.5476	0.0034	0.0035	0.0000	0.0017	0.0000
2.5952	0.0034	0.0036	0.0000	0.0017	0.0000
2.6428	0.0034	0.0038	0.0000	0.0017	0.0000
2.6905	0.0034	0.0039	0.0000	0.0017	0.0000
2.7381	0.0034	0.0041	0.0000	0.0017	0.0000
2.7857	0.0034	0.0043	0.0000	0.0017	0.0000
2.8333	0.0034	0.0044	0.0000	0.0017	0.0000
2.8809	0.0034	0.0046	0.0000	0.0017	0.0000
2.9285	0.0034	0.0047	0.0000	0.0017	0.0000
2.9762	0.0034	0.0049	0.0000	0.0017	0.0000
3.0238	0.0034	0.0051	0.0003	0.0017	0.0000
3.0714	0.0034	0.0052	0.0004	0.0017	0.0000
3.1190	0.0034	0.0054	0.0005	0.0017	0.0000
3.1666	0.0034	0.0055	0.0005	0.0017	0.0000
3.2142	0.0034	0.0057	0.0006	0.0017	0.0000
3.2618	0.0034	0.0059	0.0006	0.0017	0.0000
3.3095	0.0034	0.0060	0.0007	0.0017	0.0000
3.3571	0.0034	0.0062	0.0007	0.0017	0.0000
3.4047	0.0034	0.0063	0.0008	0.0017	0.0000
3.4523	0.0034	0.0065	0.0008	0.0017	0.0000
3.4999	0.0034	0.0067	0.0009	0.0017	0.0000
3.5475	0.0034	0.0068	0.0009	0.0017	0.0000
3.5952	0.0034	0.0070	0.0010	0.0017	0.0000
3.6428	0.0034	0.0071	0.0010	0.0017	0.0000
3.6904	0.0034	0.0073	0.0010	0.0017	0.0000
3.7380	0.0034	0.0075	0.0011	0.0017	0.0000
3.7856	0.0034	0.0076	0.0011	0.0017	0.0000
3.8332	0.0034	0.0078	0.0011	0.0017	0.0000
3.8808	0.0034	0.0079	0.0012	0.0017	0.0000
3.9285	0.0034	0.0081	0.0012	0.0017	0.0000
3.9761	0.0034	0.0083	0.0012	0.0017	0.0000

4.0237	0.0034	0.0084	0.0012	0.0017	0.0000
4.0713	0.0034	0.0086	0.0013	0.0017	0.0000
4.1189	0.0034	0.0087	0.0013	0.0017	0.0000
4.1665	0.0034	0.0089	0.0013	0.0017	0.0000
4.2142	0.0034	0.0090	0.0013	0.0017	0.0000
4.2618	0.0034	0.0092	0.0014	0.0017	0.0000
4.3094	0.0034	0.0094	0.0014	0.0017	0.0000
4.3330	0.0034	0.0094	0.0014	0.0017	0.0000

STA-3 Surface-3

Element Flows To:

Outlet 1	Outlet 2
	STA-3

STA-6

Bottom Length:	50.40 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	3.285
Total Outflow (ac-ft.):	4.147
Percent Through Underdrain:	79.21
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0058	0.0000	0.0000	0.0000
0.0476	0.0058	0.0001	0.0000	0.0000
0.0952	0.0058	0.0002	0.0000	0.0000
0.1428	0.0058	0.0003	0.0000	0.0000
0.1905	0.0058	0.0004	0.0000	0.0000
0.2381	0.0058	0.0005	0.0000	0.0000
0.2857	0.0058	0.0006	0.0000	0.0000
0.3333	0.0058	0.0007	0.0000	0.0000
0.3809	0.0058	0.0008	0.0000	0.0000
0.4285	0.0058	0.0009	0.0000	0.0000
0.4762	0.0058	0.0010	0.0000	0.0000
0.5238	0.0058	0.0012	0.0000	0.0000
0.5714	0.0058	0.0013	0.0000	0.0000
0.6190	0.0058	0.0014	0.0000	0.0000
0.6666	0.0058	0.0015	0.0000	0.0000
0.7142	0.0058	0.0016	0.0000	0.0000
0.7618	0.0058	0.0017	0.0000	0.0000
0.8095	0.0058	0.0018	0.0000	0.0000
0.8571	0.0058	0.0019	0.0000	0.0000
0.9047	0.0058	0.0020	0.0000	0.0000
0.9523	0.0058	0.0021	0.0000	0.0000
0.9999	0.0058	0.0022	0.0000	0.0000
1.0475	0.0058	0.0023	0.0000	0.0000
1.0952	0.0058	0.0024	0.0000	0.0000
1.1428	0.0058	0.0025	0.0000	0.0000
1.1904	0.0058	0.0026	0.0000	0.0000
1.2380	0.0058	0.0027	0.0000	0.0000
1.2856	0.0058	0.0028	0.0000	0.0000
1.3332	0.0058	0.0029	0.0000	0.0000
1.3808	0.0058	0.0030	0.0000	0.0000
1.4285	0.0058	0.0031	0.0000	0.0000

1.4761	0.0058	0.0032	0.0000	0.0000
1.5237	0.0058	0.0034	0.0000	0.0000
1.5713	0.0058	0.0035	0.0000	0.0000
1.6189	0.0058	0.0036	0.0000	0.0000
1.6665	0.0058	0.0037	0.0000	0.0000
1.7142	0.0058	0.0038	0.0000	0.0000
1.7618	0.0058	0.0039	0.0000	0.0000
1.8094	0.0058	0.0040	0.0000	0.0000
1.8570	0.0058	0.0042	0.0000	0.0000
1.9046	0.0058	0.0043	0.0000	0.0000
1.9522	0.0058	0.0044	0.0000	0.0000
1.9998	0.0058	0.0045	0.0000	0.0000
2.0475	0.0058	0.0046	0.0000	0.0000
2.0951	0.0058	0.0047	0.0000	0.0000
2.1427	0.0058	0.0048	0.0000	0.0000
2.1903	0.0058	0.0050	0.0000	0.0000
2.2379	0.0058	0.0051	0.0000	0.0000
2.2855	0.0058	0.0052	0.0000	0.0000
2.3332	0.0058	0.0053	0.0000	0.0000
2.3808	0.0058	0.0054	0.0000	0.0000
2.4284	0.0058	0.0055	0.0000	0.0000
2.4760	0.0058	0.0056	0.0000	0.0000
2.5000	0.0058	0.0057	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0058	0.0057	0.0000	0.0017	0.0000
2.5476	0.0058	0.0060	0.0000	0.0017	0.0000
2.5952	0.0058	0.0063	0.0000	0.0017	0.0000
2.6428	0.0058	0.0065	0.0000	0.0017	0.0000
2.6905	0.0058	0.0068	0.0000	0.0017	0.0000
2.7381	0.0058	0.0071	0.0000	0.0017	0.0000
2.7857	0.0058	0.0074	0.0000	0.0017	0.0000
2.8333	0.0058	0.0076	0.0000	0.0017	0.0000
2.8809	0.0058	0.0079	0.0000	0.0017	0.0000
2.9285	0.0058	0.0082	0.0000	0.0017	0.0000
2.9762	0.0058	0.0085	0.0000	0.0017	0.0000
3.0238	0.0058	0.0087	0.0003	0.0017	0.0000
3.0714	0.0058	0.0090	0.0004	0.0017	0.0000
3.1190	0.0058	0.0093	0.0005	0.0017	0.0000
3.1666	0.0058	0.0096	0.0005	0.0017	0.0000
3.2142	0.0058	0.0098	0.0006	0.0017	0.0000
3.2618	0.0058	0.0101	0.0006	0.0017	0.0000
3.3095	0.0058	0.0104	0.0007	0.0017	0.0000
3.3571	0.0058	0.0107	0.0007	0.0017	0.0000
3.4047	0.0058	0.0109	0.0008	0.0017	0.0000
3.4523	0.0058	0.0112	0.0008	0.0017	0.0000
3.4999	0.0058	0.0115	0.0009	0.0017	0.0000
3.5475	0.0058	0.0118	0.0009	0.0017	0.0000
3.5952	0.0058	0.0120	0.0010	0.0017	0.0000
3.6428	0.0058	0.0123	0.0010	0.0017	0.0000
3.6904	0.0058	0.0126	0.0010	0.0017	0.0000
3.7380	0.0058	0.0129	0.0011	0.0017	0.0000
3.7856	0.0058	0.0131	0.0011	0.0017	0.0000
3.8332	0.0058	0.0134	0.0011	0.0017	0.0000
3.8808	0.0058	0.0137	0.0012	0.0017	0.0000
3.9285	0.0058	0.0140	0.0012	0.0017	0.0000
3.9761	0.0058	0.0142	0.0012	0.0017	0.0000

4.0237	0.0058	0.0145	0.0012	0.0017	0.0000
4.0713	0.0058	0.0148	0.0013	0.0017	0.0000
4.1189	0.0058	0.0151	0.0013	0.0017	0.0000
4.1665	0.0058	0.0153	0.0013	0.0017	0.0000
4.2142	0.0058	0.0156	0.0013	0.0017	0.0000
4.2618	0.0058	0.0159	0.0014	0.0017	0.0000
4.3094	0.0058	0.0162	0.0014	0.0017	0.0000
4.3330	0.0058	0.0163	0.0014	0.0017	0.0000

STA-6 Surface-6

Element Flows To:

Outlet 1	Outlet 2
	STA-6

STA-7

Bottom Length:	44.80 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	2.633
Total Outflow (ac-ft.):	3.032
Percent Through Underdrain:	86.84
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0051	0.0000	0.0000	0.0000
0.0476	0.0051	0.0001	0.0000	0.0000
0.0952	0.0051	0.0002	0.0000	0.0000
0.1428	0.0051	0.0003	0.0000	0.0000
0.1905	0.0051	0.0004	0.0000	0.0000
0.2381	0.0051	0.0005	0.0000	0.0000
0.2857	0.0051	0.0006	0.0000	0.0000
0.3333	0.0051	0.0007	0.0000	0.0000
0.3809	0.0051	0.0007	0.0000	0.0000
0.4285	0.0051	0.0008	0.0000	0.0000
0.4762	0.0051	0.0009	0.0000	0.0000
0.5238	0.0051	0.0010	0.0000	0.0000
0.5714	0.0051	0.0011	0.0000	0.0000
0.6190	0.0051	0.0012	0.0000	0.0000
0.6666	0.0051	0.0013	0.0000	0.0000
0.7142	0.0051	0.0014	0.0000	0.0000
0.7618	0.0051	0.0015	0.0000	0.0000
0.8095	0.0051	0.0016	0.0000	0.0000
0.8571	0.0051	0.0017	0.0000	0.0000
0.9047	0.0051	0.0018	0.0000	0.0000
0.9523	0.0051	0.0019	0.0000	0.0000
0.9999	0.0051	0.0020	0.0000	0.0000
1.0475	0.0051	0.0020	0.0000	0.0000
1.0952	0.0051	0.0021	0.0000	0.0000
1.1428	0.0051	0.0022	0.0000	0.0000
1.1904	0.0051	0.0023	0.0000	0.0000
1.2380	0.0051	0.0024	0.0000	0.0000
1.2856	0.0051	0.0025	0.0000	0.0000
1.3332	0.0051	0.0026	0.0000	0.0000
1.3808	0.0051	0.0027	0.0000	0.0000
1.4285	0.0051	0.0028	0.0000	0.0000

1.4761	0.0051	0.0029	0.0000	0.0000
1.5237	0.0051	0.0030	0.0000	0.0000
1.5713	0.0051	0.0031	0.0000	0.0000
1.6189	0.0051	0.0032	0.0000	0.0000
1.6665	0.0051	0.0033	0.0000	0.0000
1.7142	0.0051	0.0034	0.0000	0.0000
1.7618	0.0051	0.0035	0.0000	0.0000
1.8094	0.0051	0.0036	0.0000	0.0000
1.8570	0.0051	0.0037	0.0000	0.0000
1.9046	0.0051	0.0038	0.0000	0.0000
1.9522	0.0051	0.0039	0.0000	0.0000
1.9998	0.0051	0.0040	0.0000	0.0000
2.0475	0.0051	0.0041	0.0000	0.0000
2.0951	0.0051	0.0042	0.0000	0.0000
2.1427	0.0051	0.0043	0.0000	0.0000
2.1903	0.0051	0.0044	0.0000	0.0000
2.2379	0.0051	0.0045	0.0000	0.0000
2.2855	0.0051	0.0046	0.0000	0.0000
2.3332	0.0051	0.0047	0.0000	0.0000
2.3808	0.0051	0.0048	0.0000	0.0000
2.4284	0.0051	0.0049	0.0000	0.0000
2.4760	0.0051	0.0050	0.0000	0.0000
2.5000	0.0051	0.0051	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0051	0.0051	0.0000	0.0017	0.0000
2.5476	0.0051	0.0053	0.0000	0.0017	0.0000
2.5952	0.0051	0.0056	0.0000	0.0017	0.0000
2.6428	0.0051	0.0058	0.0000	0.0017	0.0000
2.6905	0.0051	0.0060	0.0000	0.0017	0.0000
2.7381	0.0051	0.0063	0.0000	0.0017	0.0000
2.7857	0.0051	0.0065	0.0000	0.0017	0.0000
2.8333	0.0051	0.0068	0.0000	0.0017	0.0000
2.8809	0.0051	0.0070	0.0000	0.0017	0.0000
2.9285	0.0051	0.0073	0.0000	0.0017	0.0000
2.9762	0.0051	0.0075	0.0000	0.0017	0.0000
3.0238	0.0051	0.0078	0.0003	0.0017	0.0000
3.0714	0.0051	0.0080	0.0004	0.0017	0.0000
3.1190	0.0051	0.0083	0.0005	0.0017	0.0000
3.1666	0.0051	0.0085	0.0005	0.0017	0.0000
3.2142	0.0051	0.0087	0.0006	0.0017	0.0000
3.2618	0.0051	0.0090	0.0006	0.0017	0.0000
3.3095	0.0051	0.0092	0.0007	0.0017	0.0000
3.3571	0.0051	0.0095	0.0007	0.0017	0.0000
3.4047	0.0051	0.0097	0.0008	0.0017	0.0000
3.4523	0.0051	0.0100	0.0008	0.0017	0.0000
3.4999	0.0051	0.0102	0.0009	0.0017	0.0000
3.5475	0.0051	0.0105	0.0009	0.0017	0.0000
3.5952	0.0051	0.0107	0.0010	0.0017	0.0000
3.6428	0.0051	0.0109	0.0010	0.0017	0.0000
3.6904	0.0051	0.0112	0.0010	0.0017	0.0000
3.7380	0.0051	0.0114	0.0011	0.0017	0.0000
3.7856	0.0051	0.0117	0.0011	0.0017	0.0000
3.8332	0.0051	0.0119	0.0011	0.0017	0.0000
3.8808	0.0051	0.0122	0.0012	0.0017	0.0000
3.9285	0.0051	0.0124	0.0012	0.0017	0.0000
3.9761	0.0051	0.0127	0.0012	0.0017	0.0000

4.0237	0.0051	0.0129	0.0012	0.0017	0.0000
4.0713	0.0051	0.0131	0.0013	0.0017	0.0000
4.1189	0.0051	0.0134	0.0013	0.0017	0.0000
4.1665	0.0051	0.0136	0.0013	0.0017	0.0000
4.2142	0.0051	0.0139	0.0013	0.0017	0.0000
4.2618	0.0051	0.0141	0.0014	0.0017	0.0000
4.3094	0.0051	0.0144	0.0014	0.0017	0.0000
4.3330	0.0051	0.0145	0.0014	0.0017	0.0000

STA-7 Surface-7

Element Flows To:

Outlet 1	Outlet 2
	STA-7

STA-8A TO 8D

Bottom Length:	128.20 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	6.435
Total Outflow (ac-ft.):	9.697
Percent Through Underdrain:	66.36
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0147	0.0000	0.0000	0.0000
0.0476	0.0147	0.0003	0.0000	0.0000
0.0952	0.0147	0.0005	0.0000	0.0000
0.1428	0.0147	0.0008	0.0000	0.0000
0.1905	0.0147	0.0011	0.0000	0.0000
0.2381	0.0147	0.0013	0.0000	0.0000
0.2857	0.0147	0.0016	0.0000	0.0000
0.3333	0.0147	0.0019	0.0000	0.0000
0.3809	0.0147	0.0021	0.0000	0.0000
0.4285	0.0147	0.0024	0.0000	0.0000
0.4762	0.0147	0.0027	0.0000	0.0000
0.5238	0.0147	0.0029	0.0000	0.0000
0.5714	0.0147	0.0032	0.0000	0.0000
0.6190	0.0147	0.0035	0.0000	0.0000
0.6666	0.0147	0.0037	0.0000	0.0000
0.7142	0.0147	0.0040	0.0000	0.0000
0.7618	0.0147	0.0043	0.0000	0.0000
0.8095	0.0147	0.0045	0.0000	0.0000
0.8571	0.0147	0.0048	0.0000	0.0000
0.9047	0.0147	0.0051	0.0000	0.0000
0.9523	0.0147	0.0053	0.0000	0.0000
0.9999	0.0147	0.0056	0.0000	0.0000
1.0475	0.0147	0.0059	0.0000	0.0000
1.0952	0.0147	0.0061	0.0000	0.0000
1.1428	0.0147	0.0064	0.0000	0.0000
1.1904	0.0147	0.0067	0.0000	0.0000
1.2380	0.0147	0.0069	0.0000	0.0000
1.2856	0.0147	0.0072	0.0000	0.0000
1.3332	0.0147	0.0075	0.0000	0.0000
1.3808	0.0147	0.0077	0.0000	0.0000
1.4285	0.0147	0.0080	0.0000	0.0000

1.4761	0.0147	0.0083	0.0000	0.0000
1.5237	0.0147	0.0085	0.0000	0.0000
1.5713	0.0147	0.0088	0.0000	0.0000
1.6189	0.0147	0.0091	0.0000	0.0000
1.6665	0.0147	0.0094	0.0000	0.0000
1.7142	0.0147	0.0097	0.0000	0.0000
1.7618	0.0147	0.0100	0.0000	0.0000
1.8094	0.0147	0.0103	0.0000	0.0000
1.8570	0.0147	0.0106	0.0000	0.0000
1.9046	0.0147	0.0109	0.0000	0.0000
1.9522	0.0147	0.0112	0.0000	0.0000
1.9998	0.0147	0.0115	0.0000	0.0000
2.0475	0.0147	0.0117	0.0000	0.0000
2.0951	0.0147	0.0120	0.0000	0.0000
2.1427	0.0147	0.0123	0.0000	0.0000
2.1903	0.0147	0.0126	0.0000	0.0000
2.2379	0.0147	0.0129	0.0000	0.0000
2.2855	0.0147	0.0132	0.0000	0.0000
2.3332	0.0147	0.0135	0.0000	0.0000
2.3808	0.0147	0.0138	0.0000	0.0000
2.4284	0.0147	0.0141	0.0000	0.0000
2.4760	0.0147	0.0144	0.0000	0.0000
2.5000	0.0147	0.0145	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0147	0.0145	0.0000	0.0017	0.0000
2.5476	0.0147	0.0152	0.0000	0.0017	0.0000
2.5952	0.0147	0.0159	0.0000	0.0017	0.0000
2.6428	0.0147	0.0166	0.0000	0.0017	0.0000
2.6905	0.0147	0.0173	0.0000	0.0017	0.0000
2.7381	0.0147	0.0180	0.0000	0.0017	0.0000
2.7857	0.0147	0.0187	0.0000	0.0017	0.0000
2.8333	0.0147	0.0194	0.0000	0.0017	0.0000
2.8809	0.0147	0.0201	0.0000	0.0017	0.0000
2.9285	0.0147	0.0208	0.0000	0.0017	0.0000
2.9762	0.0147	0.0215	0.0000	0.0017	0.0000
3.0238	0.0147	0.0222	0.0003	0.0017	0.0000
3.0714	0.0147	0.0229	0.0004	0.0017	0.0000
3.1190	0.0147	0.0236	0.0005	0.0017	0.0000
3.1666	0.0147	0.0243	0.0005	0.0017	0.0000
3.2142	0.0147	0.0250	0.0006	0.0017	0.0000
3.2618	0.0147	0.0257	0.0006	0.0017	0.0000
3.3095	0.0147	0.0264	0.0007	0.0017	0.0000
3.3571	0.0147	0.0271	0.0007	0.0017	0.0000
3.4047	0.0147	0.0278	0.0008	0.0017	0.0000
3.4523	0.0147	0.0285	0.0008	0.0017	0.0000
3.4999	0.0147	0.0292	0.0009	0.0017	0.0000
3.5475	0.0147	0.0299	0.0009	0.0017	0.0000
3.5952	0.0147	0.0306	0.0010	0.0017	0.0000
3.6428	0.0147	0.0313	0.0010	0.0017	0.0000
3.6904	0.0147	0.0320	0.0010	0.0017	0.0000
3.7380	0.0147	0.0327	0.0011	0.0017	0.0000
3.7856	0.0147	0.0334	0.0011	0.0017	0.0000
3.8332	0.0147	0.0341	0.0011	0.0017	0.0000
3.8808	0.0147	0.0348	0.0012	0.0017	0.0000
3.9285	0.0147	0.0355	0.0012	0.0017	0.0000
3.9761	0.0147	0.0362	0.0012	0.0017	0.0000

4.0237	0.0147	0.0369	0.0012	0.0017	0.0000
4.0713	0.0147	0.0376	0.0013	0.0017	0.0000
4.1189	0.0147	0.0383	0.0013	0.0017	0.0000
4.1665	0.0147	0.0390	0.0013	0.0017	0.0000
4.2142	0.0147	0.0397	0.0013	0.0017	0.0000
4.2618	0.0147	0.0404	0.0014	0.0017	0.0000
4.3094	0.0147	0.0411	0.0014	0.0017	0.0000
4.3330	0.0147	0.0415	0.0014	0.0017	0.0000

STA-8A TO Surface8D

Element Flows To:

Outlet 1	Outlet 2
	STA-8A TO 8D

STA-1

Bottom Length:	655.80 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	17.528
Total Outflow (ac-ft.):	48.328
Percent Through Underdrain:	36.27
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0753	0.0000	0.0000	0.0000
0.0476	0.0753	0.0014	0.0000	0.0000
0.0952	0.0753	0.0027	0.0000	0.0000
0.1428	0.0753	0.0041	0.0000	0.0000
0.1905	0.0753	0.0054	0.0000	0.0000
0.2381	0.0753	0.0068	0.0000	0.0000
0.2857	0.0753	0.0082	0.0000	0.0000
0.3333	0.0753	0.0095	0.0000	0.0000
0.3809	0.0753	0.0109	0.0000	0.0000
0.4285	0.0753	0.0123	0.0000	0.0000
0.4762	0.0753	0.0136	0.0000	0.0000
0.5238	0.0753	0.0150	0.0000	0.0000
0.5714	0.0753	0.0163	0.0000	0.0000
0.6190	0.0753	0.0177	0.0000	0.0000
0.6666	0.0753	0.0191	0.0000	0.0000
0.7142	0.0753	0.0204	0.0000	0.0000
0.7618	0.0753	0.0218	0.0000	0.0000
0.8095	0.0753	0.0232	0.0000	0.0000
0.8571	0.0753	0.0245	0.0000	0.0000
0.9047	0.0753	0.0259	0.0000	0.0000
0.9523	0.0753	0.0272	0.0000	0.0000
0.9999	0.0753	0.0286	0.0000	0.0000
1.0475	0.0753	0.0300	0.0000	0.0000
1.0952	0.0753	0.0313	0.0000	0.0000
1.1428	0.0753	0.0327	0.0000	0.0000
1.1904	0.0753	0.0341	0.0000	0.0000
1.2380	0.0753	0.0354	0.0000	0.0000
1.2856	0.0753	0.0368	0.0000	0.0000
1.3332	0.0753	0.0381	0.0000	0.0000
1.3808	0.0753	0.0395	0.0000	0.0000
1.4285	0.0753	0.0409	0.0000	0.0000

1.4761	0.0753	0.0422	0.0000	0.0000
1.5237	0.0753	0.0437	0.0000	0.0000
1.5713	0.0753	0.0452	0.0000	0.0000
1.6189	0.0753	0.0467	0.0000	0.0000
1.6665	0.0753	0.0482	0.0000	0.0000
1.7142	0.0753	0.0497	0.0000	0.0000
1.7618	0.0753	0.0511	0.0000	0.0000
1.8094	0.0753	0.0526	0.0000	0.0000
1.8570	0.0753	0.0541	0.0000	0.0000
1.9046	0.0753	0.0556	0.0000	0.0000
1.9522	0.0753	0.0571	0.0000	0.0000
1.9998	0.0753	0.0586	0.0000	0.0000
2.0475	0.0753	0.0601	0.0000	0.0000
2.0951	0.0753	0.0616	0.0000	0.0000
2.1427	0.0753	0.0630	0.0000	0.0000
2.1903	0.0753	0.0645	0.0000	0.0000
2.2379	0.0753	0.0660	0.0000	0.0000
2.2855	0.0753	0.0675	0.0000	0.0000
2.3332	0.0753	0.0690	0.0000	0.0000
2.3808	0.0753	0.0705	0.0000	0.0000
2.4284	0.0753	0.0720	0.0000	0.0000
2.4760	0.0753	0.0735	0.0000	0.0000
2.5000	0.0753	0.0742	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0753	0.0742	0.0000	0.0019	0.0000
2.5476	0.0753	0.0778	0.0000	0.0019	0.0000
2.5952	0.0753	0.0814	0.0000	0.0019	0.0000
2.6428	0.0753	0.0850	0.0000	0.0019	0.0000
2.6905	0.0753	0.0885	0.0000	0.0019	0.0000
2.7381	0.0753	0.0921	0.0003	0.0019	0.0000
2.7857	0.0753	0.0957	0.0004	0.0019	0.0000
2.8333	0.0753	0.0993	0.0005	0.0019	0.0000
2.8809	0.0753	0.1029	0.0006	0.0019	0.0000
2.9285	0.0753	0.1065	0.0006	0.0019	0.0000
2.9762	0.0753	0.1101	0.0007	0.0019	0.0000
3.0238	0.0753	0.1136	0.0007	0.0019	0.0000
3.0714	0.0753	0.1172	0.0008	0.0019	0.0000
3.1190	0.0753	0.1208	0.0008	0.0019	0.0000
3.1666	0.0753	0.1244	0.0009	0.0019	0.0000
3.2142	0.0753	0.1280	0.0009	0.0019	0.0000
3.2618	0.0753	0.1316	0.0009	0.0019	0.0000
3.3095	0.0753	0.1351	0.0010	0.0019	0.0000
3.3571	0.0753	0.1387	0.0010	0.0019	0.0000
3.4047	0.0753	0.1423	0.0011	0.0019	0.0000
3.4523	0.0753	0.1459	0.0011	0.0019	0.0000
3.4999	0.0753	0.1495	0.0011	0.0019	0.0000
3.5475	0.0753	0.1531	0.0011	0.0019	0.0000
3.5952	0.0753	0.1566	0.0012	0.0019	0.0000
3.6428	0.0753	0.1602	0.0012	0.0019	0.0000
3.6904	0.0753	0.1638	0.0012	0.0019	0.0000
3.7380	0.0753	0.1674	0.0013	0.0019	0.0000
3.7856	0.0753	0.1710	0.0013	0.0019	0.0000
3.8332	0.0753	0.1746	0.0013	0.0019	0.0000
3.8808	0.0753	0.1782	0.0013	0.0019	0.0000
3.9285	0.0753	0.1817	0.0014	0.0019	0.0000
3.9761	0.0753	0.1853	0.0014	0.0019	0.0000

4.0237	0.0753	0.1889	0.0014	0.0019	0.0000
4.0713	0.0753	0.1925	0.0014	0.0019	0.0000
4.1189	0.0753	0.1961	0.0015	0.0019	0.0000
4.1665	0.0753	0.1997	0.0015	0.0019	0.0000
4.2142	0.0753	0.2032	0.0015	0.0019	0.0000
4.2618	0.0753	0.2068	0.0015	0.0019	0.0000
4.3094	0.0753	0.2104	0.0016	0.0019	0.0000
4.3330	0.0753	0.2122	0.0016	0.0019	0.0000

STA-1 Surface-1

Element Flows To:

Outlet 1	Outlet 2
	STA-1

STA-4

Bottom Length:	8.80 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	0.41
Total Outflow (ac-ft.):	0.412
Percent Through Underdrain:	99.48
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0010	0.0000	0.0000	0.0000
0.0476	0.0010	0.0000	0.0000	0.0000
0.0952	0.0010	0.0000	0.0000	0.0000
0.1428	0.0010	0.0001	0.0000	0.0000
0.1905	0.0010	0.0001	0.0000	0.0000
0.2381	0.0010	0.0001	0.0000	0.0000
0.2857	0.0010	0.0001	0.0000	0.0000
0.3333	0.0010	0.0001	0.0000	0.0000
0.3809	0.0010	0.0001	0.0000	0.0000
0.4285	0.0010	0.0002	0.0000	0.0000
0.4762	0.0010	0.0002	0.0000	0.0000
0.5238	0.0010	0.0002	0.0000	0.0000
0.5714	0.0010	0.0002	0.0000	0.0000
0.6190	0.0010	0.0002	0.0000	0.0000
0.6666	0.0010	0.0003	0.0000	0.0000
0.7142	0.0010	0.0003	0.0000	0.0000
0.7618	0.0010	0.0003	0.0000	0.0000
0.8095	0.0010	0.0003	0.0000	0.0000
0.8571	0.0010	0.0003	0.0000	0.0000
0.9047	0.0010	0.0003	0.0000	0.0000
0.9523	0.0010	0.0004	0.0000	0.0000
0.9999	0.0010	0.0004	0.0000	0.0000
1.0475	0.0010	0.0004	0.0000	0.0000
1.0952	0.0010	0.0004	0.0000	0.0000
1.1428	0.0010	0.0004	0.0000	0.0000
1.1904	0.0010	0.0005	0.0000	0.0000
1.2380	0.0010	0.0005	0.0000	0.0000
1.2856	0.0010	0.0005	0.0000	0.0000
1.3332	0.0010	0.0005	0.0000	0.0000
1.3808	0.0010	0.0005	0.0000	0.0000
1.4285	0.0010	0.0005	0.0000	0.0000

1.4761	0.0010	0.0006	0.0000	0.0000
1.5237	0.0010	0.0006	0.0000	0.0000
1.5713	0.0010	0.0006	0.0000	0.0000
1.6189	0.0010	0.0006	0.0000	0.0000
1.6665	0.0010	0.0006	0.0000	0.0000
1.7142	0.0010	0.0007	0.0000	0.0000
1.7618	0.0010	0.0007	0.0000	0.0000
1.8094	0.0010	0.0007	0.0000	0.0000
1.8570	0.0010	0.0007	0.0000	0.0000
1.9046	0.0010	0.0007	0.0000	0.0000
1.9522	0.0010	0.0008	0.0000	0.0000
1.9998	0.0010	0.0008	0.0000	0.0000
2.0475	0.0010	0.0008	0.0000	0.0000
2.0951	0.0010	0.0008	0.0000	0.0000
2.1427	0.0010	0.0008	0.0000	0.0000
2.1903	0.0010	0.0009	0.0000	0.0000
2.2379	0.0010	0.0009	0.0000	0.0000
2.2855	0.0010	0.0009	0.0000	0.0000
2.3332	0.0010	0.0009	0.0000	0.0000
2.3808	0.0010	0.0009	0.0000	0.0000
2.4284	0.0010	0.0010	0.0000	0.0000
2.4760	0.0010	0.0010	0.0000	0.0000
2.5000	0.0010	0.0010	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0010	0.0010	0.0000	0.0016	0.0000
2.5476	0.0010	0.0010	0.0000	0.0016	0.0000
2.5952	0.0010	0.0011	0.0000	0.0016	0.0000
2.6428	0.0010	0.0011	0.0000	0.0016	0.0000
2.6905	0.0010	0.0012	0.0000	0.0016	0.0000
2.7381	0.0010	0.0012	0.0000	0.0016	0.0000
2.7857	0.0010	0.0013	0.0000	0.0016	0.0000
2.8333	0.0010	0.0013	0.0000	0.0016	0.0000
2.8809	0.0010	0.0014	0.0000	0.0016	0.0000
2.9285	0.0010	0.0014	0.0000	0.0016	0.0000
2.9762	0.0010	0.0015	0.0000	0.0016	0.0000
3.0238	0.0010	0.0015	0.0001	0.0016	0.0000
3.0714	0.0010	0.0016	0.0001	0.0016	0.0000
3.1190	0.0010	0.0016	0.0002	0.0016	0.0000
3.1666	0.0010	0.0017	0.0002	0.0016	0.0000
3.2142	0.0010	0.0017	0.0003	0.0016	0.0000
3.2618	0.0010	0.0018	0.0004	0.0016	0.0000
3.3095	0.0010	0.0018	0.0004	0.0016	0.0000
3.3571	0.0010	0.0019	0.0005	0.0016	0.0000
3.4047	0.0010	0.0019	0.0005	0.0016	0.0000
3.4523	0.0010	0.0020	0.0006	0.0016	0.0000
3.4999	0.0010	0.0020	0.0006	0.0016	0.0000
3.5475	0.0010	0.0021	0.0007	0.0016	0.0000
3.5952	0.0010	0.0021	0.0007	0.0016	0.0000
3.6428	0.0010	0.0022	0.0008	0.0016	0.0000
3.6904	0.0010	0.0022	0.0008	0.0016	0.0000
3.7380	0.0010	0.0022	0.0009	0.0016	0.0000
3.7856	0.0010	0.0023	0.0009	0.0016	0.0000
3.8332	0.0010	0.0023	0.0010	0.0016	0.0000
3.8808	0.0010	0.0024	0.0010	0.0016	0.0000
3.9285	0.0010	0.0024	0.0010	0.0016	0.0000
3.9761	0.0010	0.0025	0.0011	0.0016	0.0000

4.0237	0.0010	0.0025	0.0011	0.0016	0.0000
4.0713	0.0010	0.0026	0.0011	0.0016	0.0000
4.1189	0.0010	0.0026	0.0012	0.0016	0.0000
4.1665	0.0010	0.0027	0.0012	0.0016	0.0000
4.2142	0.0010	0.0027	0.0012	0.0016	0.0000
4.2618	0.0010	0.0028	0.0012	0.0016	0.0000
4.3094	0.0010	0.0028	0.0013	0.0016	0.0000
4.3330	0.0010	0.0028	0.0013	0.0016	0.0000

STA-4 Surface-4

Element Flows To:

Outlet 1	Outlet 2
	STA-4

STA-5

Bottom Length:	157.00 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	7.332
Total Outflow (ac-ft.):	11.316
Percent Through Underdrain:	64.8
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0180	0.0000	0.0000	0.0000
0.0476	0.0180	0.0003	0.0000	0.0000
0.0952	0.0180	0.0007	0.0000	0.0000
0.1428	0.0180	0.0010	0.0000	0.0000
0.1905	0.0180	0.0013	0.0000	0.0000
0.2381	0.0180	0.0016	0.0000	0.0000
0.2857	0.0180	0.0020	0.0000	0.0000
0.3333	0.0180	0.0023	0.0000	0.0000
0.3809	0.0180	0.0026	0.0000	0.0000
0.4285	0.0180	0.0029	0.0000	0.0000
0.4762	0.0180	0.0033	0.0000	0.0000
0.5238	0.0180	0.0036	0.0000	0.0000
0.5714	0.0180	0.0039	0.0000	0.0000
0.6190	0.0180	0.0042	0.0000	0.0000
0.6666	0.0180	0.0046	0.0000	0.0000
0.7142	0.0180	0.0049	0.0000	0.0000
0.7618	0.0180	0.0052	0.0000	0.0000
0.8095	0.0180	0.0055	0.0000	0.0000
0.8571	0.0180	0.0059	0.0000	0.0000
0.9047	0.0180	0.0062	0.0000	0.0000
0.9523	0.0180	0.0065	0.0000	0.0000
0.9999	0.0180	0.0068	0.0000	0.0000
1.0475	0.0180	0.0072	0.0000	0.0000
1.0952	0.0180	0.0075	0.0000	0.0000
1.1428	0.0180	0.0078	0.0000	0.0000
1.1904	0.0180	0.0082	0.0000	0.0000
1.2380	0.0180	0.0085	0.0000	0.0000
1.2856	0.0180	0.0088	0.0000	0.0000
1.3332	0.0180	0.0091	0.0000	0.0000
1.3808	0.0180	0.0095	0.0000	0.0000
1.4285	0.0180	0.0098	0.0000	0.0000

1.4761	0.0180	0.0101	0.0000	0.0000
1.5237	0.0180	0.0105	0.0000	0.0000
1.5713	0.0180	0.0108	0.0000	0.0000
1.6189	0.0180	0.0112	0.0000	0.0000
1.6665	0.0180	0.0115	0.0000	0.0000
1.7142	0.0180	0.0119	0.0000	0.0000
1.7618	0.0180	0.0122	0.0000	0.0000
1.8094	0.0180	0.0126	0.0000	0.0000
1.8570	0.0180	0.0130	0.0000	0.0000
1.9046	0.0180	0.0133	0.0000	0.0000
1.9522	0.0180	0.0137	0.0000	0.0000
1.9998	0.0180	0.0140	0.0000	0.0000
2.0475	0.0180	0.0144	0.0000	0.0000
2.0951	0.0180	0.0147	0.0000	0.0000
2.1427	0.0180	0.0151	0.0000	0.0000
2.1903	0.0180	0.0154	0.0000	0.0000
2.2379	0.0180	0.0158	0.0000	0.0000
2.2855	0.0180	0.0162	0.0000	0.0000
2.3332	0.0180	0.0165	0.0000	0.0000
2.3808	0.0180	0.0169	0.0000	0.0000
2.4284	0.0180	0.0172	0.0000	0.0000
2.4760	0.0180	0.0176	0.0000	0.0000
2.5000	0.0180	0.0178	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0180	0.0178	0.0000	0.0017	0.0000
2.5476	0.0180	0.0186	0.0000	0.0017	0.0000
2.5952	0.0180	0.0195	0.0000	0.0017	0.0000
2.6428	0.0180	0.0203	0.0000	0.0017	0.0000
2.6905	0.0180	0.0212	0.0000	0.0017	0.0000
2.7381	0.0180	0.0221	0.0000	0.0017	0.0000
2.7857	0.0180	0.0229	0.0000	0.0017	0.0000
2.8333	0.0180	0.0238	0.0000	0.0017	0.0000
2.8809	0.0180	0.0246	0.0000	0.0017	0.0000
2.9285	0.0180	0.0255	0.0000	0.0017	0.0000
2.9762	0.0180	0.0263	0.0000	0.0017	0.0000
3.0238	0.0180	0.0272	0.0003	0.0017	0.0000
3.0714	0.0180	0.0281	0.0004	0.0017	0.0000
3.1190	0.0180	0.0289	0.0005	0.0017	0.0000
3.1666	0.0180	0.0298	0.0005	0.0017	0.0000
3.2142	0.0180	0.0306	0.0006	0.0017	0.0000
3.2618	0.0180	0.0315	0.0006	0.0017	0.0000
3.3095	0.0180	0.0324	0.0007	0.0017	0.0000
3.3571	0.0180	0.0332	0.0007	0.0017	0.0000
3.4047	0.0180	0.0341	0.0008	0.0017	0.0000
3.4523	0.0180	0.0349	0.0008	0.0017	0.0000
3.4999	0.0180	0.0358	0.0009	0.0017	0.0000
3.5475	0.0180	0.0366	0.0009	0.0017	0.0000
3.5952	0.0180	0.0375	0.0010	0.0017	0.0000
3.6428	0.0180	0.0384	0.0010	0.0017	0.0000
3.6904	0.0180	0.0392	0.0010	0.0017	0.0000
3.7380	0.0180	0.0401	0.0011	0.0017	0.0000
3.7856	0.0180	0.0409	0.0011	0.0017	0.0000
3.8332	0.0180	0.0418	0.0011	0.0017	0.0000
3.8808	0.0180	0.0427	0.0012	0.0017	0.0000
3.9285	0.0180	0.0435	0.0012	0.0017	0.0000
3.9761	0.0180	0.0444	0.0012	0.0017	0.0000

4.0237	0.0180	0.0452	0.0012	0.0017	0.0000
4.0713	0.0180	0.0461	0.0013	0.0017	0.0000
4.1189	0.0180	0.0469	0.0013	0.0017	0.0000
4.1665	0.0180	0.0478	0.0013	0.0017	0.0000
4.2142	0.0180	0.0487	0.0013	0.0017	0.0000
4.2618	0.0180	0.0495	0.0014	0.0017	0.0000
4.3094	0.0180	0.0504	0.0014	0.0017	0.0000
4.3330	0.0180	0.0508	0.0014	0.0017	0.0000

STA-5 Surface-5

Element Flows To:

Outlet 1	Outlet 2
	STA-5

STA-9

Bottom Length:	257.00 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	10
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	13.31
Total Outflow (ac-ft.):	20.587
Percent Through Underdrain:	64.65
Discharge Structure	
Riser Height:	0.67 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0295	0.0000	0.0000	0.0000
0.1447	0.0295	0.0016	0.0000	0.0000
0.2895	0.0295	0.0032	0.0000	0.0000
0.4342	0.0295	0.0049	0.0000	0.0000
0.5789	0.0295	0.0065	0.0000	0.0000
0.7236	0.0295	0.0081	0.0000	0.0000
0.8684	0.0295	0.0097	0.0000	0.0000
1.0131	0.0295	0.0114	0.0000	0.0000
1.1578	0.0295	0.0130	0.0000	0.0000
1.3025	0.0295	0.0146	0.0000	0.0000
1.4473	0.0295	0.0162	0.0000	0.0000
1.5920	0.0295	0.0180	0.0000	0.0000
1.7367	0.0295	0.0198	0.0000	0.0000
1.8814	0.0295	0.0215	0.0000	0.0000
2.0262	0.0295	0.0233	0.0000	0.0000
2.1709	0.0295	0.0251	0.0000	0.0000
2.3156	0.0295	0.0269	0.0000	0.0000
2.4603	0.0295	0.0286	0.0000	0.0000
2.6051	0.0295	0.0304	0.0000	0.0000
2.7498	0.0295	0.0322	0.0000	0.0000
2.8945	0.0295	0.0339	0.0000	0.0000
3.0392	0.0295	0.0357	0.0000	0.0000
3.1840	0.0295	0.0375	0.0000	0.0000
3.3287	0.0295	0.0393	0.0000	0.0000
3.4734	0.0295	0.0410	0.0000	0.0000
3.6181	0.0295	0.0428	0.0000	0.0000
3.7629	0.0295	0.0446	0.0000	0.0000
3.9076	0.0295	0.0463	0.0000	0.0000
4.0523	0.0295	0.0481	0.0000	0.0000
4.1970	0.0295	0.0499	0.0000	0.0000
4.3418	0.0295	0.0517	0.0000	0.0000

4.4865	0.0295	0.0534	0.0000	0.0000
4.6312	0.0295	0.0552	0.0000	0.0000
4.7759	0.0295	0.0570	0.0000	0.0000
4.9207	0.0295	0.0587	0.0000	0.0000
5.0654	0.0295	0.0605	0.0000	0.0000
5.2101	0.0295	0.0623	0.0000	0.0000
5.3548	0.0295	0.0641	0.0000	0.0000
5.4996	0.0295	0.0658	0.0000	0.0000
5.6443	0.0295	0.0676	0.0000	0.0000
5.7890	0.0295	0.0694	0.0000	0.0000
5.9337	0.0295	0.0711	0.0000	0.0000
6.0785	0.0295	0.0729	0.0000	0.0000
6.2232	0.0295	0.0747	0.0000	0.0000
6.3679	0.0295	0.0765	0.0000	0.0000
6.5126	0.0295	0.0782	0.0000	0.0000
6.6574	0.0295	0.0800	0.0000	0.0000
6.8021	0.0295	0.0818	0.0000	0.0000
6.9468	0.0295	0.0836	0.0000	0.0000
7.0915	0.0295	0.0853	0.0000	0.0000
7.2363	0.0295	0.0871	0.0000	0.0000
7.3810	0.0295	0.0889	0.0000	0.0000
7.5257	0.0295	0.0906	0.0000	0.0000
7.6704	0.0295	0.0924	0.0000	0.0000
7.8152	0.0295	0.0942	0.0000	0.0000
7.9599	0.0295	0.0960	0.0000	0.0000
8.1046	0.0295	0.0977	0.0000	0.0000
8.2493	0.0295	0.0995	0.0000	0.0000
8.3941	0.0295	0.1013	0.0000	0.0000
8.5388	0.0295	0.1030	0.0000	0.0000
8.6835	0.0295	0.1048	0.0000	0.0000
8.8282	0.0295	0.1066	0.0000	0.0000
8.9730	0.0295	0.1084	0.0000	0.0000
9.1177	0.0295	0.1101	0.0000	0.0000
9.2624	0.0295	0.1119	0.0000	0.0000
9.4071	0.0295	0.1137	0.0000	0.0000
9.5519	0.0295	0.1154	0.0000	0.0000
9.6966	0.0295	0.1172	0.0000	0.0000
9.8413	0.0295	0.1190	0.0000	0.0000
9.9860	0.0295	0.1208	0.0000	0.0000
10.131	0.0295	0.1225	0.0000	0.0000
10.275	0.0295	0.1243	0.0000	0.0000
10.420	0.0295	0.1261	0.0000	0.0000
10.565	0.0295	0.1278	0.0000	0.0000
10.710	0.0295	0.1296	0.0000	0.0000
10.854	0.0295	0.1314	0.0000	0.0000
10.999	0.0295	0.1332	0.0000	0.0000
11.144	0.0295	0.1349	0.0000	0.0000
11.289	0.0295	0.1367	0.0000	0.0000
11.433	0.0295	0.1385	0.0000	0.0000
11.500	0.0295	0.1393	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
11.500	0.0295	0.1393	0.0000	0.0053	0.0000
11.645	0.0295	0.1436	0.0000	0.0053	0.0000
11.789	0.0295	0.1478	0.0004	0.0053	0.0000
11.934	0.0295	0.1521	0.0006	0.0053	0.0000
12.079	0.0295	0.1564	0.0008	0.0053	0.0000

12.224	0.0295	0.1606	0.0009	0.0053	0.0000
12.368	0.0295	0.1649	0.0010	0.0053	0.0000
12.513	0.0295	0.1692	0.0011	0.0053	0.0000
12.658	0.0295	0.1734	0.0012	0.0053	0.0000
12.803	0.0295	0.1777	0.0013	0.0053	0.0000
12.947	0.0295	0.1820	0.0014	0.0053	0.0000
13.092	0.0295	0.1863	0.0014	0.0053	0.0000
13.170	0.0295	0.1886	0.0015	0.0053	0.0000

STA-9 Surface-9

Element Flows To:

Outlet 1	Outlet 2
	STA-9

STA-10

Bottom Length:	155.00 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	4.121
Total Outflow (ac-ft.):	4.446
Percent Through Underdrain:	92.7
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0178	0.0000	0.0000	0.0000
0.0476	0.0178	0.0003	0.0000	0.0000
0.0952	0.0178	0.0006	0.0000	0.0000
0.1428	0.0178	0.0010	0.0000	0.0000
0.1905	0.0178	0.0013	0.0000	0.0000
0.2381	0.0178	0.0016	0.0000	0.0000
0.2857	0.0178	0.0019	0.0000	0.0000
0.3333	0.0178	0.0023	0.0000	0.0000
0.3809	0.0178	0.0026	0.0000	0.0000
0.4285	0.0178	0.0029	0.0000	0.0000
0.4762	0.0178	0.0032	0.0000	0.0000
0.5238	0.0178	0.0035	0.0000	0.0000
0.5714	0.0178	0.0039	0.0000	0.0000
0.6190	0.0178	0.0042	0.0000	0.0000
0.6666	0.0178	0.0045	0.0000	0.0000
0.7142	0.0178	0.0048	0.0000	0.0000
0.7618	0.0178	0.0052	0.0000	0.0000
0.8095	0.0178	0.0055	0.0000	0.0000
0.8571	0.0178	0.0058	0.0000	0.0000
0.9047	0.0178	0.0061	0.0000	0.0000
0.9523	0.0178	0.0064	0.0000	0.0000
0.9999	0.0178	0.0068	0.0000	0.0000
1.0475	0.0178	0.0071	0.0000	0.0000
1.0952	0.0178	0.0074	0.0000	0.0000
1.1428	0.0178	0.0077	0.0000	0.0000
1.1904	0.0178	0.0080	0.0000	0.0000
1.2380	0.0178	0.0084	0.0000	0.0000
1.2856	0.0178	0.0087	0.0000	0.0000
1.3332	0.0178	0.0090	0.0000	0.0000
1.3808	0.0178	0.0093	0.0000	0.0000
1.4285	0.0178	0.0097	0.0000	0.0000

1.4761	0.0178	0.0100	0.0000	0.0000
1.5237	0.0178	0.0103	0.0000	0.0000
1.5713	0.0178	0.0107	0.0000	0.0000
1.6189	0.0178	0.0110	0.0000	0.0000
1.6665	0.0178	0.0114	0.0000	0.0000
1.7142	0.0178	0.0117	0.0000	0.0000
1.7618	0.0178	0.0121	0.0000	0.0000
1.8094	0.0178	0.0124	0.0000	0.0000
1.8570	0.0178	0.0128	0.0000	0.0000
1.9046	0.0178	0.0131	0.0000	0.0000
1.9522	0.0178	0.0135	0.0000	0.0000
1.9998	0.0178	0.0138	0.0000	0.0000
2.0475	0.0178	0.0142	0.0000	0.0000
2.0951	0.0178	0.0145	0.0000	0.0000
2.1427	0.0178	0.0149	0.0000	0.0000
2.1903	0.0178	0.0153	0.0000	0.0000
2.2379	0.0178	0.0156	0.0000	0.0000
2.2855	0.0178	0.0160	0.0000	0.0000
2.3332	0.0178	0.0163	0.0000	0.0000
2.3808	0.0178	0.0167	0.0000	0.0000
2.4284	0.0178	0.0170	0.0000	0.0000
2.4760	0.0178	0.0174	0.0000	0.0000
2.5000	0.0178	0.0175	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0178	0.0175	0.0000	0.0017	0.0000
2.5476	0.0178	0.0184	0.0000	0.0017	0.0000
2.5952	0.0178	0.0192	0.0000	0.0017	0.0000
2.6428	0.0178	0.0201	0.0000	0.0017	0.0000
2.6905	0.0178	0.0209	0.0000	0.0017	0.0000
2.7381	0.0178	0.0218	0.0000	0.0017	0.0000
2.7857	0.0178	0.0226	0.0000	0.0017	0.0000
2.8333	0.0178	0.0235	0.0000	0.0017	0.0000
2.8809	0.0178	0.0243	0.0000	0.0017	0.0000
2.9285	0.0178	0.0252	0.0000	0.0017	0.0000
2.9762	0.0178	0.0260	0.0000	0.0017	0.0000
3.0238	0.0178	0.0269	0.0003	0.0017	0.0000
3.0714	0.0178	0.0277	0.0004	0.0017	0.0000
3.1190	0.0178	0.0286	0.0005	0.0017	0.0000
3.1666	0.0178	0.0294	0.0005	0.0017	0.0000
3.2142	0.0178	0.0302	0.0006	0.0017	0.0000
3.2618	0.0178	0.0311	0.0006	0.0017	0.0000
3.3095	0.0178	0.0319	0.0007	0.0017	0.0000
3.3571	0.0178	0.0328	0.0007	0.0017	0.0000
3.4047	0.0178	0.0336	0.0008	0.0017	0.0000
3.4523	0.0178	0.0345	0.0008	0.0017	0.0000
3.4999	0.0178	0.0353	0.0009	0.0017	0.0000
3.5475	0.0178	0.0362	0.0009	0.0017	0.0000
3.5952	0.0178	0.0370	0.0010	0.0017	0.0000
3.6428	0.0178	0.0379	0.0010	0.0017	0.0000
3.6904	0.0178	0.0387	0.0010	0.0017	0.0000
3.7380	0.0178	0.0396	0.0011	0.0017	0.0000
3.7856	0.0178	0.0404	0.0011	0.0017	0.0000
3.8332	0.0178	0.0413	0.0011	0.0017	0.0000
3.8808	0.0178	0.0421	0.0012	0.0017	0.0000
3.9285	0.0178	0.0430	0.0012	0.0017	0.0000
3.9761	0.0178	0.0438	0.0012	0.0017	0.0000

4.0237	0.0178	0.0446	0.0012	0.0017	0.0000
4.0713	0.0178	0.0455	0.0013	0.0017	0.0000
4.1189	0.0178	0.0463	0.0013	0.0017	0.0000
4.1665	0.0178	0.0472	0.0013	0.0017	0.0000
4.2142	0.0178	0.0480	0.0013	0.0017	0.0000
4.2618	0.0178	0.0489	0.0014	0.0017	0.0000
4.3094	0.0178	0.0497	0.0014	0.0017	0.0000
4.3330	0.0178	0.0502	0.0014	0.0017	0.0000

STA-10 Surface10

Element Flows To:

Outlet 1	Outlet 2
	STA-10

STA-11

Bottom Length:	200.00 ft.
Bottom Width:	5.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.25
Offset (in.):	2
Flow Through Underdrain (ac-ft.):	5.189
Total Outflow (ac-ft.):	5.785
Percent Through Underdrain:	89.7
Discharge Structure	
Riser Height:	0.833 ft.
Riser Diameter:	6 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0230	0.0000	0.0000	0.0000
0.0476	0.0230	0.0004	0.0000	0.0000
0.0952	0.0230	0.0008	0.0000	0.0000
0.1428	0.0230	0.0012	0.0000	0.0000
0.1905	0.0230	0.0017	0.0000	0.0000
0.2381	0.0230	0.0021	0.0000	0.0000
0.2857	0.0230	0.0025	0.0000	0.0000
0.3333	0.0230	0.0029	0.0000	0.0000
0.3809	0.0230	0.0033	0.0000	0.0000
0.4285	0.0230	0.0037	0.0000	0.0000
0.4762	0.0230	0.0042	0.0000	0.0000
0.5238	0.0230	0.0046	0.0000	0.0000
0.5714	0.0230	0.0050	0.0000	0.0000
0.6190	0.0230	0.0054	0.0000	0.0000
0.6666	0.0230	0.0058	0.0000	0.0000
0.7142	0.0230	0.0062	0.0000	0.0000
0.7618	0.0230	0.0066	0.0000	0.0000
0.8095	0.0230	0.0071	0.0000	0.0000
0.8571	0.0230	0.0075	0.0000	0.0000
0.9047	0.0230	0.0079	0.0000	0.0000
0.9523	0.0230	0.0083	0.0000	0.0000
0.9999	0.0230	0.0087	0.0000	0.0000
1.0475	0.0230	0.0091	0.0000	0.0000
1.0952	0.0230	0.0096	0.0000	0.0000
1.1428	0.0230	0.0100	0.0000	0.0000
1.1904	0.0230	0.0104	0.0000	0.0000
1.2380	0.0230	0.0108	0.0000	0.0000
1.2856	0.0230	0.0112	0.0000	0.0000
1.3332	0.0230	0.0116	0.0000	0.0000
1.3808	0.0230	0.0120	0.0000	0.0000
1.4285	0.0230	0.0125	0.0000	0.0000

1.4761	0.0230	0.0129	0.0000	0.0000
1.5237	0.0230	0.0133	0.0000	0.0000
1.5713	0.0230	0.0138	0.0000	0.0000
1.6189	0.0230	0.0142	0.0000	0.0000
1.6665	0.0230	0.0147	0.0000	0.0000
1.7142	0.0230	0.0151	0.0000	0.0000
1.7618	0.0230	0.0156	0.0000	0.0000
1.8094	0.0230	0.0161	0.0000	0.0000
1.8570	0.0230	0.0165	0.0000	0.0000
1.9046	0.0230	0.0170	0.0000	0.0000
1.9522	0.0230	0.0174	0.0000	0.0000
1.9998	0.0230	0.0179	0.0000	0.0000
2.0475	0.0230	0.0183	0.0000	0.0000
2.0951	0.0230	0.0188	0.0000	0.0000
2.1427	0.0230	0.0192	0.0000	0.0000
2.1903	0.0230	0.0197	0.0000	0.0000
2.2379	0.0230	0.0201	0.0000	0.0000
2.2855	0.0230	0.0206	0.0000	0.0000
2.3332	0.0230	0.0210	0.0000	0.0000
2.3808	0.0230	0.0215	0.0000	0.0000
2.4284	0.0230	0.0219	0.0000	0.0000
2.4760	0.0230	0.0224	0.0000	0.0000
2.5000	0.0230	0.0226	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.5000	0.0230	0.0226	0.0000	0.0017	0.0000
2.5476	0.0230	0.0237	0.0000	0.0017	0.0000
2.5952	0.0230	0.0248	0.0000	0.0017	0.0000
2.6428	0.0230	0.0259	0.0000	0.0017	0.0000
2.6905	0.0230	0.0270	0.0000	0.0017	0.0000
2.7381	0.0230	0.0281	0.0000	0.0017	0.0000
2.7857	0.0230	0.0292	0.0000	0.0017	0.0000
2.8333	0.0230	0.0303	0.0000	0.0017	0.0000
2.8809	0.0230	0.0314	0.0000	0.0017	0.0000
2.9285	0.0230	0.0325	0.0000	0.0017	0.0000
2.9762	0.0230	0.0336	0.0000	0.0017	0.0000
3.0238	0.0230	0.0347	0.0003	0.0017	0.0000
3.0714	0.0230	0.0357	0.0004	0.0017	0.0000
3.1190	0.0230	0.0368	0.0005	0.0017	0.0000
3.1666	0.0230	0.0379	0.0005	0.0017	0.0000
3.2142	0.0230	0.0390	0.0006	0.0017	0.0000
3.2618	0.0230	0.0401	0.0006	0.0017	0.0000
3.3095	0.0230	0.0412	0.0007	0.0017	0.0000
3.3571	0.0230	0.0423	0.0007	0.0017	0.0000
3.4047	0.0230	0.0434	0.0008	0.0017	0.0000
3.4523	0.0230	0.0445	0.0008	0.0017	0.0000
3.4999	0.0230	0.0456	0.0009	0.0017	0.0000
3.5475	0.0230	0.0467	0.0009	0.0017	0.0000
3.5952	0.0230	0.0478	0.0010	0.0017	0.0000
3.6428	0.0230	0.0489	0.0010	0.0017	0.0000
3.6904	0.0230	0.0500	0.0010	0.0017	0.0000
3.7380	0.0230	0.0511	0.0011	0.0017	0.0000
3.7856	0.0230	0.0521	0.0011	0.0017	0.0000
3.8332	0.0230	0.0532	0.0011	0.0017	0.0000
3.8808	0.0230	0.0543	0.0012	0.0017	0.0000
3.9285	0.0230	0.0554	0.0012	0.0017	0.0000
3.9761	0.0230	0.0565	0.0012	0.0017	0.0000

4.0237	0.0230	0.0576	0.0012	0.0017	0.0000
4.0713	0.0230	0.0587	0.0013	0.0017	0.0000
4.1189	0.0230	0.0598	0.0013	0.0017	0.0000
4.1665	0.0230	0.0609	0.0013	0.0017	0.0000
4.2142	0.0230	0.0620	0.0013	0.0017	0.0000
4.2618	0.0230	0.0631	0.0014	0.0017	0.0000
4.3094	0.0230	0.0642	0.0014	0.0017	0.0000
4.3330	0.0230	0.0647	0.0014	0.0017	0.0000

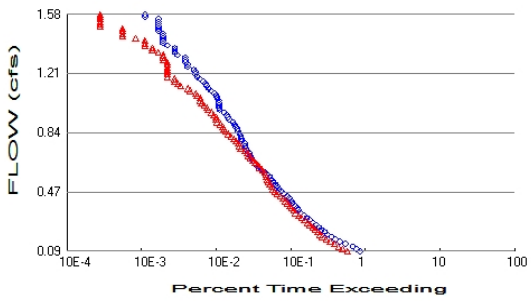
STA-11 Surface11

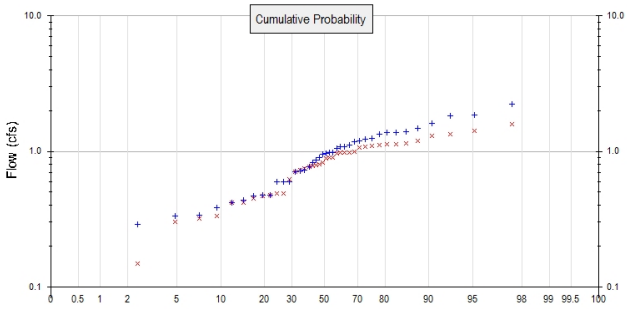
Element Flows To:

Outlet 1	Outlet 2
	STA-11

Analysis Results

POC 1





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 2.2258
Total Impervious Area: 1.2789

Mitigated Landuse Totals for POC #1
Total Pervious Area: 0
Total Impervious Area: 2.6287

Flow Frequency Method: Weibull

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	**Flow(cfs)**
2 year	0.949921
5 year	1.359244
10 year	1.581601
25 year	1.928106

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	**Flow(cfs)**
2 year	0.830795
5 year	1.11904
10 year	1.268931
25 year	1.450095

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	**Predeveloped**	**Mitigated**
1960	0.438	0.415
1961	0.337	0.418
1962	0.977	0.976
1963	1.382	1.133
1964	1.108	1.417
1965	0.710	0.746
1966	0.288	0.466
1967	1.246	1.097
1968	1.826	1.592
1969	1.053	0.961
1970	1.230	0.726
1971	0.950	1.065
1972	0.382	0.301
1973	1.087	1.122

1974	0.970	0.773
1975	0.979	0.450
1976	0.472	0.082
1977	0.475	0.317
1978	0.862	0.831
1979	0.726	0.802
1980	1.616	1.338
1981	0.331	0.492
1982	1.854	1.149
1983	1.471	1.189
1984	0.774	0.789
1985	0.893	0.978
1986	1.390	1.116
1987	0.290	0.478
1988	0.823	0.618
1989	0.415	0.149
1990	0.597	0.898
1991	0.600	0.487
1992	1.382	1.078
1993	1.329	0.888
1994	0.600	0.782
1995	1.193	0.974
1996	2.241	1.294
1997	1.082	0.987
1998	1.179	0.706
1999	0.466	0.334
2000	0.721	0.899

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	2.2413	1.5916
2	1.8544	1.4168
3	1.8261	1.3380
4	1.6161	1.2940
5	1.4711	1.1888
6	1.3903	1.1492
7	1.3817	1.1328
8	1.3817	1.1216
9	1.3293	1.1156
10	1.2463	1.0973
11	1.2301	1.0782
12	1.1932	1.0650
13	1.1788	0.9873
14	1.1084	0.9784
15	1.0868	0.9763
16	1.0818	0.9738
17	1.0535	0.9609
18	0.9794	0.8986
19	0.9765	0.8976
20	0.9705	0.8880
21	0.9499	0.8308
22	0.8928	0.8024
23	0.8623	0.7889
24	0.8234	0.7825
25	0.7743	0.7728
26	0.7262	0.7459
27	0.7212	0.7259

28	0.7104	0.7062
29	0.6002	0.6181
30	0.6001	0.4918
31	0.5971	0.4873
32	0.4751	0.4781
33	0.4716	0.4656
34	0.4663	0.4502
35	0.4382	0.4180
36	0.4154	0.4153
37	0.3817	0.3345
38	0.3373	0.3174
39	0.3311	0.3011
40	0.2900	0.1492
41	0.2884	0.0822

Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0950	3026	2064	68	Pass
0.1100	2724	1787	65	Pass
0.1250	2421	1575	65	Pass
0.1400	1947	1380	70	Pass
0.1551	1640	1214	74	Pass
0.1701	1434	1070	74	Pass
0.1851	1267	961	75	Pass
0.2001	1119	881	78	Pass
0.2151	1024	822	80	Pass
0.2301	923	763	82	Pass
0.2452	861	710	82	Pass
0.2602	790	654	82	Pass
0.2752	706	611	86	Pass
0.2902	647	551	85	Pass
0.3052	590	501	84	Pass
0.3202	541	458	84	Pass
0.3353	487	416	85	Pass
0.3503	455	396	87	Pass
0.3653	436	369	84	Pass
0.3803	409	346	84	Pass
0.3953	387	323	83	Pass
0.4103	371	307	82	Pass
0.4253	345	284	82	Pass
0.4404	323	259	80	Pass
0.4554	291	234	80	Pass
0.4704	266	219	82	Pass
0.4854	251	208	82	Pass
0.5004	236	200	84	Pass
0.5154	224	187	83	Pass
0.5305	209	179	85	Pass
0.5455	197	177	89	Pass
0.5605	188	170	90	Pass
0.5755	172	166	96	Pass
0.5905	163	160	98	Pass
0.6055	147	149	101	Pass
0.6206	135	138	102	Pass
0.6356	123	131	106	Pass
0.6506	119	120	100	Pass
0.6656	110	113	102	Pass
0.6806	107	105	98	Pass
0.6956	104	98	94	Pass
0.7107	99	94	94	Pass
0.7257	93	88	94	Pass
0.7407	90	77	85	Pass
0.7557	88	74	84	Pass
0.7707	86	72	83	Pass
0.7857	79	66	83	Pass
0.8008	78	62	79	Pass
0.8158	77	57	74	Pass
0.8308	74	52	70	Pass
0.8458	71	48	67	Pass
0.8608	69	45	65	Pass
0.8758	66	44	66	Pass

0.8909	64	41	64	Pass
0.9059	60	37	61	Pass
0.9209	54	36	66	Pass
0.9359	52	36	69	Pass
0.9509	50	33	66	Pass
0.9659	46	31	67	Pass
0.9810	40	28	70	Pass
0.9960	39	27	69	Pass
1.0110	39	25	64	Pass
1.0260	39	23	58	Pass
1.0410	39	22	56	Pass
1.0560	37	22	59	Pass
1.0710	36	20	55	Pass
1.0861	34	19	55	Pass
1.1011	31	16	51	Pass
1.1161	29	15	51	Pass
1.1311	27	12	44	Pass
1.1461	26	11	42	Pass
1.1611	24	10	41	Pass
1.1762	22	10	45	Pass
1.1912	20	8	40	Pass
1.2062	19	8	42	Pass
1.2212	19	8	42	Pass
1.2362	18	8	44	Pass
1.2512	15	8	53	Pass
1.2663	15	8	53	Pass
1.2813	14	8	57	Pass
1.2963	14	7	50	Pass
1.3113	14	7	50	Pass
1.3263	11	7	63	Pass
1.3413	10	6	60	Pass
1.3564	10	5	50	Pass
1.3714	10	5	50	Pass
1.3864	8	4	50	Pass
1.4014	7	4	57	Pass
1.4164	7	4	57	Pass
1.4314	7	3	42	Pass
1.4465	7	2	28	Pass
1.4615	7	2	28	Pass
1.4765	6	2	33	Pass
1.4915	6	2	33	Pass
1.5065	6	1	16	Pass
1.5215	6	1	16	Pass
1.5366	6	1	16	Pass
1.5516	6	1	16	Pass
1.5666	4	1	25	Pass
1.5816	4	1	25	Pass

Water Quality

Model Default Modifications

Total of 0 changes have been made.

PERLND Changes

No PERLND changes have been made.

IMPLND Changes

No IMPLND changes have been made.

Appendix
Predeveloped Schematic

Mitigated Schematic

Predeveloped UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1959 10 01        END    2000 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                   UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                             ***
WDM        26   4200 Dove Hill Road.wdm
MESSU      25   Pre4200 Dove Hill Road.MES
           27   Pre4200 Dove Hill Road.L61
           28   Pre4200 Dove Hill Road.L62
           30   POC4200 Dove Hill Road1.dat
END FILES

OPN SEQUENCE
    INGRP              INDELT 00:60
      PERLND      42
      IMPLND       5
      IMPLND       7
      IMPLND      11
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        Basin  1                   MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
    1         1    1
  501         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                          User  t-series Engl Metr ***
                                      in  out           ***
   42     C/D,Grass,Mod(5-10%)    1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************ Active Sections ******************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   42         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ***************************** PIVL  PYR
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
```

```
   42         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   42         0    0    0    1    0    0    0    0    1    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   42              0       4.5      0.04       350       0.1         2      0.95
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   42             40        35         3         2       0.5      0.15         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   42              0       0.3      0.25       0.9      0.45         0
  END PWAT-PARM4
  MON-LZETPARM
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
   42       0.4  0.4  0.4 0.45  0.5 0.55 0.55 0.55 0.55 0.55 0.45  0.4
  END MON-LZETPARM
  MON-INTERCEP
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
   42      0.12 0.12 0.12 0.11  0.1  0.1  0.1  0.1  0.1  0.1 0.11 0.12
  END MON-INTERCEP

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS      IFWS       LZS      AGWS      GWVS
   42              0         0      0.01         0       0.5       0.3      0.01
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                     in  out           ***
    5     Roof Area                1    1    1   27    0
    7     Driveways,Mod(5-10%)     1    1    1   27    0
   11     Sidewalks,Mod(5-10%)     1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    5         0    0    1    0    0    0
    7         0    0    1    0    0    0
   11         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    5         0    0    4    0    0    0    1    9
    7         0    0    4    0    0    0    1    9
   11         0    0    4    0    0    0    1    9
```

```
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
    5         0    0    0    0    0
    7         0    0    0    0    0
   11         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    5            100      0.05       0.1       0.1
    7            100       0.1       0.1      0.09
   11            100       0.1       0.1      0.09
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
    5              0         0
    7              0         0
   11              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    5              0         0
    7              0         0
   11              0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK   ***
<Name>   #                  <-factor->     <Name>   #   Tbl#   ***
Basin  1***
PERLND  42                      2.2258     COPY   501     12
PERLND  42                      2.2258     COPY   501     13
IMPLND   5                      0.1588     COPY   501     15
IMPLND   7                      1.1143     COPY   501     15
IMPLND  11                      0.0058     COPY   501     15

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   12.1        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<----------------><---> User T-series  Engl Metr LKFG             ***
                                        in  out                             ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
```

```
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ****************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                    ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
           FG FG FG FG  possible  exit  *** possible  exit      possible  exit
            *  *  *  *    *  *  *  *  *       *  *  *  *  *        ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                       ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.069          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.069          IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    1              PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    1              IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY   501 OUTPUT MEAN   1 1     12.1      WDM    501 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13

  MASS-LINK       15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   15


END MASS-LINK

END RUN
```

Mitigated UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1959 10 01        END    2000 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   4200 Dove Hill Road.wdm
MESSU       25   Mit4200 Dove Hill Road.MES
            27   Mit4200 Dove Hill Road.L61
            28   Mit4200 Dove Hill Road.L62
            30   POC4200 Dove Hill Road1.dat
END FILES

OPN SEQUENCE
    INGRP              INDELT 00:60
      IMPLND       5
      IMPLND       7
      IMPLND      11
      IMPLND      10
      RCHRES       1
      RCHRES       2
      RCHRES       3
      RCHRES       4
      RCHRES       5
      RCHRES       6
      RCHRES       7
      RCHRES       8
      RCHRES       9
      RCHRES      10
      RCHRES      11
      RCHRES      12
      RCHRES      13
      RCHRES      14
      RCHRES      15
      RCHRES      16
      RCHRES      17
      RCHRES      18
      RCHRES      19
      RCHRES      20
      RCHRES      21
      RCHRES      22
      COPY         1
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        STA-2A TO  Surface-F        MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
    1         1    1
  501         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
```

```
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                         User  t-series Engl Metr ***
                                        in  out           ***
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags **************************** PIVL  PYR
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
  END PWAT-PARM4
  MON-LZETPARM
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
  END MON-LZETPARM
  MON-INTERCEP
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
  END MON-INTERCEP

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS       IFWS       LZS       AGWS      GWVS
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                    in  out           ***
    5     Roof Area               1    1    1   27    0
    7     Driveways,Mod(5-10%)    1    1    1   27    0
   11     Sidewalks,Mod(5-10%)    1    1    1   27    0
   10     Sidewalks,Flat(0-5%)    1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***
```

```
  ACTIVITY
    <PLS > ************ Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    5         0    0    1    0    0    0
    7         0    0    1    0    0    0
   11         0    0    1    0    0    0
   10         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    5         0    0    4    0    0    0    1    9
    7         0    0    4    0    0    0    1    9
   11         0    0    4    0    0    0    1    9
   10         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
    5         0    0    0    0    0
    7         0    0    0    0    0
   11         0    0    0    0    0
   10         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    5           100      0.05       0.1       0.1
    7           100       0.1       0.1      0.09
   11           100       0.1       0.1      0.09
   10           100      0.05       0.1       0.1
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
    5              0         0
    7              0         0
   11              0         0
   10              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    5             0         0
    7             0         0
   11             0         0
   10             0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                <--Area-->     <-Target->   MBLK   ***
<Name>   #                <-factor->     <Name>   #   Tbl#   ***
DMA-1***
IMPLND   5                    0.3163     RCHRES  11      5
IMPLND   7                    0.5012     RCHRES  11      5
IMPLND  11                    0.2293     RCHRES  11      5
DMA-2***
IMPLND   5                    0.2395     RCHRES   1      5
IMPLND   7                    0.0268     RCHRES   1      5
DMA-3***
IMPLND   5                    0.0471     RCHRES   3      5
DMA-4***
IMPLND  11                    0.0088     RCHRES  13      5
```

```
DMA-5***
IMPLND   7                      0.2417     RCHRES  15      5
DMA-6***
IMPLND   5                      0.0896     RCHRES   5      5
DMA-7***
IMPLND   5                      0.0653     RCHRES   7      5
DMA-8***
IMPLND   5                      0.2096     RCHRES   9      5
DMA-9***
IMPLND   5                      0.2229     RCHRES  17      5
IMPLND   7                      0.2156     RCHRES  17      5
DMA-10***
IMPLND  10                      0.0933     RCHRES  19      5
Basin  12***
IMPLND  10                      0.1217     RCHRES  21      5

******Routing******
IMPLND   5                      0.3163     COPY     1     15
IMPLND   7                      0.5012     COPY     1     15
IMPLND  11                      0.2293     COPY     1     15
IMPLND   5                      0.2395     COPY     1     15
IMPLND   7                      0.0268     COPY     1     15
IMPLND   5                      0.0471     COPY     1     15
IMPLND  11                      0.0088     COPY     1     15
IMPLND   7                      0.2417     COPY     1     15
IMPLND   5                      0.0896     COPY     1     15
IMPLND   5                      0.0653     COPY     1     15
IMPLND   5                      0.2096     COPY     1     15
IMPLND   5                      0.2229     COPY     1     15
IMPLND   7                      0.2156     COPY     1     15
RCHRES   1                           1     RCHRES   2      8
RCHRES   3                           1     RCHRES   4      8
RCHRES   5                           1     RCHRES   6      8
RCHRES   7                           1     RCHRES   8      8
RCHRES   9                           1     RCHRES  10      8
RCHRES  11                           1     RCHRES  12      8
RCHRES  13                           1     RCHRES  14      8
RCHRES  15                           1     RCHRES  16      8
RCHRES  17                           1     RCHRES  18      8
IMPLND  10                      0.0933     COPY     1     15
IMPLND  10                      0.1217     COPY     1     15
RCHRES  19                           1     RCHRES  20      8
RCHRES  21                           1     RCHRES  22      8
RCHRES   2                           1     COPY   501     16
RCHRES   1                           1     COPY   501     17
RCHRES   4                           1     COPY   501     16
RCHRES   3                           1     COPY   501     17
RCHRES   6                           1     COPY   501     16
RCHRES   5                           1     COPY   501     17
RCHRES   8                           1     COPY   501     16
RCHRES   7                           1     COPY   501     17
RCHRES  10                           1     COPY   501     16
RCHRES   9                           1     COPY   501     17
RCHRES  12                           1     COPY   501     16
RCHRES  11                           1     COPY   501     17
RCHRES  14                           1     COPY   501     16
RCHRES  13                           1     COPY   501     17
RCHRES  16                           1     COPY   501     16
RCHRES  15                           1     COPY   501     17
RCHRES  18                           1     COPY   501     16
RCHRES  17                           1     COPY   501     17
RCHRES  20                           1     COPY   501     16
RCHRES  19                           1     COPY   501     17
RCHRES  22                           1     COPY   501     16
RCHRES  21                           1     COPY   501     17
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
```

```
COPY   501 OUTPUT MEAN   1 1   12.1        DISPLY   1     INPUT  TIMSER 1


<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<----------------><---> User T-series  Engl Metr LKFG             ***
                                        in  out                             ***
    1     STA-2A TO  Surfa-020    3    1    1    1   28    0    1
    2     STA-2A TO 2-F           1    1    1    1   28    0    1
    3     STA-3 Surface-3         3    1    1    1   28    0    1
    4     STA-3                   1    1    1    1   28    0    1
    5     STA-6 Surface-6         3    1    1    1   28    0    1
    6     STA-6                   1    1    1    1   28    0    1
    7     STA-7 Surface-7         3    1    1    1   28    0    1
    8     STA-7                   1    1    1    1   28    0    1
    9     STA-8A TO  Surfa-032    3    1    1    1   28    0    1
   10     STA-8A TO 8D            1    1    1    1   28    0    1
   11     STA-1 Surface-1         3    1    1    1   28    0    1
   12     STA-1                   1    1    1    1   28    0    1
   13     STA-4 Surface-4         3    1    1    1   28    0    1
   14     STA-4                   1    1    1    1   28    0    1
   15     STA-5 Surface-5         3    1    1    1   28    0    1
   16     STA-5                   1    1    1    1   28    0    1
   17     STA-9 Surface-9         3    1    1    1   28    0    1
   18     STA-9                   1    1    1    1   28    0    1
   19     F T Plante Surfa-059    3    1    1    1   28    0    1
   20     F T Planter  10         1    1    1    1   28    0    1
   21     F T Plante Surfa-061    3    1    1    1   28    0    1
   22     F T Planter  11         1    1    1    1   28    0    1
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
    1         1    0    0    0    0    0    0    0    0    0
    2         1    0    0    0    0    0    0    0    0    0
    3         1    0    0    0    0    0    0    0    0    0
    4         1    0    0    0    0    0    0    0    0    0
    5         1    0    0    0    0    0    0    0    0    0
    6         1    0    0    0    0    0    0    0    0    0
    7         1    0    0    0    0    0    0    0    0    0
    8         1    0    0    0    0    0    0    0    0    0
    9         1    0    0    0    0    0    0    0    0    0
   10         1    0    0    0    0    0    0    0    0    0
   11         1    0    0    0    0    0    0    0    0    0
   12         1    0    0    0    0    0    0    0    0    0
   13         1    0    0    0    0    0    0    0    0    0
   14         1    0    0    0    0    0    0    0    0    0
   15         1    0    0    0    0    0    0    0    0    0
   16         1    0    0    0    0    0    0    0    0    0
   17         1    0    0    0    0    0    0    0    0    0
   18         1    0    0    0    0    0    0    0    0    0
   19         1    0    0    0    0    0    0    0    0    0
   20         1    0    0    0    0    0    0    0    0    0
   21         1    0    0    0    0    0    0    0    0    0
   22         1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ******************* PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
    1         4    0    0    0    0    0    0    0    0    0    1    9
    2         4    0    0    0    0    0    0    0    0    0    1    9
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  3          4     0     0     0     0     0     0     0     0     0     1     9
  4          4     0     0     0     0     0     0     0     0     0     1     9
  5          4     0     0     0     0     0     0     0     0     0     1     9
  6          4     0     0     0     0     0     0     0     0     0     1     9
  7          4     0     0     0     0     0     0     0     0     0     1     9
  8          4     0     0     0     0     0     0     0     0     0     1     9
  9          4     0     0     0     0     0     0     0     0     0     1     9
 10          4     0     0     0     0     0     0     0     0     0     1     9
 11          4     0     0     0     0     0     0     0     0     0     1     9
 12          4     0     0     0     0     0     0     0     0     0     1     9
 13          4     0     0     0     0     0     0     0     0     0     1     9
 14          4     0     0     0     0     0     0     0     0     0     1     9
 15          4     0     0     0     0     0     0     0     0     0     1     9
 16          4     0     0     0     0     0     0     0     0     0     1     9
 17          4     0     0     0     0     0     0     0     0     0     1     9
 18          4     0     0     0     0     0     0     0     0     0     1     9
 19          4     0     0     0     0     0     0     0     0     0     1     9
 20          4     0     0     0     0     0     0     0     0     0     1     9
 21          4     0     0     0     0     0     0     0     0     0     1     9
 22          4     0     0     0     0     0     0     0     0     0     1     9
END PRINT-INFO

HYDR-PARM1
  RCHRES  Flags for each HYDR Section                                          ***
  # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
         FG FG FG FG  possible  exit  *** possible  exit       possible  exit
          *  *  *  *    *  *  *  *  *       *  *  *  *  *          ***
  1       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
  2       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
  3       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
  4       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
  5       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
  6       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
  7       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
  8       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
  9       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 10       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
 11       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 12       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
 13       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 14       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
 15       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 16       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
 17       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 18       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
 19       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 20       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
 21       0  1  0  0    4  5  6  0  0       0  0  0  0  0        2  2  2  2  2
 22       0  1  0  0    4  0  0  0  0       0  0  0  0  0        2  2  2  2  2
END HYDR-PARM1

HYDR-PARM2
  # -  #    FTABNO       LEN      DELTH     STCOR        KS      DB50        ***
<------><--------><--------><--------><--------><--------><--------><        ***
  1              1      0.01       0.0       0.0       0.5       0.0
  2              2      0.03       0.0       0.0       0.5       0.0
  3              3      0.01       0.0       0.0       0.5       0.0
  4              4      0.01       0.0       0.0       0.5       0.0
  5              5      0.01       0.0       0.0       0.5       0.0
  6              6      0.01       0.0       0.0       0.5       0.0
  7              7      0.01       0.0       0.0       0.5       0.0
  8              8      0.01       0.0       0.0       0.5       0.0
  9              9      0.01       0.0       0.0       0.5       0.0
 10             10      0.02       0.0       0.0       0.5       0.0
 11             11      0.01       0.0       0.0       0.5       0.0
 12             12      0.12       0.0       0.0       0.5       0.0
 13             13      0.01       0.0       0.0       0.5       0.0
 14             14      0.01       0.0       0.0       0.5       0.0
 15             15      0.01       0.0       0.0       0.5       0.0
 16             16      0.03       0.0       0.0       0.5       0.0
```

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   17             17      0.01       0.0       0.0       0.5       0.0
   18             18      0.05       0.0       0.0       0.5       0.0
   19             19      0.01       0.0       0.0       0.5       0.0
   20             20      0.03       0.0       0.0       0.5       0.0
   21             21      0.01       0.0       0.0       0.5       0.0
   22             22      0.04       0.0       0.0       0.5       0.0
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                    ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
           *** ac-ft     for each possible exit        for each possible exit
  <------><--------->     <---><---><---><---><---> *** <---><---><---><---><--->
    1            0          4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    2            0          4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    3            0          4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    4            0          4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    5            0          4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    6            0          4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    7            0          4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    8            0          4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
    9            0          4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   10         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   11         0             4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   12         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   13         0             4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   14         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   15         0             4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   16         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   17         0             4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   18         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   19         0             4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   20         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   21         0             4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
   22         0             4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
  FTABLE      2
   54    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.017264  0.000000  0.000000
  0.047615  0.017264  0.000312  0.000000
  0.095231  0.017264  0.000625  0.000000
  0.142846  0.017264  0.000937  0.000000
  0.190462  0.017264  0.001249  0.000000
  0.238077  0.017264  0.001562  0.000000
  0.285692  0.017264  0.001874  0.000000
  0.333308  0.017264  0.002187  0.000000
  0.380923  0.017264  0.002499  0.000000
  0.428538  0.017264  0.002811  0.000000
  0.476154  0.017264  0.003124  0.000000
  0.523769  0.017264  0.003436  0.000265
  0.571385  0.017264  0.003748  0.000375
  0.619000  0.017264  0.004061  0.000459
  0.666615  0.017264  0.004373  0.000530
  0.714231  0.017264  0.004685  0.000592
  0.761846  0.017264  0.004998  0.000648
  0.809462  0.017264  0.005310  0.000700
  0.857077  0.017264  0.005623  0.000748
  0.904692  0.017264  0.005935  0.000794
  0.952308  0.017264  0.006247  0.000836
  0.999923  0.017264  0.006560  0.000877
  1.047538  0.017264  0.006872  0.000916
  1.095154  0.017264  0.007184  0.000953
  1.142769  0.017264  0.007497  0.000989
  1.190385  0.017264  0.007809  0.001024
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  1.238000  0.017264  0.008121  0.001057
  1.285615  0.017264  0.008434  0.001090
  1.333231  0.017264  0.008746  0.001121
  1.380846  0.017264  0.009059  0.001152
  1.428462  0.017264  0.009371  0.001182
  1.476077  0.017264  0.009683  0.001211
  1.523692  0.017264  0.010024  0.001239
  1.571308  0.017264  0.010366  0.001267
  1.618923  0.017264  0.010707  0.001294
  1.666538  0.017264  0.011048  0.001321
  1.714154  0.017264  0.011389  0.001348
  1.761769  0.017264  0.011730  0.001373
  1.809385  0.017264  0.012071  0.001399
  1.857000  0.017264  0.012412  0.001424
  1.904615  0.017264  0.012753  0.001449
  1.952231  0.017264  0.013095  0.001474
  1.999846  0.017264  0.013436  0.001499
  2.047462  0.017264  0.013777  0.001533
  2.095077  0.017264  0.014118  0.001570
  2.142692  0.017264  0.014459  0.001592
  2.190308  0.017264  0.014800  0.001613
  2.237923  0.017264  0.015141  0.001634
  2.285538  0.017264  0.015483  0.001655
  2.333154  0.017264  0.015824  0.001676
  2.380769  0.017264  0.016165  0.001696
  2.428385  0.017264  0.016506  0.001716
  2.476000  0.017264  0.016847  0.001736
  2.500000  0.017264  0.035740  0.001746
  END FTABLE  2
  FTABLE      1
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.017264  0.000000  0.000000  0.000000  0.000000
  0.047615  0.017264  0.000822  0.000000  0.001736  0.000000
  0.095231  0.017264  0.001644  0.000000  0.001736  0.000000
  0.142846  0.017264  0.002466  0.000000  0.001736  0.000000
  0.190462  0.017264  0.003288  0.000000  0.001736  0.000000
  0.238077  0.017264  0.004110  0.000000  0.001736  0.000000
  0.285692  0.017264  0.004932  0.000000  0.001736  0.000000
  0.333308  0.017264  0.005754  0.000000  0.001736  0.000000
  0.380923  0.017264  0.006576  0.000000  0.001736  0.000000
  0.428538  0.017264  0.007398  0.000000  0.001736  0.000000
  0.476154  0.017264  0.008220  0.000000  0.001736  0.000000
  0.523769  0.017264  0.009042  0.000000  0.001736  0.000000
  0.571385  0.017264  0.009864  0.000000  0.001736  0.000000
  0.619000  0.017264  0.010686  0.000000  0.001736  0.000000
  0.666615  0.017264  0.011508  0.000000  0.001736  0.000000
  0.714231  0.017264  0.012330  0.000000  0.001736  0.000000
  0.761846  0.017264  0.013152  0.000000  0.001736  0.000000
  0.809462  0.017264  0.013974  0.000000  0.001736  0.000000
  0.857077  0.017264  0.014796  0.019798  0.001736  0.000000
  0.904692  0.017264  0.015618  0.100154  0.001736  0.000000
  0.952308  0.017264  0.016440  0.202884  0.001736  0.000000
  0.999923  0.017264  0.017262  0.298041  0.001736  0.000000
  1.047538  0.017264  0.018084  0.362144  0.001736  0.000000
  1.095154  0.017264  0.018906  0.403160  0.001736  0.000000
  1.142769  0.017264  0.019728  0.438247  0.001736  0.000000
  1.190385  0.017264  0.020550  0.470725  0.001736  0.000000
  1.238000  0.017264  0.021372  0.501103  0.001736  0.000000
  1.285615  0.017264  0.022194  0.529742  0.001736  0.000000
  1.333231  0.017264  0.023016  0.556910  0.001736  0.000000
  1.380846  0.017264  0.023838  0.582813  0.001736  0.000000
  1.428462  0.017264  0.024660  0.607612  0.001736  0.000000
  1.476077  0.017264  0.025482  0.631438  0.001736  0.000000
  1.523692  0.017264  0.026304  0.654398  0.001736  0.000000
  1.571308  0.017264  0.027126  0.676579  0.001736  0.000000
  1.618923  0.017264  0.027948  0.698055  0.001736  0.000000
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  1.666538  0.017264  0.028770  0.718890  0.001736  0.000000
  1.714154  0.017264  0.029592  0.739138  0.001736  0.000000
  1.761769  0.017264  0.030414  0.758846  0.001736  0.000000
  1.809385  0.017264  0.031236  0.778054  0.001736  0.000000
  1.833000  0.017264  0.031644  0.796800  0.001736  0.000000
  END FTABLE  1
  FTABLE      4
   54    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.003352  0.000000  0.000000
  0.047615  0.003352  0.000061  0.000000
  0.095231  0.003352  0.000121  0.000000
  0.142846  0.003352  0.000182  0.000000
  0.190462  0.003352  0.000243  0.000000
  0.238077  0.003352  0.000303  0.000000
  0.285692  0.003352  0.000364  0.000000
  0.333308  0.003352  0.000425  0.000000
  0.380923  0.003352  0.000485  0.000000
  0.428538  0.003352  0.000546  0.000000
  0.476154  0.003352  0.000606  0.000000
  0.523769  0.003352  0.000667  0.000265
  0.571385  0.003352  0.000728  0.000375
  0.619000  0.003352  0.000788  0.000459
  0.666615  0.003352  0.000849  0.000530
  0.714231  0.003352  0.000910  0.000592
  0.761846  0.003352  0.000970  0.000648
  0.809462  0.003352  0.001031  0.000700
  0.857077  0.003352  0.001092  0.000748
  0.904692  0.003352  0.001152  0.000794
  0.952308  0.003352  0.001213  0.000836
  0.999923  0.003352  0.001274  0.000877
  1.047538  0.003352  0.001334  0.000916
  1.095154  0.003352  0.001395  0.000953
  1.142769  0.003352  0.001455  0.000989
  1.190385  0.003352  0.001516  0.001024
  1.238000  0.003352  0.001577  0.001057
  1.285615  0.003352  0.001637  0.001090
  1.333231  0.003352  0.001698  0.001121
  1.380846  0.003352  0.001759  0.001152
  1.428462  0.003352  0.001819  0.001182
  1.476077  0.003352  0.001880  0.001211
  1.523692  0.003352  0.001946  0.001239
  1.571308  0.003352  0.002012  0.001267
  1.618923  0.003352  0.002079  0.001294
  1.666538  0.003352  0.002145  0.001321
  1.714154  0.003352  0.002211  0.001348
  1.761769  0.003352  0.002277  0.001373
  1.809385  0.003352  0.002344  0.001399
  1.857000  0.003352  0.002410  0.001424
  1.904615  0.003352  0.002476  0.001449
  1.952231  0.003352  0.002542  0.001474
  1.999846  0.003352  0.002609  0.001499
  2.047462  0.003352  0.002675  0.001533
  2.095077  0.003352  0.002741  0.001570
  2.142692  0.003352  0.002807  0.001592
  2.190308  0.003352  0.002873  0.001613
  2.237923  0.003352  0.002940  0.001634
  2.285538  0.003352  0.003006  0.001655
  2.333154  0.003352  0.003072  0.001676
  2.380769  0.003352  0.003138  0.001696
  2.428385  0.003352  0.003205  0.001716
  2.476000  0.003352  0.003271  0.001736
  2.500000  0.003352  0.006939  0.001746
  END FTABLE  4
  FTABLE      3
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
```

```
(Minutes)***
  0.000000  0.003352  0.000000  0.000000  0.000000  0.000000
  0.047615  0.003352  0.000160  0.000000  0.001736  0.000000
  0.095231  0.003352  0.000319  0.000000  0.001736  0.000000
  0.142846  0.003352  0.000479  0.000000  0.001736  0.000000
  0.190462  0.003352  0.000638  0.000000  0.001736  0.000000
  0.238077  0.003352  0.000798  0.000000  0.001736  0.000000
  0.285692  0.003352  0.000958  0.000000  0.001736  0.000000
  0.333308  0.003352  0.001117  0.000000  0.001736  0.000000
  0.380923  0.003352  0.001277  0.000000  0.001736  0.000000
  0.428538  0.003352  0.001436  0.000000  0.001736  0.000000
  0.476154  0.003352  0.001596  0.000000  0.001736  0.000000
  0.523769  0.003352  0.001756  0.000000  0.001736  0.000000
  0.571385  0.003352  0.001915  0.000000  0.001736  0.000000
  0.619000  0.003352  0.002075  0.000000  0.001736  0.000000
  0.666615  0.003352  0.002234  0.000000  0.001736  0.000000
  0.714231  0.003352  0.002394  0.000000  0.001736  0.000000
  0.761846  0.003352  0.002553  0.000000  0.001736  0.000000
  0.809462  0.003352  0.002713  0.000000  0.001736  0.000000
  0.857077  0.003352  0.002873  0.019798  0.001736  0.000000
  0.904692  0.003352  0.003032  0.100154  0.001736  0.000000
  0.952308  0.003352  0.003192  0.202884  0.001736  0.000000
  0.999923  0.003352  0.003351  0.298041  0.001736  0.000000
  1.047538  0.003352  0.003511  0.362144  0.001736  0.000000
  1.095154  0.003352  0.003671  0.403160  0.001736  0.000000
  1.142769  0.003352  0.003830  0.438247  0.001736  0.000000
  1.190385  0.003352  0.003990  0.470725  0.001736  0.000000
  1.238000  0.003352  0.004149  0.501103  0.001736  0.000000
  1.285615  0.003352  0.004309  0.529742  0.001736  0.000000
  1.333231  0.003352  0.004469  0.556910  0.001736  0.000000
  1.380846  0.003352  0.004628  0.582813  0.001736  0.000000
  1.428462  0.003352  0.004788  0.607612  0.001736  0.000000
  1.476077  0.003352  0.004947  0.631438  0.001736  0.000000
  1.523692  0.003352  0.005107  0.654398  0.001736  0.000000
  1.571308  0.003352  0.005267  0.676579  0.001736  0.000000
  1.618923  0.003352  0.005426  0.698055  0.001736  0.000000
  1.666538  0.003352  0.005586  0.718890  0.001736  0.000000
  1.714154  0.003352  0.005745  0.739138  0.001736  0.000000
  1.761769  0.003352  0.005905  0.758846  0.001736  0.000000
  1.809385  0.003352  0.006065  0.778054  0.001736  0.000000
  1.833000  0.003352  0.006144  0.796800  0.001736  0.000000
  END FTABLE  3
  FTABLE      6
   54    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.005785  0.000000  0.000000
  0.047615  0.005785  0.000105  0.000000
  0.095231  0.005785  0.000209  0.000000
  0.142846  0.005785  0.000314  0.000000
  0.190462  0.005785  0.000419  0.000000
  0.238077  0.005785  0.000523  0.000000
  0.285692  0.005785  0.000628  0.000000
  0.333308  0.005785  0.000733  0.000000
  0.380923  0.005785  0.000837  0.000000
  0.428538  0.005785  0.000942  0.000000
  0.476154  0.005785  0.001047  0.000000
  0.523769  0.005785  0.001151  0.000265
  0.571385  0.005785  0.001256  0.000375
  0.619000  0.005785  0.001361  0.000459
  0.666615  0.005785  0.001465  0.000530
  0.714231  0.005785  0.001570  0.000592
  0.761846  0.005785  0.001675  0.000648
  0.809462  0.005785  0.001779  0.000700
  0.857077  0.005785  0.001884  0.000748
  0.904692  0.005785  0.001989  0.000794
  0.952308  0.005785  0.002094  0.000836
  0.999923  0.005785  0.002198  0.000877
  1.047538  0.005785  0.002303  0.000916
  1.095154  0.005785  0.002408  0.000953
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  1.142769  0.005785  0.002512  0.000989
  1.190385  0.005785  0.002617  0.001024
  1.238000  0.005785  0.002722  0.001057
  1.285615  0.005785  0.002826  0.001090
  1.333231  0.005785  0.002931  0.001121
  1.380846  0.005785  0.003036  0.001152
  1.428462  0.005785  0.003140  0.001182
  1.476077  0.005785  0.003245  0.001211
  1.523692  0.005785  0.003359  0.001239
  1.571308  0.005785  0.003474  0.001267
  1.618923  0.005785  0.003588  0.001294
  1.666538  0.005785  0.003702  0.001321
  1.714154  0.005785  0.003817  0.001348
  1.761769  0.005785  0.003931  0.001373
  1.809385  0.005785  0.004045  0.001399
  1.857000  0.005785  0.004159  0.001424
  1.904615  0.005785  0.004274  0.001449
  1.952231  0.005785  0.004388  0.001474
  1.999846  0.005785  0.004502  0.001499
  2.047462  0.005785  0.004617  0.001533
  2.095077  0.005785  0.004731  0.001570
  2.142692  0.005785  0.004845  0.001592
  2.190308  0.005785  0.004960  0.001613
  2.237923  0.005785  0.005074  0.001634
  2.285538  0.005785  0.005188  0.001655
  2.333154  0.005785  0.005303  0.001676
  2.380769  0.005785  0.005417  0.001696
  2.428385  0.005785  0.005531  0.001716
  2.476000  0.005785  0.005646  0.001736
  2.500000  0.005785  0.011977  0.001746
  END FTABLE  6
  FTABLE      5
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.005785  0.000000  0.000000  0.000000  0.000000
  0.047615  0.005785  0.000275  0.000000  0.001736  0.000000
  0.095231  0.005785  0.000551  0.000000  0.001736  0.000000
  0.142846  0.005785  0.000826  0.000000  0.001736  0.000000
  0.190462  0.005785  0.001102  0.000000  0.001736  0.000000
  0.238077  0.005785  0.001377  0.000000  0.001736  0.000000
  0.285692  0.005785  0.001653  0.000000  0.001736  0.000000
  0.333308  0.005785  0.001928  0.000000  0.001736  0.000000
  0.380923  0.005785  0.002204  0.000000  0.001736  0.000000
  0.428538  0.005785  0.002479  0.000000  0.001736  0.000000
  0.476154  0.005785  0.002755  0.000000  0.001736  0.000000
  0.523769  0.005785  0.003030  0.000000  0.001736  0.000000
  0.571385  0.005785  0.003306  0.000000  0.001736  0.000000
  0.619000  0.005785  0.003581  0.000000  0.001736  0.000000
  0.666615  0.005785  0.003856  0.000000  0.001736  0.000000
  0.714231  0.005785  0.004132  0.000000  0.001736  0.000000
  0.761846  0.005785  0.004407  0.000000  0.001736  0.000000
  0.809462  0.005785  0.004683  0.000000  0.001736  0.000000
  0.857077  0.005785  0.004958  0.019798  0.001736  0.000000
  0.904692  0.005785  0.005234  0.100154  0.001736  0.000000
  0.952308  0.005785  0.005509  0.202884  0.001736  0.000000
  0.999923  0.005785  0.005785  0.298041  0.001736  0.000000
  1.047538  0.005785  0.006060  0.362144  0.001736  0.000000
  1.095154  0.005785  0.006336  0.403160  0.001736  0.000000
  1.142769  0.005785  0.006611  0.438247  0.001736  0.000000
  1.190385  0.005785  0.006887  0.470725  0.001736  0.000000
  1.238000  0.005785  0.007162  0.501103  0.001736  0.000000
  1.285615  0.005785  0.007437  0.529742  0.001736  0.000000
  1.333231  0.005785  0.007713  0.556910  0.001736  0.000000
  1.380846  0.005785  0.007988  0.582813  0.001736  0.000000
  1.428462  0.005785  0.008264  0.607612  0.001736  0.000000
  1.476077  0.005785  0.008539  0.631438  0.001736  0.000000
  1.523692  0.005785  0.008815  0.654398  0.001736  0.000000
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1.571308  0.005785  0.009090  0.676579  0.001736  0.000000
1.618923  0.005785  0.009366  0.698055  0.001736  0.000000
1.666538  0.005785  0.009641  0.718890  0.001736  0.000000
1.714154  0.005785  0.009917  0.739138  0.001736  0.000000
1.761769  0.005785  0.010192  0.758846  0.001736  0.000000
1.809385  0.005785  0.010468  0.778054  0.001736  0.000000
1.833000  0.005785  0.010604  0.796800  0.001736  0.000000
END FTABLE  5
FTABLE      8
 54    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.005142  0.000000  0.000000
0.047615  0.005142  0.000093  0.000000
0.095231  0.005142  0.000186  0.000000
0.142846  0.005142  0.000279  0.000000
0.190462  0.005142  0.000372  0.000000
0.238077  0.005142  0.000465  0.000000
0.285692  0.005142  0.000558  0.000000
0.333308  0.005142  0.000651  0.000000
0.380923  0.005142  0.000744  0.000000
0.428538  0.005142  0.000837  0.000000
0.476154  0.005142  0.000930  0.000000
0.523769  0.005142  0.001023  0.000265
0.571385  0.005142  0.001117  0.000375
0.619000  0.005142  0.001210  0.000459
0.666615  0.005142  0.001303  0.000530
0.714231  0.005142  0.001396  0.000592
0.761846  0.005142  0.001489  0.000648
0.809462  0.005142  0.001582  0.000700
0.857077  0.005142  0.001675  0.000748
0.904692  0.005142  0.001768  0.000794
0.952308  0.005142  0.001861  0.000836
0.999923  0.005142  0.001954  0.000877
1.047538  0.005142  0.002047  0.000916
1.095154  0.005142  0.002140  0.000953
1.142769  0.005142  0.002233  0.000989
1.190385  0.005142  0.002326  0.001024
1.238000  0.005142  0.002419  0.001057
1.285615  0.005142  0.002512  0.001090
1.333231  0.005142  0.002605  0.001121
1.380846  0.005142  0.002698  0.001152
1.428462  0.005142  0.002791  0.001182
1.476077  0.005142  0.002884  0.001211
1.523692  0.005142  0.002986  0.001239
1.571308  0.005142  0.003088  0.001267
1.618923  0.005142  0.003189  0.001294
1.666538  0.005142  0.003291  0.001321
1.714154  0.005142  0.003392  0.001348
1.761769  0.005142  0.003494  0.001373
1.809385  0.005142  0.003596  0.001399
1.857000  0.005142  0.003697  0.001424
1.904615  0.005142  0.003799  0.001449
1.952231  0.005142  0.003901  0.001474
1.999846  0.005142  0.004002  0.001499
2.047462  0.005142  0.004104  0.001533
2.095077  0.005142  0.004205  0.001570
2.142692  0.005142  0.004307  0.001592
2.190308  0.005142  0.004409  0.001613
2.237923  0.005142  0.004510  0.001634
2.285538  0.005142  0.004612  0.001655
2.333154  0.005142  0.004713  0.001676
2.380769  0.005142  0.004815  0.001696
2.428385  0.005142  0.004917  0.001716
2.476000  0.005142  0.005018  0.001736
2.500000  0.005142  0.010646  0.001746
END FTABLE  8
FTABLE      7
 40    6
   Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
```

```
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.005142  0.000000  0.000000  0.000000  0.000000
  0.047615  0.005142  0.000245  0.000000  0.001736  0.000000
  0.095231  0.005142  0.000490  0.000000  0.001736  0.000000
  0.142846  0.005142  0.000735  0.000000  0.001736  0.000000
  0.190462  0.005142  0.000979  0.000000  0.001736  0.000000
  0.238077  0.005142  0.001224  0.000000  0.001736  0.000000
  0.285692  0.005142  0.001469  0.000000  0.001736  0.000000
  0.333308  0.005142  0.001714  0.000000  0.001736  0.000000
  0.380923  0.005142  0.001959  0.000000  0.001736  0.000000
  0.428538  0.005142  0.002204  0.000000  0.001736  0.000000
  0.476154  0.005142  0.002449  0.000000  0.001736  0.000000
  0.523769  0.005142  0.002693  0.000000  0.001736  0.000000
  0.571385  0.005142  0.002938  0.000000  0.001736  0.000000
  0.619000  0.005142  0.003183  0.000000  0.001736  0.000000
  0.666615  0.005142  0.003428  0.000000  0.001736  0.000000
  0.714231  0.005142  0.003673  0.000000  0.001736  0.000000
  0.761846  0.005142  0.003918  0.000000  0.001736  0.000000
  0.809462  0.005142  0.004163  0.000000  0.001736  0.000000
  0.857077  0.005142  0.004407  0.019798  0.001736  0.000000
  0.904692  0.005142  0.004652  0.100154  0.001736  0.000000
  0.952308  0.005142  0.004897  0.202884  0.001736  0.000000
  0.999923  0.005142  0.005142  0.298041  0.001736  0.000000
  1.047538  0.005142  0.005387  0.362144  0.001736  0.000000
  1.095154  0.005142  0.005632  0.403160  0.001736  0.000000
  1.142769  0.005142  0.005876  0.438247  0.001736  0.000000
  1.190385  0.005142  0.006121  0.470725  0.001736  0.000000
  1.238000  0.005142  0.006366  0.501103  0.001736  0.000000
  1.285615  0.005142  0.006611  0.529742  0.001736  0.000000
  1.333231  0.005142  0.006856  0.556910  0.001736  0.000000
  1.380846  0.005142  0.007101  0.582813  0.001736  0.000000
  1.428462  0.005142  0.007346  0.607612  0.001736  0.000000
  1.476077  0.005142  0.007590  0.631438  0.001736  0.000000
  1.523692  0.005142  0.007835  0.654398  0.001736  0.000000
  1.571308  0.005142  0.008080  0.676579  0.001736  0.000000
  1.618923  0.005142  0.008325  0.698055  0.001736  0.000000
  1.666538  0.005142  0.008570  0.718890  0.001736  0.000000
  1.714154  0.005142  0.008815  0.739138  0.001736  0.000000
  1.761769  0.005142  0.009060  0.758846  0.001736  0.000000
  1.809385  0.005142  0.009304  0.778054  0.001736  0.000000
  1.833000  0.005142  0.009426  0.796800  0.001736  0.000000
  END FTABLE  7
  FTABLE     10
   54    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.014715  0.000000  0.000000
  0.047615  0.014715  0.000266  0.000000
  0.095231  0.014715  0.000533  0.000000
  0.142846  0.014715  0.000799  0.000000
  0.190462  0.014715  0.001065  0.000000
  0.238077  0.014715  0.001331  0.000000
  0.285692  0.014715  0.001598  0.000000
  0.333308  0.014715  0.001864  0.000000
  0.380923  0.014715  0.002130  0.000000
  0.428538  0.014715  0.002396  0.000000
  0.476154  0.014715  0.002663  0.000000
  0.523769  0.014715  0.002929  0.000265
  0.571385  0.014715  0.003195  0.000375
  0.619000  0.014715  0.003461  0.000459
  0.666615  0.014715  0.003728  0.000530
  0.714231  0.014715  0.003994  0.000592
  0.761846  0.014715  0.004260  0.000648
  0.809462  0.014715  0.004526  0.000700
  0.857077  0.014715  0.004793  0.000748
  0.904692  0.014715  0.005059  0.000794
  0.952308  0.014715  0.005325  0.000836
  0.999923  0.014715  0.005591  0.000877
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  1.047538  0.014715  0.005858  0.000916
  1.095154  0.014715  0.006124  0.000953
  1.142769  0.014715  0.006390  0.000989
  1.190385  0.014715  0.006656  0.001024
  1.238000  0.014715  0.006923  0.001057
  1.285615  0.014715  0.007189  0.001090
  1.333231  0.014715  0.007455  0.001121
  1.380846  0.014715  0.007721  0.001152
  1.428462  0.014715  0.007988  0.001182
  1.476077  0.014715  0.008254  0.001211
  1.523692  0.014715  0.008545  0.001239
  1.571308  0.014715  0.008836  0.001267
  1.618923  0.014715  0.009126  0.001294
  1.666538  0.014715  0.009417  0.001321
  1.714154  0.014715  0.009708  0.001348
  1.761769  0.014715  0.009999  0.001373
  1.809385  0.014715  0.010289  0.001399
  1.857000  0.014715  0.010580  0.001424
  1.904615  0.014715  0.010871  0.001449
  1.952231  0.014715  0.011162  0.001474
  1.999846  0.014715  0.011453  0.001499
  2.047462  0.014715  0.011743  0.001533
  2.095077  0.014715  0.012034  0.001570
  2.142692  0.014715  0.012325  0.001592
  2.190308  0.014715  0.012616  0.001613
  2.237923  0.014715  0.012906  0.001634
  2.285538  0.014715  0.013197  0.001655
  2.333154  0.014715  0.013488  0.001676
  2.380769  0.014715  0.013779  0.001696
  2.428385  0.014715  0.014070  0.001716
  2.476000  0.014715  0.014360  0.001736
  2.500000  0.014715  0.030465  0.001746
  END FTABLE 10
  FTABLE      9
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.014715  0.000000  0.000000  0.000000  0.000000
  0.047615  0.014715  0.000701  0.000000  0.001736  0.000000
  0.095231  0.014715  0.001401  0.000000  0.001736  0.000000
  0.142846  0.014715  0.002102  0.000000  0.001736  0.000000
  0.190462  0.014715  0.002803  0.000000  0.001736  0.000000
  0.238077  0.014715  0.003503  0.000000  0.001736  0.000000
  0.285692  0.014715  0.004204  0.000000  0.001736  0.000000
  0.333308  0.014715  0.004905  0.000000  0.001736  0.000000
  0.380923  0.014715  0.005605  0.000000  0.001736  0.000000
  0.428538  0.014715  0.006306  0.000000  0.001736  0.000000
  0.476154  0.014715  0.007007  0.000000  0.001736  0.000000
  0.523769  0.014715  0.007707  0.000000  0.001736  0.000000
  0.571385  0.014715  0.008408  0.000000  0.001736  0.000000
  0.619000  0.014715  0.009109  0.000000  0.001736  0.000000
  0.666615  0.014715  0.009809  0.000000  0.001736  0.000000
  0.714231  0.014715  0.010510  0.000000  0.001736  0.000000
  0.761846  0.014715  0.011211  0.000000  0.001736  0.000000
  0.809462  0.014715  0.011911  0.000000  0.001736  0.000000
  0.857077  0.014715  0.012612  0.019798  0.001736  0.000000
  0.904692  0.014715  0.013313  0.100154  0.001736  0.000000
  0.952308  0.014715  0.014014  0.202884  0.001736  0.000000
  0.999923  0.014715  0.014714  0.298041  0.001736  0.000000
  1.047538  0.014715  0.015415  0.362144  0.001736  0.000000
  1.095154  0.014715  0.016116  0.403160  0.001736  0.000000
  1.142769  0.014715  0.016816  0.438247  0.001736  0.000000
  1.190385  0.014715  0.017517  0.470725  0.001736  0.000000
  1.238000  0.014715  0.018218  0.501103  0.001736  0.000000
  1.285615  0.014715  0.018918  0.529742  0.001736  0.000000
  1.333231  0.014715  0.019619  0.556910  0.001736  0.000000
  1.380846  0.014715  0.020320  0.582813  0.001736  0.000000
  1.428462  0.014715  0.021020  0.607612  0.001736  0.000000
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1.476077  0.014715  0.021721  0.631438  0.001736  0.000000
1.523692  0.014715  0.022422  0.654398  0.001736  0.000000
1.571308  0.014715  0.023122  0.676579  0.001736  0.000000
1.618923  0.014715  0.023823  0.698055  0.001736  0.000000
1.666538  0.014715  0.024524  0.718890  0.001736  0.000000
1.714154  0.014715  0.025224  0.739138  0.001736  0.000000
1.761769  0.014715  0.025925  0.758846  0.001736  0.000000
1.809385  0.014715  0.026626  0.778054  0.001736  0.000000
1.833000  0.014715  0.026973  0.796800  0.001736  0.000000
END FTABLE  9
FTABLE     12
 54    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.075275  0.000000  0.000000
0.047615  0.075275  0.001362  0.000000
0.095231  0.075275  0.002724  0.000000
0.142846  0.075275  0.004086  0.000000
0.190462  0.075275  0.005448  0.000000
0.238077  0.075275  0.006810  0.000349
0.285692  0.075275  0.008172  0.000441
0.333308  0.075275  0.009534  0.000516
0.380923  0.075275  0.010896  0.000581
0.428538  0.075275  0.012258  0.000639
0.476154  0.075275  0.013620  0.000692
0.523769  0.075275  0.014982  0.000741
0.571385  0.075275  0.016344  0.000787
0.619000  0.075275  0.017706  0.000831
0.666615  0.075275  0.019068  0.000872
0.714231  0.075275  0.020430  0.000911
0.761846  0.075275  0.021792  0.000949
0.809462  0.075275  0.023154  0.000985
0.857077  0.075275  0.024516  0.001020
0.904692  0.075275  0.025878  0.001053
0.952308  0.075275  0.027240  0.001086
0.999923  0.075275  0.028602  0.001117
1.047538  0.075275  0.029965  0.001148
1.095154  0.075275  0.031327  0.001178
1.142769  0.075275  0.032689  0.001207
1.190385  0.075275  0.034051  0.001236
1.238000  0.075275  0.035413  0.001264
1.285615  0.075275  0.036775  0.001291
1.333231  0.075275  0.038137  0.001318
1.380846  0.075275  0.039499  0.001344
1.428462  0.075275  0.040861  0.001370
1.476077  0.075275  0.042223  0.001395
1.523692  0.075275  0.043710  0.001420
1.571308  0.075275  0.045198  0.001444
1.618923  0.075275  0.046685  0.001468
1.666538  0.075275  0.048173  0.001492
1.714154  0.075275  0.049660  0.001515
1.761769  0.075275  0.051148  0.001538
1.809385  0.075275  0.052635  0.001561
1.857000  0.075275  0.054122  0.001583
1.904615  0.075275  0.055610  0.001606
1.952231  0.075275  0.057097  0.001628
1.999846  0.075275  0.058585  0.001651
2.047462  0.075275  0.060072  0.001682
2.095077  0.075275  0.061560  0.001716
2.142692  0.075275  0.063047  0.001736
2.190308  0.075275  0.064535  0.001756
2.237923  0.075275  0.066022  0.001775
2.285538  0.075275  0.067510  0.001794
2.333154  0.075275  0.068997  0.001813
2.380769  0.075275  0.070485  0.001832
2.428385  0.075275  0.071972  0.001850
2.476000  0.075275  0.073460  0.001869
2.500000  0.075275  0.155840  0.001878
END FTABLE 12
FTABLE     11
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   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.075275  0.000000  0.000000  0.000000  0.000000
  0.047615  0.075275  0.003584  0.000000  0.001869  0.000000
  0.095231  0.075275  0.007169  0.000000  0.001869  0.000000
  0.142846  0.075275  0.010753  0.000000  0.001869  0.000000
  0.190462  0.075275  0.014337  0.000000  0.001869  0.000000
  0.238077  0.075275  0.017921  0.000000  0.001869  0.000000
  0.285692  0.075275  0.021506  0.000000  0.001869  0.000000
  0.333308  0.075275  0.025090  0.000000  0.001869  0.000000
  0.380923  0.075275  0.028674  0.000000  0.001869  0.000000
  0.428538  0.075275  0.032258  0.000000  0.001869  0.000000
  0.476154  0.075275  0.035843  0.000000  0.001869  0.000000
  0.523769  0.075275  0.039427  0.000000  0.001869  0.000000
  0.571385  0.075275  0.043011  0.000000  0.001869  0.000000
  0.619000  0.075275  0.046596  0.000000  0.001869  0.000000
  0.666615  0.075275  0.050180  0.000000  0.001869  0.000000
  0.714231  0.075275  0.053764  0.000000  0.001869  0.000000
  0.761846  0.075275  0.057348  0.000000  0.001869  0.000000
  0.809462  0.075275  0.060933  0.000000  0.001869  0.000000
  0.857077  0.075275  0.064517  0.019798  0.001869  0.000000
  0.904692  0.075275  0.068101  0.100154  0.001869  0.000000
  0.952308  0.075275  0.071685  0.202884  0.001869  0.000000
  0.999923  0.075275  0.075270  0.298041  0.001869  0.000000
  1.047538  0.075275  0.078854  0.362144  0.001869  0.000000
  1.095154  0.075275  0.082438  0.403160  0.001869  0.000000
  1.142769  0.075275  0.086023  0.438247  0.001869  0.000000
  1.190385  0.075275  0.089607  0.470725  0.001869  0.000000
  1.238000  0.075275  0.093191  0.501103  0.001869  0.000000
  1.285615  0.075275  0.096775  0.529742  0.001869  0.000000
  1.333231  0.075275  0.100360  0.556910  0.001869  0.000000
  1.380846  0.075275  0.103944  0.582813  0.001869  0.000000
  1.428462  0.075275  0.107528  0.607612  0.001869  0.000000
  1.476077  0.075275  0.111112  0.631438  0.001869  0.000000
  1.523692  0.075275  0.114697  0.654398  0.001869  0.000000
  1.571308  0.075275  0.118281  0.676579  0.001869  0.000000
  1.618923  0.075275  0.121865  0.698055  0.001869  0.000000
  1.666538  0.075275  0.125449  0.718890  0.001869  0.000000
  1.714154  0.075275  0.129034  0.739138  0.001869  0.000000
  1.761769  0.075275  0.132618  0.758846  0.001869  0.000000
  1.809385  0.075275  0.136202  0.778054  0.001869  0.000000
  1.833000  0.075275  0.137980  0.796800  0.001869  0.000000
  END FTABLE 11
  FTABLE     14
   54    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.001010  0.000000  0.000000
  0.047615  0.001010  0.000018  0.000000
  0.095231  0.001010  0.000037  0.000000
  0.142846  0.001010  0.000055  0.000000
  0.190462  0.001010  0.000073  0.000000
  0.238077  0.001010  0.000091  0.000000
  0.285692  0.001010  0.000110  0.000000
  0.333308  0.001010  0.000128  0.000000
  0.380923  0.001010  0.000146  0.000000
  0.428538  0.001010  0.000164  0.000000
  0.476154  0.001010  0.000183  0.000000
  0.523769  0.001010  0.000201  0.000113
  0.571385  0.001010  0.000219  0.000133
  0.619000  0.001010  0.000238  0.000180
  0.666615  0.001010  0.000256  0.000237
  0.714231  0.001010  0.000274  0.000265
  0.761846  0.001010  0.000292  0.000375
  0.809462  0.001010  0.000311  0.000424
  0.857077  0.001010  0.000329  0.000459
  0.904692  0.001010  0.000347  0.000530
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  0.952308  0.001010  0.000366  0.000592
  0.999923  0.001010  0.000384  0.000648
  1.047538  0.001010  0.000402  0.000700
  1.095154  0.001010  0.000420  0.000748
  1.142769  0.001010  0.000439  0.000794
  1.190385  0.001010  0.000457  0.000836
  1.238000  0.001010  0.000475  0.000877
  1.285615  0.001010  0.000493  0.000916
  1.333231  0.001010  0.000512  0.000953
  1.380846  0.001010  0.000530  0.000989
  1.428462  0.001010  0.000548  0.001024
  1.476077  0.001010  0.000567  0.001057
  1.523692  0.001010  0.000587  0.001090
  1.571308  0.001010  0.000606  0.001121
  1.618923  0.001010  0.000626  0.001152
  1.666538  0.001010  0.000646  0.001182
  1.714154  0.001010  0.000666  0.001211
  1.761769  0.001010  0.000686  0.001239
  1.809385  0.001010  0.000706  0.001267
  1.857000  0.001010  0.000726  0.001294
  1.904615  0.001010  0.000746  0.001321
  1.952231  0.001010  0.000766  0.001348
  1.999846  0.001010  0.000786  0.001373
  2.047462  0.001010  0.000806  0.001399
  2.095077  0.001010  0.000826  0.001424
  2.142692  0.001010  0.000846  0.001449
  2.190308  0.001010  0.000866  0.001474
  2.237923  0.001010  0.000886  0.001499
  2.285538  0.001010  0.000906  0.001533
  2.333154  0.001010  0.000926  0.001570
  2.380769  0.001010  0.000946  0.001592
  2.428385  0.001010  0.000966  0.001613
  2.476000  0.001010  0.000986  0.001634
  2.500000  0.001010  0.002091  0.001645
  END FTABLE 14
  FTABLE     13
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.001010  0.000000  0.000000  0.000000  0.000000
  0.047615  0.001010  0.000048  0.000000  0.001634  0.000000
  0.095231  0.001010  0.000096  0.000000  0.001634  0.000000
  0.142846  0.001010  0.000144  0.000000  0.001634  0.000000
  0.190462  0.001010  0.000192  0.000000  0.001634  0.000000
  0.238077  0.001010  0.000240  0.000000  0.001634  0.000000
  0.285692  0.001010  0.000289  0.000000  0.001634  0.000000
  0.333308  0.001010  0.000337  0.000000  0.001634  0.000000
  0.380923  0.001010  0.000385  0.000000  0.001634  0.000000
  0.428538  0.001010  0.000433  0.000000  0.001634  0.000000
  0.476154  0.001010  0.000481  0.000000  0.001634  0.000000
  0.523769  0.001010  0.000529  0.000000  0.001634  0.000000
  0.571385  0.001010  0.000577  0.000000  0.001634  0.000000
  0.619000  0.001010  0.000625  0.000000  0.001634  0.000000
  0.666615  0.001010  0.000673  0.000000  0.001634  0.000000
  0.714231  0.001010  0.000721  0.000000  0.001634  0.000000
  0.761846  0.001010  0.000770  0.000000  0.001634  0.000000
  0.809462  0.001010  0.000818  0.000000  0.001634  0.000000
  0.857077  0.001010  0.000866  0.019798  0.001634  0.000000
  0.904692  0.001010  0.000914  0.100154  0.001634  0.000000
  0.952308  0.001010  0.000962  0.202884  0.001634  0.000000
  0.999923  0.001010  0.001010  0.298041  0.001634  0.000000
  1.047538  0.001010  0.001058  0.362144  0.001634  0.000000
  1.095154  0.001010  0.001106  0.403160  0.001634  0.000000
  1.142769  0.001010  0.001154  0.438247  0.001634  0.000000
  1.190385  0.001010  0.001202  0.470725  0.001634  0.000000
  1.238000  0.001010  0.001251  0.501103  0.001634  0.000000
  1.285615  0.001010  0.001299  0.529742  0.001634  0.000000
  1.333231  0.001010  0.001347  0.556910  0.001634  0.000000
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1.380846  0.001010  0.001395  0.582813  0.001634  0.000000
1.428462  0.001010  0.001443  0.607612  0.001634  0.000000
1.476077  0.001010  0.001491  0.631438  0.001634  0.000000
1.523692  0.001010  0.001539  0.654398  0.001634  0.000000
1.571308  0.001010  0.001587  0.676579  0.001634  0.000000
1.618923  0.001010  0.001635  0.698055  0.001634  0.000000
1.666538  0.001010  0.001683  0.718890  0.001634  0.000000
1.714154  0.001010  0.001731  0.739138  0.001634  0.000000
1.761769  0.001010  0.001780  0.758846  0.001634  0.000000
1.809385  0.001010  0.001828  0.778054  0.001634  0.000000
1.833000  0.001010  0.001852  0.796800  0.001634  0.000000
END FTABLE 13
FTABLE     16
 54    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.018021  0.000000  0.000000
0.047615  0.018021  0.000326  0.000000
0.095231  0.018021  0.000652  0.000000
0.142846  0.018021  0.000978  0.000000
0.190462  0.018021  0.001304  0.000000
0.238077  0.018021  0.001630  0.000000
0.285692  0.018021  0.001956  0.000000
0.333308  0.018021  0.002282  0.000000
0.380923  0.018021  0.002609  0.000000
0.428538  0.018021  0.002935  0.000000
0.476154  0.018021  0.003261  0.000000
0.523769  0.018021  0.003587  0.000265
0.571385  0.018021  0.003913  0.000375
0.619000  0.018021  0.004239  0.000459
0.666615  0.018021  0.004565  0.000530
0.714231  0.018021  0.004891  0.000592
0.761846  0.018021  0.005217  0.000648
0.809462  0.018021  0.005543  0.000700
0.857077  0.018021  0.005869  0.000748
0.904692  0.018021  0.006195  0.000794
0.952308  0.018021  0.006521  0.000836
0.999923  0.018021  0.006847  0.000877
1.047538  0.018021  0.007174  0.000916
1.095154  0.018021  0.007500  0.000953
1.142769  0.018021  0.007826  0.000989
1.190385  0.018021  0.008152  0.001024
1.238000  0.018021  0.008478  0.001057
1.285615  0.018021  0.008804  0.001090
1.333231  0.018021  0.009130  0.001121
1.380846  0.018021  0.009456  0.001152
1.428462  0.018021  0.009782  0.001182
1.476077  0.018021  0.010108  0.001211
1.523692  0.018021  0.010464  0.001239
1.571308  0.018021  0.010820  0.001267
1.618923  0.018021  0.011177  0.001294
1.666538  0.018021  0.011533  0.001321
1.714154  0.018021  0.011889  0.001348
1.761769  0.018021  0.012245  0.001373
1.809385  0.018021  0.012601  0.001399
1.857000  0.018021  0.012957  0.001424
1.904615  0.018021  0.013313  0.001449
1.952231  0.018021  0.013669  0.001474
1.999846  0.018021  0.014025  0.001499
2.047462  0.018021  0.014381  0.001533
2.095077  0.018021  0.014738  0.001570
2.142692  0.018021  0.015094  0.001592
2.190308  0.018021  0.015450  0.001613
2.237923  0.018021  0.015806  0.001634
2.285538  0.018021  0.016162  0.001655
2.333154  0.018021  0.016518  0.001676
2.380769  0.018021  0.016874  0.001696
2.428385  0.018021  0.017230  0.001716
2.476000  0.018021  0.017586  0.001736
2.500000  0.018021  0.037308  0.001746
```

```
  END FTABLE 16
  FTABLE     15
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.018021  0.000000  0.000000  0.000000  0.000000
  0.047615  0.018021  0.000858  0.000000  0.001736  0.000000
  0.095231  0.018021  0.001716  0.000000  0.001736  0.000000
  0.142846  0.018021  0.002574  0.000000  0.001736  0.000000
  0.190462  0.018021  0.003432  0.000000  0.001736  0.000000
  0.238077  0.018021  0.004290  0.000000  0.001736  0.000000
  0.285692  0.018021  0.005148  0.000000  0.001736  0.000000
  0.333308  0.018021  0.006007  0.000000  0.001736  0.000000
  0.380923  0.018021  0.006865  0.000000  0.001736  0.000000
  0.428538  0.018021  0.007723  0.000000  0.001736  0.000000
  0.476154  0.018021  0.008581  0.000000  0.001736  0.000000
  0.523769  0.018021  0.009439  0.000000  0.001736  0.000000
  0.571385  0.018021  0.010297  0.000000  0.001736  0.000000
  0.619000  0.018021  0.011155  0.000000  0.001736  0.000000
  0.666615  0.018021  0.012013  0.000000  0.001736  0.000000
  0.714231  0.018021  0.012871  0.000000  0.001736  0.000000
  0.761846  0.018021  0.013729  0.000000  0.001736  0.000000
  0.809462  0.018021  0.014587  0.000000  0.001736  0.000000
  0.857077  0.018021  0.015445  0.019798  0.001736  0.000000
  0.904692  0.018021  0.016304  0.100154  0.001736  0.000000
  0.952308  0.018021  0.017162  0.202884  0.001736  0.000000
  0.999923  0.018021  0.018020  0.298041  0.001736  0.000000
  1.047538  0.018021  0.018878  0.362144  0.001736  0.000000
  1.095154  0.018021  0.019736  0.403160  0.001736  0.000000
  1.142769  0.018021  0.020594  0.438247  0.001736  0.000000
  1.190385  0.018021  0.021452  0.470725  0.001736  0.000000
  1.238000  0.018021  0.022310  0.501103  0.001736  0.000000
  1.285615  0.018021  0.023168  0.529742  0.001736  0.000000
  1.333231  0.018021  0.024026  0.556910  0.001736  0.000000
  1.380846  0.018021  0.024884  0.582813  0.001736  0.000000
  1.428462  0.018021  0.025742  0.607612  0.001736  0.000000
  1.476077  0.018021  0.026601  0.631438  0.001736  0.000000
  1.523692  0.018021  0.027459  0.654398  0.001736  0.000000
  1.571308  0.018021  0.028317  0.676579  0.001736  0.000000
  1.618923  0.018021  0.029175  0.698055  0.001736  0.000000
  1.666538  0.018021  0.030033  0.718890  0.001736  0.000000
  1.714154  0.018021  0.030891  0.739138  0.001736  0.000000
  1.761769  0.018021  0.031749  0.758846  0.001736  0.000000
  1.809385  0.018021  0.032607  0.778054  0.001736  0.000000
  1.833000  0.018021  0.033033  0.796800  0.001736  0.000000
  END FTABLE 15
  FTABLE     18
   81    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.029500  0.000000  0.000000
  0.144725  0.029500  0.001622  0.000000
  0.289451  0.029500  0.003245  0.000406
  0.434176  0.029500  0.004867  0.000625
  0.578901  0.029500  0.006489  0.000776
  0.723626  0.029500  0.008112  0.000902
  0.868352  0.029500  0.009734  0.001012
  1.013077  0.029500  0.011356  0.001111
  1.157802  0.029500  0.012979  0.001202
  1.302527  0.029500  0.014601  0.001286
  1.447253  0.029500  0.016223  0.001366
  1.591978  0.029500  0.017995  0.001440
  1.736703  0.029500  0.019767  0.001511
  1.881429  0.029500  0.021539  0.001579
  2.026154  0.029500  0.023311  0.001644
  2.170879  0.029500  0.025082  0.001706
  2.315604  0.029500  0.026854  0.001767
  2.460330  0.029500  0.028626  0.001825
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  2.605055  0.029500  0.030398  0.001881
  2.749780  0.029500  0.032169  0.001936
  2.894505  0.029500  0.033941  0.001989
  3.039231  0.029500  0.035713  0.002041
  3.183956  0.029500  0.037485  0.002105
  3.328681  0.029500  0.039256  0.002202
  3.473407  0.029500  0.041028  0.002295
  3.618132  0.029500  0.042800  0.002384
  3.762857  0.029500  0.044572  0.002470
  3.907582  0.029500  0.046344  0.002553
  4.052308  0.029500  0.048115  0.002634
  4.197033  0.029500  0.049887  0.002712
  4.341758  0.029500  0.051659  0.002788
  4.486484  0.029500  0.053431  0.002862
  4.631209  0.029500  0.055202  0.002934
  4.775934  0.029500  0.056974  0.003004
  4.920659  0.029500  0.058746  0.003073
  5.065385  0.029500  0.060518  0.003140
  5.210110  0.029500  0.062290  0.003205
  5.354835  0.029500  0.064061  0.003270
  5.499560  0.029500  0.065833  0.003333
  5.644286  0.029500  0.067605  0.003395
  5.789011  0.029500  0.069377  0.003456
  5.933736  0.029500  0.071148  0.003516
  6.078462  0.029500  0.072920  0.003575
  6.223187  0.029500  0.074692  0.003632
  6.367912  0.029500  0.076464  0.003689
  6.512637  0.029500  0.078235  0.003745
  6.657363  0.029500  0.080007  0.003801
  6.802088  0.029500  0.081779  0.003855
  6.946813  0.029500  0.083551  0.003909
  7.091538  0.029500  0.085323  0.003962
  7.236264  0.029500  0.087094  0.004014
  7.380989  0.029500  0.088866  0.004066
  7.525714  0.029500  0.090638  0.004117
  7.670440  0.029500  0.092410  0.004167
  7.815165  0.029500  0.094181  0.004217
  7.959890  0.029500  0.095953  0.004266
  8.104615  0.029500  0.097725  0.004315
  8.249341  0.029500  0.099497  0.004363
  8.394066  0.029500  0.101268  0.004410
  8.538791  0.029500  0.103040  0.004457
  8.683516  0.029500  0.104812  0.004504
  8.828242  0.029500  0.106584  0.004550
  8.972967  0.029500  0.108356  0.004596
  9.117692  0.029500  0.110127  0.004641
  9.262418  0.029500  0.111899  0.004685
  9.407143  0.029500  0.113671  0.004730
  9.551868  0.029500  0.115443  0.004774
  9.696593  0.029500  0.117214  0.004817
  9.841319  0.029500  0.118986  0.004860
  9.986044  0.029500  0.120758  0.004903
  10.13077  0.029500  0.122530  0.004945
  10.27549  0.029500  0.124302  0.004987
  10.42022  0.029500  0.126073  0.005029
  10.56495  0.029500  0.127845  0.005071
  10.70967  0.029500  0.129617  0.005112
  10.85440  0.029500  0.131389  0.005152
  10.99912  0.029500  0.133160  0.005193
  11.14385  0.029500  0.134932  0.005233
  11.28857  0.029500  0.136704  0.005273
  11.43330  0.029500  0.138476  0.005320
  11.50000  0.029500  0.292514  0.005329
  END FTABLE 18
  FTABLE     17
   13    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
```

```
0.000000  0.029500  0.000000  0.000000  0.000000  0.000000
0.144725  0.029500  0.004269  0.000000  0.005320  0.000000
0.289451  0.029500  0.008539  0.000000  0.005320  0.000000
0.434176  0.029500  0.012808  0.000000  0.005320  0.000000
0.578901  0.029500  0.017077  0.000000  0.005320  0.000000
0.723626  0.029500  0.021347  0.065405  0.005320  0.000000
0.868352  0.029500  0.025616  0.344500  0.005320  0.000000
1.013077  0.029500  0.029885  0.461206  0.005320  0.000000
1.157802  0.029500  0.034155  0.549948  0.005320  0.000000
1.302527  0.029500  0.038424  0.626238  0.005320  0.000000
1.447253  0.029500  0.042693  0.694194  0.005320  0.000000
1.591978  0.029500  0.046963  0.756066  0.005320  0.000000
1.670000  0.029500  0.049264  0.813245  0.005320  0.000000
END FTABLE 17
FTABLE     20
 54    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.017792  0.000000  0.000000
0.047615  0.017792  0.000322  0.000000
0.095231  0.017792  0.000644  0.000000
0.142846  0.017792  0.000966  0.000000
0.190462  0.017792  0.001288  0.000000
0.238077  0.017792  0.001610  0.000000
0.285692  0.017792  0.001932  0.000000
0.333308  0.017792  0.002253  0.000000
0.380923  0.017792  0.002575  0.000000
0.428538  0.017792  0.002897  0.000000
0.476154  0.017792  0.003219  0.000000
0.523769  0.017792  0.003541  0.000265
0.571385  0.017792  0.003863  0.000375
0.619000  0.017792  0.004185  0.000459
0.666615  0.017792  0.004507  0.000530
0.714231  0.017792  0.004829  0.000592
0.761846  0.017792  0.005151  0.000648
0.809462  0.017792  0.005473  0.000700
0.857077  0.017792  0.005795  0.000748
0.904692  0.017792  0.006116  0.000794
0.952308  0.017792  0.006438  0.000836
0.999923  0.017792  0.006760  0.000877
1.047538  0.017792  0.007082  0.000916
1.095154  0.017792  0.007404  0.000953
1.142769  0.017792  0.007726  0.000989
1.190385  0.017792  0.008048  0.001024
1.238000  0.017792  0.008370  0.001057
1.285615  0.017792  0.008692  0.001090
1.333231  0.017792  0.009014  0.001121
1.380846  0.017792  0.009336  0.001152
1.428462  0.017792  0.009658  0.001182
1.476077  0.017792  0.009979  0.001211
1.523692  0.017792  0.010331  0.001239
1.571308  0.017792  0.010683  0.001267
1.618923  0.017792  0.011034  0.001294
1.666538  0.017792  0.011386  0.001321
1.714154  0.017792  0.011737  0.001348
1.761769  0.017792  0.012089  0.001373
1.809385  0.017792  0.012440  0.001399
1.857000  0.017792  0.012792  0.001424
1.904615  0.017792  0.013144  0.001449
1.952231  0.017792  0.013495  0.001474
1.999846  0.017792  0.013847  0.001499
2.047462  0.017792  0.014198  0.001533
2.095077  0.017792  0.014550  0.001570
2.142692  0.017792  0.014901  0.001592
2.190308  0.017792  0.015253  0.001613
2.237923  0.017792  0.015605  0.001634
2.285538  0.017792  0.015956  0.001655
2.333154  0.017792  0.016308  0.001676
2.380769  0.017792  0.016659  0.001696
2.428385  0.017792  0.017011  0.001716
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  2.476000  0.017792  0.017362  0.001736
  2.500000  0.017792  0.036833  0.001746
  END FTABLE 20
  FTABLE     19
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.017792  0.000000  0.000000  0.000000  0.000000
  0.047615  0.017792  0.000847  0.000000  0.001736  0.000000
  0.095231  0.017792  0.001694  0.000000  0.001736  0.000000
  0.142846  0.017792  0.002541  0.000000  0.001736  0.000000
  0.190462  0.017792  0.003389  0.000000  0.001736  0.000000
  0.238077  0.017792  0.004236  0.000000  0.001736  0.000000
  0.285692  0.017792  0.005083  0.000000  0.001736  0.000000
  0.333308  0.017792  0.005930  0.000000  0.001736  0.000000
  0.380923  0.017792  0.006777  0.000000  0.001736  0.000000
  0.428538  0.017792  0.007624  0.000000  0.001736  0.000000
  0.476154  0.017792  0.008472  0.000000  0.001736  0.000000
  0.523769  0.017792  0.009319  0.000000  0.001736  0.000000
  0.571385  0.017792  0.010166  0.000000  0.001736  0.000000
  0.619000  0.017792  0.011013  0.000000  0.001736  0.000000
  0.666615  0.017792  0.011860  0.000000  0.001736  0.000000
  0.714231  0.017792  0.012707  0.000000  0.001736  0.000000
  0.761846  0.017792  0.013554  0.000000  0.001736  0.000000
  0.809462  0.017792  0.014402  0.000000  0.001736  0.000000
  0.857077  0.017792  0.015249  0.019798  0.001736  0.000000
  0.904692  0.017792  0.016096  0.100154  0.001736  0.000000
  0.952308  0.017792  0.016943  0.202884  0.001736  0.000000
  0.999923  0.017792  0.017790  0.298041  0.001736  0.000000
  1.047538  0.017792  0.018637  0.362144  0.001736  0.000000
  1.095154  0.017792  0.019484  0.403160  0.001736  0.000000
  1.142769  0.017792  0.020332  0.438247  0.001736  0.000000
  1.190385  0.017792  0.021179  0.470725  0.001736  0.000000
  1.238000  0.017792  0.022026  0.501103  0.001736  0.000000
  1.285615  0.017792  0.022873  0.529742  0.001736  0.000000
  1.333231  0.017792  0.023720  0.556910  0.001736  0.000000
  1.380846  0.017792  0.024567  0.582813  0.001736  0.000000
  1.428462  0.017792  0.025415  0.607612  0.001736  0.000000
  1.476077  0.017792  0.026262  0.631438  0.001736  0.000000
  1.523692  0.017792  0.027109  0.654398  0.001736  0.000000
  1.571308  0.017792  0.027956  0.676579  0.001736  0.000000
  1.618923  0.017792  0.028803  0.698055  0.001736  0.000000
  1.666538  0.017792  0.029650  0.718890  0.001736  0.000000
  1.714154  0.017792  0.030497  0.739138  0.001736  0.000000
  1.761769  0.017792  0.031345  0.758846  0.001736  0.000000
  1.809385  0.017792  0.032192  0.778054  0.001736  0.000000
  1.833000  0.017792  0.032612  0.796800  0.001736  0.000000
  END FTABLE 19
  FTABLE     22
   54    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.022957  0.000000  0.000000
  0.047615  0.022957  0.000415  0.000000
  0.095231  0.022957  0.000831  0.000000
  0.142846  0.022957  0.001246  0.000000
  0.190462  0.022957  0.001662  0.000000
  0.238077  0.022957  0.002077  0.000000
  0.285692  0.022957  0.002492  0.000000
  0.333308  0.022957  0.002908  0.000000
  0.380923  0.022957  0.003323  0.000000
  0.428538  0.022957  0.003738  0.000000
  0.476154  0.022957  0.004154  0.000000
  0.523769  0.022957  0.004569  0.000265
  0.571385  0.022957  0.004985  0.000375
  0.619000  0.022957  0.005400  0.000459
  0.666615  0.022957  0.005815  0.000530
  0.714231  0.022957  0.006231  0.000592
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  0.761846  0.022957  0.006646  0.000648
  0.809462  0.022957  0.007061  0.000700
  0.857077  0.022957  0.007477  0.000748
  0.904692  0.022957  0.007892  0.000794
  0.952308  0.022957  0.008308  0.000836
  0.999923  0.022957  0.008723  0.000877
  1.047538  0.022957  0.009138  0.000916
  1.095154  0.022957  0.009554  0.000953
  1.142769  0.022957  0.009969  0.000989
  1.190385  0.022957  0.010384  0.001024
  1.238000  0.022957  0.010800  0.001057
  1.285615  0.022957  0.011215  0.001090
  1.333231  0.022957  0.011631  0.001121
  1.380846  0.022957  0.012046  0.001152
  1.428462  0.022957  0.012461  0.001182
  1.476077  0.022957  0.012877  0.001211
  1.523692  0.022957  0.013330  0.001239
  1.571308  0.022957  0.013784  0.001267
  1.618923  0.022957  0.014238  0.001294
  1.666538  0.022957  0.014691  0.001321
  1.714154  0.022957  0.015145  0.001348
  1.761769  0.022957  0.015599  0.001373
  1.809385  0.022957  0.016052  0.001399
  1.857000  0.022957  0.016506  0.001424
  1.904615  0.022957  0.016959  0.001449
  1.952231  0.022957  0.017413  0.001474
  1.999846  0.022957  0.017867  0.001499
  2.047462  0.022957  0.018320  0.001533
  2.095077  0.022957  0.018774  0.001570
  2.142692  0.022957  0.019228  0.001592
  2.190308  0.022957  0.019681  0.001613
  2.237923  0.022957  0.020135  0.001634
  2.285538  0.022957  0.020589  0.001655
  2.333154  0.022957  0.021042  0.001676
  2.380769  0.022957  0.021496  0.001696
  2.428385  0.022957  0.021949  0.001716
  2.476000  0.022957  0.022403  0.001736
  2.500000  0.022957  0.047527  0.001746
  END FTABLE 22
  FTABLE     21
   40    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.022957  0.000000  0.000000  0.000000  0.000000
  0.047615  0.022957  0.001093  0.000000  0.001736  0.000000
  0.095231  0.022957  0.002186  0.000000  0.001736  0.000000
  0.142846  0.022957  0.003279  0.000000  0.001736  0.000000
  0.190462  0.022957  0.004372  0.000000  0.001736  0.000000
  0.238077  0.022957  0.005465  0.000000  0.001736  0.000000
  0.285692  0.022957  0.006559  0.000000  0.001736  0.000000
  0.333308  0.022957  0.007652  0.000000  0.001736  0.000000
  0.380923  0.022957  0.008745  0.000000  0.001736  0.000000
  0.428538  0.022957  0.009838  0.000000  0.001736  0.000000
  0.476154  0.022957  0.010931  0.000000  0.001736  0.000000
  0.523769  0.022957  0.012024  0.000000  0.001736  0.000000
  0.571385  0.022957  0.013117  0.000000  0.001736  0.000000
  0.619000  0.022957  0.014210  0.000000  0.001736  0.000000
  0.666615  0.022957  0.015303  0.000000  0.001736  0.000000
  0.714231  0.022957  0.016396  0.000000  0.001736  0.000000
  0.761846  0.022957  0.017490  0.000000  0.001736  0.000000
  0.809462  0.022957  0.018583  0.000000  0.001736  0.000000
  0.857077  0.022957  0.019676  0.019798  0.001736  0.000000
  0.904692  0.022957  0.020769  0.100154  0.001736  0.000000
  0.952308  0.022957  0.021862  0.202884  0.001736  0.000000
  0.999923  0.022957  0.022955  0.298041  0.001736  0.000000
  1.047538  0.022957  0.024048  0.362144  0.001736  0.000000
  1.095154  0.022957  0.025141  0.403160  0.001736  0.000000
  1.142769  0.022957  0.026234  0.438247  0.001736  0.000000
```

```
  1.190385  0.022957  0.027327  0.470725  0.001736  0.000000
  1.238000  0.022957  0.028421  0.501103  0.001736  0.000000
  1.285615  0.022957  0.029514  0.529742  0.001736  0.000000
  1.333231  0.022957  0.030607  0.556910  0.001736  0.000000
  1.380846  0.022957  0.031700  0.582813  0.001736  0.000000
  1.428462  0.022957  0.032793  0.607612  0.001736  0.000000
  1.476077  0.022957  0.033886  0.631438  0.001736  0.000000
  1.523692  0.022957  0.034979  0.654398  0.001736  0.000000
  1.571308  0.022957  0.036072  0.676579  0.001736  0.000000
  1.618923  0.022957  0.037165  0.698055  0.001736  0.000000
  1.666538  0.022957  0.038258  0.718890  0.001736  0.000000
  1.714154  0.022957  0.039352  0.739138  0.001736  0.000000
  1.761769  0.022957  0.040445  0.758846  0.001736  0.000000
  1.809385  0.022957  0.041538  0.778054  0.001736  0.000000
  1.833000  0.022957  0.042080  0.796800  0.001736  0.000000
  END FTABLE 21
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.069          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.069          IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    1              PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    1              IMPLND   1 999 EXTNL  PETINP
WDM      2 PREC     ENGL    1.069          RCHRES   1     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES   3     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES   5     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES   7     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES   9     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES  11     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES  13     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES  15     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES  17     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES  19     EXTNL  PREC
WDM      2 PREC     ENGL    1.069          RCHRES  21     EXTNL  PREC
WDM      1 EVAP     ENGL    0.5            RCHRES   1     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   2     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   3     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   4     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   5     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   6     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   7     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   8     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   9     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  10     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  11     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  12     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  13     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  14     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  15     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  16     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  17     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  18     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  19     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  20     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  21     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  22     EXTNL  POTEV

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
RCHRES   2 HYDR   RO     1 1        1      WDM   1006 FLOW     ENGL      REPL
RCHRES   2 HYDR   STAGE  1 1        1      WDM   1007 STAG     ENGL      REPL
RCHRES   1 HYDR   STAGE  1 1        1      WDM   1008 STAG     ENGL      REPL
RCHRES   1 HYDR   O      1 1        1      WDM   1009 FLOW     ENGL      REPL
COPY     1 OUTPUT MEAN   1 1     12.1      WDM    701 FLOW     ENGL      REPL
COPY   501 OUTPUT MEAN   1 1     12.1      WDM    801 FLOW     ENGL      REPL
```

```
RCHRES   4 HYDR   RO     1 1         1      WDM   1010 FLOW     ENGL      REPL
RCHRES   4 HYDR   STAGE  1 1         1      WDM   1011 STAG     ENGL      REPL
RCHRES   3 HYDR   STAGE  1 1         1      WDM   1012 STAG     ENGL      REPL
RCHRES   3 HYDR   O      1 1         1      WDM   1013 FLOW     ENGL      REPL
RCHRES   6 HYDR   RO     1 1         1      WDM   1026 FLOW     ENGL      REPL
RCHRES   6 HYDR   STAGE  1 1         1      WDM   1027 STAG     ENGL      REPL
RCHRES   5 HYDR   STAGE  1 1         1      WDM   1028 STAG     ENGL      REPL
RCHRES   5 HYDR   O      1 1         1      WDM   1029 FLOW     ENGL      REPL
RCHRES   8 HYDR   RO     1 1         1      WDM   1030 FLOW     ENGL      REPL
RCHRES   8 HYDR   STAGE  1 1         1      WDM   1031 STAG     ENGL      REPL
RCHRES   7 HYDR   STAGE  1 1         1      WDM   1032 STAG     ENGL      REPL
RCHRES   7 HYDR   O      1 1         1      WDM   1033 FLOW     ENGL      REPL
RCHRES  10 HYDR   RO     1 1         1      WDM   1034 FLOW     ENGL      REPL
RCHRES  10 HYDR   STAGE  1 1         1      WDM   1035 STAG     ENGL      REPL
RCHRES   9 HYDR   STAGE  1 1         1      WDM   1036 STAG     ENGL      REPL
RCHRES   9 HYDR   O      1 1         1      WDM   1037 FLOW     ENGL      REPL
RCHRES  12 HYDR   RO     1 1         1      WDM   1044 FLOW     ENGL      REPL
RCHRES  12 HYDR   STAGE  1 1         1      WDM   1045 STAG     ENGL      REPL
RCHRES  11 HYDR   STAGE  1 1         1      WDM   1046 STAG     ENGL      REPL
RCHRES  11 HYDR   O      1 1         1      WDM   1047 FLOW     ENGL      REPL
RCHRES  14 HYDR   RO     1 1         1      WDM   1048 FLOW     ENGL      REPL
RCHRES  14 HYDR   STAGE  1 1         1      WDM   1049 STAG     ENGL      REPL
RCHRES  13 HYDR   STAGE  1 1         1      WDM   1050 STAG     ENGL      REPL
RCHRES  13 HYDR   O      1 1         1      WDM   1051 FLOW     ENGL      REPL
RCHRES  16 HYDR   RO     1 1         1      WDM   1052 FLOW     ENGL      REPL
RCHRES  16 HYDR   STAGE  1 1         1      WDM   1053 STAG     ENGL      REPL
RCHRES  15 HYDR   STAGE  1 1         1      WDM   1054 STAG     ENGL      REPL
RCHRES  15 HYDR   O      1 1         1      WDM   1055 FLOW     ENGL      REPL
RCHRES  18 HYDR   RO     1 1         1      WDM   1056 FLOW     ENGL      REPL
RCHRES  18 HYDR   STAGE  1 1         1      WDM   1057 STAG     ENGL      REPL
RCHRES  17 HYDR   STAGE  1 1         1      WDM   1058 STAG     ENGL      REPL
RCHRES  17 HYDR   O      1 1         1      WDM   1059 FLOW     ENGL      REPL
RCHRES  20 HYDR   RO     1 1         1      WDM   1068 FLOW     ENGL      REPL
RCHRES  20 HYDR   STAGE  1 1         1      WDM   1069 STAG     ENGL      REPL
RCHRES  19 HYDR   STAGE  1 1         1      WDM   1070 STAG     ENGL      REPL
RCHRES  19 HYDR   O      1 1         1      WDM   1071 FLOW     ENGL      REPL
RCHRES  22 HYDR   RO     1 1         1      WDM   1072 FLOW     ENGL      REPL
RCHRES  22 HYDR   STAGE  1 1         1      WDM   1073 STAG     ENGL      REPL
RCHRES  21 HYDR   STAGE  1 1         1      WDM   1074 STAG     ENGL      REPL
RCHRES  21 HYDR   O      1 1         1      WDM   1075 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>             <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK         5
IMPLND     IWATER SURO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     5

  MASS-LINK         8
RCHRES     OFLOW  OVOL   2                 RCHRES         INFLOW IVOL
  END MASS-LINK     8

  MASS-LINK        15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    15

  MASS-LINK        16
RCHRES     ROFLOW                          COPY           INPUT  MEAN
  END MASS-LINK    16

  MASS-LINK        17
RCHRES     OFLOW  OVOL   1                 COPY           INPUT  MEAN
  END MASS-LINK    17


END MASS-LINK

END RUN
```

Predeveloped HSPF Message File

Mitigated HSPF Message File

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