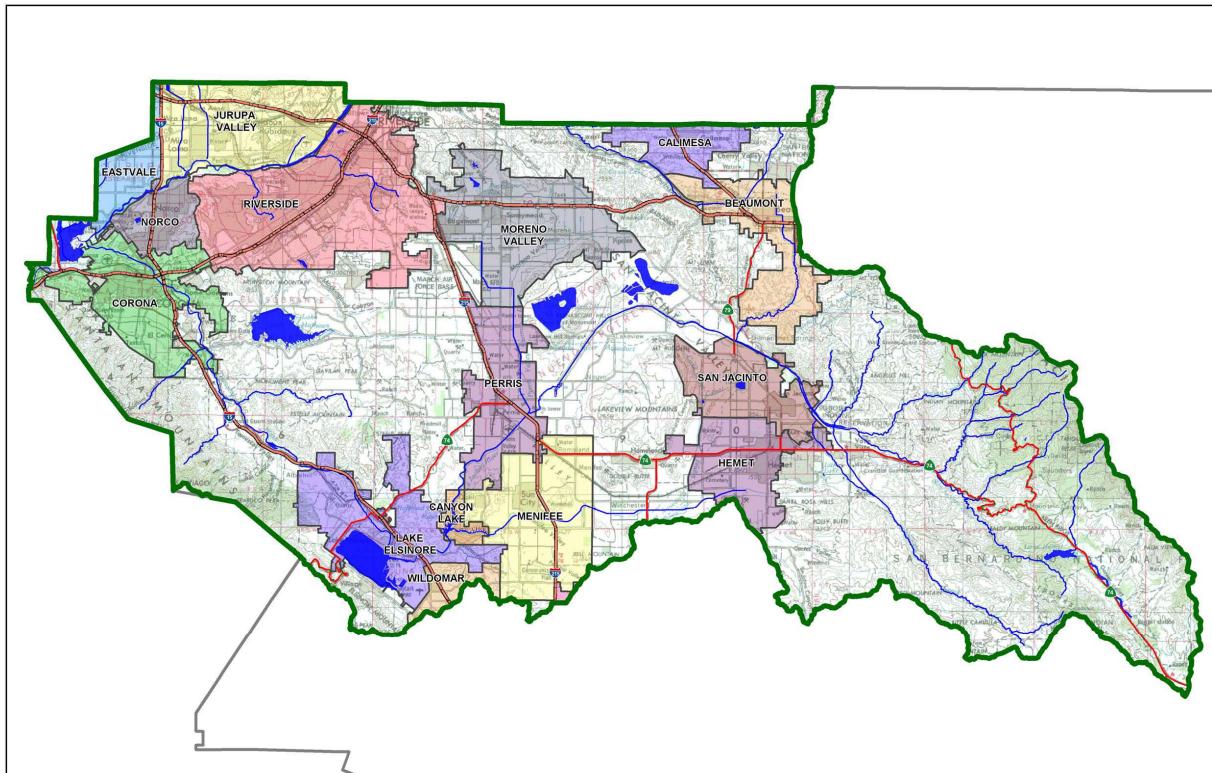


Project Specific Water Quality Management Plan

Project Title: Majestic Freeway Business Center, Building 13

Development No: BGR xxxxx

Design Review/Case No: PPT220008



- Preliminary
- Final

Original Date Prepared: December, 2021

Revision Date(s): May, 2022

August, 2022, January, 2023, August, 2023

*Prepared for Compliance with
Regional Board Order No. R8-2010-0033*

Contact Information:

Prepared for:

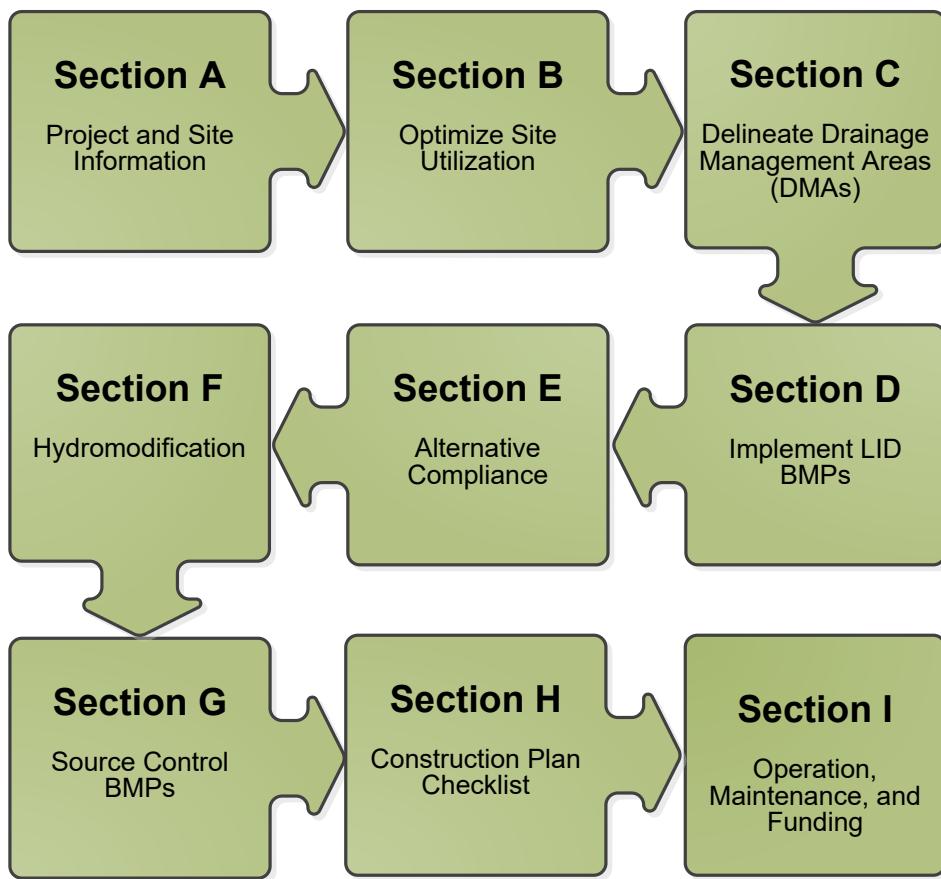
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A Brief Introduction

This Project-Specific WQMP for the **Santa Ana Region** has been prepared to document compliance for this project. This document has been designed to specifically document compliance, and was prepared in accordance with the WQMP Guidance Document provided by Riverside County. Below is a flowchart for the layout of this WQMP that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Majestic Freeway Business Center, LLC, by PBLA Engineering, Inc. for the Majestic Freeway Business Center, Building 13 project.

This WQMP is intended to comply with the requirements of Riverside County Ordinance 754 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under Riverside County Water Quality Ordinance (Municipal Code Title 13, Chapter 13.12).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature

Date

Owner's Printed Name

Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature

12-18-21

Steve Levisee
Preparer's Printed Name

Date

Principal
Preparer's Title/Position

Preparer's Licensure: CA 45926



Table of Contents

Section A: Project and Site Information.....	6
A.1 Maps and Site Plans	6
A.2 Receiving Waters Identification.....	7
A.3 Additional Permits/Approvals required for the Project:	7
Section B: Optimize Site Utilization (LID Principles)	8
Section C: Delineate Drainage Management Areas (DMAs).....	9
Section D: Implement LID BMPs	11
D.1 Infiltration Applicability	11
D.2 Harvest and Use Assessment.....	12
D.3 Bioretention and Biotreatment Assessment	14
D.4 Feasibility Assessment Summaries	14
D.5 LID BMP Sizing	15
Section E: Alternative Compliance (LID Waiver Program)	16
E.1 Identify Pollutants of Concern	17
E.2 Stormwater Credits	18
E.3 Sizing Criteria.....	18
E.4 Treatment Control BMP Selection	19
Section F: Hydromodification	20
F.1 Hydrologic Conditions of Concern (HCOC) Analysis.....	20
F.2 HCOC Mitigation.....	21
Section G: Source Control BMPs.....	22
Section H: Construction Plan Checklist	25
Section I: Operation, Maintenance and Funding	26

List of Tables

Table A.1 Identification of Receiving Waters.....	7
Table A.2 Other Applicable Permits.....	7
Table C.1 DMA Classifications.....	9
Table C.2 Type 'A', Self-Treating Areas	9
Table C.3 Type 'B', Self-Retaining Areas	10
Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas.....	10
Table C.5 Type 'D', Areas Draining to BMPs	10
Table D.1 Infiltration Feasibility	11
Table D.2 LID Prioritization Summary Matrix	15
Table D.3.1 DCV Calculations for LID BMPs	15
Table E.1 Potential Pollutants by Land Use Type.....	17
Table E.2 Water Quality Credits.....	18
Table E.3 Treatment Control BMP Sizing	18
Table E.4 Treatment Control BMP Selection	19
Table F.1 Hydrologic Conditions of Concern Summary	20
Table G.1 Permanent and Operational Source Control Measures	22
Table H.1 Construction Plan Cross-reference	25

List of Appendices

Appendix 1: Maps and Site Plans.....	27
Appendix 2: Construction Plans	28
Appendix 3: Soils Information.....	29
Appendix 4: Historical Site Conditions.....	30
Appendix 5: LID Infeasibility.....	31
Appendix 6: BMP Design Details	32
Appendix 7: Hydromodification	33
Appendix 8: Source Control	34
Appendix 9: O&M	35
Appendix 10: Triton Inlet Filter Data	35
Appendix 11: Educational Materials	36

Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Light Industrial
Planning Area:	Riverside County
Community Name:	Perris
Development Name:	Majestic Freeway Business Center, Building 13
PROJECT LOCATION	
Latitude & Longitude (DMS): 33° 50' 15", 117° 15' 29"	
Project Watershed and Sub-Watershed: Santa Ana, Perris Valley	
APN(s): 314-130-015, 023, 024, 026, 027	
Map Book and Page No.: PM 63/47	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Industrial
Proposed or Potential SIC Code(s)	4225, 4214
Total Area of Project Footprint (SF)	767,900
Total Area of <u>proposed</u> Impervious Surfaces within the Project Limits (SF)/or Replacement	603,291
Does the project consist of offsite road improvements?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Does the project propose to construct unpaved roads?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Is the project part of a larger common plan of development (phased project)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
EXISTING SITE CHARACTERISTICS	
Total area of <u>existing</u> Impervious Surfaces within the project limits (SF)	0
Is the project located within any MSHCP Criteria Cell?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Is a Geotechnical Report attached?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D) –	A & B
What is the Water Quality Design Storm Depth for the project?	0.58"

Majestic Freeway Business Center, LLC is proposing to develop a single logistics industrial building on approximately 17.6 acres of land in the County of Riverside. The property is located west of Harvill Avenue, north of Martin Street and Perry Street. The property is vacant and unimproved. The natural drainage pattern flows towards the intersection of Perry and Harvill at the north east corner of the site. An existing inlet headwall & apron drains the site into existing storm drain that directs flows toward the east. The majority of the site will be directed to the north into a Bio-retention basin for treatment. Adjacent street widening is directed to self-retaining areas, but the amount of area available is limited and does not attain the 1:2 ratio needed. The basin at the northeast corner cannot be used for the street areas as the required basin depth is higher than adjacent street elevations. The site and adjacent streets are treated to the maximum extent practicable.

A.1 Maps and Site Plans

Attached are a Vicinity Map along with a WQMP Site Plan which includes the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

A.2 Receiving Waters Identification

Table A.1 below lists in order of upstream to downstream, the receiving waters to which the project site is tributary. See map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Perris Valley Storm Drain	None Listed	N/A	N/A
San Jacinto River Reach 3	None Listed	N/A	15 mi
Railroad Canyon / Canyon Lake	Nutrients	Warm freshwater aquatic habitat (WARM), body contact recreation (REC1), non-body contact recreation (REC2), wildlife habitat (WILD), municipal and domestic water supply (MUN), agricultural water supply (AGR), and groundwater recharge (GWR), Commercial/Sport Fishing (COMM)	16.8 mi
San Jacinto River Reach 1	None Listed	N/A	N/A
Lake Elsinore	Nutrients, Low Dissolved Oxygen, DDT, PCBs, Toxicity	Warm freshwater aquatic habitat (WARM), body contact recreation (REC1), non-body contact recreation (REC2), Commercial/Sport Fishing (COMM), wildlife habitat (WILD), Rare, Threatened, or Endangered Species (RARE)	23.2

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
US Army Corps of Engineers, CWA Section 404 Permit	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
Statewide Construction General Permit Coverage	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Statewide Industrial General Permit Coverage	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
Other (<i>please list in the space below as required</i>) Riverside County Grading Permit	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section ‘A’ will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

The proposed Bioretention Basin is at an elevation higher than the adjacent street, and therefore cannot be used to treat the entirety of the adjacent streets. Every effort has been made to capture and treat as much of the Project as practicable for both onsite and offsite areas. 2" Inlets into Self-retaining areas at the southeast corner and along the east PL as are planned to treat as much of Martin and Harvill. Also included is another 2" PVC pipe from Perry into the basin on the north side of the site to pick up as much street area as the elevations will allow.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

Current drainage pattern effectively directs runoff to the intersection of Perry Street and Harvill Avenue. The nature and geometry of the proposed site emulates this drainage pattern.

Did you identify and protect existing vegetation? If so, how? If not, why?

This site is part of a larger overall development where initial grading, improvements, and utility infrastructure have occurred over time. Vegetation on the perimeter of the site footprint will be preserved to the maximum extent possible.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

No. The site does not perk due to bedrock. The site design incorporates a Bioretentention Basin on the eastern side of the proposed site.

Did you identify and minimize impervious area? If so, how? If not, why?

Every effort was taken to minimize impervious area and comply with Riverside County minimum requirements for parking, access, circulation, and fire requirements.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Distribution / logistical facilities of this nature along with steep slopes at the perimeter make it infeasible to direct sheet flows to adjacent landscaped areas.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s) ¹	Area (Sq. Ft.)	DMA Type
D1	Roof	307,616	Type D – Drains to BMP
D1	Paving	295,675	Type D – Drains to BMP
D1	Landscape	40,956	Type D – Drains to BMP
B1	Landscape	33,671	Type D – Drains to BMP
S1	Paving	7,747	Type D – Drains to BMP
S1	Landscape	459	Type D – Drains to BMP
S2	Paving	48,239	Type C – Self Retaining
S2	Landscape	33,062	Type C – Self Retaining
S3	Paving	28,444	Type C – Self Retaining
S3	Landscape	6,523	Type C – Self Retaining
L2	Landscape	60,993	Type A – Self Treating

¹Reference Table 2-1 in the WQMP Guidance Document to populate this column

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
L2	60,993	Landscape	Heads & bubblers

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				Type 'C' DMAs that are draining to the Self-Retaining Area		
DMA Name/ ID	Post-project surface type	Area (square feet)	Storm Depth (inches)	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches)
		[A]	[B]		[D]	
S2	L/S	1,869	0.58	S2	48,426	15.0
S3	L/S	2,345	0.58	S3	28,679	6.8

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet) [A]	Post-project surface type	Runoff factor	Product	DMA name / ID	Area (square feet) [D]	Ratio [C]/[D]
			[B]	[C] = [A] x [B]			
S2	48,239	Conc/AC	1	48,239	S2	1,869	25.81
S2	1,869	L/S	0.1	187			
S3	28,444	Conc/AC	1	28,444	S3	2,345	11.61
S3	2,345	L/S	0.1	235			

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
D1 (Roof, Paving, L/S)	Bioretention B1
S1 (Paving, L/S)	Bioretention B1
B1 (Basin)	Basin B1

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream ‘Highest and Best Use’ for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? Y N

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream ‘Highest and Best Use’ feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Co-permittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? Y N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site...	YES	NO
...have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
...have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
...have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
...have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs:	ALL	
...have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
...geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?	X	
Describe here: Shallow Bedrock		

If you answered “Yes” to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies:

- Reclaimed water will be used for the non-potable water demands for the project.
- Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).
- The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 2.83

Type of Landscaping (Conservation Design or Active Turf): Conservation

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 13.89

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 0.79

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 10.97

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
10.97	2.83

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

- Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: 50

Project Type: Industrial

- Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 13.89

- Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-1 in Chapter 2 to determine the minimum number of toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 172

- Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 2389

- Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
2389	50

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

None

- Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

- Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: Enter Value

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	Projected average daily use (Step 1)
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

- LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).
- A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
B1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

N/A

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3.1 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	BASIN B1		
						[A]	[B]	[C]
D1	307,616	<i>Roof</i>	1.0	0.89	274,022			
D1	295,675	<i>Pavement</i>	1.0	0.89	260,987			
D1	40,956	<i>Landscaping</i>	0.10	0.11	4,222			
B1	33,671	<i>Basin</i>	0.10	0.11	3,719			
S1	27,235	<i>Paving</i>	1	0.89	24,293			
S1	459	<i>Landscaping</i>	0.10	0.11	51			
	705,612				570,723	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
						0.58	27,585	30,000

15[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

- LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

- The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

List DMAs here.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
<input type="checkbox"/> Detached Residential Development	P	N	P	P	N	P	P	P
<input type="checkbox"/> Attached Residential Development	P	N	P	P	N	P	P	P ⁽²⁾
<input checked="" type="checkbox"/> Commercial/Industrial Development	P ⁽³⁾	P	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁵⁾	P ⁽¹⁾	P	P
<input type="checkbox"/> Automotive Repair Shops	N	P	N	N	P ^(4, 5)	N	P	P
<input type="checkbox"/> Restaurants (>5,000 ft ²)	P	N	N	N	N	N	P	P
<input type="checkbox"/> Hillside Development (>5,000 ft ²)	P	N	P	P	N	P	P	P
<input checked="" type="checkbox"/> Parking Lots (>5,000 ft ²)	P ⁽⁶⁾	P	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁴⁾	P ⁽¹⁾	P	P
<input type="checkbox"/> Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

P = Potential

N = Not Potential

⁽¹⁾ A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

⁽²⁾ A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

⁽³⁾ A potential Pollutant is land use involving animal waste

⁽⁴⁾ Specifically petroleum hydrocarbons

⁽⁵⁾ Specifically solvents

⁽⁶⁾ Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage ²
<i>Total Credit Percentage¹</i>	

¹Cannot Exceed 50%

²Obtain corresponding data from Table 3-8 in the WQMP Guidance Document

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor		Basin B-1			
							[A]	[B]	[C]	[A] x [C]
D1	307,616	ROOF	1.0	0.89	274,022		Design Storm Depth (in)	Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)	Total Storm Water Credit % Reduction	Proposed Volume or Flow on Plans (cubic feet or cfs)
D1	295,675	PVMNT	1.0	0.89	260,987					
D1	40,956	L/S	0.1	0.11	4,222					
B1	33,671	L/S	0.1	0.11	3,719					
	677,918				546,379	0.58	26,408	0	30,000	

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12

[H] is from the Total Credit Percentage as Calculated from Table E.2 above

[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High:** equal to or greater than 80% removal efficiency
- **Medium:** between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID ¹	Priority Pollutant(s) of Concern to Mitigate ²	Removal Efficiency Percentage ³
Basin B-1	Metals, nutrients, pesticides, toxic organic compounds, sediments, trash & debris, oil & grease	See study referenced below from the EPA for documenting MEP performance.

¹ Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

² Cross Reference Table E.1 above to populate this column.

³ As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Per the following document, BMP's with multiple unit operations and processes (a.k.a. BMPs with a "treatment train" approach) were documented to successfully treat stormwater discharge when hydraulically sized to treat the water quality design storm:

Pitt, et al., Stormwater Treatment at Critical Areas: The Multi-Chambered Treatment Train (MCTT), US EPA, Washington, DC, EPA/600/R-99/017, 1999.

<https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=30003Q6G.txt>

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Co-permittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? Y N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration¹ of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? Y N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	Post-condition	% Difference
Time of Concentration			
Volume (Cubic Feet)			

¹ Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? Y N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

Site is ultimately tributary to Canyon Lake and Lake Elsinore as conveyed through a series of County maintained conveyance elements.

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

- a. Additional LID BMPs are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.
- b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.
- c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and “housekeeping”, that must be implemented by the site’s occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. **Identify Pollutant Sources:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.
2. **Note Locations on Project-Specific WQMP Exhibit:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.
3. **Prepare a Table and Narrative:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.
4. **Identify Operational Source Control BMPs:** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
On-site storm drain inlets	Mark all inlets with the words “Only Rain Down the Storm Drain” or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify. Install full trash capture catch basin filter inserts (triton or equal)	<ul style="list-style-type: none">Maintain and periodically repaint or replace inlet markings.Provide stormwater pollution prevention information to new site owners, lessees, or operators.See applicable operational BMPs in Fact Sheet SC-44, “Drainage System

		<p>Maintenance,” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com</p> <ul style="list-style-type: none"> Include the following in lease agreements: “Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains.”
Landscape/ Outdoor Pesticide Use	<ul style="list-style-type: none"> Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions. 	<ul style="list-style-type: none"> Maintain landscaping using minimum or no pesticides. See applicable operational BMPs in “What you should know for....Landscape and Gardening” at: http://rcflood.org/stormwater/ Provide IPM information to new owners, lessees and operators.
Refuse areas	<ul style="list-style-type: none"> State how site refuse will be handled and provide supporting detail to what is shown on plans. State that signs will be 	<ul style="list-style-type: none"> Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered.

	posted on or near dumpsters with the words “Do not dump hazardous materials here” or similar.	Prohibit/prevent dumping of liquid or hazardous wastes. Post “no hazardous materials” signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, “Waste Handling and Disposal” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
Loading Docks		<ul style="list-style-type: none"> Move loaded and unloaded items indoors as soon as possible. See Fact Sheet SC-30, “Outdoor Loading and Unloading,” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
Plazas, sidewalks, and parking lots.		<ul style="list-style-type: none"> Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Please refer to the NEC guidance available at:

https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/toolbox/nec_brochure.pdf

A copy is provided in Appendix 10

The following will not be allowed:

- 1) Outdoor Processing
- 2) Outdoor Material Storage
- 3) Fueling
- 4) Vehicle or Equipment Maintenance
- 5) Outdoor Vehicle or Equipment Washing

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)
B1	Bioretention Basin, subdrain system, outlet structure	Provided in final WQMP

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geolocating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Majestic Management Co.

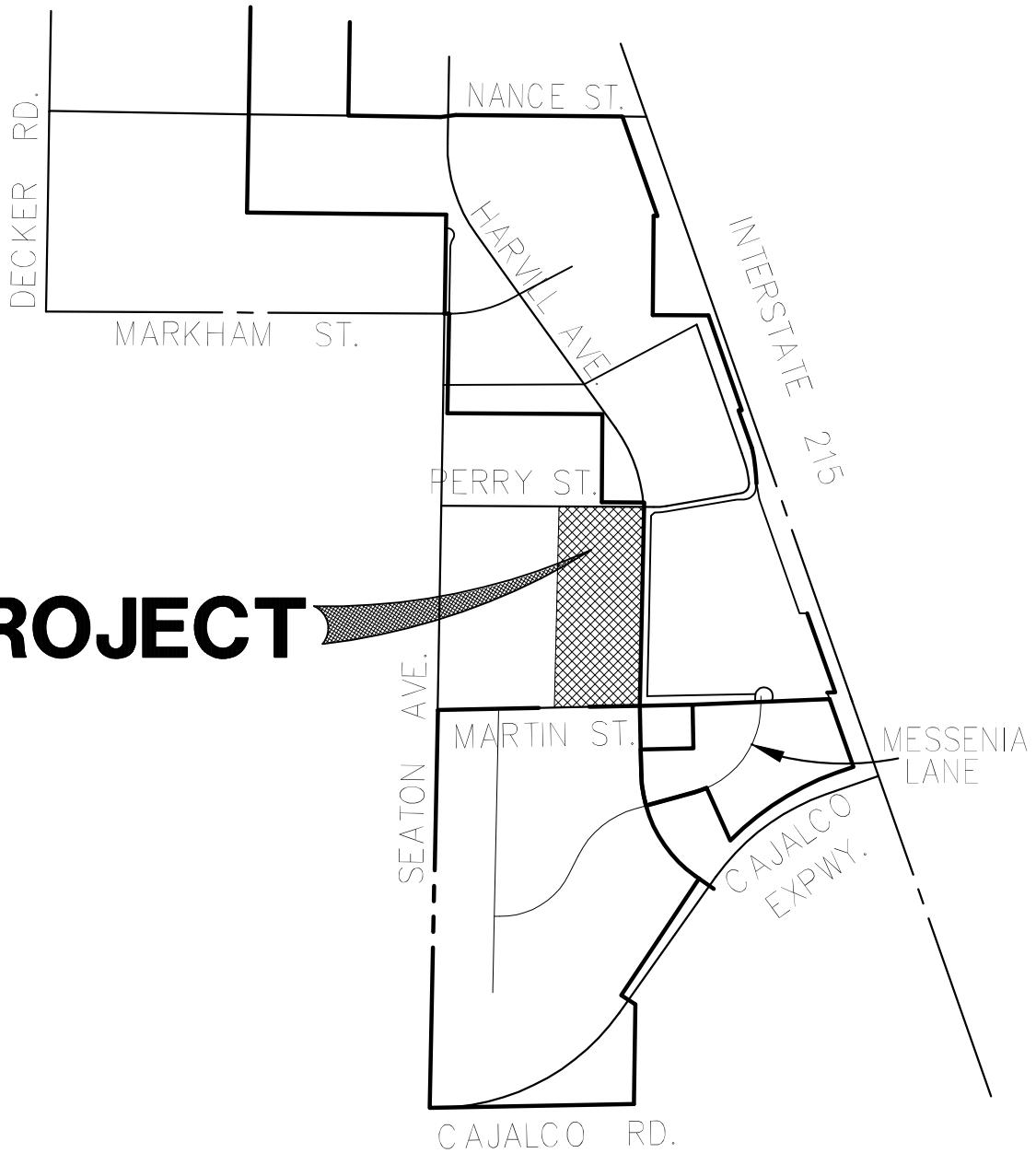
Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

Y N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

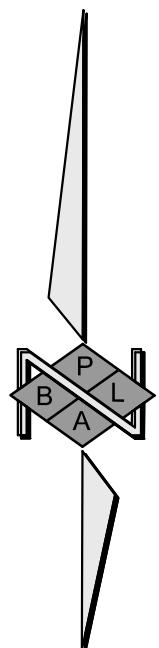
Location Map, WQMP Site Plan and Receiving Waters Map

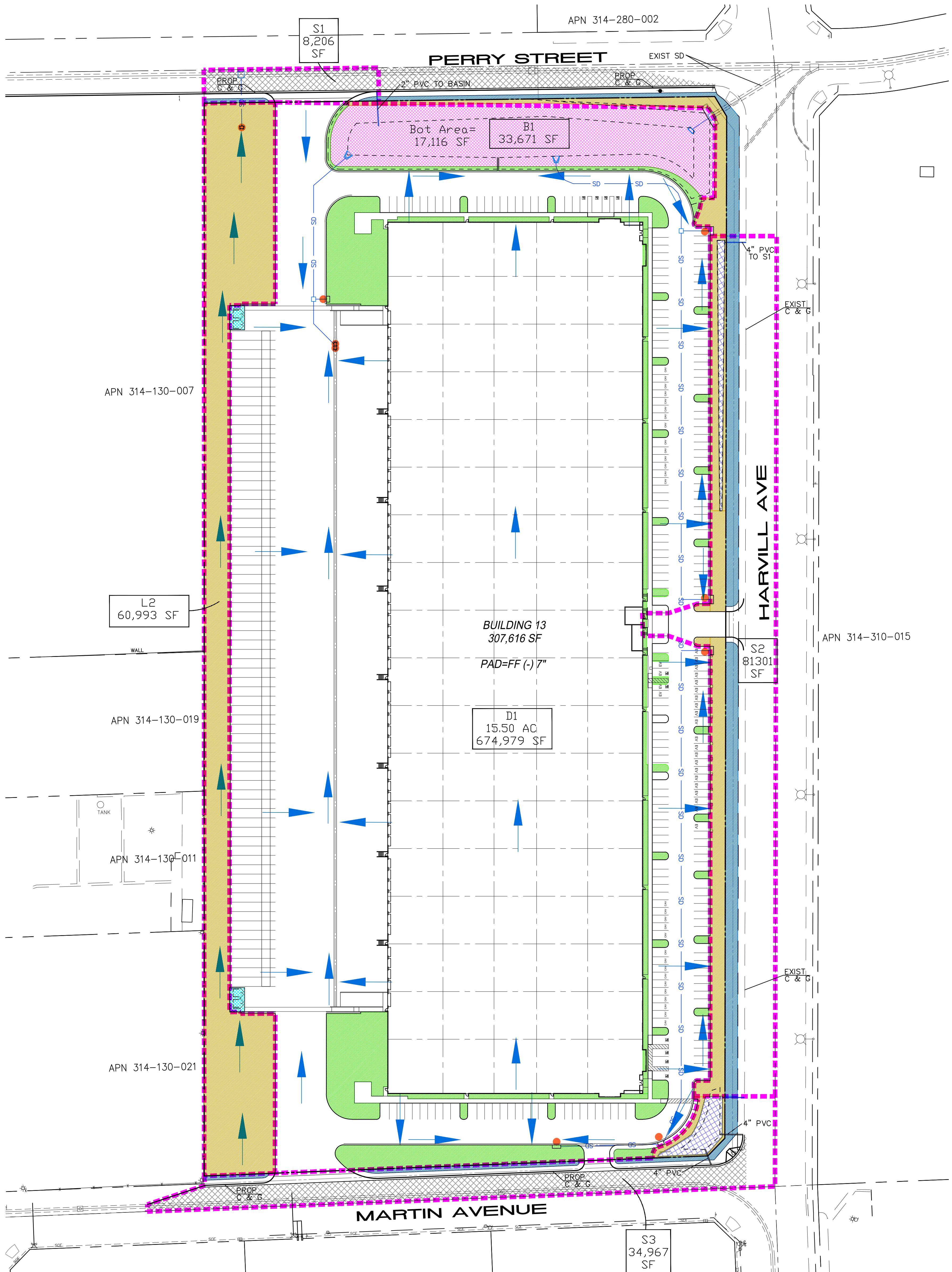


VICINITY MAP

NOT TO SCALE

SECTION 1, TOWNSHIP 4 SOUTH, RANGE 4 WEST
THOMAS BROS PAGE 777, GRID D1 & D2





PROJECT DATA

TOTAL NET AREA OF PROPOSED DEVELOPMENT: 766,900 SF (17.61 AC)

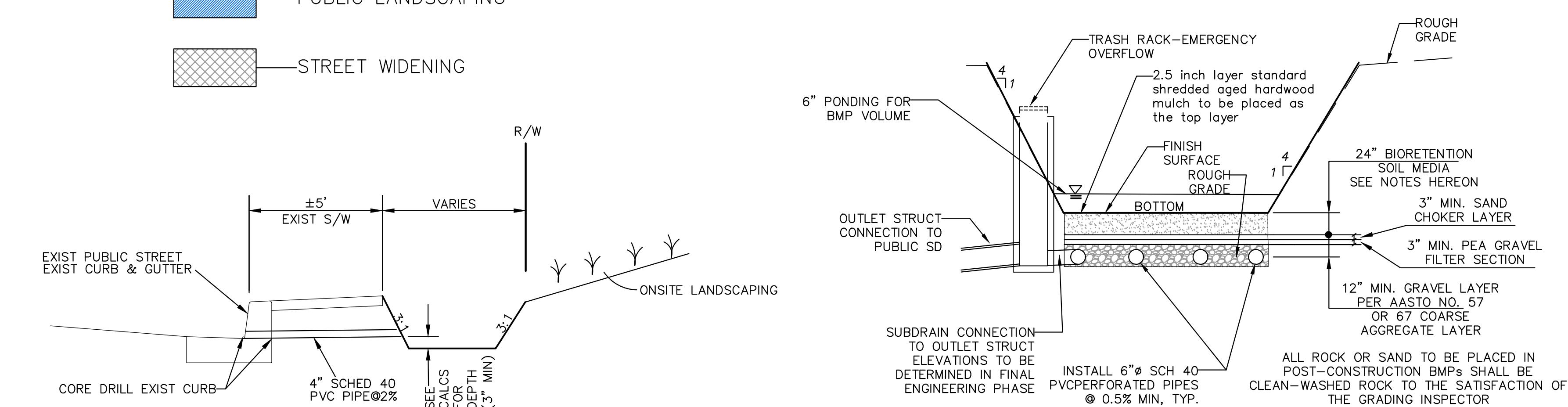
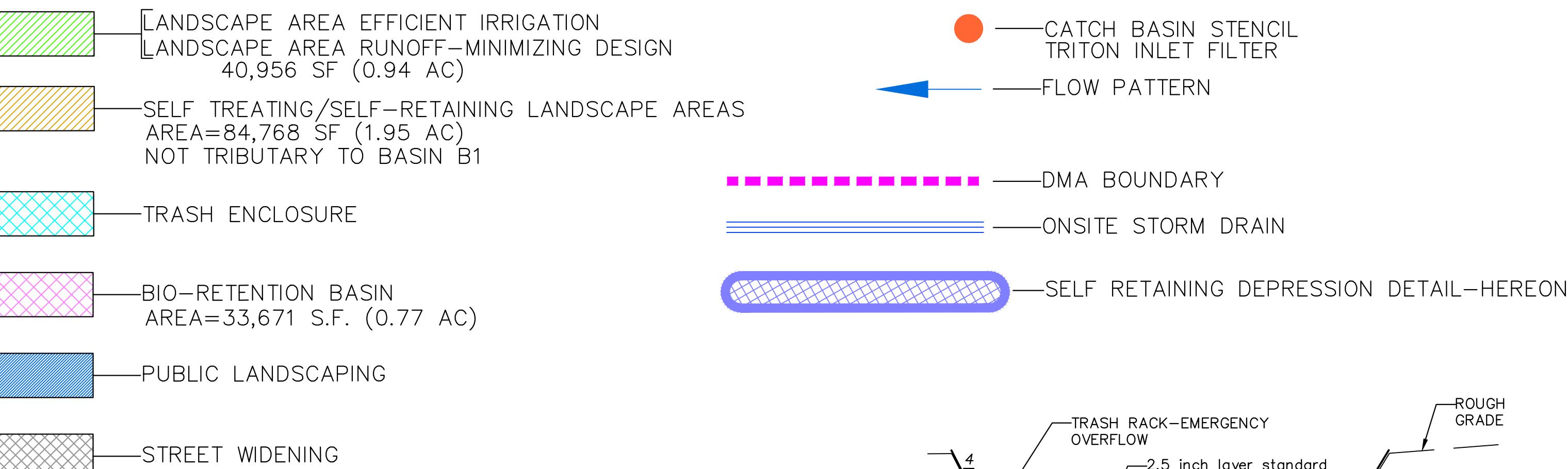
TOTAL DISTURBED AREA: 766,900 SF (17.61 AC)
BUILDING AREA: 307,616 SF
PAVED AREA: 295,675 SF
163,609 SF TOTAL LANDSCAPING PROVIDED (INCLUDING BASIN & SELF TREATING)
(78.7% AGGREGATE IMPERVIOUS)

CURRENT USE: VACANT
PROPOSED USE: INDUSTRIAL

WATERSHED: PERRY STORM DRAIN / PERRIS VALLEY CHANNEL
SUB-WATERSHED: CANYON LAKE / LAKE ELSINORE

NOTE: SOUTHERLY SIDE OF PERRY STREET AND THE SOUTH WEST CORNER OF THE PERRY/HARVILL INTERSECTION CANNOT BE DIRECTED TO THE BASIN AT THE NORTH EAST CORNER OF THE SITE DUE TO EXISTING STREET ELEVATIONS ARE VERY NEAR THE BASIN BOTTOM ELEVATION AND CONNECTION WOULD NEGATE THE BASIN STORAGE.

LEGEND STRUCTURAL / TREATMENT BMPS



SELF RETAINING DEPRESSION DETAIL

SELF RETAINING DEPRESSION DETAIL IS SUFFICIENT FOR THE PWQMP.
THE SELF RETAINING DEPRESSION DETAIL MAY BE MODIFIED DURING FINAL ENGINEERING.

BIORETENTION SOIL MEDIA

- The engineer shall furnish to the County a copy of the source testing and a signed certification that the fully blended Bioretention/Biofiltration Soil Media (BSM) material meets all of the WQMP requirements before material is imported if the material is mixed onsite prior to installation.
- As BSM material is being installed, Quality Assurance (QA) tests shall be conducted or for every 1,200 tons or 800 cubic yards mixed on-site from a completely mixed stockpile or windrow, with a minimum of three tests. For imported material from a supplier with a quality control program the QA tests shall be conducted 2,400 tons or 1,600 cubic yards from the supplier.
- The Engineer conducting the Quality Control testing shall furnish to the County copy of the QA testing and a certification that the BSM for the project meets all of the following requirements. Certified mitigation plans can be used for exceedances, as long as all the requirements are designed to be met.
 - BSM shall not be compacted. BSM shall consist of 60-80% clean sand, up to 20% clean topsoil, and 20% of a nutrient-stabilized organic amendment. The initial infiltration rate shall be greater than 8 inches per hour per laboratory test.
 - pH: 6.0 – 8.8; Salinity: 0.5 to 3.0 mmhos/cm as electrical conductivity; Sodium adsorption ratio: < 6.0; Chloride: < 800ppm in saturated extract; Cation Exchange Capacity (CEC): > 10meq/100g; Organic Matter: 2 to 5 percent on a dry weight basis; Carbon:Nitrogen Ratio: 12 to 40, preferably 15 to 20; Gravel larger than 2mm: 0 to 25-percent of the total sample; Clay smaller than 0.005mm: 0 to 5 percent of the non-gravel fraction.
 - BSM shall be tested to limit the leaching of potential inherent pollutants. BSM used in Biofiltration BMPs shall conform to the following limits for pollutant concentrations in saturated extract: Phosphorus: < 1mg/L; Nitrate: < 3mg/L; Copper: < 0.025mg/L. These pollutant limits are for the amount that is leached from the sample, not from the soil sample itself. Testing may be performed after laboratory rinsing of media with up to 15 parts volume of water. Equivalent test results will be accepted if certified by a laboratory or appropriate testing facility.
 - Low nutrient compost used in BSM shall be sourced from a facility permitted through CalRecycle, preferably through USCC STA program. Compost shall conform to the following requirements: Physical contaminants: < 1% by dry weight; Carbon:Nitrogen ratio: 12:1 to 40:1; Maturity/Stability shall conform to either: Solvita Maturity Index: ≥ 5.5, CO₂ Evolution: < 2.5 mg CO₂-C per g compost organic matter per day, or < 5mg CO₂-C per g compost C per day. Select Pathogens and trace metals shall pass US EPA Class A Standard. Testing shall be no more than 6 months old and representative of current stock piles.
 - Coconut coir pith used in BSM shall be thoroughly rinsed with freshwater and screened to remove coarse fibers as part of production and aged > 6 months. Peat used in BSM shall be sphagnum peat.

DMA "D1" DATA

TOTAL AREA TRIBUTARY TO TREATMENT = 674,979 SF (15.50 AC)
ROOF AREA = 307,616 SF
PAVED AREA = 295,675 SF
OFF-SITE AREA = 163,609 SF
WATER QUALITY BASIN = 33,671 SF
DESIGN CAPTURE VOLUME: = 26,408 CF (0.60 AC-FT)

DMA "S1" DATA

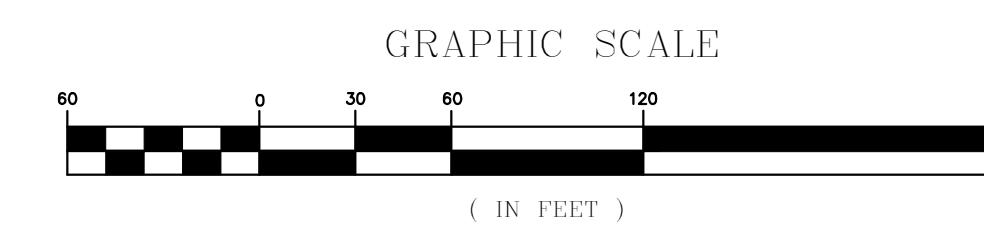
TOTAL AREA = 8,206 SF
TOTAL IMPERVIOUS AREA = 7,747 SF
TOTAL LANDSCAPE AREA = 459 SF
TRIBUTARY TO BIO-RETENTION = 33,062 SF
SELF-RETAINING AREA S2 = 1,869 SF
TREATMENT RATIO = 0.038

DMA "S2" DATA


TOTAL AREA = 34,967 SF
TOTAL IMPERVIOUS AREA = 28,136 SF
TOTAL LANDSCAPE AREA = 6,523 SF
SELF-RETAINING AREA S2 = 2,345 SF
TREATMENT RATIO = 0.06

DMA "S3" DATA

TOTAL AREA = 15,500 SF
TOTAL IMPERVIOUS AREA = 15,500 SF
TOTAL LANDSCAPE AREA = 0 SF
SELF-RETAINING AREA S2 = 0 SF
TREATMENT RATIO = 0.0



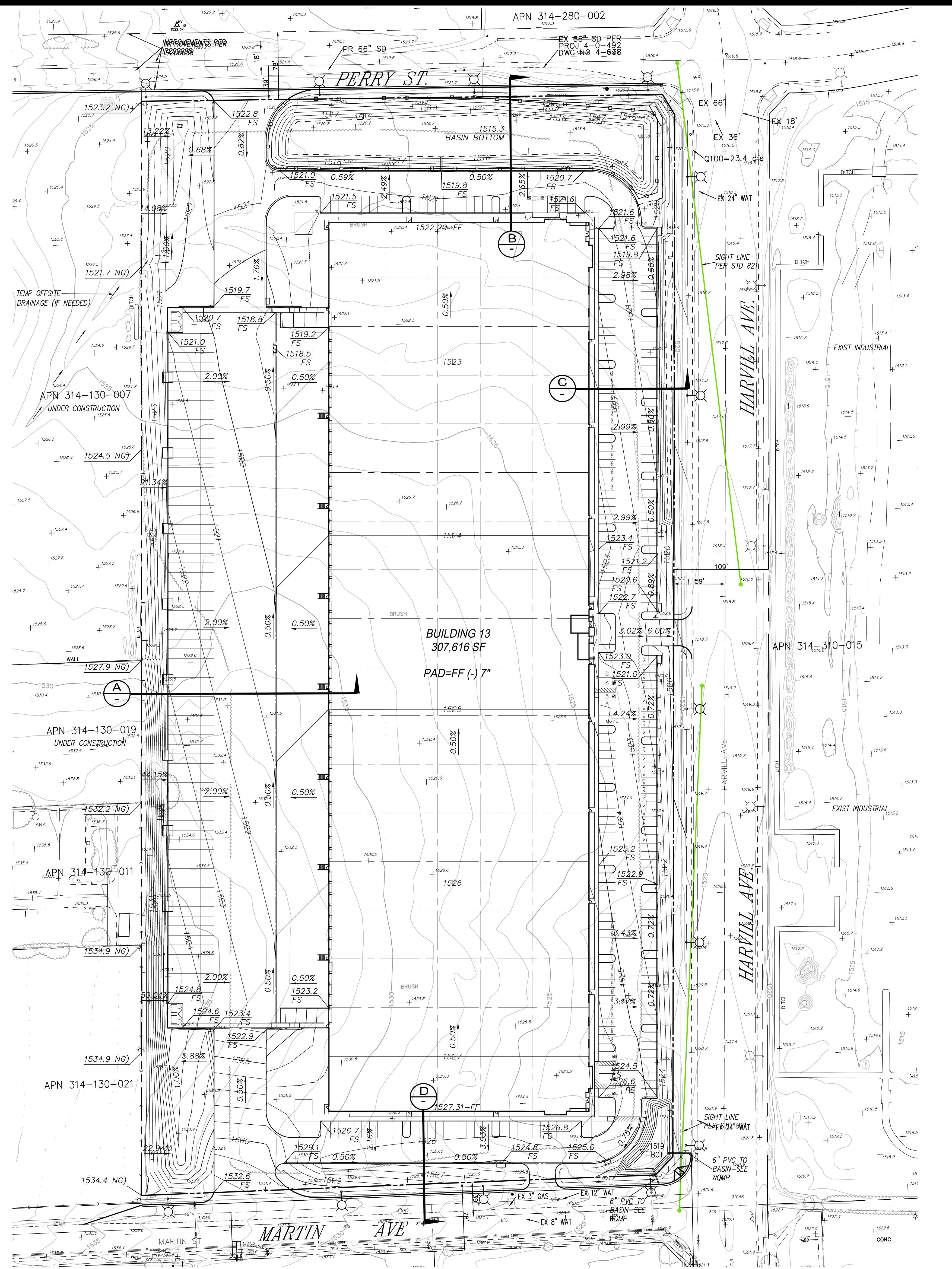
PRELIMINARY			
WATER QUALITY MANAGEMENT PLAN SITE PLAN MFBC - BUILDING 13 RIVERSIDE COUNTY, CA			
PREPARED FOR:	PREPARED BY:	DATE	BY
COMMERCE CONSTRUCTION CO., LP.	PBLA ENGINEERING, INC.	REVISION	WO
13181 Crossroads Parkway North Suite 100, Industry, California 91746-3497 Telephone: (626) 699-0453 License No. 723302	Planning • Engineering • Surveying 1809 E. DYER ROAD, SUITE 301 SANTA ANA, CALIF. 92705 (888) 714-9642 / (714) 589-0101 FAX		100-101
Sh. 1 of 1			



Appendix 2: Construction Plans

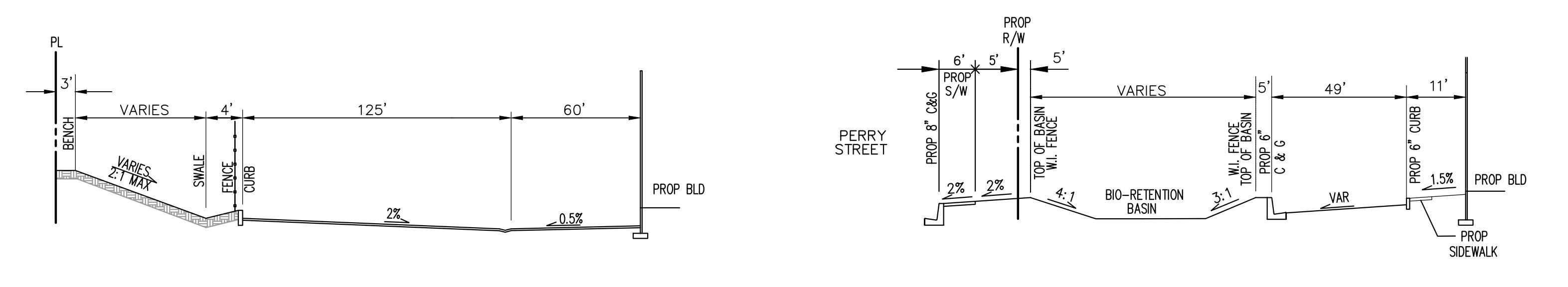
Grading and Drainage Plans

PROVIDED IN FINAL WQMP



SECTION A

SECTION B



PROPS
W'L.Y
R/W

EXIST
W'L.Y
R/W

EXIST
E'L.Y
R/W

9'

50'

100'

50'

7'

12'

38'

38'

12'

6'

6'

VAR

VAR

2%

8' PROP DG COMMUNITY

EXIST SIDEWALK

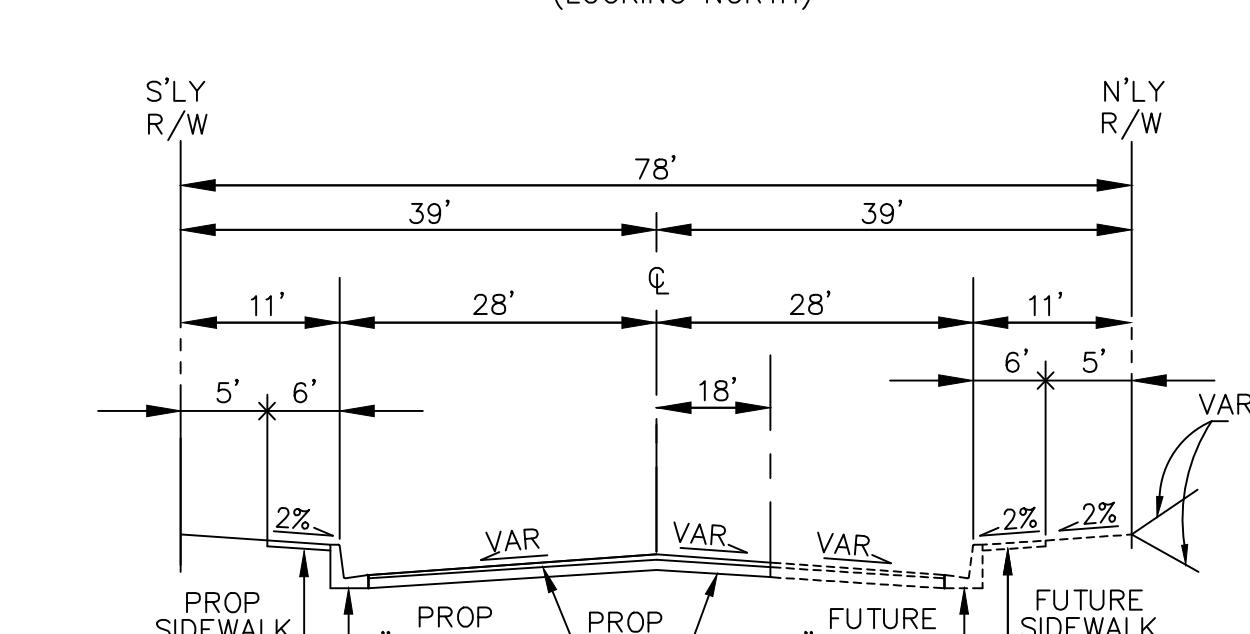
8" EXIST CURB &

8" EXIST CURB &

EXIST SIDEWALK

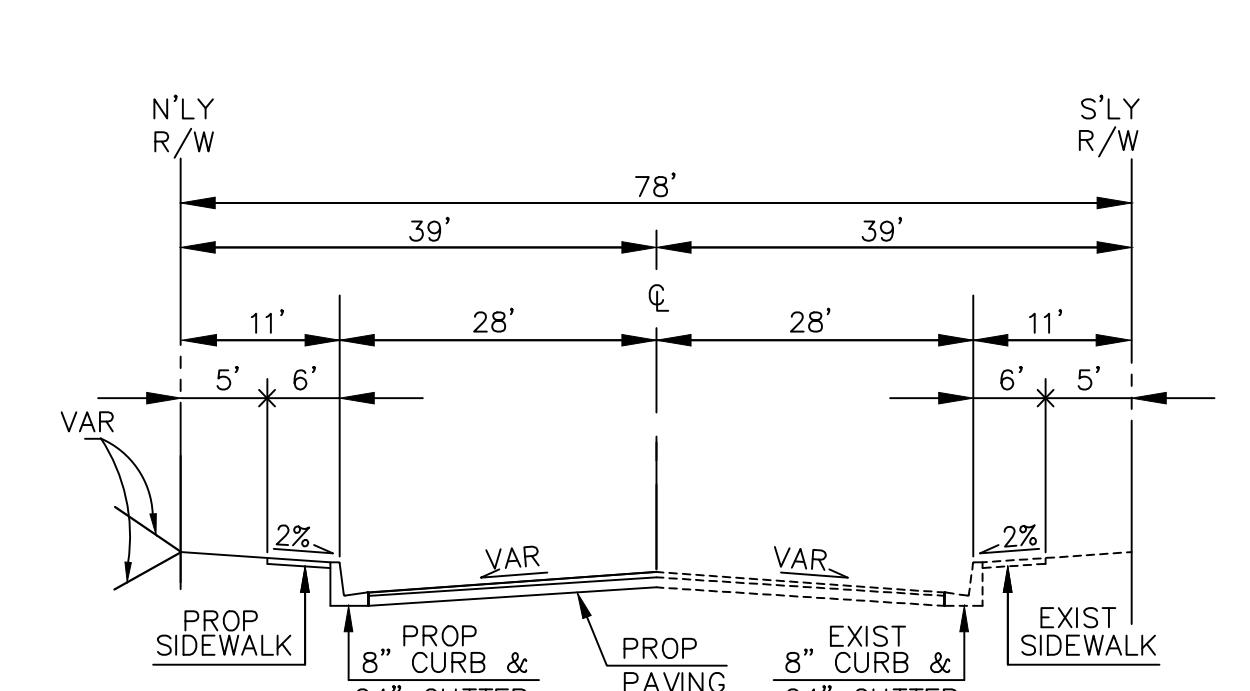
The diagram illustrates a cross-section of a street. At the top left, the word "TRAIL" is written above a dashed line representing a path. To the right of this path are two rectangular boxes, each labeled "24\" GUTTER". A solid horizontal line runs across the center, representing the road surface. The entire diagram is enclosed in a thin black border.

THE COMMERCE CENTER & M TYPICAL SECTION



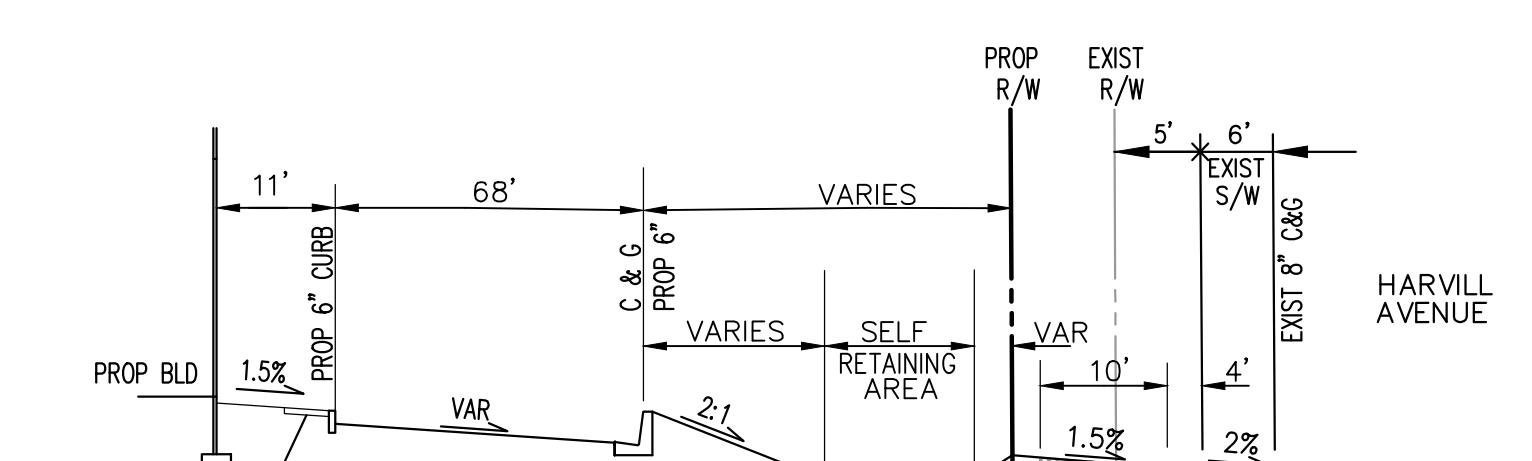
EXISTING PERRY STREET

**EXISTING FERRY STR.
EAST OF HARVILL AVE
TYPICAL SECTION**

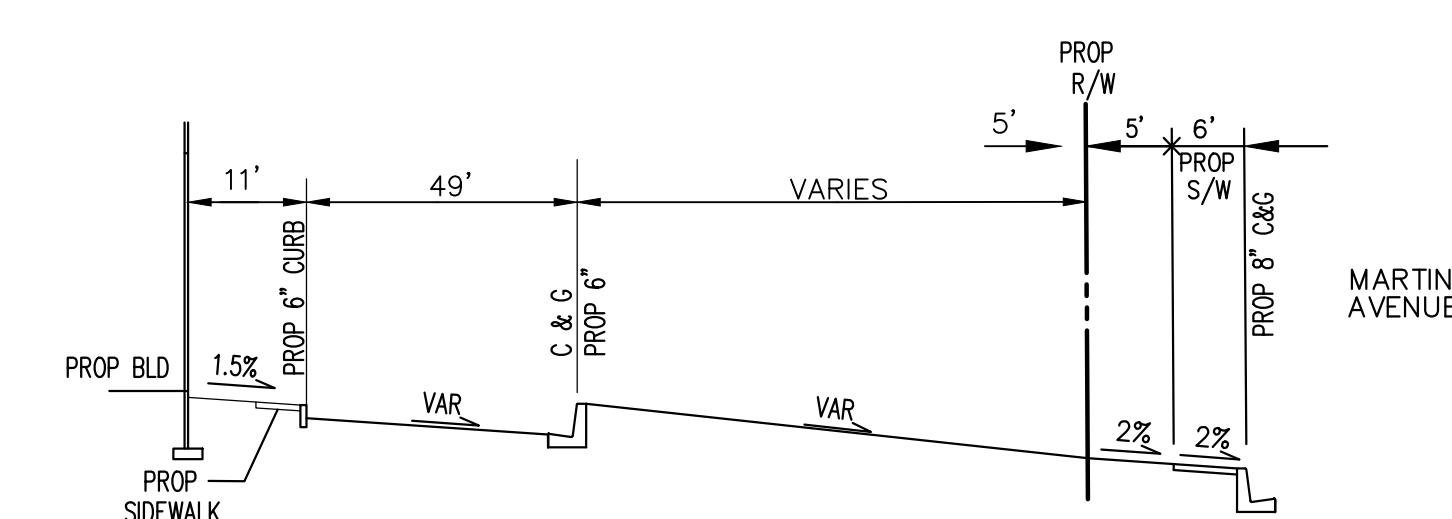


EXISTING MARTIN STREET

EAST OF HARVILL AVE
TYPICAL SECTION



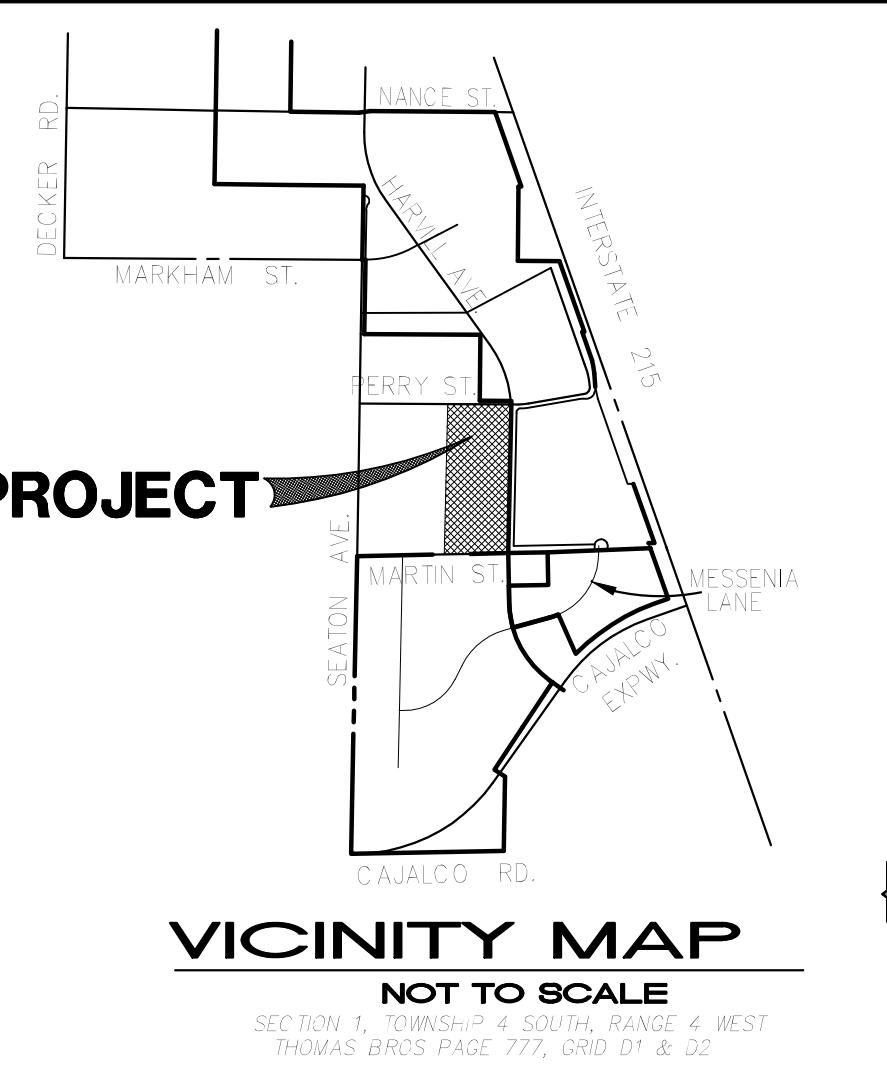
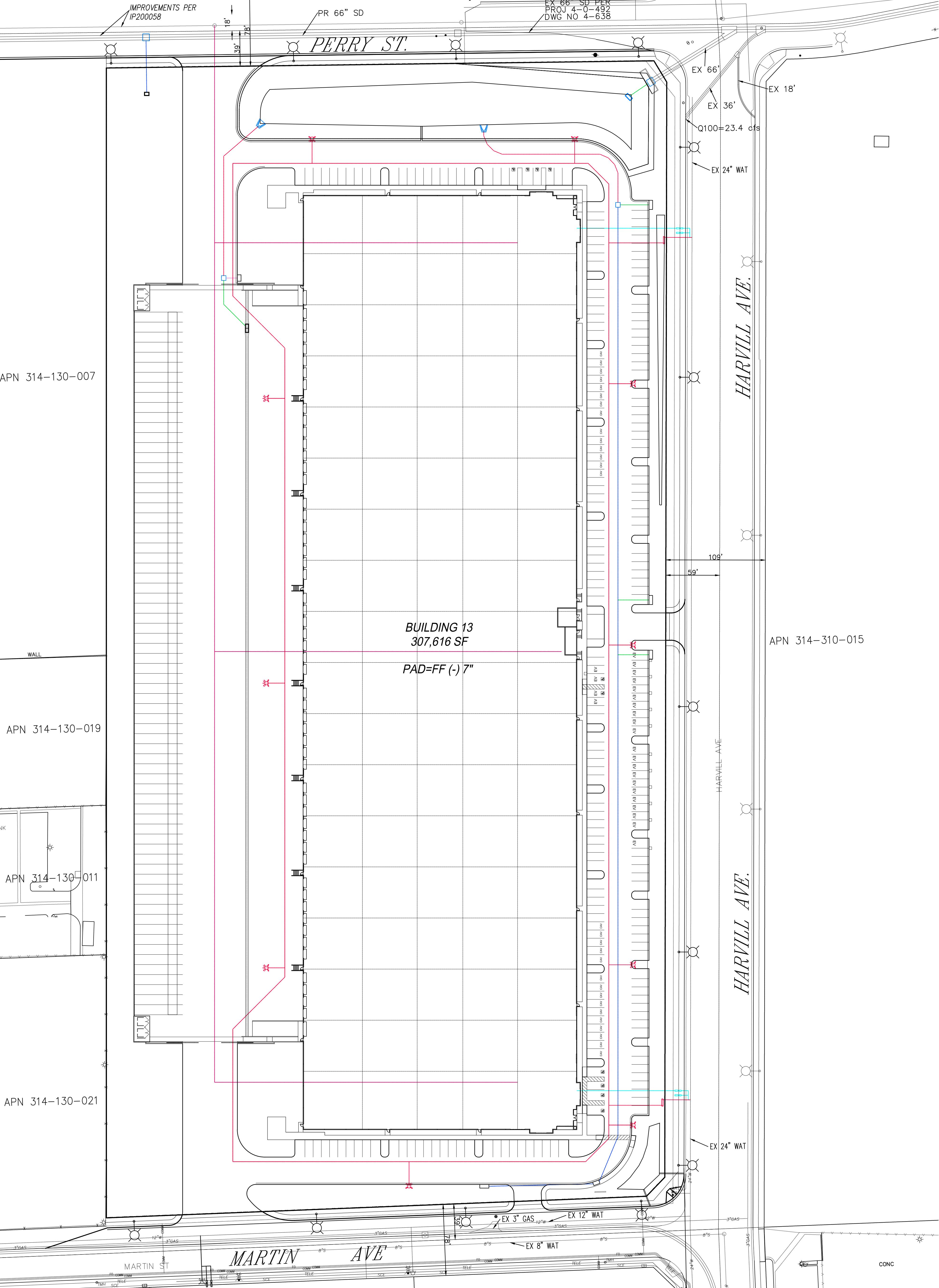
SECTION C



SECTION D

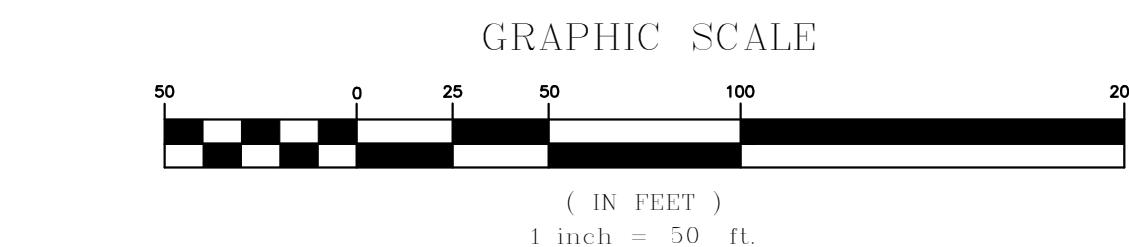
NOTE: SITE IS NOT SUBJECT TO LIQUFACTION OR ANY OTHER GEOLOGIC HAZARDS, IS NOT IN A SPECIAL STUDIES ZONE, AND IS NOT SUBJECT TO FLOOD INUNDATION.

Jan 13 2023	LEGAL DESCRIPTION	ASSESSOR'S PARCEL NUMBERS	CONCEPT GRADING PLAN MFBC-BUILDING 13		
	A PORTION OF THE SW 1/4 OF THE SW 1/4 OF SEC. 1, T4S, R4W & PARCELS 1-4 INCLUSIVE OF PARCEL MAP NO. 12275 AS RECORDED IN BK 63, PG 47, O.R. OF RIVERSIDE COUNTY, CA.	314-130-015, 023, 024, 026, 027	DATE	BY	REVISION
	PREPARED FOR:	PREPARED BY:			
 COMMERCE CONSTRUCTION CO., L.P. 13191 Crossroads Parkway North Sixth Floor City of Industry, California 91746-3497 Telephone: (562) 699-0453 License No. 723302	 PBLA ENGINEERING, INC. Planning • Engineering • Surveying 1809 E. DYER ROAD, SUITE 301 SANTA ANA, CALIF. 92705 (888) 714-9642 • (714)389-9191 FAX				WO 100-101
					Sht. 1 of 2



OVERALL PRIVATE UTILITY QUANTITIES	
DESCRIPTION	QUANTITY
12" STORM DRAIN	13 LF
18" STORM DRAIN	1,192 LF
36" STORM DRAIN	427 LF
S 6" SEWER	2,157 LF
W 3" DOMESTIC WATER	218 LF
W 10" FIRE WATER MAIN	3,212 LF
W 6" FIRE WATER LATERAL	249 LF
* FIRE HYDRANT	10 EA
10" DETECTOR CHECK VALVE	2 EA
STORM DRAIN INLET INLET STRUCTURE	2 EA
STORM DRAIN MH	2 EA

OVERALL PUBLIC UTILITY QUANTITIES	
DESCRIPTION	QUANTITY
18" STORM DRAIN	33 LF
66" STORM DRAIN	377 LF
STORM DRAIN MH	2 EA
S 8" SEWER	392 LF
S 6" SEWER	45 LF
SWER MH	2 EA



NOTE: SITE IS NOT SUBJECT TO LIQUEFACTION OR ANY OTHER GEOLOGIC HAZARDS, IS NOT IN A SPECIAL STUDIES ZONE, AND IS NOT SUBJECT TO FLOOD INUNDATION.

TOPOGRAPHY DATE: 3-7-05

PPT 220008

CONCEPT UTILITY PLAN MFBC-BUILDING 13

LEGAL DESCRIPTION	ASSESSOR'S PARCEL NUMBERS	PREPARED FOR:	PREPARED BY:	DATE	BY	REVISION	WO
A PORTION OF THE SW 1/4 OF THE SW 1/4 OF SEC. 1, T4S, R4W & PARCELS I-4 INCLUSIVE OF PARCEL MAP NO. 12275 AS RECORDED IN BK 63, PG 47, O.R. OF RIVERSIDE COUNTY, CA.	314-130-015, 023, 024, 026, 027	COMMERCE CONSTRUCTION CO., LP.	PBLA ENGINEERING, INC.				100-101
			Planning • Engineering • Surveying 1805 E. DYER ROAD, SUITE 301 SANTA ANA, CALIF. 92705 (888) 714-9642 • (714) 389-9191 FAX License No. 723302				

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data



December 1, 2021

Commerce Construction Co., L.P.
13191 Crossroads Parkway North, 6th Floor
City of Industry, California 91746

Attention: Mr. Matthew Vawter
Vice President – District Manager

Project No.: **21G250-2**

Subject: **Results of Infiltration Testing**
Majestic Freeway Business Center – Building No. 13
NWC Harvill Avenue and Martin Street
Riverside County (Perris), California

Reference: Geotechnical Investigation, Majestic Freeway Business Center – Building No. 13, NWC Harvill Avenue and Martin Street, Riverside County (Perris), California, prepared for Commerce Construction Co., L.P., by Southern California Geotechnical, Inc. (SCG), SCG Project No. 21G250-1, dated November 30, 2021.

Mr. Vawter:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 21P443R, dated October 8, 2021. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the onsite soils. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Site and Project Description

The site is located at the northwest corner of Harvill Avenue and Martin Street in an unincorporated portion of Riverside County near Perris, California. The site is bounded to the north by Perry Street, to the west by several trailer storage lots and industrial developments, to the south by Martin Street, and to the east by Harvill Avenue. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 in of this report.

The site consists of a rectangular-shaped parcel, 17.70± acres in size. Based on our visit to the site, the site is vacant and undeveloped. The ground surface cover consists of exposed soil with sparse to moderate native grass and weed growth.

Detailed topographic information was not available at the time of this report. Based on the elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site slopes gently to the northeast at a gradient of less than $2\pm$ percent. The lowest elevation on the site is in the northeastern corner of the site. The highest elevation on the site is located in the southwestern portion of the site, bounded by neighboring storage lots. There is approximately 14 feet of elevation differential across the project site.

Proposed Development

SCG was provided with conceptual site plan by the client. Based on this plan, the site will be developed with one (1) commercial/industrial building, identified as Building 13. The building will be $307,200\pm$ ft² in size and will be located in the central area of the site. Dock-high doors will be constructed along the west building wall. The building will be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, and limited areas of concrete flatwork and landscape planters throughout.

The proposed development will include on-site storm water infiltration. Based on the site plan provided to our office, the infiltration system will consist of an infiltration basin located in the northern region of the site. The depth of the proposed basin was not provided at the time of our infiltration testing. Based on our experience with similar projects in the vicinity of the site, the bottom of the infiltration system is expected to extend to depths of 6 to $8\pm$ feet below the existing site grades.

Concurrent Study

SCG concurrently conducted a geotechnical investigation at the subject site, which is referenced above. Native younger alluvium was encountered at the ground surface of all of the boring locations except for Boring Nos. B-2, B-3, and B-8. The younger alluvial soils extend to depths of 3 to $10\pm$ feet before exhibiting properties of older alluvium. The alluvium consists of medium dense clayey fine to medium sands, loose silty fine to medium sands, and medium dense silty fine sands to fine sandy silts. Varying quantities of clay were occasionally encountered within the younger alluvium. Boring No. B-7 was terminated within the younger alluvium at a depth of $10\pm$ feet. Older alluvium was encountered at the ground surface or beneath the younger alluvium at all boring locations, except for Boring No. B-7, extending to depths of $8\frac{1}{2}$ to $17\pm$ feet below existing site grades. The older alluvium consists of medium dense to very dense fine to coarse sands, clayey fine to coarse sands, silty fine to coarse sands, and fine to medium sandy silts. Varying quantities of clay and variable levels of cementation were encountered throughout the older alluvial strata. Boring Nos. B-4 and B-8 were terminated within the older alluvium at depths of 15 and $10\pm$ feet, respectively. Val Verde Tonalite bedrock was encountered beneath the older alluvium at Boring Nos. B-1, B-2, B-3 and B-5. The bedrock consists of very dense, gray brown fine to coarse grained tonalite. These materials are generally weathered and friable throughout the depths explored at the site. Tonalite bedrock materials extend to at least the maximum depth explored of $25\pm$ feet below the existing site grades.

Groundwater

Free water was not encountered during any of our subsurface explorations. Based on the lack of any water within the borings and the moisture contents of the recovered soil samples, the static

groundwater table is considered to have existed at a depth in excess of $25\pm$ feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the groundwater depths in this area is the California Department of Water Resources website, <http://www.water.ca.gov/waterdatalibrary/>. One of the monitoring wells observed in the vicinity of the site is located $1.3\pm$ miles northeast of the subject site. Water level readings within this monitoring well indicates a high groundwater level of $67\pm$ feet below the ground surface in March 2021.

Subsurface Exploration

Scope of Exploration

The subsurface exploration for the infiltration testing consisted of four (4) backhoe-excavated trenches, extending to depths of 3 to $8\pm$ feet below existing site grades. It should be noted that Infiltration Test No. I-1 was terminated at a depth shallower than originally proposed due to refusal on very dense soils. The trenches were logged during excavation by a member of our staff. The approximate locations of the infiltration trenches (identified as I-1 through I-4) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Geotechnical Conditions

Younger alluvium was encountered at the ground surface at all of the infiltration test locations, extending to depths of 1 to $7\pm$ feet below the existing site grades. The younger alluvial soils consist of medium dense to dense silty fine sands and fine sandy silts. Older alluvium was encountered beneath the younger alluvium at all of the infiltration test locations, extending to at least the maximum depth explored of $8\pm$ feet. The older alluvium consists of dense to very dense silty fine to medium sands, with varying coarse sand content. The Trench Logs, which illustrate the conditions encountered at the infiltration test locations, are presented in this report.

Infiltration Testing

We understand that the results of the testing will be used to prepare a preliminary design for the storm water infiltration system that will be used at the subject site. As previously mentioned, the infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At the test locations, the outer ring was driven $3\pm$ inches into the soil at the base of each trench. The inner ring was centered inside the outer ring and subsequently driven $3\pm$ inches into the soil at the base of the trench. The rings were driven into the soil using a ten-pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

Infiltration testing was performed at both of the trench locations. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer rings) with water, approximately 3 to 4 inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings was maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the tests.

The schedule for readings was determined based on the observed soil type at the base of each backhoe-excavated trench. Based on the existing soils at the trench locations, the volumetric measurements were made at 30-minute increments. The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets.

The infiltration rates for the infiltration tests are calculated in centimeters per hour and then converted to inches per hour. The rates are summarized below:

<u>Infiltration Test No.</u>	<u>Depth (feet)</u>	<u>Soil Description</u>	<u>Infiltration Rate (inches/hour)</u>
I-1	3	Brown Silty fine Sand, trace medium to coarse Sand	0.0
I-2	8	Brown Silty fine to medium Sand, little coarse Sand	0.9
I-3	6	Red Brown to Brown Silty fine to medium Sand, little coarse Sand	0.1
I-4	8	Red Brown to Brown Silty fine to medium Sand, little coarse Sand	1.3

Design Recommendations

Four (4) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 0.0 to 1.3 inches per hour. In addition, based on the soil conditions identified in the referenced geotechnical report, the site is underlain by moderate to high strength older alluvium and bedrock materials, which are expected to be impermeable. **Based on the results of the infiltration testing and encountered soils throughout the site, infiltration is not considered feasible at this site.**

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using



the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

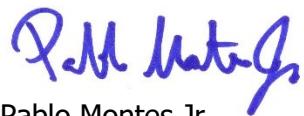
The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,
SOUTHERN CALIFORNIA GEOTECHNICAL, INC.



Pablo Montes Jr.
Staff Engineer



Robert G. Trazo, GE 2655
Principal Engineer



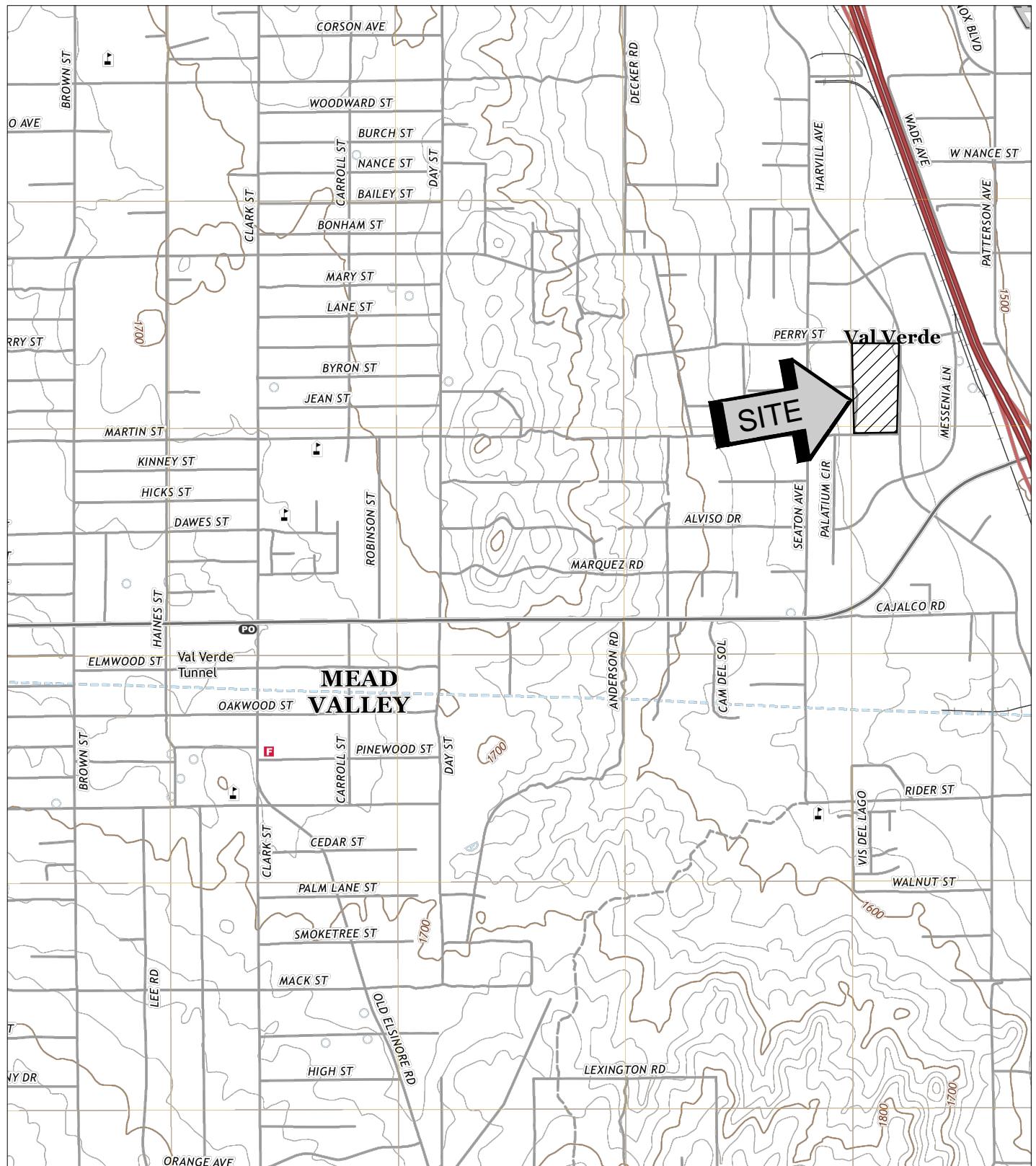
Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2: Infiltration Test Location Plan
Trench Log Legend and Logs (6 pages)
Infiltration Test Results Spreadsheets (4 pages)
Grainsize Distribution Graphs (4 pages)



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GEOTECHNICAL

Building No. 13 – Riverside County (Perris), CA
Project No. 21G250-2
Page 5



SITE LOCATION MAP

MAJESTIC FREEWAY BUSINESS CENTER - BLDG 13

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

SCALE: 1" = 2000'

DRAWN: RB
CHKD: RGT

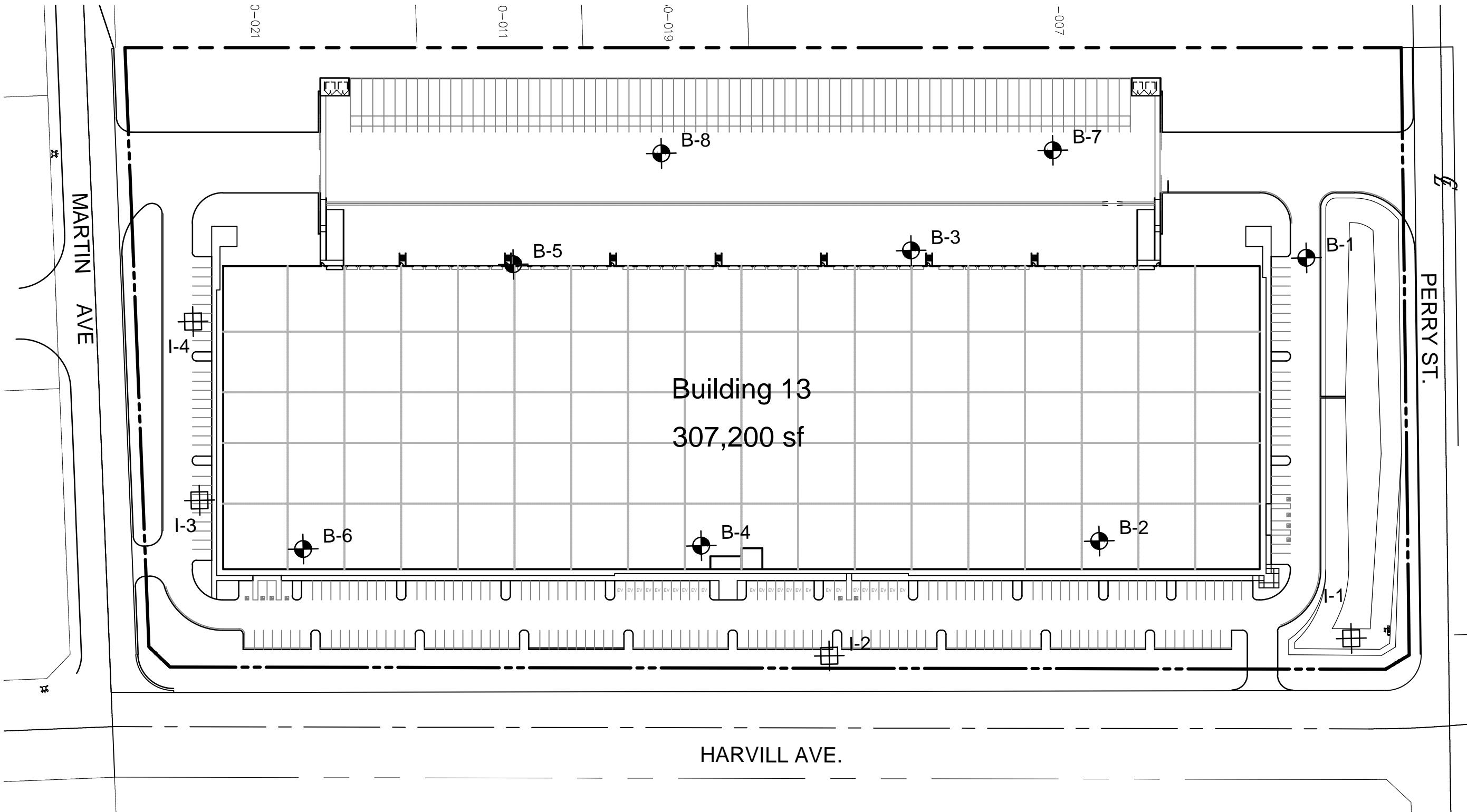
SCG PROJECT
21G250-2

PLATE 1



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SOURCE: USGS TOPOGRAPHIC MAP OF STEELE PEAK QUADRANGLE, RIVERSIDE COUNTY, CALIFORNIA, 2018.



GEOTECHNICAL LEGEND

- APPROXIMATE INFILTRATION TEST LOCATION
- APPROXIMATE BORING LOCATION
(SCG PROJECT NO. 21G250-1)



NOTE: BASE SITE PLAN PROVIDED BY THE CLIENT.

INFILTRATION TEST LOCATION PLAN	
MAJESTIC FREEWAY BUSINESS CENTER - BUILDING 13	
RIVERSIDE COUNTY (PERRIS), CALIFORNIA	
SCALE: 1" = 100'	
DRAWN: PM	
CHKD: RGT	
SCG PROJECT	
21G250-2	
PLATE 2	



SOUTHERN
CALIFORNIA
GEOTECHNICAL

TRENCH LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

- DEPTH:** Distance in feet below the ground surface.
- SAMPLE:** Sample Type as depicted above.
- BLOW COUNT:** Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.
- POCKET PEN.:** Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.
- GRAPHIC LOG:** Graphic Soil Symbol as depicted on the following page.
- DRY DENSITY:** Dry density of an undisturbed or relatively undisturbed sample in lbs/ft³.
- MOISTURE CONTENT:** Moisture content of a soil sample, expressed as a percentage of the dry weight.
- LIQUID LIMIT:** The moisture content above which a soil behaves as a liquid.
- PLASTIC LIMIT:** The moisture content above which a soil behaves as a plastic.
- PASSING #200 SIEVE:** The percentage of the sample finer than the #200 standard sieve.
- UNCONFINED SHEAR:** The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GP	Poorly-graded gravels, gravel - sand mixtures, little or no fines
				GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	Poorly-graded sands, gravelly sand, little or no fines
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
				MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50			CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
		HIGHLY ORGANIC SOILS		PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

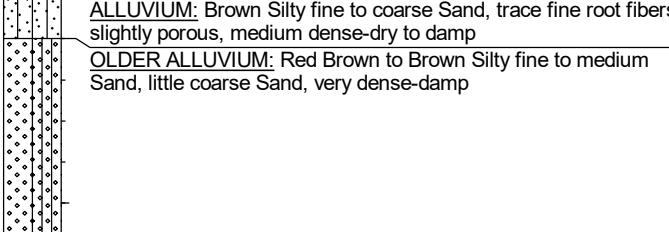


FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS					COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
					<p>SURFACE ELEVATION: --- MSL</p> <p><u>ALLUVIUM:</u> Brown fine Sandy Silt, trace fine root fibers, dense-dry</p> <p><u>OLDER ALLUVIUM:</u> Brown Silty fine Sand, trace medium to coarse Sand, very dense-damp</p> <p>Trench Terminated @ 3 feet due to very dense Older Alluvium</p>	6					



FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS					COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
5					<u>ALLUVIUM:</u> Brown fine Sandy Silt, trace medium Sand, dense-damp						
					<u>OLDER ALLUVIUM:</u> Brown Silty fine to medium Sand, little coarse Sand, dense-damp	5					
					Trench Terminated @ 8 feet						



FIELD RESULTS				GRAPHIC LOG	DESCRIPTION				LABORATORY RESULTS				COMMENTS	
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)		SURFACE ELEVATION: MSL				DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
5									7					
Trench Terminated @ 6 feet														



FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS					COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
5					<p><u>ALLUVIUM:</u> Brown Silty fine to coarse Sand, trace fine root fibers, trace fine root fibers, slightly micaceous, medium dense-dry to damp</p> <p><u>OLDER ALLUVIUM:</u> Red Brown to Brown Silty fine to medium Sand, little coarse Sand, very dense-damp</p>	7					
					Trench Terminated @ 8 feet						

INFILTRATION CALCULATIONS

Project Name	Majestic Freeway Business Center- Building 18		
Project Location	Riverside County (Perris), California		
Project Number	21G250-2		
Engineer	Caleb Bracket		

Infiltration Test No

I-1

Constants			
	Diameter (ft)	Area (ft ²)	Area (cm ²)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:35 AM	60	100	0	0	3000	0.00	1.37	0.00	0.54
	Final	10:35 AM	60	100		3000					
2	Initial	10:35 AM	30	100	0	3000	0	0.00	0.00	0.00	0.00
	Final	11:05 AM	90	100		3000					
3	Initial	11:05 AM	30	100	0	3000	100	0.00	0.09	0.00	0.04
	Final	11:35 AM	120	100		3100					
4	Initial	11:35 AM	30	100	0	3100	200	0.00	0.18	0.00	0.07
	Final	12:05 PM	150	100		3300					
5	Initial	12:05 PM	30	100	0	3300	0	0.00	0.00	0.00	0.00
	Final	12:35 PM	180	100		3300					
6	Initial	12:35 PM	30	100	0	3300	100	0.00	0.09	0.00	0.04
	Final	1:05 PM	210	100		3400					
7	Initial	1:05 PM	30	100	0	3400	0	0.00	0.00	0.00	0.00
	Final	1:35 PM	240	100		3400					

INFILTRATION CALCULATIONS

Project Name	Majestic Freeway Business Center- Building 18		
Project Location	Riverside County (Perris), California		
Project Number	21G253-2		
Engineer	Caleb Bracket		

Infiltration Test No

I-2

Constants			
	Diameter (ft)	Area (ft ²)	Area (cm ²)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:30 AM	30	0	1250	0	3500	3.43	3.20	1.35	1.26
	Final	10:00 AM	30	1250		3500					
2	Initial	10:00 AM	30	0	1100	0	3400	3.02	3.11	1.19	1.22
	Final	10:30 AM	60	1100		3400					
3	Initial	10:30 AM	30	0	850	0	3000	2.33	2.74	0.92	1.08
	Final	11:00 AM	90	850		3000					
4	Initial	11:00 AM	30	0	800	0	2900	2.19	2.65	0.86	1.04
	Final	11:30 AM	120	800		2900					
5	Initial	11:30 AM	30	0	800	0	2900	2.19	2.65	0.86	1.04
	Final	12:00 PM	150	800		2900					
6	Initial	12:00 PM	30	0	800	0	2800	2.19	2.56	0.86	1.01
	Final	12:30 PM	180	800		2800					
7	Initial	12:30 PM	30	0	800	0	2800	2.19	2.56	0.86	1.01
	Final	1:00 PM	210	800		2800					

INFILTRATION CALCULATIONS

Project Name	Majestic Freeway Business Center- Building 18		
Project Location	Riverside County (Perris), California		
Project Number	21G250-2		
Engineer	Caleb Bracket		

Infiltration Test No

I-3

Constants			
	Diameter (ft)	Area (ft ²)	Area (cm ²)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	8:30 AM	30	200	200	500	1500	0.55	1.37	0.22	0.54
	Final	9:00 AM	30	400		2000					
2	Initial	9:00 AM	30	500	100	2000	1200	0.27	1.10	0.11	0.43
	Final	9:30 AM	30	600		3200					
3	Initial	9:30 AM	30	600	50	3200	1100	0.14	1.01	0.05	0.40
	Final	10:00 AM	30	650		4300					
4	Initial	10:00 AM	30	650	50	4300	800	0.14	0.73	0.05	0.29
	Final	10:30 AM	30	700		5100					
5	Initial	10:30 AM	30	700	50	3200	700	0.14	0.64	0.05	0.25
	Final	11:00 AM	30	750		3900					
6	Initial	11:00 AM	30	750	50	3900	500	0.14	0.46	0.05	0.18
	Final	11:30 AM	30	800		4400					
7	Initial	11:30 AM	30	800	50	4400	400	0.14	0.37	0.05	0.14
	Final	12:00 PM	30	850		4800					

INFILTRATION CALCULATIONS

Project Name	Majestic Freeway Business Center- Building 18
Project Location	Riverside County (Perris), California
Project Number	21G250-2
Engineer	Caleb Bracket

Infiltration Test No

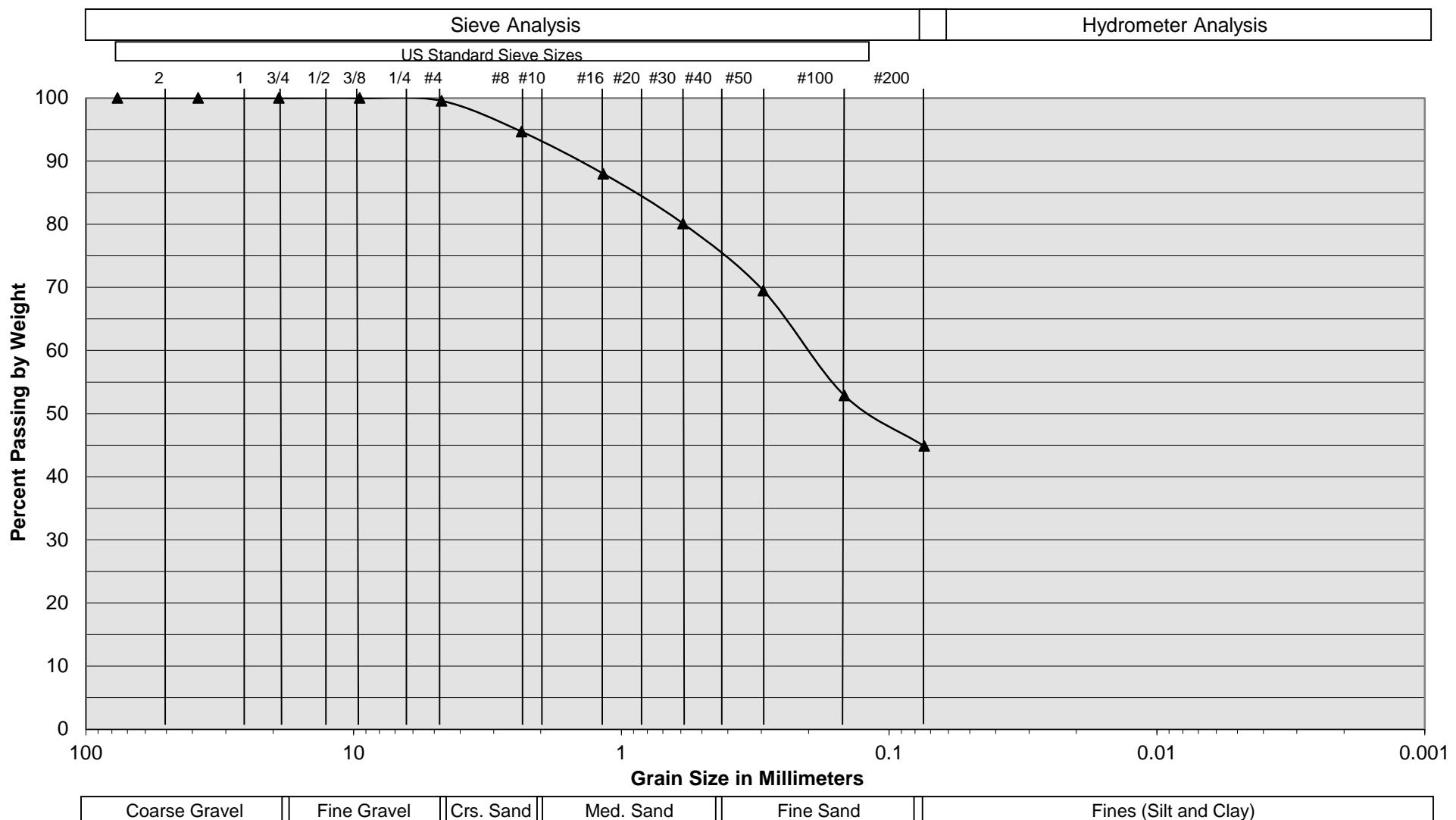
I-4

Constants			
	Diameter (ft)	Area (ft ²)	Area (cm ²)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval Elapsed (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm ³)	Annular Ring (ml)	Space Flow (cm ³)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:57 AM	15	0	1250	0	5200	6.85	9.50	2.70	3.74
	Final	10:12 AM	15	1250		5200					
2	Initial	10:15 AM	15	0	1050	0	4200	5.76	7.68	2.27	3.02
	Final	10:30 AM	30	1050		4200					
3	Initial	10:31 AM	15	0	900	0	3700	4.93	6.76	1.94	2.66
	Final	10:46 AM	45	900		3700					
4	Initial	10:48 AM	30	0	1200	0	6300	3.29	5.76	1.30	2.27
	Final	11:18 AM	75	1200		6300					
5	Initial	11:18 AM	30	0	1550	0	5500	4.25	5.03	1.67	1.98
	Final	11:48 AM	105	1550		5500					
6	Initial	11:50 AM	30	0	1300	0	5200	3.56	4.75	1.40	1.87
	Final	12:20 PM	135	1300		5200					
7	Initial	12:21 PM	30	0	1250	0	5100	3.43	4.66	1.35	1.83
	Final	12:51 PM	165	1250		5100					
8	Initial	12:52 PM	30	0	1200	0	5100	3.29	4.66	1.30	1.83
	Final	1:22 PM	195	1200		5100					

Grain Size Distribution



Sample Description

I-1 @ 3'

Soil Classification

Brown Silty fine Sand, trace medium to coarse Sand

Majestic Freeway Business Center - Building 13

Riverside County (Perris), California

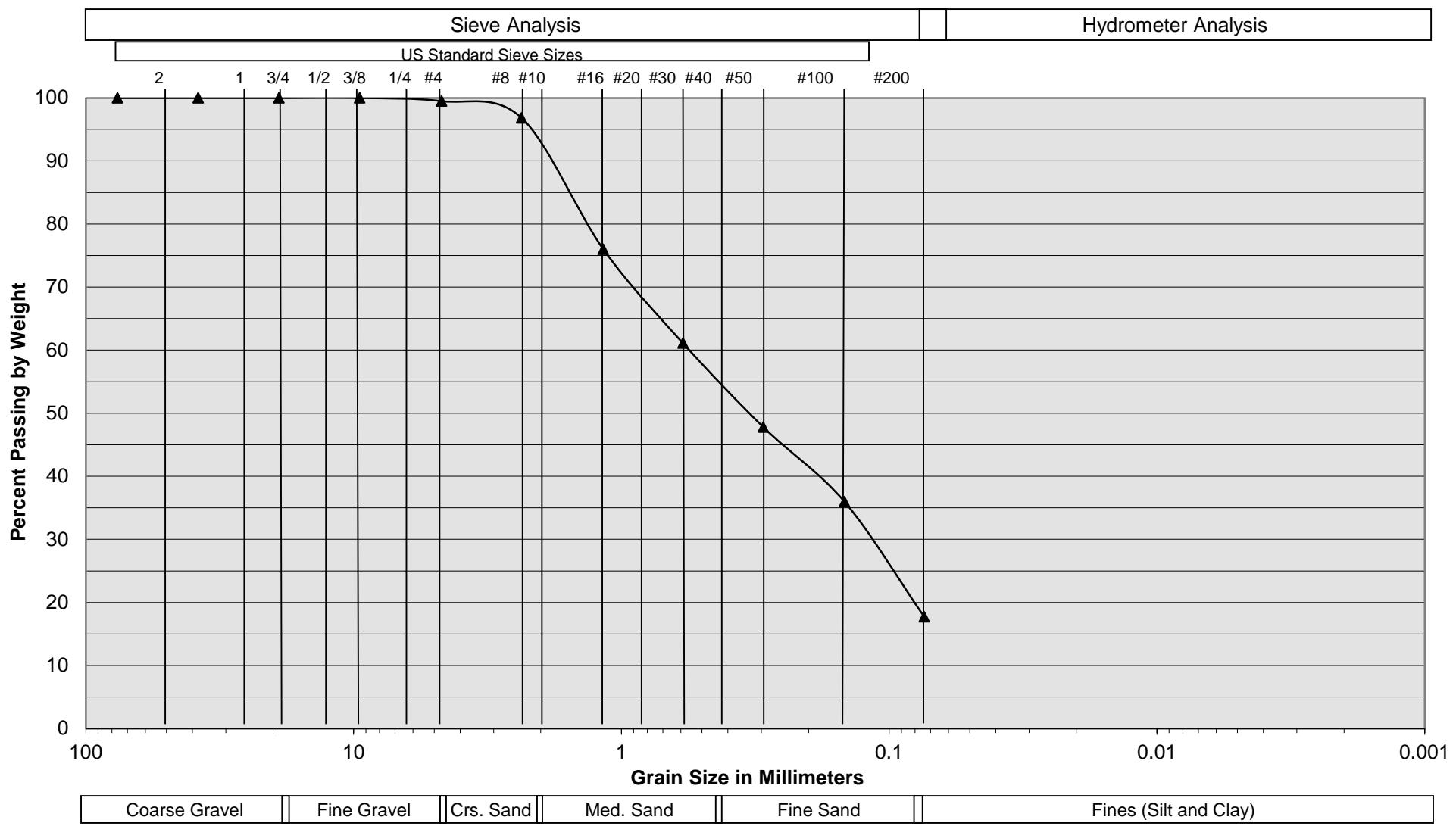
Project No. 21G150-2

PLATE C- 1



**SOUTHERN
CALIFORNIA
GEOTECHNICAL**
A California Corporation

Grain Size Distribution



Sample Description

I-2 @ 8'

Soil Classification

Brown Silty fine to medium Sand, trace coarse Sand

Majestic Freeway Business Center - Building 13
Riverside County (Perris), California

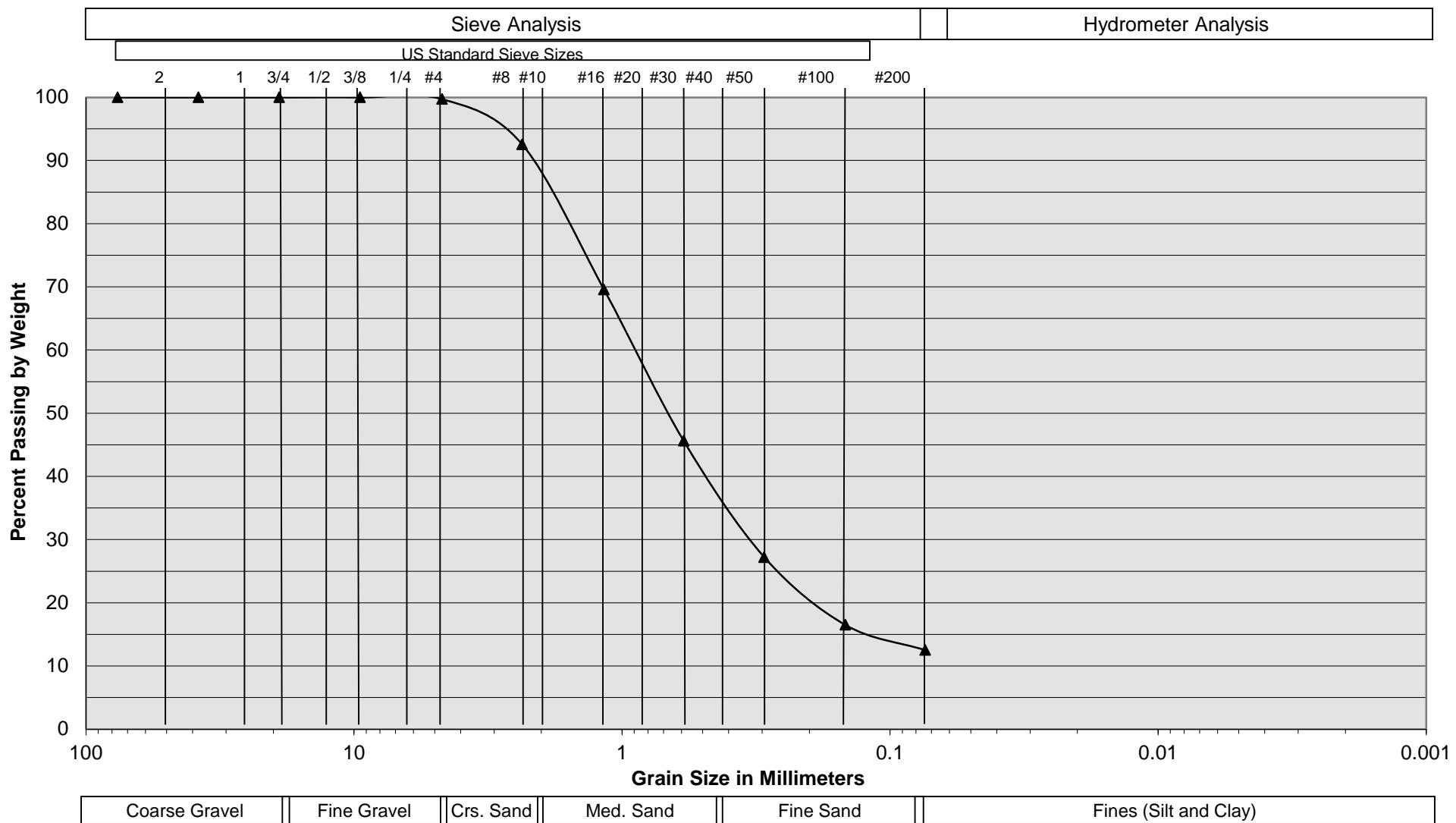
Project No. 21G150-2

PLATE C- 2



SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-3 @ 6'
Soil Classification	Red Brown to Brown Silty fine to medium Sand, little coarse Sand

Majestic Freeway Business Center - Building 13

Riverside County (Perris), California

Project No. 21G150-2

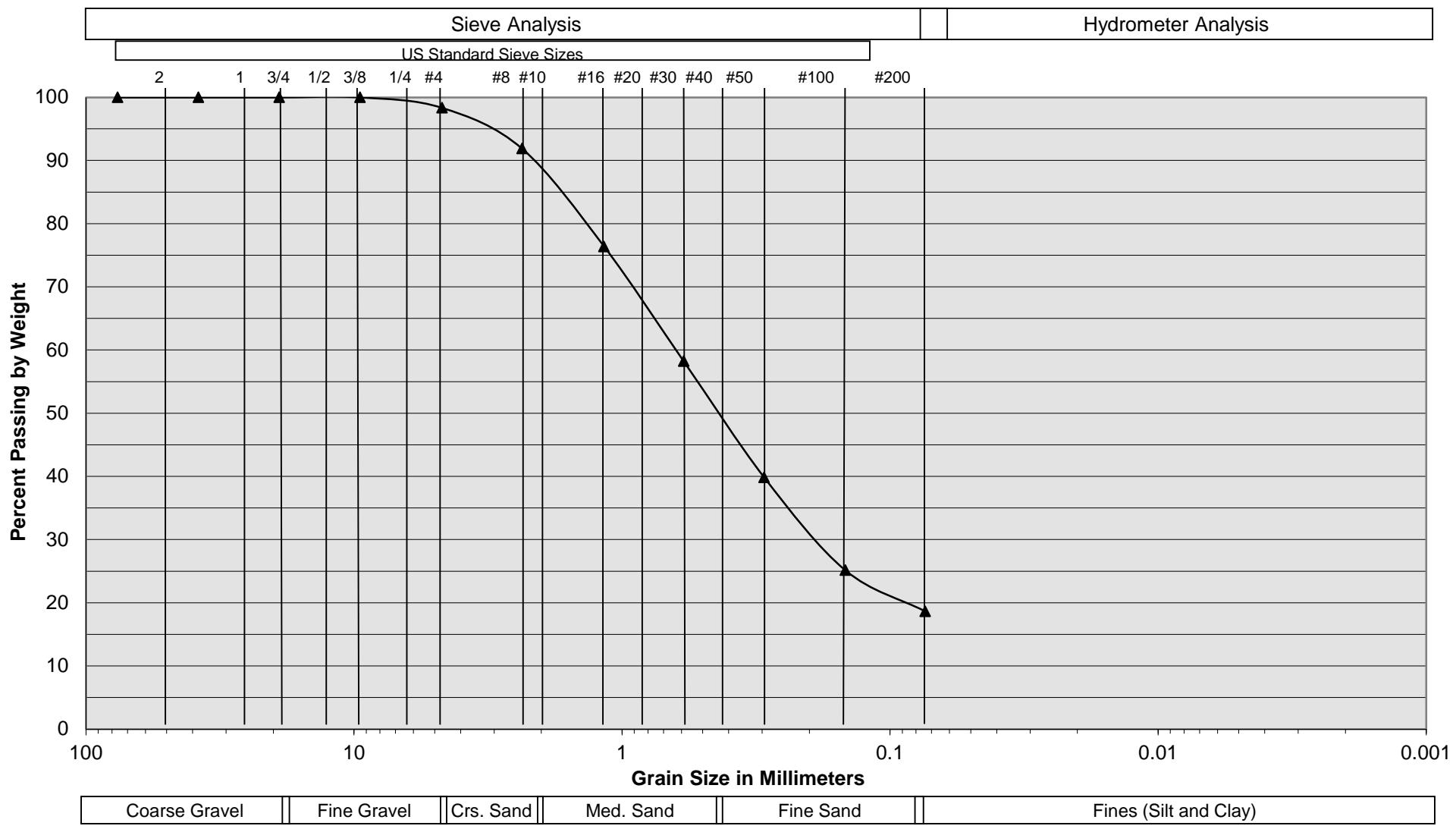
PLATE C- 3



SOUTHERN CALIFORNIA GEOTECHNICAL

A California Corporation

Grain Size Distribution



Sample Description

I-4 @ 8'

Soil Classification

Red Brown to Brown Silty fine to medium Sand, little coarse Sand

Majestic Freeway Business Center - Building 13

Riverside County (Perris), California

Project No. 21G150-2

PLATE C- 4



SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

NOT APPLICABLE

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

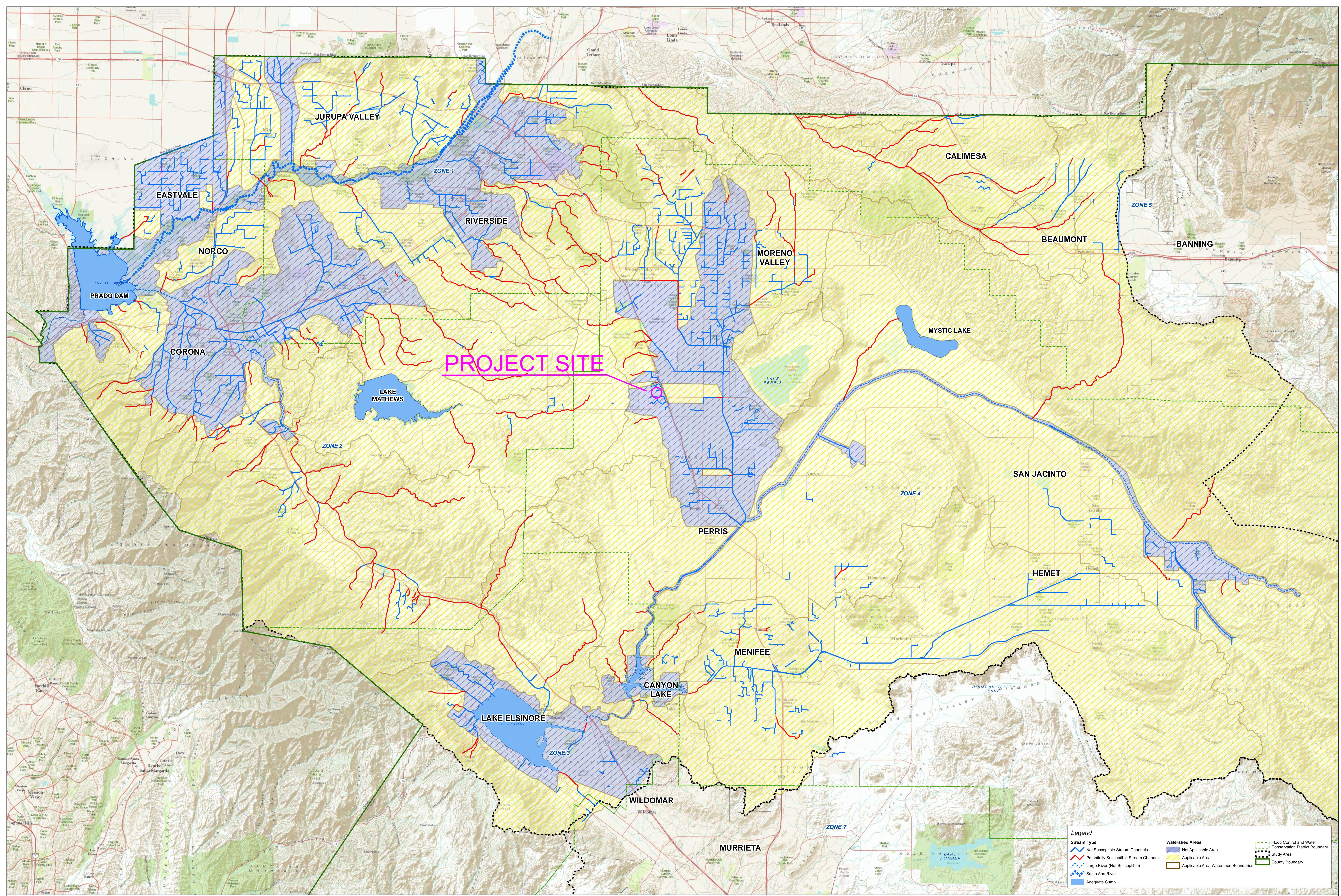
Bioretention Facility - Design Procedure		BMP ID Bld 13 - B1	Legend:	Required Entries
Company Name: Designed by:	PBLA Engineering SDL			Calculated Cells
			Date: 8/7/2022	County/City Case No.: PPT 220008
Design Volume				
Enter the area tributary to this feature		$A_T = 15.5$ acres		
Enter V_{BMP} determined from Section 2.1 of this Handbook		$V_{BMP} = 27,585$ ft ³		
Type of Bioretention Facility Design				
<input checked="" type="radio"/> Side slopes required (parallel to parking spaces or adjacent to walkways) <input type="radio"/> No side slopes required (perpendicular to parking space or Planter Boxes)				
Bioretention Facility Surface Area				
Depth of Soil Filter Media Layer		$d_S = 3.0$ ft		
Top Width of Bioretention Facility, excluding curb		$w_T = 35.0$ ft		
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$		$d_E = 1.78$ ft		
Minimum Surface Area, A_m $A_M (\text{ft}^2) = \frac{V_{BMP} (\text{ft}^3)}{d_E (\text{ft})}$		$A_M = 15,498$ ft ²		
Proposed Surface Area		$A = 17,116$ ft ²		
Bioretention Facility Properties				
Side Slopes in Bioretention Facility		$z = 4 : 1$		
Diameter of Underdrain		6 inches		
Longitudinal Slope of Site (3% maximum)		0 %		
6" Check Dam Spacing		0 feet		
Describe Vegetation:		Natural Grasses		
Notes:				

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

AREA OUTSIDE HCOC APPLICABILITY AREA PER RIVERSIDE COUNTY

FLOOD CONTROL AND WATER CONSERVATION DISTRICT HCOC APPLICABILITY MAP



HCOC Applicability Map

Hydromodification Susceptibility Map

Hydromodification Susceptibility Documentation Report and Mapping Riverside County Flood Control and Water Conservation District

Appendix 8:2-5 Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1 on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...		... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative	
<input type="checkbox"/> A. On-site storm drain inlets	<input type="checkbox"/> Locations of inlets.	<input type="checkbox"/> Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Maintain and periodically repaint or replace inlet markings. Provide stormwater pollution prevention information to new site owners, lessees, or operators. See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
<input type="checkbox"/> b. Interior floor drains and elevator shaft sump pumps		<input type="checkbox"/> State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	<input type="checkbox"/>	Inspect and maintain drains to prevent blockages and overflow.
<input type="checkbox"/> c. Interior parking garages		<input type="checkbox"/> State that parking garage floor drains will be plumbed to the sanitary sewer.	<input type="checkbox"/>	Inspect and maintain drains to prevent blockages and overflow.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> D1. Need for future indoor & structural pest control		<input type="checkbox"/> Note building design features that discourage entry of pests.	<input type="checkbox"/> Provide Integrated Pest Management information to owners, lessees, and operators.
<input checked="" type="checkbox"/> D2. Landscape/Outdoor Pesticide Use	<input type="checkbox"/> Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. <input checked="" type="checkbox"/> Show self-retaining landscape areas, if any. <input type="checkbox"/> Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	<input type="checkbox"/> State that final landscape plans will accomplish all of the following. <input type="checkbox"/> Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. <input checked="" type="checkbox"/> Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. <input checked="" type="checkbox"/> Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. <input checked="" type="checkbox"/> Consider using pest-resistant plants, especially adjacent to hardscape. <p>To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.</p>	<input checked="" type="checkbox"/> Maintain landscaping using minimum or no pesticides. <input checked="" type="checkbox"/> See applicable operational BMPs in "What you should know for....Landscape and Gardening" at http://rcflood.org/stormwater/Error! Hyperlink reference not valid. <input checked="" type="checkbox"/> Provide IPM information to new owners, lessees and operators.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> E. Pools, spas, ponds, decorative fountains, and other water features.	<input type="checkbox"/> Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	<input type="checkbox"/> See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
<input type="checkbox"/> F. Food service	<input type="checkbox"/> For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. <input type="checkbox"/> On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	<input type="checkbox"/> Describe the location and features of the designated cleaning area. <input type="checkbox"/> Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	<input type="checkbox"/> See the brochure, "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ Provide this brochure to new site owners, lessees, and operators.
<input checked="" type="checkbox"/> G. Refuse areas	<input checked="" type="checkbox"/> Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. <input checked="" type="checkbox"/> If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent runoff and show locations of berms to prevent runoff from the area. <input type="checkbox"/> Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	<input type="checkbox"/> State how site refuse will be handled and provide supporting detail to what is shown on plans. <input type="checkbox"/> State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	<input type="checkbox"/> State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> H. Industrial processes.	<input type="checkbox"/> Show process area.	<input type="checkbox"/> If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	<input type="checkbox"/> See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> I. Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	<ul style="list-style-type: none"> <input type="checkbox"/> Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. <input type="checkbox"/> Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. <input type="checkbox"/> Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site. 	<p>Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains.</p> <p>Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for:</p> <ul style="list-style-type: none"> ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank <p>www.cchealth.org/groups/hazmat/</p>	<input type="checkbox"/> See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> J. Vehicle and Equipment Cleaning	<ul style="list-style-type: none"> <input type="checkbox"/> Show on drawings as appropriate: <ul style="list-style-type: none"> (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed. 	<ul style="list-style-type: none"> <input type="checkbox"/> If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced. 	<p>Describe operational measures to implement the following (if applicable):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system. Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ <input type="checkbox"/> Car dealerships and similar may rinse cars with water only.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> k. Vehicle/Equipment Repair and Maintenance	<ul style="list-style-type: none"> <input type="checkbox"/> Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. <input type="checkbox"/> Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. <input type="checkbox"/> Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained. 	<ul style="list-style-type: none"> <input type="checkbox"/> State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. <input type="checkbox"/> State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. <input type="checkbox"/> State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. 	<p>In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:</p> <ul style="list-style-type: none"> <input type="checkbox"/> No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. <input type="checkbox"/> No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. <input type="checkbox"/> No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment. <p>Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/</p> <p>Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/</p>

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> L. Fuel Dispensing Areas	<ul style="list-style-type: none"> <input type="checkbox"/> Fueling areas⁶ shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. <input type="checkbox"/> Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area¹.] The canopy [or cover] shall not drain onto the fueling area. 		<ul style="list-style-type: none"> <input type="checkbox"/> The property owner shall dry sweep the fueling area routinely. <input type="checkbox"/> See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

⁶ The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> M. Loading Docks	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. <input type="checkbox"/> Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. <input type="checkbox"/> Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer. 		<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Move loaded and unloaded items indoors as soon as possible. <input checked="" type="checkbox"/> See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> n. Fire Sprinkler Test Water		<input type="checkbox"/> Provide a means to drain fire sprinkler test water to the sanitary sewer.	<input type="checkbox"/> See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
o. Miscellaneous Drain or Wash Water or Other Sources <input type="checkbox"/> Boiler drain lines <input type="checkbox"/> Condensate drain lines <input type="checkbox"/> Rooftop equipment <input type="checkbox"/> Drainage sumps <input type="checkbox"/> Roofing, gutters, and trim. <input type="checkbox"/> Other sources		<input type="checkbox"/> Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. <input type="checkbox"/> Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. <input type="checkbox"/> Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. <input type="checkbox"/> Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> P. Plazas, sidewalks, and parking lots.			<input checked="" type="checkbox"/> Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Operation and Maintenance

O&M DESCRIPTION AND SCHEDULE:

Based on the standard Source Control BMPs listed in the WQMP Guidelines, the following chart indicates which Source Control (Non-Structural) BMPs will be implemented at this site:

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
<p><u>Education for Property Owners, Tenants and Occupants:</u> The owner shall provide practical information materials: Water Quality Management on general housekeeping practices that contribute to the protection of stormwater quality. The future tenant/occupants will be given educational materials upon move-in and annually thereafter. Educational materials shall be located in the attachments of the WQMP. The owner and future tenant/occupants will be required to familiarize themselves with the WQMP Booklet and agree to abide by and perform maintenance functions.</p> <p>Start up date: Occupancy</p>	Owner	Owner	Owner	Owner shall provide tenant/occupants educational materials upon move-in and annually thereafter. In conformance to the Model WQMP, see Attachments for educational materials.

Operations & Maintenance Plan
 MAJESTIC FREEWAY BUSINESS CENTER
 BUILDING 13
 Riverside County, CA
 Page 2

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
<p>Activity Restrictions: Use restrictions (Addendum to Lease Agreement) shall be prepared by owner for the tenant/occupants and for the purpose of surface water quality protection. Owner shall enforce prohibitions of conditions, covenants, and restrictions (CC&Rs) and/or Lease Agreement to future tenant/occupants and thereafter. Use restrictions shall be utilized by said tenant/occupants. Additionally, no litter, liquids, or solids of any kind will be allowed to enter the on-site surface water drainage systems. Identified restrictions that will be imposed are as follows: Prohibit hosing down any paved surfaces where the result would be the flow of non-storm water into the street or storm drains, Prohibit dumping of any waste into catch basins, Prohibit blowing or sweeping of debris (leaf litter, grass clippings, litter,) into catch basins or streets, Prohibit discharges of fertilizer, pesticides, to streets or storm drains, Keep dumpster lids closed at all times.</p> <p>Start-up date: At point in time Activity Restrictions are made part of Lease Agreement.</p>	Owner	Owner	Owner	Owner shall provide Activity Restrictions to tenant/occupants upon move-in. Owner shall be responsible to enforce restrictions "indefinately."
<p>Landscape Planning:</p> <p>The landscape maintenance contractor shall perform the following on a weekly basis: Mowing, trimming/weeding, pruning and/or</p>	Owner	Owner	Owner	Owner shall contract with a reputable landscape maintenance contractor. The landscape maintenance contractor shall provide landscape maintenance

Operations & Maintenance Plan
 MAJESTIC FREEWAY BUSINESS CENTER
 BUILDING 13
 Riverside County, CA
 Page 3

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
<p>planting, and removal of litter, maintenance shall include, but not limited to, support structures. There shall be periodic inspection of the landscape areas to ensure the replacement of dead or diseased dying vegetation, Unhealthy or dead trees shall be replaced within seventy-two (72) hours, and the irrigation system is functioning properly. The landscape maintenance contractor shall utilize properly timed fertilizing and pesticide, weeding, pest control, and pruning, to preserve the landscapes water efficiency.</p> <p>Furthermore, the landscape maintenance contractor shall utilize proper management and their usage on fertilizers and pesticides this includes scheduling and disposal. The landscape maintenance contractor shall utilize landscape waste management (i.e., waste handling and disposal). Erosion control management shall be enforced, the landscape maintenance contractor shall inspect for erodible barren soil, maintain vegetative cover to prevent soil erosion, apply mulch or applicable alternative to serve as additional cover for soil stabilization. The landscape maintenance contractor shall train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements. The landscape maintenance contractor shall educate and train employees on the use of pesticides and pesticide application techniques. Only employees properly</p>				<p>experience/training in horticulture, fertilizer and pesticide usage, irrigation system knowledge, waste management, erosion control, storm water discharge prohibition, and wastewater discharge. Furthermore, have a spill contingency plan.</p> <p>Landscape Management shall be performed on a weekly basis.</p>

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
<p>trained to use pesticides can apply them. The contractor shall train employees on proper spill containment and cleanup. Establish a regular training schedule, train all new and future employees, and conduct annual refresher training; furthermore, use a training log or similar method to document training.</p> <p>Start-up date: at time of installation</p>				
<p>BMP Maintenance: Owner shall be responsible for <u>implementation</u> of each non-structural BMP and <u>scheduled</u> cleaning, maintenance and repair of all structural/treatment BMP facilities "indefinitely."</p> <p>Start-up date: at time of installation</p>	Owner	Owner	Owner	Owner shall be responsible for the inspection, operation, maintenance and repair of non-structural and structural/treatment facility BMPs, and shall document on the operation and maintenance schedule (log) for the life of the project. Frequency of maintenance shall be in accordance with "BMP Implementation Description" in Section 3.2.
<p>Litter Control: The owner shall provide trash enclosure to common area(s) to dispose of trash, additionally sidewalks and private parking lots shall be maintained for litter control. The owner shall schedule trash pick-up for disposal of dumpster(s) and free standing trash receptacles weekly of each year (office entries). Pedestrian walks shall be inspected and maintained for trash/debris on a weekly basis of each year and properly disposed of.</p>	Owner	Owner	Owner	<p>Owner shall schedule trash pick-up on a weekly basis of each year for the disposal of trash dumpster(s). Owner shall be responsible for enforcing prohibitions on trash/debris (proper disposal) of trash dumpster(s), and free standing trash receptacles. Additionally, ensure maintenance of common area litter control.</p> <p>Pedestrian walks shall be</p>

Operations & Maintenance Plan
 MAJESTIC FREEWAY BUSINESS CENTER
 BUILDING 13
 Riverside County, CA
 Page 5

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
Start-up date: at time of installation				<p>maintained of trash/debris weekly of each year.</p> <p>Furthermore, parking lots shall be maintained of trash/debris on a weekly basis of each year and properly disposed of.</p>
Spill Contingency Plan: The owner (building operator), shall prepare a "Spill Contingency Plan" for use by specified types of building or suite occupancies (Specified Use of Buildings Awaiting Lease) and which mandates stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials, documentation, etc. Business Emergency/Contingency Plan Guidelines and Forms shall be provided in accordance with Seciton 6.95 of the California Health and Safety Code. The owner shall educate said tenant/occupants on the Spill Contingency Plan upon move-in and annually thereafter. The owner shall be responsible to enforce the Business Emergency/Contingency Plan Guidelines to subject property through the life of the project.	Owner	Owner	Owner	Owner shall prepare a spill cleanup plan that includes: procedures for different types of spills, schedule for initial & annual training of employees, cleanup kits in well-marked accessible areas, and designation of key employee who monitors cleanup, posting the plan in the work area. Spill Contingency Plan (Business Emergency/Contingency Plan) shall be enforced and utilized by said tenant/occupants and their employees. The Spill Contingency Plan runs with the property "indefinitely".
Employee Training: The owner will be required to educate their contractor's and the contractor's employees, and shall provide them with Best Management Practices (BMPs) based on their tasks. (i.e. landscaping/irrigation personnel,	Owner	Owner	Owner	Owner shall be responsible to provide educational materials to contractor's; (landscape maintenance, catch basin cleaning, landscape and irrigation maintenance, etc.). The owner shall provide a signed form from the contractor

Operations & Maintenance Plan
 MAJESTIC FREEWAY BUSINESS CENTER
 BUILDING 13
 Riverside County, CA
 Page 6

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
street sweeping of parking lot, etc.). Start-up date: Upon indenture				that he or she has been given educational materials based on their task and agree to abide by conditions set forth. Educational Materials shall be provided upon indenture and annually thereafter.
Catch Basin Inspection: The catch basin with fossil filter insert located south of site (traffic grate inlet) within the parking lot shall be maintained by the owner. The owner shall maintain visual observation of catch basin(s) as stated on the Operations and Maintenance/Stated Maintenance Form (See attachment S). Removal of trash/debris shall be removed by owner/developer and properly disposed of within one (1) day. Furthermore, the owner shall develop a maintenance/service contract with Drainage Protection Systems (DPS) a dba Kristar Enterprises, Inc. for structural maintenance. The contract maintenance shall include, but not limited to; sediment removal by vactor truck, replacement of Fossil Filter Inserts, and for the annual renewal of medium. Structural integrity of broken or otherwise damaged inserts shall be repaired/replaced. Start-up date: at time of installation	Owner	Owner	Owner	Catch basin preventative maintenance and routine inspections shall be performed by the owner in accordance with the provisions of this Water Quality Management Plan. The owner shall inspect for debris/trash this shall be a visual observation before and once during each target storm event, weekly during the extended wet periods and monthly during the dry season. The debris/trash shall be removed and properly disposed of within 1 day. The oil and grease removal shall be a visual observation the maintenance indicator for removal are as follows: Absorbent granules are dark gray, or darker or unit is clogged with sediment. The visual observation shall be conducted at the end of each target storm event, weekly during extended wet periods and monthly during the dry season. Inspection for structural integrity shall be a visual observation of broken or otherwise damaged insert on a monthly basis. Replace media before November 1 of each

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
				year. As a guide to the operation and maintenance on how to collect and dispose of sediments: Sediments must be collected by use of a vactor truck which vacuums the sediments out of the drop inlets and other drainage structures. The sediments are then transported daily to designated sites. Registered transporters are used to ship any hazardous sediments from the sites to authorized hazardous waste disposal facilities under standard California Uniform Hazardous Waste Manifests.
<u>Street Sweeping Private Drive Aisle & Parking Lot:</u> Sweeping provides two primary benefits. The more obvious benefit is the collection and removal of paper, leaves, and other visible debris that collect in the gutters. In addition to being unsightly, this debris can block the catch basins and other storm water facilities, causing localized flooding during heavy rains. An equally important, but less visible benefit is the removal of metal particles, and other hazardous waste products left by vehicles. Although they are virtually invisible, these particles can be extremely harmful to the fish and other wildlife. Street sweeping is an effective method of removing both the large and microscopic pollutants that	Owner	Owner	Owner	Owner shall contract with a Street Sweeping Company for private drive aisle and parking lot maintenance. The owner shall be responsible to provide educational materials upon indenture and annually thereafter. The maintenance service contract shall include street sweeping parking lot and drive aisle and inspected for trash/debris/grease and oil on a bi-weekly basis of each year.

Operations & Maintenance Plan
 MAJESTIC FREEWAY BUSINESS CENTER
 BUILDING 13
 Riverside County, CA
 Page 8

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
collect on parking lots.				
Storm Drain System Stenciling and Signage: Phrase “No Dumping-Drains to River” to be stenciled on catch basin(s) to alert the public to the destination of pollutants discharged into stormwater. City approved stencil/signage. The owner may contact das Manufacturing, Inc. to purchase the catch basin stenciling/signage. Call “das Curb Maker” at (800) 549-6024. Start up date: Time of installation	Owner	Owner	Owner	Owner shall be responsible to maintain storm drain stenciling & signage: Annually, and/or replace as needed
Inlet Stormwater Filters: Filters shall be full trash capture capable filters (Triton or equal) -Visually inspect for defects and illegal dumping. Notify proper authorities if illegal dumping has occurred. -Using an industrial vacuum, the collected materials shall be removed from the filter basket and disposed of properly.	Owner	Owner	Owner	Semi-annually (October 1st and February 1st) through maintenance service contract with the vendor or equally qualified contractor.

Operations & Maintenance Plan
 MAJESTIC FREEWAY BUSINESS CENTER
 BUILDING 13
 Riverside County, CA
 Page 9

Description of BMP and Method of Implementation	BMP Responsibility	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
<p><u>Efficient Irrigation:</u> The irrigation system shall consist of both drip / bubbler, and highly efficient pressure regulating spray / rotor heads with check valves to prevent overspray and runoff. Sprinkler heads are spaced 24" away from non-permeable paving to prevent runoff. The irrigation system is separated into hydrozones considering plant species factor (according to WULCOL III), plant density, and microclimate. The irrigation system is managed by an ET Based Controller (ET Water Controller) with flow sensor, master valve, and rain shut-off sensor.</p> <p>Project site shall <u>utilize</u> drought tolerant plants, shrubs and trees.</p> <p>Owner shall contract with landscape contractor to maintain landscaped areas of debris, grass clippings, and litter. Owner shall include in contract with landscape contractor to inspect irrigation lines and spray heads for overall efficiency and performance.</p> <p>Start up date: Time of installation</p>	Owner	Owner	Owner	<p>Owner shall be responsible to provide educational material to landscape maintenance contractor for proper functioning of landscape irrigation and water conservation upon indenture and annually thereafter.</p> <p>Maintain: Weekly</p>

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information



Riverside County Stormwater Program Members

City of Banning
(951) 922-3105

City of Beaumont
(951) 769-8520

City of Calimesa
(909) 795-9801

City of Canyon Lake
(951) 244-2955

City of Cathedral City
(760) 770-0340

City of Coachella
(760) 398-3502

City of Corona
(951) 736-2447

City of Desert Hot Springs
(760) 329-6411

City of Eastvale
(951) 361-0900

City of Hemet
(951) 765-2300

City of Indian Wells
(760) 346-2489

City of Indio
(760) 391-4000

City of Jurupa Valley
(951) 332-6464

City of Lake Elsinore
(951) 674-3124

City of La Quinta
(760) 777-7000

City of Menifee
(951) 672-6777

City of Moreno Valley
(951) 413-3000

City of Murrieta
(951) 304-2489

City of Norco
(951) 270-5607

City of Palm Desert
(760) 346-0611

City of Palm Springs
(760) 323-8299

City of Perris
(951) 943-6100

City of Rancho Mirage
(760) 324-4511

City of Riverside
(951) 826-5311

City of San Jacinto
(951) 487-7330

City of Temecula
(951) 694-6444

City of Wildomar
(951) 677-7751

Coachella Valley Water District
(760) 398-2651

County of Riverside
(951) 955-1000

Riverside County Flood Control District
(951) 955-1200

Stormwater Pollution

What you should know for...

Industrial & Commercial Facilities

Best Management Practices (BMPS) for:

- Industrial Facilities
- Commercial Facilities



YOU can prevent Stormwater Pollution following these practices...

Industrial and Commercial Facilities

The Riverside County Stormwater Program has identified a number of Best Management Practices (BMPs) for Industrial and Commercial Facilities. These BMPs control and reduce stormwater pollutants from reaching our storm drain system and ultimately our local water bodies. City and County ordinances require businesses to use these BMPs to protect our water quality. Local cities and the County are required to verify implementation of these BMPs by performing regular facility inspections.

Prohibited Discharges

Discontinue all non-stormwater discharges to the storm drain system. It is *prohibited* to discharge any chemicals, paints, debris, wastes or wastewater into the gutter, street or storm drain.

Outdoor Storage BMPs

- Install covers and secondary containment areas for all hazardous materials and wastes stored outdoors in accordance with County and/or City standards.
- Keep all temporary waste containers covered, at all times when not in use.
- Sweep outdoor areas instead of using a hose or pressure washer.
- Move all process operations including vehicle/equipment maintenance inside of the building or under a covered and contained area.
- Wash equipment and vehicles in a contained and covered wash bay which is closed-loop or connected to a clarifier sized to local standards and discharged to a sanitary sewer or take them to a commercial car wash.



Spills and Clean Up BMPs

- Keep the work site clean and orderly. Remove debris in a timely fashion. Sweep up the area.
- Clean up spills immediately when they occur, using dry clean up methods such as absorbent materials or sweep followed by proper disposal of materials.

- Always have a spill kit available near chemical loading dock doors and vehicle maintenance and fueling areas.
- Follow your Business Emergency Plan, as filed with the local Fire Department.
- Report all prohibited discharges and non-implementation of BMPs to your local Stormwater Coordinator as listed on the back of this pamphlet.
- Report hazardous materials spills to 951-358-5055 or call after hours to 951-782-2973 or, if an emergency, call the Fire Department's Haz Mat Team at 911.



Plastic Manufacturing Facilities BMPs

AB 258 requires plastic product manufacturers to use BMPs, such as safe storage and clean-up procedures to prevent plastic pellets (nurdles) from entering the waterway. The plastic pellets are released into the environment during transporting, packaging and processing and migrate to waterways through the storm drain system. AB 258 will help protect fish and wildlife from the hazards of plastic pollution.

Training BMPs

As prescribed by your City and County Stormwater Ordinance(s), train employees in spill procedures and prohibit non-stormwater discharges to the storm drain system. Applicable BMP examples can be found at www.cabmphandbooks.com.

Permitting

Stormwater discharges associated with specific categories for industrial facilities are regulated by the State Water Resources Control Board through an Industrial Stormwater General Permit. A copy of this General Permit and application forms are available at: www.waterboards.ca.gov, select stormwater then the industrial quick link.

To report illegal dumping or for more information on stormwater pollution prevention call: 1-800-506-2555 or e-mail us at: fcpdes@rcflood.org.

IRRIGATION RUNOFF

STORMWATER FACT SHEET



Report Irrigation Runoff or Stormwater Pollution:
800.506.2555

RIVERSIDE COUNTY
WATERSHED PROTECTION

OVERWATERING

Overwatering causes irrigation runoff that may contain pollutants such as pesticides, herbicides, fertilizers, pet waste, yard waste, and sediments which can be hazardous to residents and harmful to our environment. Runoff can also serve as a transport mechanism for other pollutants already on the ground or in the curb gutter. Irrigation runoff entering the storm drain system is an illicit discharge.

BEST PRACTICES

Urban runoff begins when yards and landscaped areas are over-irrigated. Irrigation systems require regular maintenance and visual inspection of the system should be performed to prevent over-spray, leaks, and other problems that result in runoff to storm drains, curbs and gutters.

You can **prevent pollution** by conserving water on your property. Water during cooler times of the day (before 10am and after 6pm).

- Adjust sprinklers to stop overspray and runoff.
- Make needed repairs immediately.
- Use drip irrigation, soaker hoses, or micro-spray systems.
- Use an irrigation timer to pre-set watering times.
- Use a control nozzle or similar mechanism when watering by hand.
- Switch to a water-wise landscape - native plants need less fertilizers, herbicides, pesticides and water.

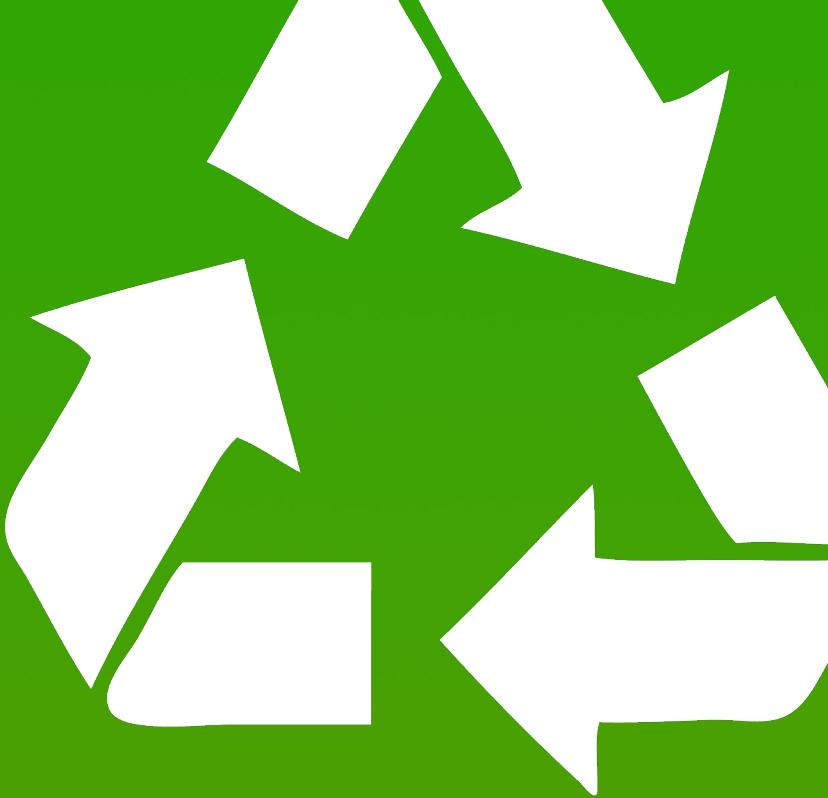


PROTECT OUR WATERSHED

Many people think that when water flows into a storm drain it is treated, but the storm drain system and the sanitary sewer system are not connected. Everything that enters storm drains flows untreated directly into our creeks, rivers, lakes, beaches and ultimately the ocean. Storm water often contains pollutants, including chemicals, trash, and automobile fluids, all of which pollute our watershed and harm fish and wildlife.

Whether at home or work, you can help reduce pollution and improve water quality by using the above Best Management Practices (BMP's) as part of your daily clean up and maintenance routine.





The Complete Guide to Residential Recycling



Northwest Riverside County
Banning, Calimesa, Corona, Eastvale, Jurupa Valley,
Moreno Valley, Norco, Riverside

Used Oil and Filters



Recycling used motor oil and filters is easy!

Simply take them to one of the certified collection centers below. It's free!

Banning

AutoZone

3453-A W. Ramsey St.
(951) 849-7626



Certified Tire & Service Center

Goodyear
1820 W. Ramsey St.
(951) 849-5028

Diamond Hills Auto Group
4545 W. Ramsey St.
(951) 849-7861

Cruz Industrial Truck Inc.
313 South Gallaher Way
(951) 849-7861

Corona

AutoZone

501 North McKinley St.
(951) 278-2073



AutoZone

1280 East Ontario Ave.
(951) 273-1583



AutoZone

1014 W. 6th St.
(951) 371-4730



Corona Nissan

2575 Wardlow Rd.
(877) 322-6739

Firestone Store

522 N. Main St.
(951) 735-4101

Goodyear
Mountain View Tire
1630 E. Ontario Ave.
(951) 808-0818

Hamner Towing
& Service Center
2125 Railroad St.
(951) 734-9331

Heavy Equipment Rentals
13013 Temescal Cyn. Rd.
(951) 609-4623

Jiffy Lube
906 W. 6th St.
(951) 549-9060

Jiffy Lube
1600 E. Ontario Blvd.
(951) 284-0922

O'Reilly Autoparts
1220 Magnolia Ave.
Suite 102
(951) 273-9891



O'Reilly Autoparts
1142 W. 6th St.
(951) 735-0936



Pep Boys
581 N. Main St.
(951) 279-9230



Quality Toyota
1700 W. Sixth St.
(951) 734-6020

Ramona Tire
304 W. Sixth St.
(951) 734-1222

Certified Tire and Service
624 N. Main St.
(951) 284-3443

Certified Tire and Service
2189 Sampson Ave., # 111
(951) 547-2080

Team Dykstra
Carwash & Lube Center
2315 California Ave.
(951) 898-6482

Eastvale

Mountain View Tire
6080 Hamner Ave., #105
(909) 484-9497

Autozone
14228 Schleisman Rd.
(951) 898-4712



Jurupa Valley

D & B Automotive and Transmission
4321 Campbell St., #C
(951) 681-6483

Firestone Complete Auto Care
8360 Limonite Ave.
(951) 934-7304

LKQ Pick A Part
3760 Pyrite St.
(800) 749-2720

O'Reilly Autoparts
8702 Limonite Ave.
(951) 685-0822





Used Oil and Filters

You can also find Certified Collection Centers on the Cal Recycle Website:
www.calrecycle.ca.gov/recycle

Scher Goodyear Tire #24
6072 Camino Real
(951) 685-1000

AutoZone
3782 Riverview Dr.
(951) 275-0301

Moreno Valley

Auto Express
Moreno Valley
24035 Sunnymead Blvd., #G
(951) 924-6363

AutoZone
27660 Eucalyptus Ave.
(951) 242-5190

AutoZone
16210 Perris Blvd.
(951) 242-2026

AutoZone
24570 Alessandro Blvd.
(951) 242-8439

AutoZone
12601 Perris Blvd.
(951) 242-4353

AutoZone
23510 Sunnymead Blvd.
(951) 924-5460

Buds Moreno Valley Tire Pros
22510 Alessandro Blvd.
(951) 776-7211

Certified Tire & Service Center
16190 Perris Blvd.
(951) 243-5655

Certified Tire & Service Center
23920 Alessandro Blvd., #A
(951) 656-6466

Certified Tire & Service Center
23135 Hemlock Ave.
(951) 369-0025

Firestone
24673 Alessandro Blvd.
(951) 242-6631

Integrity Tire
24901 Sunnymead Blvd.
(951) 656-6466

Moss Bros. Chevrolet
12625 Auto Mall Dr.
(951) 658-3145

Moss Brothers Honda
27910 Eucalyptus Ave.
(951) 486-9366

Moss Brothers Buick, GMC
8146 Auto Drive
(951) 242-2223

Moss Brothers Chrysler Jeep Dodge
27810 Eucalyptus Ave.
(951) 486-9288

Moss Brothers Toyota
12630 Motor Way
(951) 247-8000

Moss Brothers Volkswagen
27750 Eucalyptus Ave.
(951) 485-4188

O'Reilly Autoparts #1304
24021 Alessandro Blvd., #C
(951) 242-0641

O'Reilly Autoparts #1704
12240 Perris Blvd.
(951) 247-5509

Pep Boys #724
23470 Sunnymead Blvd.
(951) 247-4564

Valvoline Instant Oil Change
23165 Hemlock Ave.
(951) 247-1873

Norco

AutoZone #3340
1404 Hamner Ave.
(951) 817-9432

Browning Dodge Chrysler Jeep Ram
1983 Hamner Ave.
(951) 272-3110

Jiffy Lube
2925 Hamner Ave.
(951) 284-0210

Goodyear Mountain View Tire
2935 Hamner Ave.
(877) 872-0133

O'Reilly Autoparts
1050 Hamner Ave.
Suite 1616
(951) 898-1283

Used Oil and Filters



RECYCLE
USED OIL

Riverside

Auto Express

Riverside

11850 Magnolia Ave.

(951) 351-8875



AutoZone

7315 Indiana Ave.

(951) 637-6701



AutoZone

1947 University Ave.

(951) 788-4013



AutoZone

4195 Van Buren Blvd.

(951) 359-7760



AutoZone

19486 Van Buren Blvd.

(951) 653-5585



AutoZone

10249 Arlington Ave.

(951) 688-0296



AutoZone

6047 Magnolia Ave.

(951) 784-9201



AutoZone

3400 La Sierra Ave.

(951) 354-0781



BMW Of Riverside

3060 Adams St.

(951) 785-4444

Bud's Tire and Wheel

8651 Indiana Ave.

(951) 776-7211

Bud's Tire and Wheel

Orangecrest

15967 Wood Rd.

(951) 776-7211

Goodyear Certified Tire & Service Center

8994 Trautwein Rd.

(951) 653-6800

Goodyear Certified Tire & Service Center

7341 Indiana Ave.

(951) 343-8535

Dutton Motor Company

8201 Auto Dr.

(951) 687-2020

Firestone Store

4199 Market St.

(951) 289-7811

Firestone Store

10091 Magnolia Ave.

(951) 977-5863

George Fritts Auto Repair

91 Commercial Ave.

(951) 788-9043

Jiffy Lube

3693 La Sierra Ave.

(951) 359-8999



Malcolm Smith Motorsports

7599 Indiana Ave.

(951) 687-1300

Moss Motors Dodge

8151 Auto Center Dr.

(951) 688-6200

O'Reilly Autoparts

6160 Arlington Ave.

(951) 689-0944



O'Reilly Autoparts

3790 Jurupa Ave.

(951) 682-6082



O'Reilly Autoparts

1691 University Ave.

(951) 222-2900



O'Reilly Autoparts

9929 Magnolia Ave.

(951) 359-3041



O'Reilly Autoparts

18570 Van Buren Blvd.

(951) 780-8721



Pep Boys #690

10831 Magnolia Ave.

(951) 354-0100

Raceway Ford

5900 Sycamore Canyon Blvd.

(951) 784-1000

Raceway Nissan

6030 Sycamore Canyon Blvd.

(951) 571-9300

Riverside Mitsubishi and Kia

8100 Auto Dr.

(951) 509-1000



Used Oil and Filters

Riverside Nissan
8330 Indiana Ave.
(951) 509-6581

Singh Chevrolet
8200 Auto Center Dr.
(951) 688-8111

Spoiled
2634 E. Alessandro Blvd.
(951) 656-2300

Toyota of Riverside
7870 Indiana Ave.
(951) 687-1622

Valvoline Instant Oil Change
3504 Central Ave.
(951) 367-0411

Valvoline Instant Oil Change
7450 Mission Grove
Pkwy. South
(951) 780-2500

Valvoline Instant Oil Change
7437 Arlington Ave.
(951) 689-7805

Valvoline Instant Oil Change
3417 Arlington Ave.
(951) 788-7725

Valvoline Instant Oil Change
18681 Van Buren Blvd.
(951) 789-2882

Valvoline Instant Oil Change
3335 Iowa Blvd.
(951) 367-0147

Walters Mercedes-Benz
3213 Adam's St.
(888) 656-3915

Walters Porsche/Audi
3210 Adams St.
(888) 656-3915

Curbside pickup of used oil is available in some cities in Riverside County. Contact your waste hauler for more information. Waste hauler contact information is provided on the back page of this guide.



You may not need to change your oil every 3000 miles! Save time, money, and the environment by visiting www.checkyournumber.org to find out what your manufacturer recommended oil change interval is. Check your number is provided by CalRecycle.

Locations marked with a  **also accept oil filters.**

Please DO NOT drop off oil when the location is closed. For more information about used oil collection centers call 800-350-4OIL.

Household Hazardous Waste

Examples of household waste that are considered hazardous include:

- Batteries (all types)
- Electronic Waste
- Paint
- Used Oil and Antifreeze
- Sharps/ Needles



Permanent Household Hazardous Waste Collection Centers

Lake Elsinore Area (Closed January and December)

Lake Elsinore Regional Permanent HHW Collection Facility
512 N. Langstaff Street, Lake Elsinore, 92530

Open first Saturday of the month*, 9:00 a.m. to 2:00 p.m.

*Except holiday weekends and during inclement weather.

Riverside Area

Agua Mansa Regional Permanent HHW Collection Facility
1780 Agua Mansa Road, Riverside, 92509

Open non-holiday Saturdays*, 9:00 a.m. to 2:00 p.m.

*Except during inclement weather.

Regional ABOP Collection Centers (Antifreeze, Batteries, Oil and Oil Filters, and Latex Paint ONLY)

Murrieta Area

County Road Yard
25315 Jefferson Avenue, Murrieta, 92562
Open non-holiday Saturdays, 9:00 a.m. to 2:00 p.m.

Beaumont / Banning Area

Lamb Canyon Landfill
16411 Lamb Canyon Rd, Beaumont, 92223
Open non-holiday Saturdays, 9:00 a.m. to 2:00 p.m.

These sites accept residential waste only. For more information, contact the Riverside County Household Hazardous Waste Department Hotline at **800-304-2226** or **951-486-3200**, or visit:

www.rivcowm.org/opencms/hhw/index.html

Household Hazardous Waste

Below is a list of materials accepted at permanent HHW collection sites.*

Chemicals and Cleaners

Adhesives	Flea Powder	Paint - Latex / Oil Based
Air Freshener	Floor / Surface Cleaners	Paint Stripper / Thinner
Aluminum Cleaners	Fungicides	Photo Chemicals
Ammonia	Furniture Polish	Pool / Spa Chemicals
Antifreeze	Gas / Diesel Fuel	Rodent Bait / Poison
Brake Fluid	Glue	Roof Coating
Carburetor Cleaner	Gun Cleaner	Shoe Dye
Caulking	Hair Dye	Spot Remover
Chlorine Bleach	Hobby Chemicals	Transmission Fluid
Chrome Polish	Insecticides / Pesticides	Turpentine
Disinfectant	Kerosene / Lamp Oil	Varnish
Drain Cleaner	Lighter Fluid	Weed Killer / Herbicide
Engine Degreaser	Motor Oil	Wood Preservative
Fertilizer	Mercury Devices	
Fiberglass and Resins	Oven Cleaner	

Aerosols and Tanks

Aerosol Insecticides
Aerosol Cans
BBQ Propane Tanks
Camp Propane Tanks

E-Waste and Batteries

Batteries (all types)
Electronic Devices
Fluorescent Bulbs / Tubes
Old TVs and Computers

Medical Waste

Sharps / Needles

Please DO NOT bring the following types of materials (If you have any of these wastes please call (951) 486-3200):

Unacceptable Materials

Business, Non-Profit, or Out-of-County Waste	Appliances
Explosives / Ammunition	Tires
Radioactive or Remediation Materials	55 or 30 Gallon Drums
Medical / Infectious Waste (Except Sharps)	Compressed Gas Cylinders >40 lbs
Asbestos	Trash

*Maximum Chemical Load: 5 Gallons or 50lbs per trip. Residential waste only, no business waste accepted.

Recycling

What can go into your curbside recycling bins? Not sure what you can recycle? Check out the list below.

Paper and Cardboard

- Books and Coloring Books
- Cardboard
- Cardstock and Construction Paper
- Office Paper
- Egg Cartons
- Clean Food Boxes
- Junk Mail and Envelopes
- Magazines and Newspapers
- Notebook Paper
- Paper Bags
- Telephone Books



Metal

- Aluminum and Steel Cans
- Clean Aluminum Foil
- Scrap Metal



Glass Jars and Bottles

- Glass Jars
- Beverage Bottles



Plastic Bottles and Grocery Bags

- Plastic Milk Jugs
- Plastic Beverage Containers
- Plastic Grocery Bags



Recycling

Used Tires

Used tires are accepted at various locations in Riverside County. There is generally a fee to dispose of tires. The following locations accept tires:

Badlands Landfill

31125 Ironwood Ave., Moreno Valley, 92553



Lamb Canyon Landfill

16411 Lamb Canyon Rd., Beaumont, 92223

Visit www.rivcowm.org/opencms/landfill_info/landfill_fees.html for information on current landfill pricing.

BAS Recycling, Inc.

14050 Day St., Moreno Valley, 92553

(909) 383-7050

Call facility for pricing.

Electronic Waste Recyclers

Badlands, Lamb Canyon, and El Sobrante Landfills accept up to 2 CRT devices (e.g. computer monitors or TVs) per day for recycling at **no cost** during operating hours. The following recyclers also accept electronic waste:

Gold'n West Surplus, Corona - (951) 371-2020

Graebel Los Angeles Movers, Corona - (800) 373-6552

WM Recycle America, Jurupa Valley - (951) 681-4297

Waste Management, Inc., Moreno Valley - (951) 242-0421

Your Neighborhood Recycling, Moreno Valley - (951) 796-7673

1-800-GOT-JUNK, Riverside - (909) 425-9722

Other Recycling Facilities

For a complete list of recycling facilities visit www.calrecycle.ca.gov.

Earth911.com also provides valuable information and resources about recycling and recycling facilities.

Recycling Centers

What should you do with those empty cans and bottles? Below is a list of centers that accept beverage containers for recycling*.

Banning

Banning Recycling
284 S. 8th St.
(951) 922-9236

Ramsey Recycling
1243 E. Ramsey St.
(951) 849-5997

Eastvale

rePlanet
7070 Archibald Ave.
(951) 520-1700

rePlanet
12660 Limonite Ave.
(951) 520-1700

Calimesa

rePlanet
1155 Calimesa Blvd.
(877) 737-5263

Corona

NexCycle
535 N. McKinley St.
(800) 969-2020

rePlanet
260 W. Foothill Pkwy.
(951) 520-1700

rePlanet
1193 Magnolia Ave.
(877) 737-5263

rePlanet
1288 Border Ave.
(877) 737-5263

Sanchez Recycling Inc.
1130 W. 6th St.
(714) 793-9934

Six Pac Recycling
1430 E. 6th St.
(951) 734-2910

Jurupa Valley

Etiwanda Recycling
6102 Etiwanda Ave.
(951) 263-6173

Recycle Kingdom
4868 Etiwanda Ave.
(626) 617-1859

rePlanet
11070 Limonite Ave.
(877) 737-5263

Salazar's Recycler
5666 Etiwanda Ave.
(951) 966-6408

EarthWize Recycling
9075 Mission Blvd.
(909) 933-2773

Jurupa Valley Recycling Collection Center
6315 Pedley Rd.
(951) 681-0382

Pedley Recycling Center
7850 Limonite Ave.
(951) 823-1383

Pedley Vet Recycling
8980 Limonite Ave.
(909) 856-9053

Recycling Services Centers
6565 Mission Blvd.
(951) 685-4430

Renovate Recycling Center
8800 Limonite Ave.
(714) 453-7028

rePlanet
9155 Jurupa Rd.
(877) 737-5263

Rubidoux Recycling Center
5675 Mission Blvd.
(951) 823-1353

Moreno Valley

EarthWize Recycling
24525 Alessandro Blvd.
(909) 923-2773

Menlo Recycling Center
22405 Goldencrest Dr.
Bldg., A.
(951) 653-5565

Moreno Valley Recycling
22862 Alessandro Blvd.
(323) 732-9253

Moreno Valley Recycling 2
24135 Sunnymead Blvd.
(213) 625-8165

Moreno Valley Recycling 3
14940 Perris Blvd.
(323) 732-9253

Recycling Centers

rePlanet
23575 Sunnymead Ranch Pkwy.
(951) 520-1700

rePlanet
27100 Eucalyptus Ave.
(951) 520-1700

rePlanet
25900 Iris Ave.
(951) 520-1700

Smittys
25073 Sunnymead Blvd., #D-14
(951) 453-0806

Worasing Recycling
15928 Perris Blvd.
(951) 323-7532

Zuniga Recycling
21524 Dracea Ave.
(866) 718-7150

Norco

E&M Recycling
1943 River Rd.
(323) 732-9253

Norco Feed and Recycling
4409 California Ave.
(877) 247-6923

rePlanet
2790 Hamner Ave.
(877) 737-5263

Riverside

AAA Recycle
5490 26th St.
(951) 781-8046

ABC
10330 Hole Ave., #B-9
(909) 742-7129

Cash 4 Cans
7633 Cypress Ave.
(951) 352-5995

El Taray Recycling
12702 Magnolia Ave., #11
(714) 222-4047

rePlanet
4250 Van Buren Blvd.
(951) 520-1700

rePlanet
6155 Magnolia Ave.
(951) 520-1700

rePlanet
5225 Canyon Crest Dr.
(951) 520-1700

rePlanet
315 E. Alessandro Blvd.
(951) 520-1700

rePlanet
3900 Chicago Ave.
(951) 520-1700

rePlanet
2995 Iowa Ave.
(951) 520-1700

rePlanet
6160 Arlington Ave.
(951) 520-1700

rePlanet
9225 Magnolia Ave.
(951) 520-1700

rePlanet
17050 Van Buren Blvd.
(951) 520-1700

rePlanet
3420 La Sierra Ave.
(951) 520-1700

rePlanet
4680 La Sierra Ave.
(951) 520-1700

Riverside Scrap Iron and Metal Corp.
2993 6th St.
(951) 686-2129

Robert A. Nelson Transfer Station
1830 Agua Mansa Rd.
(951) 786-0639

rePlanet
4250 Van Buren Blvd.
(951) 520-1700

*Some recycling centers may accept other recyclable materials. It is advisable to call the center and confirm this, as well as operating hours, before visiting.

For more information about local recycling centers visit the CalRecycle website: www.calrecycle.ca.gov.

Types of Plastic

Confused about the types of plastic and if they can be recycled? Many plastic containers display an identification code that indicates what they are made from. Below are the 7 codes.



#1: Polyethylene Terephthalate (PETE or PET)

Used to create 2-liter soda bottles, water bottles, cooking oil bottles, peanut butter jars.

The most commonly accepted plastic for recycling.



#2: High Density Polyethylene

Used to create detergent bottles, milk and water jugs, grocery bags, yogurt cups.

Commonly accepted for recycling. Bags can be recycled at some large grocery stores.



#3: Polyvinyl Chloride

Used to create plastic pipes, outdoor furniture, shrink-wrap, liquid detergent containers, flooring, showercurtains.

Not currently accepted for recycling.



#4: Low Density Polyethylene

Used to create food storage containers, cellophane wrap, dry cleaning bags, produce bags, trash can liners.

Not commonly recycled, some large grocery stores accept LDPE bags.



#5: Polypropylene

Used to create ketchup bottles, aerosol caps, drinking straws, yogurt containers.

Not commonly accepted for recycling.



#6: Polystyrene

Also known as "Styrofoam." Used to make coffee cups, take-out food packaging, egg cartons, and packaging "peanuts."

Sometimes accepted for recycling and made into the same products.



#7: Other

All other plastic resins or a mixture of resins used to make reusable water bottles, Tupperware, biodegradable and compostable plastics.

Not commonly accepted for recycling.

Composting Basics

Got food scraps and yardwaste? Below is a quick guide to Backyard Composting.

1. Select a good spot for composting

- Sun or shade
- Convenient to kitchen or garden, and close to a source of water
- Keep away from structures and wood, as moisture can hasten decay
- Place only on bare ground, as organisms from soil are needed

2. Know the Ingredients

Nitrogen - Green materials - grass clippings, fresh leaves and twigs, vegetable and fruit trimmings, coffee grounds and filters, and non-meat eating animal manures.

Carbon - Brown materials that have released their nitrogen - dry and brittle leaves and grasses, straw, wood chips, corn stalks, shredded newspaper, paper towels, napkins, and cardboard.

Water - The correct moisture level should be about the same as a damp wrung out sponge. A few drops should fall when squeezed in your hand.

Air - Oxygen is very important to the bacteria, fungi, and microorganisms that are working in the pile to breakdown the organic material.

Do Not Add - Meat, dairy products, fats, oils, waste from meat eating animals (dogs and cats), thorny plant material, or diseased plant material.

2. Know the Methods

Aerobic - Pile equal parts green and brown material on ground or in a bin in a 3'x3'x3' heap, water well, and cover with a tarp, carpet or opaque plastic sheet. The pile will heat up (120 to 160 degrees), and needs to be turned after a few days, once it has cooled. Turn the pile weekly and continue composting until the pile has a dark rich look like chocolate cake and the things you put in don't look like their original form. After the compost is done, water well, cover, and let it rest for one to two weeks to make sure it is completely done and the nitrogen has a chance to stabilize. If the compost is used too soon it could rob nutrients from the surrounding plants. Remove large chunks and add them to the next compost pile.

Aerobic - Similar to the Aerobic method, but there is no need to actively turn the material. It may take longer (1-2 years), but is still beneficial to your garden. Just pile the stuff, water, cover, and wait.

For more detailed information on composting, free workshops, or other methods, such as **Vermicomposting**, visit www.rivcowm.org and search for composting.

Source Reduction

The best way to reduce waste is to prevent it!

Buy Responsibly

Reduce packaging waste - Look for products that reduce packaging, or purchase in bulk to reduce the amount of packaging needed.

Look for products containing recycled material - Recycled paper products, motor oil, and even pens and pencils are just a few examples of products that reduce waste.

Consider reusable products - Buy reusable water bottles and sturdy utensils and plates that can be washed and used again.

Get it “For Here,” or bring your own - Many coffee shops will provide drinks to their customers in ceramic mugs rather than paper cups if requested. Just ask! Reusable tumblers are also a great alternative to paper cups, and many establishments will even give a small discount to those who bring their own!

Borrow, rent, or share - Why buy something if you are only going to use it once? Items such as tools, party decorations, and even newspapers and magazines can be shared with your friends, family, and/or community.

Purchase rebuilt, remanufactured, or refurbished - Many electronics such as cell phones, computers, and media players can be purchased “refurbished” at a sometimes substantial price reduction. This conserves the resources needed to manufacture a new product.

Choose Non-Toxic

Choose products that contain only non-toxic materials, or try one of these **homemade alternatives**:

- Instead of glass cleaner, dilute 1 cup of vinegar in 1 quart of water.
- To open clogged drains, flush with a mixture of boiling water, and equal parts baking soda and vinegar.

For more information on non-toxic alternatives, visit the California Coastal Commission website:

<http://www.coastal.ca.gov/ccbn/lesstoxic.html>

Source Reduction

Plastic bags and junk mail contribute to a significant amount of un-needed waste. You can lessen their impact by Reducing, Reusing, and Recycling.



Plastic Bags

Reduce: BYOB (Bring Your Own Bag) - Use reusable canvas or cloth bags rather than plastic bags, and keep them in your car. Not all items need a bag, just say “no, thank you.”

Reuse - Plastic grocery bags can serve multiple purposes, such as trash can liners or for pet waste.

Recycle - If you find that you must use a plastic bag, recycle it when you are finished. Most large supermarkets and pharmacies offer free recycling of plastic bags.

Junk Mail Reduction

You can reduce the amount of unwanted junk mail in your mailbox by simply mailing a postcard to the following addresses, requesting your name be removed from their mailing list. Be sure to include your full name, your address(es), your signature, and the date.

Mail Preference Service Attn.: Dept. 10088342 PO Box 282 Carmel, NY 10512	ADVO Consumer Assistance PO Box 249 Windsor, CT 06095	Harte-Hanks Circulation C/O Pennysaver 2830 Orbiter St. Brea, CA 92821
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Valpak Direct Marketing Systems, Inc. Credit Card Junk Mail
8605 Largo Lakes Dr. Call (888)5-OPT OUT (888-567-8688)
Largo, FL 33773

City / County Resources

City of Banning - Recycling and Waste Hauling Information | (951) 922-3105

<http://www.ci.banning.ca.us/index.aspx?NID=380>

City of Calimesa - Public Works / Engineering Department | (909) 795-9801

<http://www.cityofcalimesa.net/publicworks.htm>

City of Corona - Trash and Recycling | (951) 736-2400

<http://www.discovercorona.com/city-departments/public-works/refuse-and-recycling.aspx>

City of Eastvale - Recycling / Solid Waste / Street Sweeping | (951) 361-0900

<http://www.eastvalecity.org/index.aspx?page=140>

City of Jurupa Valley - Local Resources | (951) 358-7387

<http://www.jurupavalley.org/resources.php>

City of Moreno Valley - Waste Disposal and Recycling | (951) 413-3100

http://www.moreno-valley.ca.us/resident_services/waste/index-waste.shtml

City of Norco - Trash / Recycling | (951) 270-5656

http://www.norco.ca.us/about/welcome_residents/trash_recycling.asp

City of Riverside - Trash & Recycling | (951) 826-5311

<http://www.riversideca.gov/trash>

County of Riverside - Riverside County Waste Management Department

<http://www.rivcowm.org> | (951) 486-3200

Western Riverside Council of Governments

<http://www.wrcog.cog.ca.us> | (800) 350-4645

Waste Haulers

Waste Management, Inc. - (951) 280-5400 - www.wm.com

Serves: All Cities

Burrtec - (951) 786-9660 - www.burrtec.com

Serves: Eastvale, Jurupa Valley, and Riverside

Athens - (888) 336-6100 - www.athensservices.com

Serves: Riverside

CR&R Disposal - (951) 943-1991 - www.crrwasteservices.com

Serves: Riverside

The Complete Guide to Residential Recycling is sponsored by:



 **Printed on recycled paper.**



The Complete Guide to Residential Recycling



Southwest Riverside County
Canyon Lake, Hemet, Lake Elsinore, Menifee,
Murrieta, Perris, San Jacinto, Temecula, Wildomar

Used Oil and Filters

Recycling used motor oil and filters is easy!

Simply take them to one of the certified collection centers below. It's free!



Used Oil and Filters

You can also find Certified Collection Centers on the Cal Recycle Website:
www.calrecycle.ca.gov/recycle

Hemet

AutoZone #2820
1550 W. Florida Ave.
(951) 929-0807

Ramona Tire
2350 W. Menlo Ave.
(951) 925-6659

EZ Lube #96
29285 Central Ave.
(951) 253-5200

AutoZone #5556
3100 E. Florida Ave.
(951) 652-1308

Synfast Oil Change
3615 W. Florida Ave.
(951) 766-7055

Firestone Store #2238
31748 Mission Trail
(951) 674-0633

EZ Lube #112
532 W. Florida Ave.
(951) 766-1996

Valvoline Instant Oil Change
532 W. Florida Ave.
(951) 766-1996

Jiffy Lube #2681
311 Summerhill Dr.
(951) 471-8445

Firestone Store #2233
350 W. Florida St.
(951) 929-2424

O'Reilly Autoparts #1429
31660 Grape St.
(951) 245-8389

Valvoline Instant Oil Change
29285 Central Ave.
(951) 253-5200

Inland Chevrolet
350 Carriage Circle
(951) 658-4401

Idyllwild Garage
25015 Hwy. 243
(951) 659-2613

Idyllwild

Integrity Tire
3223 W. Florida Ave.
(951) 658-3145

Jiffy Lube #3187
330 N Sanderson Ave.
(951) 487-2001

Masterlube #101
3615 W. Florida St.
(951) 766-7055

O'Reilly Autoparts #1332
849 W. Florida Ave.
(951) 929-2210

Pep Boys #866
2050 W. Florida Ave.
(951) 766-1477

AutoZone #5558
30870 Riverside Dr.
(951) 674-7806

AutoZone #5559
32231 Mission Trail
(951) 245-1012

Menifee

AutoZone #5561
30123 Antelope Rd.
(951) 301-7240

One Stop Lube & Oil Center
26825 Newport Rd.
(951) 301-7479

Murrieta

AutoZone #5566
40950 California Oaks Rd.
(951) 677-6206

Express Tire
40615 California Oaks Rd.
(951) 696-5200

EZ Lube #115
40430 California Oaks Rd.
(951) 696-2882

Mountain View Tire and Service
27584 Clinton Keith Rd.
(888) 860-0535

Murrieta Volkswagen
41300 Date St.
(951) 634-5434

O'Reilly Autoparts #1430
40951 California Oaks Rd.
(951) 696-2991

Valvoline Instant Oil Change
40430 California Oaks Rd.
(951) 696-2882

Perris

AutoZone #5570
401 E. 4th St.
(951) 657-0696

AutoZone #5571
1675 Perris Blvd.
(951) 943-5998

Jiffy Lube #3294
118 E. Ramona Expressway
(951) 943-2200

Jiffy Lube #3361
3150 Case Rd., Bldg. J.
(951) 284-0922

O'Reilly Autoparts #1046
119 W. Nuevo Rd.
(951) 657-1488

San Jacinto

AutoZone #5581
1540 San Jacinto Ave.
(951) 654-2216

Jiffy Lube #3186
635 S. State St.
(951) 487-2001

Ramona Auto Services, Inc.
2447 S. San Jacinto Ave.
(951) 925-5117

Temecula

AutoZone #5582
31837 US Hwy. 79
(951) 302-8334

AutoZone #5936
40345 Winchester Rd.
(951) 296-3973

DCH Acura of Temecula
26705 Ynez Rd.
(951) 491-2451

Used Oil and Filters

Temecula

DCH Chrysler Jeep Dodge of Temecula
26845 Ynez Rd.
(951) 491-2151

DCH Honda of Temecula
26755 Ynez Rd.
(951) 491-2351

Express Tire
40915 Winchester Rd.
(951) 296-6699

Express Tire
44092 Margarita Rd.
(951) 302-5033

Express Tire
29095 Front St.
(951) 695-0555

EZ Lube #85
30625 Highway 79 South
(951) 553-7399

Jiffy Lube #1878
30690 Rancho California Rd.
(951) 694-5460

John Hine Temecula Mazda
42050 DLR Dr.
(951) 553-2000

O'Reilly Autoparts #0483
41125 Winchester Rd., #C1
(951) 296-5530



Used Oil and Filters

Wildomar

Grease Monkey
32120 Clinton Keith Rd.
(951) 609-3000

Jiffy Lube #3412
32374 Clinton Keith Rd.
(951) 678-5300



Winchester

Mountain View Tire/Goodyear
30664 Benton Rd.
(877) 872-1021



Rancho Car Wash and Quick Lube
27378 Jefferson Ave.
(951) 296-5644

Temecula Hyundai
27430 Ynez Rd.
(951) 699-6807

Temecula Quick Lube
29764 Rancho California Rd.
(951) 587-6624

Valvoline Instant Oil Change
30625 Highway 79 South
(951) 553-7399



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- Used Oil and Antifreeze
- Sharps/ Needles



Permanent Household Hazardous Waste Collection Centers

Lake Elsinore Area (Closed January and December)

Lake Elsinore Regional Permanent HHW Collection Facility

512 N. Langstaff Street, Lake Elsinore, 92530

Open first Saturday of the month*, 9:00 a.m. to 2:00 p.m.

*Except holiday weekends and during inclement weather.

Riverside Area

Agua Mansa Regional Permanent HHW Collection Facility

1780 Agua Mansa Road, Riverside, 92509

Open non-holiday Saturdays*, 9:00 a.m. to 2:00 p.m.

*Except during inclement weather.

Regional ABOP Collection Centers (Antifreeze, Batteries, Oil and Oil Filters, and Latex Paint ONLY)

Murrieta Area

County Road Yard

25315 Jefferson Avenue, Murrieta, 92562

Open Non-Holiday Saturdays, 9:00 a.m. to 2:00 p.m.

These sites accept residential waste only. For more information, contact the Riverside County Household Hazardous Waste Department Hotline at **800-304-2226 or 951-486-3200**, or visit, www.rivcowm.org/opencms/hhw/index.html

Household Hazardous Waste

Below is a list of materials accepted at permanent HHW collection sites.*

Chemicals and Cleaners

Adhesives	Flea Powder	Paint - Latex / Oil Based
Air Freshener	Floor / Surface Cleaners	Paint Stripper / Thinner
Aluminum Cleaners	Fungicides	Photo Chemicals
Ammonia	Furniture Polish	Pool / Spa Chemicals
Antifreeze	Gas / Diesel Fuel	Rodent Bait / Poison
Brake Fluid	Glue	Roof Coating
Carburetor Cleaner	Gun Cleaner	Shoe Dye
Caulking	Hair Dye	Spot Remover
Chlorine Bleach	Hobby Chemicals	Transmission Fluid
Chrome Polish	Insecticides / Pesticides	Turpentine
Disinfectant	Kerosene / Lamp Oil	Varnish
Drain Cleaner	Lighter Fluid	Weed Killer / Herbicide
Engine Degreaser	Motor Oil	Wood Preservative
Fertilizer	Mercury Devices	
Fiberglass and Resins	Oven Cleaner	

Aerosols and Tanks

Aerosol Insecticides
Aerosol Cans
BBQ Propane Tanks
Camp Propane Tanks

E-Waste and Batteries

Batteries (all types)
Electronic Devices
Fluorescent Bulbs / Tubes
Old TVs and Computers

Medical Waste

Sharps / Needles

Please DO NOT bring the following types of materials (If you have any of these wastes please call (951) 486-3200):

Unacceptable Materials

Business, Non-Profit, or Out-of-County Waste	Appliances
Explosives / Ammunition	Tires
Radioactive or Remediation Materials	55 or 30 Gallon Drums
Medical / Infectious Waste (Except Sharps)	Compressed Gas Cylinders >40 lbs
Asbestos	Trash

*Maximum Chemical Load: 5 Gallons or 50lbs per trip. Residential waste only, no business waste accepted.

Recycling

Recycling

What can go into your curbside recycling bins? Not sure what you can recycle? Check out the list below.

Paper and Cardboard

- Books and Coloring Books
- Cardboard
- Cardstock and Construction Paper
- Office Paper
- Egg Cartons
- Clean Food Boxes
- Junk Mail and Envelopes
- Magazines and Newspapers
- Notebook Paper
- Paper Bags
- Telephone Books



Metal

- Aluminum and Steel Cans
- Clean Aluminum Foil
- Scrap Metal



Glass Jars and Bottles

- Glass Jars
- Beverage Bottles



Plastic Bottles and Grocery Bags

- Plastic Milk Jugs
- Plastic Beverage Containers
- Plastic Grocery Bags



Used Tires

Used tires are accepted at various locations in Riverside County. There is generally a fee to dispose of tires. The following locations accept tires:



Badlands Landfill

31125 Ironwood Ave., Moreno Valley, 92553

Lamb Canyon Landfill

16411 Lamb Canyon Rd., Beaumont, 92223

Visit www.rivcowm.org/opencms/landfill_info/landfill_fees.html for information on current landfill pricing.

BAS Recycling, Inc.

14050 Day St., Moreno Valley, 92553

(909) 383-7050

Call facility for pricing.

Electronic Waste Recyclers

Badlands, Lamb Canyon, and El Sobrante Landfills accept up to 2 CRT devices (e.g. computer monitors or TVs) per day for recycling at **no cost** during operating hours. The following recyclers also accept electronic waste:

The Green Guys Recycling, Hemet - (951) 757-9156

Starsurplus.com, Murrieta - (951) 677-5696

XIT Communications, Murrieta - (951) 691-5138

CR&R, Perris - (800) 755-8112

Tire Stop & Recycling, Sun City - (951) 928-9600

GKAT, INC. dba Temecula Recycling, Temecula - (951) 693-1500

Heavy Metal Scrap & Recycling, Inc., Temecula - (951) 693-4677

Other Recycling Facilities

For a complete list of recycling facilities visit www.calrecycle.ca.gov and click on the "Recycle Tab."

Earth911.com also provides valuable information and resources about recycling and recycling facilities.

Recycling Centers

What should you do with those empty cans and bottles? Below is a list of centers that accept beverage containers for recycling*.

Hemet

EarthWize Recycling
1231 S. Sanderson Ave.
(909) 933-2773

Menlo Recycle Center
445 E. Menlo Ave.
(951) 766-8520

NexCycle
1295 S. State St.
(800) 969-2020

NexCycle
3125 W. Florida Ave.
(800) 969-2020

rePlanet
43396 US Hwy 74
(877) 737-5263

The Green Guys Recycling
100 N. State St., #101
(951) 757-9156

Valley Metals
342 N. Juanita St.
(951) 925-8577

Lake Elsinore

Cans Plus Recycling
29170 Riverside Dr., #1
(951) 245-1178

Downtown Elsinore Recycling
217 N. Main St.
(323) 204-8308

Lake Elsinore Recycling Center
1315 W. Flint St.
(951) 579-4102

Love Earth Recycling
31949 Corydon Rd.,
#160
(951) 230-6580

NexCycle
31564 Grape St.
(909) 796-2210

rePlanet
32281 Mission Tr.
(951) 520-1700

rePlanet
16750 Lakeshore Dr.
(877) 737-5263

Menifee

rePlanet
30125 Antelope Rd.
(951) 520-1700

rePlanet
25904 Newport Rd.
(877) 737-5263

Neill's Recycling
26026 Sherman Rd.
(951) 514-8656

NexCycle
27220 Sun City Blvd.
(909) 796-2210

Tire Stop and Recycling
27491 Ethanac Rd.
(888) 515-1376

Murrieta

EarthWize Recycling
27826 Clinton Keith Rd.
(909) 933-2773

Go Green Murrieta Recycling
40645 Cal. Oaks Rd.
(818) 220-9540

Murrieta Recycling
38365 Innovation Ct.,
#1102-1105
(951) 894-3094

rePlanet
40473 Murrieta Hot Springs Rd.
(951) 520-1700

rePlanet
23801 Washington Ave.
(951) 520-1700

rePlanet
4100 Cal. Oaks Rd.
(951) 520-1700

rePlanet
39140 Winchester Ave.
(951) 520-1700

rePlanet
28047 Scott Rd.
(877) 737-5263

SA Recycling
41400 Date St.
(951) 677-8586

Perris

A-1
24440 Hwy 74
(951) 940-4224

Ecology Auto Parts
23332 Cajalco Rd.
(951) 657-7725

Go Green Recycling
164 Malbert St., #A-2
(951) 487-5875

Harb Family Market Recycling
22707 San Jacinto Ave.
(951) 657-7733

4th Street Recycling
510 W. 4th St.
(323) 204-8308

Menlo Recycle Center
151 W. 7th St.
(951) 657-8200

RecycleWise
200 Sinclair St. #4
(951) 443-1894

Recycling Depot
1320 W. Oleander Ave.
(951) 442-5221

rePlanet
47 W. Nuevo Rd.
(877) 737-5263

San Jacinto

CA Recycling
762 S. San Jacinto Ave.
(951) 651-0010

rePlanet
1271 N. State St.
(877) 737-5263

San Jacinto Recycling Center
658 W. Esplanade Ave.
(951) 654-1399

Temecula

Heavy Metal Scrap Recycling Inc.
43136 Rancho Way
(951) 693-4677

NexCycle
29530 Rancho California Rd.
(909) 796-2210

NexCycle
26419 Ynez Rd.
(909) 796-2210

rePlanet
30530 Rancho California Rd.
(951) 520-1700

rePlanet
33293 Temecula Pkwy.
(951) 520-1700

rePlanet
31813 Temecula Pkwy.
(877) 737-5263

Temecula Recycling
27635 Diaz Rd., #120
(951) 693-1500

Wildomar

rePlanet
23893 Clinton Keith Rd.
(951) 520-1700

rePlanet
30712 Benton Rd.
(877) 737-5263

*Some recycling centers may accept other recyclable materials. It is advisable to call the center and confirm this, as well as operating hours, before visiting.

For more information about local recycling centers visit the **CalRecycle** website: www.calrecycle.ca.gov.

Types of Plastic

Confused about the types of plastic and if they can be recycled? Many plastic containers display an identification code that indicates what they are made from. Below are the 7 codes.



#1: Polyethylene Terephthalate (PETE or PET)

Used to create 2-liter soda bottles, water bottles, cooking oil bottles, peanut butter jars.

The most commonly accepted plastic for recycling.



#2: High Density Polyethylene

Used to create detergent bottles, milk and water jugs, grocery bags, yogurt cups.

Commonly accepted for recycling. Bags can be recycled at some large grocery stores.



#3: Polyvinyl Chloride

Used to create plastic pipes, outdoor furniture, shrink-wrap, liquid detergent containers, flooring, showercurtains.

Not currently accepted for recycling.



#4: Low Density Polyethylene

Used to create food storage containers, cellophane wrap, dry cleaning bags, produce bags, trash can liners.

Not commonly recycled, some large grocery stores accept LDPE bags.



#5: Polypropylene

Used to create ketchup bottles, aerosol caps, drinking straws, yogurt containers.

Not commonly accepted for recycling.



#6: Polystyrene

Also known as "Styrofoam." Used to make coffee cups, take-out food packaging, egg cartons, and packaging "peanuts."

Sometimes accepted for recycling and made into the same products.



#7: Other

All other plastic resins or a mixture of resins used to make reusable water bottles, Tupperware, biodegradable and compostable plastics.

Not commonly accepted for recycling.

Composting Basics

Got food scraps and yardwaste? Below is a quick guide to Backyard Composting.

1. Select a good spot for composting

- Sun or shade
- Convenient to kitchen or garden, and close to a source of water
- Keep away from structures and wood, as moisture can hasten decay
- Place only on bare ground, as organisms from soil are needed

2. Know the Ingredients

Nitrogen - Green materials - grass clippings, fresh leaves and twigs, vegetable and fruit trimmings, coffee grounds and filters, and non-meat eating animal manures.

Carbon - Brown materials that have released their nitrogen - dry and brittle leaves and grasses, straw, wood chips, corn stalks, shredded newspaper, paper towels, napkins, and cardboard.

Water - The correct moisture level should be about the same as a damp wrung out sponge. A few drops should fall when squeezed in your hand.

Air - Oxygen is very important to the bacteria, fungi, and microorganisms that are working in the pile to breakdown the organic material.

Do Not Add - Meat, dairy products, fats, oils, waste from meat eating animals (dogs and cats), thorny plant material, or diseased plant material.

2. Know the Methods

Aerobic - Pile equal parts green and brown material on ground or in a bin in a 3'x3'x3' heap, water well, and cover with a tarp, carpet or opaque plastic sheet. The pile will heat up (120 to 160 degrees), and needs to be turned after a few days, once it has cooled. Turn the pile weekly and continue composting until the pile has a dark rich look like chocolate cake and the things you put in don't look like their original form. After the compost is done, water well, cover, and let it rest for one to two weeks to make sure it is completely done and the nitrogen has a chance to stabilize. If the compost is used too soon it could rob nutrients from the surrounding plants. Remove large chunks and add them to the next compost pile.

Aerobic - Similar to the Aerobic method, but there is no need to actively turn the material. It may take longer (1-2 years), but is still beneficial to your garden. Just pile the stuff, water, cover, and wait.

For more detailed information on composting, free workshops, or other methods, such as **Vermicomposting**, visit www.rivcowm.org and search for composting.

Source Reduction

The best way to reduce waste is to prevent it!

Buy Responsibly

Reduce packaging waste - Look for products that reduce packaging, or purchase in bulk to reduce the amount of packaging needed.

Look for products containing recycled material - Recycled paper products, motor oil, and even pens and pencils are just a few examples of products that reduce waste.

Consider reusable products - Buy reusable water bottles and sturdy utensils and plates that can be washed and used again.

Get it "For Here," or bring your own - Many coffee shops will provide drinks to their customers in ceramic mugs rather than paper cups if requested. Just ask! Reusable tumblers are also a great alternative to paper cups, and many establishments will even give a small discount to those who bring their own!

Borrow, rent, or share - Why buy something if you are only going to use it once? Items such as tools, party decorations, and even newspapers and magazines can be shared with your friends, family, and/or community.

Purchase rebuilt, remanufactured, or refurbished - Many electronics such as cell phones, computers, and media players can be purchased "refurbished" at a sometimes substantial price reduction. This conserves the resources needed to manufacture a new product.

Choose Non-Toxic

Choose products that contain only non-toxic materials, or try one of these **homemade alternatives**:

- Instead of glass cleaner, dilute 1 cup of vinegar in 1 quart of water.
- To open clogged drains, flush with a mixture of boiling water, and equal parts baking soda and vinegar.

For more information on non-toxic alternatives, visit the California Coastal Commission website:

<http://www.coastal.ca.gov/ccbn/lesstoxic.html>

Source Reduction

Plastic bags and junk mail contribute to a significant amount of un-needed waste. You can lessen their impact by Reducing, Reusing, and Recycling.



Plastic Bags

Reduce: BYOB (Bring Your Own Bag) - Use reusable canvas or cloth bags rather than plastic bags, and keep them in your car. Not all items need a bag, just say "no, thank you."

Reuse - Plastic grocery bags can serve multiple purposes, such as trash can liners or for pet waste.

Recycle - If you find that you must use a plastic bag, recycle it when you are finished. Most large supermarkets and pharmacies offer free recycling of plastic bags.

Junk Mail Reduction

You can reduce the amount of unwanted junk mail in your mailbox by simply mailing a postcard to the following addresses, requesting your name be removed from their mailing list. Be sure to include your full name, your address(es), your signature, and the date.

Mail Preference Service
Attn.: Dept. 10088342
PO Box 282
Carmel, NY 10512

ADVO
Consumer Assistance
PO Box 249
Windsor, CT 06095

Harte-Hanks Circulation
C/O Pennysaver
2830 Orbiter St.
Brea, CA 92821

Valpak Direct Marketing Systems, Inc.
8605 Largo Lakes Dr.
Largo, FL 33773

Credit Card Junk Mail
Call (888)5-OPT OUT (888-567-8688)

City / County Resources

City of Canyon Lake - Waste and Recycling | (800) 755-8112

<http://www.cityofcanyonlake.com/recycling.asp>

City of Hemet - Integrated Waste Management | (951) 765-3712

<http://www.cityofhemet.org/index.aspx?nid=93>

City of Lake Elsinore - Recycling | (951) 674-3124

<http://www.lake-elsinore.org/index.aspx?page=751>

City of Menifee - Public Works Department | (951) 672-6777

<http://www.cityofmenifee.us/index.aspx?nid=99>

City of Murrieta - Trash & Recycling | (951) 461-6007

<http://www.murrieta.org/services/trash>

City of Perris - Waste & Recycling | (951) 943-6100

<http://www.cityofperris.org/residents/waste-recycle.html>

City of San Jacinto - Waste & Recycling | (951) 487-7330

<http://www.san-jacinto.ca.us/residents/waste.html>

City of Temecula - Trash & Recycling | 951-694-6444

<http://www.cityoftemecula.org/temecula/residents/trashrecycling/recycling.htm>

City of Wildomar - Trash Hauling and Recycling | (951) 677-7751

<http://www.cityofwildomar.org/trash-hauling-recycling.asp>

County of Riverside - Riverside County Waste Management Department

<http://www.rivcowm.org> | (951) 486-3200

Western Riverside Council of Governments

<http://www.wrcog.cog.ca.us> | (800) 350-4645

Waste Haulers

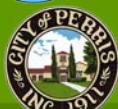
Waste Management, Inc. - (951) 280-5400 - www.wm.com

Serves: Menifee, Murrieta, and Wildomar

CR&R Disposal - (951) 943-1991 - www.crrwasteservices.com

Serves: Canyon Lake, Hemet, Lake Elsinore, Perris, San Jacinto, and Temecula

The Complete Guide to Residential Recycling is sponsored by:





A Citizen's Guide to Understanding Stormwater



January 2003

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After the Storm

What is stormwater runoff?



Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?



Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- ♦ Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- ♦ Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- ♦ Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- ♦ Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- ♦ Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.
- ♦ Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.



Stormwater Pollution Solutions

Residential



Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids.

Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.



- ◆ Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- ◆ Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- ◆ Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- ◆ Cover piles of dirt or mulch being used in landscaping projects.

Septic systems

- Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.
- ◆ Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
 - ◆ Don't dispose of household hazardous waste in sinks or toilets.



Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.



- ◆ When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

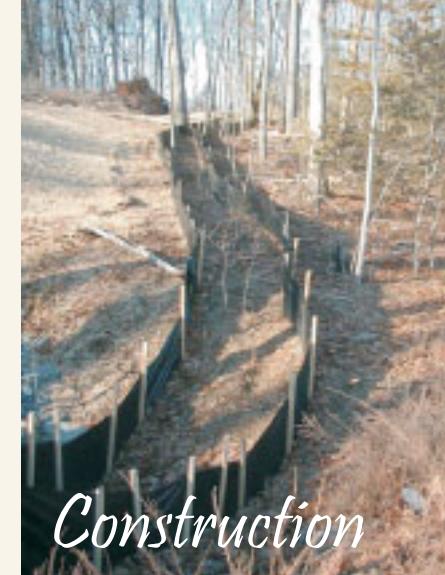
Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- ◆ Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- ◆ Cover grease storage and dumpsters and keep them clean to avoid leaks.
- ◆ Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- ◆ Divert stormwater away from disturbed or exposed areas of the construction site.
- ◆ Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- ◆ Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



Construction

Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

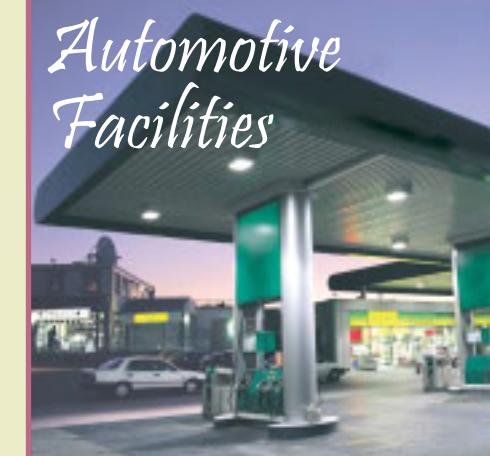


- ◆ Keep livestock away from streambanks and provide them a water source away from waterbodies.
- ◆ Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- ◆ Vegetate riparian areas along waterways.
- ◆ Rotate animal grazing to prevent soil erosion in fields.
- ◆ Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.

Improperly managed logging operations can result in erosion and sedimentation.

- ◆ Conduct preharvest planning to prevent erosion and lower costs.
- ◆ Use logging methods and equipment that minimize soil disturbance.
- ◆ Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- ◆ Construct stream crossings so that they minimize erosion and physical changes to streams.
- ◆ Expedite revegetation of cleared areas.

Automotive Facilities



Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- ◆ Clean up spills immediately and properly dispose of cleanup materials.
- ◆ Provide cover over fueling stations and design or retrofit facilities for spill containment.
- ◆ Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- ◆ Install and maintain oil/water separators.

Forestry

