



County of San Diego
Stormwater Quality Management Plan (SWQMP)
For Priority Development Projects (PDPs)

Use for all PDPs (see Storm Water Intake Form, Part 4)



Project Information		Development type ☒ New development ☐ Redevelopment	
Project Name	Los Coches Plaza		
Project Address	8445 Los Coches Road, El Cajon, CA 92021		
Assessor's Parcel # (APN)	400-381-02		
Permit # / Record ID	PDS2020-TM-5640; PDS2021-TPM-21293; PDS2020-MUP-20-006		
Project category (select one)	☐ Commercial ☐ Minor subdivision*		
	☒ Industrial ☐ Major subdivision*		
	☐ Single family residential lot ☐ Multi-family residential*		
*If residential, is a Homeowners Association (HOA) proposed? ☐ Yes ☐ No			

Project Applicant / Project Proponent			
Name	NLA Acquisitions, LLC. c/o Chad Williams		
Address	105 Tallapoosa Street, Suite 307, Montgomery, AL 36104		
Phone	615-815-1465	Email:	cwilliams@netlease alliance.com

SWQMP Preparer			
Name	Danny Abada, PE		
Company (if applicable)	Spear & Associates, INC.		
Address	475 Production Street, San Marcos, CA 92078		
Phone	760-736-2040	Email:	Josh@spearinc.net
PE Number (if applicable)	45381		

Preparer's Certification	
I understand that the County of San Diego has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the County of San Diego BMP Design Manual. The BMP Design Manual is a design manual for compliance with local County of San Diego Watershed Protection Ordinance (Sections 67.801 et seq.) and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 and Order No. R9-2015-0100) requirements for storm water management. This SWQMP is intended to comply with applicable requirements of the BMP Design Manual. I certify that it has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this SWQMP by County staff is confined to a review and does not relieve me as the person in charge of overseeing the selection and design of storm water BMPs for this project, of my responsibilities for project design.	
Signature	Date January 12, 2023

COUNTY ACCEPTED	
SWQMP Approved By:	Approval Date:
* NOTE* Approval does not constitute compliance with regulatory requirements.	

Scope of SWQMP Submittal (Required)

Select the option that describes the scope of this SWQMP Submittal. Document your selection as indicated.

SWQMP Scope	Required Documentation
☒ a. SWQMP addresses the entire project	No additional documentation.
☐ b. SWQMP implements requirements of an earlier master SWQMP submittal	Include a copy of the previous submittal as Attachment 4 .
☐ c. First of multiple SWQMP submittals	Identify below the elements addressed in this submittal and in future submittals.

(1) Elements addressed in current submittal (streets, common areas, first project phase, etc.):

(2) Elements to be addressed in future submittal(s) (individual lots, future project phases, etc.):

Submittal Record: List the dates of SWQMP and plan submittals and updates. Briefly describe key changes from previous versions. If responding to plan check comments, note this in the entry and attach the responses as applicable.

No.	Date	Summary of Changes
Preliminary Design / Planning / CEQA		
1	4/1/2020	Initial Submittal
2	5/20/2021	Revisions Made
3	2/11/2022	Revisions Made
4	9/12/2022	Revisions Made
5	1/12/23	Revisions Made
Final Design		
1	Date	Initial Submittal
2	Date	Summary of Change
3	Date	Summary of Change
No.	Date	Summary of Change
Plan Changes		
1	Date	Initial Submittal
2	Date	Summary of Change
3	Date	Summary of Change
No.	Date	Summary of Change

General Directions

Note: These directions may be omitted from the print version of the SWQMP submittal.

① Scope of SWQMP Submittal and Submittal Record (inside front cover)

Use the **Submittal Scope** table to document the scope of activities covered under this SWQMP Form. Select one of the three options presented.

- **SWQMP addresses the entire project.** If this SWQMP form addresses the entire project from start to finish, additional documentation of the project scope is not required.
- **SWQMP implements requirements of an earlier master SWQMP submittal.** If this SWQMP Form implements requirements identified in an earlier master SWQMP Form, documentation of those earlier requirements must be provided. Include a copy of the previous submittal as **Attachment 4**.
- **First of multiple SWQMP submittals.** If this is the first of multiple SWQMP submittals, use the spaces provided under Part c to identify and briefly describe which project elements are addressed in this submittal and which ones will be addressed in future submittals. For example, this PDP addresses only streets and roads, but individual lots will be documented in future submittals.

Use the **Submittal Record** table to list the dates of any updates to the SWQMP or construction plans. Briefly describe key changes from previous versions. If responding to plan check comments, note this in the entry and attach the responses as applicable.

② PDP SWQMP Submittal Checklist

The checklist on Page 1 summarizes the tables and attachments to be included with this PDP SWQMP submittal. It should be filled out after completing the remainder of the form. Tables and attachments with boxes already checked (☑) are required for all projects. All tables are required. The applicability of attachments not already checked will be identified during the completion of this form.

③ Attachment 1: Stormwater Intake Form

Submit a copy of your completed **Storm Water Intake Form** as **Attachment 1**.

④ Tables 1, 2, and 3: Baseline Site Design and Source Control BMPs

Table 1 Completion: Complete **Table 1** to document existing and proposed site features and the BMPs to be implemented for them. All BMPs must be implemented **where applicable and feasible**. Applicability is generally assumed if a feature exists or is proposed.

Table 2 Completion: **Table 2** is not required for Small Residential Projects. Applicants should check the box at the top of the table to confirm it does not apply.

Small Residential Projects are those requiring *either*: a Building Permit, Minor Residential Grading Permit, or Site Plan Permit for a single family home; *or* a Tentative Parcel Map Permit for up to 4 single family homes and a remainder parcel.

All other projects must complete **Table 2** to identify applicable requirements for documenting pollutant-generating sources/ features and source control BMPs.

BMPs must be implemented for **Table 1** and **2** features **where feasible**. Leaving the box for a BMP unchecked means it will not be implemented (either partially or fully) either because it is inapplicable or infeasible. Explanations must be provided in **Table 3**. Tables 1 and 2 both provide specific instructions on when explanations are required.

⑤ Attachment 5: Existing Site and Drainage Description

Complete **Attachment 5** to provide a description of (1) the existing pre-development condition of the site, and (2) existing and proposed drainage conditions for the site. If required, include a copy of the site Drainage Study with Attachment 5.

⑥ Structural Performance Standards

Determine which Structural Performance Standards apply to the PDP, where they apply, and which compliance strategies you will use to satisfy them. Record your selections in **Table 4** as follows.

Table 4, Part A.1, Selection of Standards: First select the standards that apply to the project.

- *Pollutant control plus hydromodification* Select if the PDP is not exempt from hydromodification management requirements. It must satisfy both the Pollutant Control Performance Standard (BMPDM Section 2.2) and the Hydromodification Management Performance Standard (BMPDM Section 2.3).
- *Pollutant control only* Select if the PDP is exempt from hydromodification management requirements per BMPDM Section 6.1. Document the exemption in **Attachment 9**.

Table 4, Part A.2, Application of Standards: Next indicate where on the site the standards apply.

- If this is a **New Development Project**, the standards apply to all impervious surfaces on the site.
- If this is a **Redevelopment Project**, their applicability will depend on the ratio of created or replaced impervious areas to existing impervious areas (see BMPDM Section 1.7). Complete the calculations in the table to determine your obligation. The **percent (%) impervious created or replaced (c)** is determined by dividing the **impervious area created or replaced (b)** by the **existing impervious area (a)** and multiplying the result by 100.
 - **If c is 50% or more:** The standards apply to all impervious surfaces on the site (a + b).
 - **If c is less than 50%:** The standards apply only to created or replaced impervious surfaces (b only).

Table 4, Part B.1: Summary of Required Attachments (1 through 5)

Use this part of the table to summarize which of Attachments 1 through 5 will be included with the SWQMP submittal. If you are completing an **electronic version** of this form, your selections will be automatically recorded based on your previous input. If you are completing a **hard copy** of this form, you must manually select Attachments 3 and 4 as applicable (see pages 4 and 6). Note that Attachments 1, 2, and 5 are required for all projects.

Table 4, Part B.2: Selection of Compliance Strategies

Complete Part B.2 to document which compliance options will be used to satisfy the applicable standards for the site. Before doing so, you must determine which option will be used for each DMA. The following four potential design options are presented in detail in BMPDM Chapters 5 and 6.

1. **Self-mitigating DMAs** (BMPDM Section 5.2.1)
2. **De Minimis DMAs** (BMPDM Section 5.2.2)
3. **Self-retaining DMAs** (BMPDM Section 5.2.3)
4. **Structural BMPs**
 - Pollutant Control BMPs (BMPDM Sections 5.4)
 - Hydromodification BMPs (BMPDM Chapter 6)
 - Alternative Compliance Project (BMPDM Section 1.8)

Only one compliance option may be used per individual DMA. Regardless of which option is selected for any DMA, it must fully satisfy the applicable standard(s) determined in Part A.1.

On the left side of Part B, check the applicable boxes for each compliance option to be used.

⑦ **Summary of Additional Required Attachments (6 through 12)**

You must complete and submit each attachment identified for the compliance options selected. Applicable attachments are listed to the right of each compliance option. If you are completing an **electronic version** of this form, the required attachments for each design option will automatically be selected when you choose the compliance option. As noted above, these selections will also be recorded on the PDP SWQMP Submittal Checklist (Page 1). If you are completing a **hard copy** of this form, you will need to manually check the boxes for each applicable attachment on both pages.

Note that Attachment 9 (Critical Coarse Sediment Yield Areas) is required for all PDPs. If the PDP is exempt from hydromodification requirements, the exemption must be documented in Attachment 9.

⑧ **Table 5: Critical Coarse Sediment Yield Area Requirements**

Complete **Table 5** to select a compliance pathway for addressing Critical Coarse Sediment Yield Area (CCSYA) requirements for the PDP. See BMPDM Appendix H for additional description of requirements and options. Document Table 5 selections, including hydromodification management exemptions, in **Attachment 9**.

⑨ **Tables 6 and 7: Temporary Construction Phase BMPs**

Complete **Table 6** to document the minimum construction BMPs to be implemented for the project. Each BMP must be implemented ***where applicable and feasible***. At least one BMP must be selected for each construction activity listed in the table (except Erosion Control for Disturbed Slopes, which requires one BMP per season).

If applicable, use **Table 7** to describe why BMPs not selected in Table 6 are either infeasible or are only partially feasible. Justifications must be provided for all construction activity types for which NO BMPs were selected. If requested by County staff, also justify why specific individual BMPs were not selected.

⑩ **Attachment 2: DMA Exhibits and Construction Plans**

Exhibits and construction plan sets incorporating all applicable site features, activities, and BMPs identified in **Tables 1, 2, and 6** must be submitted as **Attachment 2 (DMA Exhibits and Construction Plan Sheets)**. See the Attachment 2 cover sheet for additional instructions.

PDP SWQMP Submittal Checklist

SWQMP Tables: All of the tables below must be completed.

☒ Table 1: Baseline BMPs for Existing and Proposed Site Features	Page 2
☒ Table 2: Baseline BMPs for Pollutant-generating Sources	Page 3
☒ Table 3: Explanations and Justifications for Table 1 and 2 Baseline BMPs	Page 4
☒ Table 4: DMA Structural Compliance Strategies and Documentation	Page 5
☒ Table 5: Critical Coarse Sediment Yield Area (CCSYA) Requirements	Page 6
☒ Table 6: Minimum Construction Stormwater BMPs	Page 7
☒ Table 7: Explanations and Justifications for Construction Phase BMPs	Page 8

SWQMP Attachments¹: Use the checklist below to identify which attachments will be included with this submittal. Attachments with boxes already checked (☒) are required for all projects. The applicability of other attachments will be determined upon completing this form.

- ☒ Attachment 1: Storm Water Intake Form
- ☒ Attachment 2: DMA Exhibits and Construction Plan Sheets
- ☐ Attachment 3: Reserved for Future Use
- ☐ Attachment 4: Previous SWQMP Submittals
- ☒ Attachment 5: Existing Site and Drainage Description
- ☒ Attachment 6: Documentation of DMAs without Structural BMPs
- ☒ Attachment 7: Documentation of DMAs with Structural Pollutant Control BMPs
- ☒ Attachment 8: Documentation of DMAs with Structural Hydromodification Management BMPs
- ☒ Attachment 9: Management of Critical Coarse Sediment Yield Areas
- ☒ Attachment 10: BMP Installation Verification Form
- ☒ Attachment 11: BMP Maintenance Agreements and Plans
- ☐ Attachment 12: Documentation of Alternative Compliance Projects (ACPs)

After completing the remainder of this form, check the applicable SWQMP Attachment boxes to summarize your selections.

¹ All SWQMP Attachments are available at www.sandiego.gov/stormwater under the Development Resources tab, Submittal Templates.

Table 1 – Baseline BMPs for Existing and Proposed Site Features

A. BMPs for Existing Natural Site Features (See Fact Sheet BL-1)			
1. Check the boxes below for each existing feature on the site.	2. Select the BMPs to be implemented for each identified feature. Explain why any BMP not selected is infeasible in Table 3.		
☐ Natural waterbodies ☐ Natural storage reservoirs & drainage corridors ☒ Natural areas, soils, & vegetation (incl. trees) Conserve natural features (SD-G) ☐ ☐ ☒ Provide buffers around waterbodies (SD-H) ☐ --- ---			
B. BMPs for Common Impervious Outdoor Site Features (See Fact Sheet BL-2)			
1. Check the boxes below for each proposed feature.	2. Select the BMPs to be implemented for each proposed feature. If neither BMP SD-B nor SD-I is selected for a feature, explain why both BMPs are infeasible in Table 3.		
☐ Streets and roads ☒ Sidewalks & walkways ☒ Parking areas & lots ☒ Driveways ☒ Patios, decks, & courtyards ☐ Hardcourt recreation areas ☐ Other: a. Direct runoff to pervious areas (SD-B) ☐ ☒ ☒ ☒ ☒ ☐ ☐ b. Construct surfaces from permeable materials (SD-I) ☐ ☐ ☐ ☐ ☐ ☐ ☐ c. Minimize the size of impervious areas ☒ Check this box to confirm that all impervious areas on the site will be minimized where feasible. If this box is not checked, identify the surfaces that cannot be minimized in Table 3, and explain why it is infeasible to do so.			
C. ☐ BMPs for Rooftop Areas: Check this box if rooftop areas are proposed and select at least one BMP below. (See Fact Sheet BL-3)			
If no BMPs are selected, explain why they are infeasible in Table 3.			
1. Direct runoff to pervious areas (SD-B) ☒	2. Install green roofs (SD-C) ☐	3. Install rain barrels (SD-E) ☐	
D. ☒ BMPs for Landscaped Areas: Check this box if landscaping is proposed and select at least one BMP below. (See Fact Sheet BL-4)			
If no BMPs are selected, explain why they are infeasible in Table 3.			
1. Sustainable Landscaping (SD-K) ☒			

Note: All features and BMPs must be shown on applicable construction plans. See applicable Fact Sheets in Appendix C of the BMP Design Manual for additional information.

Note: Use Table 3 to explain BMP infeasibility or inapplicability, or to describe features or BMPs not listed in this table. Additional explanation may be required by the County.

Table 2 – Baseline BMPs for Pollutant-generating Sources

☐ If this is a **Small Residential Project**, check this box and skip the rest of this table.

A. Management of Stormwater Discharges

1. Identify all proposed outdoor work areas below (☐ Check here if none are proposed)	2. Which BMPs will be used to prevent materials from contacting rainfall or runoff? (See Fact Sheet BL-5) (Select all feasible BMPs for each work area ²)			3. Where will runoff from the work area be routed? (See Fact Sheet BL-6) (Select one or more option for each work area)			
	Overhead covering (rooftops, etc.) (SC-A)	Separation of flows from adjacent areas (berms, etc.) (SC-B)	Wind protection (screens, etc.) (SC-C)	Sanitary sewer ³ (SC-D)	Containment system (SC-E)	Stormwater S-BMP or SSD-BMP ⁴	Other ⁵
☒ Trash & Refuse Storage	☒	☒	☒	☐	☐	☒	☐
☐ Materials & Equipment Storage	☐	☐	☐	☐	☐	☐	☐
☒ Loading & Unloading	☒	☒	---	☐	☐	☒	☐
☐ Fueling	☐	☐	---	☐	☐	☐	☐
☐ Maintenance & Repair	☐	☐	---	☐	☐	☐	☐
☒ Vehicle & Equipment Cleaning	☒	☒	---	☐	☒	☐	☐
☐ Other:	☐	☐	---	☐	☐	☐	☐

B. Prevention of Non-stormwater Discharges (See Fact Sheet BL-7)

Select one option for each feature below:

• Storm drain inlets and catch basins ...	☐ are not proposed	☒ will be labeled with stenciling or signage to discourage dumping (SC-F)
• Educational BMP Signage ...	☐ are not proposed	☒ will be labeled with educational signage for BMP (SC-G)
• Interior work surfaces, floor drains, & sumps ...	☒ are not proposed	☐ will not discharge directly or indirectly to the MS4 or receiving waters
• Drain lines (e.g., air conditioning, boiler, etc.) ...	☐ are not proposed	☒ will not discharge directly or indirectly to the MS4 or receiving waters
• Fire sprinkler test water ...	☐ are not proposed	☒ will not discharge directly or indirectly to the MS4 or receiving waters

Note: All outdoor features and BMPs in this table must be shown on applicable construction plans. See applicable Fact Sheets in Appendix C of the BMP Design Manual for additional information.

Note: Use Table 3 to explain BMP infeasibility or inapplicability, or to describe features or BMPs not listed in this table. Additional explanation may be required by the County.

² Each BMP is required where feasible. If none are selected for any feature, explain why they are infeasible in Table 3.

³ Separate wastewater agency approvals may be required.

⁴ Structural Treatment Control BMPs (S-BMPs) and Significant Site Design BMPs (SSD-BMPs) may not receive discharges from work areas that concentrate pollutants in a manner that will impair their functioning. Discharges from the proposed work area must also be included in DCV calculations for the applicable BMP.

⁵ Describe other proposed options for managing stormwater discharges in Table 3.

Table 3 – Explanations and Justifications for Table 1 and 2 Baseline BMPs

☒ Check here if no explanations or justifications for Table 1 or 2 BMPs are required.		
• Required Justifications: Provide explanations of BMP inapplicability and/or infeasibility as indicated per Tables 1 and 2. • If Requested: Justify why specific BMPs will not be implemented or will only be partially implemented. • Additional Explanation: Describe any proposed features and/or BMPs not listed in Tables 1 or 2.		
BMP-Feature Combination		Explanation
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	
Feature	Feature	Explanation
BMP	BMP	

Table 4: DMA Structural Compliance Strategies and Documentation

Part A – Selection and Application Structural Performance Standards							
1. Selection of Standards (select one; see BMPDM Section 6.1) ☒ a. Pollutant control + hydromodification ☐ b. Pollutant control only (project is exempt from hydromodification requirements)							
2. Application of Structural Performance Standards (select one; see BMPDM Section 1.7) ☒ New Development Projects: Standards apply to <u>all</u> impervious surfaces. ☐ Redevelopment Projects: Complete the calculations below. Select <u>the</u> applicable scenario based on the results.							
a. Existing impervious area (ft²)		b. Impervious area created / replaced (ft²)		c. % Impervious created / replaced [(b/a)*100]			
☐ <i>Scenario 1: c is 50% or more:</i> Performance standards apply to all impervious surfaces (a + b). ☐ <i>Scenario 2: c is less than 50%:</i> Performance standards apply only to created or replaced impervious surfaces (b only).							
Part B – Compliance Strategies and Required Attachments							
1. Complete and submit each of the applicable attachments on the right.	Att. 1	Att. 2	Att. 3	Att. 4	Att. 5		
	Storm Water Intake Form ☒	DMA Exhibits and Construction Plan Sheets ☒	N/A ☐	Previous SWQMP Submittals (see inside cover) ☐	Existing Site and Drainage Description ☒		
2. Indicate each compliance strategy below that will be used for one or more DMAs on the site.	Att. 6	Att. 7	Att. 8	Att. 9	Att. 10	Att. 11	Att. 12
	DMAs without Structural BMPs	DMAs w/ Structural Pollutant Control BMPs	DMAs w/ Structural Hydromod. BMPs	Critical Coarse Sediment Yield Areas	BMP Installation Verification Form	Maintenance Agreements/ Plans	Alternative Compliance Projects
	☒			☒			
	☐			☐			
	☐			☐	☐		
Structural BMPs (select all that apply)							
☒ Pollutant Control BMPs (BMPDM Section 5.4)		☒		☒	☒	☒	
☒ Hydromodification Control BMPs (BMPDM Chapter 6)			☒	☒	☒	☒	
☐ Alternative Compliance Project (BMPDM Section 1.8)				☐	☐	☐	☐
☒ Please check this box after you complete this list. Corresponding attachments will be automatically selected on the right.							

- Attachments 1, 2, and 5 are required for all projects.

Table 5: Critical Coarse Sediment Yield Area (CCSYA) Requirements

○ Identify one applicable compliance pathway for the PDP below. ○ Document your selection in Attachment 9.
A. Hydromodification Management Exemption (BMPDM Sections 1.6 and 6.1)
☐ PDP is Exempt from Hydromodification Management Requirements Select if hydromodification management exemption was selected in Table 4 Part A.1.
B. Watershed Management Area (WMAA) Mapping (BMPDM Appendix H.1.1.2)
☒ WMAA mapping demonstrates the following: a. <5% of potential onsite CCYSAs will be impacted (built on or obstructed) b. All potential upstream offsite CCYSAs will be bypassed
C. Resource Protection Ordinance (RPO) Methods (BMPDM Appendix H.1.1.1)
☐ RPO Scenario 1: PDP is subject to and in compliance with RPO requirements a. Project requires one or more discretionary permits (RPO applicability is confirmed during discretionary review) b. Onsite AND upstream offsite CCSYAs will be avoided and/or bypassed
☐ RPO Scenario 2: PDP is entirely exempt/not subject to RPO requirements⁶ a. Project does not require discretionary permits b. Project will bypass all upstream offsite CCSYAs (no requirements for onsite CCSYAs)
D. No Net Impact Analysis (BMPDM Appendix H.4)
☐ Project demonstrates no net impact to receiving waters

⁶ Does not include PDPs utilizing exemption(s) via RPO Section 86.604(e)(2)(cc) or 86.604(e)(3).

Table 6 –Minimum Construction Stormwater BMPs

Minimum Required BMPs by Activity Type		References	
Select all applicable activities and at least one BMP for each.		Caltrans ⁷	County of San Diego
☒ Erosion Control for Disturbed Slopes (choose at least 1 per season)			
☐ Vegetation Stabilization Planting ⁸ (Summer)		SS-2, SS-4	
☒ Hydraulic Stabilization Hydroseeding (Summer)		SS-4	
☒ Bonded Fiber Matrix or Stabilized Fiber Matrix ⁹ (Winter)		SS-3	
☒ Physical Stabilization Erosion Control Blanket (Winter)		SS-7	
☒ Erosion control for disturbed flat areas (slope < 5%)			
☐ County Standard Lot Perimeter Protection Detail		SC-2	PDS 659 ¹⁰
☒ Use of Item A erosion control measures on flat areas		SS-3, SS-4, SS-7	
☐ County Standard Desilting Basin (must treat all site runoff)		SC-2	PDS 660 ¹¹
☐ Mulch, straw, wood chips, soil application		SS-6, SS-8	
☒ Energy dissipation (required to control velocity for concentrated runoff or dewatering discharge)			
☒ Energy Dissipater Outlet Protection		SS-10	RSD D-40 ¹²
☒ Sediment control for all disturbed areas			
☒ Silt Fence		SC-1	
☒ Fiber Rolls (Straw Wattles)		SC-5	
☒ Gravel & Sand Bags		SC-6, SC-8	
☐ Dewatering Filtration		NS-2	
☐ Storm Drain Inlet Protection		SC-10	
☐ Engineered Desilting Basin (sized for 10-year flow)		SC-2	
☒ Preventing offsite tracking of sediment			
☒ Stabilized Construction Entrance		TC-1	
☐ Construction Road Stabilization		TC-2	
☐ Entrance/Exit Tire Wash		TC-3	
☐ Entrance/Exit Inspection & Cleaning Facility		TC-1	
☒ Street Sweeping and Vacuuming		SC-7	
☒ Materials Management			
☒ Material Delivery & Storage		WM-1	
☒ Spill Prevention and Control		WM-4	
☒ Waste Management¹³			
☒ Waste Management Concrete Waste Management		WM-8	
☒ Solid Waste Management		WM-5	
☒ Sanitary Waste Management		WM-9	
☐ Hazardous Waste Management		WM-6	

⁷ See Caltrans 2017 Construction Site Best Management Practices (BMP) Manual available at:

<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks>

⁸ Planting or Hydroseeding may be installed between May 1st and August 15th. Slope irrigation must be in place and operable for slopes >3 feet. Vegetation must be watered and established prior to October 1st. A contingency physical BMP must be implemented by August 15th if vegetation is not established by that date. If landscaping is proposed, erosion control measures must also be used while landscaping is being established. Established vegetation must have a subsurface mat of intertwined mature roots with a uniform vegetative coverage of 70 percent of the natural vegetative coverage or more on all disturbed areas.

⁹ All slopes over three feet must have established vegetative cover prior to final permit approval.

¹⁰ County PDS 659. Standard Lot Perimeter Protection Design System (Bldg. Division)

¹¹ County PDS 660. County Standard Desilting Basin for Disturbed Areas of 1 Acre or Less Bldg. Division

¹² Regional Standard Drawing D-40 – Rip Rap Energy Dissipater (also acceptable for velocity reduction)

¹³ Applicants are responsible to apply appropriate BMPs for specific wastes (e.g., BMP WM-8 for concrete).

Table 7 – Explanations and Justifications for Construction Phase BMPs

☐ Check here if no explanations or justifications for Table 6 BMPs are required.		
Justifications for Table 6 Temporary Construction Phase BMPs • Required Justifications: Justify all construction activity types for which NO BMPs were selected. • If Requested: Justify why specific individual BMPs were not selected. • Additional Explanation: Describe any proposed features and/or BMPs not listed in Table 6.		
Activity Type / BMP		Explanation
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	
Activity Type	Activity Type	Explanation
BMP	BMP	



County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 1: Storm Water Intake Form for All Permit Applications

This form establishes Stormwater Quality Management Plan (SWQMP) requirements for Development Projects per Sections 67.809 and 67.811 of the County of San Diego Watershed Protection Ordinance (WPO). See **Storm Water Intake Form Instructions** for additional guidance and explanation of terms.

Part 1. Project Information			
Project Name:	Los Coches Plaza		
Record ID (Permit) No(s):	PDS2020-TM-5640; PDS2021-TPM-21293; PDS2020-MUP-20-006		
Assessor's Parcel No(s):	400-381-02		
Street Address (or Intersection):	8445 Los Coches Road, El Cajon, CA 92021		
City, State, Zip:			
Part 2. Applicant / Project Proponent Information			
Name:	Chad Williams		
Company:	NLA Acquisitions, LLC		
Street Address:	105 Tallapoosa Street, Suite 307, Montgomery, AL 36104		
City, State, Zip:			
Phone Number	615-815-1465		
Email:	cwilliams@netlease alliance.com		
Part 3. Required Information for All Development Projects			
(A)	1. Existing (pre-development) impervious surfaces (ft²)	2. Created or replaced impervious surfaces (ft²)	3. Total disturbed area (acres or ft²)
	48250	66912	2.30 acres
(B)	☒ Check here and provide a WDID# if this project is subject to the California Construction General Permit (Order No. 2009-0009-DWQ) ¹		WDID # (if issued)

<i>For County Use Only</i>	Reviewed By:	Review Date:
☐ Standard SWQMP	☐ PDP SWQMP	☐ Green Streets PDP Exemption SWQMP

¹ Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html

Part 4. Priority Classification & SWQMP Form Selection**(A) If your project is the following ... (select one)****(B) You must complete ...**☐ **Standard Project****→ Standard SWQMP Form**

- ☐ a. Project is East of the Pacific/Salton Sea Divide
- ☐ b. None of the PDP criteria below applies

☒ **Priority Development Project (PDP)****→ PDP SWQMP Form**

- ☐ 1. Project is part of an existing PDP, OR
- ☐ 2. Project does any of the following:
- ☒ a. Creates or replaces a total of 10,000 ft² or more of impervious surface
 - ☒ b. Creates or replaces a combined total of 5,000 ft² or more of impervious surface within one or more of the following uses: (1) parking lots; (2) streets, roads, highways, freeways, and/or driveways; (3) restaurants; and (4) hillsides
 - ☒ c. Creates or replaces a combined total of 5,000 ft² or more of impervious surface within one or more of the following uses: (1) automotive repair shops; and (2) retail gasoline outlets
 - ☐ d. Discharges directly to an Environmentally Sensitive Area (ESA) AND creates or replaces 2,500 ft² or more of impervious surface
 - ☒ e. Disturbs one or more acres of land (43,560 ft²) and is expected to generate pollutants post-construction
 - ☐ f. Is a redevelopment project that creates or replaces 5,000 ft² or more of impervious surface on a site already having at least 10,000 ft² of impervious surface

☐ **Green Streets PDP Exemption²****→ Green Streets PDP Exemption SWQMP Form****Part 5. Applicant Signature***I have reviewed the information in this form, and it is true and correct to the best of my knowledge.*

Applicant / Project Proponent Signature:

Date:

- **Upon completion** submit this form to the County.
- **If requested**, attach supporting documentation to justify selections made or exemptions claimed.
- **If this is a PDP that is part of a larger existing PDP**, you will be required to attach a copy of the existing SWQMP to the newer SWQMP submittal.

² **Green Streets PDP Exemption Projects** are those claiming exemption from PDP classification per WPO Section 67.811(b)(2) because they consist exclusively of *either* 1) development of new sidewalks, bike lanes, and/or trails; *or* 2) improvements to existing roads, sidewalks, bike lanes, and/or trails.



County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 2: DMA Exhibits and Construction Plans

2.0 General Requirements

- Attachment 2 consolidates exhibits and plans required for the entire project.
- Complete the table below to indicate which sub-attachments are included with the submittal. Sub-attachments that are not applicable can be excluded from the submittal.
- Unless otherwise stated, features and BMPs identified and described in each corresponding Attachment (6 through 9) must be shown on applicable DMA Exhibits and construction plans submitted for the project.

Sub-attachments	Requirement
☒ 2.1: DMA Exhibits	All PDPs
☒ 2.2: Individual Structural BMP DMA Mapbook	PDPs with structural BMPs
☒ 2.3: Construction Plan Sets	All projects

2.1 DMA Exhibits

- DMA Exhibits must show all DMAs on the project site. Exhibits must include all applicable features identified in applicable SWQMP attachments.
- Exhibits may be prepared individually for the BMPs associated with each applicable SWQMP Attachment (6, 7, 8, and/or 9) or combined into one or more consolidated exhibits.
- Use this checklist to ensure required information is included on each exhibit (copy as needed).

DMA Exhibit ID #:	PDS2021-TPM-21293 Grading Plan Sheet 2	
A. Features required for all exhibits		
1. Existing Site Features		
☒ Underlying hydrologic soil group (A, B, C, D)	☒ Topography and impervious areas	
☒ Approximate depth to groundwater	☒ Existing drainage network, directions, and offsite connections	
☐ Natural hydrologic features		
2. Drainage Management Area (DMA) Information		
☒ Proposed drainage network, directions, and offsite connections	☒ DMA boundaries, ID numbers, areas, and type (structural BMP, de minimis, etc.)	
3. Proposed Site Changes, Features, and BMPs		
☒ Proposed demolition and grading	☒ Construction BMPs ²	
☒ Group 1, 2, and 3 Features ¹	☒ Baseline source control BMPs	
☒ Group 4 Features	☒ Baseline source control BMPs	
B. Proposed Features and BMPs Specific to Individual SWQMP Attachments³		
☒ Attachment 6	☒ SSD-BMP impervious dispersion areas ☐ SSD-BMP tree wells	
☒ Attachment 7	☒ Structural pollutant control BMPs	
☒ Attachment 8	☒ Structural hydromodification management BMPs ☒ Point(s) of Compliance (POC) for hydromodification management ☒ Proposed drainage boundary and drainage area to each POC	
☒ Attachment 9	☒ Onsite CCSYAs	☒ Bypass of onsite CCSYAs ☒ Bypass of upstream offsite CCSYAs

Note: There no CCSYA onsite

¹ Group 1-4 features and baseline BMPs from PDP SWQMP Tables 2 and 3.

² Minimum Construction Stormwater BMPs from PDP SWQMP Table 7.

³ Identify the location, ID numbers, type, and size/detail of BMPs.

2.2 Individual Structural BMP DMA Mapbook

- Use this page as a cover sheet for the Structural DMA Mapbook.
- An individual Structural DMA Mapbook must be submitted for any project site with one or more structural BMPs. One Mapbook is required for each unique subsequent owner with responsibility for maintenance of a Structural BMP. Mapbook exhibits will be incorporated as exhibits in Stormwater Maintenance Agreements (SWMAs) and Maintenance Notifications (MNs). See Attachment 11 for additional information on maintenance agreements. If the Mapbook has been provided for each subsequent owner in Attachment 11, they are not required here.
- Place each map on 8.5"x11" paper.
- Show at a minimum the DMA, Structural BMP, Assessor's parcel boundaries with parcel numbers, and any existing hydrologic features within the DMA.

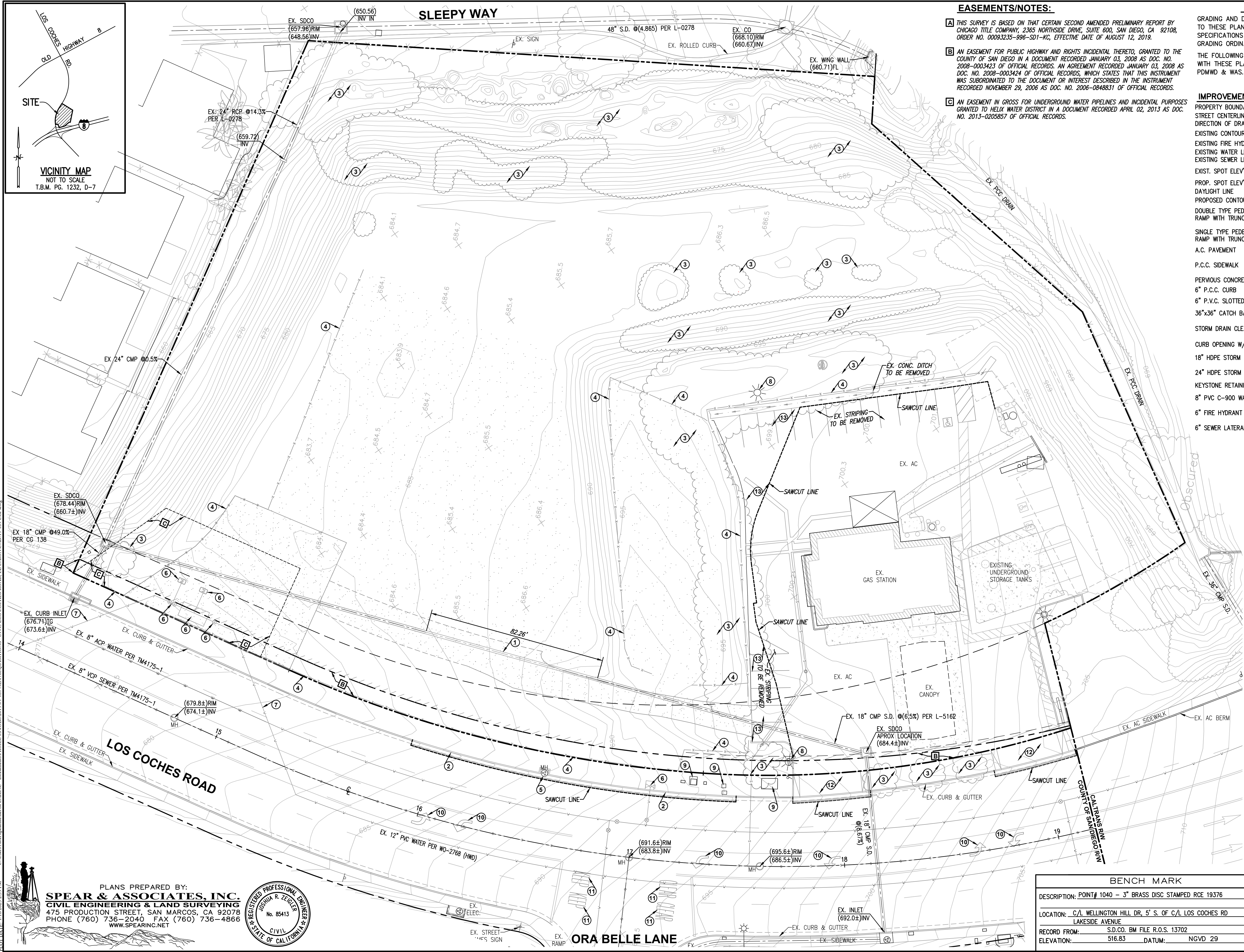
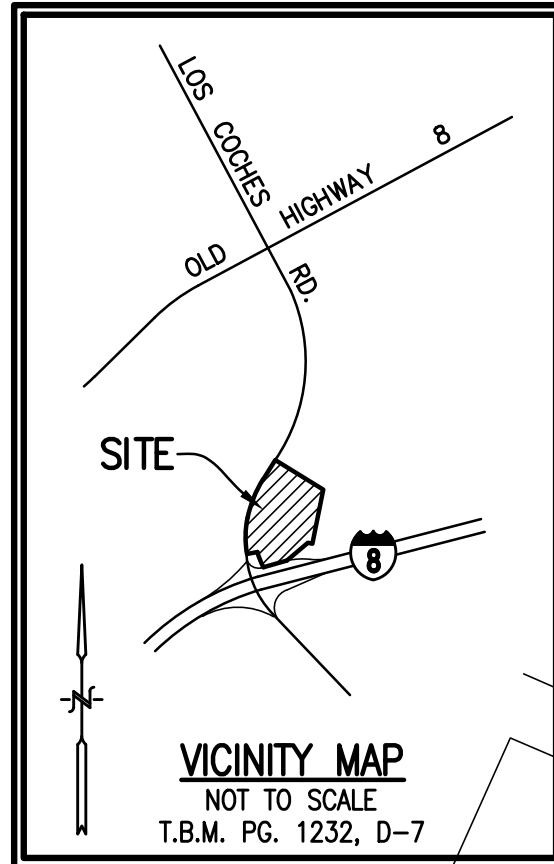
☒	<u>All Mapbooks are attached</u>
☒	<u>All Mapbooks are in Attachment 11</u>

2.3 Construction Plan Sets

- DMAs, features, and BMPs identified and described in this attachment must also be shown on all applicable construction and landscape plans.
- As applicable, plan sheets must identify:
 - All features and BMPs identified in Sub-attachment 2.1 (DMA Exhibits).
 - The additional information listed below.
- Use this checklist to ensure required information is included on each plan (copy as needed).

Plan Type	Grading Plan PDS2020-TM-5640
Required Information⁴	
☒ Structural BMP(s) and Significant Site Design BMPs (if applicable) with ID numbers. ☒ The grading and drainage design shown on the plans must be consistent with the delineation of DMAs shown on the DMA exhibit. ☒ Details and specifications for construction of Structural BMP(s) and Significant Site Design BMPs (if applicable). ☒ Signage indicating the location and boundary of structural BMP(s) as required by County staff. ☒ How to access the structural BMP(s) to inspect and perform maintenance. ☒ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds). ☒ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP). ☒ Recommended equipment to perform maintenance. ☒ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management. ☒ Include landscaping plan sheets (if available) showing vegetation requirements for vegetated structural BMP(s). ☒ All BMPs must be fully dimensioned on the plans. ☐ When proprietary BMPs are used, site-specific cross-section with outflow, inflow, and manufacturer model number must be provided. Photocopies of general brochures are not acceptable. ☒ Include all source control and site design measures described in the SWQMP. ☒ Include all construction BMPs described in the SWQMP.	

⁴ For Building Permit Applications, refer to Form PDS 272,
<https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/pds272.pdf>



EASEMENTS/NOTES:

- [A] THIS SURVEY IS BASED ON THAT CERTAIN SECOND AMENDED PRELIMINARY REPORT BY CHICAGO TITLE COMPANY, 2365 NORTHSIDE DRIVE, SUITE 600, SAN DIEGO, CA 92108, ORDER NO. 00083235-996-S01-KG, EFFECTIVE DATE OF AUGUST 12, 2019.
- [B] AN EASEMENT FOR PUBLIC HIGHWAY AND RIGHTS INCIDENTAL THERETO, GRANTED TO THE COUNTY OF SAN DIEGO IN A DOCUMENT RECORDED JANUARY 03, 2008 AS DOC. NO. 2008-0003423 OF OFFICIAL RECORDS. AN AGREEMENT RECORDED JANUARY 03, 2008 AS DOC. NO. 2008-0003424 OF OFFICIAL RECORDS, WHICH STATES THAT THIS INSTRUMENT WAS SUBORDINATED TO THE DOCUMENT OR INTEREST DESCRIBED IN THE INSTRUMENT RECORDED NOVEMBER 29, 2006 AS DOC. NO. 2006-0846831 OF OFFICIAL RECORDS.
- [C] AN EASEMENT IN GROSS FOR UNDERGROUND WATER PIPELINES AND INCIDENTAL PURPOSES GRANTED TO HELIX WATER DISTRICT IN A DOCUMENT RECORDED APRIL 02, 2013 AS DOC. NO. 2013-0205857 OF OFFICIAL RECORDS.

WORK TO BE DONE:

GRADING AND DRAINAGE WORK CONSIST OF THE FOLLOWING WORK TO DONE ACCORDING TO THESE PLANS, THE CURRENT SAN DIEGO AREA REGIONAL STANDARD DRAWINGS. THE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE SAN DIEGO COUNTY GRADING ORDINANCE.

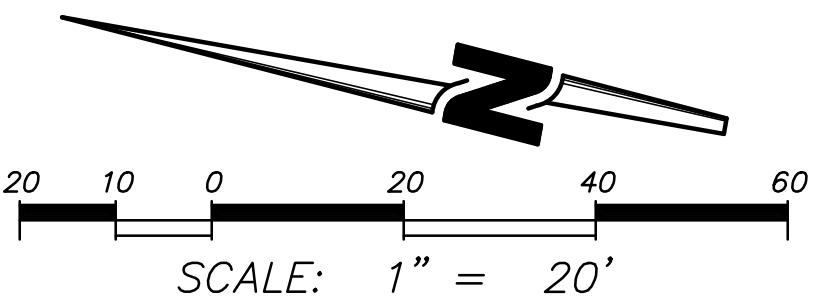
THE FOLLOWING SEWER & WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS & THE CURRENT STANDARD SPECIFICATIONS & DRAWINGS OF THE PDMD & WAS.

LEGEND

IMPROVEMENTS	STD. DWG.	SYMBOL
PROPERTY BOUNDARY		---
STREET CENTERLINE		---
DIRECTION OF DRAINAGE		---
EXISTING CONTOURS		---
EXISTING FIRE HYDRANT		---
EXISTING WATER LINE		---
EXISTING SEWER LINE		---
EXIST. SPOT ELEV'S		---
PROP. SPOT ELEV'S		---
DAYLIGHT LINE		---
PROPOSED CONTOURS		---
DOUBLE TYPE PEDESTRIAN RAMP WITH TRUNCATED DOMES.	PER DETAIL, SHEET 3 & G-30 (SDRSD)	---
SINGLE TYPE PEDESTRIAN RAMP WITH TRUNCATED DOMES.	PER DETAIL, SHEET 3 G-30 & G-31 (SDRSD)	---
A.C. PAVEMENT		---
P.C.C. SIDEWALK	G-7 (SDRSD)	---
PERVIOUS CONCRETE	PER DETAIL, SHEET 3 G-1 (SDRSD)	---
6" P.C.C. CURB		---
6" P.V.C. SLOTTED UNDERDRAIN		---
36"x36" CATCH BASIN	3636CB(BROOKS)	---
STORM DRAIN CLEAN OUT TYPE A-4	D-9 (SDRSD)	---
CURB OPENING W/SPLASH PAD	PER DETAIL SHEET 3	---
18" HDPE STORM DRAIN		---
24" HDPE STORM DRAIN		---
KEYSTONE RETAINING WALL	(PER SEPARATE PERMIT)	---
8" PVC C-900 WATERLINE (PVT)		---
6" FIRE HYDRANT ASSEMBLY (PVT)	WF-01 (WAS)	---
6" SEWER LATERAL (PVT)	SS-01 (WAS)	---

DEMOLITION NOTES

- PORTION OF EXISTING STORM DRAIN TO BE REMOVED.
- SAWCUT & REMOVE EXISTING CURB AND GUTTER.
- REMOVE EXISTING TREES/BRUSH (TYP.)
- REMOVE EXISTING FENCE.
- EXISTING MANHOLE TO BE PROTECTED & ADJUSTED TO GRADE.
- EXISTING WATER UTILITIES TO BE REMOVED.
- EXISTING WATER LINE TO BE ABANDONED IN PLACE.
- EXISTING LIGHT TO BE REMOVED.
- EXISTING UTILITIES TO BE REMOVED & RELOCATED.
- EXISTING TURN ARROW STRIPING TO BE REMOVED.
- EXISTING "KEEP CLEAR" STRIPING TO BE REMOVED.
- SAWCUT & REMOVE EXISTING DRIVEWAY, CURB & GUTTER.
- SAWCUT & REMOVE EXISTING PAVEMENT.



PRIVATE CONTRACT

SHEET 1	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	4 SHEETS
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DEMOLITION PLAN FOR:
8445 LOS COCHES ROAD, EL CAJON

CALIFORNIA COORDINATE INDEX 250-1779

APPROVED FOR:
WILLIAM P. MORGAN
COUNTY ENGINEER

ENGINEER OF WORK:
JOSHUA R. ZIEGLER R.C.E. NO. 85413 EXP. 9-30-24

BY: DATE

GRADING PERMIT NO.:
C-1

BENCH MARK
DESCRIPTION: POINT# 1040 - 3" BRASS DISC STAMPED RCE 19376
LOCATION: C/L WELLINGTON HILL DR, 5' S. OF C/L LOS COCHES RD
LAKESIDE AVENUE
RECORD FROM: S.D.CO. BM FILE R.O.S. 13702
ELEVATION: 516.83 DATUM: NGVD 29

PLANS PREPARED BY:
SPEAR & ASSOCIATES, INC.
CIVIL ENGINEERING & LAND SURVEYING
475 PRODUCTION STREET, SAN MARCOS, CA 92078
PHONE (760) 736-2040 FAX (760) 736-4866
WWW.SPEARINC.NET



PLAT DATE: 11/8/2023 2:39 PM
C:\Users\Abdelaziz\OneDrive\Documents\PROJECTS\DRS\2019\19-169 NLA ACQUISITIONS - 8445 LOS COCHES ROAD, EL CAJON\CAD\19-169 CDP.dwg

ENGINEER'S NAME: SPEAR & ASSOCIATES, INC.
PHONE NO. 1-760-736-2040

PDS2020-MUP-20-006 AND PDS2022-TPM-21293
"NOT FOR CONSTRUCTION"

SLEEPY WAY

EASEMENTS/NOTES:

- [A] THIS SURVEY IS BASED ON THAT CERTAIN SECOND AMENDED PRELIMINARY REPORT BY CHICAGO TITLE COMPANY, 2365 NORTHSIDE DRIVE, SUITE 600, SAN DIEGO, CA 92108, ORDER NO. 00093235-996-SD1-KC, EFFECTIVE DATE OF AUGUST 12, 2019.
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- [C] AN EASEMENT IN GROSS FOR UNDERGROUND WATER PIPELINES AND INCIDENTAL PURPOSES GRANTED TO HELIX WATER DISTRICT IN A DOCUMENT RECORDED APRIL 02, 2013 AS DOC. NO. 2013-0205857 OF OFFICIAL RECORDS.

CONSTRUCTION NOTES

1. CONSTRUCT 4" A.C. PAVEMENT OVER 6" CL-II A.B. 95% COMPACTED SUBGRADE SOIL, PER SOILS ENGINEER (HEAVY DRIVE AISLES)
2. CONSTRUCT 3" A.C. PAVEMENT OVER 6" CL-II A.B. 95% COMPACTED SUBGRADE SOIL, PER SOILS ENGINEER (PARKING STALLS)
3. CONSTRUCT 8" PORTLAND CEMENT CONCRETE OVER 95% COMPACTED SUBGRADE SOIL, (HEAVY DRIVE AISLES)
4. CONSTRUCT 6" PORTLAND CEMENT CONCRETE OVER 95% COMPACTED SUBGRADE SOIL, (LIGHT DRIVE AISLES & PARKING STALLS)
5. CONSTRUCT 6" P.C.C. CURB & GUTTER TYPE-G PER G-2 (SDRSD), MONOLITHIC POUR WITH PCC PAVEMENT.
6. CONSTRUCT 6" P.C.C. CURB PER G-1 (SDRSD).
7. CONSTRUCT 6" P.C.C. CURB & GUTTER TYPE-G PER G-2 (SDRSD).
8. CONSTRUCT 4.0' WIDE (MIN.) WIDE P.C.C. SIDEWALK PER G-7 (SDRSD).
9. CONSTRUCT 3.0' WIDE RIBBON GUTTER PER SECTION, SHEET 3.
10. CONSTRUCT 38" WIDE P.C.C. DRIVEWAY PER (SDRSD) DS-07, SEE SAWCUT, GRIND AND OVERLAY DETAIL SHEET 3.
11. CONSTRUCT TYPE A PEDESTRIAN ACCESS RAMP W/TRUNCATED DOMES PER G-27 & G-30 (SDRSD).
12. CONSTRUCT SINGLE TYPE A PEDESTRIAN ACCESS RAMP W/TRUNCATED DOMES PER G-27 & G-30 (SDRSD) & DETAIL SHEET 3.
13. CONSTRUCT DOUBLE TYPE PEDESTRIAN ACCESS RAMP W/TRUNCATED DOMES PER G-30 (SDRSD) & DETAIL SHEET 3.
14. CONSTRUCT TYPE D PEDESTRIAN ACCESS RAMP W/TRUNCATED DOMES PER G-31 & G-30 (SDRSD).
15. CONSTRUCT KEYSTONE RETAINING WALL W/FALL PROTECTION (PER SEPARATE PERMIT).
16. COVERED TRASH ENCLOSURE (PER BUILDING PERMIT) PER DETAIL SHEET 3.
17. INSTALL "NO RIGHT TURN ON RED" SIGN PER MUTCD R13-A.
18. CONSTRUCT STORM DRAIN CLEANOUT TYPE-A PER D-9 (SDRSD).
19. INSTALL 6" PVC PERFORATED UNDERDRAIN.
20. CONSTRUCT WING TYPE HEADWALL PER D-34 (SDRSD) W/6"x10" L RIP-RAP TYPE 2 PER D-40 (SDRSD), No. 2 ROCK CLASS BANKING, T=1.0' OVER FILTER BLANKET.
21. PROPOSED MTS BUS STOP APPROXIMATE LOCATION.
22. INSTALL "NO LEFT TURN" SIGN PER MUTCD R3-2.
23. INSTALL "STOP" SIGN PER MUTCD R1-1.
24. CONSTRUCT P.C.C. DRIVEWAY PER G-14A (SDRSD), SEE SAWCUT, GRIND AND OVERLAY DETAIL SHEET 3.
25. INSTALL BMP TREE WELL W/1.0' CURB OPENING, BELOW GRADE SECTION 15'Wx25'Lx4'D W/SOUTHERN MAGNOLIA PER CoSD GS-1.00.
26. INSTALL BMP TREE WELL W/1.0' CURB OPENING, BELOW GRADE SECTION 10'Wx25'Lx4'D W/ WESTERN REDBUD PER CoSD GS-1.00.

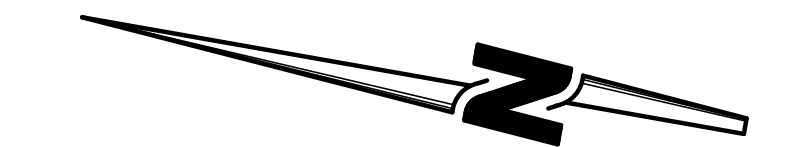
*EARTHWORK:

CUT = 4,000 C.Y.
FILL = 15,504 C.Y.
IMPORT = 11,405 C.Y.

*THE QUANTITIES OF CUT AND FILL SHOWN HEREON WERE CALCULATED USING REASONABLE ENGINEERING METHODS. THE QUANTITIES ARE FOR USE IN CALCULATING THE FEES AND BONDS REQUIRED BY THE PUBLIC AGENCY. THEY ARE NOT TO BE USED FOR BIDDING PURPOSES. ACTUAL QUANTITIES MAY VARY DUE TO FACTORS SUCH AS SHRINKAGE OR SWELL, RETAINING WALL BACKCUT REQUIREMENTS AND THE RECOMMENDATIONS OF THE SITE SOILS REPORT.

PRELIMINARY GRADING PLAN NOTE:

THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN A VALID GRADING PERMIT BEFORE COMMENCING SUCH ACTIVITY.



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SCALE: 1" = 20'

PRIVATE CONTRACT

SHEET 2 COUNTY OF SAN DIEGO 4
DEPARTMENT OF PUBLIC WORKS SHEETS

CONCEPTUAL GRADING PLAN FOR:

8445 LOS COCHES ROAD, EL CAJON

CALIFORNIA COORDINATE INDEX 250-1779

APPROVED FOR:
WILLIAM P. MORGAN
COUNTY ENGINEER

ENGINEER OF WORK:
JOSHUA R. ZIEGLER R.C.E. NO. 85413 EXP. 9-30-24

GRADING PERMIT NO.: C-2

DATE

PDS2020-MUP-20-006 AND PDS2022-TPM-21293

"NOT FOR CONSTRUCTION"

BIOFILTRATION BASIN

PARCEL 2

28,354 SQ FT

RETAIL

7,395 SQ FT

FINISHED FLOOR= 687.50

PARCEL 1

41,932 SQ FT

CAR WASH BUILDING

PARCEL 3

20,969 SQ FT

DRIVE-THRU FAST FOOD

2,660 SQ FT

FF= 690.90

PARCEL 4

34,922 SQ FT

PLANS PREPARED BY:
SPEAR & ASSOCIATES, INC.
CIVIL ENGINEERING & LAND SURVEYING
475 PRODUCTION STREET, SAN MARCOS, CA 92078
PHONE (760) 736-2040 FAX (760) 736-4866
WWW.SPEARINC.NET



ORA BELLE LANE

EX. STREET NAMES SIGN
EX. "DEAD END" SIGN

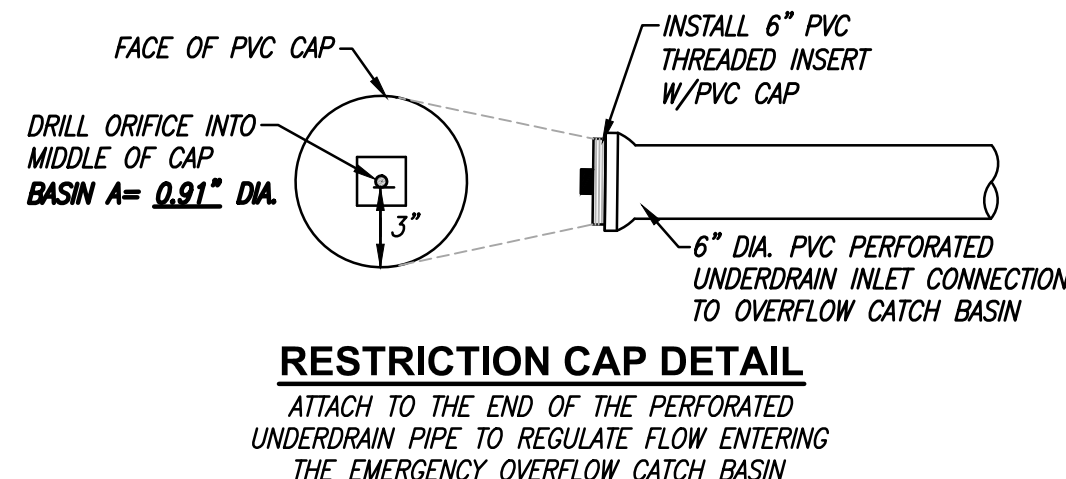
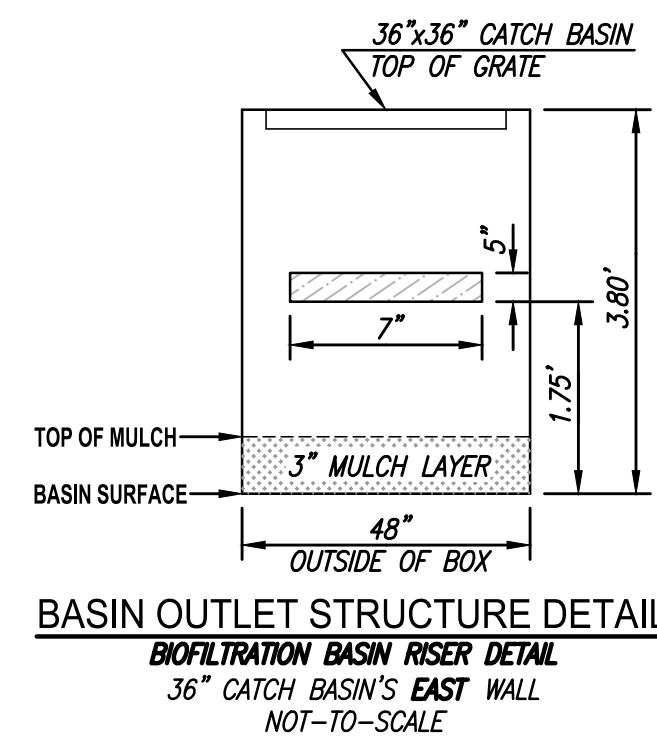
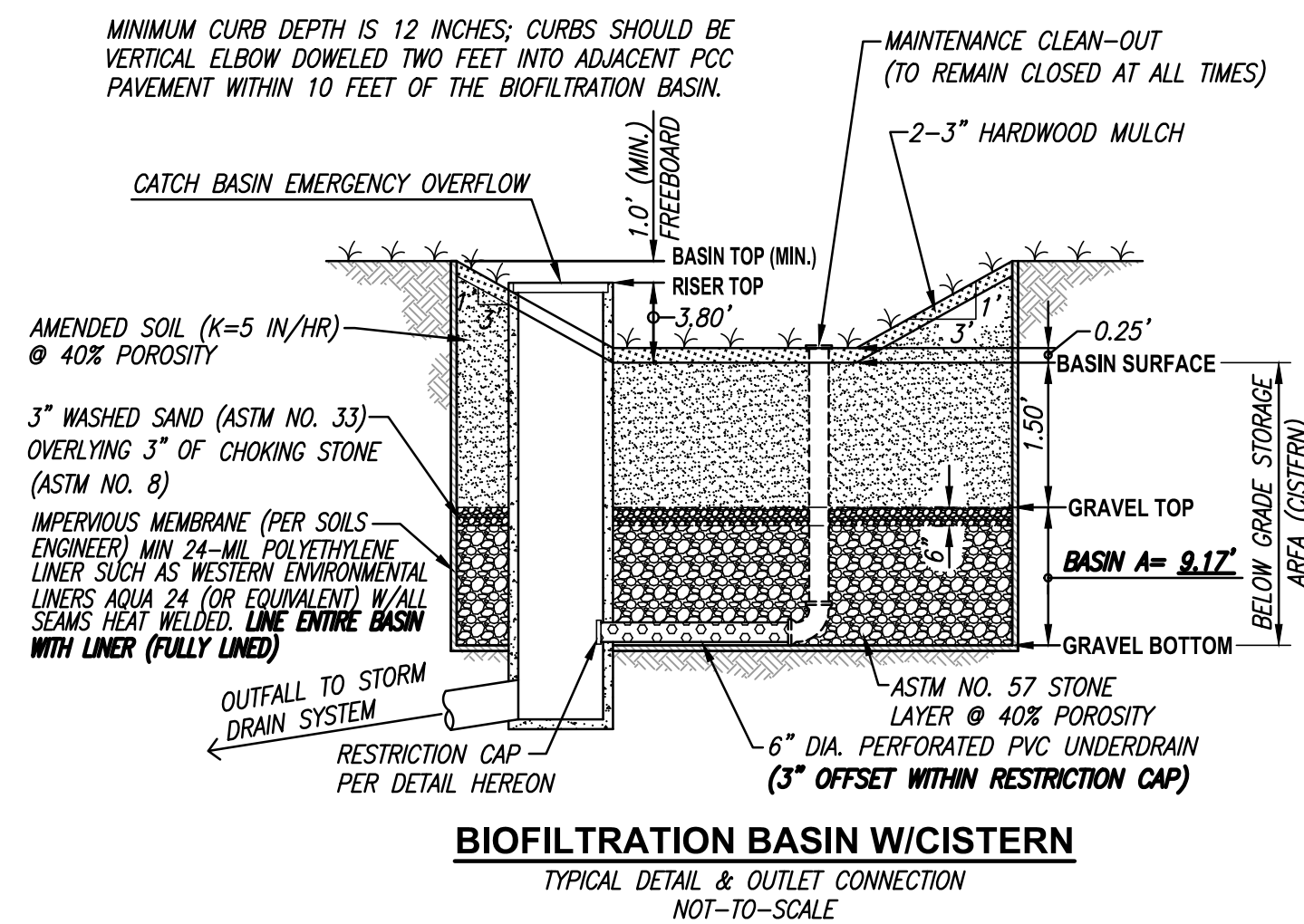
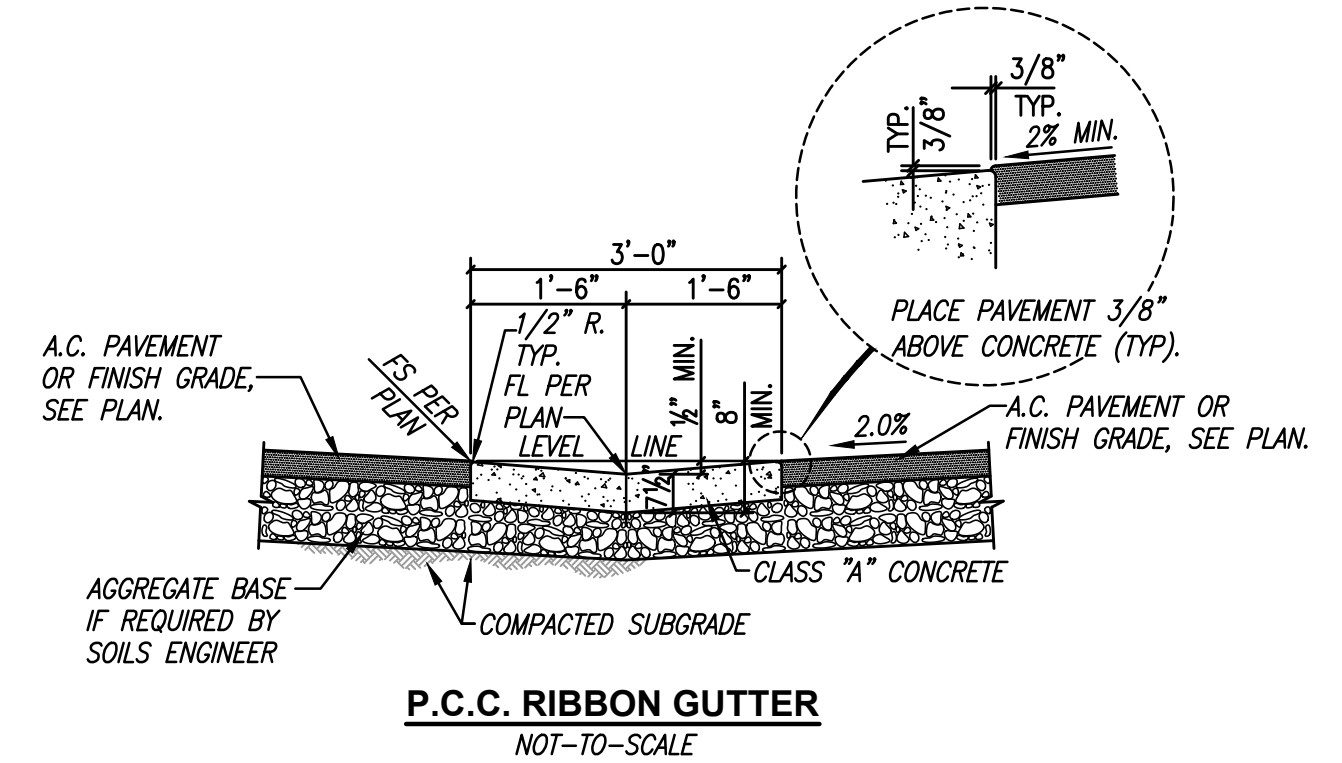
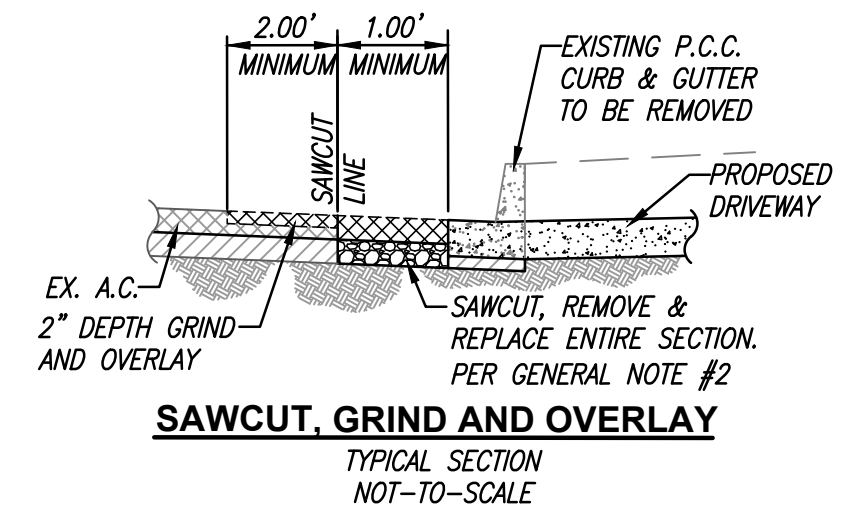
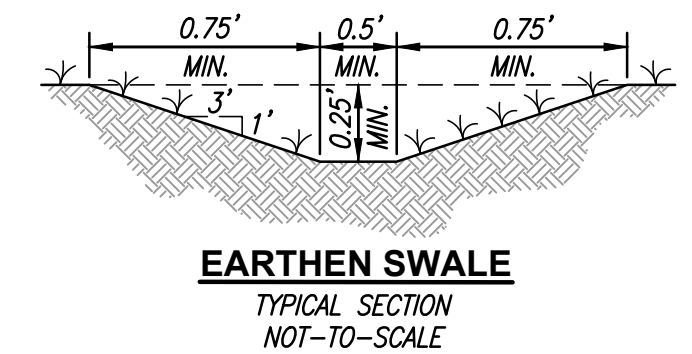
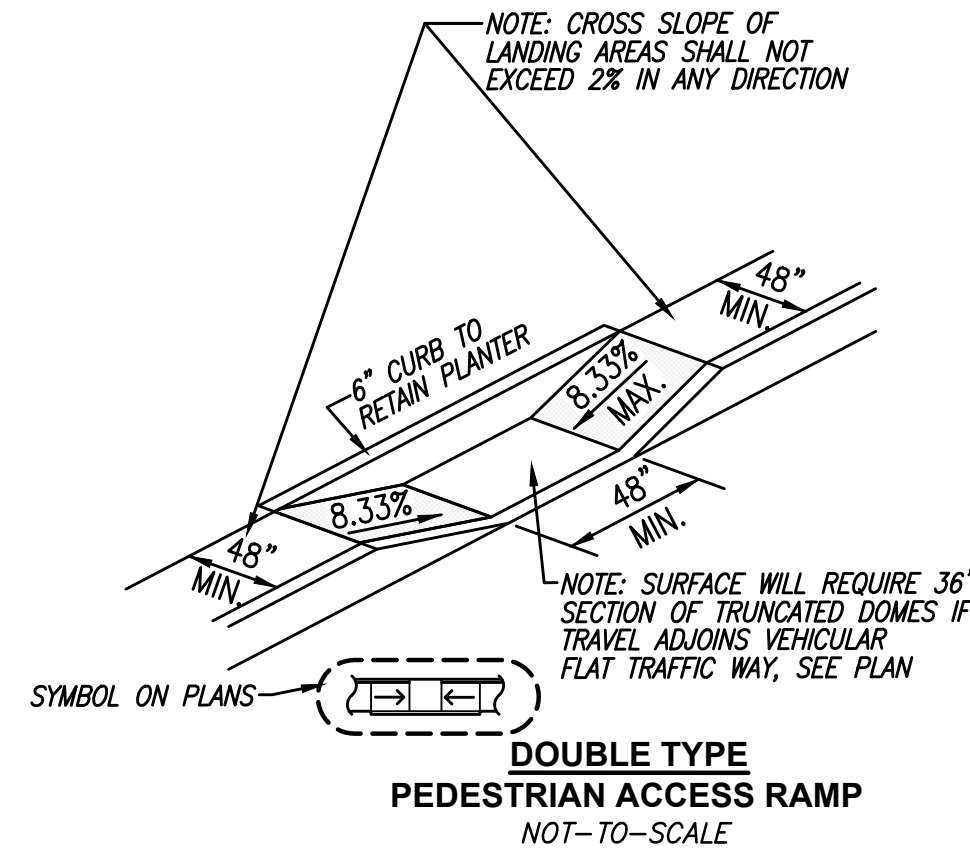
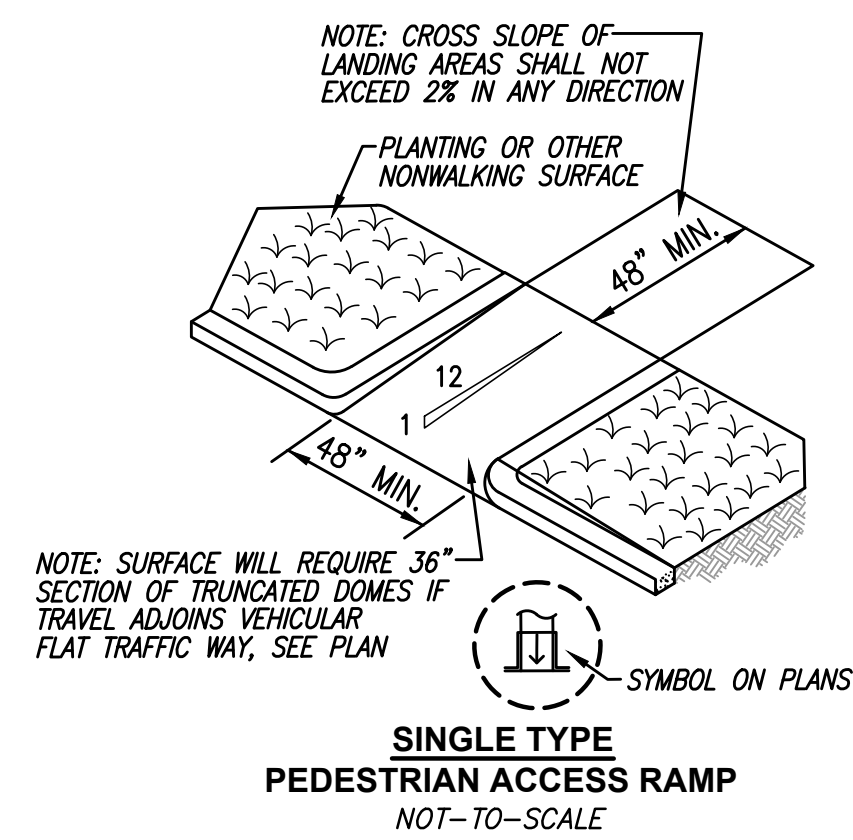
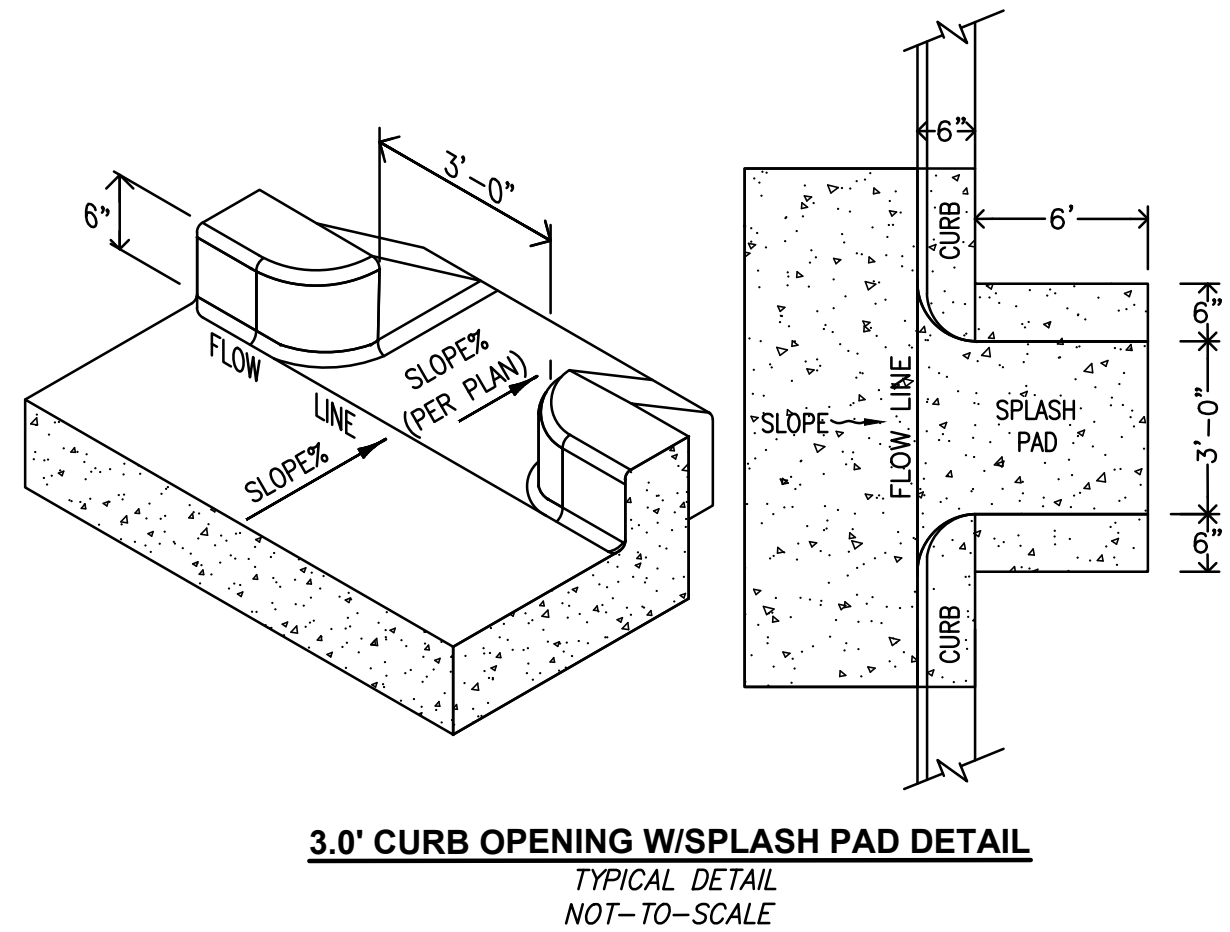
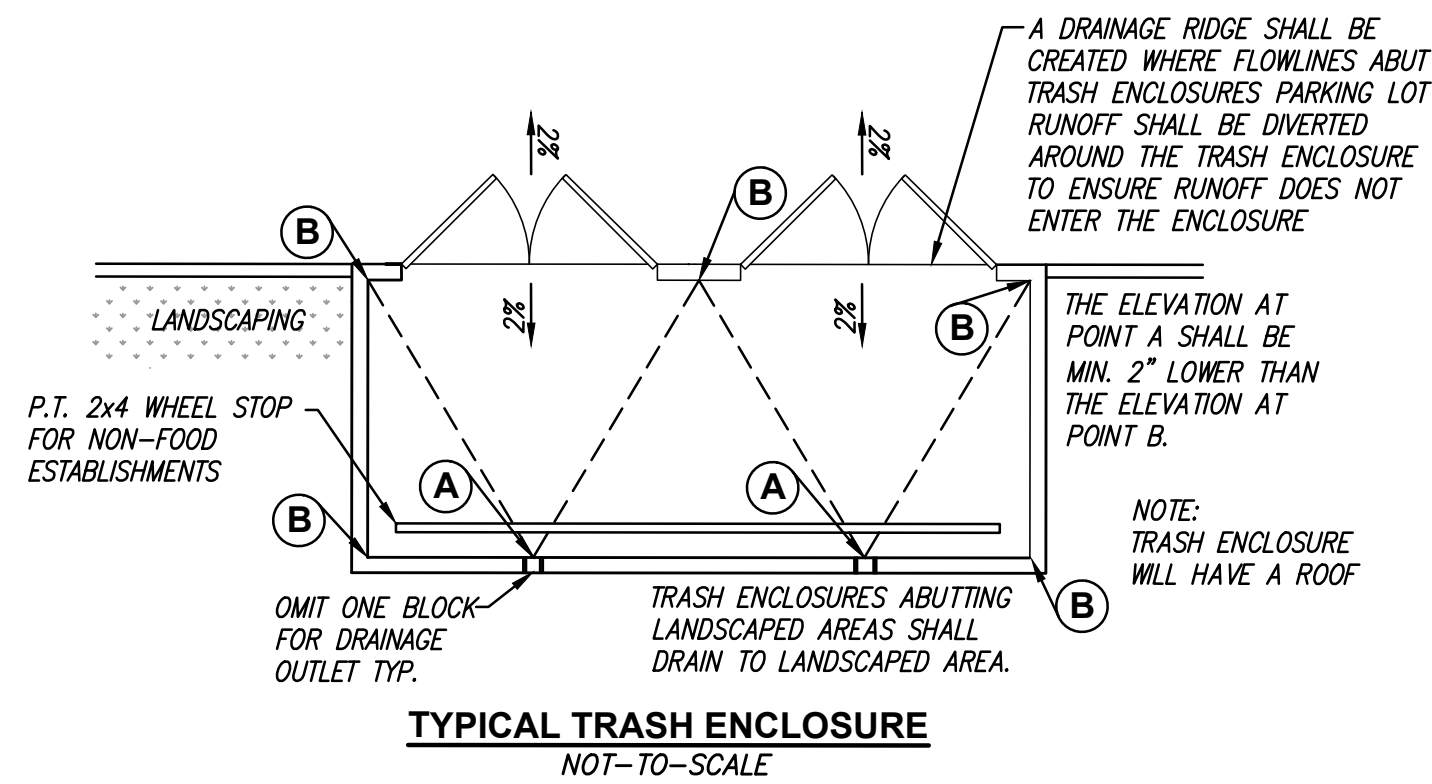
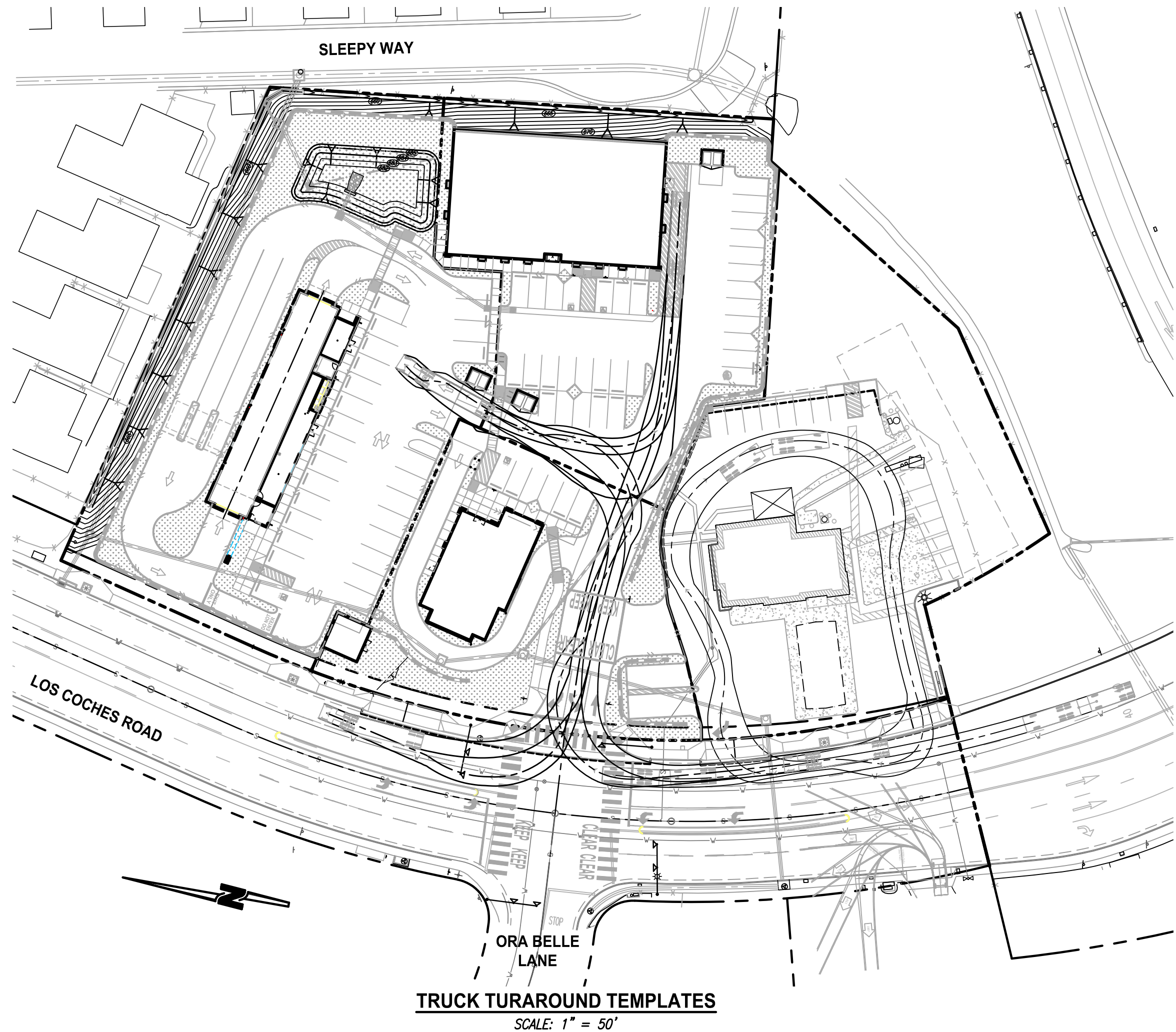
EX. RAMP

EX. S.L.

EX. S.W.

EX. S.W.

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PLOT DATE: 11/8/2023 2:42 PM



HMP CISTERN VOLUMES:
BASIN A REQUIRED STORAGE VOLUME= 10,917 CU. FT.

PARAMETERS FOR BASIN A:
TOTAL SQ. FT.= 2,250
TOTAL SURFACE DEPTH= 1.0'
TOTAL AMENDED SOIL DEPTH= 1.50'
TOTAL GRAVEL DEPTH= 9.17'

VOLUME PROVIDED FOR BASIN A:
SURFACE STORAGE (W/3:1 SIDE SLOPES)= 1,980 CU. FT.
AMENDED SOIL STORAGE (@ 40% POROSITY)= 1,350 CU. FT.
GRAVEL STORAGE (@ 40% POROSITY)= 8,253 CU. FT.
TOTAL VOLUME PROVIDED= 11,583 CU. FT.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE & COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS & PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY & NOT TO BE LIMITED TO NORMAL WORKING HOURS & CONSTRUCTION CONTRACTOR AGREES TO DEFEND, INDEMNIFY & HOLD CO. OF SAN DIEGO & DESIGN PROFESSIONAL HARMLESS FROM ANY & ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

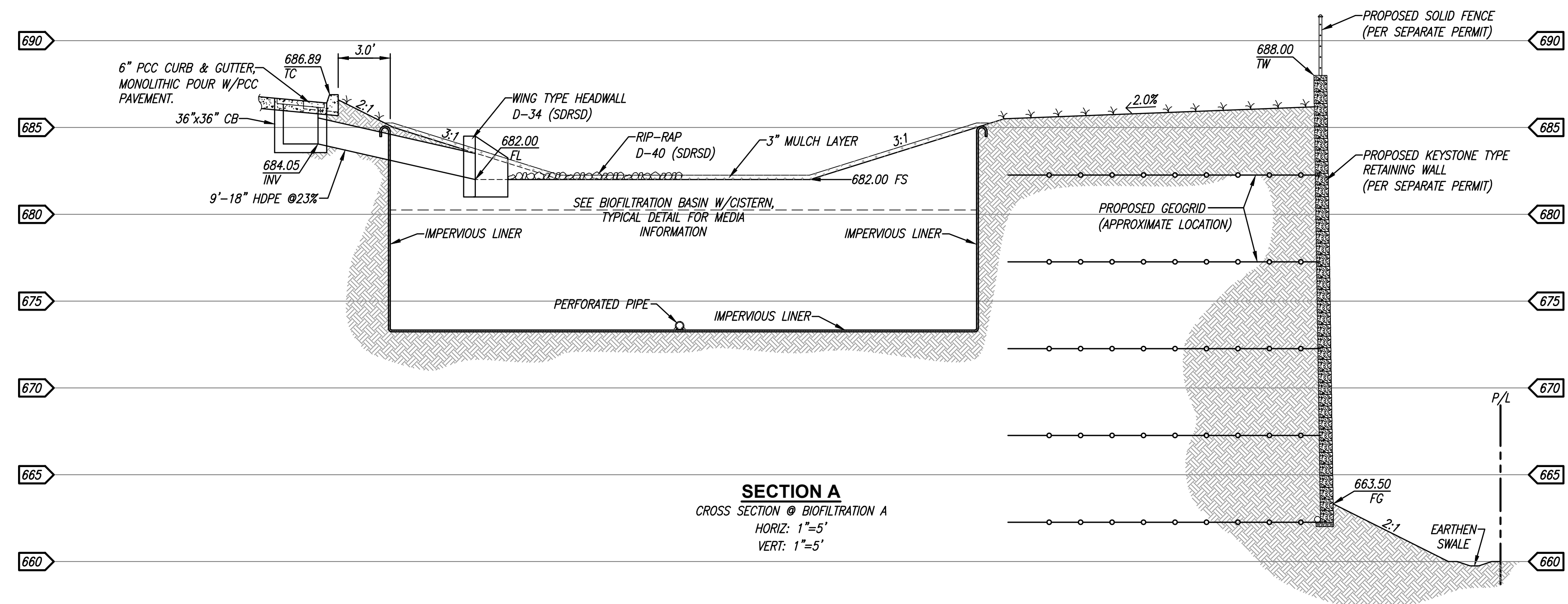
COUNTY APPROVED CHANGES		
NO.	Description	Approved by

PRIVATE CONTRACT		
SHEET 3	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	4 SHEETS
DETAIL PLAN FOR: 8445 LOS COCHES ROAD, EL CAJON		
CALIFORNIA COORDINATE INDEX 250-1779		
APPROVED FOR: WILLIAM P. MORGAN COUNTY ENGINEER	ENGINEER OF WORK: JOSHUA R. ZIEGLER R.C.E. NO. 85413 EXP. 9-30-24	
BY: _____ DATE _____	GRADING PERMIT NO.: C-3	

PDS2020-MUP-20-006 AND PDS2022-TPM-21293

"NOT FOR CONSTRUCTION"

ENGINEER'S NAME: SPEAR & ASSOCIATES, INC.
PHONE NO. 1-760-736-2040



NOT DATE: 1/18/2023 4:04 PM C:\Users\Abel\spearinc.net\PROJECTS\JOBS\2019\19-169 NLA ACQUISITIONS - 84445 LOS COCHES ROAD, EL CAJON\CAD\19-169 CGP.dwg



CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE & COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS & PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY & NOT TO BE LIMITED TO NORMAL WORKING HOURS & CONSTRUCTION CONTRACTOR AGREES TO DEFEND, INDEMNIFY & HOLD CO. OF SAN DIEGO & DESIGN PROFESSIONAL HARMLESS FROM ANY & ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

COUNTY APPROVED CHANGES			
NO.	Description	Approved by	
D			

PRIVATE CONTRACT		
SHEET 4	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	4 SHEETS
DETAILS PLAN FOR: 8445 LOS COCHES ROAD, EL CAJON		
CALIFORNIA COORDINATE INDEX 250-1779		
APPROVED FOR: WILLIAM F. MORGAN COUNTY ENGINEER		ENGINEER OF WORK: JOSHUA R. ZEDLER R.C.E. NO. 85413 EXP. 9-30-24
BY: _____ DATE _____		GRADING PERMIT NO.: C-4

ENGINEER'S NAME: SPEAR & ASSOCIATES, INC
PHONE NO. 1-760-736-2040



County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 5: Site and Drainage Description

5.0 General Requirements

- Each Priority Development Project (PDP) must provide a description of existing site conditions and proposed changes to them, including changes to topography and drainage.
- Has a **Drainage Report** has been prepared for the PDP?

☒ **Yes**

- Review of the Drainage Report must be concurrent with the PDP SWQMP.
- Include the summary page of the Drainage Report with this cover page, and provide the following information:

Title: CEQA Hydrology & Hydraulic Report for Los Coches Plaza

Prepared By: Spear & Associates, Inc.

Date: 1/12/23

- Do not complete the rest of this attachment (also exclude these additional pages from your submittal). Additional documentation of site and drainage conditions is not required unless requested by County staff.

☐ **No** -- Complete and submit the remainder of this attachment below.



County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 6: Documentation of DMAs without Structural BMPs

6.0 General Requirements

- Use this attachment to document all proposed (1) self-mitigating, (2) de minimis, and (3) self-retaining DMAs. Indicate under “DMA Compliance Option” below which design options will be used to satisfy structural performance requirements for one or more DMA.

DMA Compliance Option	Required Sub-attachments or Printouts	BMPDM Design Resources
☒ Self-mitigating	Sub-attachment 6.1	BMPDM Section 5.2.1
☐ De minimis	Sub-attachment 6.2	BMPDM Section 5.2.2
☐ Self-retaining¹ <u>SSD-BMP Type(s)</u> ☐ Impervious Area Dispersion ☒ Tree Wells	- Sub-attachment 6.3 - DCV calculations from SSD-BMP tool - Dispersion Areas calculations from SSD-BMP tool - DCV calculations from SSD-BMP tool - Tree Well calculations from SSD-BMP tool	- BMPDM Section 5.2.3 (all options) - Fact Sheet SD-B (Appendix E.8) - Appendix I - Fact Sheet SD-A (Appendix E.7) - Appendix I

- Submit this cover page and all “Required Sub-attachments or Printouts” listed for each selected DMA compliance option.
- See the BMPDM sections and appendices listed under “BMPDM Design Resources” for additional explanation of design requirements. Each constructed feature must fully satisfy the requirements described in these resources, and any other guidance identified by the County.
- DMA Exhibits and Construction Plans:** DMAs, features, and BMPs identified and described in this attachment must be shown on DMA Exhibits and all applicable construction plans submitted for the project. See Attachment 2 for additional instruction on exhibits and plans.

¹ If “Self-retaining” is selected, also choose the types of Significant Site Design BMPs (SSD-BMPs) to be used. SSD-BMPs are Site Design BMPs that are sized and constructed to fully satisfy all applicable Structural Performance Standards for a DMA.

6.1 Self-mitigating DMAs (complete this page once for ALL self-mitigating DMAs)

Self-mitigating DMAs consist of natural or landscaped areas that drain directly offsite or to the public storm drain system. These DMAs are excluded from DCV calculations.

- Provide the information requested below for each proposed self-mitigating DMA. Add rows or copy the table if additional entries are needed.

DMA #	a. DMA Area (ft ²)	Incidental Impervious Area		Permit # and Sheet #
		b. Size(ft ²)	c. % (b/a*100)	
				PDS2020-TM-5640; PDS2021-
				TPM-21293; PDS2020-MUP-20-006
B1	2841			Sheets 2, 3
B2	5000			Sheets 2, 3

- “DMA #”, “DMA Area”, and “Permit # and Sheet #” are required for all DMAs listed.
- “Incidental Impervious Area” calculations are required only where applicable (see below).
- Each self-mitigating DMA must fully satisfy all design requirements and restrictions described in BMPDM Section 5.2.1 and any other guidance or instruction identified by the County. Check the boxes below to confirm that all required conditions are satisfied for every DMA listed.

☒ Each DMA is hydraulically separate from other DMAs that contain permanent storm water pollutant control BMPs.

Natural and Landscaped Areas

☒ Each DMA consists solely of natural or landscaped areas, except for incidental impervious areas (see below).

☒ Each area drains directly offsite or to the public storm drain system.

☒ Soils are undisturbed native topsoil, or disturbed soils that have been amended and aerated to promote water retention characteristics equivalent to undisturbed native topsoil.

☒ Vegetation is native and/or non-native/non-invasive drought tolerant species that do not require regular application of fertilizers and pesticides.

Incidental Impervious Areas (if applicable; see above)

Minor impervious areas may be permitted within the DMA if they satisfy the following criteria:

☐ They are not hydraulically connected to other impervious areas (unless it is a storm water conveyance system such as a brow ditch).

☐ They comprise less than 5% of the total DMA. Calculate the % incidental impervious area in the table above ($c = b/a$). DMAs are not self-mitigating if this area is 5% or greater.

Summary Sheet for Self-retaining DMAs with Impervious Area Dispersion

Attach Printouts from SSD-BMP tool below

- DCV calculations from SSD-BMP tool
- Dispersion Areas calculations from SSD-BMP tool

6.3.2 Self-retaining DMAs with Tree Wells

Trees wells can provide a variety of benefits such as interception and increased infiltration of rainfall, reduced erosion, energy conservation, air quality improvement, and aesthetic enhancement. They can also be used to satisfy both pollutant control and hydromodification management performance standards for a DMA.

- Each self-retaining DMA with tree wells must fully satisfy all design requirements and restrictions described in BMPDM Section 5.2.3, Fact Sheet SD-A: Tree Wells, and any other guidance or instruction identified by the County.
- For pollutant control only, the DMA must retain the entire DCV. For hydromodification management, an additional volume must be retained in accordance with the sizing requirements presented in the DCV multiplier table in Fact Sheet SD-A.
- Documentation of compliance with applicable conditions must be submitted using the **Summary Sheet for Self-retaining DMAs with Tree Wells** on the next page. One version of this Summary Sheet must be completed for each applicable DMA.
- If both pollutant control and hydromodification standards apply, the soil depth of all tree wells in the DMA must be selected before determining the Required Retention Volume (RRV). Each tree well must be constructed to the selected depth. For pollutant control only, tree wells within a DMA may be constructed to different soil depths.
- In most cases tree wells must use Amended Soil per Fact Sheet SD-F. However, Structural Soil is required in some cases (e.g., placing the tree well next to a curb). See **Structural Requirements for Confined Tree Well Soil Volume** in Fact Sheet SD-A for additional explanation. If applicable, list the DMAs and Tree Well #s below for all tree wells requiring Structural Soil.

DMA #	Tree Wells Requiring Structural Soil (list Tree Well #s)
O4A	1 trees with 30' average canopy diameter (DCV = 139 c.f.)
O4B	1 trees with 30' average canopy diameter (DCV = 140 c.f.)
O4C	1 trees with 30' average canopy diameter (DCV = 138c.f.)

- The Design Capture Volume (DCV) must be known for each DMA in order to determine the volume to be mitigated by the tree wells. Instructions for DCV calculation are provided in BMPDM Appendix I.1. An automated version of Worksheet I.1 (Calculation of Design Capture Volume) is available at www.sandiegocounty.gov/stormwater under the Development Resources tab.

Note: 4,403 s.f. of impervious area from area O4B will be mitigated by tree wells in O4a and O4C, with existing impervious areas from Los Coches Rd. O4 A will treat 1,786 s.f and O4C 2,617 s.f. (see below "DMA O4 Tree-well Treatment Area Breakdown")

Summary Sheet for Self-retaining DMAs with Tree Wells

Attach Printouts from SSD-BMP tool below

- DCV calculations from SSD-BMP tool
- Tree Wells calculations from SSD-BMP tool

DMA O4 Tree-well Treatment Area Breakdown:			
DMA Sub Area	DMA O4A	DMA O4B	DMA O4C
DMA Sub Area Direct Treatment:			
Direct Impervious Area	1,584	3,320	829
Direct Landscape Area	1,320	1,894	96
DMA Sub Area to be Mitigated:			
Proposed Impervious Area To Be Mitigated:	0	4,403	0
Los Coches Exist. Impervious Treatment Mitigation Area from O4B:			
Existing Impervious Area Treatment	1,786	0	2,617
Total Impervious Treatment Area W/Mitigation Included:			
Proposed & Existing Impervious Area Treatment	3,370	3,320	3,446

4,403

SSD-BMP Automated Worksheet I-3: Step 3. Tree Well Sizing (V1.0)													
Category	#	Description	<i>i</i>	<i>ii</i>	<i>iii</i>	<i>iv</i>	<i>v</i>	<i>vi</i>	<i>vii</i>	<i>viii</i>	<i>ix</i>	<i>x</i>	Units
Standard Tree Well Inputs	1	Drainage Basin ID or Name	O4A	O4B	O4C	-	-	-	-	-	-	-	unitless
	2	Design Capture Volume Tributary to BMP	139	140	138	-	-	-	-	-	-	-	cubic-feet
	3	Is Hydromodification Control Applicable?	Yes	Yes	Yes	-	-	-	-	-	-	-	yes/no
	4	Predominant NRCS Soil Type Within Tree Well(s) Location	B	B	B								unitless
	5	Select a Tree Species for the Tree Well(s) Consistent with SD-A Tree Palette Table Note: Numbers shown in list are Tree Species Mature Canopy Diameters	30' - Southern Magnolia	30' - Southern Magnolia	30' - Southern Magnolia								unitless
	6	Tree Well(s) Soil Depth (Installation Depth) Must be 30, 36, 42, or 48 Inches; Select from Standard Depths**	48	48	48								inches
	7	Number of Identical* Tree Wells Proposed for this DMA	1	1	1								trees
	8	Proposed Width of Tree Well(s) Soil Installation for One (1) Tree	15.0	15.0	15.0								feet
	9	Proposed Length of Tree Well(s) Soil Installation for One (1) Tree	24.0	24.0	24.0								feet
Tree Data	10	Botanical Name of Tree Species	Magnolia Grandiflora	Magnolia Grandiflora	Magnolia Grandiflora	-	-	-	-	-	-	-	unitless
	11	Tree Species Mature Height per SD-A	40	40	40	-	-	-	-	-	-	-	feet
	12	Tree Species Mature Canopy Diameter per SD-A	30	30	30	-	-	-	-	-	-	-	feet
	13	Minimum Soil Volume Required In Tree Well (2 Cubic Feet Per Square Foot of Mature Tree Canopy Projection Area)	1414	1414	1414	-	-	-	-	-	-	-	cubic-feet
	14	Credit Volume Per Tree	420	420	420	-	-	-	-	-	-	-	cubic-feet
Tree Well Sizing Calculations	15	DCV Multiplier To Meet Flow Control Requirements	3.00	3.00	3.00	-	-	-	-	-	-	-	unitless
	16	Required Retention Volume (RRV) To Meet Flow Control Requirements	417	420	414	-	-	-	-	-	-	-	cubic-feet
	17	Number of Trees Required	1	1	1	-	-	-	-	-	-	-	trees
	18	Total Area of Tree Well Soil Required for Each Tree	353	353	353	-	-	-	-	-	-	-	sq-ft
	19	Approximate Required Width of Tree Well Soil Area for Each Tree	19	19	19	-	-	-	-	-	-	-	feet
	20	Approximate Required Length of Tree Well Soil Area for Each Tree	19	19	19	-	-	-	-	-	-	-	feet
	21	Number of Trees Proposed for this DMA	1	1	1	-	-	-	-	-	-	-	trees
	22	Total Area of Tree Well Soil Proposed for Each Tree	360	360	360	-	-	-	-	-	-	-	sq-ft
	23	Minimum Spacing Between Multiple Trees To Meet Soil Area Requirements (when applicable)***	n/a	n/a	n/a	-	-	-	-	-	-	-	feet
Results	24	Are Tree Well Soil Installation Requirements Met?	Yes	Yes	Yes	-	-	-	-	-	-	-	yes/no
	25	Is Remaining DCV Requirement Fully Satisfied by Tree Well(s)?	Yes	Yes	Yes	-	-	-	-	-	-	-	yes/no
	26	Is Hydromodification Control Requirement Satisfied by Tree Well(s)?	Yes	Yes	Yes	-	-	-	-	-	-	-	yes/no
No Warning Messages													

Notes:
*If using more than one mature canopy diameter within the same DMA, only the smallest mature canopy diameter should be entered. Alternatively, if more than one mature canopy diameter is proposed and/or the dimensions of multiple tree well installations will vary, separate DMAs may be delineated.
**If the actual proposed installation depth is not available in the table of standard depths, select the next lower depth.
***Tree Canopy or Agency Requirements May Also Influence the Minimum Spacing of Trees.



County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 7: Documentation of DMAs with Structural Pollutant Control BMPs

7.0 General Requirements

- Submit this cover page and all required Sub-attachments for all structural BMPs proposed for the project.
- See the BMPDM sections and appendices listed under “BMPDM Design Resources” in the table below for additional explanation of design requirements. Constructed features must fully satisfy the requirements described in these resources, and any other guidance identified by the County.
- PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management. Completion of SWQMP Attachment 8 is also required for these BMPs.
- DMA Exhibits and Construction Plans: DMAs, features, and BMPs identified and described in this attachment must be shown on DMA Exhibits and all applicable construction plans submitted for the project. See Attachment 2 for additional instruction on exhibits and plans.
- Structural BMP Certification. All structural BMPs documented this attachment and in Attachment 8 must be certified by a registered engineer in Sub-attachment 7.1.
- Structural BMP Verification. Structural BMP installation must be verified by the County at the completion of construction. Applicants must complete an Installation Verification Form (Attachment 10).

Sub-attachments (check all that are completed)	Requirement	BMPDM Design Resources
☒ 7.1: Preparer’s Certification	Required	• N/A
☒ 7.2: Structural BMP Strategy	Required	• BMPDM Sections 5.1., 5.3, 5.4, and Chapter 6 • BMPDM Appendix E (pages E-78 through E-210)
☒ 7.3: Structural BMP Checklist(s)	Required	
☒ 7.4: Stormwater Pollutant Control Worksheet Calculations	Required	• BMPDM Appendix B
☐ 7.5: Identification and Narrative of Receiving Water and Pollutants of Concern	Required if flow-thru BMPs are proposed	• N/A

7.1 Engineer of Work Certification for Structural BMPs

Project Name Los Coches Plaza

Permit Application Number PDS2020-TM-5640; PDS2021-TPM-21293; PDS2020-MUP-20-006

CERTIFICATION

I hereby declare that I am the Engineer in Responsible Charge of design of structural storm water best management practices (BMPs) for this project, and that I have exercised responsible charge over the design of the BMPs as defined in Section 6703 of the Business and Professions Code, and that the design is consistent with the PDP requirements of the County of San Diego BMP Design Manual, which is a design manual for compliance with local County of San Diego Watershed Protection Ordinance (Sections 67.801 et seq.) and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100) requirements for storm water management. I have read and understand that the County of San Diego has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the BMP Design Manual.

I certify that this PDP SWQMP has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this PDP SWQMP by County staff is confined to a review and does not relieve me, as the Engineer in Responsible Charge of design of structural storm water BMPs for this project, of my responsibilities for their design.

☒ In addition to the structural pollutant control BMPs described in this attachment, this certification applies to the Structural Hydromodification Management BMPs described in Attachment 8 (check if applicable).



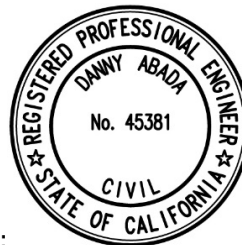
Engineer of Work's Signature, PE Number & Expiration Date

Danny Abada, PE

Print Name

Spear & Associates, Inc.

Company



9/9/2022

Date

Engineer's Seal:

7.2 Structural BMP Strategy

7.2.1 Narrative Strategy (Continue description on subsequent pages as necessary)

Describe the general strategy for structural BMP implementation at the project site. For pollutant control BMPs, your description must address the key points outlined in Section 5.1 of the BMP Design Manual, and the type of BMPs selected. For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate.

Biofiltration was selected as the most efficient BMPs to treat the project's anticipated and expected pollutants. It is used for HMP and treatment. It was designed and sized in accordance with design criteria and considerations listed in the BMP design manual fact sheets.

The carwash facility will recycle and reuse the water used from each car wash. The interior of the facility is self-contained and any runoff would drain to a sand trap interceptor for treatment prior to discharging to the sanitary sewer system.

Harvest and use of stormwater within the project was found unfeasible because there will be no significant demand with the proposed drought tolerant landscaping and development type, also due to limited space.

Areas B are self mitigating. And Area O4 will be treated with Tree Wells.

7.2.2 Structural BMP Summary Table (Complete for all proposed structural BMPs)

- List and provide the information requested below for all pollutant control and hydromodification management BMPs proposed for the project.
- For each BMP listed, complete the Structural BMP Checklist on the next page. Copy the Checklist as many times as needed.

BMP ID #	DMA #	DMA Area (ft ²)	Structural BMP Type							Permit # and Sheet #
			Harvest and Use	Infiltration	Unlined Biofiltration	Lined Biofiltration	Flow-thru treatment	Hydromodification Management ¹	Other	
A	A	78821	☐	☐	☐	☒	☐	☒	☐	PDS2020-TM-5640
			☐	☐	☐	☐	☐	☐	☐	PDS2021-TPM-21293
			☐	☐	☐	☐	☐	☐	☐	PDS2020-MUP-20-006
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7.3 Structural BMP Checklist (Complete once for each proposed structural BMP)

PDS2020-TM-5640; PDS2021-TPM-21293; PDS2020-MUP-20-006

Structural BMP ID #	A				Permit # and Sheet #	sht. 3			
BMP Type									
Infiltration ☐ Infiltration basin (INF-1) ☐ Bioretention (INF-2) ☐ Permeable pavement (INF-3)					Harvest and Use ☐ Cistern (HU-1)				
Unlined Biofiltration ☐ Biofiltration with partial retention (PR-1)					Flow-thru Treatment (describe below) ☐ With prior lawful approval to meet earlier PDP requirements ☐ Pre-treatment/forebay for an onsite retention or biofiltration BMP ²				
Lined Biofiltration ☒ Biofiltration (BF-1) ☐ Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3)					Hydromodification Management ³ ☐ Detention pond or vault ☒ Other (describe below)				
BMP Purpose									
☐ Pollutant control only ☐ Hydromodification control only ☒ Combined pollutant control and hydromodification					☐ Pre-treatment/forebay for another BMP ☐ Other (describe below)				
BMP Verification (See BMPDM Section 8.3)									
Provide name and contact information for the party responsible to sign BMP verification forms					Spear & Associates, Inc. c/o Josh Ziegler, P.E. 475 Production Street, San Marcos, CA 92078 Phone: (760) 736-2040				
BMP Ownership and Maintenance (See BMPDM Section 7.3 and Attachment 11)									
BMP Maintenance Category					Cat. 1	Cat. 2	Cat. 3	Cat. 4	
					☒	☐	☐	☐	
Final owner of BMP					☐ HOA	☒ Property Owner	☐ County		
					☐ Other (describe):				
Maintenance of BMP into perpetuity					☐ HOA	☒ Property Owner	☐ County		
					☐ Other (describe):				
Discussion (As needed; Continue on subsequent pages as necessary)									
Hydromodification will be addressed with a Cistern									

² Indicate which onsite retention or biofiltration BMP the pre-treatment/forebay serves.

³ Hydromodification Management BMPs must be accompanied by BMPs that provide pollutant control.

² Indicate which onsite retention or biofiltration BMP the pre-treatment/forebay serves.

³ Hydromodification Management BMPs must be accompanied by BMPs that provide pollutant control.

7.4 Storm Water Pollutant Control Worksheet Calculations

- Use this page as a cover sheet for the submittal of any required worksheets below.
- Complete the checklist to identify which BMPDM Appendix B (Storm Water Pollutant Control Hydrologic Calculations and Sizing Methods) worksheets are included with this attachment.
- See BMPDM Appendix B for an explanation of the applicability of individual worksheets and detailed guidance on their completion.

Worksheet	Requirement
☒ Worksheet B.1 Calculation of Design Capture Volume (DCV)	Required
☒ Worksheet B.2 Retention Requirements	Required
☒ Worksheet B.3 BMP Performance	Required
☐ Worksheet B.4 Major Maintenance Intervals for Reduced-sized BMPs	If applicable
☐ Other worksheets	As required

Automated Worksheet B.1: Calculation of Design Capture Volume (V2.0)

[illegible]

Automated Worksheet B.2: Retention Requirements (V2.0)

Category	#	Description	<i>i</i>	<i>ii</i>	<i>iii</i>	<i>iv</i>	<i>v</i>	<i>vi</i>	<i>vii</i>	<i>viii</i>	<i>ix</i>	<i>x</i>	Units
Basic Analysis	1	Drainage Basin ID or Name	A	-	-	-	-	-	-	-	-	-	unitless
	2	85th Percentile Rainfall Depth	0.53	-	-	-	-	-	-	-	-	-	inches
	3	Predominant NRCS Soil Type Within BMP Location	B										unitless
	4	Is proposed BMP location Restricted or Unrestricted for Infiltration Activities?	Restricted										unitless
	5	Nature of Restriction	Structures										unitless
	6	Do Minimum Retention Requirements Apply to this Project?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes/no
	7	Are Habitable Structures Greater than 9 Stories Proposed?	No	No									yes/no
Advanced Analysis	8	Has Geotechnical Engineer Performed an Infiltration Analysis?	Yes										yes/no
	9	Design Infiltration Rate Recommended by Geotechnical Engineer	0.650										in/hr
Result	10	Design Infiltration Rate Used To Determine Retention Requirements	0.000	-	-	-	-	-	-	-	-	-	in/hr
	11	Percent of Average Annual Runoff that Must be Retained within DMA	4.5%	-	-	-	-	-	-	-	-	-	percentage
	12	Fraction of DCV Requiring Retention	0.02	-	-	-	-	-	-	-	-	-	ratio
	13	Required Retention Volume	50	-	-	-	-	-	-	-	-	-	cubic-feet
No Warning Messages													

7.5 Identification and Narrative of Receiving Water and Pollutants of Concern

- Complete this sub-attachment *only if flow-thru treatment BMPs are implemented onsite* in lieu of retention or biofiltration BMPs. Unless excepted because of a Prior Lawful Approval⁴, PDPs must also participate in an alternative compliance program⁵.

A. General Description

Describe flow path of storm water from the project site discharge location(s), through urban storm conveyance systems as applicable, to receiving creeks, rivers, and lagoons as applicable, and ultimate discharge to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable).

The site drainage is directed to an existing 60" RCP running through an easement across a private property on the southwest side of Marathon Parkway. The flow continues approximately 900' south discharging directly to the San Diego River, and 19.5 miles west to the Pacific Ocean

B. Water Body Impairments and Priorities

List any 303(d) impaired water bodies⁶ within the path of storm water from the project site to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable), identify the pollutant(s)/stressor(s) causing impairment, and identify any TMDLs and/or Highest Priority Pollutants from the WQIP for the impaired water bodies:

303(d) Impaired Water Body	Pollutant(s)/Stressor(s)	TMDLs / WQIP Highest Priority Pollutant
San Diego River, Lower	Benthic Community Effects, Cadmium, Indicator Bacteria, Nitrogen, Oxygen, Dissolved, Phosphorus, Total Dissolved Solids, Toxicity	Indicator Bacteria
Los Coches Creek	Indicator Bacteria, Nitrogen, Phosphorus, Selenium	
Pac. Ocean Shoreline Dog Beach	Indicator Bacteria	

C. Identification of Project Site Pollutants

Identify pollutants expected from the project site based on all proposed use(s) of the site (see BMP Design Manual Appendix B.6).

Pollutant	Not Applicable to the Project Site	Anticipated from the Project Site	Also a Receiving Water Pollutant of Concern
Sediment	☐	☐	☐
Nutrients	☐	☐	☐
Heavy Metals	☐	☐	☐
Organic Compounds	☐	☐	☐
Trash & Debris	☐	☐	☐
Oxygen Demanding Substances	☐	☐	☐

⁴ See BMPDM Appendix L: Prior Lawful Approval Requirements and Guidance.

⁵ See SWQMP Attachment 12 (Alternative Compliance Projects) and BMPDM Appendix J (Offsite Alternative Compliance Requirements and Guidance).

⁶ The current list of Section 303(d) impaired water bodies can be found at:

https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml

Oil & Grease	☐	☐	☐
Bacteria & Viruses	☐	☐	☐
Pesticides	☐	☐	☐



8.0 General Requirements

- Completion of this attachment is required for all PDPs subject to hydromodification management requirements (see PDP SWQMP Form Table 5). Do not submit this attachment if exempt from Hydromodification Management requirements. Document the PDP exemption in Attachment 9.
- Submit this cover page and all required Sub-attachments for all structural hydromodification management BMPs proposed for the project.
- Constructed features must fully satisfy the requirements described in applicable BMPDM sections and appendices, and any other guidance identified by the County.
- DMA Exhibits and Construction Plans: DMAs, features, and BMPs identified and described in this attachment must be shown on DMA Exhibits and all applicable construction plans submitted for the project. See Attachment 2 for additional instruction on exhibits and plans.
- Structural BMP Certification. All structural hydromodification management BMPs documented this attachment must be certified by a registered engineer in Attachment 7, Sub-attachment 7.1.
- Structural BMP Verification. BMP installation must be verified by the County at the completion of construction. Applicants must complete an Installation Verification Form (Attachment 10).

Sub-attachments (check all that are completed)
☒ 8.1: Flow Control Facility Design (required) ¹ Submit using ☒ the Sub-attachment 8.1 cover sheet provided, or ☐ as a separate stand-alone document labeled Sub-attachment 8.1.
☒ 8.2: Hydromodification Management Points of Compliance (required) Complete the table provided in Sub-attachment 8.2.
8.3: Geomorphic Assessment of Receiving Channels 1. Has a geomorphic assessment been performed for the receiving channel(s)? ☒ No, the low flow threshold is 0.1Q ₂ (default low flow threshold) ☐ Yes (provide the information below): Low flow threshold: ☐ 0.1Q ₂ ☐ 0.3Q ₂ ☐ 0.5Q ₂ Title: Date: Preparer:
Submit using ☐ the Sub-attachment 8.3 cover sheet provided, or ☐ as a separate stand-alone document labeled Sub-attachment 8.3.
8.4: Vector Control Plan (required if BMPs will not drain in less than 96 hours) ☐ Included with this attachment ☒ Not required

¹ Including Structural BMP Drawdown Calculations and Overflow Design Summary. See BMPDM Chapter 6 and Appendix G for additional design guidance.

8.1 Flow Control Facility Design

Insert Flow Control Facility Design behind this cover page or submit as a separate stand-alone document labeled Sub-attachment 8.1.

BMP Sizing Spreadsheet V3.0

Project Name:	Los Coches Plaza
Project Applicant:	NLA Acquisitions, LLC
Jurisdiction:	County of San Diego
Parcel (APN):	400-381-02
Hydrologic Unit:	San Diego
Rain Gauge:	Oceanside
Total Project Area (sf):	78,821
Channel Susceptibility:	High

BMP Sizing Spreadsheet V3.0			
Project Name:	Los Coches Plaza	Hydrologic Unit:	San Diego
Project Applicant:	NLA Acquisitions, LLC	Rain Gauge:	Oceanside
Jurisdiction:	County of San Diego	Total Project Area:	78,821
Parcel (APN):	400-381-02	Low Flow Threshold:	0.1Q2
BMP Name:	A	BMP Type:	Cistern
BMP Native Soil Type:	B	BMP Infiltration Rate (in/hr):	NA

Areas Draining to BMP						HMP Sizing Factors	Minimum BMP Size
DMA Name	Area (sf)	Pre Project Soil Type	Pre-Project Slope	Post Project Surface Type	Area Weighted Runoff Factor (Table G.2-1) ¹	Volume	Volume (CF)
A	1,595	A	Flat	Roof	1.0	0.26	415
A	6,348	A	Flat	Pvmt	1.0	0.26	1650
A	550	A	Flat	Hardscape	1.0	0.26	143
A	4,454	A	Flat	Landscape	0.1	0.26	116
A	12,576	B	Flat	Roof	1.0	0.16	2012
A	36,681	B	Flat	Pvmt	1.0	0.16	5869
A	3,094	B	Flat	Hardscape	1.0	0.16	495
A	13,523	B	Flat	Landscape	0.1	0.16	216
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
BMP Tributary Area	78,821					Minimum BMP Size	10917

Proposed BMP Size*

11583

* Assumes standard configuration

Standard Cistern Depth (Overflow Elevation)	9.0	ft
Provided Cistern Depth (Overflow Elevation)	3.5	ft
Minimum Required Cistern Footprint)		CF

Notes:
1. Runoff factors which are used for hydromodification management flow control (Table G.2-1) are different from the runoff factors used for pollutant control BMP sizing (Table B.1-1). Table references are taken from the San Diego Region Model BMP Design Manu

Describe the BMP's in sufficient detail in your PDP SWQMP to demonstrate the area, volume, and other criteria can be met within the constraints of the site.

BMP's must be adapted and applied to the conditions specific to the development project such as unstable slopes or the lack of available head.
Designated Staff have final review and approval authority over the project design.

This BMP Sizing Spreadsheet has been updated in conformance with the San Diego Region Model BMP Design Manual, April 2018. For questions or concerns please contact the jurisdiction in which your project is located.

BMP Sizing Spreadsheet V3.0			
Project Name:	Los Coches Plaza	Hydrologic Unit:	San Diego
Project Applicant:	NLA Acquisitions, LLC	Rain Gauge:	Oceanside
Jurisdiction:	County of San Diego	Total Project Area:	78,821
Parcel (APN):	400-381-02	Low Flow Threshold:	0.1Q2
BMP Name	A	BMP Type:	Cistern

DMA Name	Rain Gauge	Pre-developed Condition		Unit Runoff Ratio (cfs/ac)	DMA Area (ac)	Orifice Flow - %Q ₂ (cfs)	Orifice Area (in ²)
		Soil Type	Slope				
A	Oceanside	A	Flat	0.256	0.037	0.001	0.01
A	Oceanside	A	Flat	0.256	0.146	0.004	0.06
A	Oceanside	A	Flat	0.256	0.013	0.000	0.00
A	Oceanside	A	Flat	0.256	0.102	0.003	0.04
A	Oceanside	B	Flat	0.377	0.289	0.011	0.16
A	Oceanside	B	Flat	0.377	0.842	0.032	0.47
A	Oceanside	B	Flat	0.377	0.071	0.003	0.04
A	Oceanside	B	Flat	0.377	0.310	0.012	0.17

3.50	0.065	0.95	1.10
Max Orifice Head (feet)	Max Tot. Allowable Orifice Flow (cfs)	Max Tot. Allowable Orifice Area (in ²)	Max Orifice Diameter (in)

Provide Hand Calc.	0.000	0.00	0.000
Average outflow during surface drawdown (cfs)	Max Orifice Outflow (cfs)	Actual Orifice Area (in ²)	Selected Orifice Diameter (in)

Drawdown (Hrs)	Provide Hand Calculation
----------------	-----------------------------

Orifice Sizing and Dewatering Times:

$$Q = C_d \times A \times (2gh)^{1/2}$$

Basin A

Orifice Dia. (in)= **0.91**
Orifice Dia. (ft)= 0.076
A= 0.0045 (ft²)
h= 8.88 (ft) (9.17' -3.455")
C_d= 0.6

Q= 0.065 (cfs)

Cistern Dewatering Times:

Basin A

Surface Volume = 1980 (c.f.)
Q = 0.065 (cfs)
Dewatering time = **8 (hours)**

HMP Volumes Provided (c.f.):

Basin A

Above Surface volume =	1980	
Media Volume=	1350	(@40% Porosity)
Gravel Volume =	8253	(@40% Porosity)
Total =	<u>11583</u>	

8.2 Hydromodification Management Points of Compliance

- List and describe all points of compliance (POCs) for flow control for hydromodification management.
- For each POC, provide a POC identification name or number, and a receiving channel identification name or number correlating to the project's HMP Exhibit (see Attachment 2).

POC name or #	Channel name or #	POC Description
1	1	NW corner of site



County of San Diego Stormwater Quality Management Plan (SWQMP)
Attachment 9: Management of Critical Coarse Sediment Yield Areas

9.0 General Requirements

- Complete the table below to indicate which compliance pathway was selected in PDP SWQMP Table 6. Include the corresponding sub-attachment with your SWQMP submittal. Other sub-attachments do not need to be included.
- See the BMPDM sections and appendices listed under “BMPDM Design Resources” for additional explanation of design requirements. Constructed features must fully satisfy the requirements described in these resources, and any other guidance identified by the County.
- **DMA Exhibits and Construction Plans:** CCSYAs and applicable BMPs identified and described in this attachment must be shown on DMA Exhibits and all applicable construction plans submitted for the project. See Attachment 2 for additional instruction on exhibits and plans.

Sub-attachments	BMPDM Design Resources
☐ 9.1: Documentation of Hydromodification Management Exemption¹	Section 1.6
☒ 9.2: Watershed Management Area Analysis (WMAA) Mapping¹	Appendix H.1.1.2
☐ 9.3: Resource Protection Ordinance (RPO) Methods	Appendix H.1.1.1
☐ 9.4: No Net Impact Analysis	Appendix H.4

¹ The San Diego County Regional comprehensive WMAA mapping data can be found on the Project Clean Water website here: http://www.projectcleanwater.org/download/wmaa_attc_data/

9.2 Watershed Management Area Analysis (WMAA) Mapping (BMPDM Appendix H.1.1.2)

Watershed Management Area Analysis (WMAA) mapping is a simple way to screen projects to determine the presence of onsite or offsite upstream Potential Critical Coarse Sediment Yield Areas (PCCSYAs). The San Diego County Regional WMAA mapping data can be found on the Project Clean Water website here: http://www.projectcleanwater.org/download/wmaa_attc_data/.³

- Based on the WMAA map and the proposed project design, demonstrate below that both of the following conditions apply to the PDP:
 - (a) Less than 5% of PCCSYAs will be impacted (built on or obstructed) by the PDP, and
 - (b) All upstream offsite PCCSYAs will be bypassed (see BMPDM Appendix H.3).

A. Mapping Results -- At a minimum, show: (1) the project footprint, (2) areas of proposed development, (3) impacted onsite PCCSYAs, (4) offsite tributary areas⁴, and (5) bypass of upstream offsite PCCSYAs.

No CCSYA is within the project area. See attached Map

³ Applicants may refine initial mapping results using options identified in BMPDM Appendix H.1.2.

⁴ Tributary areas must be shown to demonstrate that upstream offsite PCCSYAs do not exist. If bypassing these areas, only the bypass should be shown.





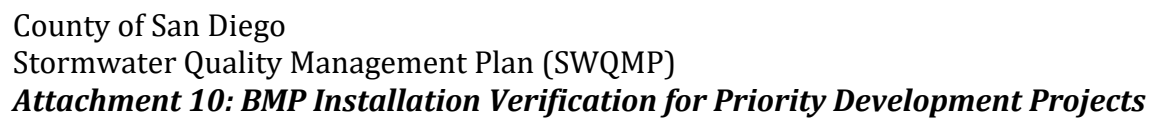
County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 10: BMP Installation Verification for Priority Development Projects

This form must be accepted by the County prior to the release of construction permits or granting of occupancy for applicable portions of a Priority Development Project (PDP). Its purpose is to provide documentation of the final installation of permanent Best Management Practices (BMPs) used to satisfy Structural Performance Standards for the development project. Compliance with these standards reduces the discharge of pollutants and flows from the completed project site. Applicable standards may be satisfied using Structural BMPs (S-BMPs), Significant Site Design BMPs (SSD-BMPs), or both. Applicants are responsible for providing all requested information.

PART 1 PROJECT INFORMATION

A. Project Summary Information	
Project Name	
Record ID (e.g. grading/improvement plan number, building permit)	
Project Address	
Assessor's Parcel Number(s) APN(s)	
Project Watershed (Hydrologic Unit, Area, and Subarea Name with Numeric Identifier)	
B. Owner Information	
Name	
Address	
Email Address	
Phone Number	

COUNTY – OFFICIAL USE ONLY	
INTAKE ID#	
ACCEPTANCE ID#	



If final grade release or granting of occupancy is being requested for only a portion of the Priority Development Project (PDP) please fill out the table below. Include ALL of the Structural BMPs and/or Significant Site Design BMPs for the entire project in the table. **Include a mark-up of the DMA map from the approved SWQMP with this Verification package that clearly shows which DMAs you are submitting for approval and which DMAs have already been accepted (if any).**

County of San Diego SWQMP Attachment 10
Template Date: August 4, 2021



County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 10: BMP Installation Verification for Priority Development Projects

PART 2 BMP INVENTORY INFORMATION

Use this table to document Structural BMPs (S-BMPs) and Significant Site Design BMPs (SSD-BMPs) for the PDP. All DMAs that are not self-mitigating or de minimis must have at least one Structural BMP or Significant Site Design BMP.

- In **Part A** list all Structural BMPs (including both Pollutant Control and/or Hydromodification as applicable) by DMA.
- Complete **Part B** for all DMAs that contain only Significant Site Design BMPs. SSD-BMPs are Site Design BMPs (SD-BMPs) that are sized and constructed to satisfy Structural Performance Standards for a DMA.
- The information provided for each BMP in the table must match that provided in the Stormwater Quality Management Plan (SWQMP), construction plans, maintenance agreements, and other relevant project documentation.

DMA #	BMP Information			Maintenance Category (1, 2, 3, or 4)	Maintenance Agreement Recorded DOC #	Construction Plan Sheet #	Landscape Plan Sheet #	FOR DPW-WPP USE ONLY
	Quantity	Description/Type of Structural BMP	BMP ID #					
A. Structural BMPs (S-BMPs)								
Add rows as needed. Click into the last column in the row below this, then press TAB to add a new row.								
B. Significant Site Design BMPs (SSD-BMPs)								
		Choose an item.		Choose				
		Choose an item.		Choose				
		Choose an item.		Choose				
		Choose an item.		Choose				
		Choose an item.		Choose				
		Choose an item.		Choose				
Add rows as needed. Click into the last column in the row below this, then press TAB to add a new row.								



PART 3 REQUIRED ATTACHMENTS

For the permanent BMPs listed in Part 2, submit the following to the County inspector along with this Verification form as a package (check all that are attached):

- ☐ **PHOTOGRAPHS:** Final construction photos of every permanent BMP listed in Part 2 are required. Final photos must be recent and be labeled with the date and a BMP Identifier. Additional photographs illustrating proper construction of the BMPs are recommended to be included and may be requested by WPP prior to acceptance of this Verification (e.g. excavation depths, liners, hydromodification orifices, Biofiltration Soil Media (BSM), vegetation, mulch).

- ☐ **MAINTENANCE AGREEMENTS:** Copies of approved and recorded Storm Water Maintenance Agreements (SWMA), Category 1 Maintenance Notification Agreements (MN), or Encroachment Maintenance and Removal Agreements (EMRA) for all S-BMPs.

Note: Significant Site Design (SSD) BMPs and most Category 4 BMPs do not require recorded maintenance agreements.

- ☐ **CONSTRUCTION PLANS:** Submit electronic and/or 11" X 17" hard copies of the current approved Construction Plan sheets for the Record ID(s) listed on Page 1:

- ☐ Grading Plans
- ☐ Improvement Plans
- ☐ Precise Grading Plan
- ☐ Building Plan (Applicable BMP Sheets only)
- ☐ Other (Please specify) _____

For each Construction Plan, the sheets submitted must incorporate all of the following:

- A BMP Table on Sheet 1, AND
- A plan detail cross-section of each verified as-built BMP, AND
- The location of each verified as-built BMP

- ☐ **LANDSCAPE PLANS:** If the PDP includes vegetated BMPs and has a Landscape Plan, submit the following:

- ☐ Final Landscape Plans
- ☐ Proof of Irrigation Installed (if applicable)



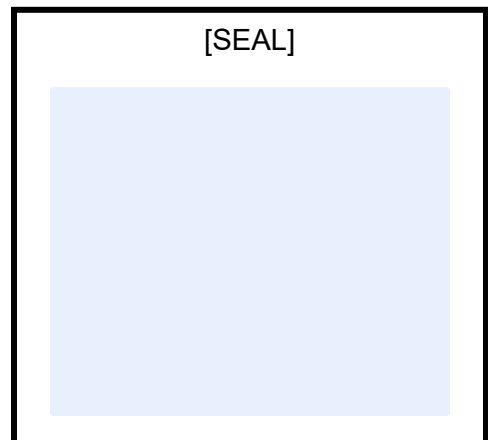
PART 4 PREPARER'S CERTIFICATION

By signing below, I certify that the BMP(s) listed in Part 2 of this Verification Form have been constructed and are in substantial conformance with the approved plans and applicable regulations. I understand the County reserves the right to inspect the above BMPs to verify compliance with the approved plans and Watershed Protection Ordinance (WPO). Should it be determined that the BMPs were not constructed to plan or code, corrective actions may be necessary before permits can be closed.

Note: Structural BMPs must be certified by a licensed professional engineer.

Please sign and, if applicable, provide your seal below.

Preparer's Name:	
Email Address:	
Phone Number:	
Preparer's Signature:	
Date:	





County of San Diego
Stormwater Quality Management Plan (SWQMP)
Attachment 10: BMP Installation Verification for Priority Development Projects

PROJECT RECORD ID: _____

COUNTY - OFFICIAL USE ONLY

County Inspector Approval:

***NOTE: The County approved SWQMP document and any Addendums or Revisions must be included with this BMP Installation Verification submittal package.**

- ☐ DPW Private Development Construction Inspection (PDCI)
- ☐ PDS Building
- ☐ DGS
- ☐ DPR

By signing below, the County Inspector concurs that every BMP listed in Part 2 of this BMP Installation Verification form has been installed per plan.

Inspector Name: _____

Inspector's Signature: _____ Date: _____

DPW Watershed Protection Program (WPP) Acceptance:

Date Received: _____

WPP Reviewer: _____

WPP Reviewer concurs that the BMPs accepted in **Part 2** above may be entered into County inventory.

WPP Reviewer's Signature: _____ Date: _____

Enter Acceptance ID# on page 1.

NOTES:



11.0 Cover Sheet and General Requirements

- All Structural BMPs must have a plan and mechanism to ensure on-going maintenance. Use the table below to document the types of agreements to be submitted for the PDP and submit them under cover of this sheet.
- See BMPDM Section 7.3 for a description of maintenance categories and responsibilities. Note that since Category 3 and 4 BMPs are County-maintained, they do not require maintenance agreements.

a. Applicability of Maintenance Agreements

Check the boxes below to indicate which types of agreements are included with this attachment.

☒ **Maintenance Notification Agreement for Category 1 Stormwater Structural BMPs**

- Exhibit A: Project Site Map; and a Map for each BMP and its Drainage Management Area (DMA).
- Exhibit B: BMP Maintenance Plan (see below)

CATEGORY 1 MAINTENANCE AGREEMENTS ARE RECORDED PRIOR TO OCCUPANCY.

☐ **Storm Water Facilities Maintenance Agreement (SWMA) (Category 2 BMPs)**

- Exhibit A: Legal Description of Property
- Exhibit B: BMP Maintenance Program (see below)
- Exhibit C: BMP Locations

CATEGORY 2 MAINTENANCE AGREEMENTS ARE RECORDED PRIOR TO PERMIT ISSUANCE.

Maintenance agreement templates and instructions are available on the County's website: www.sandiegocounty.gov/stormwater under the Development Resources tab, Submittal Templates.

b. Maintenance Plan Requirements

Maintenance plans should include the following:

- ☒ Specific **maintenance indicators and actions** for proposed structural BMP(s). These must be based on maintenance indicators presented in BMP Design Manual Fact Sheets in Appendix E and enhanced to reflect actual proposed components of the structural BMP(s).
- ☒ **Access** to inspect and perform maintenance on the structural BMP(s).
- ☒ Features to **facilitate inspection** (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds).
- ☒ Manufacturer and part number for **proprietary parts** of structural BMP(s) when applicable.
- ☒ **Maintenance thresholds** specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP).
- ☒ Recommended **equipment** to perform maintenance.
- ☒ When applicable, necessary special **training or certification** requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management.

OPERATION & MAINTENANCE (O&M) PLAN

1. Contents

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ATTACHMENTS

A1. Inspection & Maintenance Schedule

B1. Cost Estimate

C1. BMP Training Log

D1. Inspection & Maintenance Log

1. PROJECT DESCRIPTION

The project consists of a commercial development to include a retail shop, drive through restaurant, car wash facility, landscaping and a biofiltration basin for stormwater treatment.

2. OPERATION & MAINTENANCE (O&M) PLAN

This document has been prepared in compliance with the San Diego Regional Water Quality Control Board requirements and in accordance with requirements set by the County. A Storm Water Quality Management Plan (SWQMP) has been prepared for the project. It identifies the specific Best Management Practices (BMPs) required for the project. Refer to this project's SWQMP for additional information on BMPs. Proper maintenance of the project BMP's is required for their intended and effective function. This O&M Plan provides operation and maintenance procedures for the BMPs designated in the SWQMP. It includes procedures to be followed for inspection and maintenance of the BMPs, instructions for documenting the work performed, record keeping, and outlining the requirement and procedures for training of personnel involved in the process.

3. Operation & Maintenance of BMP'S

It shall be the responsibility of the "Owner or Designated Responsible Party" to maintain and to train all employees for the maintenance and operation of all BMPs, to achieve the maximum pollutant reduction they are designed for, as addressed in the approved Project's SWQMP. The following schedule of O&M's must be followed to satisfy the Conditions of Approval and the Pollutants of Concern as addressed in the approved Project's SWQMP. This schedule shall include periodic inspections of all Source Control and Treatment Control BMP's. All maintenance records for training, inspection and maintenance shall be retained and provided to the county upon request.

All BMPs shall be inspected prior to August 31st each year and certified to the County Engineering Department as to their readiness to receive runoff from the annual rainfall season (See enclosed attachment for a more detailed schedule of maintenance)

Access for maintenance of the structural BMPs shall be through the parking lot

The owner will also, provide the County as part of the maintenance and operation agreement an executed access easement that shall be binding on the land throughout the life of the project.

Owner/Responsible Party for O&M Maintenance and For Training

**NLA Acquisitions, LLC. c/o Chad Williams
105 Tallapoosa Street, Suite 307, Montgomery, AL 36104
Phone: 615-815-1465
cwilliams@netlease alliance.com**

The Designated Responsible Party will be responsible for ensuring that individuals involved in O&M activities, including but not limited to contractors and new owners, will be trained according to the training program herein. Additionally, upon any future sale of the property, the Owner will be responsible for ensuring that the new Designated Responsible Party is familiar with the contents of the plan and the requirements for the routine inspection, routine and non-routine maintenance and record keeping tasks as described herein. All parties involved in the O&M activities will be required to read this plan.

A. Training

Personnel training is an important component of the Implementation of this O&M Plan. The employee training program may consist of a meeting with any new owners, Designated Responsible Party or contractor/employees involved in the O&M activities to review the contents of this plan and to physically tour the facility to observe the BMPs and describe O&M requirements for each BMP. The Designated Responsible Party will implement the training program. All new contractors involved in landscape and/or facility maintenance at the site shall receive training within 30-days of hire and shall receive updated annual training. Maintenance contractor shall verify staff training annually.

The Designated Responsible Party shall be responsible for documenting all training activities and for maintaining records related to training. Forms for documentation of training are included in Attachment C1 of this plan. Training records must be shall be retained and provided to the county upon request.

B. Landscaping

Operational and maintenance needs include:

- Vegetation management to maintain adequate infiltration and to limit habitat for disease-carrying animals.
- Animal and vector control.
- Periodic sediment removal to optimize performance.
- Trash, debris, tree pruning, and leaf collection and removal to prevent obstruction of a landscape areas so as not to prohibit their use as a BMP.
- Monitoring the irrigation equipment.
- Removal of standing water, which may contribute to the development of aquatic plant communities or mosquito breeding areas.
- Erosion and structural maintenance to prevent the loss of soil and maintain the performance of all landscaping.
- Maintain a mulch layer over all exposed soil.

Inspection Frequency

All facilities will be inspected and inspection visits will be completely documented:

- Once a month at a minimum.

- After every large storm (after every storm monitored or these storms with more than 0.50 inch of precipitation.)
- On a weekly basis during extended periods of wet weather.

Inspect for proper irrigation and fertilizer use, and ensure that all landscaped areas have minimum of 80% coverage.

Visual Inspection as part of landscape maintenance

- Inspect before and after the rainy season (Oct. 1 to April 30).

Aesthetic Maintenance

The following activities will be included in the aesthetic maintenance program:

Weed Control. Weeds will be removed through mechanical means. Herbicide shall not be used because these chemicals will impact the water quality monitoring.

Functional Maintenance

Functional maintenance has two components:

- Preventive maintenance
- Corrective maintenance

Preventive Maintenance

Preventive maintenance activities to be instituted for landscaped areas are:

- Vegetation seed, mix within the landscaped areas, are to be designed to be kept short to maintain adequate drainage and to limit the development of faunal habitats.
- Prohibitive dumping placards.
- Trash and Debris: During each inspection and maintenance visit to the site, debris and trash removal will be conducted to reduce the potential for inlet and outlet structures and other components from becoming clogged and inoperable during storm events.
- Sediment Removal: Sediment accumulation, as part of the operation and maintenance program at of landscaped areas, will be monitored once a month during the dry season, after every large storm (0.50 inch), and monthly during the wet season. Specifically, if sediment reaches a level at or near plant height, or could interfere with flow or operation, the sediment will be removed. If accumulation of debris or sediment is determined to be the cause of decline in design performance, prompt action (i.e., within ten working days) will be taken to restore the landscaped areas to design performance standards. Actions will include using additional fill and vegetation and/or removing accumulated sediment to correct channeling or ponding. Characterization and Appropriate disposal of sediment will comply with applicable local, county, state, or federal requirements. The landscaped areas will be re-graded, if the flow gradient has changed, and then replanted with in kind plant material.
- Removal of Standing Water: Standing water must be removed if it contributes to the development of aquatic plant communities or mosquito breeding areas. Standing water may remain a maximum of 72 hours.

- **Fertilization and Irrigation:** The vegetation seed mix is to be designed so that fertilization and irrigation is to be kept at a minimum.
- **Elimination of Mosquito Breeding Habitats.** The most effective mosquito control program is one that eliminates potential breeding habitats. All mosquitoes require a water source to lay their eggs, which in the hottest part of summer can hatch into larvae within a week..

Corrective Maintenance

Corrective maintenance is required on an emergency or non-routine basis to correct problems and to restore the intended operation and safe function of all landscaped areas.

Corrective maintenance activities include:

- **Removal of Debris and Sediment:** Sediment, debris, and trash, which impede the hydraulic functioning of landscaping and prevent vegetative growth, will be removed and properly disposed. Temporary arrangements will be made for handling the sediments until a permanent arrangement is made. Vegetation will be re-established after sediment removal.
- **Structural Repairs:** Once deemed necessary, repairs to structural components of landscaping will be done within 10 working days. Qualified individuals (i.e., the designers or contractors) will conduct repairs where structural damage has occurred.
- **Embankment and Slope Repairs:** Once deemed necessary, damage to the embankments and slopes of landscaped areas will be repaired as soon as possible, and within 10 working days maximum.
- **Erosion Repair:** Where a reseeding program has been ineffective, or where other factors have created erosive conditions (i.e., pedestrian traffic, concentrated flow, etc.), corrective steps will be taken to prevent loss of soil and any subsequent danger to the performance and use of landscaped areas as BMPs. There are a number of corrective actions that can be taken.
- These include erosion control blankets, riprap, sodding, or reduced flow through the area. Designers or contractors will be consulted to address erosion problems if the solution is not evident.
- **Elimination of Animal Burrows:** Animal burrows will be filled and steps taken to remove the animals if burrowing problems continue to occur (filling and compacting). If the problem persists, vector control specialists will be consulted regarding removal steps. This consulting is necessary as the threat of rabies in some areas may necessitate the animals being destroyed rather than relocated.
- **General Facility Maintenance:** In addition to the above elements of corrective maintenance, general corrective maintenance will address the overall facility and its associated components. If corrective maintenance is being done to one component, other components will be inspected to see if maintenance is needed.

Maintenance Frequency

The Inspection & Maintenance Schedule included in enclosed Attachment A1 for all BMPs lists the schedule of maintenance activities to be implemented.

Debris and Sediment Disposal

Waste generated onsite is ultimately the responsibility of the Owner. Disposal of sediments, debris, and trash will comply with applicable local, county, state, and federal waste control programs.

Hazardous Waste

Suspected hazardous wastes will be analyzed to determine disposal options. Hazardous wastes generated onsite will be handled and disposed of according to applicable local, state, and federal regulations. A solid or liquid waste is considered a hazardous waste if it exceeds the criteria listed in the CCR, Title 22, Article 11.

C. Irrigation System

Inspection Frequency and Procedure

The Irrigation system shall be checked each week as a minimum. The following items shall be checked to insure that they are functioning properly:

The Irrigation system shall be checked each week as a minimum. The following items shall be checked to insure that they are functioning properly:

- Shut-off devices
- Pressure drop sensors
- Moisture sensors
- All piping and sprinkler heads to insure there are no leaks and that proper water spread is maintained.
- All flow reducers.
- Irrigation controls, make scheduling & timing adjustment to accommodate the weather.
- Check for overspray/runoff

D. Roof Drains

All roof drains shall be inspected prior to August 31st of each year to ensure that they are clean and free from trash and in good repair. They shall be flushed and any leaks or damages piping shall be either replaced or repaired. Where roof drains flow onto landscaped areas splash structures and or rock rip-rap shall be maintained so the flow from the roof drains do not cause erosion or damage to the landscaped area.

- It is not permissible to directly connect roof drains into a drain system.
- Roof drain downspouts shall discharge runoff to a landscaped area, and to allow the runoff to flow through landscape, prior to entering a private yard drain system.

E. Storm Water Conveyance System Stenciling and Signing

- Signage/stenciling are to be inspected for legibility and visual obstruction and shall be Repaired and cleared of any obstruction within 5 working day of inspection.
- Inspection Frequency: Semi-annually, and monthly during rainy season.

F. Outlet Structures

All outlet structures shall be kept functional at all times. Routine inspection and corrective maintenance shall include removal of trash sediment and debris and repair of any structural damage or clogging of orifice outlets. The minimum maintenance frequency shall be weekly during rainy season or within 24 hours prior to rain forecasts.

G. Parking Lot/ Hardscape

Shall be cleaned and swept once a year at a minimum, during the rainy season, or as needed in order to prevent accumulation of oil, grease, debris, sediment, etc.

Debris from pressure washing shall be collected to prevent entry into the storm drain system. Wash water shall be collected and discharged into the sanitary sewer and not into a storm drain.

H. Vector Control Owner Responsibilities

VECTOR MANAGEMENT CONTROL REQUIREMENTS

Any method to limit or eradicate the mammals, birds, insects or other arthropods which transmit disease pathogens. Management of mosquitoes and other vectors in stormwater management structures, such as Bioretention Facilities and Best Management Practices, is critical for protecting public health.

In order to implement vector controls including minimizing the risk for mosquito-borne disease transmission, It is the responsibility of the Owner to regularly maintain the outlet structures and monitor the site after every storm event to ensure that the system (comprising of above and below ground storage facilities) is dewatered in less than 72 hours. Otherwise the owner will be required to implement a vector control plan in accordance with the county's Department of Public Health.

- Maintain all drainage inlets and outlets trash free; remove silt; make sure to clear any standing water after 72-hours of ponding.

Vector Control Resources:

1. For County of San Diego vector educational brochures please reference the following website:
http://www.sdcounty.ca.gov/deh/pests/vector_disease.html
2. Please contact the Department of Environmental Health Vector Control Program Department of Environmental Health Phone number: 858-694-2888

Maintenance Category 1

Structural BMPs that are minor in nature, have minimal maintenance responsibilities, and are typical for residential land uses. The proposed BMPs inherently "take care of themselves", or property owners can naturally be expected to do so as an incident of taking care of their property. The owner will perform ongoing maintenance with County's reduced oversight. A "Maintenance Notification" that records with the property is required for all Category 1 BMPs. At a minimum, the responsible party provides annual documentation to the County verifying that the BMPs are maintained and functioning properly..

Category 1 Mechanisms to Assure Maintenance

1. Watershed Protection Ordinance Requirement: WPO Section 67.812 requires ongoing maintenance of BMPs. In the event that the mechanisms below prove ineffective, or in addition to enforcing those mechanisms, civil action, criminal action or administrative citation could also be pursued for violations of the ordinance.
2. Public Nuisance Abatement: Under the WPO failure to maintain a BMP would constitute a public nuisance, which may be abated under the Uniform Public Nuisance Abatement Procedure. This provides an enforcement mechanism additional to the above, and would allow costs of maintenance to be billed to the owner, a lien placed on the property, and the tax collection process to be used.
3. Notice to Purchasers: Section 67.812(e) of the WPO requires developers to provide clear written notification to persons acquiring land upon which a BMP is located, or others assuming a BMP maintenance obligation, of the maintenance duty.
4. Conditions in Ongoing Land Use Permits: For those applications (listed in WPO Section 67.810(a)) upon whose approval ongoing conditions may be imposed, a condition will be added which requires the owner of the land upon which the stormwater facility is located to maintain that facility in accordance with the requirements specified in the maintenance plan. Failure to perform maintenance may then be addressed as a violation of the permit, under the ordinance governing that permit process.
5. Subdivision Public Report: Tentative Map and Tentative Parcel Map approvals will be conditioned to require that, prior to approval of a Final or Parcel Map, the subdivider must provide evidence to the County, that the subdivider to be issued for the sales of lots within the subdivision, a notification regarding the maintenance requirement. (The requirement for this condition would not be applicable to specific subdivisions which are exempt from regulation under the Subdivided Lands Act, or for which no public report will be issued.)
6. BMP Maintenance Agreement with Easement and Covenant: WPO Section 67.812(f) requires that an agreement will be entered into with the County, which will function in three ways:
It will commit the land to being used only for purposes of the BMP;
It will include an agreement by the landowner to maintain the BMPs in accordance with the maintenance plan (this obligation would be passed on to future purchasers or successors of the landowner, as a covenant); and
It will include an easement giving the County the right to enter onto the land (and any necessary adjacent land needed for access) to maintain the BMPs. This would be required of all applications listed in WPO Section 67.810 with Category 2 BMPs. In the case of subdivisions, this easement and covenant would be recorded on or prior to the Final or Parcel Map.

Funding:

None Required.

I. Structural BMP: Biofiltration

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Biofiltration

BMP MAINTENANCE FACT SHEET FOR STRUCTURAL BMP BF-1 BIOFILTRATION

Biofiltration facilities are vegetated surface water systems that filter water through vegetation, and soil or engineered media prior to discharge via underdrain or overflow to the downstream conveyance system. Biofiltration facilities have limited or no infiltration. They are typically designed to provide enough hydraulic head to move flows through the underdrain connection to the storm drain system. Typical biofiltration components include:

- Inflow distribution mechanisms (e.g., perimeter flow spreader or filter strips)
- Energy dissipation mechanism for concentrated inflows (e.g., splash blocks or riprap)
- Shallow surface ponding for captured flows
- Side slope and basin bottom vegetation selected based on climate and ponding depth
- Non-floating mulch layer
- Media layer (planting mix or engineered media) capable of supporting vegetation growth
- Filter course layer consisting of aggregate to prevent the migration of fines into uncompacted native soils or the aggregate storage layer
- Aggregate storage layer with underdrain(s)
- Impermeable liner or uncompacted native soils at the bottom of the facility
- Overflow structure

Normal Expected Maintenance

Biofiltration requires routine maintenance to: remove accumulated materials such as sediment, trash or debris; maintain vegetation health; maintain infiltration capacity of the media layer; replenish mulch; and maintain integrity of side slopes, inlets, energy dissipators, and outlets. A summary table of standard inspection and maintenance indicators is provided within this Fact Sheet.

Non-Standard Maintenance or BMP Failure

If any of the following scenarios are observed, the BMP is not performing as intended to protect downstream waterways from pollution and/or erosion. Corrective maintenance, increased inspection and maintenance, BMP replacement, or a different BMP type will be required.

- The BMP is not drained between storm events. Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health, and surface ponding longer than approximately 96 hours following a storm event poses a risk of vector (mosquito) breeding. Poor drainage can result from clogging of the media layer, filter course, aggregate storage layer, underdrain, or outlet structure. The specific cause of the drainage issue must be determined and corrected.
- Sediment, trash, or debris accumulation greater than 25% of the surface ponding volume within one month. This means the load from the tributary drainage area is too high, reducing BMP function or clogging the BMP. This would require pretreatment measures within the tributary area draining to the BMP to intercept the materials. Pretreatment components, especially for sediment, will extend the life of components that are more expensive to replace such as media, filter course, and aggregate layers.
- Erosion due to concentrated storm water runoff flow that is not readily corrected by adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan. If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction.

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Biofiltration

Other Special Considerations

Biofiltration is a vegetated structural BMP. Vegetated structural BMPs that are constructed in the vicinity of, or connected to, an existing jurisdictional water or wetland could inadvertently result in creation of expanded waters or wetlands. As such, vegetated structural BMPs have the potential to come under the jurisdiction of the United States Army Corps of Engineers, SDRWQCB, California Department of Fish and Wildlife, or the United States Fish and Wildlife Service. This could result in the need for specific resource agency permits and costly mitigation to perform maintenance of the structural BMP. Along with proper placement of a structural BMP, routine maintenance is key to preventing this scenario.

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Biofiltration

SUMMARY OF STANDARD INSPECTION AND MAINTENANCE FOR BF-1 BIOFILTRATION

The property owner is responsible to ensure inspection, operation and maintenance of permanent BMPs on their property unless responsibility has been formally transferred to an agency, community facilities district, homeowners association, property owners association, or other special district.

Maintenance frequencies listed in this table are average/typical frequencies. Actual maintenance needs are site-specific, and maintenance may be required more frequently. Maintenance must be performed whenever needed, based on maintenance indicators presented in this table. The BMP owner is responsible for conducting regular inspections to see when maintenance is needed based on the maintenance indicators. During the first year of operation of a structural BMP, inspection is recommended at least once prior to August 31 and then monthly from September through May. Inspection during a storm event is also recommended. After the initial period of frequent inspections, the minimum inspection and maintenance frequency can be determined based on the results of the first year inspections.

Threshold/Indicator	Maintenance Action	Typical Maintenance Frequency
Accumulation of sediment, litter, or debris	Remove and properly dispose of accumulated materials, without damage to the vegetation or compaction of the media layer.	- Inspect monthly. If the BMP is 25% full* or more in one month, increase inspection frequency to monthly plus after every 0.1-inch or larger storm event. - Remove any accumulated materials found at each inspection.
Obstructed inlet or outlet structure	Clear blockage.	- Inspect monthly and after every 0.5-inch or larger storm event. - Remove any accumulated materials found at each inspection.
Damage to structural components such as weirs, inlet or outlet structures	Repair or replace as applicable	- Inspect annually. - Maintenance when needed.
Poor vegetation establishment	Re-seed, re-plant, or re-establish vegetation per original plans.	- Inspect monthly. - Maintenance when needed.
Dead or diseased vegetation	Remove dead or diseased vegetation, re-seed, re-plant, or re-establish vegetation per original plans.	- Inspect monthly. - Maintenance when needed.
Overgrown vegetation	Mow or trim as appropriate.	- Inspect monthly. - Maintenance when needed.
2/3 of mulch has decomposed, or mulch has been removed	Remove decomposed fraction and top off with fresh mulch to a total depth of 3 inches.	- Inspect monthly. - Replenish mulch annually, or more frequently when needed based on inspection.

*"25% full" is defined as $\frac{1}{4}$ of the depth from the design bottom elevation to the crest of the outflow structure (e.g., if the height to the outflow opening is 12 inches from the bottom elevation, then the materials must be removed when there is 3 inches of accumulation – this should be marked on the outflow structure).

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Biofiltration

SUMMARY OF STANDARD INSPECTION AND MAINTENANCE FOR BF-1 BIOFILTRATION (Continued from previous page)		
Threshold/Indicator	Maintenance Action	Typical Maintenance Frequency
Erosion due to concentrated irrigation flow	Repair/re-seed/re-plant eroded areas and adjust the irrigation system.	- Inspect monthly. - Maintenance when needed.
Erosion due to concentrated storm water runoff flow	Repair/re-seed/re-plant eroded areas, and make appropriate corrective measures such as adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan. If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction.	- Inspect after every 0.5-inch or larger storm event. If erosion due to storm water flow has been observed, increase inspection frequency to after every 0.1-inch or larger storm event. - Maintenance when needed. If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction.
Standing water in BMP for longer than 24 hours following a storm event Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health	Make appropriate corrective measures such as adjusting irrigation system, removing obstructions of debris or invasive vegetation, clearing underdrains, or repairing/replacing clogged or compacted soils.	- Inspect monthly and after every 0.5-inch or larger storm event. If standing water is observed, increase inspection frequency to after every 0.1-inch or larger storm event. - Maintenance when needed.
Presence of mosquitos/larvae For images of egg rafts, larva, pupa, and adult mosquitos, see http://www.mosquito.org/biology	If mosquitos/larvae are observed: first, immediately remove any standing water by dispersing to nearby landscaping; second, make corrective measures as applicable to restore BMP drainage to prevent standing water. If mosquitos persist following corrective measures to remove standing water, or if the BMP design does not meet the 96-hour drawdown criteria due to release rates controlled by an orifice installed on the underdrain, the [City Engineer] shall be contacted to determine a solution. A different BMP type, or a Vector Management Plan prepared with concurrence from the County of San Diego Department of Environmental Health, may be required.	- Inspect monthly and after every 0.5-inch or larger storm event. If mosquitos are observed, increase inspection frequency to after every 0.1-inch or larger storm event. - Maintenance when needed.
Underdrain clogged	Clear blockage.	- Inspect if standing water is observed for longer than 24-96 hours following a storm event. - Maintenance when needed.

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Biofiltration

References

- American Mosquito Control Association.
<http://www.mosquito.org/>
- California Storm Water Quality Association (CASQA). 2003. Municipal BMP Handbook.
<https://www.casqa.org/resources/bmp-handbooks/municipal-bmp-handbook>
- County of San Diego. 2014. Low Impact Development Handbook.
<http://www.sandiegocounty.gov/content/sdc/dpw/watersheds/susmp/lid.html>
- San Diego County Copermittees. 2016. Model BMP Design Manual, Appendix E, Fact Sheet BF-1.
http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=250&Itemid=220

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Biofiltration

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Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	
Property / Development Name:	Responsible Party Name and Phone Number:	
Property Address of BMP:	Responsible Party Address:	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 1 of 5			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Accumulation of sediment, litter, or debris Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove and properly dispose of accumulated materials, without damage to the vegetation ☐ If sediment, litter, or debris accumulation exceeds 25% of the surface ponding volume within one month (25% full*), add a forebay or other pre-treatment measures within the tributary area draining to the BMP to intercept the materials. ☐ Other / Comments:		
Poor vegetation establishment Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Re-seed, re-plant, or re-establish vegetation per original plans ☐ Other / Comments:		

*"25% full" is defined as ¼ of the depth from the design bottom elevation to the crest of the outflow structure (e.g., if the height to the outflow opening is 12 inches from the bottom elevation, then the materials must be removed when there is 3 inches of accumulation – this should be marked on the outflow structure).

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Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 2 of 5			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Dead or diseased vegetation Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove dead or diseased vegetation, re-seed, re-plant, or re-establish vegetation per original plans ☐ Other / Comments:		
Overgrown vegetation Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Mow or trim as appropriate ☐ Other / Comments:		
2/3 of mulch has decomposed, or mulch has been removed Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove decomposed fraction and top off with fresh mulch to a total depth of 3 inches ☐ Other / Comments:		

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Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 3 of 5			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Erosion due to concentrated irrigation flow Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Repair/re-seed/re-plant eroded areas and adjust the irrigation system ☐ Other / Comments:		
Erosion due to concentrated storm water runoff flow Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Repair/re-seed/re-plant eroded areas, and make appropriate corrective measures such as adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan ☐ If the issue is not corrected by restoring the BMP to the original plan and grade, the [City Engineer] shall be contacted prior to any additional repairs or reconstruction ☐ Other / Comments:		

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Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 4 of 5			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Obstructed inlet or outlet structure Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Clear blockage ☐ Other / Comments:		
Underdrain clogged (inspect underdrain if standing water is observed for longer than 24-96 hours following a storm event) Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Clear blockage ☐ Other / Comments:		
Damage to structural components such as weirs, inlet or outlet structures Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Repair or replace as applicable ☐ Other / Comments:		

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Biofiltration

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR BF-1 BIOFILTRATION PAGE 5 of 5			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Standing water in BMP for longer than 24-96 hours following a storm event* Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Make appropriate corrective measures such as adjusting irrigation system, removing obstructions of debris or invasive vegetation, clearing underdrains, or repairing/replacing clogged or compacted soils ☐ Other / Comments:		
Presence of mosquitos/larvae For images of egg rafts, larva, pupa, and adult mosquitos, see http://www.mosquito.org/biology Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Apply corrective measures to remove standing water in BMP when standing water occurs for longer than 24-96 hours following a storm event.** ☐ Other / Comments:		

*Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health, and surface ponding longer than approximately 96 hours following a storm event poses a risk of vector (mosquito) breeding. Poor drainage can result from clogging of the media layer, filter course, aggregate storage layer, underdrain, or outlet structure. The specific cause of the drainage issue must be determined and corrected.

**If mosquitos persist following corrective measures to remove standing water, or if the BMP design does not meet the 96-hour drawdown criteria due to release rates controlled by an orifice installed on the underdrain, the [City Engineer] shall be contacted to determine a solution. A different BMP type, or a Vector Management Plan prepared with concurrence from the County of San Diego Department of Environmental Health, may be required.

J. Structural BMP: Tree Well

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Tree Wells

BMP MAINTENANCE FACT SHEET FOR SITE DESIGN BMP SD-1 TREE WELLS

Tree wells as site design BMPs are trees planted in configurations that allow storm water runoff to be directed into the soil immediately surrounding the tree. The tree may be contained within a planter box or structural cells. The surrounding area will be graded to direct runoff to the tree well. There may be features such as tree grates, suspended pavement design, or shallow surface depressions designed to allow runoff into the tree well. Typical tree well components include:

- Trees of the appropriate species for site conditions and constraints
- Available growing space based on tree species, soil type, water availability, surrounding land uses, and project goals
- Entrance/opening that allows storm water runoff to flow into the tree well (e.g., a curb opening, tree grate, or surface depression)
- Optional suspended pavement design to provide structural support for adjacent pavement without requiring compaction of underlying layers
- Optional root barrier devices as needed; a root barrier is a device installed in the ground, between a tree and the sidewalk, intended to guide roots down and away from the sidewalk in order to prevent sidewalk lifting from tree roots
- Optional tree grates; to be considered to maximize available space for pedestrian circulation and to protect tree roots from compaction related to pedestrian circulation; tree grates are typically made up of porous material that will allow the runoff to soak through
- Optional shallow surface depression for ponding of excess runoff
- Optional planter box drain

Normal Expected Maintenance

Tree health shall be maintained as part of normal landscape maintenance. Additionally, ensure that storm water runoff can be conveyed into the tree well as designed. That is, the opening that allows storm water runoff to flow into the tree well (e.g., a curb opening, tree grate, or surface depression) shall not be blocked, filled, re-graded, or otherwise changed in a manner that prevents storm water from draining into the tree well. A summary table of standard inspection and maintenance indicators is provided within this Fact Sheet.

Non-Standard Maintenance or BMP Failure

Tree wells are site design BMPs that normally do not require maintenance actions beyond routine landscape maintenance. The normal expected maintenance described above ensures the BMP functionality. If changes have been made to the tree well entrance / opening such that runoff is prevented from draining into the tree well (e.g., a curb inlet opening is blocked by debris or a grate is clogged causing runoff to flow around instead of into the tree well, or a surface depression has been filled so runoff flows away from the tree well), the BMP is not performing as intended to protect downstream waterways from pollution and/or erosion. Corrective maintenance will be required to restore drainage into the tree well as designed.

Surface ponding of runoff directed into tree wells is expected to infiltrate/evapotranspire within 24-96 hours following a storm event. Surface ponding longer than approximately 24 hours following a storm event may be detrimental to vegetation health, and surface ponding longer than approximately 96 hours following a storm event poses a risk of vector (mosquito) breeding. Poor drainage can result from clogging or compaction of the soils surrounding the tree. Loosen or replace the soils to restore drainage.

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Tree Wells

Other Special Considerations

Site design BMPs, such as tree wells, installed within a new development or redevelopment project are components of an overall storm water management strategy for the project. The presence of site design BMPs within a project is usually a factor in the determination of the amount of runoff to be managed with structural BMPs (i.e., the amount of runoff expected to reach downstream retention or biofiltration basins that process storm water runoff from the project as a whole). When site design BMPs are not maintained or are removed, this can lead to clogging or failure of downstream structural BMPs due to greater delivery of runoff and pollutants than intended for the structural BMP. Therefore, the [City Engineer] may require confirmation of maintenance of site design BMPs as part of their structural BMP maintenance documentation requirements. Site design BMPs that have been installed as part of the project should not be removed, nor should they be bypassed by re-routing roof drains or re-grading surfaces within the project. If changes are necessary, consult the [City Engineer] to determine requirements.

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Tree Wells

SUMMARY OF STANDARD INSPECTION AND MAINTENANCE FOR SD-1 TREE WELLS		
The property owner is responsible to ensure inspection, operation and maintenance of permanent BMPs on their property unless responsibility has been formally transferred to an agency, community facilities district, homeowners association, property owners association, or other special district. Maintenance frequencies listed in this table are average/typical frequencies. Actual maintenance needs are site-specific, and maintenance may be required more frequently. Maintenance must be performed whenever needed, based on maintenance indicators presented in this table. The BMP owner is responsible for conducting regular inspections to see when maintenance is needed based on the maintenance indicators. During the first year of operation of a structural BMP, inspection is recommended at least once prior to August 31 and then monthly from September through May. Inspection during a storm event is also recommended. After the initial period of frequent inspections, the minimum inspection and maintenance frequency can be determined based on the results of the first year inspections.		
Threshold/Indicator	Maintenance Action	Typical Maintenance Frequency
Tree health	Routine actions as necessary to maintain tree health.	• Inspect monthly. • Maintenance when needed.
Dead or diseased tree	Remove dead or diseased tree. Replace per original plans.	• Inspect monthly. • Maintenance when needed.
Standing water in tree well for longer than 24 hours following a storm event Surface ponding longer than approximately 24 hours following a storm event may be detrimental to tree health	Loosen or replace soils surrounding the tree to restore drainage.	• Inspect monthly and after every 0.5-inch or larger storm event. If standing water is observed, increase inspection frequency to after every 0.1-inch or larger storm event. • Maintenance when needed.
Presence of mosquitos/larvae For images of egg rafts, larva, pupa, and adult mosquitos, see http://www.mosquito.org/biology	Disperse any standing water from the tree well to nearby landscaping. Loosen or replace soils surrounding the tree to restore drainage (and prevent standing water).	• Inspect monthly and after every 0.5-inch or larger storm event. If mosquitos are observed, increase inspection frequency to after every 0.1-inch or larger storm event. • Maintenance when needed
Entrance / opening to the tree well is blocked such that storm water will not drain into the tree well (e.g., a curb inlet opening is blocked by debris or a grate is clogged causing runoff to flow around instead of into the tree well; or a surface depression is filled such that runoff drains away from the tree well)	Make repairs as appropriate to restore drainage into the tree well.	• Inspect monthly. • Maintenance when needed.

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Tree Wells

References

American Mosquito Control Association.

<http://www.mosquito.org/>

County of San Diego. 2014. Low Impact Development Handbook.

<http://www.sandiegocounty.gov/content/sdc/dpw/watersheds/susmp/lid.html>

San Diego County Copermittees. 2016. Model BMP Design Manual, Appendix E, Fact Sheet SD-1.

http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=250&Itemid=220

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Tree Wells

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	
Property / Development Name:	Responsible Party Name and Phone Number:	
Property Address of BMP:	Responsible Party Address:	

INSPECTION AND MAINTENANCE CHECKLIST FOR SD-1 TREE WELLS PAGE 1 of 2			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Dead or diseased tree Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Remove dead or diseased tree ☐ Replace per original plans ☐ Other / Comments:		
Standing water in tree well for longer than 24 hours following a storm event Surface ponding longer than approximately 24 hours following a storm event may be detrimental to tree health Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Loosen or replace soils surrounding the tree to restore drainage ☐ Other / Comments:		

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Tree Wells

Date:	Inspector:	BMP ID No.:
Permit No.:	APN(s):	

INSPECTION AND MAINTENANCE CHECKLIST FOR SD-1 TREE WELLS PAGE 2 of 2			
Threshold/Indicator	Maintenance Recommendation	Date	Description of Maintenance Conducted
Presence of mosquitos/larvae For images of egg rafts, larva, pupa, and adult mosquitos, see http://www.mosquito.org/biology Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Disperse any standing water from the tree well to nearby landscaping ☐ Loosen or replace soils surrounding the tree to restore drainage (and prevent standing water) ☐ Other / Comments:		
Entrance / opening to the tree well is blocked such that storm water will not drain into the tree well (e.g., a curb inlet opening is blocked by debris or a grate is clogged causing runoff to flow around instead of into the tree well; or a surface depression is filled such that runoff drains away from the tree well) Maintenance Needed? ☐ YES ☐ NO ☐ N/A	☐ Make repairs as appropriate to restore drainage into the tree well ☐ Other / Comments:		

ATTACHMENT “A1” (INSPECTION & MAINTENANCE SCHEDULE)

PREVENTATIVE MAINTENANCE AND ROUTINE INSPECTION					
TYPE BMP	Routine Action	Maintenance Indicator	Maintenance Frequency	MAINTENANCE ACTIVITY	SITE-SPECIFIC REQUIREMENTS
Landscaping & irrigation	Proper irrigation & Fertilizer.	Less than 80% coverage	Each year as needed and once during rainy season (Oct. 1 to April 30)	Re-plant. Repair Irrigation system within 5-days.	All slopes and landscaped areas are to have a minimum coverage of 80%
Roof drain	Trash free and removal of silt, sedimentation & Debris	Silt build up of more than 1", no trash	Each year routinely as needed.	Remove all trash and silt and repair any damage to roof drains,	All Roof to be free from trash and silt and in good repair
Bioretention/ Biofiltration Facilities	See Section Above for: "Structural BMP: Biofiltration & Bioretention."				
Storm Water Conveyance system Stenciling & Signing	Must be legible at all times and have a clear view.	Fading of paint or illegible letters or	Semi-annually each year & monthly during rainy season	Repaint stenciling and/or replace signs.	Applies to all stenciling and signs
Outlet Structures	Must be kept functional at all times. Clear Clogged outlets and Standing Water.	Silt, debris, trash accumulation, Ponding Water	Weekly during rainy season or within 24 hours prior to rain forecasts.	Silt, debris, trash accumulation and repair any structural damage to the outlet structures.	All outlet structures shall be kept functional at all times.
Parking Lot/ Hardscape	Visual Inspection	Maintain free from trash, sediment, debris, oil and grease.	Routinely as needed.	Clean and seep to remove oil, grease, sediment, debris, etc.	Wash water and debris must be contained onsite & disposed into the sanitary sewer

ATTACHMENT "B1"			
<u>Annual Estimate to Maintain all BMPs</u>	<u>Annual</u>	<u>10-Year</u>	
<u>Landscaping</u>			
Maintenance is already included in the property management responsibilities			
Additional cost:	\$400	\$4,000	
<u>Irrigation System:</u>			
Inspection and maintenance of the irrigation system is already included in the property management responsibilities, Additional cost:	\$100	\$1,000	
<u>Roof Drains:</u>			
Roof drain inspection and maintenance is already included in the property management responsibilities.			
<u>Training:</u>			
Once a year & training of new employees within their first week of employment.	\$100	\$1,000	
<u>Stormdrain Signage</u> (As needed or every 2 years)	\$100	\$1,000	
<u>Trash Storage Areas:</u>			
Inspection of trash storage area & maintenance to those areas is already included in the property management responsibilities. Additional cost:	\$50	\$500	
Total Estimated Annual Cost to Maintain BMPs	\$750	\$7,500	

ATTACHMENT "C1"

[illegible]

ATTACHMENT "D1"

INSPECTION AND MAINTENANCE LOG				
BMP TYP & LOCATION	DATE M/D/Y	Name of Person Inspecting	Description of BMP Condition/ Description repair required if any	Date Repair made and Description repair made and by whom