APPENDIX-E
EXAMPLE PROJECT: Main Street Park and Ride Lot, Anytown

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PUBLIC WORKS

STORMWATER CONTROL PLAN APPLICATION

Departmental Use Only

Do Not Mark

Applicant and Designer Information

Applicant Name:	Jane Doe	Daytime Phone:	555-123-4567
Mailing Address:	111 Main Street	Zip Code:	55555
Email Address:	jane@email.com		

Designer Name:	John Doe	Daytime Phone:	555-123-4567
Mailing Address:	222 Main Street	Zip Code:	55555
Email Address:	john@email.com		

Project Information

☐ Preliminary entitlements- Subdivision or Land Use Permit approval	■ Final- Building and/or Grading Permit for construction
Land Use Permit Number(s):	Building Permit Number(s): CBLD2023-12345
Project Address: 123 Main St. Anytown, CA	Assessor's Parcel Number (APN): 123-45-678
Brief narrative description of project: Construct new parking lot with 116 vehicle spaces for County Transit Park-and-Ride program on southern portion of currently undeveloped lot. Remainder of lot to remain undisturbed.	

Impervious Surface Areas

Calculate and identify all items listed in the table below.

Total Existing Impervious Area (square feet): Existing buildings, pavement, etc. within project area	5,000
New Impervious Area (square feet): Example: New buildings, new pavement, etc.	22,500
Replaced Impervious Area (square feet): Example: Buildings demolished to build a new parking lot or vice versa	4,000
Reduced Impervious Area (square feet): Example: Pavement/buildings demolished with area scarified, re-vegetated, replaced with pervious pavers, etc.	0
Credit for Reduced Impervious Area (square feet): If [**New** + **Replaced**) > **Total Existing**, use **Credit = 0** If (**New** + **Replaced**) < **Total Existing**, use **Credit = Reduced**	0
Net Impervious Area (square feet) = (**New** + **Replaced**) - **Credit**	26,500

STORMWATER CONTROL PLAN APPLICATION

Stormwater Performance Requirements

The following table summarizes the mandatory Performance Requirements based on the amount of impervious surface area that is created or replaced. Please review this table to determine which requirements apply to the project.

Net Impervious Surface square feet	**Performance Requirements**			
	Performance Requirement #1	Performance Requirement #2	Performance Requirement #3	Performance Requirement #4
0 - 2,499	*Complete Stormwater PCR Waiver Request Form*			
2,500 - 4,999	✔			
5,000 - 14,999	✔	✔ *		
15,000 – 22,499	✔	✔	✔	
≥ 22,500	✔	✔	✔	✔

** Not applicable for a single-family residence*

Check the applicable performance requirements and indicate whether the project meets the requirement:

Performance Requirement #1- Site Design	Requirement met? ■ Yes ☐ No
(Projects that meet Performance Requirement 1 only, complete this SWCP application and attach any applicable exhibits)	
Performance Requirement #2- Water Quality Treatment	Requirement met? ■ Yes ☐ No
Performance Requirement #3- Runoff Retention	Requirement met? ■ Yes ☐ No
Performance Requirement #4- Peak Management	Requirement met? ■ Yes ☐ No

- **Projects that create or replace less than 2,500 square feet of impervious surface area must complete and submit the Stormwater PCR Waiver Request Form.**
- **Projects required to meet Performance Requirement 1 only, must complete this SWCP application and attach any applicable exhibits.**
- **Projects required to meet Performance Requirement 2, 3, or 4, must submit this SWCP application in addition to a complete Stormwater Control Plan using the County provided template.**

STORMWATER CONTROL PLAN APPLICATION

Performance Requirement #1: Site Design Measures Applicants Can Incorporate to Reduce Stormwater Impacts

Applicants are encouraged to reduce stormwater impacts associated with development and redevelopment.

Performance Requirement 1: Site Design and Runoff Reduction Summary

Minimize stormwater runoff by implementing one or more of the following Site Design Measures.
Selected Design Measures must be clearly referenced on the project plans.

Site Design Measures	Implemented?	If Yes, provide Plan Sheet / Detail location	If No, provide an explanation below
Roof runoff directed into cisterns or rain barrels for reuse?	☐ Yes ■ No		No roof runoff generated by project.
Roof runoff directed into vegetated areas (safely away from building foundations and footings)?	☐ Yes ■ No		No roof runoff generated by project.
Runoff from sidewalks, walkaways, and/or patios directed onto vegetated areas (safely away from the building foundations and footings)?	☐ Yes ■ No		No applicable flatwork proposed.
Runoff from driveways and/or uncovered parking lots onto vegetated areas (safely away from the building foundations and footings)?	■ Yes ☐ No	Sheet C.3 (grading)	
Are bike lanes, driveways, uncovered parking lots, sidewalks, walkways, and patios constructed with permeable surfaces?	■ Yes ☐ No	Sheet C.3 (grading)	

Performance Requirement #1: Stormwater Site Design & Runoff Reduction Summary

For each of the following, please describe how this project has complied to the maximum extent practicable with the following site design and runoff reduction:

1. Limit disturbance of creeks and natural drainage features.
The majority of the parcel is reserved to the wetland and the required wetland offset. The project is configured to work efficiently within the remaining space and preserve a buffer around the wetland.

STORMWATER CONTROL PLAN APPLICATION

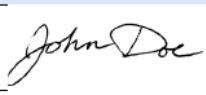
2. Minimize compaction of highly permeable soils.
Infiltration SCMs sited to take advantage of permable soils.

3. Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection.
The site design leaves vegetated margins on all sides of the property which are conserved to the extent feasible. The majority of the site, including the north wetland will be left undisturbed.

4. Minimize impervious surfaces by concentrating improvements on the least-sensitive portions of the site, while leaving the remaining land in a natural, undisturbed state.
The entire area of disturbance and impervious surfaces being constructed are set back 50' minimum from the wetland boundary established by the project biological report.

Certification*

I hereby certify that this project is designed to achieve full compliance with each of the applicable Central Coast Post-Construction Requirements.

Preparer Name: John Doe		
Preparer Signature: 	Date: 01/01/2024	
Was this application completed by a registered professional? ■ Yes ☐ No		
License Number: 12345	License Type: Professional Engineer	
Stamp: 		

*Certification is required for projects subject to Performance Requirements 2, 3, or 4 and may be provided by a registered professional engineer, geologist, architect, and/or landscape architect.

Post-Construction Stormwater Control Plan for:
Main Street Park and Ride Lot, Anytown

Date:	January 1, 2024
Name of owner:	General Land Development Company, LLC.
Owner's representative and contact information:	Jane Doe (555)123-4567 Jane@email.com
Plan prepared by:	General Civil Engineering Consultants, Inc.
Preparer's name and contact information:	John Doe (555)123-4567 John@email.com
Submitted to:	County of San Luis Obispo

Preparer's signed stamp:

APPENDIX-E
EXAMPLE PROJECT: Main Street Park and Ride Lot, Anytown

Stormwater Control Plan Submittal Completion Checklist

Exhibits:

Element	Included?	Notes
Exhibit depicting SCMs, Drainage Management Areas (DMAs).	Yes	Attachment 1
Exhibit depicting pre and post project pervious and impervious areas.	Yes	Attachment 1
Opportunities and constraints map.	Yes	Attachment 4

Required Submittals for PR#2

Element	Included?	Notes
Source control checklist.	Yes	Section 4
Plan sheet detail indicating location of PR#1 implementation.	Yes	Section 3.b Sheet C3.0 (grading) Sheet C4.0 (details)
Draft long-term operations and maintenance plan.	Yes	Attachment 5

Required Submittals for PR#3

Element	Included?	Notes
LID opportunities and constraints analysis with map.	Yes	Attachment 4
Underground infiltration system pretreatment device certification.	N/A	Pretreatment provided by bioretention and biofiltration features
Soils testing report and design infiltration rate supporting documentation.	Yes	Grading permit package

Requirements for PR#4

Element	Included?	Notes
Calculations for peak management.	Yes	Attachment 2

APPENDIX-E
EXAMPLE PROJECT: Main Street Park and Ride Lot, Anytown

Table of Contents

List of Tables

List of Figures

List of Attachments

APPENDIX E
EXAMPLE PROJECT Main Street Park and Ride Lot, Anytown

1. Summary Project Data

Table 1 provides a summary of project data related to demonstrating compliance with the Post-Construction Stormwater Management Requirements (the PCRs) for Development Projects in the Central Coast [Resolution R3-2013-0032]. The proposed project is designed to comply with applicable requirements outlined in the PCRs.

Table 1: Summary Project Data

Project name:	Main Street Park-and-Ride Lot			
Project or permit number:	Building Permit CBLD2023-12345			
Preliminary or Final SWCP:	☐ Preliminary entitlements Subdivision or Land Use Permit approval.	☒ Final Building and/or Grading Permit for construction.		
Project location:	Northwest corner of Main Street and Broadway 123 Main St. Anytown, CA APN: 123-45-678			
Project Description:	Construct new parking lot with 116 vehicle spaces for County Transit Park-and-Ride program on southern portion of currently undeveloped lot. Remainder of lot to remain undisturbed.			
Total project site area:	0.72 acres = 31,500 SF			
Total Existing Impervious Area:	5,000 SF			
New Impervious Area:	22,500 SF			
Replaced impervious Area:	4,000 SF (existing asphalt driveway)			
Reduced Impervious Area:	0 SF Credit = 0 Unless (Pre-Project Impervious – Post-Project Impervious) > 0			
Credit for Reduced Impervious Area: *If post-project > pre-project, Credit = 0* *If post-project < pre-project, Credit = Reduced*	[22,500 +4,000] = 26,500 Total existing: 5,000 Credit = 0			
Net impervious area:	(New + Replaced) – Credit = (22,500 + 4,000) – (0) = <u>26,500 SF</u>			
Watershed management zone:	WMZ 1			
Design storm frequency and depth:	☒ 85th percentile	☒ 95th percentile	85th i = 1.1” 95th i = 1.9”	
Applicable performance requirements:	☒ PR #1	☒ PR #2	☒ PR #3	☒ PR #4

Table 2 summarizes the predominant soil characteristics of the development site and data generated from web generated soils reports and site soils explorations and testing.

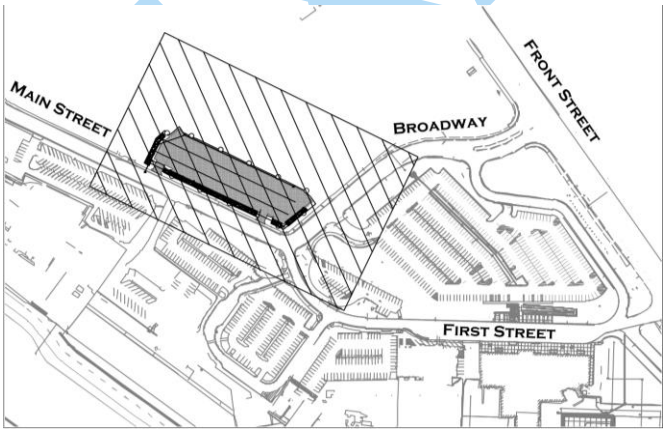
Table 2: Site Soils summary data

Predominant soil type(s) of site:	Silty well-graded sand.			
Predominant hydrologic soils group classification of site:	☒ Group A	☐ Group B	☐ Group C	☐ Group D
Soils testing conducted at site:	☒ Borings		☐ Percolation testing	
	☒ Infiltration testing		☐ Other	
Brief summary of soil testing conducted:	Three (3) soil borings were performed to collect soil samples and establish the soil profile and water table depth. Two (2) percolation tests were performed, and the percolation data was converted using the Porchet method to establish design infiltration rates for the underground infiltration chambers. The soils report for the project site was included with the building permit application.			
Design soil infiltration rate:	1.0 inches/hour			
Factor of Safety applied:	FS=2			

2. Project setting

a. Project Location and Description

This project site is located at the northwest corner of the intersection of Main Street and Broadway in Anytown, California. The site is currently zoned for Public Facilities and is undeveloped except for an existing storage shed and driveway. The proposed project will construct a new parking lot containing 116 parking stalls to be used by transit passengers from the adjacent communities in conjunction with the County Transit Park-and Ride program.
Figure 1:Project Vicinity Map



b. Existing Site Features and Conditions

The property is a 2.52 acre irregularly shaped parcel. Apart from the existing driveway and storage shed, the parcel is undeveloped and evenly covered with grasses and sage brush. The property can be roughly separated into two distinct flat areas to the north and south separated by a 15-foot sloped decline toward the middle.

The north portion of the property is a large triangular low-lying area containing a sensitive wetland. This area is mostly flat with gentle slopes to an internal naturally occurring sump area. The south portion of the property is a roughly 30,000 SF rectangular area bounded on the south and east by existing curb, gutter, and sidewalk improvements along Main Street and Broadway. This area is flat and roughly level with the adjacent streets but is bounded on the north by a sloped decline descending roughly 15 feet to the wetland below.

The proposed project will be constructed in the southern portion of the parcel leaving the wetland undisturbed and maintaining a 50' minimum offset from the wetland boundary as established by the project biological report. In the current condition, the project area is gently sloped to sheet flow toward the northern wetland and does not receive any significant run-on from the adjacent streets or properties. The proposed design will divert runoff from new impervious areas away from the northern wetland to new stormwater features on site for treatment and retention with attenuated overflows to the existing storm drain in Main Street.

The design was evaluated in coordination with the project biologist for the possibility of detrimental impact to the wetland caused by a net reduction of historical runoff received by the wetland. It was determined that the soil and vegetation immediately around the project area provide for quick infiltration and surface retention of runoff. As a result, historical runoff received by the wetland from the project area is negligible. Rather, the project biology report indicated that the wetland is primarily fed by surface flows descending from the larger, steeper areas to the north and west, and the report recommended that diverting new flows away from the wetland is the preferred strategy to avoid potential pollutant load on the wetland.

c. Opportunities and Constraints for Stormwater Control

Projects triggering PR#3 and above are required to submit a LID opportunities and constraints analysis.

This project is PR#3 or above:	☒ Yes	☐ No	
The LID opportunities and constraints checklist is included as an Attachment to this SWCP.	☒ Yes	☐ No	☐ Not Applicable
The LID opportunities and constraints site map is included as an Attachment to this SWCP.	☒ Yes	☐ No	☐ Not Applicable
The LID Opportunities and Constraints checklist and site map are included in Attachment 4.			

3. Low Impact Development Design Strategies

a. Site Design Strategies

Performance Requirement #1 is applicable to all regulated projects that create and/or replace ≥2,500 sf of impervious surface area. This project has incorporated Low Impact Development site design strategies as detailed below.

Limit disturbance to creeks and natural drainage features

The project will maintain a minimum 50' offset from the wetland on the north side of the property and keep this area undisturbed. Runoff from the project will be directed away from the wetland since the site will be graded to collect runoff into the on-site SCMs which will overflow to the public storm drains in the street. As discussed above, this strategy will protect the wetland from potential pollution.

Minimize compaction of highly permeable soils

The proposed project will occur on the south, rectangular portion of the site which was graded and flattened by previous owners and well compacted by vehicle parking. Therefore, the project will not increase compaction of soils beyond the historically well compacted areas.

Limit clearing and grading of native vegetation to minimum area necessary

The project will maintain a minimum 50' offset from the wetland on the north side of the property and keep this area undisturbed. The project area is clear of vegetation except for some grasses, so disturbance to vegetation will be minimal if any.

Minimize impervious surfaces and concentrate improvements on the least-sensitive portions of the site.

The available project area is restricted to the south area of the parcel by the wetland on the north and the required 50' setback. The project area was already graded by previous owners and somewhat well compacted by vehicles parking.

b. Runoff Reduction Strategies

Performance Requirement #1 mandates that one or more runoff reduction measures be integrated into the site design. Table 3 indicates where runoff reduction measures have been incorporated into the proposed project.

Table 3: Performance Requirement #1 Runoff Reduction Strategies

Runoff Reduction Strategy	Guidelines	Location implemented	Plan sheet and detail
Direct roof runoff into cisterns or rain barrels for reuse.	Minimum 100-gallon volume for collection.	N/A No roof area proposed	N/A No roof area proposed
Direct roof runoff to vegetated areas away from foundations and footings.	Minimum 10% of roof area directed to vegetated areas.	N/A No roof area proposed	N/A No roof area proposed
Direct runoff from sidewalks, walkways and/or patios onto vegetated areas.	Minimum 10% of flatwork* area drainage directed to vegetated areas.	N/A No applicable flatwork proposed.	N/A No applicable flatwork proposed.

Direct runoff from driveways and/or parking lots onto vegetated areas.	Minimum 10% of flatwork area drainage directed to vegetated areas.	25,000 SF impervious to vegetated SCMs / 26,500 total impervious area = 94% > 10% OK	Sheet C3.0 (grading) Sheet C4.0 (details)
Construct bike lanes, driveways, uncovered parking lots, sidewalks, walkways, and patios with permeable surfaces.	Minimum 10% of flatwork area constructed with permeable surfaces.	1,080 SF permeable pavers / 26,500 SF pavement = 4% < 10% Does not meet PR1 minimum	Sheet C3.0 (grading) Sheet C4.0 (details)

**Flatwork refers to smooth paved surfaces such as sidewalks, driveways, pathways, or parking lots.*

Additional site design and runoff reduction strategies are required for projects that must comply with Performance Requirement #3. Table 4 indicates the design strategies that were incorporated into the project design to optimize the use of LID.

Table 4: Performance Requirement #3 Additional LID Design Strategies

Augmented PR#3 LID Design Strategies	**Implemented?**	**Explanation**
Define the development envelope and protected areas. Identify areas suitable for development and areas to remain undisturbed.	☒ Yes ☐ No	The majority of the parcel is reserved to the wetland and the required wetland offset. The project is configured to work efficiently within the remaining space.
Conserve natural areas, including existing trees, vegetation, and soils.	☒ Yes ☐ No	The site design leaves vegetated margins on all sides of the property which are conserved to the extent feasible. The majority of the site, including the north wetland will be left undisturbed.
Limit the overall impervious footprint of the project.	☒ Yes ☐ No	The project footprint has been reduced to the extent feasible. The anticipated parking demands were reviewed with County Transit to limit unnecessary redundancy.
Construct streets, sidewalks, parking lot aisles to minimum widths required.	☒ Yes ☐ No	The parking stalls and drive aisles were designed to the minimum dimensions allowed by County Land Use Ordinance and CalFire.
Set back development from creeks, wetlands, and riparian habitats.	☒ Yes ☐ No	The entire area of disturbance is set back 50’ minimum from the wetland boundary established by the project biological report.
Conform the site layout along natural landforms.	☒ Yes ☐ No	The project was designed to fit within an existing flat, graded area bounded in the north by an existing grade break to the rest of the site. This will minimize grading and take advantage of the existing terrain.
Avoid excessive grading and disturbance of vegetation and soils.	☒ Yes ☐ No	The project was designed to fit within an existing flat, graded area bounded in the north by an existing grade break to the rest of the site. This will minimize grading and take advantage of the existing terrain.
Table 4 is not applicable to this project.	☐ The requirements of this table are not applicable to the project. This project is not required to comply with Performance Requirement #3.	

c. Self-treating and self-retaining areas

This project reduces the amount of runoff for which Stormwater Structural Control Measures (SCMs are required by utilizing self-treating and self-retaining areas.

This project reduces the amount of runoff for which Stormwater Structural Control Measures (SCMs) are required by utilizing self-treating and self-retaining areas. The rear corners of the project area furthest from the street were reserved as self-treating or self-retaining areas.

The NW corner of the site slopes back toward the property edge and the wetland in the current condition. To avoid re-grading this corner, it will be graded to match the current terrain and isolate runoff from six parking stalls and a portion of the drive aisle. These six stalls will be built with pervious pavers to self-retain 1,420 SF of asphalt pavement.

The NE edge requires minor grading to confirm to existing grade, but it will be vegetated and reserved as a self-treating area (DMA 6).

4. Documentation of Drainage Design

a. Drainage Management Areas Summary

The project site has been delineated into distinct Drainage Management Areas (DMAs), sized per the guidelines in the County of San Luis Obispo Post-Construction Stormwater Guidebook. Descriptions of each DMA are included in Table 5.

Table 5: Drainage Management Areas and Characteristics

DMA Number/ID	Surface Type & description	Area (sf)	Drains to:		
DMA 1	HMA Pavement	2,500	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 2	HMA Pavement	10,000	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 3	HMA Pavement	5,000	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 4	HMA Pavement	5,000	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 5	HMA Pavement	2,500	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 6	Landscaping	500	☒ Self-treating	☐ Self-retaining	☐ SCM
DMA 7	HMA Pavement Draining to Pavers	1,500	☐ Self-treating	☒ Self-retaining	☐ SCM

b. Stormwater Structural Control Measures

Structural Control Measures for PR#2 Treatment

This project requires construction of Stormwater Structural Control Measures (SCMs) to treat runoff in compliance with Performance Requirement #2, Water Quality Treatment. Treatment for each DMA is provided by one of the following types of features:

(1) Bioretention Basins
Required SCM Capacity = Volume (CF) of 85th percentile storm runoff from DMAs flowing to SCM
Provided SCM Capacity = Design volume (CF) of bioretention basin

(2) Biofiltration Features (i.e., bioretention w/ underdrain)

Required SCM Capacity = Area (SF) of DMAs flowing to SCM x 0.04
Provided SCM Capacity = Surface area of SCM

(3) Vegetated Flow-Based Treatment (i.e. vegetated swales, vegetated buffer strips)
Required SCM Capacity = Minimum swale length (FT) or minimum strip width (FT)
Provided SCM Capacity = Actual swale length (FT) or strip width (FT)

(4) Mechanical Flow-Based Treatment Devices (i.e., filters, mechanical separators)
Required SCM Capacity = Peak flow rate (CFS) to SCM
Provided SCM Capacity = Maximum recommended flow rate (CFS) to the SCM for effective treatment per manufacturer's specifications or design

No treatment is to be provided by direct infiltration facilities. All direct infiltration facilities must receive flows treated by flow-based treatment devices or by above-ground biofiltration or bioretention facilities. Direct infiltration should be reserved for retention and peak management.

Key attributes of these SCMs for Water Quality Treatment are summarized in Table 6.

Table 6: Structural Control Measure Summary Table (PR2 – Treatment Only)

SCM Number/ID	DMA Number/ID	SCM Type	Required SCM Capacity (CFS, SF, FT, CF)	Provided SCM Capacity (CFS, SF, FT, CF)
SCM 1	DMA 1	Vegetated Swale	22 FT	54 FT
SCM 2	DMA 2	Bioretention	953 CF	1650 CF
SCM 3	DMA 3	Bioretention	500 CF	900 CF
SCM 4	DMA 4	Bioretention	500 CF	900 CF
SCM 5	DMA 5	Vegetated Swale	22 FT	72 FT

Additionally, the vegetated swales have been designed for hydraulic capacity per the County Public Improvement Standards. This is documented within the project's Drainage Report.

Structural Control Measures for PR#3 Retention
This project requires construction of Stormwater Structural Control Measures to achieve compliance with Performance Requirement #3, Retention. Key attributes of the SCMs are summarized in Table 7.

Table 7: Structural Control Measure Summary Table (PR3 – Runoff Retention)

SCM Number/ID	DMA Number/ID	SCM Type	Required SCM volume (CF) (Area x runoff coefficient x 85th percentile rainfall depth)	Provided SCM volume (CF)
SCM 2	DMA 2	Bioretention Basin	1,647 CF	1650 CF
SCM 3	DMA 3	Bioretention Basin	863 CF	900 CF
SCM 4	DMA 4	Bioretention Basin	863 CF	900 CF
SCM 6	DMAs 1,5,6	Underground infiltration chambers	714 CF	14,000 CF
Table 7 is not applicable to this project.			☐ The requirements of this table are not applicable to the project. This project is not required to comply with Performance Requirement #3.	

Summary of Structural Control Measures (PR4 – Peak Management)

This project requires construction of Stormwater Structural Control Measures to achieve compliance with Performance Requirement #4, Peak Management. Key attributes of the SCMs are summarized in Table 8.

Table 8: Structural Control Measure Summary Table (PR4 – Peak Management)

SCM Number/ID	DMA Number/ID	SCM Type	2-Year Storm Runoff (CFS)		5-Year Storm Runoff (CFS)		10-Year Storm Runoff (CFS)	
			Pre	Post	Pre	Post	Pre	Post
6	1,2,3,4,5,6	Underground chambers	1.37	0	1.83	0	2.35	0
Table 8 is not applicable to this project.			☐ The requirements of this table are not applicable to the project. This project is not required to comply with Performance Requirement #4.					

Underground Structural Control Measures

Projects that intend to utilize underground stormwater structural control measures for retention, infiltration, or peak management must complete Table 9.

Table 9: Subgrade Stormwater Structural Control Measures

This project includes subgrade SCMs: (i.e. dry wells, chambers, vaults.)	☒ Yes	☐ No

The project design distributes at least 30% of the post-construction runoff volume to at-grade SCMs or LID features.	☒ Yes	☐ No *(If no, provide explanation below)*
Explanation (as needed): *Per Table 7 above, PR3 requires 4,087CF of total runoff retention. Surface bioretention basins (SCMs 2,3,4) provide 3,450 CF or 84% of the required volume.*		
The project design includes a TAPE certified* pre-treatment device upstream of subgrade features. *(Include documentation in Attachment)*	☐ Yes	☒ No
The project design achieves PR#2 water quality treatment using at-grade features upstream of subgrade features.	☒ Yes	☐ No
Table 9 is not applicable to this project.	☐ The project does not include underground structural control measures.	

**Information about TAPE certified pre-treatment devices is included in the San Luis Obispo County Post-Construction Stormwater Guidebook.*

c. Areas Draining to Self-retaining Areas

A portion of the project has been designed to drain to self-retaining areas (SRAs), summarized in Table 5. The pervious self-retaining areas included in Table 10 account for only the functional bottom width of the SRA in the receiving self-retaining DMA area column. Perimeter areas are not included when calculating the impervious to pervious ratio.

A portion of the project has been designed to drain to self-retaining areas (SRAs), summarized in Table 5. The pervious self-retaining areas included in Table 6 account for only the functional bottom width of the SRA in the receiving self-retaining DMA area column. Perimeter areas are not included when calculating the impervious to pervious ratio.

The design will incorporate permeable pavers so DMA 7 will function as an SRA. DMA 7 contains six parking stalls and a portion of parking drive aisle for a total of 2,500 SF of area. All six stalls will be constructed with pavers.

Table 10: Self-retaining area summary

SRA Number/ID	Description	[A] SRA Area (SF)	DMAs Draining to SRA Number/ID	[B] Total Areas Draining to SRA (SF)	Ratio [B]/[A]
DMA 7	Pervious pavers w/ gravel storage below	1,080	DMA 7	1,420	1.3 : 1
Table 10 is not applicable to this project.		☐ The project does not include any self-retaining areas.			

Minimum Stall Size = 10’ x 18’ = 180 SF

Paver Area for Six Parking Stalls = (6)*(180 SF) = 1,080 SF
Tributary Area to Pavers = 2,500 SF – 1,080 SF = 1,420 SF

Check:
(1,420 SF) / (1,080 SF) = 1.3
1.3:1 (< 2:1 ok)

The proposed design meets the criteria for the use of self-retaining areas as written in the County of San Luis Obispo Post-Construction Stormwater Guidebook:

Self-retaining area sizing: ☒ 2:1 Sizing Ratio (acceptable) ☐ >2:1 Sizing Ratio (un-acceptable)

d. SCM Construction Checklist

Construction details are provided for each SCM planned for the site. These details include specifications for materials, elevations, plants, and protection of features during construction Table 11 indicates where SCM construction details can be reviewed.

Table 11: SCM Construction Details Summary Table

DMA Name/ID	SCM ID and Type	Plan Sheet No.	Plan set	SCM Detail No.
DMA 1	SCM 1 (Vegetated Swale)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #1
DMA 2	SCM 2 (Bioretention)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #2
DMA 3	SCM 3 (Bioretention)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #2
DMA 4	SCM 4 (Bioretention)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #2
DMA 5	SCM 5 (Vegetated Swale)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #1
DMA 1-7	SCM 6 (Chambers)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #3
DMA 7	SRA (Pavers)	C2.0	☒ Grading Permit ☐ Structure Permit	C3.0, Detail #4

Vegetated SCMs such as bioswales and bioretention require plantings to achieve optimal pollutant load reduction. Project plans must include a detail indicating the plant palette selected for vegetated SCMs. The source of the selected planting palette is summarized in Table 12.

Table 12: Plant Palette Selected for Vegetated SCMs

Name of Plant Palette	Source	Plan Sheet & Detail
Basic Commercial, Inland	☒ SLO County Post-Construction Guidebook Appendix D ☐ Central Coast LIDI: Plant Palette Guidebook, or Bioretention Plant Guide ☐ Other [describe]	Sheet L.1, Detail 5

5. Pollutant Source Control Measures

The project design includes pollutant source control measures to limit the exposure of potential pollutants once construction is complete. Source controls may be operational, structural or procedural. Permanent source control measures that are applicable to the project site and that will be implemented are indicated in Table 13.

Table 13: Permanent Pollutant Source Control Measures

Pollutant Generating Activities and Sources	Source Control BMP	Method selected
Vehicle or equipment cleaning. Un-authorized non-stormwater discharges.	Educational stormwater signage. *(Operational.)*	☒'No Dumping' storm drain inlet markers. ☐'Rainwater only' storm drain inlet markers. ☐ Educational or informational stormwater signage for LID features.
Fuel dispensing areas. Chemical or material storage areas. Refuse areas.	Secondary containment devices. *(Structural)*	☐ Raised permanent containment around liquid storage tanks. ☐ Rolling berm containment around liquid handling or loading areas.
Loading docks. Parking/storage areas.	Permanent protective shelters/covers. *(Structural.)* Waste collection and disposal equipment. *(Operational.)*	☐ Permanent storage sheds/canopies to shield equipment or materials. ☐ Canopy downspouts routed away from shelters covering equipment and materials. ☒ Trash and recycling receptacles provided in parking and storage areas.
Refuse/ trash disposal areas. Building and grounds maintenance.	Permanent protective shelters/covers. *(Structural)* Informational signage. *(Operational)* Periodic inspection. *(Operational.)*	☐ Drainage from adjoining areas diverted away from trash storage area. ☐ Trash storage area walled and covered. ☒ Storm drains located away from trash storage areas. ☐ Trash storage area paved to mitigate spills. ☒ Informational signage posted. ☒ Scheduled periodic inspection of waste receptacles.

Pollutant Generating Activities and Sources	**Source Control BMP**	**Method selected**
Loading & unloading areas.	Permanent protective shelters. *(Structural.)* Drainage routing or containment. *(Structural.)* Spill cleanup and control materials. *(Operational)*	☐ Permanent overhead canopy covering loading docks. ☐ Below-grade loading docks drain to water quality pre-treatment device. ☐ Trash receptacles provided near loading docks. ☐ Spill cleanup kit provided near loading docks. ☐ Loading docks located away from storm drain inlets.
Restaurants, grocery stores, and other food service operations.	Equipment cleaning and maintenance procedures. *(Operational)* Drains clearly marked and verified. *(Operational)*	☐ Indoor sinks and cleaning facilities sized for largest possible items for cleaning. ☐ Sinks and cleaning areas connected to grease interceptors. ☐ Indoor floor drains connected to sanitary sewer. ☐ Outdoor floor drains connected to sanitary sewer in permanently covered areas. ☐ Cleaning and degreasing agents used on site are low-hazard or biodegradable.
High traffic pedestrian areas. Pet-friendly areas.	Waste collection and disposal equipment. *(Operational)* Educational signage. *(Operational)*	☐ Permanent pet waste bag dispenser stations provided. ☒ Trash and recycling receptacles provided in areas of heavy pedestrian traffic. ☐ Informational pet waste signage installed.
Outdoor Pools, Spas, Fountains	Drainage design to manage overflows, backwashing, and maintenance. *(Structural)* Technician training and disposal plans. *(Operational)*	☐ Design prevents overflow discharge to streets, storm drains or creeks/waterways. ☐ Design incorporates filter backwash treatment plan. ☐ Service technicians trained in appropriate chemical application and disposal. ☐ Disposal plan for periodic water feature draining/refilling is established.
Landscaping maintenance. Landscaping irrigation systems.	Storage areas for landscaping chemicals. *(Structural.)* Water efficient irrigation system. *(Operational.)* Training for maintenance staff and chemical applicators. *(Operational.)*	☐ Covered and contained storage area provided for all pesticide, herbicides, and landscaping chemicals. ☐ Temporary landscape material stockpiling area provided away from water courses and drain inlets. ☒ Water efficient irrigation systems installed. ☒ Scheduled semi-annual irrigation maintenance and system verification. ☒ Employees and maintenance contractors appropriately licensed and trained. ☒ Chemical use (fertilizers, herbicides, pesticides) is minimized. ☒ Chemical applicators licensed or trained in proper application and disposal requirements.

Pollutant Generating Activities and Sources	**Source Control BMP**	**Method selected**
	Less hazardous chemicals selected for maintenance. *(Procedural.)*	☒ Less toxic chemicals substituted for hazardous toxic chemicals.
Fire Sprinkler Test Water	Fire system flushing water disposal plan. *(Operational.)*	☐ Fire system flushing area sited near landscaping for test water infiltration. ☐ Fire sprinkler line flush testing area designed for flow direction to sanitary sewer.
Vehicle or Equipment Parking areas.	Parking area regular maintenance. *(Operational.)* Vehicle and equipment regular maintenance. *(Operational.)*	☒ Trash receptacles provided in areas of heavy pedestrian traffic. ☒ Sweeping and litter removal scheduled as part of ongoing maintenance. ☐ Vehicles and equipment regularly serviced at off-site location. ☐ Vehicles and equipment fueled in designated location with spill control kits.
Un-authorized non-stormwater discharges	Employee/contractor training. *(Operational.)*	☐ Mobile cleaning vendors appropriately trained, capable of collecting and removing wash waters for offsite disposal. ☐ Service contractors equipped with appropriate washout and containment supplies.

6. Stormwater Infrastructure Maintenance

a. Operations and Maintenance Agreements

The Regional Transit Authority will be responsible for operations and maintenance of the stormwater system in perpetuity. These responsibilities are transferred to future owners upon completion of sale of the project site or portion thereof. This project intends to delegate responsibility for long-term operations and maintenance as follows:

Recorded maintenance agreement type:	☒ Agreement	☐ Codes, Covenants & Restrictions language.
The party responsible for operations and maintenance of the system will be:	☒ Single owner	☐ Multiple owners
	☐ Owner's association	☐ Corporation
The party responsible for operations and maintenance of the system:	☒ Is located locally in San Luis Obispo County.	☐ Has a designated local representative in San Luis Obispo County.
	☐ Is located outside the County, within California.	☐ Is located outside California.
The party responsible for operations and Maintenance intends to complete annual inspections and maintenance by the following methods:	☒ Self-inspect and maintain. Contract out for additional maintenance support as necessary.	☐ Contract out all system inspection and maintenance services.

b. Summary of Maintenance Requirements for each Structural Control Measure

The maintenance requirements and anticipated annual costs for maintaining each SCM associated with the project are documented in County form SWP-1008. Copies of these forms are included as Attachment 5. An operations and maintenance agreement will be recorded with the County Clerk Recorder prior to final of project construction.

7. Conclusions and Certification of Compliance

This project meets each of the applicable Performance Requirements stipulated by the PCRs.

Performance Requirement #1	Compliance achieved onsite? ☒ Yes ☐ No	Measure(s) implemented: Runoff from hardscape is directed to vegetated areas. Design incorporates permeable pavers.	
Performance Requirement #2	Volume of treatment required for project: DMA 2,3,4 1,953 CF required (bioretention) DMA 1,5 22 FT required each (vegetated swale) DMA 7 None (self-retained)	Volume of treatment provided by project: DMA 2,3,4 3,450 CF provided (bioretention) DMA 1,5 54 FT and 72 FT DMA 7 None (self-retained)	Compliance achieved: ☒ Onsite ☐ Offsite
Performance Requirement #3	Volume of retention required for total project: 4,087 CF	Volume of retention provided by total project: 17,450 CF	Compliance achieved: ☒ Onsite ☐ Offsite
Performance Requirement #4	Peak management required: 6,578 CF (2-year volume) 9,867 CF (5-year volume) 11,276 CF (10-year volume)	Peak management achieved: 17,450 CF provided. Peak flow reduced to 0 CFS for 2,5,10-year	

The registered professional engineer, geologist, architect or landscape architect authoring this report certifies that all applicable post-construction stormwater performance requirements have been applied to this project and that this plan conforms to the requirements of the Central Coast Post-Construction Stormwater Management Resolution R3-2013-0032 and the current edition of the County's Post-Construction Stormwater Guidebook.

Preparer Name: John Doe	
Date: 01/01/2024	
License Number: 12345	License Type: Civil Engineer

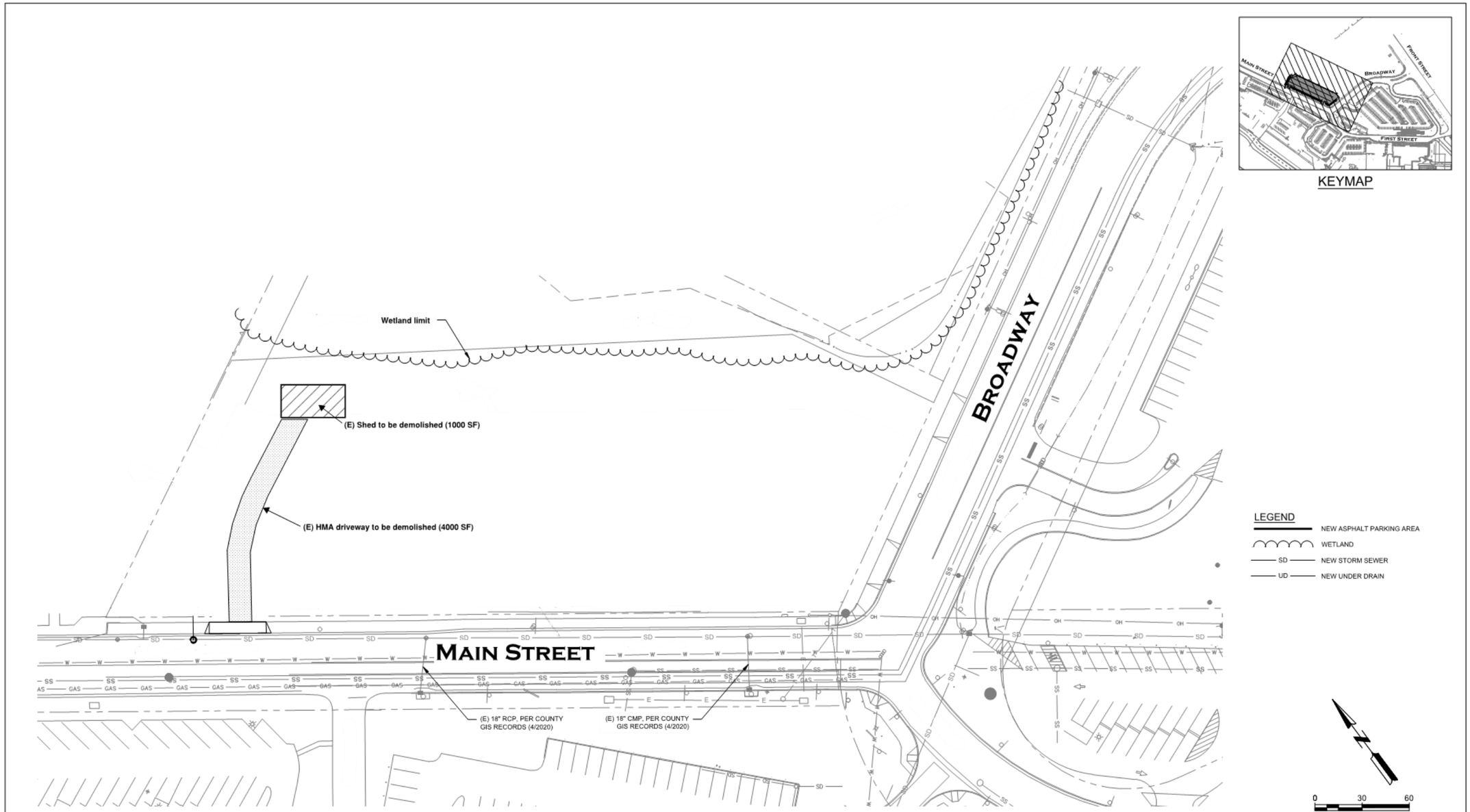
APPENDIX E
EXAMPLE PROJECT Main Street Park and Ride Lot, Anytown

Attachment 1: Site Maps and Exhibits

Pre-Project Impervious Area Exhibit

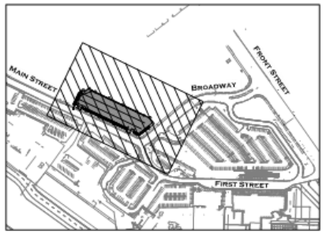
Post-Project Impervious Area Exhibit

Drainage Management Areas (DMAs) & Structural Control Measures (SCMs) Exhibit

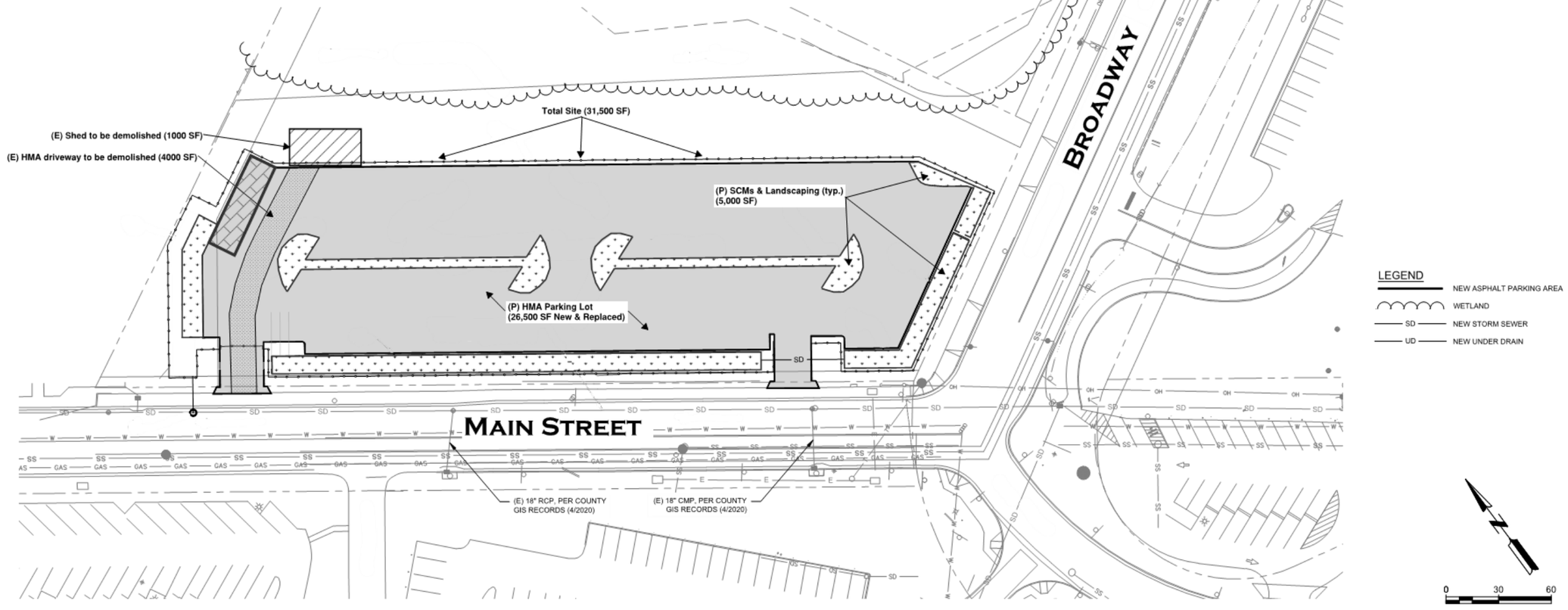


Pre-Project Impervious Areas Exhibit

Total project site area:	0.72 acres = 31,500 SF
Total Existing Impervious Area:	5,000 SF
New Impervious Area:	22,500 SF
Replaced impervious Area:	4,000 SF (existing asphalt driveway)
Reduced Impervious Area:	0 SF Credit = 0 Unless (Pre-Project Impervious – Post-Project Impervious) > 0
Credit for Reduced Impervious Area: *If [New + Replaced) > Total Existing, Credit = 0* *If (New + Replaced) < Total Existing, Credit = Reduced*	[22,500 +4,000] = 26,500 Total existing: 5,000 Credit = 0
Net impervious area: *(Exhibit required)*	(New + Replaced) – Credit = (22,500 + 4,000) – (0) = 26,500 SF



KEYMAP



Post-Project Impervious Areas Exhibit

Table 5: Drainage Management Areas and Characteristics

DMA Number/ID	Surface Type & description	Area (sf)	Drains to:		
DMA 1	HMA Pavement	2,500	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 2	HMA Pavement	10,000	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 3	HMA Pavement	5,000	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 4	HMA Pavement	5,000	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 5	HMA Pavement	2,500	☐ Self-treating	☐ Self-retaining	☒ SCM
DMA 6	Landscaping	500	☒ Self-treating	☐ Self-retaining	☐ SCM
DMA 7	HMA Pavement Draining to Pavers	1,500	☐ Self-treating	☒ Self-retaining	☐ SCM

Table 6: Structural Control Measure Summary Table (PR2 – Treatment Only)

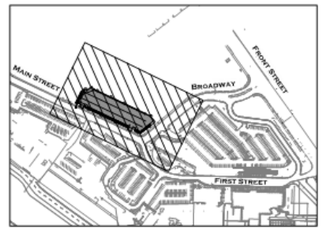
SCM Number/ID	DMA Number/ID	SCM Type	Required SCM Capacity (CFS, SF, FT, CF)	Provided SCM Capacity (CFS, SF, FT, CF)
SCM 1	DMA 1	Vegetated Swale	22 FT	54 FT
SCM 2	DMA 2	Bioretention	953 CF	1650 CF
SCM 3	DMA 3	Bioretention	500 CF	900 CF
SCM 4	DMA 4	Bioretention	500 CF	900 CF
SCM 5	DMA 5	Vegetated Swale	22 FT	72 FT

Table 7: Structural Control Measure Summary Table (PR3 – Runoff Retention)

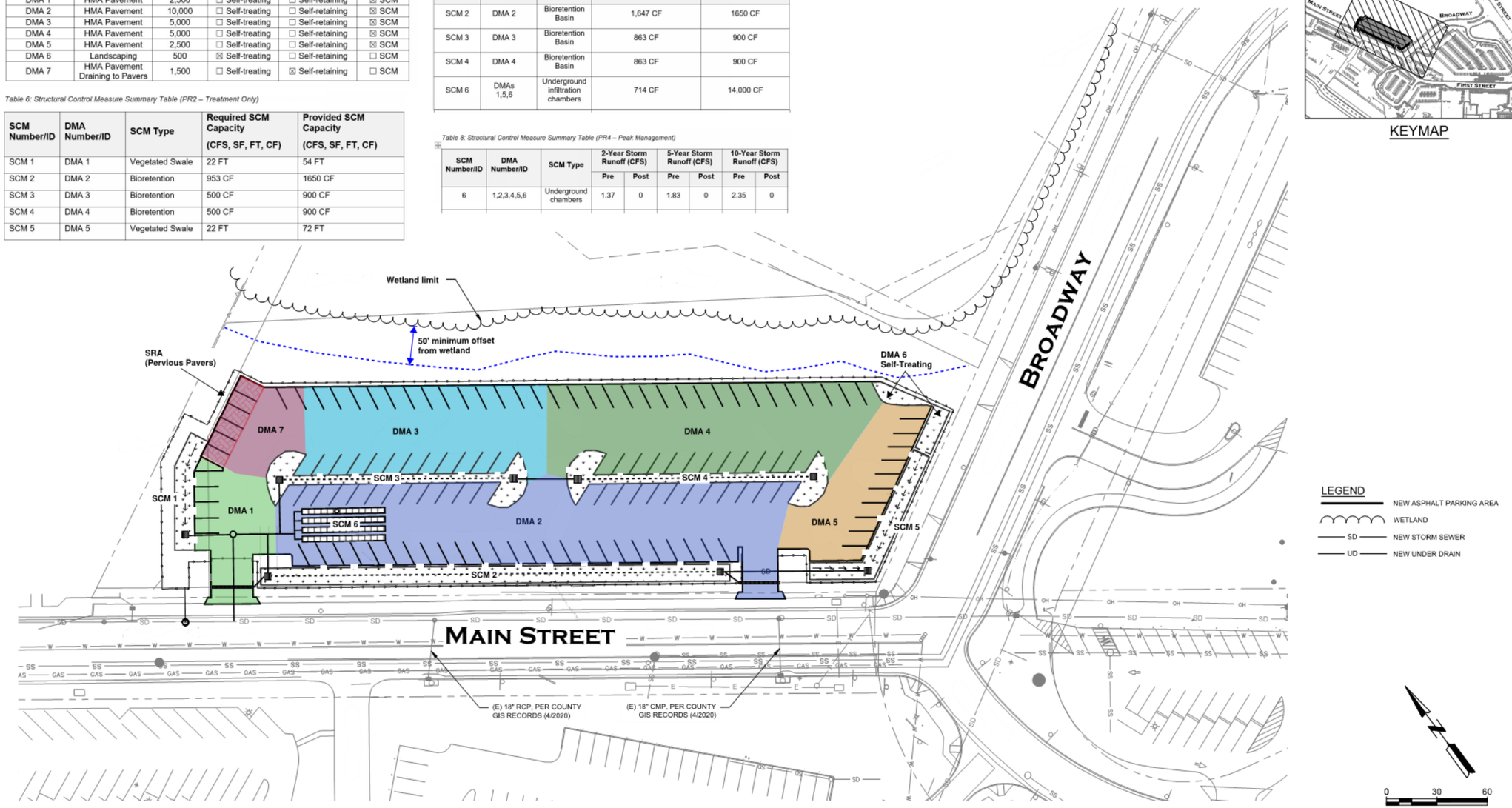
SCM Number/ID	DMA Number/ID	SCM Type	Required SCM volume (cf) (Area x runoff coefficient x 85th percentile rainfall depth)	Provided SCM volume (cf)
SCM 2	DMA 2	Bioretention Basin	1,647 CF	1650 CF
SCM 3	DMA 3	Bioretention Basin	863 CF	900 CF
SCM 4	DMA 4	Bioretention Basin	863 CF	900 CF
SCM 6	DMAs 1,5,6	Underground infiltration chambers	714 CF	14,000 CF

Table 8: Structural Control Measure Summary Table (PR4 – Peak Management)

SCM Number/ID	DMA Number/ID	SCM Type	2-Year Storm Runoff (CFS)		5-Year Storm Runoff (CFS)		10-Year Storm Runoff (CFS)	
			Pre	Post	Pre	Post	Pre	Post
6	1,2,3,4,5,6	Underground chambers	1.37	0	1.83	0	2.35	0



KEYMAP



Drainage Management Areas (DMAs) and Structural Control Measures (SCMs) Exhibit

Attachment 2: SCM Sizing Calculator Outputs

Supporting Calculations for Structural Control Measures (PR2 – Treatment)

SCM 1, 5 – Vegetated Swale

Size for water quality treatment – Minimum flow capacity is equal to water quality peak runoff. Minimum flow length to provide minimum 5-minute hydraulic residence time.

Water Quality Peak Flow: Rational Method, Q = CiA

- Q = Water Quality Peak flow (cfs)
- C = PCRs Runoff Coefficient
    - $C = 0.858i^3 – 0.78i^2 + 0.744i + 0.04 = 0.862$
        - i = Percent impervious
- i = WQF Rainfall Intensity (0.2 in/hr)
- A = Tributary Area (acres)

Swale Sizing: Manning's Equation, $Q = (1.49/n) * A * R^{2/3} * S^{1/2}$

- Q = Flow (cfs)
- n = Manning's coefficient
- A = Cross-sectional area of the flow in the channel (ft^2)
- R = Hydraulic Radius, A/P (ft)
    - P = Wetted perimeter of flow area (ft)
- S = Channel longitudinal slope (ft/ft)

Used Manning's equation to iteratively solve channel design variables.

See attached spreadsheet printout for vegetated swale calculations and sizing. The site grading directs runoff from each DMA to the upstream end of the swale. The swales were also sized for hydraulic capacity per the County Public Improvement Standards, this is documented within the project's drainage report.

SCM 2, 3, 4

Size for treatment by retention of 85th percentile storm volume (simple method)
Min Req'd Retention Volume = C x Rainfall Depth x A,

- C = PCRs Runoff Coefficient (unitless)
  - C = $0.858i^3 - 0.78i^2 + 0.744i + 0.04 = 0.862$
    i = Percent impervious
  - C = 0.89 for 100% impervious surface
- 85th percentile rainfall depth = 1.1 inches for this location
- A = retention tributary surface area (SF)

SCMs must also have sufficient volume to capture the rain that falls directly on them (C = 1.0)

SCM	Tributary DMA	Surface Type	C	A (SF)	Required Volume (CF)
SCM 2	DMA 2	HMA	0.89	10,000	816
	SCM 2	Bioretention	1.00	1,500	138
				SCM 2 Total	**953**
SCM 3	DMA 3	HMA	0.89	5,000	408
	SCM 3	Bioretention	1.00	1,000	92
				SCM 3 Total	**500**
SCM 4	DMA 4	HMA	0.89	5,000	408
	SCM 4	Bioretention	1.00	1,000	92
				SCM 4 Total	**500**

APPENDIX E
EXAMPLE PROJECT Main Street Park and Ride Lot, Anytown

Supporting Calculations for Structural Control Measures (PR3 – Retention)

Size for retention of 95th percentile storm volume (simple method)
Min Req'd Volume = C x Rainfall Depth x A,

- C = PCRs Runoff Coefficient (unitless)
  - $C = 0.858i^3 – 0.78i^2 + 0.744i + 0.04 = 0.862$
    i = Percent impervious
  - C = 0.89 for 100% impervious surface
  - C = 0.04 for 0% impervious
- 95th percentile rainfall depth = 1.9 inches for this location
- A = retention tributary surface area (SF)

SCM	Tributary DMA	Surface Type	C	A (SF)	Required Volume (CF)
SCM 2	DMA 2	HMA	0.89	10,000	1,409
	SCM 2	Bioretention	1.00	1,500	238
				SCM 2 Total	**1,647**
SCM 3	DMA 3	HMA	0.89	5,000	705
	SCM 3	Bioretention	1.00	1,000	158
				SCM 3 Total	**863**
SCM 4	DMA 4	HMA	0.89	5,000	705
	SCM 4	Bioretention	1.00	1,000	158
				SCM 4 Total	**863**
SCM 6	DMA 1	HMA	0.89	2500	352
	DMA 5	HMA	0.89	2500	352
	DMA 6	Landscape	0.04	500	3
	SCM 1	Landscape (swale)	0.04	500	3
	SCM 5	Landscape (swale)	0.04	500	3
				SCM 6 Total	**714**

APPENDIX E
EXAMPLE PROJECT Main Street Park and Ride Lot, Anytown

Check PR3 Drawdown Requirements

Site infiltration rate = 1.0 inches/hour = 0.0833 ft/hour

SCM	95th Percentile Runoff Volume (CF)	SCM Floor Area (SF)	95th Percentile Storm Depth (FT) (Volume / Area)	SCM Type	Safety Factor	Drawdown Time (HOURS) (Depth / Infiltration Rate x Safety Factor)
2	1,647	1,500	1.10	Bioretention	1	13.2
3	863	1,000	0.86	Bioretention	1	10.4
4	863	1,000	0.86	Bioretention	1	10.4
6	714	800	0.89	Underground Chambers	2	21.4

All SCMs fully infiltrate in less than 48 hours per Central Coast Water Board requirements.

Supporting Calculations for Structural Control Measures (PR4 – Peak Management)

Look-up Inputs from County Standard H-4 (PIS) and calculate required retention volume using County modified rational method. For County retention standard, use storm duration t = 10 hours = 36,000 seconds. For peak flow calculations, assign minimum Tc of 10 minutes to all DMAs.

- Peak Runoff, Q = CiA (CFS)
  - C = Rational method runoff coefficient
  - i = storm intensity (inches/hour)
  - A = tributary area (acres)
- Volume = V = Q x t (CF)
  - t = storm duration (seconds)

Annual Rainfall at Project Site = 25 inches

Storm Recurrence (years)	Storm Intensity "i" (in/hr)	
	10 min (Q)	10 hour (V)
2	2.1	0.28
5	2.8	0.42
10	3.6	0.48

Area ID	Surface Type	Area (SF)	Area (ACRES)	Runoff Coefficient, C	Peak Runoff, Q (CFS)		
					2-year	5-year	10-year
DMA 1	HMA Pavement	2,500	0.06	0.95	0.11	0.15	0.20
DMA 2	HMA Pavement	10,000	0.23	0.95	0.46	0.61	0.79
DMA 3	HMA Pavement	5,000	0.11	0.95	0.23	0.31	0.39
DMA 4	HMA Pavement	5,000	0.11	0.95	0.23	0.31	0.39
DMA 5	HMA Pavement	2,500	0.06	0.95	0.11	0.15	0.20
DMA 6	Landscaping	500	0.01	0.65	0.02	0.02	0.03
DMA 7	HMA Pavement	1,500	0.03	0.95	0.07	0.09	0.12
SCM 1	Vegetated Swale	500	0.01	0.65	0.02	0.02	0.03
SCM 2	Bioretention Basin	1,500	0.03	0.65	0.05	0.06	0.08
SCM 3	Bioretention Basin	1,000	0.02	0.65	0.03	0.04	0.05
SCM 4	Bioretention Basin	1,000	0.02	0.65	0.03	0.04	0.05
SCM 5	Vegetated Swale	500	0.01	0.65	0.02	0.02	0.03
				Site Total	**1.37**	**1.83**	**2.35**
				DMA/SCM 2 Sub-Total	0.50	0.67	0.87
				DMA/SCM 3 Sub-Total	0.26	0.35	0.45
				DMA/SCM 4 Sub-Total	0.26	0.35	0.45

Area ID	Surface Type	Area (SF)	Area (ACRES)	Runoff Coefficient, C	Runoff Volume, V (CF)		
					2-year	5-year	10-year
DMA 1	HMA Pavement	2,500	0.06	0.95	550	824	942
DMA 2	HMA Pavement	10,000	0.23	0.95	2,198	3,298	3,769
DMA 3	HMA Pavement	5,000	0.11	0.95	1,099	1,649	1,884
DMA 4	HMA Pavement	5,000	0.11	0.95	1,099	1,649	1,884
DMA 5	HMA Pavement	2,500	0.06	0.95	550	824	942
DMA 6	Landscaping	500	0.01	0.65	75	113	129
DMA 7	HMA Pavement	1,500	0.03	0.95	330	495	565
SCM 1	Vegetated Swale	500	0.01	0.65	75	113	129
SCM 2	Bioretention Basin	1,500	0.03	0.65	226	338	387
SCM 3	Bioretention Basin	1,000	0.02	0.65	150	226	258
SCM 4	Bioretention Basin	1,000	0.02	0.65	150	226	258
SCM 5	Vegetated Swale	500	0.01	0.65	75	113	129
				Site Total	**6,578**	**9,867**	**11,276**
				DMA/SCM 2 Sub-Total	2,424	3,636	4,155
				DMA/SCM 3 Sub-Total	1,250	1,874	2,142
				DMA/SCM 4 Sub-Total	1,250	1,874	2,142

10-year Volume Retained by Bioretention SCMs
= 1,650 CF (SCM 2) + 900 CF (SCM 3) + 900 CF (SCM 4)
= **3,450 CF**

Confirm Bioretention SCM storage will be fully utilized, e.g. 10-year Runoff Volume is >= Volume Retained

SCM 2: 4,155 > 1,650 CF
SCM 3: 2,142 > 900 CF
SCM 4: 2,142 > 900 CF

Retain remainder runoff volume in SCM 6, Underground Chambers

Minimum Required 10-year Volume for Underground Chambers
= Total Site Runoff Volume– Volume Retained by Bioretention SCMs
= 11,276 CF – 3,450 CF
= **7,826 CF**

Capacity Provided by Proposed Underground Chambers
= **14,000 CF (**> 8,026 CF, ok)

Total Capacity Provided by all SCMs
= 14,000 CF + 3,450 CF
= **17,450 CF**

Bioswale Water Quality Flow Calculations

Bioswale Flow (Water Quality Treatment)

SCM ID	Tributary DMA	Runoff Coefficient, C	Rainfall Intensity, i (in/hr)[1]	Tributary Area, A (ac)	Flow (cfs)
SCM 1	DMA 1	0.89	0.2	0.057	0.010
SCM 5	DMA 5	0.89	0.2	0.057	0.010

[1] Table 7, County of San Luis Obispo Post-Construction Stormwater Guidebook

Runoff Coefficient, C

DMA	Impervious Ratio	Runoff Coefficient, C[1]
DMA 1	1	0.89
DMA 5	1	0.89

[1] Equation 4, County of San Luis Obispo Post-Construction Stormwater Guidebook

Tributary Area, A

DMA	Tributary Area (sf)	sf per ac	Tributary Area (ac)
DMA 1	2,500	43,560	0.057
DMA 5	2,500	43,560	0.057

Equations Used

WQF = C x i x A

where

WQF = runoff rate generated by the 85th percentile 24-hour storm event (cfs)

C = runoff coefficient – from PPDG Section 5.3

i = WQF rainfall intensity (in/hr) – from PPDG Section 5.3

A = portion of the CDA to the Biofiltration Swale not infiltrated (acres)

From Section 3.1.2, Caltrans Stormwater Quality Handbooks: Biofiltration Swale Design Guidance

The runoff coefficient 'C' is calculated for each DMA using Equation 4.

Equation 4: Impervious ratio (i) to Runoff coefficient 'C' equation.

$$0.858i^3 - 0.78i^2 + 0.774i + 0.04 = \text{Runoff Coefficient C}$$

Where i = the fraction of the DMA that is impervious

Equation 4, County of San Luis Obispo Post-Construction Stormwater Guidebook

Bioswale Hydraulic Calculations

Bioswale Parameters (Trapezoid)

SCM ID	Base Width b (ft)[1]	Side Slope z[1]	Manning's n[2]	Slope S (%)[1]	Length L (ft)	Water Quality Flow Q (cfs)
SCM 1	3	4	0.24	1.00%	54	0.010
SCM 5	3	4	0.24	1.00%	72	0.010

[1] Table 16, County of San Luis Obispo Post-Construction Stormwater Guidebook

[2] Table 2-1, Caltrans Stormwater Quality Handbooks: Biofiltration Swale Design Guidance

Depth and Velocity (Trapezoid)

SCM ID	Depth y (in)[1]	Depth y (ft)	Area A (sqft)	Perimeter P (ft)	Hy Radius R (ft)	Calculated Flow Q (cfs)[1]	Velocity V (fps)[2]	Hyd. Residence Time HRT (min)[3]	Minimum Length L_{min} (ft)[4]
SCM 1	0.52	0.043	0.14	3.36	0.041	0.010	0.07	12.2	22
SCM 5	0.52	0.043	0.14	3.36	0.041	0.010	0.07	16.3	22

[1] Solve for depth to set Calculated Flow equal to Water Quality Flow, Max of 6 in: Table 2-1 Caltrans Stormwater Quality Handbooks: Biofiltration Swale Design Guidance

[2] Max of 1 fps: Table 16, County of San Luis Obispo Post-Construction Stormwater Guidebook

[3] Min of 5 min: Table 16, County of San Luis Obispo Post-Construction Stormwater Guidebook

[4] Equation 9, County of San Luis Obispo Post-Construction Stormwater Guidebook

Equations Used

$Q = (1.49/n) \times A \times R^{2/3} \times S^{1/2}$

where

Q = flow at defined event, Q_{WQF} or Q_{25}, (cfs)

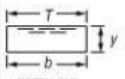
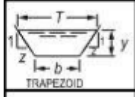
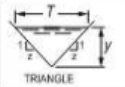
n = Manning's coefficient; recommend using "n" = 0.24 for Q_{WQF} and 0.05 for Q_{25}

A = Cross-sectional area of the flow in the channel

R = Hydraulic Radius = "A" / Wetted Perimeter ("P")[2]

S = longitudinal slope (ft/ft)

From Section 3.2.1, Caltrans Stormwater Quality Handbooks: Biofiltration Swale Design Guidance

Section	Area *A*	Wetted Perimeter *P*	Hydraulic Radius *R*
 RECTANGLE	by	$b + 2y$	$\frac{by}{b+2y}$
 TRAPEZOID	$(b + zy)y$	$b + 2y\sqrt{1+z^2}$	$\frac{(b+zy)y}{b+2y\sqrt{1+z^2}}$
 TRIANGLE	zy^2	$2y\sqrt{1+z^2}$	$\frac{zy}{2\sqrt{1+z^2}}$

From Table 2-1 Open-Channel Hydraulics, Ven Te Chow

Equation 9: Vegetated swale minimum length calculation

$L = 300 (V_{wq})$

L= Minimum swale length (feet)

V_{wq} = Design flow velocity (ft/sec)

The 300 seconds multiplier determines the swale length necessary to achieve a hydraulic residence time of at least 5 minutes. Velocity should be calculated using the Manning's equation.

From Equation 9, County of San Luis Obispo Post-Construction Stormwater Guidebook

Attachment 3: Non-retention Based Treatment System Documentation

Not Applicable.

Attachment 4: LID Opportunities and Constraints Checklist

Existing Vegetation

Preserve or minimize disturbance to existing natural vegetated features. Designs that integrate natural features of the project site are better at mimicking pre-development runoff characteristics. Effective management of both existing and proposed site vegetation can reduce a development's impact on stormwater runoff quality and quantity.

☐ Yes ☐ No ☒ N/A	*Existing, high-quality vegetation has been identified and noted on the Opportunity and Constraints Map. Access to these areas will be restricted during construction.*
☐ Yes ☐ No ☒ N/A	*Existing trees have been identified and noted on the Opportunity and Constraints Map. The location of tree protection fencing is identified to restrict site disturbance and protect these locations during construction.*
☐ Yes ☐ No ☒ N/A	*Notes have been included on the corresponding site plans in areas where highly visible temporary fencing shall be placed around vegetation and tree areas that are to be preserved during construction.*

Survey and Site Topography

Identify opportunities and constraints within site topography and natural drainage patterns that can be incorporated into the design. Integrating existing drainage patterns into the site plan can maintain a site's predevelopment hydrologic function and will result in lower construction costs over sites that modify site topography and develop new drainage patterns.

☒ Yes ☐ No ☐ N/A	*The site has been surveyed and a topographic base file has been created to identify topography and natural drainage patterns.*
☒ Yes ☐ No ☐ N/A	*Existing low-spots and sumps within the topography have been identified on the Opportunity and Constraints Map. These areas will be preserved and utilized as BMP locations where technically feasible.*
☒ Yes ☐ No ☐ N/A	*Existing high-spots within the topography have been identified on the Opportunity and Constraints Map. These areas be preserved for placement of structures or hardscapes where feasible, allowing runoff to drain to low lying areas for treatment.*
☐ Yes ☐ No ☒ N/A	*Areas within 50 feet from the top of slopes that are greater than 20% and over 10 feet of vertical relief have been identified on the Opportunity and Constraints Map. Notes on the map indicate that SCMs are not authorized within these areas.*

Soil Analysis

Native undisturbed soils have a complex matrix created by the growth and decay of plant roots, earthworms, and insect activity. Topsoil stripping and stockpiling destroys soil structure and diminishes natural biological activity. Avoid and limit unnecessary site disturbances during construction. Plan LID and SCM placement where soils support infiltration (Soil Groups A and B). To the extent feasible, plan buildings and structures and hardscapes placement where soils discourage infiltration (Soil Group C and D).

☒ Yes ☐ No ☐ N/A	*Locations where soils encourage infiltration (Soil Group A and B) have been identified on the Opportunity and Constraints Map. Where feasible, these areas have been preserved or dedicated to SCM locations.*
☒ Yes ☐ No ☐ N/A	*Locations where soils discourage infiltration (Soil Group C and D) have been identified on the Opportunity and Constraints Map. Where feasible, these locations have been dedicated to the proposed project improvements such as structures and hardscapes, or contractor staging and equipment storage areas, etc.*
☒ Yes ☐ No ☐ N/A	*Locations where existing structures and hardscapes will be removed during construction (exposing highly compacted soils) have been identified on the Opportunity and Constraints Map. Placement of SCMs has been avoided in these areas.*

Geotechnical Analysis

Data from the preliminary geotechnical analysis or soil borings should be evaluated to support identification of opportunities and constraints. These areas should be specifically identified with limits noted on the Opportunities and Constraints Map.

☐ Yes ☒ No	*The site contains areas designated as an erosion hazard, or landslide hazard.*
☐ Yes ☒ No	*The site contains groundwater that drains into an erosion hazard, or landslide hazard area.*
☐ Yes ☒ No	*The geotechnical report identified contaminated soils:* ☐ *These soils will be removed during construction.* ☐ *These soils will remain in place during construction.*
☒ Yes ☐ No ☐ N/A	*The groundwater table elevation (including seasonally high and historically high) has been determined.*
☒ Yes ☐ No	*The seasonally high groundwater table elevation is at least 10-feet below the proposed invert elevations of the proposed SCMs.*
☐ Yes ☐ No ☒ N/A	*Fractured bedrock identified through geotechnical testing is below the proposed invert elevations of the proposed SCMs.*
☒ Yes ☐ No	*Infiltration testing has been performed onsite at the proposed SCM locations and the geotechnical report has identified that the site is suitable for infiltration.*

Setbacks

Establish setbacks and buffer zones surrounding restricted and/or sensitive areas. Identify all areas where SCMs cannot be constructed due to setback requirements. Examples include existing and proposed building foundations, municipal water wells, private water wells, septic systems, easements, etc.

☐ Yes ☐ No ☒ N/A	*Private potable water wells in the vicinity have been identified (onsite and offsite) and a minimum offset radius has been established indicating where infiltration SCMs are not authorized.*

☐ Yes ☐ No ☒ N/A	*Municipal potable water wells in the vicinity have been identified (onsite and offsite) and a minimum 100 foot offset radius has been established indicating where infiltration based SCMs are not authorized.*
☐ Yes ☐ No ☒ N/A	*Within the Coastal Zone, a setback of 100 feet has been established from the upland extent of riparian vegetation. The limits of these setbacks are indicated on the Opportunity and Constraints map.*
☒ Yes ☐ No ☐ N/A	*Within the Urban Reserve Lines, a setback of 50 feet has been established from the upland extent of riparian vegetation. The limits of these setbacks are indicated on the Opportunity and Constraints map.*
☒ Yes ☐ No ☐ N/A	*A setback of either 5 or10 feet has been established from all property lines to SCMs and the limits of these setbacks have been indicated on the Opportunity and Constraints Map.*
☐ Yes ☐ No ☒ N/A	*A setback of either 5 or 10 feet has been established from all existing and proposed building foundations with notes indicating infiltration SCMs are not authorized within these limits.*

Hydrology Features

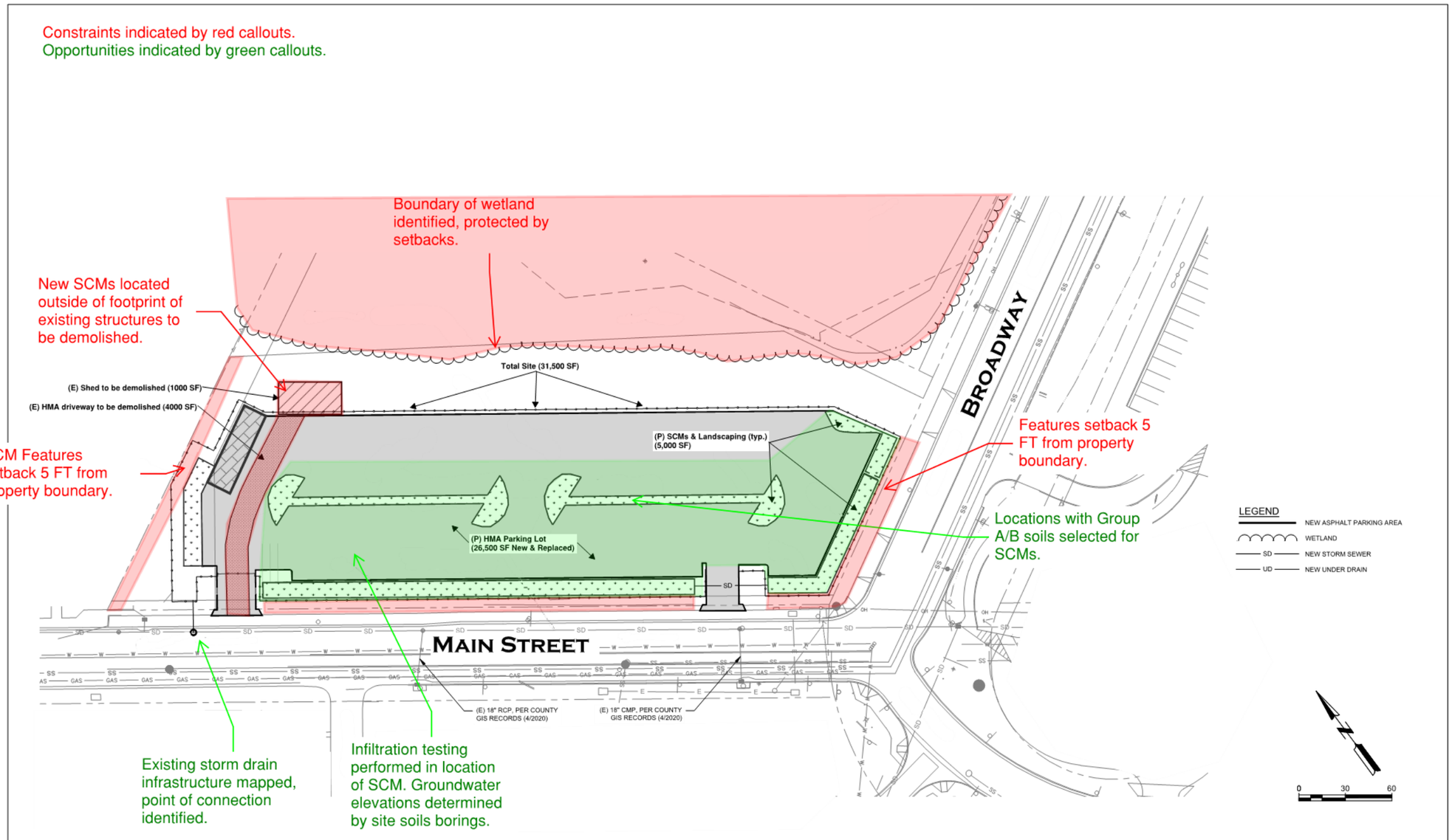
Identify onsite and offsite downstream waterways, including creeks, wetlands, watercourse, seeps, riparian zones areas of 100-year flood inundation, potential stormwater run-on locations and depths to groundwater. All areas of hydrologic importance should be delineated at the earliest stage in the development planning process.

☒ Yes ☐ No ☐ N/A	*Hydrological features such as creeks, wetlands, riparian zones, etc. have been identified and incorporated into the Opportunity and Constraints Map.* ✓ *Notes have been added to the Opportunity and Constraint Map indicating that these areas will be protected by exclusionary fencing during construction to prevent resource damage.*
☒ Yes ☐ No ☐ N/A	*The pre-developed site drainage pathways have been identified and the limits of these features have been placed onto the Opportunities and Constraints Map.*
☒ Yes ☐ No ☐ N/A	*Existing storm drain infrastructure, including potential points of connection have been identified and placed onto the Opportunities and Constraints Map.*
☐ Yes ☐ No ☒ N/A	*Stormwater run-on locations have been identified and placed onto the Opportunities and Constraints Map.*

Hazardous Areas & Pollutants of Concern (POCs)

Identify locations where existing or future pollutants may occur onsite and identify features that may prevent these pollutants from being exposed to stormwater runoff. Examples include chemical storage locations, fueling stations, and industrial operation areas.

☐ Yes ☐ No ☒ N/A	*Existing hazardous storage areas and POC sources have been identified and placed onto the Opportunities and Constraints Map.*
☐ Yes ☐ No ☒ N/A	*Proposed hazardous storage areas and POC sources have been identified and placed onto the Opportunities and Constraints Map.*



Opportunities and Constraints Map

Attachment 5: Draft SCM Operations & Maintenance Forms

RECORDING REQUESTED BY:

County of San Luis Obispo
Planning and Building Department

WHEN RECORDED, PLEASE RETURN TO
(SYSTEM OWNER ADDRESS)

General Land Development Company
1234 Washing Street
Anytown, CA 55555

AGREEMENT
County of San Luis Obispo
Private Stormwater Management System
Operation and Maintenance

Condition Compliance Monitoring Permit #: CCM2023-00024

Property Address: 123 Main Street, Anytown, CA
(Street No. & Street Name, City)

Property APN #: 123-45-789 **Building Permit #:** CBLD2023-12345

Project Description *(hereinafter referred to as "PROJECT")*:
Construct new parking lot on undeveloped parcel.

Legal Description: Refer to Exhibit A, attached hereto
System Description: Refer to Exhibit B, attached hereto

This Agreement is made and entered into in San Luis Obispo, California, this 1 day of June, 2024, by and between General Land Development Company (hereinafter referred to as "OWNER") and the County of San Luis Obispo, located in the State of California, (hereinafter referred to as "County"). This Agreement is made in accordance with existing codes and regulations and in accordance with the approved PROJECT Stormwater Control Plan and specifications on file at the County (hereinafter collectively referred to as "PLANS") with respect to the following recitals:

RECITALS:

The undersigned OWNER of the real property referenced above, hereby covenants with County to utilize on-site stormwater management systems (i.e. structural and/or non-structural) to minimize runoff and pollutants in stormwater runoff and to provide permanent storm drainage maintenance to control, manage, retain, treat, infiltrate and dispose of (1) on-site storm drainage for the PROJECT and (2) ancillary street and site drainage from the adjoining street and sites, as stipulated in the PLANS and in the Stormwater Control Plan on file at the County (hereinafter referred to as "Stormwater Control Plan"). The storm drainage improvements shown and described in Exhibit B are hereinafter referred to as the "SYSTEM".

OWNER is solely responsible for adhering to the requirements set forth in the Stormwater Control Plan and agrees to the following conditions in compliance with all local, state, federal laws and regulations and according to the PLANS and Stormwater Control Plan:

1. **MAINTENANCE:** OWNER shall **maintain** the SYSTEM as required in the Stormwater Control Plan and any specifications included in Exhibit B.

2. **MONITORING:** OWNER shall **monitor** the SYSTEM as required in the Stormwater Control Plan and any specifications included in Exhibit B.

3. **INSPECTIONS:** OWNER shall **routinely inspect** the SYSTEM as required in the Stormwater Control Plan and any specifications included in Exhibit B.

4. **CLEANINGS:** OWNER shall **routinely clean** the SYSTEM as required in the Stormwater Control Plan and any specifications included in Exhibit B.

5. **REPAIRS:** OWNER shall repair the **SYSTEM** as required in the Stormwater Control Plan.

6. **DOCUMENT, REPORT, AND FEES:** OWNER shall document all maintenance, monitoring, inspections, cleanings, and repairs made to the SYSTEM in the annual report submitted to County by June 15th of each year in a format approved by County. System Owners will be subject to a Stormwater Annual Inspection and Reporting fee (SWI) based on current County of San Luis Obispo Planning and Building Fee Schedule. Payment of Fee due by June 15th of each year.

7. **COUNTY'S RIGHTS & AUTHORITY: Pursuant to San Luis Obispo County Code Title 22.10.155,** County has the right and authority to inspect the SYSTEM to determine compliance with this agreement (i.e. maintenance, monitoring, inspections, cleanings, repairs, documentation and reporting) which may result in enforcement activities and/or abatement if necessary pursuant to applicable laws and regulations. OWNER hereby consents to County conducting said inspections between the hours of 8:00 a.m. through 5:00 p.m., Mondays through Fridays. This Agreement shall not be construed as precluding County from conducting inspections, which may be necessary due to an emergency.

8. **FAILURE TO MAINTAIN, CLEAN AND/OR REPAIR SYSTEM:** Failure to maintain, monitor, inspect, clean, repair, or document and report as required herein shall constitute a public nuisance. The County may remedy such public nuisance through any of the applicable procedures as set forth in the County of San Luis Obispo Code, and/or may pursue any other

legal or equitable remedies to abate such public nuisance.

9. **INDEMNIFICATION:** Owner further agrees to defend, indemnify, protect and hold the County and its agents, officers and employees harmless from and against any and all claims asserted or liability established for damages or injuries to any person or property, including to Owner's tenants, guests, invitees, agents or employees, which arise from or are connected with or caused or claimed by the acts or omissions of Owner, and its agents, employees or contractors, in performing the obligations specified herein, and all expenses of investigating and defending against same; provided, however, that Owner's duty to indemnify and hold harmless all not include any claims or liability arising from the established sole negligence or willful misconduct of the County, its agents, officers or employees.

10. **BINDING ON FUTURE OWNERS:** This covenant shall run with the land and shall be binding upon the undersigned owners, their heirs, executors, administrators, assigns and successors in interest.

11. **RECORDING OF AGREEMENT:** This Agreement shall be recorded in the office of the San Luis Obispo County Recorder, and such recordation shall serve as notice of the restrictions and obligations contained herein to be performed and observed by Owner and the successors in interest to all or any portion of Owner's Property.

12. **NOTICES:** Any notice, demand, request, consent, approval or communication to OWNER under this Agreement (hereinafter collectively referred to as "Notices") shall be in writing and either served personally or sent by prepaid, first-class mail to the person and address set forth below. Alternately, OWNER may elect to have Notices sent by e-mail if indicated below and an e-mail address is provided. OWNER shall notify County of any change in address, e-mail, or transfer of ownership. Any notice shall be deemed to be effective five calendar days after the date mailed or, if applicable, on the same date the notice was e-mailed.

Jane Doe	1234 Washington Street
System Owner *(Printed Name)*	**Owner's Street Address**
President	Anytown, CA 55555
Business Affiliation and Title *(if applicable)*	**Owner's City/State, Zip Code**
6/1/2024	Jane@email.com
Date	**Owner's Email Address:**

I agree to receive Notices by e-mail: ◉ Yes ○ No

COUNTY OF SAN LUIS OBISPO:

Cheryl Journey
Cheryl Journey *(Signature)*

County of San Luis Obispo

6/1/2024
Date

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN LUIS OBISPO)

On June 1, 2024, before me, Notary Name, a Notary Public, in and for the State of California, personally appeared Cheryl Journey, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

[SEAL]

Signature *Notary Name*
Signature of Notary Public

OWNER:

Jane Doe	6/1/2024
System Owner *(Signature)*	**Date**
Jane Doe	
System Owner *(Printed Name)*	
President	
Business Affiliation and Title *(if applicable)*	

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN LUIS OBISPO)

On June 1, 2024, before me, Notary Name, a Notary Public, in and for the State of California, personally appeared Jane Doe, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

[SEAL]

Signature *Notary Name*
Signature of Notary Public

Exhibit A
Property Legal Description in Full

LEGAL DESCRIPTION

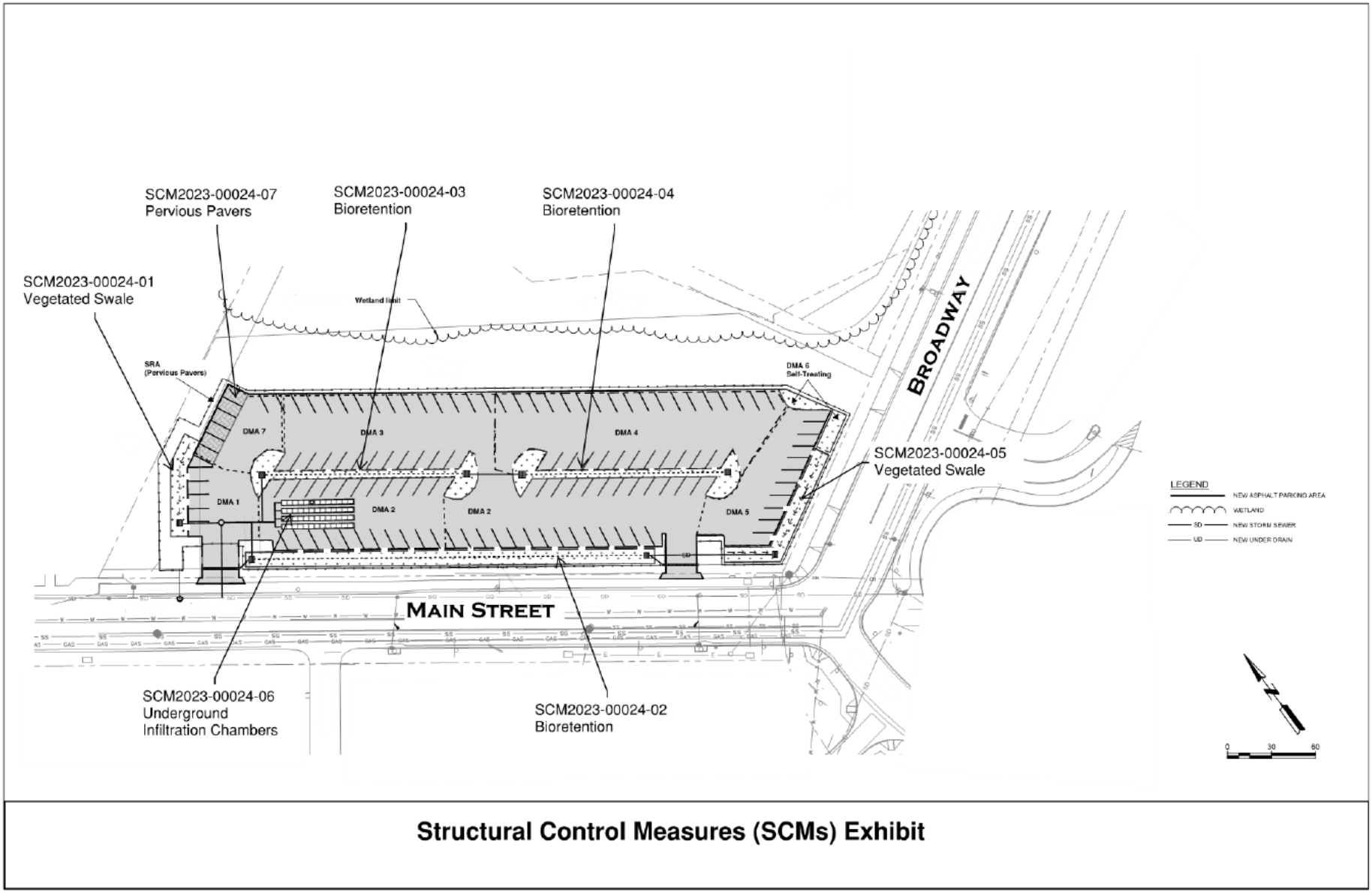
Real property in the unincorporated area of the County of San Luis Obispo, State of California, described as follows:

PARCEL A:

A PORTION OF PARCEL MAP CO-78-215 SITUATED IN THE COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA, AS SHOWN ON A MAP RECORDED IN BOOK 28 OF PARCEL MAPS PAGE 84 IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT BEING THE MOST NORTH WESTERLY CORNER OF PARCEL 2 ACCORDING TO SAID PARCEL MAP; THENCE NORTH 89° 57' 27" EAST 1272.35 FEET TO A POINT BEING THE MOST NORTH EASTERLY CORNER OF SAID PARCEL 2 OF SAID PARCEL MAP; THENCE SOUTH 00° 42' 10" WEST 209.17 FEET ALONG THE EASTERLY LINE OF SAID PARCEL TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 00° 42' 10" WEST 475.60 FEET TO A POINT;
THENCE NORTH 89° 57' 27" EAST 1176.38 FEET TO A POINT TO EAST BOUNDARY;
THENCE NORTH 29° 15' 25" EAST ALONG THE EAST BOUNDARY 109.55 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY OF BUCKLEY ROAD AS SHOWN ON A MAP FILED WITH THE COUNTY RECORDER'S OFFICE OF SAID COUNTY IN BOOK 80 AT PAGE 2 OF LICENSED SURVEYS; SAID POINT BEING ON A CURVE TO THE RIGHT, CONCAVE TO THE NORTH, HAVING A RADIUS OF 805.00 FEET AND A RADIAL OF NORTH 25° 46' 21" EAST; THENCE NORTHWESTERLY ALONG SAID CURVE 130.26 FEET TO A POINT ON SAID RIGHT-OF- WAY;
THENCE CONTINUING ALONG SAID RIGHT-OF-WAY NORTH 55° 00' 12" WEST 457.45 FEET;
THENCE NORTH 59° 24' 08" WEST 65.19 FEET TO A POINT ON SAID RIGHT-OF-WAY;
THENCE NORTH 82° 51' 18" WEST 99.34 FEET TO A POINT ON SAID RIGHT-OF-WAY;
THENCE LEAVING SAID RIGHT-OF-WAY NORTH 89° 28' 18" WEST 582.49 FEET TO THE TRUE POINT OF BEGINNING.

PURSUANT TO LOT LINE ADJUSTMENT RECORDED MAY 16, 2007 AS DOCUMENT NO. 2007033357, SAN LUIS OBISPO COUNTY OFFICIAL RECORDS.



Structural Control Measures (SCMs) Exhibit

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-01

1. Performance Requirement Addressed *(check all that apply):*	☑ Water Quality Treatment (Performance Requirement #2)	☑ Runoff Retention (Performance Requirement #3)	☑ Peak Management (Performance Requirement #4)	
2. Type of SCM Installed:	☐ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☑ Vegetated Swale ☐ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☐ Pervious Pavement ☐ Media Filter ☐ Treatment Vault	
3. Location of SCM *(Complete ALL fields)*	Location: ☑ Onsite ☐ Offsite		Contributing Impervious Area (ft²): 2500	
	Narrative Location Description: Vegetated swale along northwest edge of property.			
	Drainage Management Area (DMA) Number: 1		Drainage Area Treated (acres): 0.06	
	Latitude: 35.240612		Longitude: -120.641442	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft³):			
5. Design Details *(As applicable):*	Width (ft²): 3		Slope (ft/ft): 0	
	Depth (ft): 1		SCM Capacity/Volume (ft³): 54	
	Length (ft): 54		Surface Area (ft²): 54	
	Is this SCM subsurface? ○ YES ◉ NO		SCM Vegetated? ◉ YES ○ NO	
	Design Vegetation Height (ft): 1		Does this SCM involve a manufactured product? ○ YES ◉ NO	
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name:			
	Manufacturer/Model Number:			
	Total Number Installed Onsite:			
	Estimated Product Life:			
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☐ Annually ☑ Biennially		

Page ☐ of ☐

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-02

1. Performance Requirement Addressed *(check all that apply):*	☑ Water Quality Treatment (Performance Requirement #2)	☑ Runoff Retention (Performance Requirement #3)	☑ Peak Management (Performance Requirement #4)	
2. Type of SCM Installed:	☑ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☐ Vegetated Swale ☐ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☐ Pervious Pavement ☐ Media Filter ☐ Treatment Vault	
3. Location of SCM *(Complete ALL fields)*	Location: ☑ Onsite ☐ Offsite		Contributing Impervious Area (ft^2): 10000	
	Narrative Location Description: Bioretention basin along south edge of property.			
	Drainage Management Area (DMA) Number:	1	Drainage Area Treated (acres):	0.23
	Latitude: 35.240337		Longitude: -120.641052	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft^3):		871 PR2, 1504 PR3	
5. Design Details *(As applicable):*	Width (ft^2):		Slope (ft/ft):	
	Depth (ft):		SCM Capacity/Volume (ft^3):	1650
	Length (ft):		Surface Area (ft^2):	1650
	Is this SCM subsurface?	○ YES ◉ NO	SCM Vegetated?	◉ YES ○ NO
	Design Vegetation Height (ft):	1	Does this SCM involve a manufactured product?	○ YES ◉ NO
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name:			
	Manufacturer/Model Number:			
	Total Number Installed Onsite:			
	Estimated Product Life:			
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☑ Annually ☑ Biennially		

Page ☐ of ☐

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-03

1. Performance Requirement Addressed *(check all that apply):*	☑ Water Quality Treatment (Performance Requirement #2)	☑ Runoff Retention (Performance Requirement #3)	☑ Peak Management (Performance Requirement #4)	
2. Type of SCM Installed:	☑ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☐ Vegetated Swale ☐ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☐ Pervious Pavement ☐ Media Filter ☐ Treatment Vault	
3. Location of SCM *(Complete ALL fields)*	Location: ☐ Onsite ☐ Offsite		Contributing Impervious Area (ft²): 5000	
	Narrative Location Description: Bioretention basin parking island west side.			
	Drainage Management Area (DMA) Number: 3		Drainage Area Treated (acres): 0.11	
	Latitude: 35.240509		Longitude: -120.641186	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft³): 435 PR2, 752 PR3			
5. Design Details *(As applicable):*	Width (ft²):		Slope (ft/ft): 0	
	Depth (ft):		SCM Capacity/Volume (ft³): 900	
	Length (ft):		Surface Area (ft²): 900	
	Is this SCM subsurface? ○ YES ◉ NO		SCM Vegetated? ◉ YES ○ NO	
	Design Vegetation Height (ft): 1		Does this SCM involve a manufactured product? ○ YES ◉ NO	
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name:			
	Manufacturer/Model Number:			
	Total Number Installed Onsite:			
	Estimated Product Life:			
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☑ Annually ☑ Biennially		

Page ☐ of ☐

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-04

1. Performance Requirement Addressed *(check all that apply):*	☑ Water Quality Treatment (Performance Requirement #2)	☑ Runoff Retention (Performance Requirement #3)	☑ Peak Management (Performance Requirement #4)	
2. Type of SCM Installed:	☑ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☐ Vegetated Swale ☐ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☐ Pervious Pavement ☐ Media Filter ☐ Treatment Vault	
3. Location of SCM *(Complete ALL fields)*	Location: ☑ Onsite ☐ Offsite		Contributing Impervious Area (ft^2):	
	Narrative Location Description: Bioretention basin parking island east side.			
	Drainage Management Area (DMA) Number:	4	Drainage Area Treated (acres):	
	Latitude: 35.240285		Longitude: -120.640567	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft^3):	871 PR2, 1504 PR3		
5. Design Details *(As applicable):*	Width (ft^2):		Slope (ft/ft):	0
	Depth (ft):		SCM Capacity/Volume (ft^3):	900
	Length (ft):		Surface Area (ft^2):	900
	Is this SCM subsurface?	○ YES ◉ NO	SCM Vegetated?	◉ YES ○ NO
	Design Vegetation Height (ft):	1	Does this SCM involve a manufactured product?	○ YES ◉ NO
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name:			
	Manufacturer/Model Number:			
	Total Number Installed Onsite:			
	Estimated Product Life:			
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☑ Annually ☑ Biennially		

Page ☐ of ☐

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-05

1. Performance Requirement Addressed *(check all that apply):*	☑ Water Quality Treatment (Performance Requirement #2)	☑ Runoff Retention (Performance Requirement #3)	☑ Peak Management (Performance Requirement #4)	
2. Type of SCM Installed:	☐ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☑ Vegetated Swale ☐ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☐ Pervious Pavement ☐ Media Filter ☐ Treatment Vault	
3. Location of SCM *(Complete ALL fields)*	Location: ☑ Onsite ☐ Offsite		Contributing Impervious Area (ft²): 2500	
	Narrative Location Description: Biofiltration basin on east side of property.			
	Drainage Management Area (DMA) Number:	5	Drainage Area Treated (acres):	0.06
	Latitude: 35.240153		Longitude: -120.640332	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft³):	100 PR2		
5. Design Details *(As applicable):*	Width (ft²):	3	Slope (ft/ft):	
	Depth (ft):	1	SCM Capacity/Volume (ft³):	72
	Length (ft):	72	Surface Area (ft²):	72
	Is this SCM subsurface?	○ YES ◉ NO	SCM Vegetated?	◉ YES ○ NO
	Design Vegetation Height (ft):	1	Does this SCM involve a manufactured product?	○ YES ◉ NO
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name:			
	Manufacturer/Model Number:			
	Total Number Installed Onsite:			
	Estimated Product Life:			
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☑ Annually ☑ Biennially		

Page ☐ of ☐

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-06

1. Performance Requirement Addressed *(check all that apply):*	☑ Water Quality Treatment (Performance Requirement #2)	☑ Runoff Retention (Performance Requirement #3)	☑ Peak Management (Performance Requirement #4)	
2. Type of SCM Installed:	☐ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☐ Vegetated Swale ☑ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☐ Pervious Pavement ☐ Media Filter ☐ Treatment Vault	
3. Location of SCM *(Complete ALL fields)*	Location: ☑ Onsite ☐ Offsite		Contributing Impervious Area (ft²): 25000	
	Narrative Location Description: Underground infiltration chambers in southwest corner of parking lot			
	Drainage Management Area (DMA) Number: 1-5		Drainage Area Treated (acres): 0.57	
	Latitude: 35.240493		Longitude: -120.641346	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft³):			
5. Design Details *(As applicable):*	Width (ft²): 40		Slope (ft/ft): 0	
	Depth (ft):		SCM Capacity/Volume (ft³): 14000	
	Length (ft): 55		Surface Area (ft²):	
	Is this SCM subsurface? ◉ YES ○ NO		SCM Vegetated? ○ YES ◉ NO	
	Design Vegetation Height (ft): 0		Does this SCM involve a manufactured product? ◉ YES ○ NO	
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name: ADS			
	Manufacturer/Model Number: Stormtech MC-3500			
	Total Number Installed Onsite: 4 x 55' long rows			
	Estimated Product Life: 20			
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☑ Annually ☑ Biennially		

Page ☐ of ☐

Form SWP-1007

Exhibit B: Stormwater Control Measure (SCM) Description

SCM#: 2023-00024-07

1. Performance Requirement Addressed *(check all that apply):*	☐ Water Quality Treatment (Performance Requirement #2)	☐ Runoff Retention (Performance Requirement #3)	☐ Peak Management (Performance Requirement #4)
2. Type of SCM Installed:	☐ Biofiltration/Bioretention ☐ Filtration Device ☐ Infiltration Basin	☐ Vegetated Swale ☐ Infiltration Feature ☐ Detention Basin	☐ Vegetated Buffer Strip ☑ Pervious Pavement ☐ Media Filter ☐ Treatment Vault

3. Location of SCM *(Complete ALL fields)*	Location: ☑ Onsite ☐ Offsite		Contributing Impervious Area (ft²): 0	
	Narrative Location Description: Pervious pavers located in northwest corner of parking lot.			
	Drainage Management Area (DMA) Number:		Drainage Area Treated (acres):	
	Latitude: 35.240663		Longitude: -120.641383	
4. Drainage Design Criteria: *(As applicable):*	Design Storm Flow (cfs):			
	Design Storm Capacity (ft³):			
5. Design Details *(As applicable):*	Width (ft²):		Slope (ft/ft):	
	Depth (ft):		SCM Capacity/Volume (ft³):	
	Length (ft):		Surface Area (ft²):	1500
	Is this SCM subsurface?	○ YES ◉ NO	SCM Vegetated?	○ YES ◉ NO
	Design Vegetation Height (ft):	0	Does this SCM involve a manufactured product?	◉ YES ○ NO
6. Manufactured Product Specifications: *(Include manuals and specifications)*	Product Name:	Air Vol Block		
	Manufacturer/Model Number:	Permeable Roman Pavers		
	Total Number Installed Onsite:	1500 SF		
	Estimated Product Life:	50 years		
7. Maintenance and Inspection Frequency:	Inspection Frequency:	☐ Pre-Rain ☑ Monthly ☑ Semi-Annually ☑ Annually		
	Maintenance Frequency:	☐ Monthly ☐ Semi-Annually ☑ Annually ☑ Biennially		

Page ☐ of ☐

SWP-1008
06/01/2024

Private Stormwater System Plans and Manuals

Vegetated Stormwater Control Measures Maintenance Information

Structural Control Measure (SCM) Maintenance Details	Assigned SCM#: 2023-00024-01, 2023-00024-05
	SCM Feature Type: ☐ Biofiltration Feature ☐ Bioretention Feature ☑ Vegetated Swale ☐ Vegetated Buffer Strip
Does the feature utilize vegetation or specialized soil media? ☑ YES ☐ NO	Contact for vendor who can provide replacement plants or soil media: Landscape Vendor
Estimated annual cost for maintenance: $750	
List vegetation species and soil media type originally installed: Biofiltration Soil Media (BSM) consisting of 60-70% sand and 30-40% compost. For planting schedule and species see Civil or Landscape Plans. Basin vegetation include the following: Iris Douglasiana, Juncus Patens, and Carex Passa.	
Describe short-term maintenance requirements (irrigation schedule, weed control, vegetation height, etc.): Trash removal, weed control, and removal of debris.	
Describe long-term maintenance requirements (litter removal, inlet/outlet maintenance, etc.): Trash removal, BSM replacement, plant replacement, energy dissipater rock replacement, and outlet structure cleaning.	
Contact information for local professional qualified to maintain or repair this SCM: Landscape Vendor	
Additional notes:	

SWP-1008
06/01/2024

Private Stormwater System Plans and Manuals

Vegetated Stormwater Control Measures Maintenance Information

Structural Control Measure (SCM) Maintenance Details	Assigned SCM#: 2023-00024-02, 2023-00024-03, 2023-00024-04
	SCM Feature Type: ☐ Biofiltration Feature ☑ Bioretention Feature ☐ Vegetated Swale ☐ Vegetated Buffer Strip

Does the feature utilize vegetation or specialized soil media? ☑ YES ☐ NO	Contact for vendor who can provide replacement plants or soil media: Landscape Vendor

Estimated annual cost for maintenance:
$750

List vegetation species and soil media type originally installed:
Biofiltration Soil Media (BSM) consisting of 60-70% sand and 30-40% compost.
For planting schedule and species see Civil or Landscape Plans.
Basin vegetation include the following: Iris Douglasiana, Juncus Patens, and Carex Passa.

Describe short-term maintenance requirements (irrigation schedule, weed control, vegetation height, etc.):
Trash removal, weed control, and removal of debris.

Describe long-term maintenance requirements (litter removal, inlet/outlet maintenance, etc.):
Trash removal, BSM replacement, plant replacement, energy dissipater rock replacement, and outlet structure cleaning.

Contact information for local professional qualified to maintain or repair this SCM:
Landscape Vendor

Additional notes:

SWP-1008
06/01/2024

Private Stormwater System Plans and Manuals

Subsurface Stormwater Control Measure Maintenance Information

Structural Control Measure (SCM) Maintenance Details	Assigned SCM#: 2023-00024-06 **SCM Feature Type:** ☐ Media Filter ☐ Treatment Vault ☐ Detention Basin ☑ Infiltration Feature/Basin/Chamber
Does the SCM include a proprietary device/structure? ☑ YES ☐ NO	Contact for vendor who can provide replacement parts or maintenance instructions: ADS 1-800-821-6710
Describe short-term maintenance requirements (frequency of replacement or inspection): Removal of trash, sediment, and other debris.	
Estimated annual cost for maintenance: $1000	
Describe long-term maintenance requirements: Removal of trash, sediment, and other debris. Video inspection and vacuum sediments out of chambers.	
Contact information for local professional qualified to maintain or repair this SCM: Local Vacuum/pump company.	
Additional notes:	

SWP-1008
06/01/2024

Private Stormwater System Plans and Manuals

Porous Pavement and Catch Basin Insert Maintenance Information

Structural Control Measure (SCM) Maintenance Details	Assigned SCM#: 2023-00024-07 **SCM Feature Type:** ☐ Porous Concrete ☑ Pervious Pavers
Does the SCM include a proprietary device/structure? ☑ YES ☐ NO	Contact for vendor who can provide replacement parts or maintenance instructions: Air Vol Block Inc
Describe short-term maintenance requirements (frequency of filter replacement or inspection): Remove trash and other debris that impedes stormwater infiltration. Replace media between pavers as needed.	
Estimated annual cost for maintenance: $200	
Describe long-term maintenance requirements: Removal of trash, sediment, and other debris. Sweep and vacuum sediments.	
Contact information for local professional qualified to maintain or repair this SCM: Local Sweep/Vacuum company.	
Additional notes:	

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

SWP-1003
06/08/2017

Private Stormwater System Owner, Agent, & Designer Information

2023-00024	*CBLD2023-12345*
Condition Compliance Monitoring (CCM) Case Number (CCM20##-#####)	Building Permit Number (PMT20##-#####)
123 Main Street, Anytown, CA	
Project Address	

SYSTEM OWNER:

General Land Development Company, Jane Doe	
Current Property Owner *(Include name of primary contact)*	
1234 Washington Street	
Street Address	
Anytown	CA
City	**State**
55555	(555) 123-4567
Zip Code	**Phone Number**
Jane@email.com	
Owner Email:	

SYSTEM DESIGNER:

General Civil Engineering Consultants, Inc., John Doe	
Designer Name and Affiliation	
PE 12345	
Designer License Number and Type	
1234 Washington Street	
Street Address	
Anytown	CA
City	**State**
55555	555-123-4567
Zip Code	**Phone Number**
John@emal.com	
Designer Email:	

SWP-1003
06/08/2017

Private Stormwater System Owner, Agent, & Designer Information

2023-00024	*CBLD2023-12345*
Condition Compliance Monitoring (CCM) Case Number (CCM20##-#####)	Building Permit Number (PMT20##-#####)

123 Main Street, Anytown, CA
Project Address

PROJECT AGENT (if applicable):

Cool Consultng, Joe Cool
Agent Name and Affiliation
(Include name of primary contact)

990 Palm Street
Street Address

San Luis Obispo	CA
City	**State**
93401	(555) 555-5555
Zip Code	**Phone Number**

JC@cool.com
Agent Email:

COORDINATING COUNTY REPRESENTATIVE:

Stormwater Program Manger
County Representative *(Printed Name)*

Stormwater Program Manager, Department of Planning and Building
County Representative Title

stormwater.scm@co.slo.ca.us	(805) 781-5602
Email	**Phone**