
Stormwater Control Plan

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Cambria Skate Park

1043 Main Street

Cambria, CA

3/6/2025



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This Stormwater Control Plan was prepared using the template dated April 2018.

Project Data

Table 1: Project Data

| | |
|--|--|
| Project Name/Number | Cambria Skate Park |
| Application Submittal Date | |
| Project Location | 1043 Main Street, Cambria, CA 93428 |
| Project Phase No. | N/A |
| Project Type and Description | Recreational – Skate park |
| Total Disturbed Area (acres) | 0.50 ac |
| Total New Impervious Surface Area | Onsite: 0.08 ac (3,700 ft ²) Main Street: 0.07 ac (3,400 ft ²) |
| Total Replaced Impervious Surface Area | Onsite: 0.12 ac (5,000 ft ²) Main Street: 0.05 ac (2,100 ft ²) |
| Total Pre-Project Impervious Surface Area | Onsite: 0.12 ac (5,000 ft ²) Main Street: 0.05 ac (2,100 ft ²) |
| Total Post-Project Impervious Surface Area | Onsite: 0.20 ac (8,700 ft ²) Main Street: 0.12 ac (5,500 ft ²) |
| Net Impervious Area | Onsite: 0.20 ac (8,700 ft ²) Main Street: 0.12 ac (5,500 ft ²) Total: 0.33 ac (14,200 ft ²) |
| Watershed Management Zone(s) | WMZ 1 |
| Design Storm Frequency and Depth | 85th |
| Drainage Report Name | N/A |

Setting

Project Location and Description

The proposed project is a skate park located on Main Street in Cambria, CA in San Luis Obispo County. The proposed project consists of the following: parking lot, skate park, public restroom, drainage swale, and drainage basin.



Figure 1: Vicinity Map

Existing Site Features and Conditions

The existing site is a 1.4 acre lot with a small flat area and steep slopes. There is an existing paved asphalt area from the old skate park. The site sits northeast of the intersection of Cambria Drive and Main Street, next to the Cambria Public Library. A small amount of run-on is received from the slope and houses above the property. This run-on will be intercepted by a swale above the skate park and routed to the onsite basin. Therefore, the basin has been sized appropriately to handle this runoff. The tributary area is approximately 67,000 sq ft with existing impervious area of 9,200 sq ft, which includes Hartford St, a public street tributary to this project.

Opportunities and Constraints for Stormwater Control

Opportunities: The site has a small level area that can be used for an onsite basin.

Constraints: The slopes on the existing site are extremely steep.

Low Impact Development Design Strategies

Optimization of Site Layout

Limitation of development envelope

The site disturbance for the project has been limited to 0.5 acres of the 1.4 acre property.

Preservation of natural drainage features

The project as proposed will not impede upon any drainage ditches, creeks, or other drainage features.

Setbacks from creeks, wetlands, and riparian habitats

The hardscape improvements will not disturb any nearby creeks, wetlands, or riparian habitats.

Minimization of imperviousness

The project as proposed will minimize the amount of impervious area throughout the site.

Use of drainage as a design element

The project will incorporate a basin to encourage stormwater infiltration and mitigate runoff.

Use of Permeable Pavements

This site will not utilize permeable pavers or permeable pavements.

Dispersal of Runoff to Pervious Areas

Runoff from impervious areas will be directed to an onsite drainage basin.

Stormwater Control Measures

An infiltration basin will be constructed north of the proposed skate park. The basin has the appropriate capacity to satisfy, state and county requirements. When the basins capacity is reached, overflow drainage will follow the historic drainage path along Main Street.

Documentation of Drainage Design

Drainage Management Area Characterization

The DMA numbers below correspond with DMA numbers of the DMA exhibit. DMAs listed include all impervious surfaces and all vegetated areas except those designated as structural control measures (SCMs).

Pervious areas are further categorized as either self-treating or self-retaining areas.

- Areas designated as self-treating areas are undisturbed areas, or areas planted with native, drought-tolerant, or LID-appropriate vegetation and do not receive runoff from this projects disturbed areas.
- Areas designated as self-retaining are low-lying areas that receive runoff from adjoining areas. Self retaining areas may have natural vegetation, or be landscape, or may be porous pavements (where the soils underlying the porous pavements drain well enough to handle the additional run-on).

Table 2: Table of Drainage Management Areas, excluding SCM areas

| DMA ID | Surface Type & Description | Area (sf) | Drains to (Provide DMA or SCM DMA ID) | | | Notable or exception characteristics or conditions |
|--------|----------------------------|-----------|--|----------------|-----|--|
| | | | Self - Treating | Self Retaining | SCM | |
| DMA 1 | New Improvements | 19,000 | | | X | |
| DMA 2 | Tributary Area | 67,000 | | | X | Uphill of skate park |
| SCM 1 | Basin | 750 | | X | | |

Areas within the site that are dedicated to biofiltration treatment system or direct infiltration are summarized below. Direct infiltration includes dry wells, infiltration trenches and infiltration basins.

Table 3: Table of Runoff Reduction and Structural Control Measures

| DMA ID | SCM | SCM Type | Water Quality Volume Required (CF) | Water Quality Volume Provided (CF) |
|--------|-------|--------------------|------------------------------------|------------------------------------|
| DMA 1 | SCM 1 | Infiltration Basin | 1604 | 1680 |

Sizing Calculations

Per the 2017 San Luis Obispo County Post Construction Handbook, “*regulated projects subject to PR2 must treat a defined minimum volume*”. Per Table 3-8 (page 3-16) the applicable rainfall event (design storm) for projects using the “Volume Hydraulic Design Basis” is an 85th percentile event. Therefore, the retention basin system will be sized for the 85th percentile 24-hr rainfall depth outlined in Appendix C (page C-2) of the 2017 County of San Luis Obispo County Post Construction Handbook. Supporting documentation for 85th percentile 24- hour rainfall depth, and C-value determination can be found at the end of this report.

DMA 1 Sizing Calculations:

- New Improvements, A = 19,000 ft²
- Runoff Coefficient, C = 0.54
- Rainfall Depth (85th percentile), R⁸⁵ = 1.0 inches

Utilizing the equation to calculate retention volume for the 85th percentile 24-hr rainfall depth outlined in the 2017 County of San Luis Obispo County Post Construction Handbook, the required retention volume for this project is:

$$V = A (ft^2) * C * R^{85}(ft)$$
$$V = 19,000ft^2 * 0.54 * 1.0 \text{ inches} * \frac{1 \text{ ft}}{12 \text{ inches}} = 857 \text{ ft}^3$$

DMA 2 Sizing Calculations:

- Tributary Area Uphill of Park, A = 67,000 ft²
- Runoff Coefficient, C = 0.13
- Rainfall Depth (85th percentile), R⁸⁵ = 1.0 inches

Utilizing the equation to calculate retention volume for the 85th percentile 24-hr rainfall depth outlined in the 2017 County of San Luis Obispo County Post Construction Handbook, the required retention volume for this project is:

$$V = A (ft^2) * C * R^{85}(ft)$$
$$V = 67,000ft^2 * 0.13 * 1.0 \text{ inches} * \frac{1 \text{ ft}}{12 \text{ inches}} = 747 \text{ ft}^3$$

Therefore, DMA 1 and 2 required volume is 747+857 = **1604 cubic feet**

Basin Volume Calculations:

The site will utilize a deep retention/infiltration basin. In storms larger than the design storm, runoff will route through the basin and will overflow into the historic drainage path. Basin volume has been calculated by averaging the area of each foot of depth in the basin. In addition, the basin volume has also been verified by creating a volume surface in Civil 3D.

Basin bottom elevation = 23

Basin top elevation = 28

| Elevation | Area, sq ft | Depth, ft | Volume, cu ft |
|---------------|-------------|-----------|---------------|
| 23.5 | 77 | 1 | 77 |
| 24.5 | 175 | 1 | 175 |
| 25.5 | 305 | 1 | 305 |
| 26.5 | 466 | 1 | 466 |
| 27.5 | 654 | 1 | 654 |
| Total: | | | 1677 |

The basin would be sufficiently sized as a 4' deep basin. However, to provide a conservative design, a 5' deep basin will be proposed with a volume of **1,680 cubic feet**

Source Control Measures

Site activities and potential sources of pollutants

Table 4: Source Control Table

| Potential Pollutant Source | Sediment/ Litter/ Debris | Nutrients / Organic Matter | Bacteria | Hydro-carbons | Toxics, Chemical s/ Paint | Other | Source Control BMP Proposed |
|--------------------------------|--------------------------|----------------------------|----------|---------------|---------------------------|-------|---|
| Pets | | X | X | | | | Good Housekeeping/ illicit discharge control, waste handling and disposal |
| Vehicles | X | | | X | | | Spill Prevention/ control and cleanup, parking and storage area maintenance |
| Driveways/ Roads/ Parking Lots | X | | | X | X | | Spill Prevention/ control and cleanup, parking and storage area maintenance |
| Landscaped Areas | X | X | | | | | Landscape maintenance, waste handling and disposal, |

Stormwater Facility Maintenance

Ownership and Responsibility for Maintenance in Perpetuity

The property owner 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 on-site storm drainage for the project as stipulated in the plans.

Summary of Maintenance Requirements for Each Stormwater Facility

The property owner is solely responsible for the maintenance and monitoring of onsite stormwater measures. Annually, the property owner shall complete a self-inspection of onsite stormwater control measures.

Construction Checklist

Table 5: Construction Checklist

| SWCP Page No. | SCMs | Plan Sheet No. | SCM Detail No. |
|---------------|--------------------|----------------|----------------|
| | Infiltration Basin | | |

Certifications

The design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the Post-Construction Stormwater Management Resolution R3-2013-0032 and the current edition of the County's LID Handbook.

Supporting Documentation

Runoff Coefficients

Runoff Coefficient, $C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$

Where $i = \frac{\text{net impervious area}}{\text{tributary area}}$

DMA 1 (new improvements) this includes the skate park and frontage improvements.

Where $i = \frac{\text{net impervious area}}{\text{tributary area}} = \frac{14,200 \text{ ft}^2}{19,000 \text{ ft}^2} = 0.75$

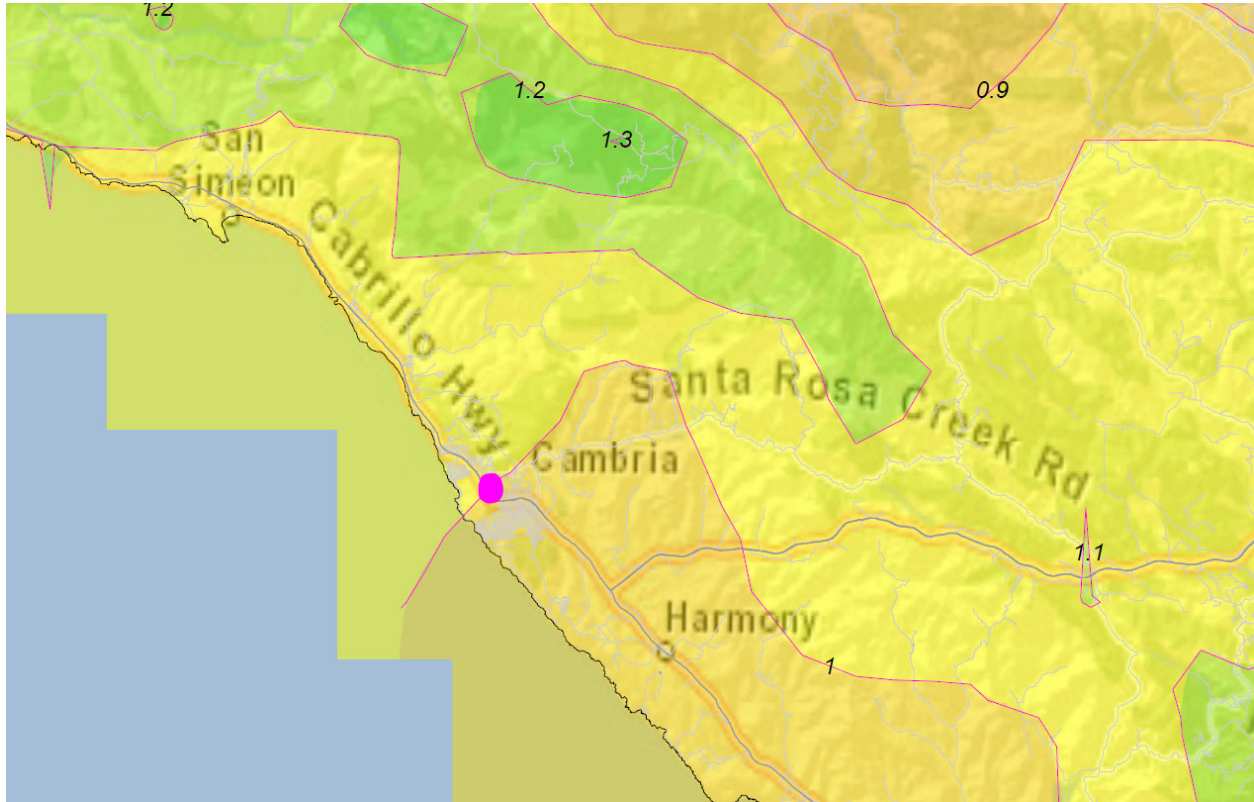
Therefore, $C = 0.858(.75^3) - 0.78(.75^2) + 0.774(.75) + 0.04 = 0.54$

DMA 2 (tributary area) this includes the area uphill of the park which will be intercepted by the new swale.

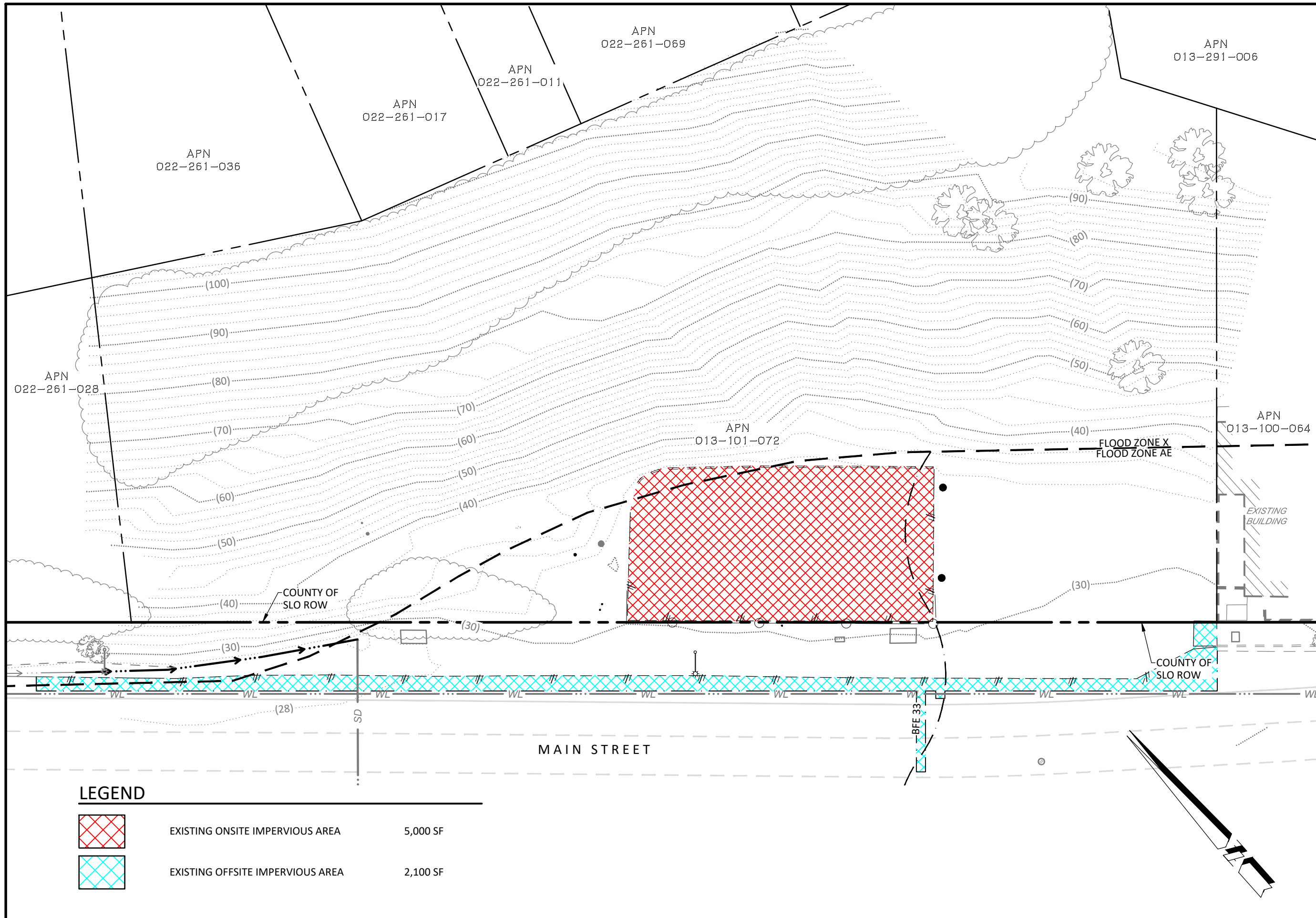
Where $i = \frac{\text{net impervious area}}{\text{tributary area}} = \frac{9,200 \text{ ft}^2}{67,000 \text{ ft}^2} = 0.14$

Therefore, $C = 0.858(.14^3) - 0.78(.14^2) + 0.774(.14) + 0.04 = 0.13$

85th Percentile 24-hr Rainfall Depth



Existing Impervious Area Exhibit



CIVIL DESIGN STUDIO
 CIVIL ENGINEERING | PLANNING | PERMITTING
 P.O. Box 199 Cambria Ca 93428
 805.706.0401 www.civil-studio.com

CAMBRIA SKATE PARK



PROJECT LOCATION:
 MAIN STREET
 CAMBRIA, CA 93428
 APN: 013-101-072

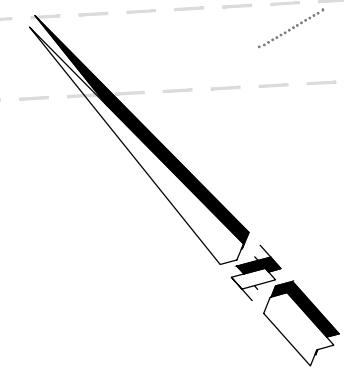
PROJECT OWNER:
 CAMBRIA COMMUNITY SERVICES DISTRICT
 1316 TAMSON DRIVE, SUITE 201
 CAMBRIA, CA 93428

REVIEWED BY: MRS
 PREPARED BY: JTI
 DATE: 3/7/25
 SCALE: 1" = 30'
 CDS JOB #: 22-011

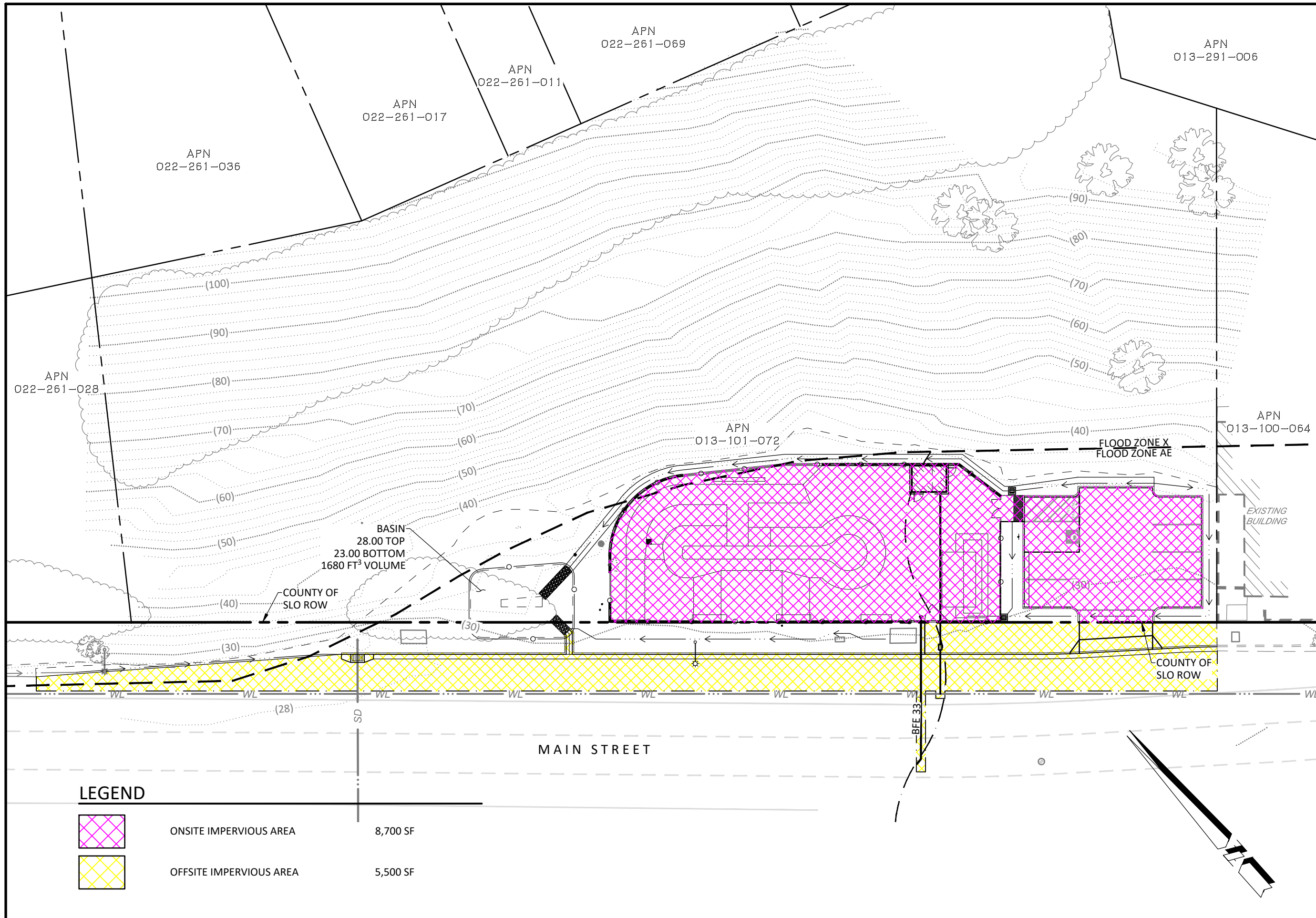
EXISTING IMPERVIOUS AREA EXHIBIT
 SHEET 1 OF 1 SHEETS

LEGEND

-  EXISTING ONSITE IMPERVIOUS AREA 5,000 SF
-  EXISTING OFFSITE IMPERVIOUS AREA 2,100 SF



Net Impervious Area Exhibit



LEGEND

| | | |
|--|-------------------------|----------|
| | ONSITE IMPERVIOUS AREA | 8,700 SF |
| | OFFSITE IMPERVIOUS AREA | 5,500 SF |

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CAMBRIA SKATE PARK

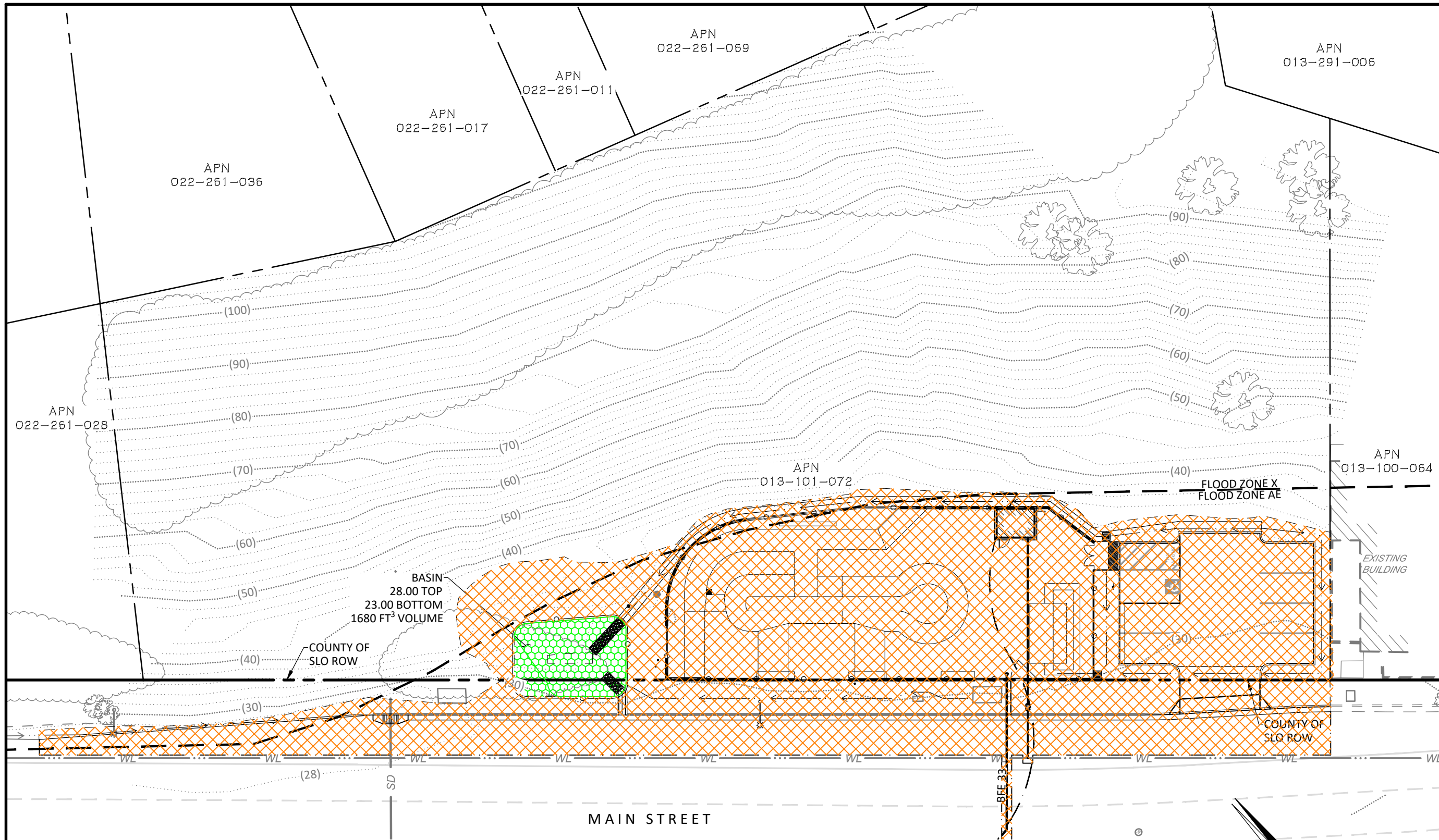
PROJECT LOCATION:
 MAIN STREET
 CAMBRIA, CA 93428
 APN: 013-101-072

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 CAMBRIA COMMUNITY SERVICES DISTRICT
 1316 TAMSON DRIVE, SUITE 201
 CAMBRIA, CA 93428

| | |
|--------------|----------|
| REVIEWED BY: | MRS |
| PREPARED BY: | JTI |
| DATE: | 3/7/25 |
| SCALE: | 1" = 30' |
| CDS JOB #: | 22-011 |

NET IMPERVIOUS AREA EXHIBIT
 SHEET 1 OF 1 SHEETS

Drainage Management Exhibit



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CAMBRIA SKATE PARK



PROJECT LOCATION:
 MAIN STREET
 CAMBRIA, CA 93428
 APN: 013-101-072

PROJECT OWNER:
 CAMBRIA COMMUNITY SERVICES DISTRICT
 1316 TAMSON DRIVE, SUITE 201
 CAMBRIA, CA 93428

| | |
|--------------|----------|
| REVIEWED BY: | MRS |
| PREPARED BY: | JTI |
| DATE: | 3/7/25 |
| SCALE: | 1" = 30' |
| CDS JOB #: | 22-011 |

DMA EXHIBIT

LEGEND

| | | |
|---|-------|-----------|
|  | DMA 1 | 19,000 SF |
|  | SCM 1 | 750 SF |

DMA 2 NOTE:
 DMA 2 IS NOT SHOWN ON THIS MAP. HOWEVER, THE AREAS UTILIZED IN THE CALCULATION FOR DMA 2 HAVE BEEN MEASURED UTILIZING CURRENT SATELLITE IMAGES. THE AREAS UTILIZED IN THE CALCULATION ARE 67,000 SQ FT OF TOTAL TRIBUTARY AREA WITH APPROXIMATELY 9,200 SQ FT OF EXISTING IMPERVIOUS AREA.

BASIN
 28.00 TOP
 23.00 BOTTOM
 1680 FT³ VOLUME

COUNTY OF SLO ROW

FLOOD ZONE X
 FLOOD ZONE AE

EXISTING BUILDING

COUNTY OF SLO ROW

MAIN STREET

BEE 33

APN 022-261-028

APN 022-261-036

APN 022-261-017

APN 022-261-011

APN 022-261-069

APN 013-291-006

APN 013-101-072

APN 013-100-064

(100)

(90)

(80)

(70)

(60)

(50)

(40)

(30)

(28)

(70)

(60)

(50)

(40)

(30)

(90)

(80)

(70)

(60)

(50)

(40)

(30)