CALIFORNIA COASTAL COMMISSION 455 MARKET STREET, SUITE 300 SAN FRANCISCO, CA 94105 PHONE: (415) 904-5260 FAX (415) 904-5400 WEB: WWW.COASTAL.CA.GOV



A-2-PAC-20-0073 (San Pedro Valley LLC Mixed Use) OCTOBER 15, 2021

EXHIBITS

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1300 DANMANN AVENUE– PROJECT LOCATION MAP City of Pacifica, San Mateo County



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1300 DANMANN AVENUE– SITE PHOTOS City of Pacifica, San Mateo County



Project site as seen looking west from Danmann Avenue.



Project site is on the left of Danmann Avenue, with Pacific Ocean to the North.

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Scenic Pacifica Incorporated Nov. 22, 1957

CITY OF PACIFICA

Planning, Building, and Code Enforcement 1800 Francisco Blvd. • Pacifica, California 94044-2506 (650) 738-7341 • www.cityofpacifica.org MAYOR Deirdre Martin

MAYOR PRO TEM Sue Beckmeyer

> **COUNCIL** Sue Vaterlaus Mary Bier Mike O'Neill

NOTICE OF FINAL LOCAL ACTION

California Coastal Commission Attn: Stephanie Rexing, District Supervisor Attn: Julia Koppman Norton 455 Market Street, Suite 228 San Francisco, CA 94105 November 18, 2020

VIA CERTIFIED MAIL

RE: Coastal Development Permit CDP-409-19; 1300 Danmann (APNs 023-013-010 & 023-013-020)

Pursuant to Coastal Act Section 30603(d), Coastal Commission Regulations Section 13571, and Pacifica Municipal Code Section 9-4.4304(n), this notice will serve to confirm that the City of Pacifica approved the above-referenced Coastal Development Permit, and to furnish the following additional information:

APPLICANT NAME/ADDRESS: San Pedro Valley, LLC, 900 Rosita Road, Pacifica, CA 94044

PROJECT DESCRIPTION: Construction of a two-story mixed-use building (known as 1300 Danmann) consisting of 2,292 sf of ground floor commercial space and four residential apartments above with covered parking on a 14,551 sf site in Pacifica.

DECISION: The subject permit was approved by the City Council of the City of Pacifica on November 9, 2020, based on the required findings contained and adopted in the resolution of approval.

APPEAL PROCEDURES: The appeals process may involve the following:

- □ The local appeal period ended on _____, and no appeal was filed; or,
- The permit was appealed to and decided by the City Council, exhausting the local appeals process.
- **STATE** In the project IS within the Appeals Zone and the permit IS appealable to the State of California Coastal Commission if the appeal is made in writing to the Coastal Commission prior to the close of business on the 10th working day from the date of receipt of this notice by the Executive Director of the Commission. For additional information, contact the California Coastal Commission, 455 Market Street, Suite 228, San Francisco, CA 94105, (415) 904-5260; or,
 - □ The project is NOT in the Appeals Zone and the permit is NOT appealable to the Coastal Commission.

Additional information may be obtained by contacting the Pacifica Planning Department at 1800 Francisco Boulevard, Pacifica, CA 94044, (650) 738-7341, or permittech@ci.pacifica.ca.us.

Wermer

Tina Wehrmeister Planning Director

IOCAL

Attachments: 🛛 Resolution of Approval with conditions 🖾 Staff Report(s) 🖾 Meeting Minutes 🖾 Project Plans

A-2-PAC-20-0073 Exhibit 3 Page 1 of 1

CALIFORNIA COASTAL COMMISSION NORTH CENTRAL COAST DISTRICT OFFICE 455 MARKET ST., SUITE 228 SAN FRANCISCO, CA 94105-2420

(415) 904-5260 NORTHCENTRALCOAST@COASTAL.CA.GOV



APPEAL FORM

Appeal of Local Government Coastal Development Permit

Filing Information (STAFF ONLY)

District Office: North Central Coast

Appeal Number: _____

Date Filed: _____

Appellant Name(s): _____

APPELLANTS

IMPORTANT. Before you complete and submit this appeal form to appeal a coastal development permit (CDP) decision of a local government with a certified local coastal program (LCP) to the California Coastal Commission, please review the appeal information sheet. The appeal information sheet describes who is eligible to appeal what types of local government CDP decisions, the proper grounds for appeal, and the procedures for submitting such appeals to the Commission law, including regulations. Appeals that do not conform may not be accepted. If you have any questions about any aspect of the appeal process, please contact staff in the Commission district office with jurisdiction over the area in question (see the Commission's contact page at https://coastal.ca.gov/contact/#/).

Note regarding emailed appeals. Please note that emailed appeals are accepted ONLY at the general email address for the Coastal Commission district office with jurisdiction over the local government in question. For the North Central Coast district office, the email address is <u>NorthCentralCoast@coastal.ca.gov</u>. An appeal emailed to some other email address, including a different district's general email address or a staff email address, will be rejected. It is the appellant's responsibility to use the correct email address, and appellants are encouraged to contact Commission staff with any questions. For more information, see the Commission's <u>contact page</u> at https://coastal.ca.gov/contact/#/).

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1. Appellant information1

Name:	Cherie Chan
Mailing address	324 San Pedro Avenue
Phone number:	(510) 703-37/18
Email address:	chan.cherie@gmail.com
How did you pa	rticipate in the local CDP application and decision-making process?
Did not partic	ipate 🖌 Submitted comment 🖌 Testified at hearing
Describe: I su	ubmitted written comments before the Pacifica Planning Commission,
bef	ore the City Council Meeting, and testified at the City Council meeting.
please identify	articipate in the local CDP application and decision-making process, why you should be allowed to appeal anyway (e.g., if you did not ause you were not properly noticed).
Describe:	
why you should	how you exhausted all LCP CDP appeal processes or otherwise identify be allowed to appeal (e.g., if the local government did not follow proper I hearing procedures, or it charges a fee for local appellate CDP
Describe: I su	ubmitted written comments before the Pacifica Planning Commission,
	ore the City Council Meeting, and testified at the City Council meeting.
l c	ontributed to a neighbor's City Council Appeal.
Th	e City of Pacifica also charges a \$500 appeal fee.

¹ If there are multiple appellants, each appellant must provide their own contact and participation information. Please attach additional sheets as necessary.

2. Local CDP decision being appealed₂

Local government name:	City of Pacifica	
Local government approval body:	City Council	
Local government CDP application number:	CDP-409-19	
Local government CDP decision:	CDP approval	CDP denial₃
Date of local government CDP decision:	2020-11-09	

Please identify the location and description of the development that was approved or denied by the local government.

Describe:	APN 016-011-190, CCC ID# 2-PAC-19-1022
	1300 DANMANN AVENUE, PACIFICA, CA
	Construction Of A New Mixed Use
	Building With Approximately 2,292 Sf of
	Commercial Space At the Ground Floor,
	and (4) Residential Units ((2) 2-Bedroom
	Units And (2) 1-Bedroom Units) At The
	Second Level.

² Attach additional sheets as necessary to fully describe the local government CDP decision, including a description of the development that was the subject of the CDP application and decision.

³ Very few local CDP denials are appealable, and those that are also require submittal of an appeal fee. Please see the <u>appeal information sheet</u> for more information.

3. Identification of interested persons

On a separate page, please provide the names and contact information (i.e., mailing and email addresses) of all persons whom you know to be interested in the local CDP decision and/or the approved or denied development (e.g., the applicant, other persons who participated in the local CDP application and decision making process, etc.), and check this box to acknowledge that you have done so.

Interested persons identified and provided on a separate attached sheet

4. Grounds for this appeal⁴

For appeals of a CDP approval, grounds for appeal are limited to allegations that the approved development does not conform to the LCP or to Coastal Act public access provisions. For appeals of a CDP denial, grounds for appeal are limited to allegations that the development conforms to the LCP and to Coastal Act public access provisions. Please clearly identify the ways in which the development meets or doesn't meet, as applicable, the LCP and Coastal Act provisions, with citations to specific provisions as much as possible. Appellants are encouraged to be concise, and to arrange their appeals by topic area and by individual policies.

Describe:	See also Appea	I to City of Pacifica	CDP-413-19 for
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277 Kent filed by Allison West.

See Attached docs:

A-2020-12-08_Danmann_Pacifica_Coastal_Appeal

B-2020.11.22.Drury_GeneralPlan.pdf

C-Interested Parties.xlsx

⁴ Attach additional sheets as necessary to fully describe the grounds for appeal.

5. Appellant certifications

I attest that to the best of my knowledge, all information and facts in this appeal are correct and complete.

Print name	Cherie	Chan
------------	--------	------

Cherie Chan

Signature

Date of Signature _____

5. Representative authorization₆

While not required, you may identify others to represent you in the appeal process. If you do, they must have the power to bind you in all matters concerning the appeal. To do so, please complete the representative authorization form below and check this box to acknowledge that you have done so.

I have authorized a representative, and I have provided authorization for them on the representative authorization form attached.

5 If there are multiple appellants, each appellant must provide their own certification. Please attach additional sheets as necessary.

6 If there are multiple appellants, each appellant must provide their own representative authorization form to identify others who represent them. Please attach additional sheets as necessary.

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CALIFORNIA COASTAL COMMISSION 45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE (415) 904-5200 FAX (415) 904-5400



DISCLOSURE OF REPRESENTATIVES

If you intend to have anyone communicate on your behalf to the California Coastal Commission, individual Commissioners, and/or Commission staff regarding your coastal development permit (CDP) application (including if your project has been appealed to the Commission from a local government decision) or your appeal, then you are required to identify the name and contact information for all such persons prior to any such communication occurring (see Public Resources Code, Section 30319). The law provides that failure to comply with this disclosure requirement prior to the time that a communication occurs is a misdemeanor that is punishable by a fine or imprisonment and may lead to denial of an application or rejection of an appeal.

To meet this important disclosure requirement, please list below all representatives who will communicate on your behalf or on the behalf of your business and submit the list to the appropriate Commission office. This list could include a wide variety of people such as attorneys, architects, biologists, engineers, etc. If you identify more than one such representative, please identify a lead representative for ease of coordination and communication. You must submit an updated list anytime your list of representatives changes. You must submit the disclosure list before any communication by your representative to the Commission or staff occurs.

Your Name

CDP Application or Appeal Number _____

Name	
Title	
Street Address.	
City	
State, Zip	
Email Address	
Daytime Phone	

Your Signature

Date of Signature _____

Additional Representatives (as necessary)

Name
Title
Street Address.
City
State, Zip
Email Address
Daytime Phone
Name
Street Address.
Спу
State, ZIP
Email Address
Daytime Phone
N I
I Itie
Street Address
Street Address
Street Address City State, Zip
State, Zip
Street Address City State, Zip
Title Street Address. City State, Zip Email Address Daytime Phone
Title Street Address. City State, Zip Email Address Daytime Phone Name Title
Inte Street Address. City State, Zip Email Address Daytime Phone Name Title
Street Address. City State, Zip Email Address Daytime Phone Name Title Street Address.
Inte Street Address. City State, Zip Email Address Daytime Phone Name Title Street Address. City
Inte Street Address. City State, Zip Email Address Daytime Phone Intel Name Title Street Address. City Street Address. City Street Address. Email Address. City State, Zip Email Address.
Inte Street Address. City State, Zip Email Address Daytime Phone Name Title Street Address. City

Your Signature_____

Date of Signature _____

December 8, 2020

California Coastal Commission North Central Coast District Office 45 Fremont Street, Suite 2000 San Francisco, CA 94105-2219

Re: Appeal of Pacifica City Council Decision of November 9, 2020 CDP-409-19 at 1300 Danmann (APN 016-011-190) CCC ID# 2-PAC-19-1022

Dear Commission Staff:

I am writing today to voice my opposition to the Pacifica City Council's decision on 11/9/20 to approve the proposed development at 1300 Danmann Blvd, and request a more thorough review by the California Coastal Commission (CCC). Based on the 1980 Local Coastal Land Use Plan (LCUP), Pacifica Hazard Policy in Pacifica's new draft LCP, California Coastal Commission (CCC) Sea Level Rise Policy Guidance,¹ and the CCC's own concerns as expressed in their letters to the applicant on March 10, 2020 and July 9, 2020, it is our contention that the limited hazard studies included in this permit for new development must include modern erosion data (not stopping at the year 2000) and Sea Level Rise projections in accordance to State guidelines. A deeper investigation and consideration into potential violations of the 1980 Local Coastal Land Use Plan must also be considered before any building is approved on this hazardous property.

The proposed development at 1300 Danmann Blvd is **inconsistent** with the existing 1980 Pacifica General Plan (GP) and LCLUP as detailed below including: **LCLUP Policy 26** (items a and b): New developments shall **minimize risk to life and property, and assure stability and structural integrity for the life of the project through** inadequate analysis and risk assessment of the project site. In addition, the applicant fails to meet the **Net Developable Area** criteria, support Coastal Recreational uses, and is inconsistent with the character of the neighborhood as described in the General Plan.

This appeal provides an analysis researched and compiled by local community members and scientific professionals, including the appellant, with decades of observational experience at this location. There are numerous inconsistencies with the LCP/GP and substantial concerns for safety of life and property under the current proposal at this highly problematic coastal site.

We request that the CCC deny CDP-409-19 based on the inconsistencies with the 1980 GP and LCLUP policy 26, Policies 7,8,9 regarding the protection of Coastal Recreational Reservation, and Neighborhood Fit. along with the inadequate evaluation of a documented hazard zone in the 1980 GP. In addition, we ask the CCC to consider this permit on a different basis: California law is clear – a land use action such as approval of a development permit that is not consistent with a city's current general plan, the charter for development, is invalid at the time it is passed. The **general**

¹California Coastal Commission Sea Level Rise Policy Guidance. Chapter 6: Addressing Sea Level Rise in Coastal Development Permits.

 $https://documents.coastal.ca.gov/assets/slr/guidance/August2015/6_Ch6_Adopted_Sea_Level_Rise_Policy_Guidance.pdf$

plan must be adequate as a prerequisite to undertaking a land use approval. This is because for consistency to be found the city's general plan must be legally adequate. As noted in the attached letter, the City erred in approving projects in vulnerable areas because the City's forty-year-old 1980 General Plan ("General Plan") is legally inadequate, fatally out of date, and fatally inconsistent. These legal deficiencies are directly relevant to the proposed Project. Until the General Plan is updated to comply with legal requirements, the City did not have the authority to approve the project.

Analysis

Policy 26, Part (a) – Risk to Life and Property and Coastal Hazard and (b) Assure stability and Structural Integrity

Parts (a) and (b) in policy 26 of the 1980 Pacifica LCP and Coastal Act Section 30253 (Minimization of adverse impacts) state:

"New development shall:

- (a) *Minimize risks to life and property* in areas of high geologic, flood and fire hazard.
- (b) Assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site- or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

This proposed new development lies in a known Coastal hazard zone according to the City's own maps; yet, the applicants fail to fulfill the basic care required to ensure the safety and sustainability of this proposed project based on modern science and data.

The Proposed Project Fails to Meet the 100-Year Design Life Requirement of the LCP

The City's LCLUP defines the required Design Life of a project to assure stability and structural integrity as "the time span during which the designer expects the development to safely exist"² for 100 years. In addition, "the City's Seismic Safety and Safety Element requires the bluff setback to be adequate to accommodate a minimum 100-year event, whether caused by seismic, geotechnical, or storm conditions."³ So, any new development must be expected to remain standing through 2122. The Applicant fails to make this Case.

The Proposed Project is in a Known Hazard Zone

According to city's own 1980 GP hazard zone maps, this property is subject to landslide hazards and therefore requires additional geotechnical evaluation. Current erosion data extrapolates that much of the development site will give way to Coastal Erosion by 2100, if not sooner,⁴ as shown in the City's own Local Coastal Land Use Plan as submitted to the CCC.

² City of Pacifica Local Coastal Land Use Plan. March 24, 1980. At page C-16.

³ City of Pacifica Local Coastal Land Use Plan. March 24, 1980. Page C-19.

⁴ City of Pacifica Local Coastal Land Use Plan Consultation Draft, Submitted September 2019.



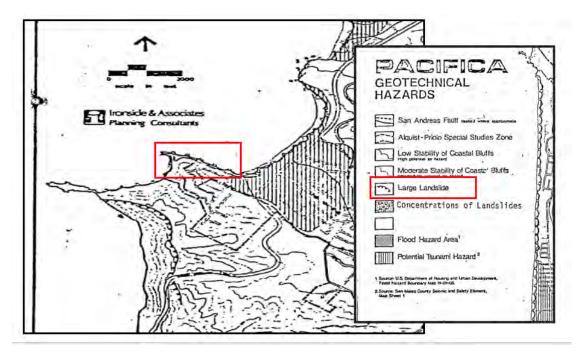
Figure 1: The City's Maps Indicate the project is within the Coastal Vulnerability Zone subject to Coastal Erosion by 2100

Note that this document has not been accepted by the CCC precisely because it continues to underplay Coastal Erosion risk, as noted in the letter from the CCC to the City below.

As the Coastal Commission has routinely stated, clear, proactive policies for addressing sea level rise are critically important. This is undoubtedly true in Pacifica where, as is identified in the City's Sea Level Rise Vulnerability Assessment (June 2018), the City is already vulnerable to storm and wave impacts. Such impacts are evidenced by the loss of blufftop residential structures in recent years... To this end, we are concerned that both the removal of some proposed policies from the first memo and the addition of new language in the second memo will result in policies that do not clearly state the need to ensure that new development and redevelopment be sited and designed to be safe from coastal hazards.⁵

The existing 1980 General Plan has also identified the area-in-question as a high-hazard zone.

⁵ Letter from Jeannine Manna, North Central Coast District Manager, California Coastal Commission, to Tina Wehrmeister, Planning Director, City of Pacifica. Subject: City of Pacifica Draft Land Use Plan (LUP) Hazard Policies. October 19, 2018.



While City Planning staff assert that the use of a site-specific geologic analysis supersedes the CCC's reliance on regional erosion studies and values,⁶ this reliance, if used, must be accompanied by a robust analysis based on current science, not by using a select subset of favorable information. Highlighting and acknowledging hazards adjacent to the development site--and thus denying a building permit on that basis--on a site which has been known to be hazardous since at least the 1980 General Plan, cannot be construed to be a taking.

The Applicant's Hired Geologist Uses Outdated Methods: 20-year-old Photos Reviewed Over 10 Years Ago

The Applicant's hired geologist asserts that "our ocean bluff retreat study has indicated that the rate of bluff retreat over the next 50 years is likely to be rather minimal, and not likely to cross Shelter Cove Road."⁷ Their primary basis in this limited study for a compulsory requirement is historic black and white photos which they *reviewed for a different project* from Oakland back in 2008—stopping at 2000--as the primary basis for their Cliff Retreat study which returns erosion rates from 0.1 to 0.35 feet per year, as opposed to other erosion estimates, which differ by an order of

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⁶ Pacifica City Council Meeting, November 09, 2020.

⁷ Geotechnical Investigation for Proposed New Mixed-Use Building. <u>Attachment H - Geotechnical Hazard</u> <u>Analysis</u>. Page 4.

magnitude. We include the entirety of their submitted analysis here:

Historic Aerial Photograph Review

We reviewed stereo-sets of historic aerial photographs in order to perform our ocean bluff retreat analysis for an adjacent lot in 2008. The black and white photographs were reviewed at the offices of Pacific Aerial Surveys in Oakland. There were no signs of slope failure on the steep bluff in the area of the subject lot, although some signs of instability were noted on the bluff about 1200 feet to the west of the subject lot.

The record includes no evidence, no documentation, and no photos: merely the hired geologist's recollection of a review back in 2008. Using these historic aerial photographs (from 1955--2000) the geologist uses this rate on a going-forward basis from 2020 through presumably 2120.

The California Coastal Commission has also noted issues with the hired geologist's analysis, stating: While the applicant's consultant, GeoForensics, reported historic erosion rates in the range of 0.1 to 0.45 ft/yr, other sources report much higher rates. The USGS average historical retreat rate is 1.5 ft/yr, and the highest historical retreat rate for this area that we have found is 2.3 ft/yr."⁸

Using this higher rate of retreat, the cliff would erode 230 feet in the next 80 years, consistent with the City's hazard map. The diagram below highlights stark differences between the Applicant's historic retreat estimates and the USGS documents.

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⁸ California Coastal Commission, Tuesday, April 28, 2020 2:45 PM.

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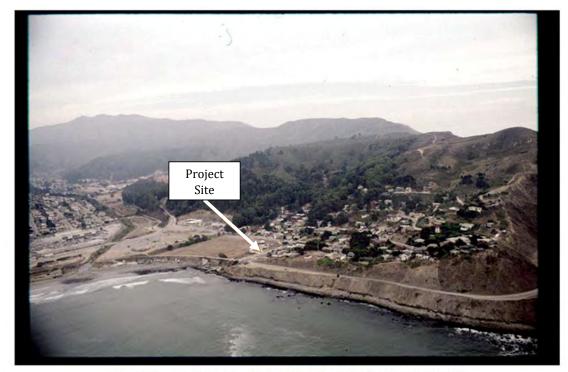


Figure 2: The Wildly Divergent Erosion Estimates between the Applicant's Erosion Estimate and the CCC's Must be Resolved

The shortcomings in the application can partially resolved [though responsibility must be on the applicant, not the appellant] by including for meaningful review, relevant, timely erosion photos and studies. Without this evidence, the applicant's claims to have seen some photos in an Oakland

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A-2-PAC-20-0073 Exhibit 4 Page 13 of 27 warehouse back in 2008 cannot be considered meaningful evidence. Instead, we provide a timeseries of photos here which contradicts the Hired Engineer's claims that the project site sits atop a stable cliff which has faced negligible erosion over the past 45 years, and is thus unlikely to result in erosion over the next 100 years.



N37 36.21 W122 30.36 Image 7927051 Wed Oct 3 14:40:00 1979 Nearest caption: Esplanade Apartments, Pacifica, now at risk from cliff erosion (at Image 7927027, 3.080 nm North) Copyright © 2004 Kenneth & Gabrielle Adelman. All rights reserved.

Figure 3: Pedro Point, 1979: Shelter Cove Road is Easily Passable around Pedro Point. Substantial Undercuts already exist. Credit: Coastal Records Project

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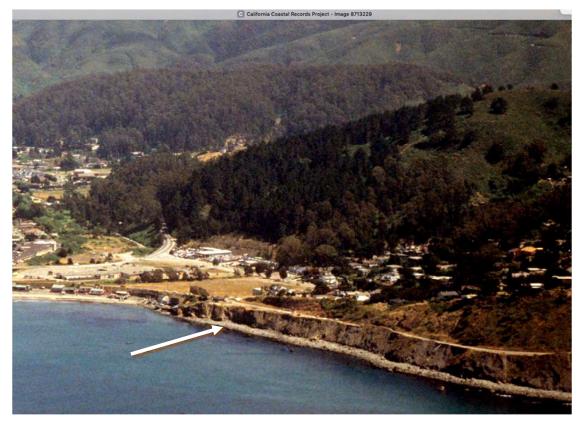


Figure 4: Pedro Point 1987: Profound In cut Develops almost directly seaward from Proposed Development Site. Credit: Coastal Records Project

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N37 36.09 W122 30.57 Image 5921 Mon Sep 30 15:31:56 2002 Ocean Shore RR depot Tobin, Pedro, San Pedro Terrace by the Sea Copyright © 2002 Kenneth & Gabrielle Adelman. All rights reserved.

Figure 5: 2002: In cut further restricts road just seaward of project site. Credit: Coastal Records Project

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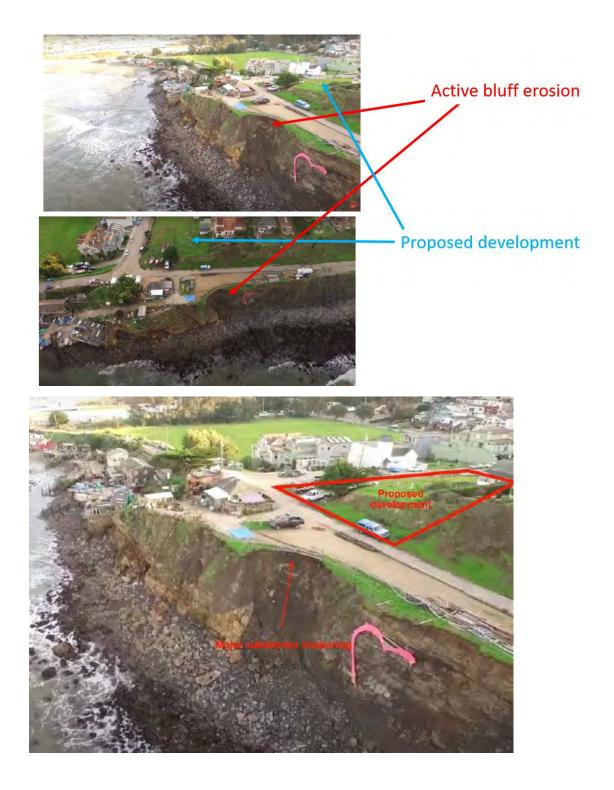


N37 35.95 W122 30.52 Image 200809428 Wed Oct 1 14:03:42 2008 Nearest caption: the Boat Docks at Pedro Point, Pacifica (at Image 200809424, 463 ft East) Copyright © 2008 Kenneth & Gabrielle Adelman. All rights reserved.

Figure 6: Pedro Point, 2008. Road is now subject to overwash and severe erosion, just 250 feet west of proposed project, not 2100 feet as claimed by Applicant Engineer. Credit: Coastal Records Project

Drone Footage from 2016 also highlights the dramatic erosion adjacent to the proposed project site, with screen shots for the record.

https://www.youtube.com/watch?v=ws85ECrni8Q&list=PLeyOP16MFrdzdrxjVKn2bSui2burxuLfh &index=7



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A-2-PAC-20-0073 Exhibit 4 Page 18 of 27 Recent photos taken by neighbors taken this year demonstrate the profound, recent, and persistent erosion taken just seaward of the project site, as shown below. This was accompanied by a letter from a concerned neighbor sent to the Planning Department.

I have personally observed the cliffside along Shoreline Dr where there is erosion activity on a regular basis with five feet of earth and fencing falling from one of the home's backyard the past two months. The bluff directly in front of this property has a concrete platform that has recently given way and is falling into the ocean and is only a few feet away from this proposed development. Additionally, there is another 10 feet of the bluff that is ready to fall into the ocean at any time now.⁹





Figure 7: Figure 7: Concrete Slab Falling into Ocean 20 feet from Proposed Development (bluff view)

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⁹ Subject: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal. Public Comments of Samuel Casillas, sent May 4th, 2020.

The Geology Study Fails to Consider Sea Level Rise

All Coastal Development Permits require that "locations currently subject to inundation, flooding, wave impacts, erosion, or saltwater intrusion will be exposed to increased risks from these coastal hazards with rising sea level and **will require review for sea level rise effects**."¹⁰

As discussed earlier, this proposed site is in a notorious Erosion Zone, as known since the 1980 Pacifica General Plan. Despite this proposed project being in a known Erosion hazard zone, the appellant's geotechnical engineer fails to include any reference, analysis, or acknowledgement of Sea Level rise, instead relying on decades-old photos, with a straight-line extrapolation (ending at 2000) into the future. It fails to consider that climate change is accelerating, and erosion will increase as sea levels rise. Worse yet, the original appellants, and several public comments pointed out climate change; yet, the City flat-out denies any consideration of Climate Change and Sea Level Rise, boldly stating."

The Appellant does not provide any evidence to substantiate the claim that there are new climate change models which are relevant to the City's review of the proposed Project.¹¹

The city's claim that it does not need to consider climate change is disingenuous at best. In this case the City is eager to deny Sea Level Rise concerns to rubberstamp a project which brings in limited short-term development in exchange for a long-term public nuisance to be dealt with at taxpayer expense. Yet, in the case of the Beach Boulevard Seawall project, which the same firm, GeoForensics, concluded:

In summary, we found that the existing sea wall is in excellent condition at this time, and should be expected to last well into the foreseeable future with appropriate maintenance."

This, of course, is the same rapidly eroding seawall that the city is now seeking grants and Public Funding to rebuild north of the pier.

In contrast, this Danmann project is not afforded the rights to erect any bluff erosion mitigation measures due to their lack of ownership of adjacent bluff properties. In this case, where public funds and grants may be

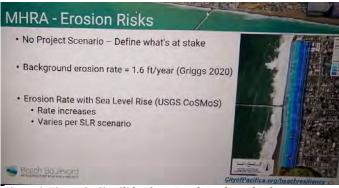


Figure 8: Figure 8: City Slides from Beach Boulevard Infrastructure Resiliency Project: Community Workshop #2. December 3rd, 2020

¹⁰ California Coastal Commission Sea Level Rise Policy Guidance. Adopted August 12, 2015. Chapter 6: Addressing Sea Level Rise in Coastal Development Permits

https://documents.coastal.ca.gov/assets/slr/guidance/August2015/6 Ch6 Adopted Sea Level Rise Policy G uidance.pdf Page 98.

¹¹ <u>Staff Report Printout</u> as posted on the Pacifica City Council Meeting Portal on November 11, 2020. <u>https://pacificacityca.iqm2.com/Citizens/Detail Meeting.aspx?ID=1334.</u>

leveraged, the City freely acknowledges a higher rate of erosion and various Sea Level Rise (SLR) scenarios.

The City Has Failed to Conduct a Peer Review of the Hired Geologists' Study.

Despite the 85 pages of opposition letters, many citing Sea Level Rise for both this property and the adjacent project at 277 Kent, the City has failed to conduct its own engineering peer review, as was conducted by Daedalus and CS for the project at 1567 Beach Blvd, also in Pacifica, which was ultimately rejected by the CCC.

LCLUP Violation: Hydrology Has Not Been Considered

The applicants also fail to document or consider the known underground spring(s) located at the southern edge of the projects in question on Kent Street near the corner of Danmann.

"As with all bluff-top sites, establishment of net developable area must be based on detailed studies of the geology and **hydrology** of individual sites given environmental conditions, including potential seismic activity.¹²

On the Southern Border of the property in question is an ongoing water source, as documented in Appendix. This water source is from active underground spring activity that is active year around. As documented in Appendix the city engineer acknowledged an active hazardous condition that was initially revealed during the city's sewer line replacement program. During the sewer replacement work an underground spring was exposed and the city spent over eight months to determine how to mitigate the active hydrology issue adjacent to the proposed development. The planning department and planning commission was made aware of this hydrology hazard during the appeal process, yet planning never requested input from the city's own engineer to understand the full scope of the potential hazard directly in front of the proposed development site.

Furthermore, just 40 yards from the border was a historic well with water tower at 1276 Danmann Ave. that served as the main water source for Pedro Point during its agricultural era.

The geotechnical engineer hired by the applicant was negligent by not conducting a boring study in the area of the hydrology activity and did so in order to avoid documenting the known hazard.

The Project Incorrectly Calculates the Net Developable Area of the Project

The LCLUP contains an explicit requirement on page C-20 that density shall be based on the "net developable" area in known hazard zones, and specifically calls out bluff-top areas, such as the project site in question. In their density maps, the applicants fail to consider the "net developable area," and instead calculate density on the total parcel size, which is explicitly barred in the certified LCLUP. Rather, the density standards considered on this parcel must be based on the realistic erosion scenarios described above, including Sea Level Rise.

Policy 7, 8, and 9: Coastal Recreational Reservation,

The proposed project violates the following three components of the Certified LCLUP.

7. Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable

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¹² City of Pacifica Local Coastal Land Use Plan. March 24. 1980. Page C-25.

future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area. (LU)

8. The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry. (H, L~) Key Fishing Area. See Pacifica Website.

9. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible. (LU)

From a human scale, the project in question lies at a critical intersection of a neighborhood's social heart and visitor-serving gathering place, historic landmark, and recreational fishing access point.

Directly to the East of the project in question is the historic Pedro Point Firehouse, at 1227 Danmann Avenue. It is the home of countless neighborhood potlucks, and weddings, and life events for the surrounding community.¹³ Adjacent and directly to the north [across the private road] perched atop the ocean is the Tobin Station:

It is one of the few 'remaining stations of the short lived Ocean Shore Railroad and is an important local historic landmark. Sited on the bluff with a sweeping view of San Pedro Beach and the Headlands and the main coast, Tobin Station should be protected as a historic landmark. The building could become a coastal overlook point and a small local railroad museum if acquired by a public agency.¹⁴

Just west of Tobin station along the private road is an access point to the well-established fishing area, which is described as an access point on page C-58 in 1980, and still highlighted in official visitor-serving Pacifica websites to date¹⁵.

6.				BLOG	PRESS ROOM	PHOTO CREDITS	CONTACT	US	ABOL	JT US
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HOME	PLACES TO STAY	FOOD & DRINK	THINGS TO DO							

¹³ https://www.pedropoint.org/history

¹⁴ LCLUP, page C-56

¹⁵ Website of the Pacifica Chamber of Commerce and the Pacifica Business Improvement District <u>https://visitpacifica.com/fishing-crabbing/</u>



In the spring, you can catch perch at Linda Mar Beach: in the fail, go rock fishing off Pedro Point: in the summer. on low foggy days, you can catch striped bass from the shoreline off any beach in Pacifica.



Accordingly, the LCLUP proposed a Special Area Designation for this area, "in concert with visitor-oriented commercial uses and increased public access and recreational use of the area." Included among these criteria are protection of the existing marine resources from over use, protection of the special character of the neighborhood, and protection of the varied recreational opportunities now present."

The proposed project fulfills none of these required elements. Visitors flock to this intersection to recreate, celebrate important milestones, and contemplate history. This property lies at a key position which could tie the Pedro short-lived Point Firehouse, The Pedro Point Field, Pacifica State Beach¹⁶, and the Pedro Point Headlands into a visitor-serving coastal destination which is uniquely accessible to

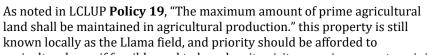




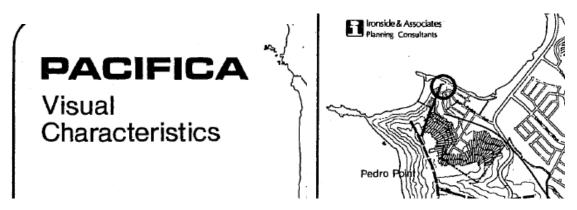
Figure 9: Appellant's Daughter outside the Llama Field, 2015.

agricultural uses if feasible, and to low-density visitor-serving uses at a minimum. This new project also fails to **provide public access** from the nearest public roadway (Kent Road) to the shoreline as required in new development project. We ask that the CCC invoke its duty to enforce and prioritize the public's right to access the shoreline (30210 to 30214)

Policy 24: Permitted development shall be Visually Compatible with the Character of the Surrounding Areas

This project is inconsistent with the 1980 LCP and General Plan regarding the character of the Pedro Point neighborhood and community scale, parking, beach parking and traffic circulation. The Pedro Point neighborhood was specifically included in the GP Community Design Element for "visual characteristics" as shown in the 1980 GP:

¹⁶ One of the most popular beginner surf breaks in the Bay Area. https://visitpacifica.com/surfing/



This section of the 1980 GP specifically states: "In existing residential areas, where additional infilling will occur, new development should be compatible in scale and density with the existing neighborhood."

This proposed project is not compatible with the neighborhood. In order to retain the same neighborhood characteristics, the CCC could consider a compromise more in line with the design at 1275 Danmann Ave which fulfills all the zoning requirements for this property and could feasibly divide the building into two dwellings along with a commercial space below. Note that 1275 is significantly more set back from 1330 Danmann, and does not fall within the



Figure 10: 1275 Danmann Ave, with Pedro Point Creative Public Event Space downstairs. www.ppcreative.com

Additionally, by proposing this footprint, the CCC could recommend placing this structure closer to the corner of Danmann and Kent, yet with an adequate setback from Kent where the 100 year erosion rate may cause the least amount of a hazard and potentially mitigate the inevitable public nuisance versus a 4 unit L-shaped building that does not belong in this neighborhood and will not come close to a 100 year design-life.

As noted in the Surfline Travel Guide below, residents and visitors to Pedro Point are appealing to the California Coastal Commission to preserve this distinct and valuable natural resource of vital and enduring interest to all people.

øSurfline						Try Prem	ium Free Now	Q	Search	✤ Favorites	Log In
Home Cams & Repo	orts 🗸	Forecast 🗸	News 🗸	Video 🗸	Photos 🗸	Travel 🗸	Gear 🗸	Store 🗸			
Pedro Point LOLA Surf Model Break /Travel Info Favorites And Alerts Favorites Only Premium members can save Favorites Start a free trial	Peo Desc At the side o Verde Valley that is	dro Point cription e south end of Lin of a hill, overlook is of Placifica, whi h homes overlook is slowly being yu	nda Mar, Ped ing all of Lind ere an ostrici ding \$50 fishi ippified, but	ro Point is a c da Mar and of and Ilama ra ng shacks. Pe the soul of the	Vie ool little beach f toward San R anch stands ne dro Point is a e place is still f	community b rancisco. This ext to million-o former fishing there.	s is the Palos dollar Silicon) community	Best Tide: incoming Best Swell W, NW, N Best Size: Double ov	l Directio /erhead		
Custom Surf Alerts Set Alert Now - SF-San Mateo County Cans And Reports - Fort Point - Ocean Beach - South Ocean Beach - Sharp Park Rockaway - Pacffica/Lindamar Montara - Maverial's - Princeton Jethy Half Moon Bay Tunitas Creek Pescadero Pigeon Point	Doc Ball's first edition of <i>Surfing in California</i> listed four surf spots: Windansea, San Onofre, Malibu and Pedro Point. The Keating brothers and some other Ocean Beach guys started surfing Pedro Point in the late '30s and early '40s after Dick Keating got turned on to surfing by the Kahanamoku brothers while in the Islands for a swimming context. Talking about Ocean Beach back in the '40s, Fred Van Dyke said that most of the real board surfing was done at Pedro Point and Santa Cruz because those places were less exposed than Ocean Beach and easier to handle on clunky equipment. Standing on the cliffs at Pedro Point during the winter and spring, looking north, you'd swear you were in Cornwall, England or Ireland. The rugged hills and cliffs look exactly like southwest England, and the fishing shacks on docks on the water are closer to Ireland or Scotland. There are fun waves breaking along the Boatdock and onto the beach. Outside, there is a big left that breaks off Little Pedro Point, mostly in the winter. This is one of the bigger ridable waves on the North Central California coast. Approach with caution.								nt. Be		
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Appendix

Known Hydrology

From: Dan Shugar
Sent: Wednesday, June 26, 2019 2:27 PM
To: 'Sam Bautista' <<u>bautistas@ci.pacifica.ca.us</u>>
Subject: Hazardous conditions on Kent / Danmann roads
Importance: High

Sam, I hope you have been well. Following my voicemail, we've had an ongoing safety and public works disrepair situation in the Danmann – Kent Road intersection area that has been especially acute since the sewer upgrade project that happened last summer.

The photos below, taken today, tell the story. In summary, during the sewer project, an ongoing water source, draining on the street, was created. This area was capped by steel plates with City of Pacifica logos on them. Danmann and the lower half of Kent Road was significantly degraded by the heavy equipment used in the sewer project. Danmann is nothing more than a dirt road at places. The water is coagulating on the street especially in the large pot holes that exist in Danmann.

Directly across the street is the Firehouse which is the most active community centers at Pedro Point and one of the most active in the City, with hundreds of visitors many weeks. The Firehouse brings significant economic benefits to the City in the form of visitors that spend money at local businesses. Additionally there is a community constructed playground adjoining the Firehouse.

The disrepair of the public road and water system has created a hazardous condition which is magnified by the extensive public use, especially with children. The hazards are created by:

- 1. Wet roads, which have significantly lower coefficient of friction (COF) than dry roads by a factor of 2 or more. Please see below.
- 2. Stagnant water, which allows bacteria and parasites, and algae further reducing COF.
- 3. The steel plates are not a proper road and also have a lower COF than asphalt.
- 4. The present of very large pot holes, in which residents are taking "evasive action" around them, driving essential on the wrong side of the street to avoid them. The photo below shows this happening.

Coefficients of Friction

Rubber	Dry Asphalt	0.9 (0.5 - 0.8) ¹⁾	
Rubber	Wet Asphalt	0.25 - 0.75 ¹⁾	

There have been a number of major residential construction projects on Kent Road and Danmann and large fees paid to the City. In my case on top of fees, I actually repaved a large section of Kent Road, approximately 500% more than I was required to do.

I have spoken to others active in the Pedro Point Community Association, and the community is aligned that we need the City to do its part. Priority:

Stop the leak and repair Kent road without steel plates.

- 1. Properly rebuild and repave the northern half of Danmann. Not just fill pot holes with patches that will again disappear within a year.
- 2. Properly repave the bottom half of Kent road, from 249 Kent to Danmann. Given all the visitors to the Firehouse, a shoulder should be created on the bottom northern lots of Kent road to allow parking and reduce pedestrian hazards with automobiles.

I would be appreciative if we could meet at the street to go over this situation. I am available this Friday morning or next Wednesday.

I look forward to your response and resolving these issues. I am available at [*Phone number redacted*]. Thank you, Dan

Dan Shugar, P.E.

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M [Phone number redacted]



Response from City Engineer:

RE: Hazardous conditions on Kent / Danmann roads

From: Bautista, Sam <bautistas@ci.pacifica.ca.us> Sent: Wednesday, July 3, 2019 3:45 PM To: Dan Shugar <dshugar@NEXTracker.com>; Woodhouse, Kevin <woodhousek@ci.pacifica.ca.us> Cc: samuelcasillas@hotmail.com; Marcia and/or David <giiset1158@gmail.com>; 'Kathleen Shugar (kshugar@yahoo.com)' <kshugar@yahoo.com> Subject: RE: Hazardous conditions on Kent / Danmann roads

Hi Dan-

Thanks again for bringing these items to our attention. Let me address each of your items:

A. Solve the water leak on Kent Road. Remove the steel plates. This condition has existed over a year since the sever project was completed. The City has received a proposal from Dryco Construction to install a subdrain and fix the asphalt so the steel plates can be removed. We have executed the contract and the contractor will be mobilizing in the next two weeks.

8. Repair the severe pot holes on Danman Ave. During our meeting, we witnessed a car damaged while driving over pot holes. Mr Mylett had observed improper construction practices at time of filling pot holes. When the filling failed, he contacted the City and the EPA as the overflow from hazardous materials was draining to the lower watershed area and ocean. On July 2, 2019, City crew used the Vac-Con to vacuum the water out of the potholes and heated the area to dry the area. The crews filled the potholes with hot mix to remedy the problem.

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KoppmanNorton, Julia@Coastal

From:	KoppmanNorton, Julia@Coastal
Sent:	Thursday, October 8, 2020 9:28 AM
То:	Murdock, Christian; Gannon, Helen
Subject:	1300 Danmann - 10/12 City Council
Attachments:	RE: Comments for City Council: 1300 Danmann

Hi Christian & Helen,

Please add these comments to the record for the upcoming 10/12/2020 City Council hearing on CDP-409-19 for the appeal of the Planning Commission's decision for the project at 1300 Danmann. These comments simply reiterate comments provided to City staff on April 28, 2020, prior to the Planning Commission hearing and prior to the scheduled July 13, 2020 City Council hearing.

While the applicant's consultant, GeoForensics, reported historic erosion rates in the range of 0.1 to 0.45 ft/yr, other sources (e.g. USGS) report much higher rates. The USGS average historical retreat rate is 1.5 ft/yr, and the highest historical retreat rate for this area that we have found is 2.3 ft/yr. Therefore, bluff erosion hazards through 2100 are largely dependent on which historic erosion rate is used. If higher historic erosion rates are used in the analysis, the setback of the proposed residence may not be adequate for the full design life of the project.

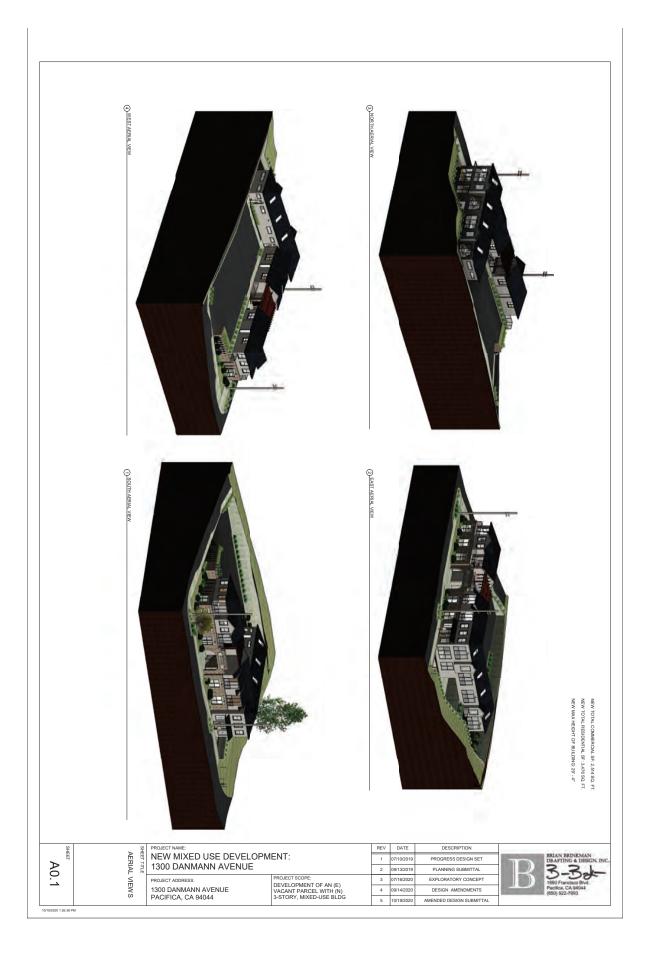
As this project site faces some future hazard from bluff retreat depending on the path of future sea-level rise, we strongly recommend that the City require conditions of approval to include: 1. No future shoreline or bluff protection for this residence, and removal of the structure if and when it is threatened, 2. A requirement for hazards disclosure, and 3. Recorded Deed restriction for the property owner to acknowledge and agree that: the development is located in a hazardous area, or an area that may become hazardous in the future, assumption of risks of injury and damage from such hazards in connection with the permitted development, to unconditionally waive any claim of damage or liability from such hazards, to indemnify and hold harmless the City against any injury or damage due to such hazards, that they have no rights to future shoreline armoring, that sea level rise could render it difficult to provide services to the site, that the boundary between public and private land could shift, and that the structure may eventually be located on public trust lands, which the development approval does not extend to, that any future encroachment on public trust lands must be removed, and that the structure may be required to be removed and relocated it if becomes unsafe. In the absence of these conditions, we strongly recommend increasing the setback from the northern end of the property closest to the bluff edge.

If you have any questions, please feel free to reach out.

Best, Julia

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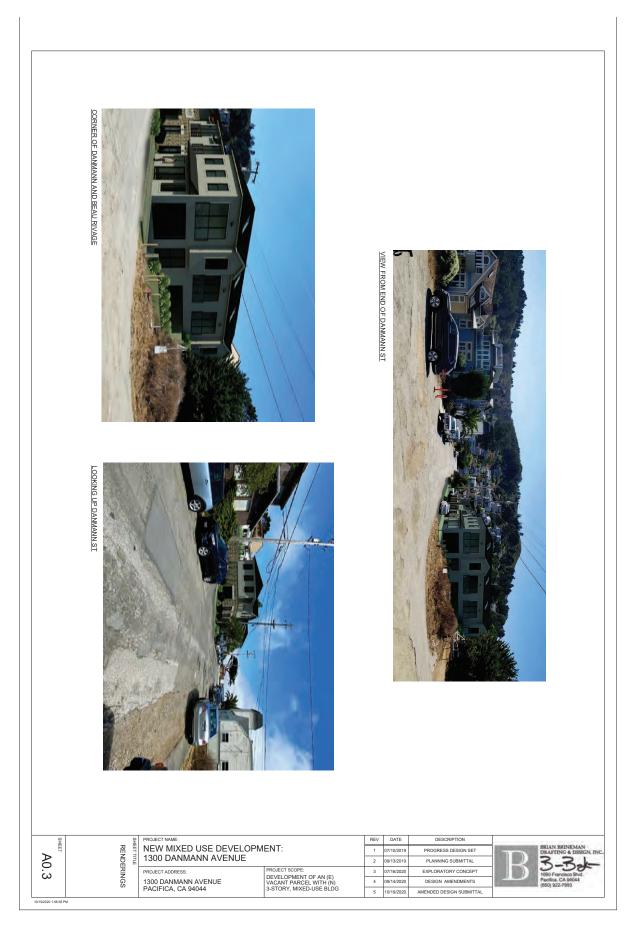
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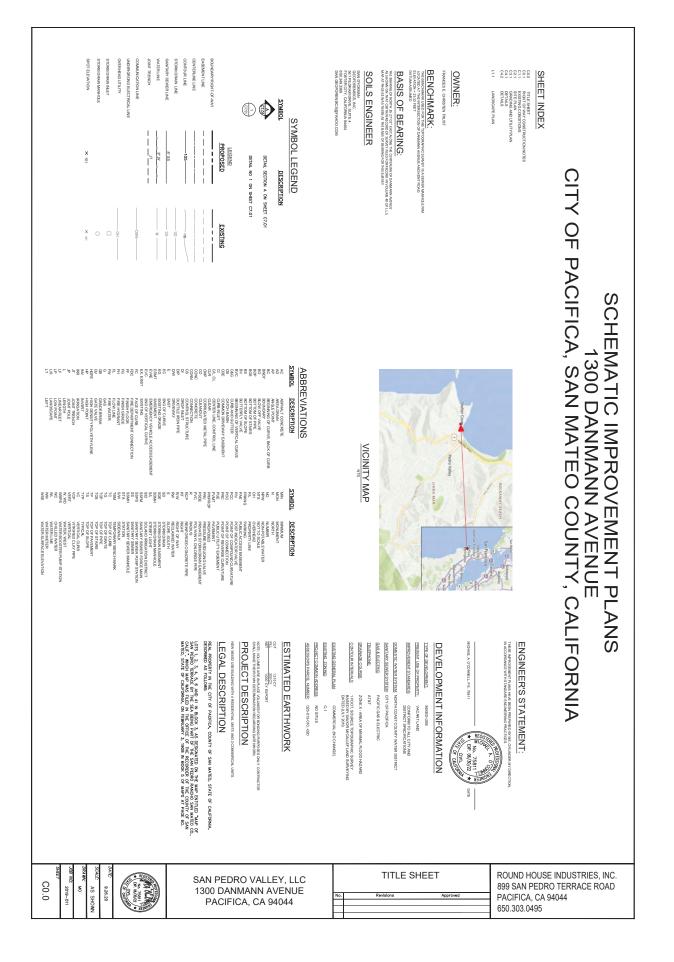
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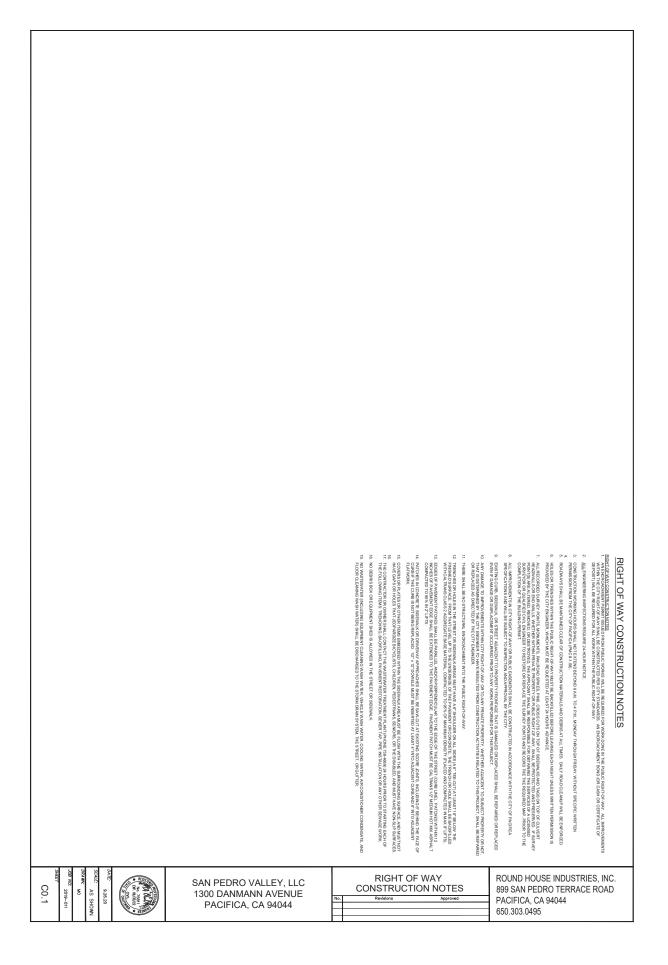
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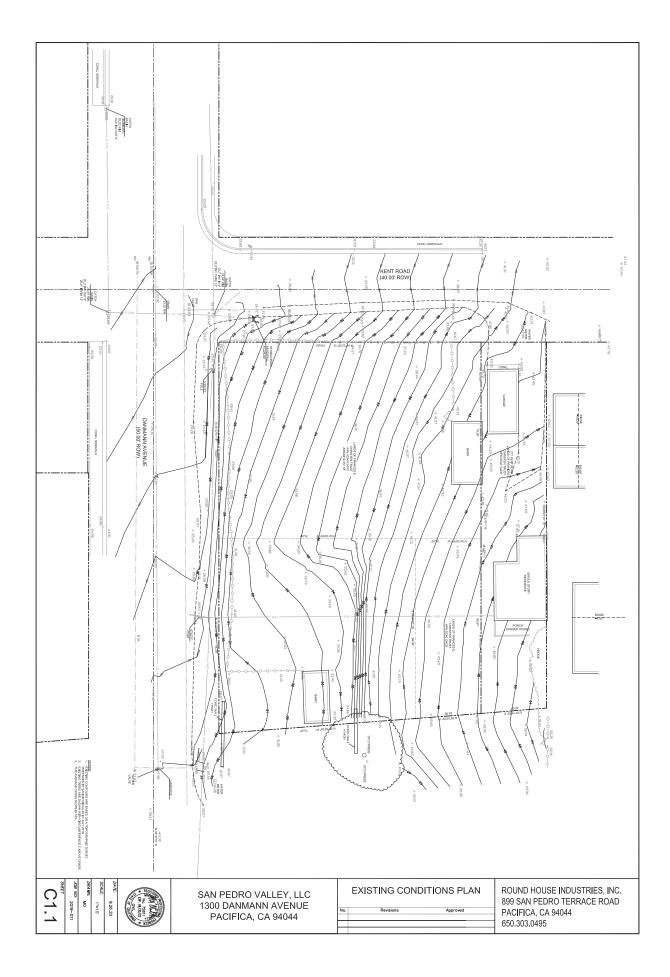


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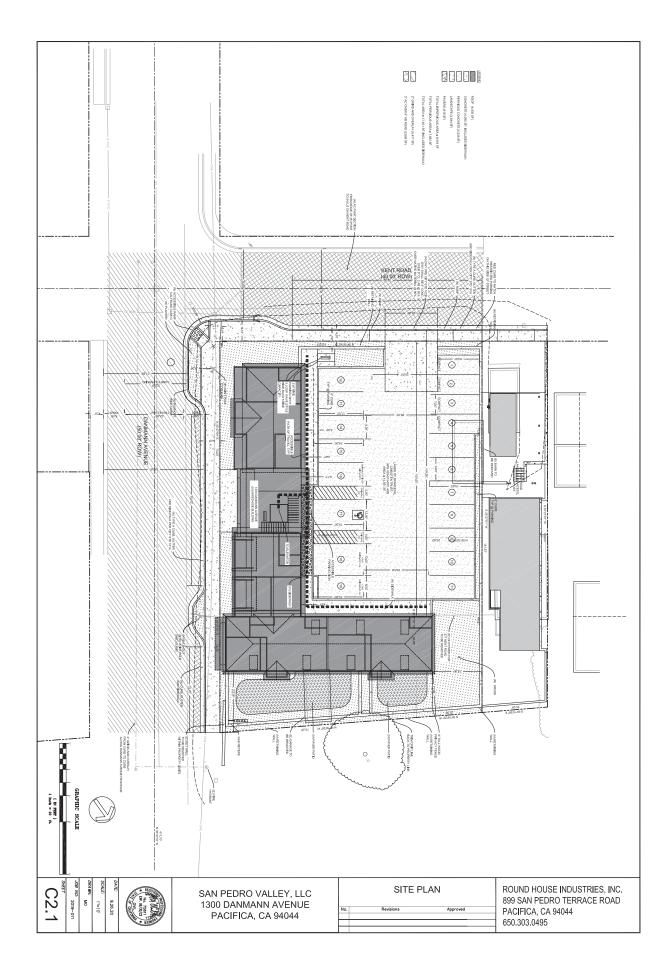


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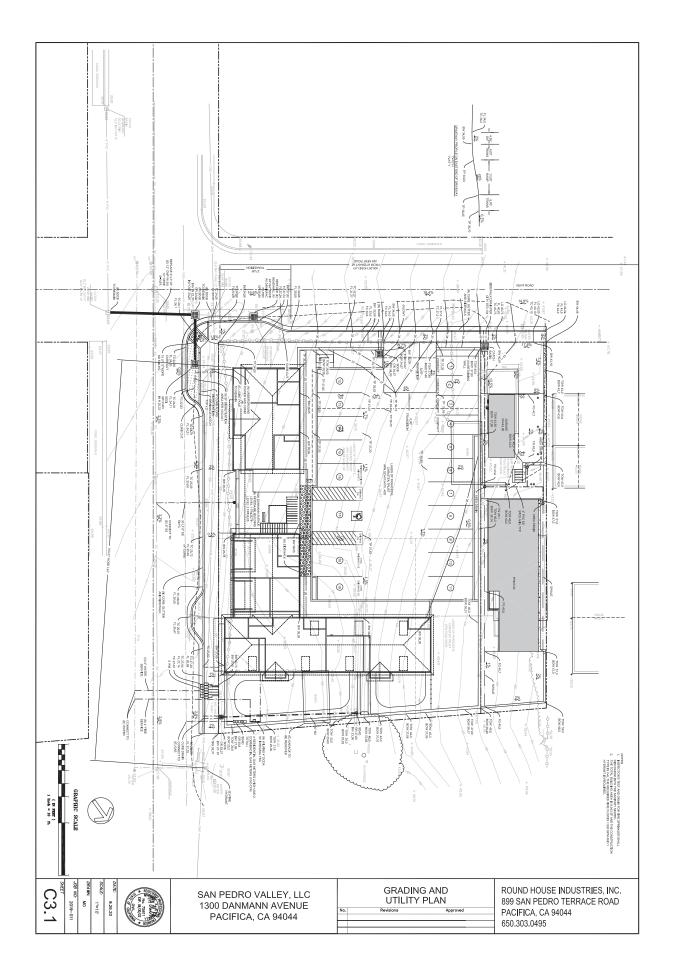




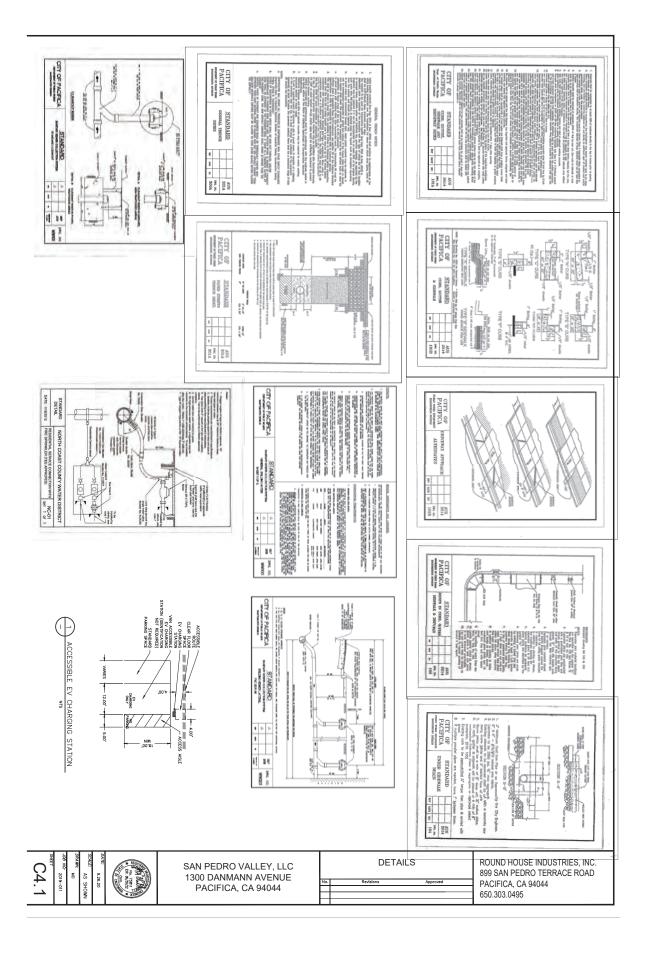
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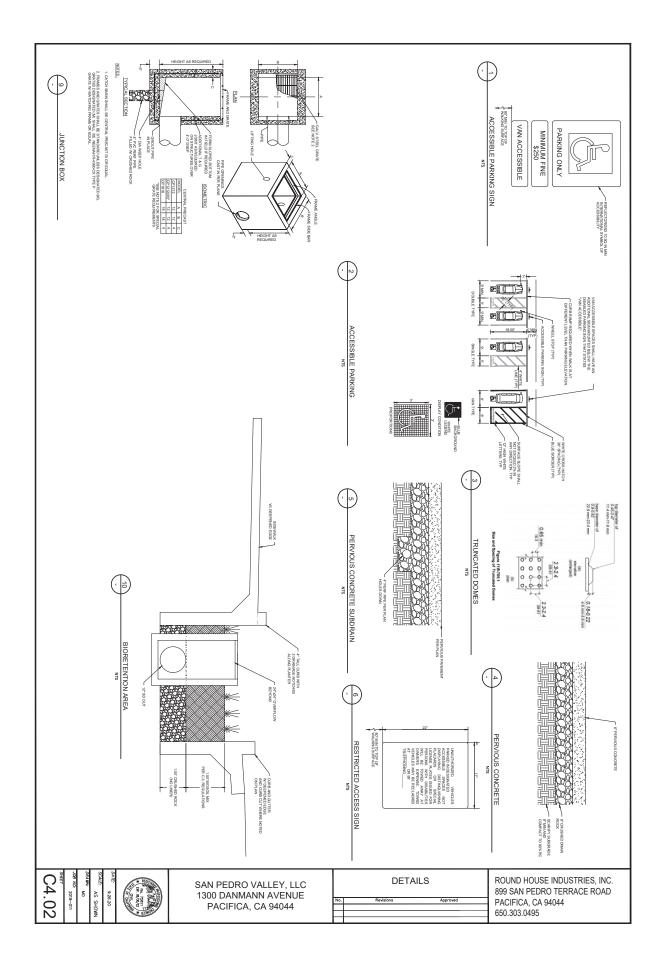
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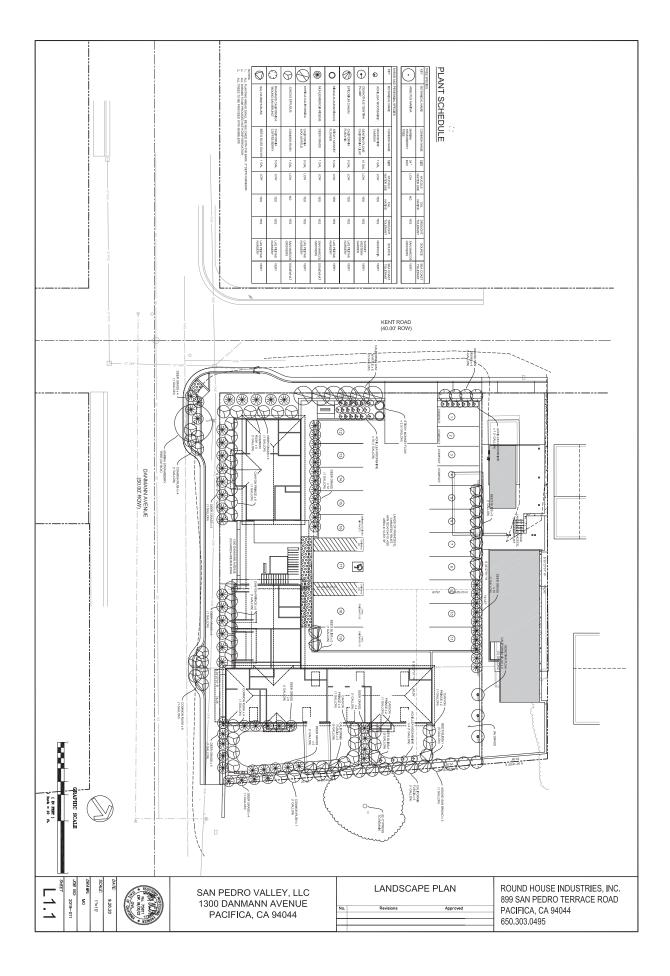
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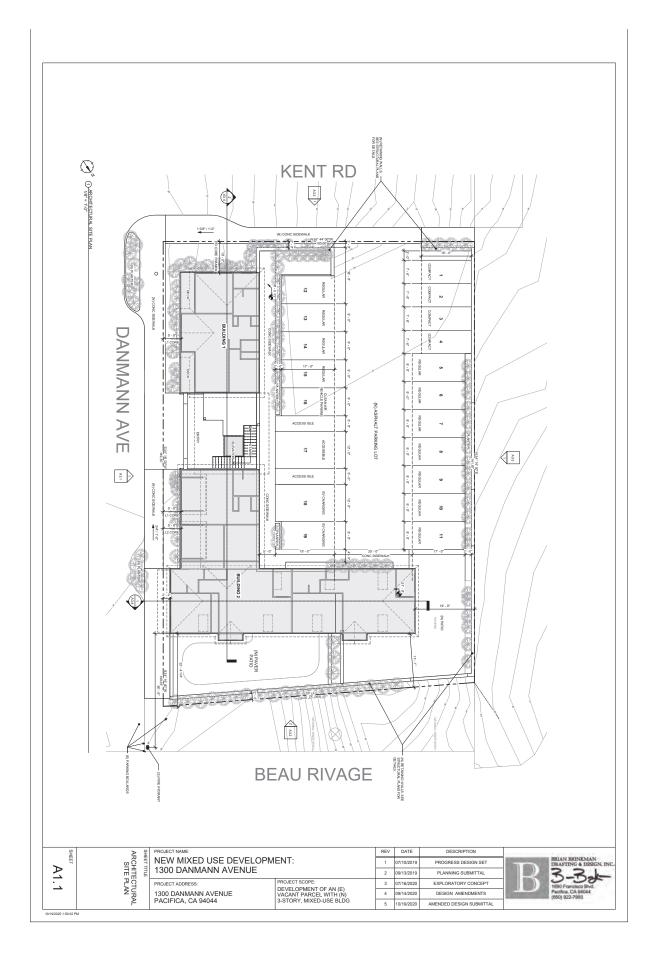
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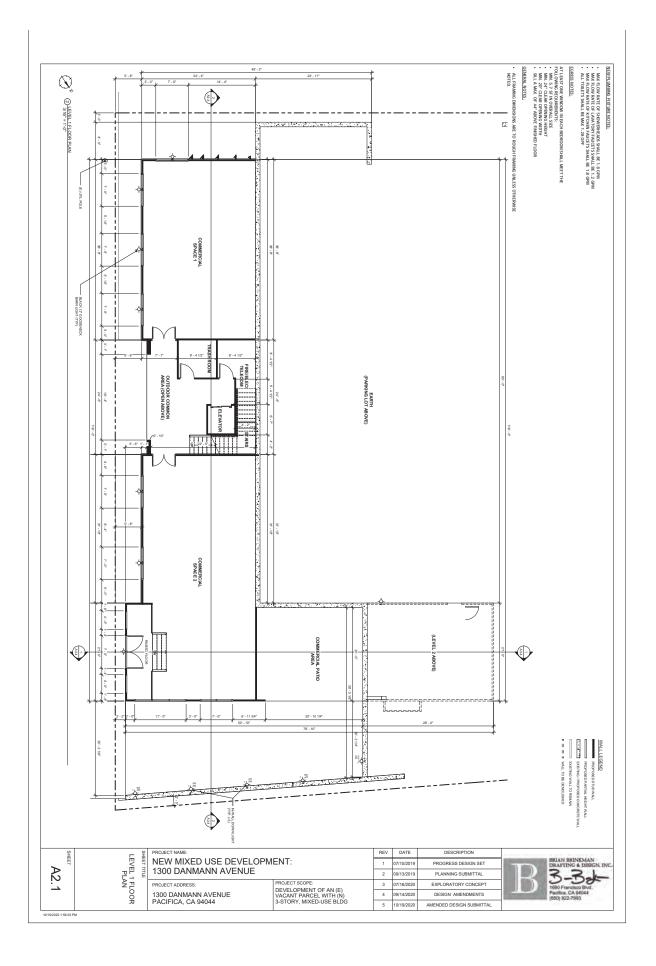
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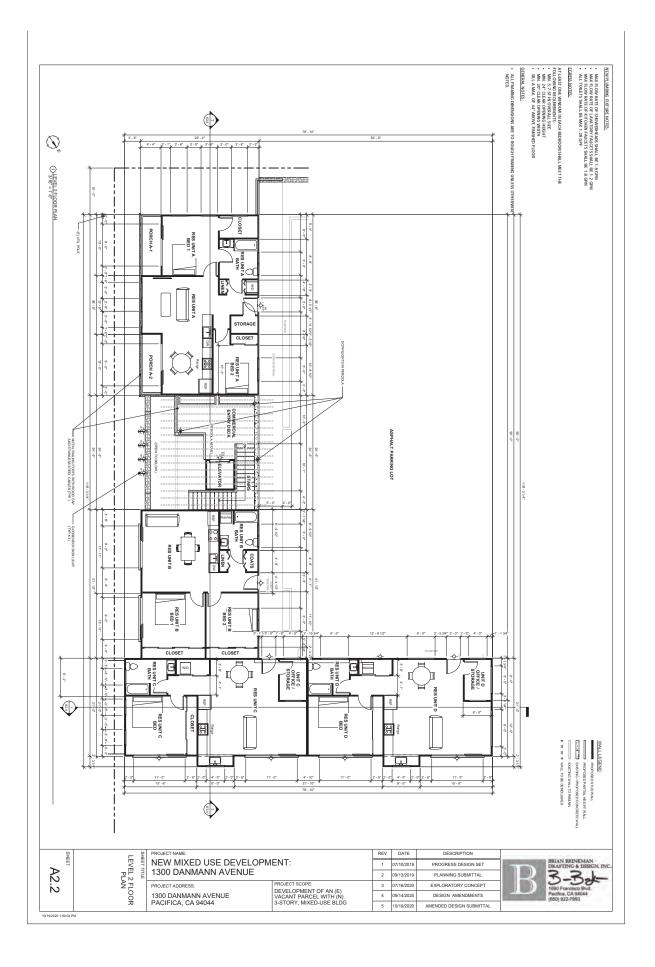
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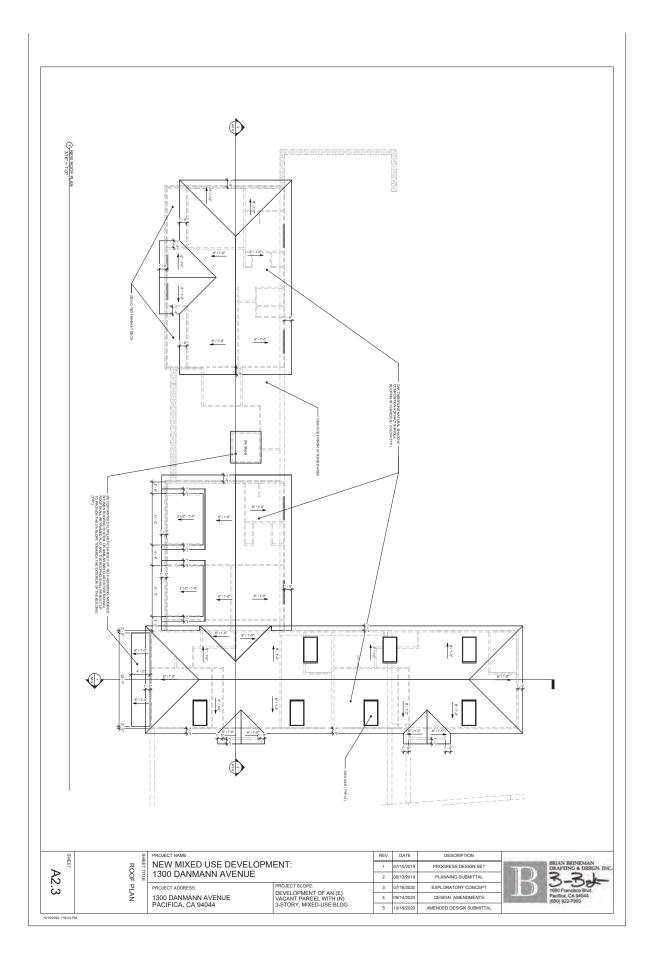
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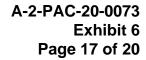
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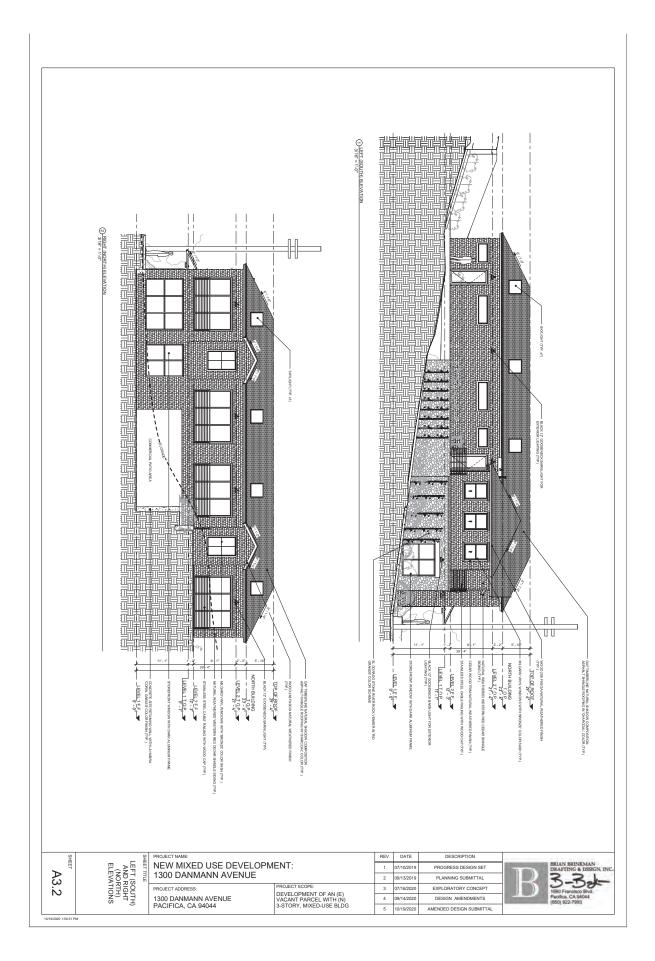
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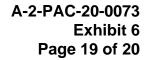
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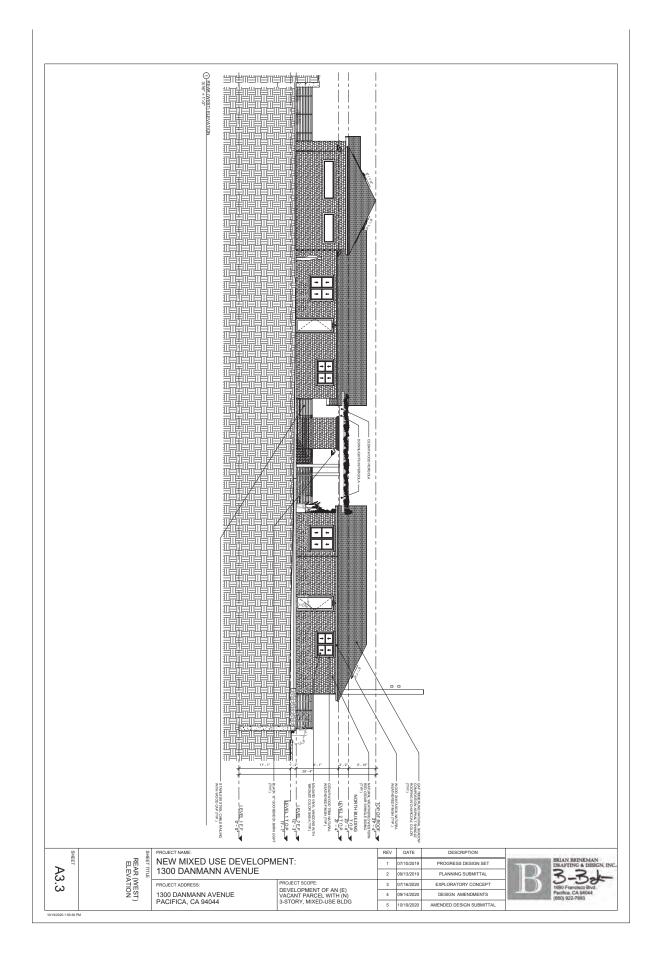


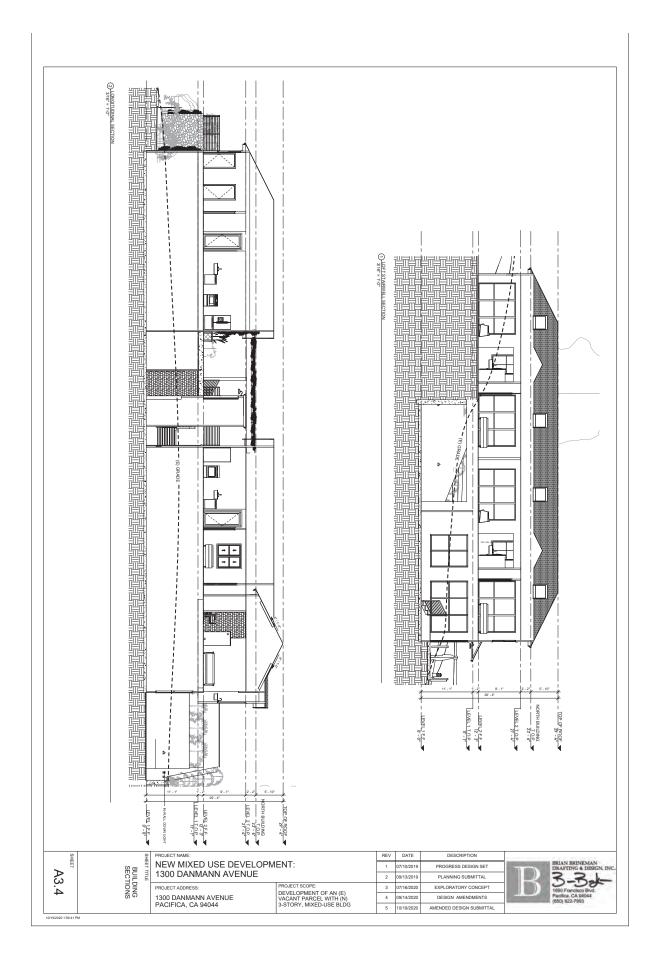




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PRELIMINARY STORM DRAIN REPORT 1300 DANMANN AVENUE

PACIFICA, CALIFORNIA SAN MATEO COUNTY

September 12, 2019

A-2-PAC-20-0073 Exhibit 7 Page 1 of 13 **Storm Drain Report**

1300 Danmann Avenue Pacifica, California APN: 023-013-010, -020



Prepared by:

Mike O'Connell, P.E.

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1300 Danmann Avenue Preliminary Storm Drain Report September 12, 2019 Page ii

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SECTION 1: INTRODUCTION

This Storm Drain Report has been prepared for the 1300 Danmann Avenue Project with the purpose of documenting the hydrologic and hydraulic analyses prepared to size the proposed storm drain facilities to support the Project and meet the local drainage policy. The scope of this report is limited to the storm drain pipe network and treatment facilities.

The Project is located within the City of Pacifica at the corner of Kent Road and Danmann Avenue. The Project is comprised of a 0.33-acre area bounded by Kent Road to the south, 277 Kent Road (an existing single family home) to the west, Danmann Avenue to the east, and Beau Rivage (an unimproved, unaccepted City right-of-way) to the north. The Project will develop 6 apartment units and 2 commercial spaces.

SECTION 2: STORM DRAIN DESIGN

Existing Storm Drainage

The existing site is undeveloped and is pervious with the exception of two small barns.. Currently, the site will sheet flow runoff toward the corner of Kent Road and Danmann Avenue as it slopes from the northwest corner to the southeast corner with an average cross slope of 18%. Runoff from the site is conveyed to a bubble-up system on Kent Road and Danmann Avenue where it eventually flows east along San Pedro Avenue to ditch across from 500 San Pedro Avenue where the runoff turns north and flows to San Pedro Creek via culverts. Ultimately, all runoff from the site is discharged to the San Pedro Creek which flows to the Pacific Ocean.

Proposed Storm Drainage

The existing site is undeveloped and is mostly pervious. Currently, the site will sheet flow in generally the same direction as the existing site. Minor storm drain improvements are required near the site entrance and on the north end to convey runoff to the public right-of-way. The project also proposes to install approximately 5,545 sf of pervious concrete pavement that will reduce the peak runoff rate. Ultimately, all runoff from the site is discharged to the San Pedro Creek which flows to the Pacific Ocean.

Design Criteria

The storm drain calculations for the 1300 Danmann Avenue Project are prepared in accordance with the Pacifica's drainage policy. Post-development peak flow (runoff) and velocity will be less than or equal to pre- development peak flow and velocity. No runoff, caused by development, will be directed to cross property lines.

The project is located in Zone X, per FEMA flood maps. Zone X is considered a "minimal flood hazard" area.

Peak rates of storm water runoff from the project site to the storm drain inlet structures were calculated using the Rational Method Equation.

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Design Assumptions:

- Storm drainage design event: 100-year storm.
- Minimum Time of Concentration (Tc) for each subarea is 5 minutes.
- Rainfall Intensity (i) is based on the San Mateo County IDF Map
- Runoff Coefficient (C) is based on standard engineering practice
 - o 0.95 for roofs
 - \circ 0.90 for paved areas
 - 0.30 for landscape areas (pervious areas)
- Rational Method Equation: Q = C x i x A
 - o Q is the flow rate (cubic feet per second)
 - o C is a runoff coefficient (unitless)
 - o i is the rainfall intensity for a given time of concentration (inches per hour)
 - o A is the area of the drainage sub area (acres)
- Detention Calculation Using the Synthetic Hydrograph
 - Synthetic Hydrograph: $V = (Qpr Qex) \times (Duration/2)$
 - For a Synthetic Hydrograph, the assumed duration of the storm is based on the rising limb (Tc) and the falling limb (assumed to be 2*Tc)
 - V is the volume of detention required to maintain the existing flow rate for the post-development condition (cubic feet)

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SECTION 3: STORM DRAIN CALCULATIONS

Hydrology

Using the Rational Method Equation, the site runoff peak flow for the 100-year storm was calculated for the existing conditions and the post-development conditions. The hydrology calculation table is provided in Appendix A.

The existing site area is 0.33 acres and is mostly pervious. The existing peak flow for a 100-year storm is 0.39 cfs.

The proposed site consists of 5,099 square feet of building roof, 2,239 square feet of concrete pavement, 5,545 square feet of pervious concrete, and 1,668 square feet of landscape. The post-development peak flow for a 100-year storm is 0.75 cfs.

Detention

The post-development peak flow is greater than the existing site peak flow. The storm drain system has been design to contain the excess runoff created by the development.

Using the Synthetic Hydrograph, the required detention or storage is 347 cubic feet. The site utilizes pervious concrete to store the excess water. The provided stormwater detention capacity of the system is 1,109 cubic, which only includes the crushed rock with a void ratio of 0.40 and does not consider the incidental storage of the pervious concrete itself.

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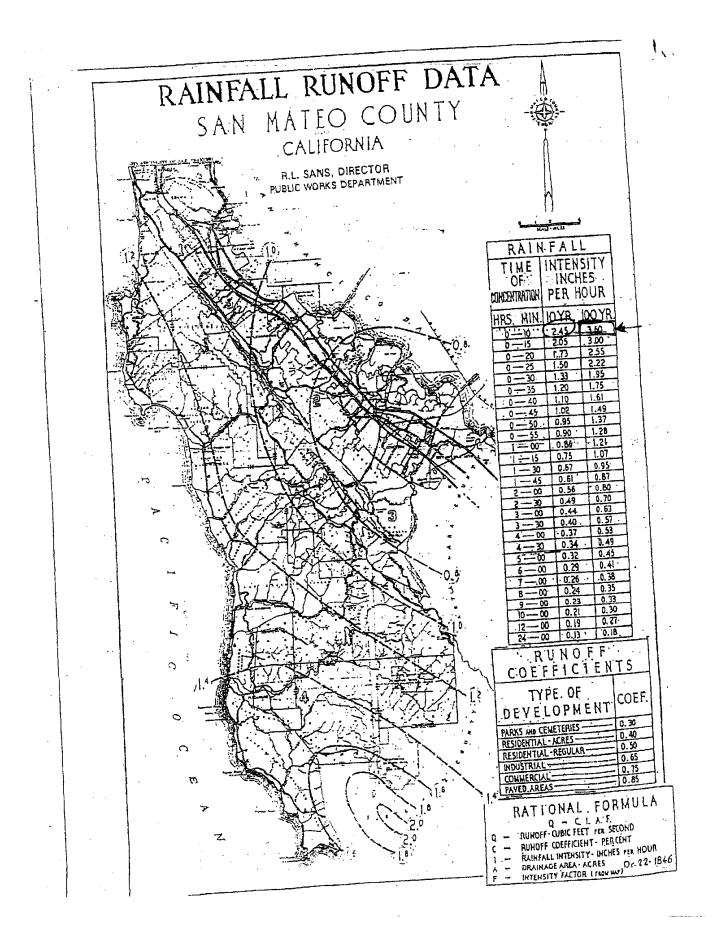
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Appendix A Hydrology Calculations

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1300 Danmann Avenue

	Surface	Runoff Coefficient	Area square feet	C*A	Weight
	Roof	0.95	468	445	0.03
Existing	Paved Areas	0.90	0	0	0.00
	Pervious Areas	0.30	14,083	4,225	0.97
	Total Area		14,551	4,670	
	Site Weighted R	unoff Coefficient			0.32

	Surface	Runoff Coefficient	Area square feet	C*A	Weight
	Roof	0.95	5,099	4,844	0.35
Proposed	Paved Areas	0.90	2,239	2,015	0.15
	Pervious Areas	0.30	7,213	2,164	0.50
	Total Area		14,551	9,023	
	Site Weighted R	unoff Coefficient			0.62

Total Site Area=

14,551 sf

Appendix B Detention Calculations

1300 Danmann Avenue Preliminary Storm Drain Report

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xisting Conditions:		
Site Area:	0.33	20125
Sile Alea. Runoff Coefficient:	0.33	acres
Time of Concentration	8	minutes
	-	
Rainfall Intensity	3.60	inches per hour
Peak Runoff Rate:	0.39	cfs
Proposed Conditions:		
Site Area:	0.33	acres
Runoff Coefficient:	0.62	
Time of Concentration	5	minutes
Rainfall Intensity	3.60	inches per hour
Peak Runoff Rate:	0.75	cfs
······································		
Hydrograph Duration		
Rising Limb	5	minutes
Falling Limb	10	minutes
Duration:	30	minutes
Triangular Hydrograph, Propose	ed Peak Flo	OW:
Triangular Hydrograph, Propose Volume:	ed Peak Flo 671	cubic feet
		cubic feet
Volume:	671	cubic feet
Volume: Allowable Release:	671 0.39	cubic feet cfs
Volume: Allowable Release: Volume out over 30 minutes	671 0.39	cubic feet cfs
Volume: Allowable Release: Volume out over 30 minutes Storage in Pervious Pavers	671 0.39 347	cubic feet cfs cubic feet

1300 Danmann Avenue

Hydrology Calculations - 100 Year Storm

Use 6" thick crushed rock section at pervious concrete

Mike O'Connell, P.E. 900 Rosita Road Pacifica, California

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1300 Danmann Avenue - Preliminary Pervious Paver Sizing Ca	
그는 이 것 같아요. 그는 것 같아요. 그는 것 같아요. 그는 것 같아요. 그는 것 같아요. 한 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	

ruject Information	a shekara a				
Project Name:	1300 DANMANN	1			
City application ID:					
Site Address or APN:	023-013-010, -020				
Fract or Parcel Map No:					
Rainfall Region	7]			
Region Mean Annual Precipitation (MAP)	19.30	1			Click here for n
Site Mean Annual Precipitation (MAP)	24]			
	MAP adj	ustment factor is autom	natically calculated as:	1.24	
(The "Site Med	۔ on Annual Precipitation (MAP)" is divid	•			i
alculate Percentage of Impervious Name of DMA:	DMA-1]			
For items 2-2 and 2-3, enter the areas in squa				٦	
Type of Surface	Area of surface type within DMA (Sq. Ft.)	Adjust Pervious Surface	Effective Impervious Area		
	(= 4 · · · ·)				
Impervious surface	4,636	1.0	4,636		
	and the second	1.0 1.0	4,636 589		
Pervious surface Total DMA Area (square feet) =	4,636 589 5,225 Total Effective		589]]Square feet	
Pervious surface	4,636 589 5,225 Total Effective a in Inches	1.0 e Impervious Area (EIA)	589 5,225	n an Standar Angen Stanger (* 1	e statut de
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume	4,636 589 5,225 Total Effective a in Inches	1.0 e Impervious Area (EIA)	589 5,225	n an Standar Angen Stanger (* 1	e staar ag
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region	4,636 589 5,225 <i>Total Effective</i> a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches)	1.0 e Impervious Area (EIA) ing 48-Hour Drawdow	589 5,225	n an Standar Angen Stanger (* 1	e staat de l
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9"	1.0 e Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4"	1.0 e Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.85"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3	4,636 589 5,225 <i>Total Effective</i> a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4	4,636 589 5,225 <i>Total Effective</i> a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82" 0.64"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco, 21.0"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82" 0.64" 0.73"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco, 21.0" San Francisco, 21.0"	1.0 ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.88" 0.62" 0.64" 0.73" 0.85"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco, 21.0"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82" 0.64" 0.73"	589 5,225	n an Standar Angen Stanger (* 1	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6 7	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco, 21.0" San Francisco Oceanside, 19.3"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82" 0.64" 0.73" 0.85" 0.73" 0.85" 0.72" Unit basin storage	589 5,225 /ns, based on runoff c	oefficient	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6 7	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco, 21.0" San Francisco, 21.0"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82" 0.64" 0.73" 0.85" 0.73" 0.85" 0.72" Unit basin storage	589 5,225 /ns, based on runoff c	oefficient	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volume Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6 7 (The coefficient for this method	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco, 21.0" San Francisco Oceanside, 19.3"	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.86" 0.82" 0.64" 0.73" 0.85" 0.72" Unit basin storage of any landscaping ta eff Adjusted uni	5,225	0.72	inches
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volumes Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6 7 (The coefficient for this method (The unit basin sto	4,636 589 5,225 Total Effective a in Inches Inches for 80 Percent Capture Us Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Paio Alto, 14.6" San Francisco, 21.0" San Francisco Oceanside, 19.3" d is olways 1.0, due to the conversion of prage volume (Item 3-1) is adjusted by	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.85" 0.82" 0.73" 0.85" 0.73" Unit basin storage of any landscaping to eff Adjusted uni applying the MAP adjust Required Capture	589 5,225 source fram Table 5-3: ective impervious orea.) t bosin storage volume: ment factor (Item 1-8).) t Volume (in cubic feet):	0.72	Inches
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volumes Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6 7 (The coefficient for this method (The unit basin sto (The adjusted unit basin sizing	4,636 589 5,225 Total Effective a in Inches Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco airport, 20.1" San Francisco airport, 20.1" San Francisco airport, 20.1" San Francisco Oceanside, 19.3" d is olways 1.0, due to the conversion of the state of the state of th	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.85" 0.82" 0.73" 0.85" 0.73" Unit basin storage of any landscaping to eff Adjusted uni applying the MAP adjust Required Capture	589 5,225 source fram Table 5-3: ective impervious orea.) t bosin storage volume: ment factor (Item 1-8).) t Volume (in cubic feet):	0.72	
Pervious surface Total DMA Area (square feet) = alculate Unit Basin Storage Volumes Table 5-3. Unit Basin Storage Volumes in Region 1 2 3 4 5 6 7 (The coefficient for this method (The unit basin sto	4,636 589 5,225 Total Effective a in Inches Station, and Mean Annual Precipitation (Inches) Boulder Creek, 55.9" La Honda, 24.4" Half Moon Bay, 25.92" Palo Alto, 14.6" San Francisco airport, 20.1" San Francisco Decanside, 19.3" d is olways 1.0, due to the conversion of prage volume (Item 3-1) is adjusted by volume [Item 3-2] is multiplied by the Vent	1.0 Impervious Area (EIA) ing 48-Hour Drawdow Runoff Coefficient of 1.0 2.04" 0.85" 0.82" 0.73" 0.85" 0.73" Unit basin storage of any landscaping to eff Adjusted uni applying the MAP adjust Required Capture	589 5,225 source fram Table 5-3: ective impervious orea.) t bosin storage volume: ment factor (Item 1-8).) t Volume (in cubic feet):	0.72	

390 Cubic Feet 6 inches 5-2 Resovoir Layer Depth 0.40 5-3 Void Ratio 1,949 Square Feet 5-4 Required Surface Area As=Vbmp/(Void Ratio*Resovoir Depth/12"/') 5-5 Surface Area Provided 5,545 Square Feet

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