

CALIFORNIA COASTAL COMMISSION

South Coast District Office
301 E Ocean Blvd., Suite 300
Long Beach, CA 90802-4302
(562) 590-5071



W14c&15b

A-5-SNP-19-0154 & 5-20-0152 (Murthy)

DECEMBER 15, 2021

EXHIBITS

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Exhibit 7 – Staff's Community Survey

Exhibit 8 – San Pedro LUP Appendix F

Exhibit 9 – Geologic Setback Line

Exhibit 10 – Geotechnical Review Memorandum by Commission Staff
Geologist



Project Location



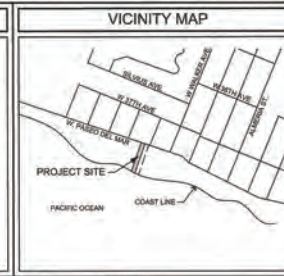
1305 W Paseo del Mar
(Neighboring Project)

1307 W Paseo del Mar
(Project Site)

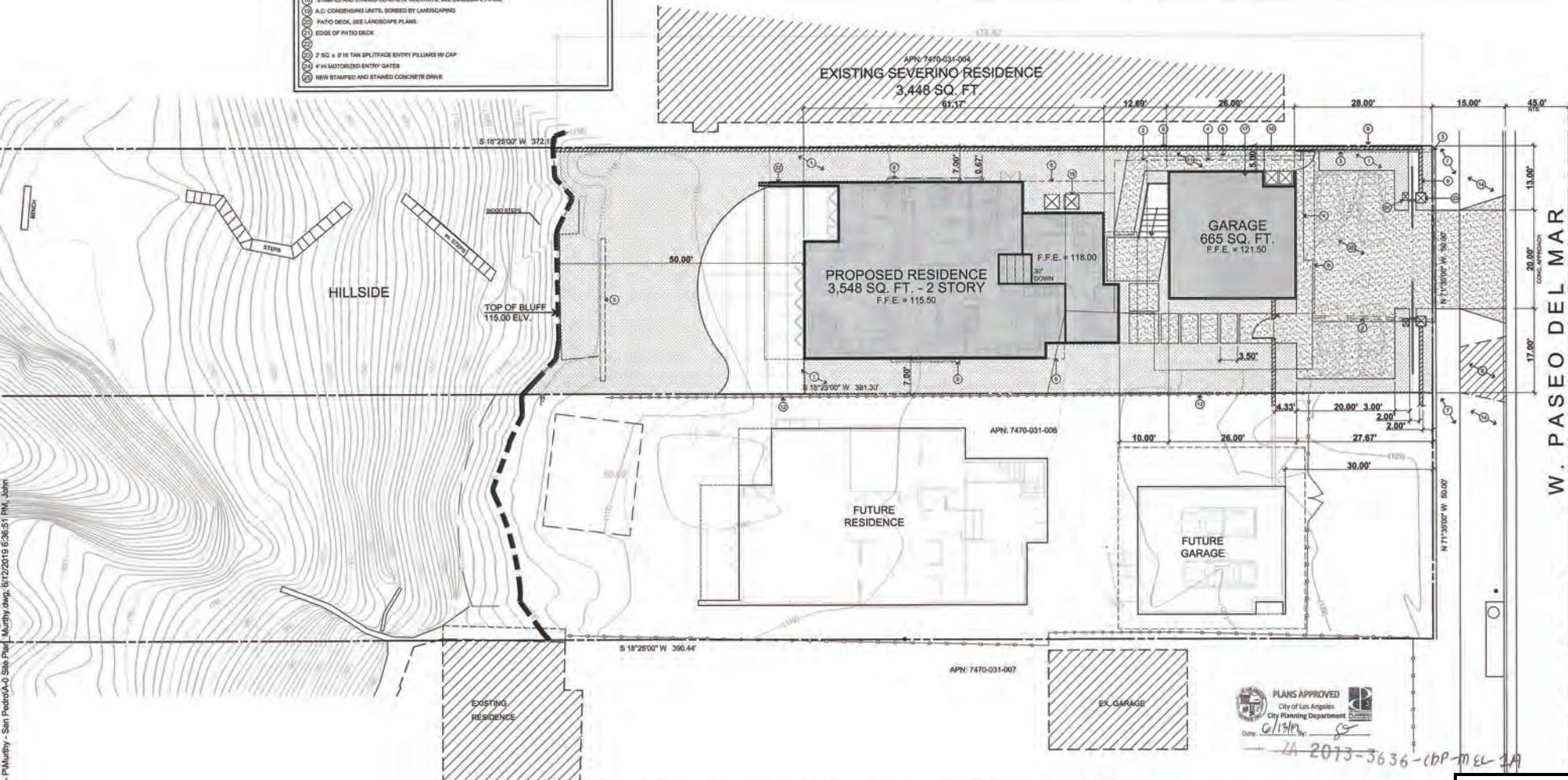
KEYED NOTES	
1	LANDSCAPE AREA, SEE LANDSCAPE PLANS
2	EX. CONC. SLAB TO BE REMOVED
3	EXISTING BLOCK WALL TO BE REMOVED
4	LINE OF EXISTING RESIDENCE TO BE DEMOLISHED COMPLETELY UNDER SEPARATE PERMIT
5	EXISTING BLOCK WALL TO BE REMOVED
6	LINE OF BUILDING OVERHANG
7	EX. CITY CONCRETE SIDE WALK
8	EX. CONCRETE DRIVE WAY TO BE REMOVED AND LANDSCAPED PER CITY STANDARDS
9	NEW 4 IN. GRAY SPLITSURFACE CONCRETE BLOCK WALL
10	NEW 4" V.O. GATE
11	NEW CONCRETE RAMP, SEE GRADING PLAN
12	EX. FENCE TO BE REMOVED AND REPLACED WITH 2" H. WROUGHT IRON FENCE ALONG PROPERTY LINE
13	NEW REFLECTING POND, SEE LANDSCAPE PLANS
14	EX. CITY LANDSCAPED AREA
15	CONCRETE GARAGE STAIRS, SEE GARAGE PLANS
16	LINE OF ROOF OVERHANG
17	TRASH STORAGE AREA
18	STAMPED AND STAINED CONCRETE WALKWAY, SEE LANDSCAPE PLANS
19	A.C. CONDENSING UNITS, SORBED BY LANDSCAPING
20	PATIO DECK, SEE LANDSCAPE PLANS
21	EDGE OF PATIO DECK
22	2" SQ. x 8" H. TAN SPLITSURFACE ENTRY PILLARS W/ CAP
23	#4 H. MOTORIZED ENTRY GATES
24	NEW STAMPED AND STAINED CONCRETE DRIVE



SITE & BUILDING DATA	
SITE INFORMATION:	
GROSS AREA (48 AC)	= 21,088 SQ. FT.
NET AREA (43 AC)	= 19,838 SQ. FT. 300%
SITE AREA COVERAGE:	
BUILDING AREA (FOOTPRINT)	= 2,840 SQ. FT. 14%
LANDSCAPE AREA	= 4,390 SQ. FT. 22%
FRONT PORCH, REAR PATIO, CONC. WALKWAYS DRIVE / PARKING	= 5,121 SQ. FT. 25%
UNUSABLE AREA (HILLSIDE & BEACH)	= 9,899 SQ. FT. 51%
BUILDING AREA:	
RESIDENCE STRUCTURE	
LOWER FLOOR	= 1,984 SQ. FT.
UPPER FLOOR	= 1,564 SQ. FT.
TOTAL LIVABLE	= 3,548 SQ. FT.
GARAGE	= 665 SQ. FT.



PROJECT DATA	
ZONE:	R1-1XL
OCCUPANCY'S:	R-3
CONSTRUCTION TYPE:	3" - B
STORIES:	2 STORY
FIRE SPRINKLERS:	YES
A.P.N.:	7470-031-005
APPLICANT / OWNER:	
DR. KRISHNA & NIRMALA MURTHY	STEENO DESIGN STUDIO, INC.
11774 HESPERIA RD., SUITE B-1	ARCHITECT: TOM STEENO
HESPERIA, CA 92345	11774 HESPERIA RD. SUITE B-1
	HESPERIA, CA 92345
	PH: 760.244.5007 FX: 760.244.1948
SITE ADDRESS:	
1307 W. PASEO DEL MAR	
SAN PEDRO, CA 90721	
APN: 7470-031-005	



MURTHY RESIDENCE 1307 W. PASEO DEL MAR SAN PEDRO, CA

STEENO
ARCHITECTURAL DESIGN STUDIO
11774 HESPERIA RD., SUITE B-1
HESPERIA, CA 92345
PHONE (760) 244-5007 FAX (760) 244-1948

DATE FINISHED
MAY, 2013

REVISIONS
SEP. 2017
JAN. 2018
JUN. 2019
APRIL 2019

THESE DOCUMENTS AND THE INFORMATION CONTAINED HEREIN ARE THE SOLE PROPERTY OF STEENO DESIGN STUDIO, INC. NO PART OF THESE DOCUMENTS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM STEENO DESIGN STUDIO, INC.

PROJECT: CUSTOM RESIDENCE
DR. KRISHNA & NIRMALA MURTHY
PROJECT ADDRESS: 1307 W. PASEO DEL MAR
SAN PEDRO, CA 90721
PHONE: (760) 244-5007 FAX: (760) 244-1948

JOB NO.
R13-101

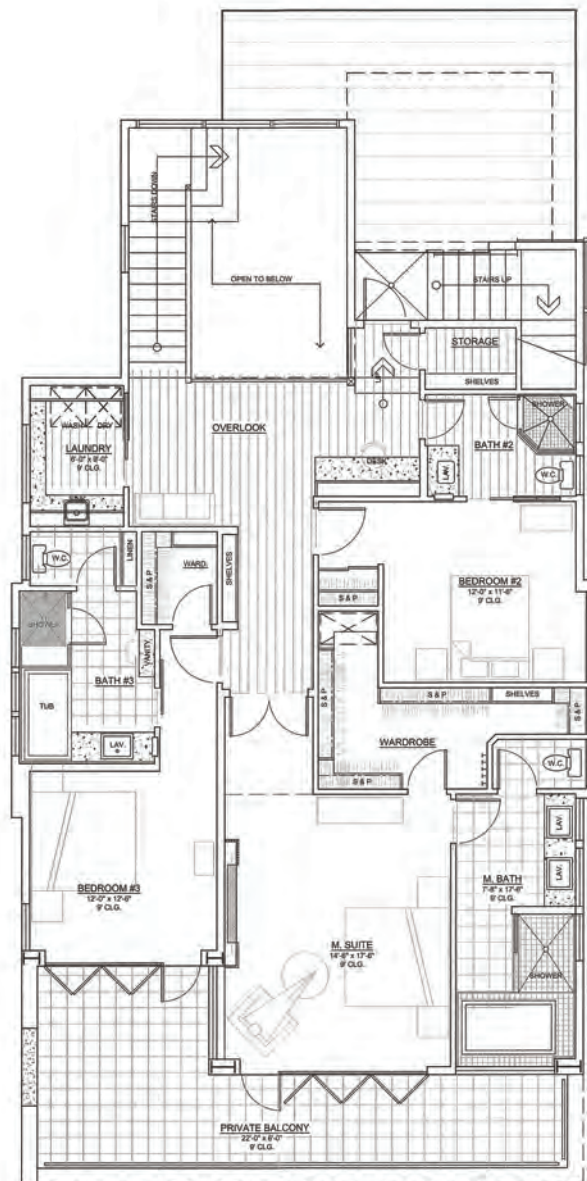
SHEET NAME:

Exhibit 2

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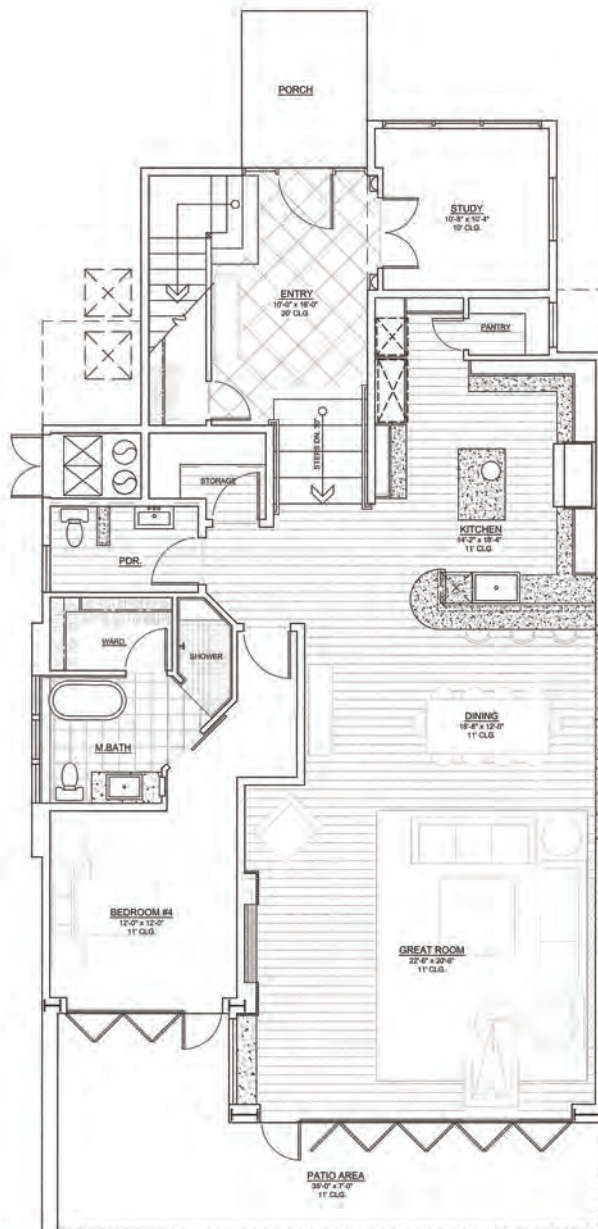


California Coastal
Commission



UPPER LEVEL FLOOR PLAN - 1,564 SQ.FT.
SCALE: 1/4" = 1'-0"

TOTAL LIVABLE -
3,548 SQ. FT.



LOWER LEVEL FLOOR PLAN - 1,984 SQ.FT.
SCALE: 1/4" = 1'-0"



GARAGE PLAN - 665 SQ.FT.
SCALE: 1/4" = 1'-0"

AREA TABULATIONS

RESIDENCE	NEW DESIGN
LOWER FLOOR	= 1,984 SQ. FT.
UPPER FLOOR	= 1,564 SQ. FT.
TOTAL LIVABLE	= 3,548 SQ. FT.
DETACHED GARAGE	= 665 SQ. FT.

ORIGINAL SQUARE FOOT
= 2,355 SQ. FT.
= 1,923 SQ. FT.
= 4,278 SQ. FT.

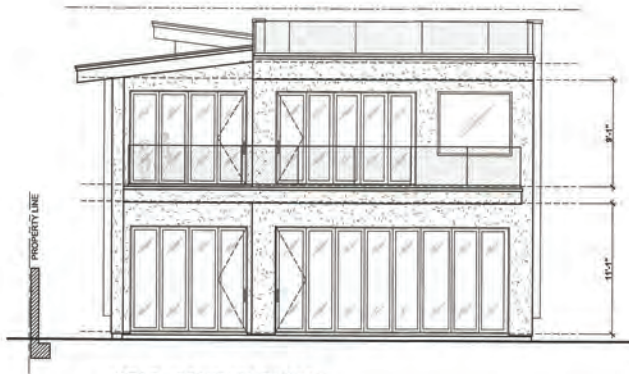


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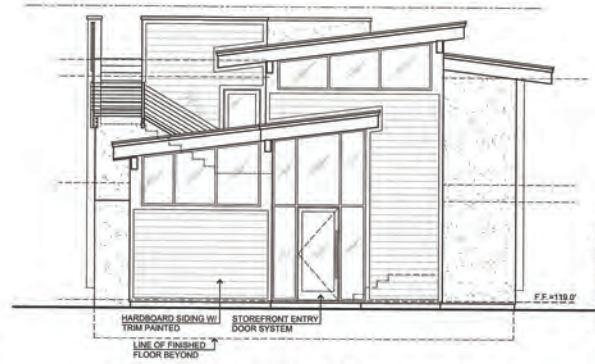
Page 2 of 8



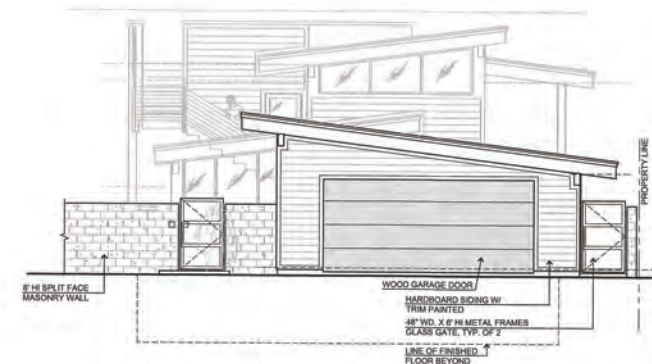
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REAR - SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



COURTYARD VIEW FRONT - NORTH ELEVATION
SCALE: 3/16" = 1'-0"



STREET VIEW FRONT - NORTH ELEVATION
SCALE: 3/16" = 1'-0"



LEFT - EAST ELEVATION
SCALE: 3/16" = 1'-0"

MAX BUILDING HEIGHT CALC.
COSTAL REQUIREMENTS:
HIGHEST NAT. ADJ. GRADE = 121.00'
LOWEST NAT. ADJ. GRADE = 119.00'
TOTAL = 230.00' / 2 = 115.00'
MAX ALLOWABLE BUILDING:
HEIGHT PER COSTAL = 119.5' + 26.00' = 145.5'
MAX ALLOWABLE BUILDING ELEVATION = 145.5'
PROPOSED FINAL BUILDING HEIGHT = 142' < 145.5' = OK



RIGHT - WEST ELEVATION
SCALE: 3/16" = 1'-0"

STEENO
DESIGN STUDIO
ARCHITECTURE DESIGN PLANNING
11777 WILSON AVENUE, SUITE 100
LOS ANGELES, CA 90024
PHONE (760) 244-5591 FAX (760) 744-1144
WWW.STEENODSIGN.COM

DATE FINISHED
MAY, 2013

REVISIONS
SEP. 2017
JAN. 2018
JAN. 2019

THESE PLANS SHALL COMPLY
WITH THE CITY OF LOS ANGELES
UNIFORM BUILDING ORDINANCES
AND THE CALIFORNIA BUILDING
CODES.

THESE DOCUMENTS AND THE
DESIGN AND CONSTRUCTION
INCORPORATED HEREIN AS AN
INTEGRAL PART OF A
PROFESSIONAL SERVICE, ARE
THE SOLE PROPERTY OF
STEENO DESIGN STUDIO. NO
PART OF THIS DOCUMENT OR
ANY USE, IN WHOLE OR IN PART,
FOR WHICH THEY HAVE NOT
PROVIDED SHALL BE UNLAWFUL.

PLANS APPROVED
City of Los Angeles
City Planning Department
DATE: 6/12/18 BY: [Signature]

LA 2013 3636 CDP-MCL-ZH

PROJECT: CUSTOM RESIDENCE
DR. KRISHNA & NIRMALA MURTHY
PROJECT ADDRESS:
11777 WILSON AVENUE, SUITE 100
LOS ANGELES, CA 90024
PHONE: (760) 244-5591
WWW.STEENODSIGN.COM

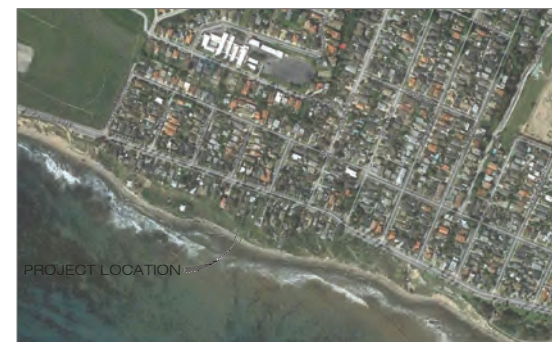
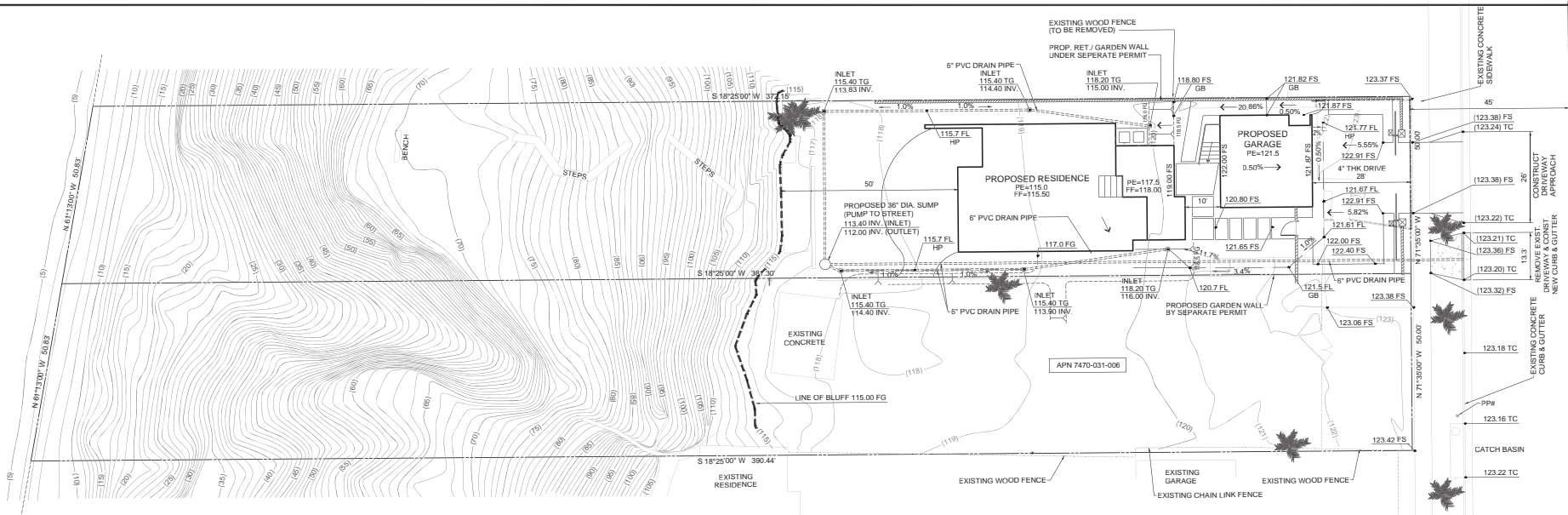
JOB NO.
R13-101
SHEET NAME

Exhibit 2

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Commission



PREPARED FOR:
DR. KRISHNA MURTHY
1307 PASEO DEL MAR
SAN PEDRO, CA. 90731
(760) 954-7242

STATISTICS:
APN 7470-031-005 0.43 AC (NET)

SITE ADDRESS:
1307 PASEO DEL MAR
SAN PEDRO, CA 90731

LEGAL DESCRIPTION:
LOT 25, TRACT NO. 7117, M.B. 78-98

BENCHMARK:
CITY OF LOS ANGELES BENCH MARK NO.
24-10353
USC&GS BRASS CAP STAMPED "T-787" IN
CONC. MONUMENT LOCATED 1.5' SOUTH OF
SOUTH CURB ON PASEO DEL MAR, 19' WEST
OF CENTERLINE PRODUCTION OF PATTON
AVENUE, 2' EAST OF EAST END OF CATCH
BASIN.
ELEVATION = 123.943

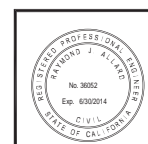
NOTES:
BUILDING AND SAFETY FORM B-164 "GENERAL GRADING REQUIREMENTS" IS A PART OF THESE PLANS.
STANDARD 12-INCH HIGH BERM IS REQUIRED AT TOP OF ALL GRADED SLOPES.
NO FILL SHALL BE PLACED UNTIL THE SOILS ENGINEER OF RECORD AND THE CITY GRADING INSPECTOR HAS
INSPECTED AND APPROVED THE BOTTOM EXCAVATION.
BUILDING AND SAFETY LETTER DATED _____ AND REFERENCED REPORTS ARE A PART OF THESE PLANS.
CITY PLANNING LETTER DATED _____ IS A PART OF THESE PLANS.
A REGISTERED DEPUTY GRADING INSPECTOR IS REQUIRED FOR _____.

ZONING:
PROPERTY ZONING: R1-1XL
INTENDED LAND USE: RESIDENTIAL

FLOOD PLAIN:
FEMA ZONE X, MAP NO. 06037C2033F DATED 9/26/2008

EARTHWORK QUANTITIES:
CUT: 115 CU. YDS.
FILL: 35 CU. YDS.
IMPORT: 0
EXPORT: 80 CU. YDS.

LEGEND:
(XXX) EXISTING ELEVATION
XXX PROPOSED ELEVATION
FL FLOWLINE
HP HIGH POINT
GB GRADE BREAK
TG TOP OF GRATE
INV. INVERT ELEVATION
FS FINISHED SURFACE
PE PAD ELEVATION
FF FINISHED FLOOR
EXISTING CONTOURS
DRAINAGE ARROW
PALM TREE



RAYMOND J. ALLARD R.C.E. 30052
(expires 6/30/2014)



HIGH DESERT MAPPING
Land Surveying - Civil Design
16704 Neenach Road
Apple Valley, CA. 92307
(760) 508-8555
dow.hdm@gmail.com

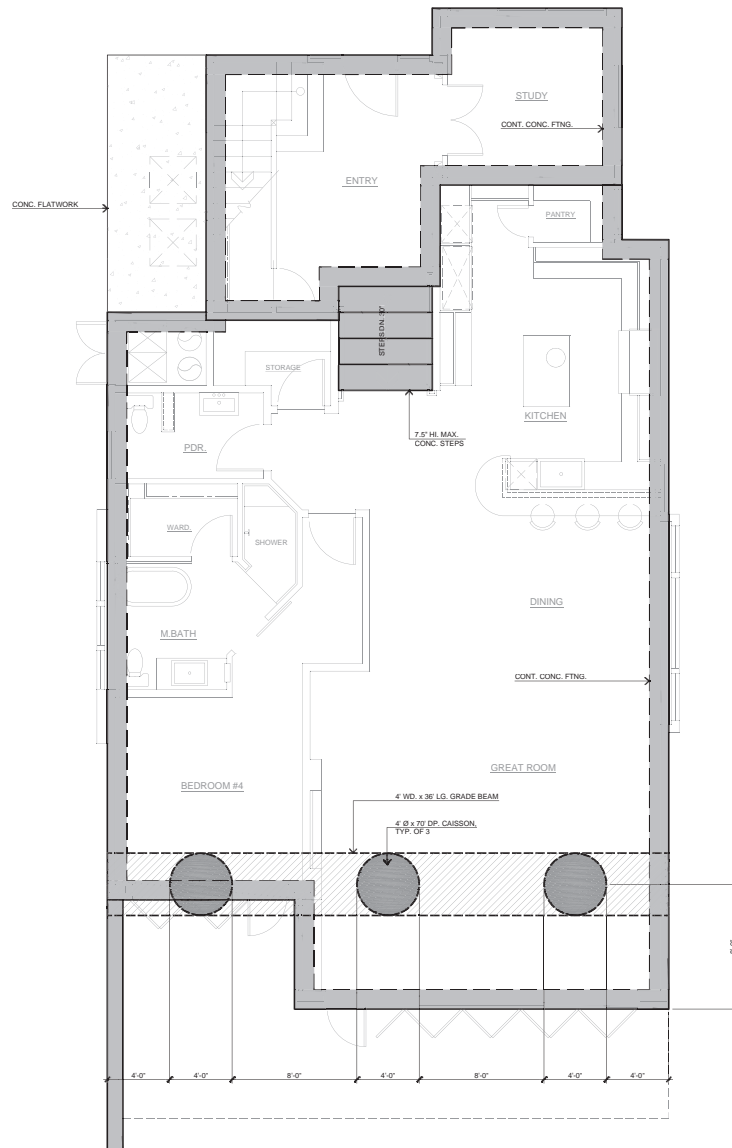
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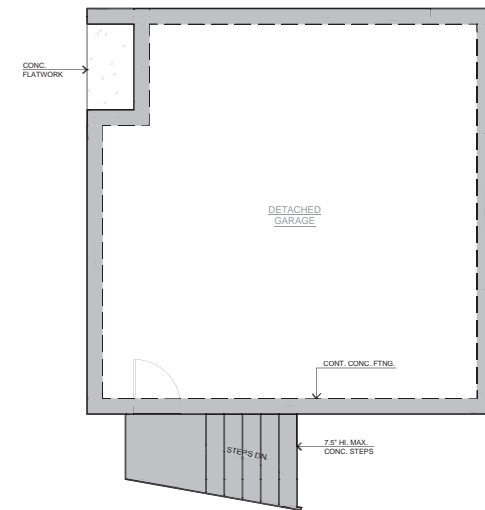
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California Coastal Commission



FOUNDATION PLAN - HOUSE
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN - GARAGE
SCALE: 1/4" = 1'-0"

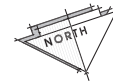
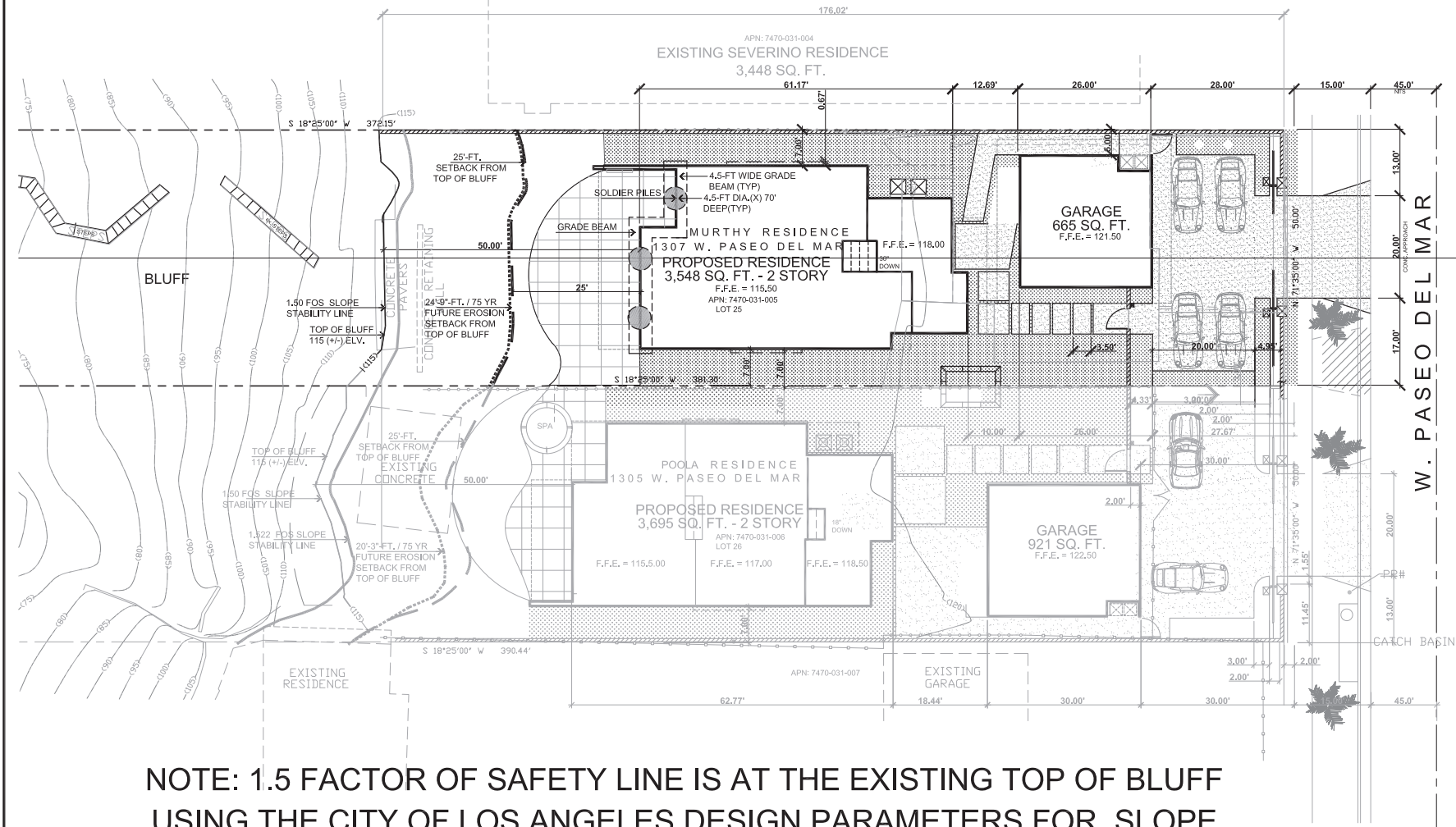
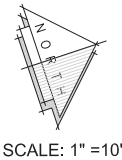


Exhibit 2

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1307 W. PASEO DEL MAR / M U R T H Y



NOTE: 1.5 FACTOR OF SAFETY LINE IS AT THE EXISTING TOP OF BLUFF
USING THE CITY OF LOS ANGELES DESIGN PARAMETERS FOR SLOPE
STABILITY AND USE OF SOLDIER PILES UNDER THE PROPOSED BUILDING



PREPARED BY OR UNDER DIRECTION OF:	
STEPHEN B. PETER	DATE: 13/17/20
REGISTERED PROFESSIONAL ENGINEER No. 38623 Exp. 3/21/21 STATE OF CALIFORNIA	

F.O.S. = FACTOR OF SAFETY

DATE	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: AS SHOWN	DESIGNED: SP	DRAWN: SP	CHECKED: SP
ACAD FILE NO. 19SE19076	DATE		
PROJECT NO. 19SE19076			

LEGAL:

BENCHMARK
CITY OF LA BM NO. 24-10353 ELEVATION = 123.943

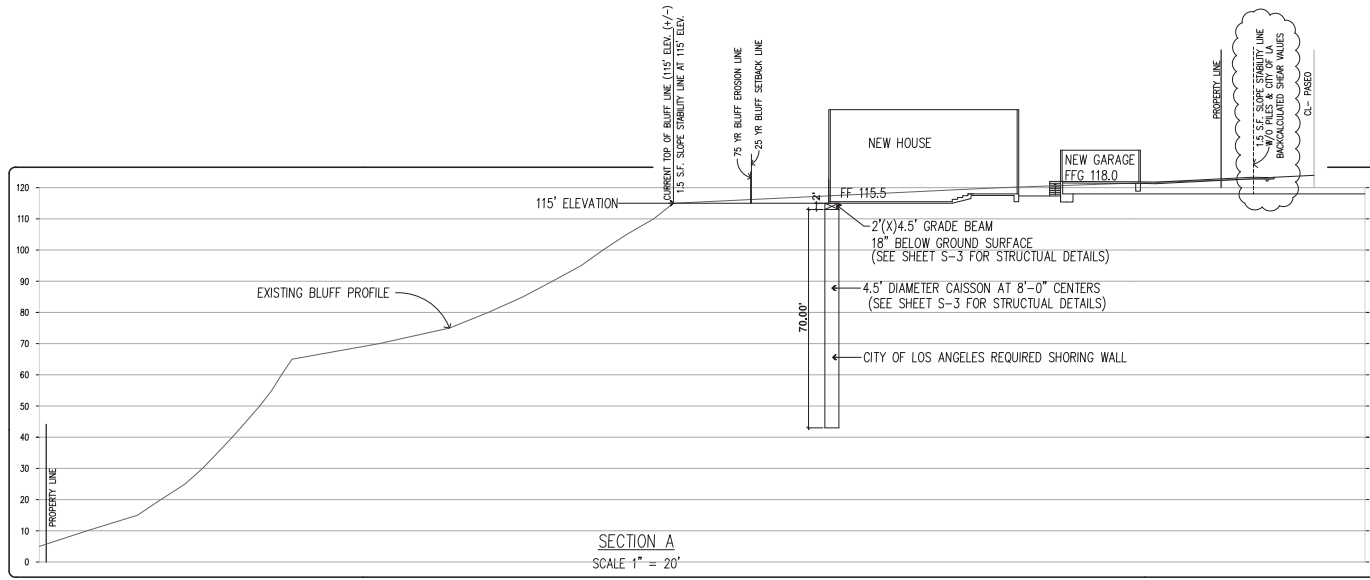
A.P. NUMBER:

PLANS PREPARED BY:
PETER and ASSOCIATES ENGINEERS
GEOLOGISTS & SURVEYORS, INC.
WWW.PETERASSOC.COM
1519 CALLE VALLE, SAN CLEMENTE, CA 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

1.5 F.O.
1307 W. PASEO DEL MAR
PREPARED BY

Exhibit 2

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PREPARED BY: OR UNDER DIRECTION OF:	DATE:
STEPHEN B. PETER	12/17/20

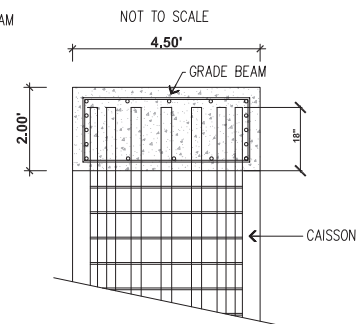
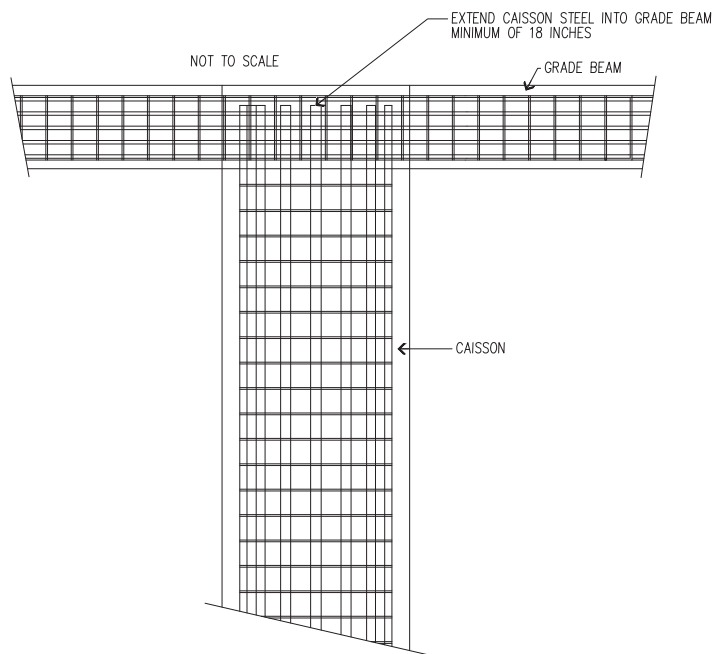
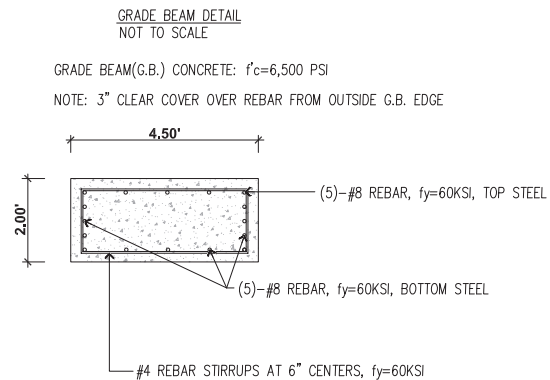
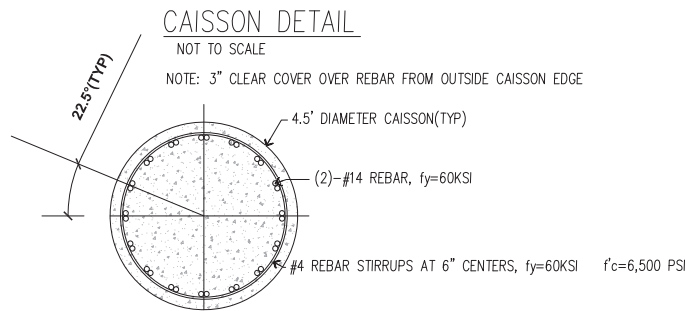
REGISTERED PROFESSIONAL ENGINEER
STEPHEN B. PETER
No. 38623
Exp. 3/21/21
STATE OF CALIFORNIA

DATE	REVISION	DESCRIPTION	APPROVED	DATE	SCALE:	DESIGNED:	DRAWN:	CHECKED:	LEGAL:	BENCHMARK	A.P. NUMBER:	PLANS PREPARED BY:	ENGINEERS	SAN F
					AS SHOWN	SP	SP	SP		CITY OF LA BM NO. 24-10353 ELEVATION = 123.943	7470-031-005	PETER and ASSOCIATES	GEOLOGISTS & SURVEYORS, INC.	PREP
					AGAD FILE NO. 19SE19076							WWW.PETERASSOC.COM		
					PROJECT NO. 19SE19076								1519 CALLE VALLE, SAN CLEMENTE, CA 92672 Tel: (949) 492-3735 Fax: (949) 492-1891	

Exhibit 2

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California Coastal Commission



PREPARED BY/OR UNDER DIRECTION OF:	
STEPHEN B. PETER	DATE

DATE	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: AS SHOWN	DESIGNED: SP	DRAWN: SP	CHECKED: SP
ACAD FILE NO. 195E19076			
PROJECT NO. 195E19076			

LEGAL:
LOT 25 TR 7117 M.B. 78-98

BENCHMARK
CITY OF LA BM NO. 24-10353 ELEVATION = 123.943

A.P. NUMBER: 7470-031-005

PLANS PREPARED BY:

PETER and ASSOCIATES ENGINEERS
GEOLOGISTS & SURVEYORS, INC.

WWW.PETERASSOC.COM

1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

STRUCTURAL
SAN
PRE

Exhibit 2

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California Coastal
Commission

CALIFORNIA COASTAL COMMISSION

SOUTH COAST DISTRICT OFFICE

301 E. OCEAN BLVD. SUITE 300

LONG BEACH, CA 90802-4416

VOICE (562) 590-5071 FAX (562) 590-5084

JUL 16 2019

CALIFORNIA

COASTAL COMMISSION



APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

Please Review Attached Appeal Information Sheet Prior To Completing This Form.

SECTION I. Appellant(s)

Name: Noel Gould, Mark Severino, Penelope McKenzie, Neil Boissonnault, Full list attached.

Mailing Address: 728 Paseo Del Mar

City: San Pedro

Zip Code: 90731

Phone: 310-625-1157

SECTION II. Decision Being Appealed

1. Name of local/port government:

Los Angeles

2. Brief description of development being appealed:

1307 W. Paseo del Mar: demolition of a 1,302 sq ft single-family residence and construction of a new 2-story, 26' high, 3,548 sq ft single-family residence with a 656 sq ft detached garage and 2,166 sq ft of roof decking, balconies, and mechanical equipment area. Related Case: 1305 W. Paseo del Mar: construction of a new 2-story, 26' high, 3,695 sq ft single family residence with a 760 sq ft detached garage roof deck, balconies and mechanical equipment area.

3. Development's location (street address, assessor's parcel no., cross street, etc.):

1307 W. Paseo del Mar & 1305 W. Paseo del Mar, APN: 7470031007 & 7470031006, Patton Ave

4. Description of decision being appealed (check one.):

- ☐ Approval; no special conditions
- ☒ Approval with special conditions:
- ☐ Denial

Note: For jurisdictions with a total LCP, denial decisions by a local government cannot be appealed unless the development is a major energy or public works project. Denial decisions by port governments are not appealable.

TO BE COMPLETED BY COMMISSION:

APPEAL NO:

A-5-SNP-19-0154

DATE FILED:

July 16, 2019

DISTRICT:

South Coast

Exhibit 3

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California Coastal
Commission

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 2)

5. Decision being appealed was made by (check one):

- ☐ Planning Director/Zoning Administrator
☐ City Council/Board of Supervisors
☒ Planning Commission
☐ Other

6. Date of local government's decision: March 19, 2019 (mailing date May 22, 2019)

7. Local government's file number (if any): ZA-2013-3636-CDP-MEL-A1

SECTION III. Identification of Other Interested Persons

Give the names and addresses of the following parties. (Use additional paper as necessary.)

a. Name and mailing address of permit applicant:

Nirmala Murthy, K&N Revocable Trust, 19885 Sunset Lane, Apple Valley, CA 92308
and

Thomas Steeno, Steeno Design Studio Inc., 11774 Hesperia Road #B1760, Hesperia, CA 92345

b. Names and mailing addresses as available of those who testified (either verbally or in writing) at the city/county/port hearing(s). Include other parties which you know to be interested and should receive notice of this appeal.

(1) Mark Severino and Penelope McKenzie 1311 W. Paseo del Mar San Pedro, CA 90731
Noel Gould 728 W. Paseo del Mar San Pedro, CA 90731

(2) Elaine Clark 1351 W. Paseo del Mar San Pedro, CA 90731
Jennifer McMullen, Kathleen Martin

(3) Amanda Seward Law Offices of Amanda Seward 3530 Moore St. Los Angeles, CA 90066

(4)

HA-10-11-942-0-A
P10001.0001
P10001.0001

Exhibit 3

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California Coastal
Commission

SECTION IV. Reasons Supporting This Appeal

PLEASE NOTE:

- Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section.
- State briefly **your reasons for this appeal**. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)
- This need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

Justification for appeal of the Harbor Area Planning Commission (HAPC) decision of March 19th, 2019 for CASE NO. ZA-2013-3636-CDP-MEL-1A; Coastal Commission CDP application number 5-19-0324, 1307 W. Paseo del Mar, San Pedro, CA 90731.

Throughout the City hearing and appeal processes for this and its companion project at 1305 W. Paseo del Mar, CDP application No. 5-19-0325, there have been numerous inconsistencies regarding square footage of the houses, garages, roof decks, grading amounts, and overall project descriptions. For example, the HAPC decision letter specifies throughout that the project at 1305 W. Paseo del Mar involves the demolition of an existing single family residence when there is none. The HAPC approved a 921 square foot garage, yet the Coastal application specifies a 760 square foot garage, and yet when you multiply the garage dimensions on the drawings which state 760 sq ft, it's actually 870 square feet. To date, no approved plans have been presented for consideration.

While this appeal pertains to 1307 W. Paseo del Mar, it's important that both this and the future appeal of 1305 W. Paseo del Mar be considered together by the Commission because they are owned by the same family, have the same architect, and are adjacent to each other. The projects shared a common CEQA MND. Both projects have been heard together at all the City hearings, and while each project individually is grossly out of conformance with the Community Character, Mass, and Scale, both projects together, with the proposed solid six foot + high common wall across both properties, present as a massive compound.

The projects also fail to satisfy the Chapter 3 requirements of the California Coastal Act (CCA). The development will prejudice the ability of the City of Los Angeles to prepare a Local Coastal Program that is in conformity with Chapter 3 of the California Coastal Act of 1976.

The proposed project's consistency with the Community Character of the area should be analyzed with a visual streetscape analysis of the bluff fronting homes nearby the subject site.

The Certified San Pedro Coastal Land Use Plan states in part from the Preamble, "Residents of San Pedro emphasize is small town, hometown, or village feeling. The small town quality is enhanced by the fact that the majority of residents are homeowners who both live and work in the harbor area in contrast to the "bedroom" community characteristics of many other parts of Los Angeles. San Pedro is neighborhood oriented, with many small family businesses, which also serve as local meeting places. Another important quality of San Pedro is the "old world flavor" or ethnic atmosphere. San Pedro is a melting pot where the culture of those who have settled here has been preserved and encouraged. LUP page 4 Objective 4 is to encourage the preservation and enhancement of the varied and distinctive residential neighborhoods and character of San Pedro. LUP page 4 under Land Use/Housing states in part, "The plan seeks to maintain neighborhood character by preserving stable single-family areas since neighborhoods have been, and continue to be, the building blocks of San Pedro. They add stability to the community and provide a foundation for the often described "uniqueness" rather than turn San Pedro into another "bedroom suburb" where people live and enjoy the coastal amenities without having a direct involvement of interest in the Community, LUP Page 5 Objectives 1 states, "To preserve, and protect stable single-family residential areas from encroachment by other types of uses, including higher density residential development. To maintain the varied and distinct neighborhood units, which make up the Community of San Pedro."

Exhibit 3

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EXHIBIT A details the square footage of all the existing homes on the W. Paseo del Mar bluff. There are three columns. The first shows the square footage of the houses. The second shows the square footage of the garages, and the third shows the visible square footage. The average square footage/baseline of all the homes is 1,600. The average of the garages is 315, and the average square footage of the visible structures is 1,279. Exhibit A shows in red highlight the square footage of the original proposal, the slightly reduced size of the HAPC approved version, and in green our recommended compromise which results in just over a 5% increase in the baseline, really the maximum that would still not cause a material increase in the baseline square footage. Capping the projects at 2,300 sq ft for each house or even 2,050 sq ft using the actual appearance of the bluff homes as a baseline with normal sized (400 sq ft) garages is the ONLY way to assure the scale and character of this bluff side neighborhood is protected from adverse cumulative impacts and violation of the Coastal Act and certified Land Use Plan. As proposed, the effect of these two homes on the baseline square footage is too large and would dramatically and materially change the baseline size/square footage of the bluff top area, thus causing a significant adverse cumulative impact in a very short period of time, and further prejudicing the City's ability to prepare a Local Coastal Program that is in conformity with the Chapter 3 policies of the Coastal Act. If these projects are approved as proposed, they will set the new standard by which future developments will be measured.

EXHIBIT B is a set of photos showing the houses and garages on the entire bluff side of W. Paseo del Mar.

EXHIBIT C consists of two short videos showing the bluff top of W. Paseo del Mar from the car's side window and from the windshield view. These photos and views will provide a real time streetscape showing the exact community character and scale of the W. Paseo del Mar bluff top neighborhood.

Download link for W. Paseo del Mar videos: <https://spaces.hightail.com/receive/dzszXHxGs6>

Section 30250 Location; existing developed area

- (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.

Section 30251 Scenic and visual qualities

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30253 Minimization of adverse impacts

New development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) 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.
- (3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.
- (4) Minimize energy consumption and vehicle miles traveled.
- (5) Where appropriate, protect special communities and neighborhoods, which because of their unique characteristics are popular visitor destination points for recreational uses.

- 1) The development relies on the installation of a massive soldier pile wall in order to achieve the required 1.5 factor of safety, and soldier piles, or caissons, are considered shoreline protective devices, with the approval of the Coastal Commission for new development. Because caissons usually become exposed

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structures would, new development cannot rely on them to assure structural stability or to determine a safe bluff setback. Instead, the structure must be set back far enough from the bluff edge to be safe over its projected lifespan, eg. 75 years. Sea level rise in combination with dramatically increased storm activity should be factored in when projecting the rate of erosion.

LUP Page 19 Policy 7 states, “New development, including additions to and remodels of existing structures, along coastal bluffs shall not be approved unless it minimizes risk to life and property, assures structural stability and integrity for the economic lifetime of the development, and neither creates nor contributes significantly to erosion, geologic instability, or destruction of the site or surrounding areas or any way requires the construction of protective devices that would substantially alter natural landforms. Furthermore, Page 16 Policy 2 of the **LUP** states, “It is the City’s policy that”: “the grading of natural terrain to permit development in hillside areas be minimized commensurate with densities designated by this Plan, the geological stability of the area, and compatibility with adjoining land uses, the preservation of natural landforms and to ensure that the potential negative effects of runoff and erosion on environmentally sensitive marine resources are minimized.” **LUP** Page 16 Policy 4 states, “It is the City’s policy that”: “Development be restricted on areas of known geologic hazard, unstable soil conditions or landslides.” **Both the projects at 1307 and 1305 W. Paseo del Mar are out of compliance with these policies due to their size and scope.**

EXHIBIT D, is an March 13th, 2019 LA Times article about the USGS new climate model which is the first to combine the effects of sea level rise and storms on our coasts.

Given the proposed size of the house and garage, a safe setback without a deepened caisson foundation achieving a 1.5 factor of safety won’t be possible. The house and garage must be reduced to a size that will allow them to be sited far enough from the bluff edge to achieve the required factor of safety without a deepened caisson foundation.

EXHIBIT E shows that there is a significant amount of bluff erosion, already caused by the storm drain, which has not been considered by the applicant’s geotechnical firms. It also shows what is likely unpermitted development, a stairway which has been completely destroyed by the action of erosion on the bluff face, and if unpermitted should have a removal plan presented by the applicant. The destroyed stairway shows significant evidence of bluff retreat and erosion.

EXHIBIT F is a number of excerpts from the Certified San Pedro Coastal Land Use Plan (LUP) Which is to be used for guidance by the City when determining whether or not development conforms to the Coastal Act.

EXHIBIT G <https://www.latimes.com/projects/la-me-sea-level-rise-california-coast/>

is a July 7th LA Times article detailing the devastating nature of sea level rise and the struggle of finding ways to deal with it. According to the article, the most hated solution by home owners and developers is managed retreat in which people need to plan on moving further inland as the sea level rises. This is particularly pertinent regarding these projects as they have **NOT YET BEEN BUILT** or approved by the Coastal Commission, thus we have the opportunity to make sure they are small enough and sited far enough back from the bluff edge to take likely sea level rise and major storm action into account.

- 2) There have been no plans provided to show how the project would be sited with the 50 foot setback suggested at the Harbor Area Planning Commission, let alone plans showing the project without the use of a deepened caisson foundation which would require a much smaller project with a much greater setback.
- 3) There has been no removal plan provided in the event the home is threatened by bluff erosion or instability during its design life.
- 4) Public views to the ocean and Catalina Island are walled off by this project. Page 4 Objective 6 of the **LUP** is to “preserve scenic views and improve the visual environment of the Community through the protection of it’s natural features, topography, and coastline.” Which this project does not. **LUP** Page 6 Policy 10 states in part, “The preservation of existing public scenic views from scenic highways or designated scenic view sites shall be required for the approval of all coastal development permits...” This project completely fails to meet the requirements of the **LUP** and the Coastal Act. **Paseo del Mar.**

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Paseo del Mar is a designated scenic highway in the San Pedro Community plan.

In the CDP application for this project where item 10. Asks: Is the proposed development visible from:

a) State Hwy 1 or other scenic route, the applicants checked NO.

Unfortunately this has happened numerous times since 2013 when the applicant began this process. It's happened with saying there were no trees with a diameter greater than eight inches. It's happened with grossly understated grading estimates. It's happened with seriously underestimated project costs. It's happened with multiple variations in square footage of the houses, garages, and roof decks to the point where we've never known exactly what we're dealing with.

The two projects at 1307 and 1305 W. Paseo del Mar have been proposed with a common solid wall joining the properties and creating the look of a massive compound. They are also similar in size and identical in architectural style, so even without a common wall, they would still appear as a compound. The size and style of the houses should be greatly reduced and varied in order to mitigate this effect. When the proposed square footage of both projects at 1307 and 1305 W. Paseo del Mar including garages, houses, and roof decks are combined, the applicant is asking the Commission to approve over 12,000 square feet of development on two adjacent lots in a neighborhood where the baseline square footage of the visible houses and garages is only about 1,600 square feet per lot, and the actual baseline square footage including houses that aren't visible from the street is only just over 1,900 square feet per lot. These projects are over three times the baseline square footage of the entire bluff side development and are thus massively out of the Community Character of the neighborhood and should be denied as proposed for this reason alone, lest a material and uncorrectable increase in the baseline square footage of the neighborhood Prejudice the City's ability to prepare a Local Coastal Program in conformance with Chapter 3 Policies of the Coastal Act.

It's important that public views from the street be preserved, so view corridors should be created on the east and west side yards. Since public views should be permitted, any fencing and gates in side yard setbacks need to have at least 75% of their surface area open to light.

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Section 30240 Environmentally sensitive habitat areas; adjacent developments

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

The Peregrine Falcon (*Falco peregrinus*) was listed as endangered in 1970 under the federal Endangered Species Act, and listed as endangered in 1971 under the California Endangered Species Act. Due to diligent conservation and recovery efforts, the species was federally delisted in 1999 and in delisted in California in 2009. The Peregrine Falcon remains a fully protected species in California ([see Fish and Game Code, Section 3511](#)) However, as of April 23, 2019, The State of California Natural Resources Agency included the peregrine falcon on it's list of state and federally endangered and threatened animals of California.

In section IV. of the CEQA MND, parts a and d, the applicant claims there are no sensitive or especial status species present on or near the project or that there is no native wildlife corridor or native wildlife nursery site on or near the project.

IV. BIOLOGICAL RESOURCES			
a	NO IMPACT	No species identified as a candidate, sensitive, or special status species is known to be present on or near the proposed project. No impact would occur.	
d	LESS THAN SIGNIFICANT IMPACT	No native wildlife corridor or native wildlife nursery site is known to be present on or near the project. The site is open on the southerly (coastal) side, and fenced on the northern side.	

EXHIBIT H shows peregrine falcons at 1311 W. Paseo del Mar adjacent to the project sites at 1307 and 1305 W. Paseo del Mar. One falcon is seen in the skylight and another is perched on a tall plant on the bluff near their nesting site. Clearly their status has been inaccurately represented in the CEQA MND, and because these projects are within 500 feet of a fully protected raptor nesting site, section 30240 of the Coastal Act must be considered and required mitigation measures must be incorporated into any construction plans.

Please review the audio transcript of the hearing of the two HAPC City Hearings, which are available on City Planning's website and are incorporated herein by reference.

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APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 4)

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

Yonice R Hill
Jennifer Sumner

Noel Gaud

Signature of Appellant(s) or Authorized Agent

Date: July 16, 2019

~~Note: If signed by agent, appellant(s) must also sign below.~~

Section VI. Agent Authorization

~~I/We hereby
authorize~~

~~to act as my/our representative and to bind me/us in all matters concerning this appeal.~~

George Wallace
Lorna Wallace

Signature of Appellant(s)

Date:

Elaine Clark
Wayne Widner
Neil B. Baisan
Margaret Lundquist
John
Paul
Betty Kunk

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Noel Gould 728 W. Paseo del Mar San Pedro, CA 90731
Mark Severino 1311 W. Paseo del Mar San Pedro, CA 90731
Penelope McKenzie 1311 W. Paseo del Mar San Pedro, CA 90731
Lorna Wallace 1321 W. Paseo del Mar San Pedro, CA 90731
George Wallace 1321 W. Paseo del Mar San Pedro, CA 90731
Wayne Widner 1218 W. Paseo del Mar San Pedro, CA 90731
Monical Hall 1210 W. Paseo del Mar San Pedro, CA 90731
Jennifer Grasso 1210 W. Paseo del Mar San Pedro, CA 90731
Elaine Clark 1351 W. Paseo del Mar San Pedro, CA 90731
Neil Boissonnault 1461 W. Paseo del Mar San Pedro, CA 90731
Betty Kurnik 1467 W. Paseo del Mar San Pedro, CA 90731
Margaret Lindquist 1035 W. 37th Street San Pedro, CA 90731

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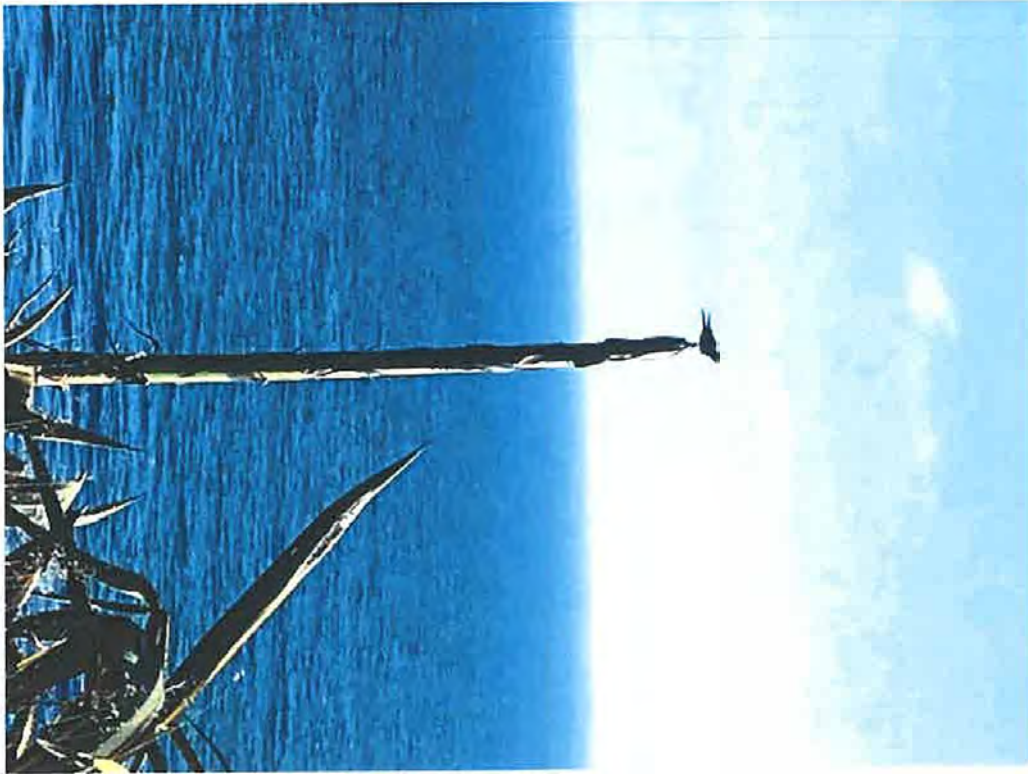


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Paseo del Mar Bluffs Square Footage Analysis

EXHIBIT A

Address on Paseo del Mar Bluff	Square Footage		Square Footage Street View— Structure Visible
	House	Garage	
1481	3,000	520	3,000
1479	865	0	0
1475		0	520
1471	3,410	520	3,410
1467	1,776	400	1,776
1461	1,406	400	1,406
1459	1,748	0	0
1457	1,012	400	1,748
1451	816	0	0
1441	2,730	400	2,730
1431	1,185	400	1,185
1427	1,321	400	1,321
1421	1,333	400	1,333
1417	1,640	400	1,640
1411	1,375	400	1,375
1407	1,129	400	1,129
1401	900	400	900
1375	1,399	0	0
1371	2,188	360	360
1365	3,336	400	3,336
1355	1,809	0	1,809
1351	1,432	360	1,432
1327	2,198	400	2,198
1321	1,245	400	1,245
1317	0	0	0
1311	2,840	520	520
1307	1,302	150	1,302
1305	0	0	0
1227	954	520	954
1221-1223	1,298	400	1,298
1217	1,964	400	400
1211	2,400	520	2,400
1207	1,096	400	1,096
1201	378	400	378
1177	1,013	0	1,013
1171	1,150	400	1,150
1167	1,632	0	1,632
1161	1,217	132	1,217
1153	2,630	400	600
1151	1,689	380	800
Total square footage on bluff	60,816	11,982	48,613
# lots	38	38	38
average square footage/existing baseline	1,600	315 (Mean = 400)	1,279
Total square footage on bluff	60,816	11,982	48,613
Demo existing house	-1,302	-150	-1,302
Original proposed	4,278	921	4,278
Original proposed	4,385	661	4,385
	68,177	13,414	55,974
# lots	38	38	38
average square footage/baseline	1,794	353	1,473
Percentage Increase in baseline as originally proposed	12.10%	11.95%	15.14%
Total square footage on bluff	60,816	11,982	48,613
Demo existing house	-1,302	-150	-1,302
Revised proposed	3,695	921	3,695
Revised proposed	3,548	661	3,548
	66,757	13,414	54,554
# lots	38	38	38
average square footage/baseline	1,757	353	1,436
Percentage Increase in baseline as revised	9.77%	11.95%	12.22%
Total square footage on bluff	60,816	11,982	48,613
Demo existing	-1,302	-150	-1,302
Maximum new	2,300	400	2,050
Maximum new	2,300	400	2,050
	64,114	12,632	51,411
# lots	38	38	38
average square footage/baseline	1,687	332	1,353
Reasonable percentage increase in baseline	5.42%	5.42%	5.76%

Square Footages
acquired from
Realtor.com
Zillow.com +
Zimas.
Double checked week
of July 7th 2019

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1151 W. Paseo del Mar 1689 ft²

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1153 W. Pason del Mar 2630 Ct 2

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1161 W. Paseo del Mar 1217 C42

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1167 W. Paseo del Mar 16.32 C42

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1171 W. PASEO DEL MAR 115042

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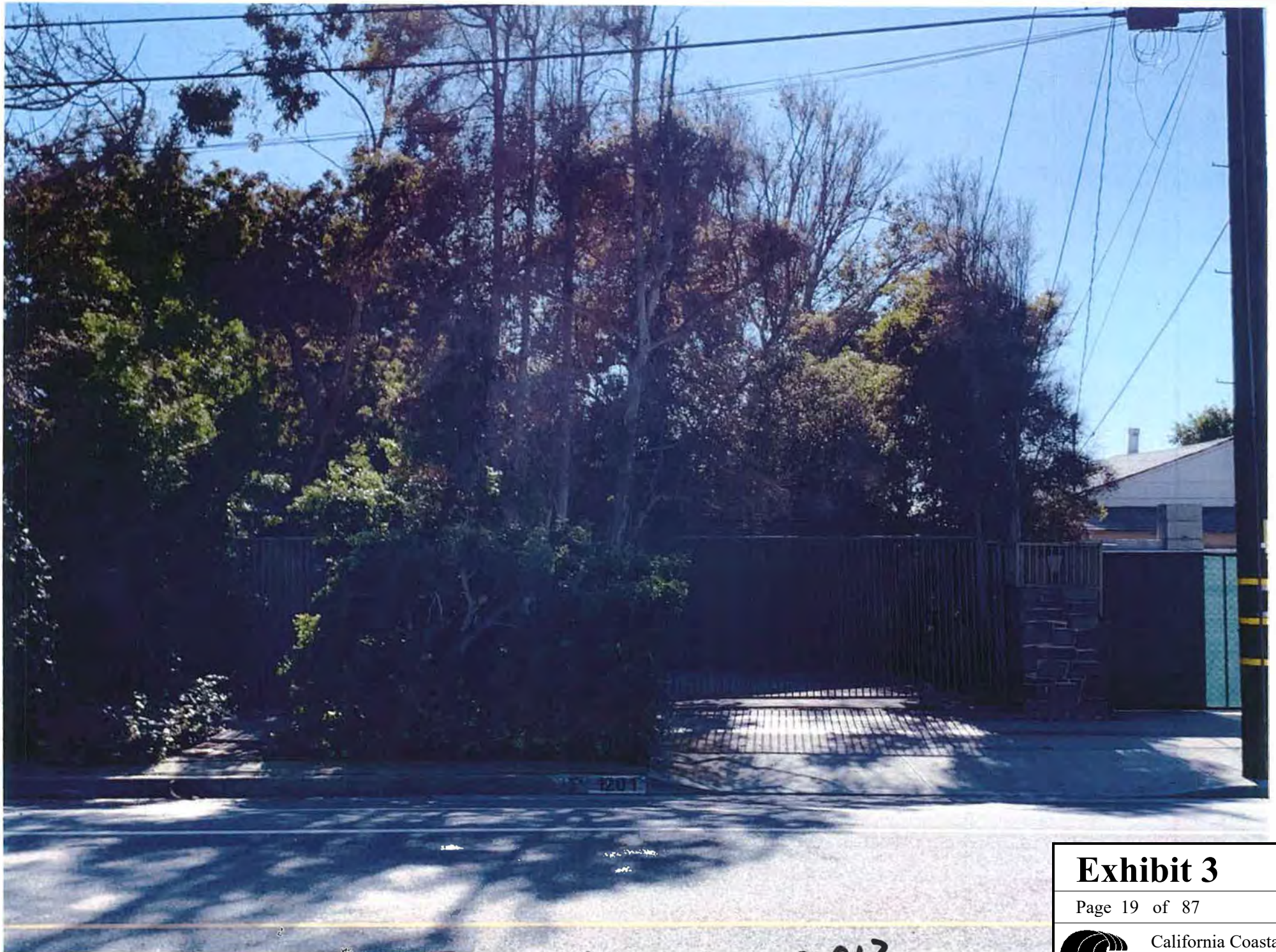
1177 W. Pasadena Ave 1013 ft2

Exhibit 3

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1201 W. Paseo del Mar 338 542

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1207 W. Paseo del Mar 1096 ft²

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1211 W. Paces del Mar 2400 S+2

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1217 W. Pison del Mar 1964 St²

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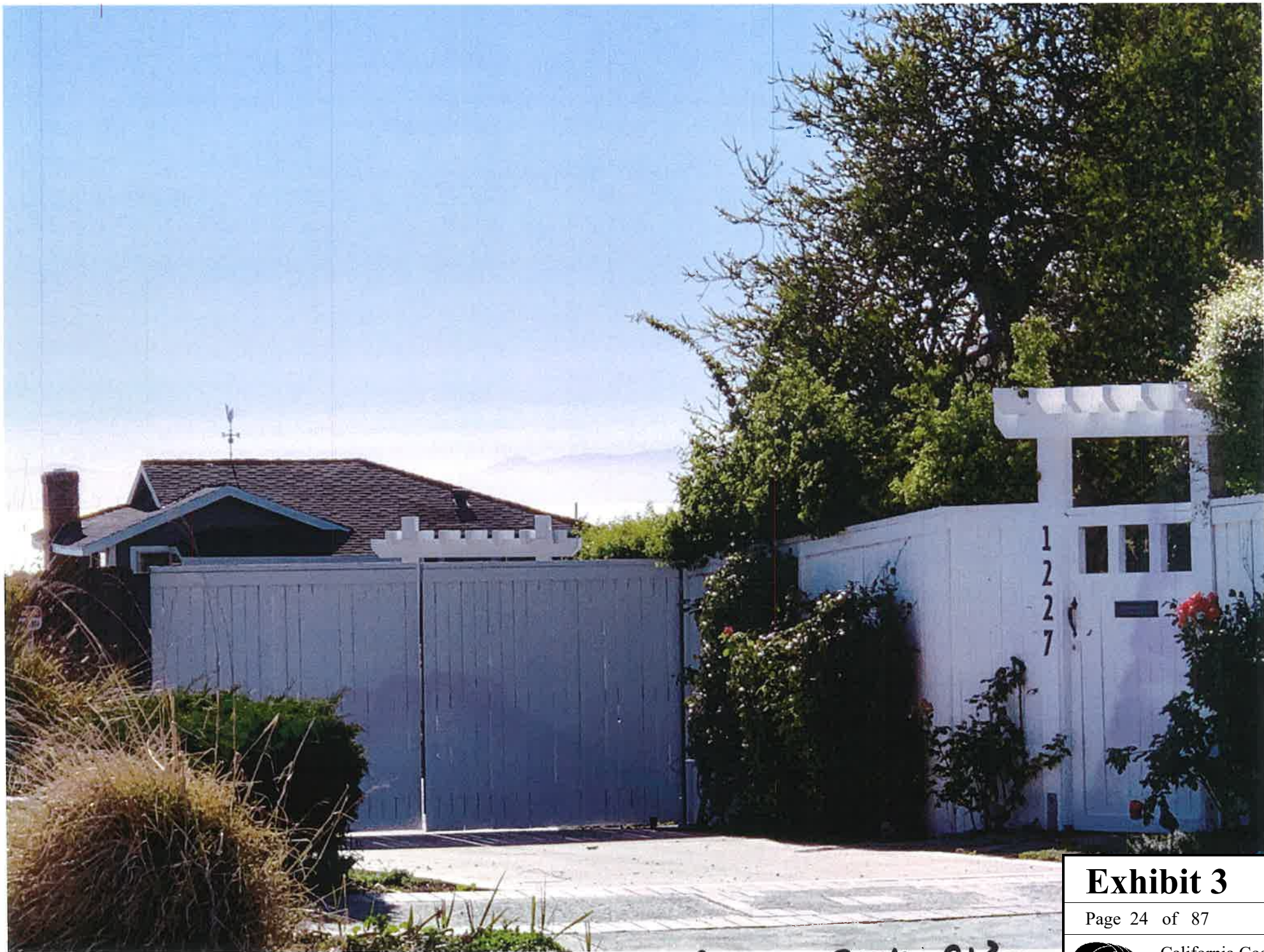
1221 W. Pason del Mar 1298 ft²

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1227 W. Pacific Ave. No. 10 Mar 954 212

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1307 + 1305 W. Paseo del Mar Empty lot

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1311 W. Paseo del Mar 2840 ft²

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1317 W. Paseo del Mar empty Lot

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1321 W. Paseo del Mar

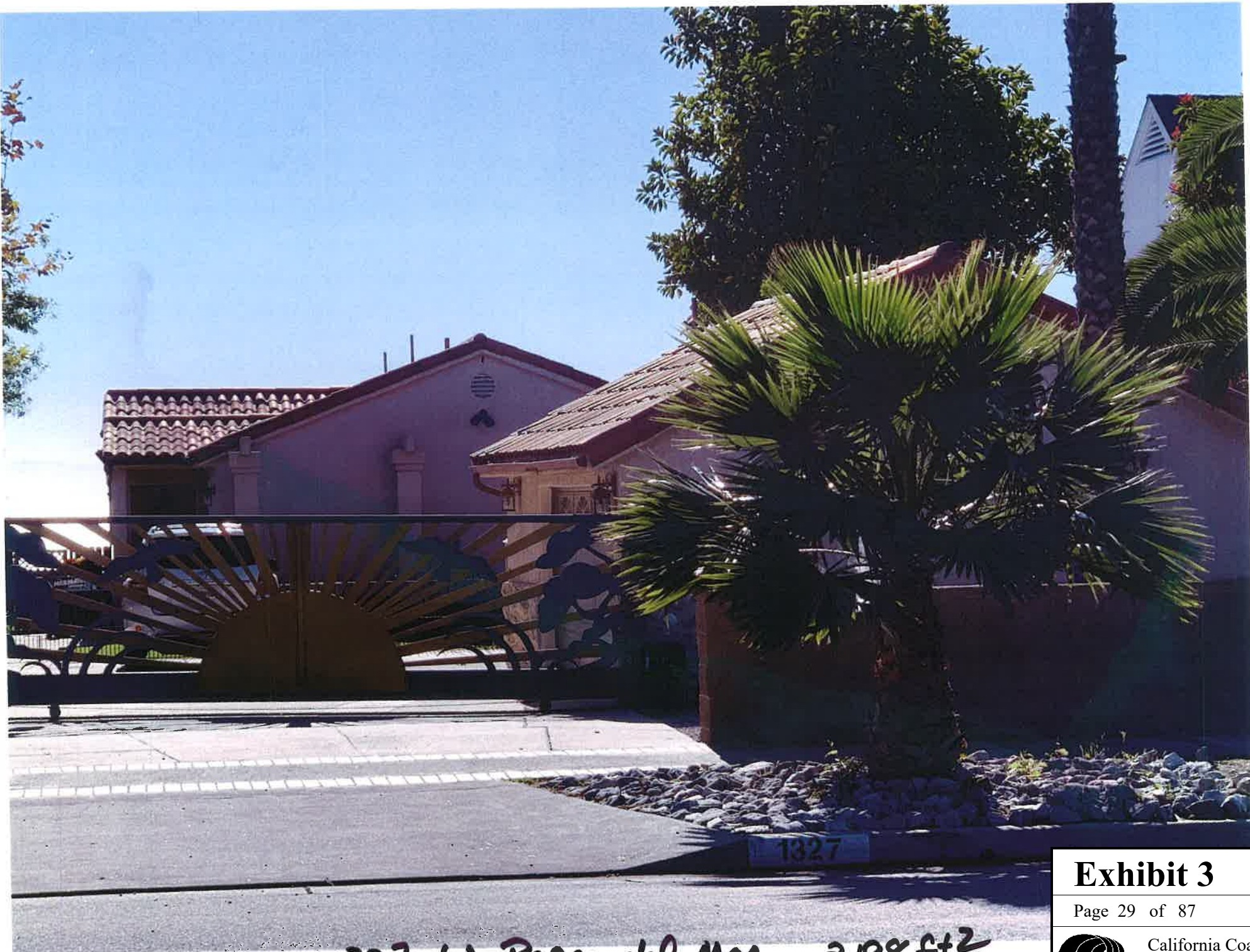
12 45 042

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1327 W. Pison del Mar 2198 ft²

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1351 W. Pason del Mar

1432 542

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1355 W. Ocean del Mar Way 1809 → 2328 New



1365 W. Paces Blvd

3336 472

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1371 W. Pason del Mar 2188 542

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1375 W. Pasa del Mar

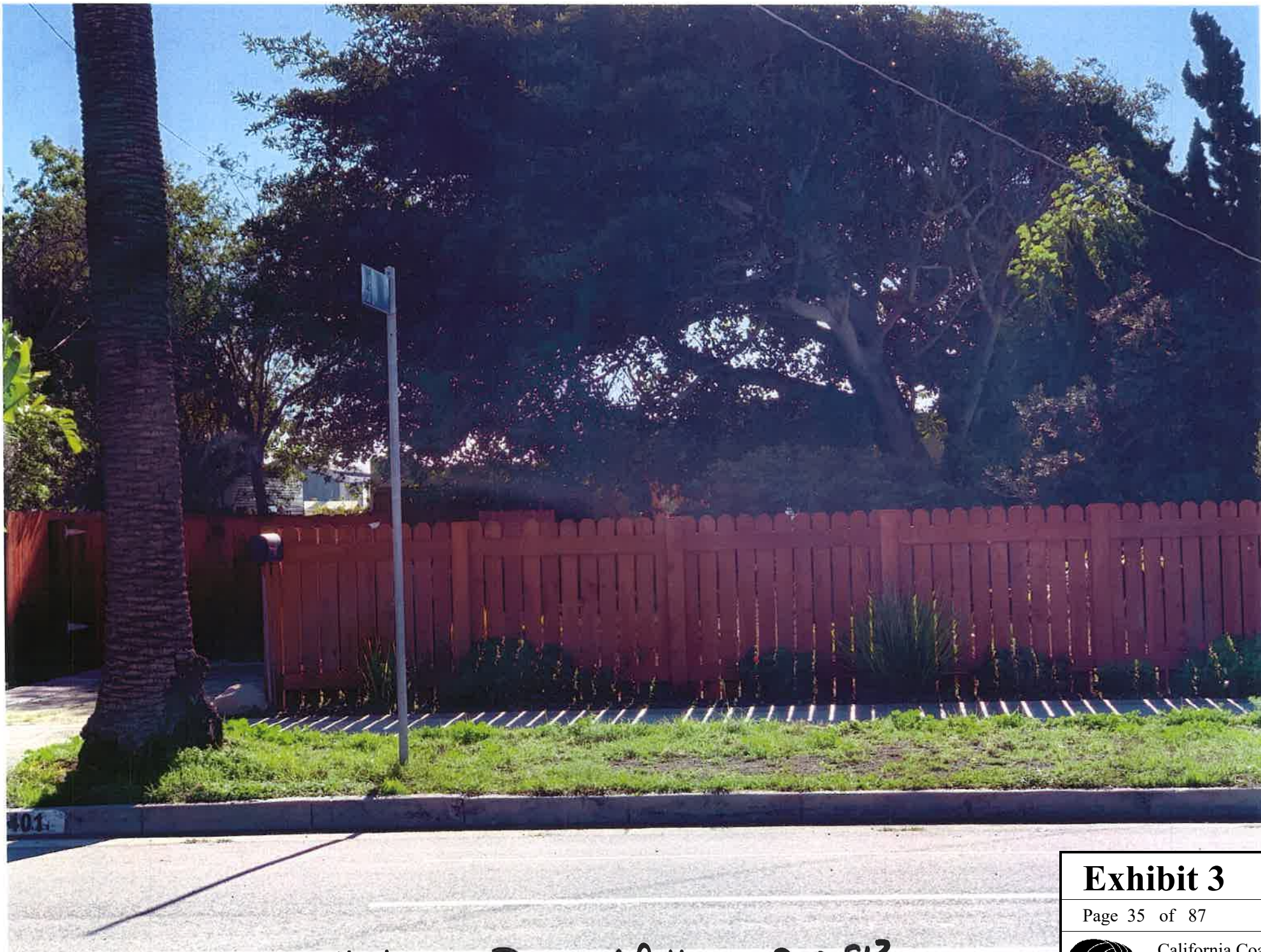
1399 f12

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1401 W. Pines del Mar 900542

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1407 W. Pines rd 1129 ft²

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1411 W. Paces rd 0 Mar 1375 L+2

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1417 W. Paseo del Mar

1640542

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1421 W. Paseo del Mar 1333 St

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1427 W. Paseo del Mar 1321 S42

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1431-33 W. Paseo del Mar 1125 St 2

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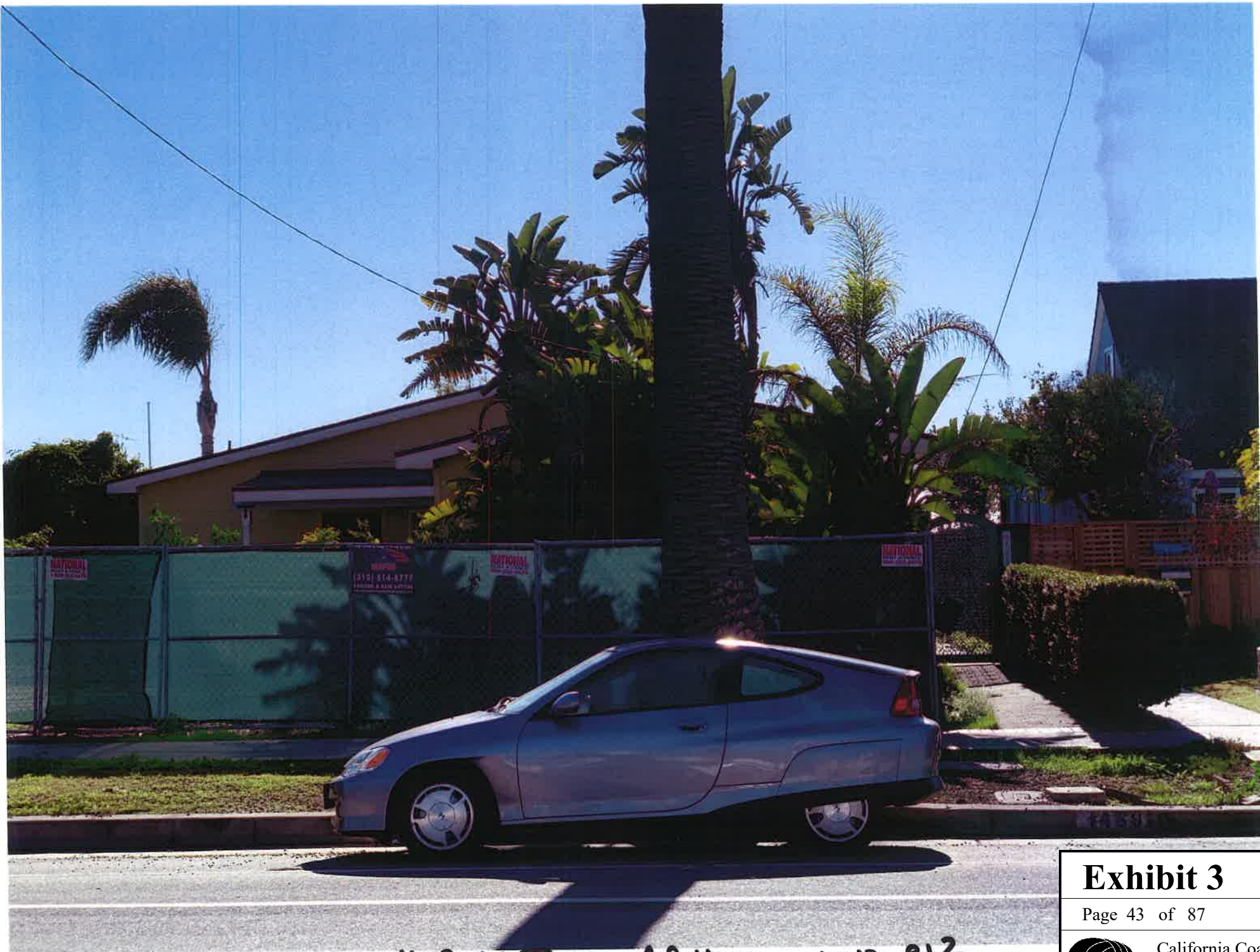
1441 W. Dunes del Mar 2730 ft2

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1459 W Paseo del Mar 1012 E+2

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1461 W. Paseo del Mar 1406 S+2

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1467 W. Pines del Mar

1776 S+2

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1471 W. Pasadena mar 3410 S+2

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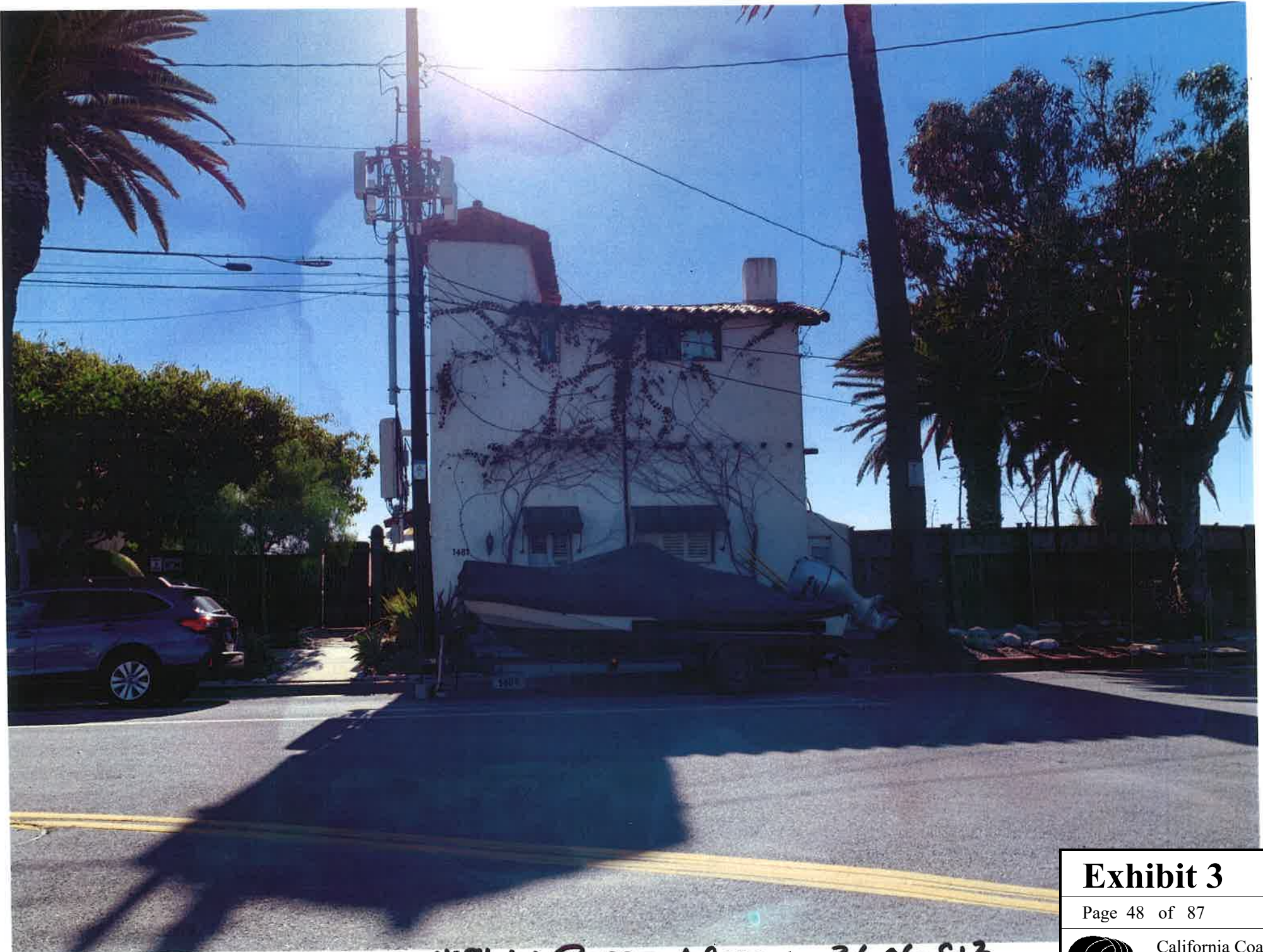
1479 W. Paseo del Mar 865 542

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1481 W. Pason 100 mm 31-06 C+2

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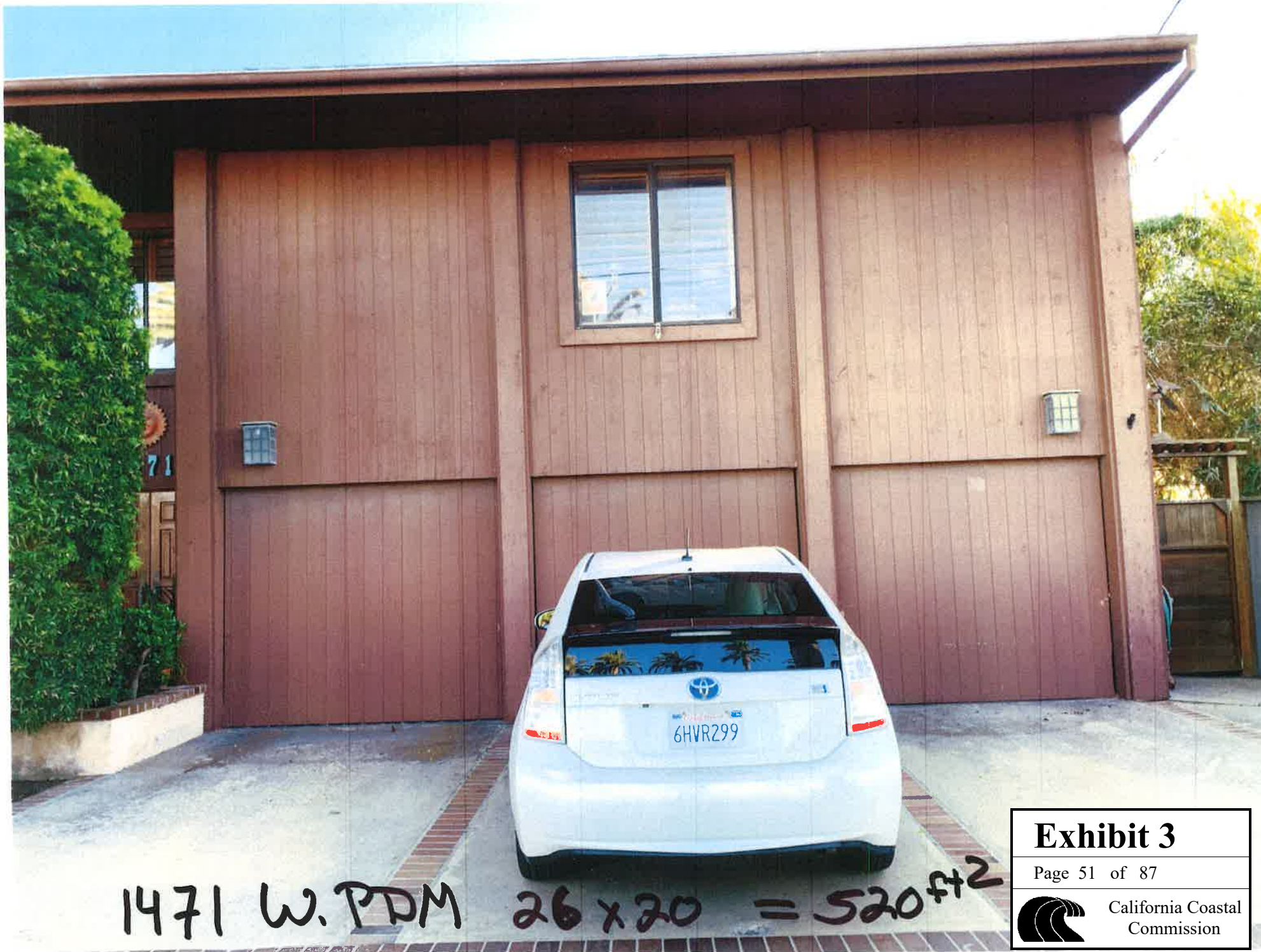


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1461 W. PDM $20 \times 20 = 400 \text{ ft}^2$



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1457 W. PDM 20X20 =
400ft²



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1433 W.PDM No Damage = ϕ $\epsilon+2$

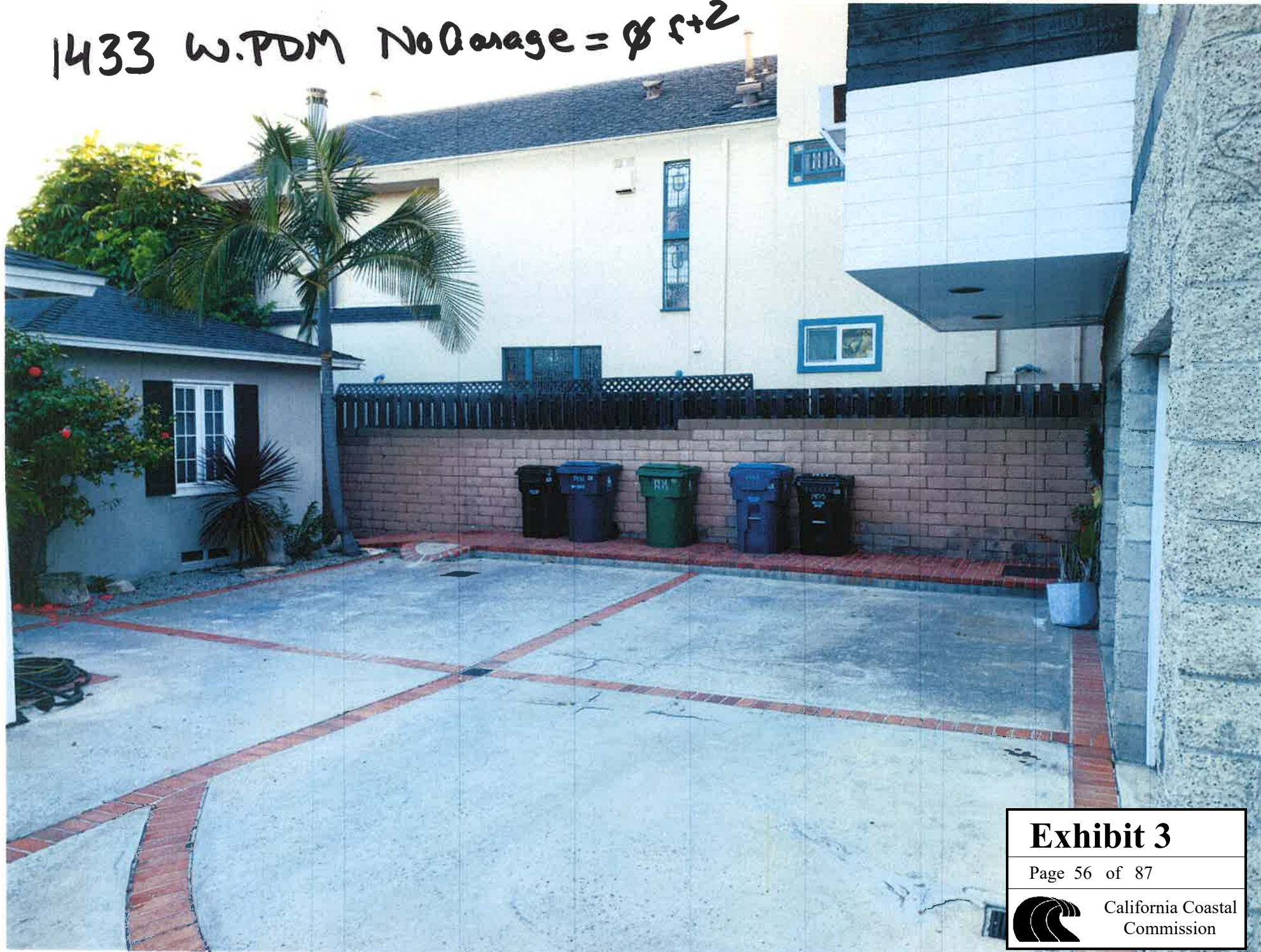


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1431 W.PDM $20 \times 20 = 400 \text{ft}^2$



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1427 W. PDM $20 \times 20 = 400\text{ft}^2$



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1421 W. PDM $20 \times 20 = 400 \text{ft}^2$



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1417 W. PDM 20x20 = 400ft²



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1411
~~1417~~ W.PDM 20x20 =
400ft²

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1407 W. PDM $20 \times 20 = 400 \text{ft}^2$



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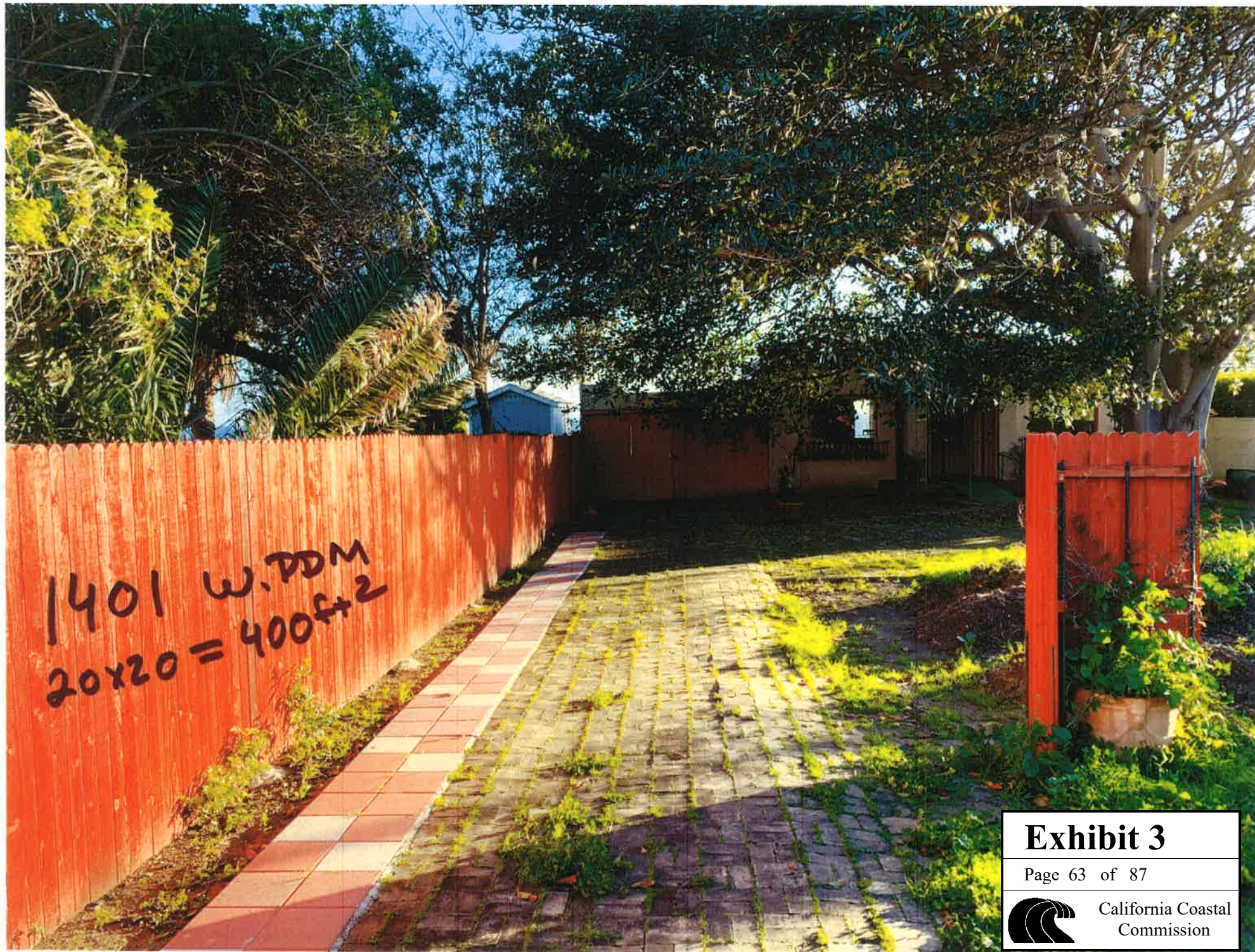


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1375 W. PDM
no garage = 0 ft²



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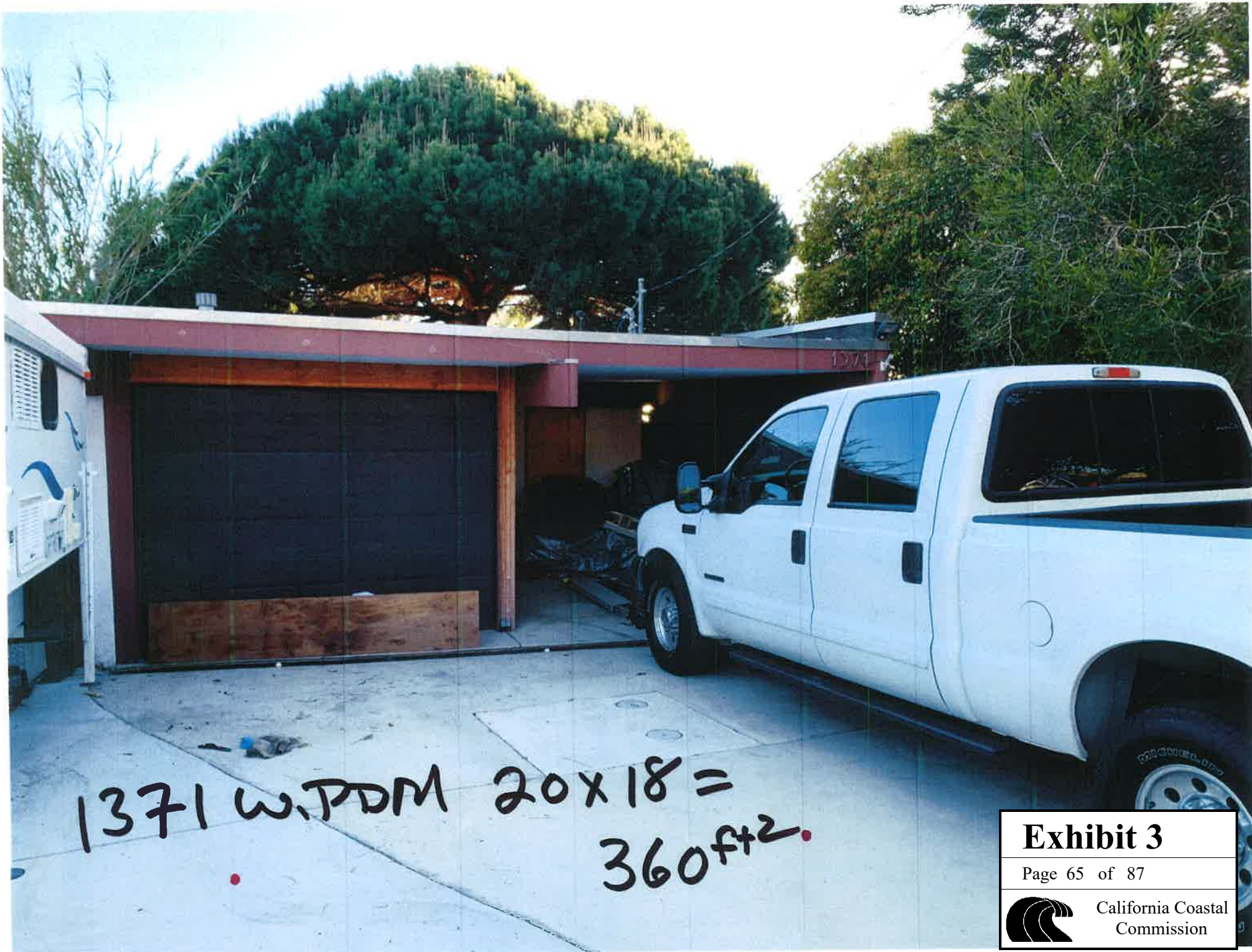


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1365 W.PDM $20 \times 20 = 400 \text{ ft}^2$

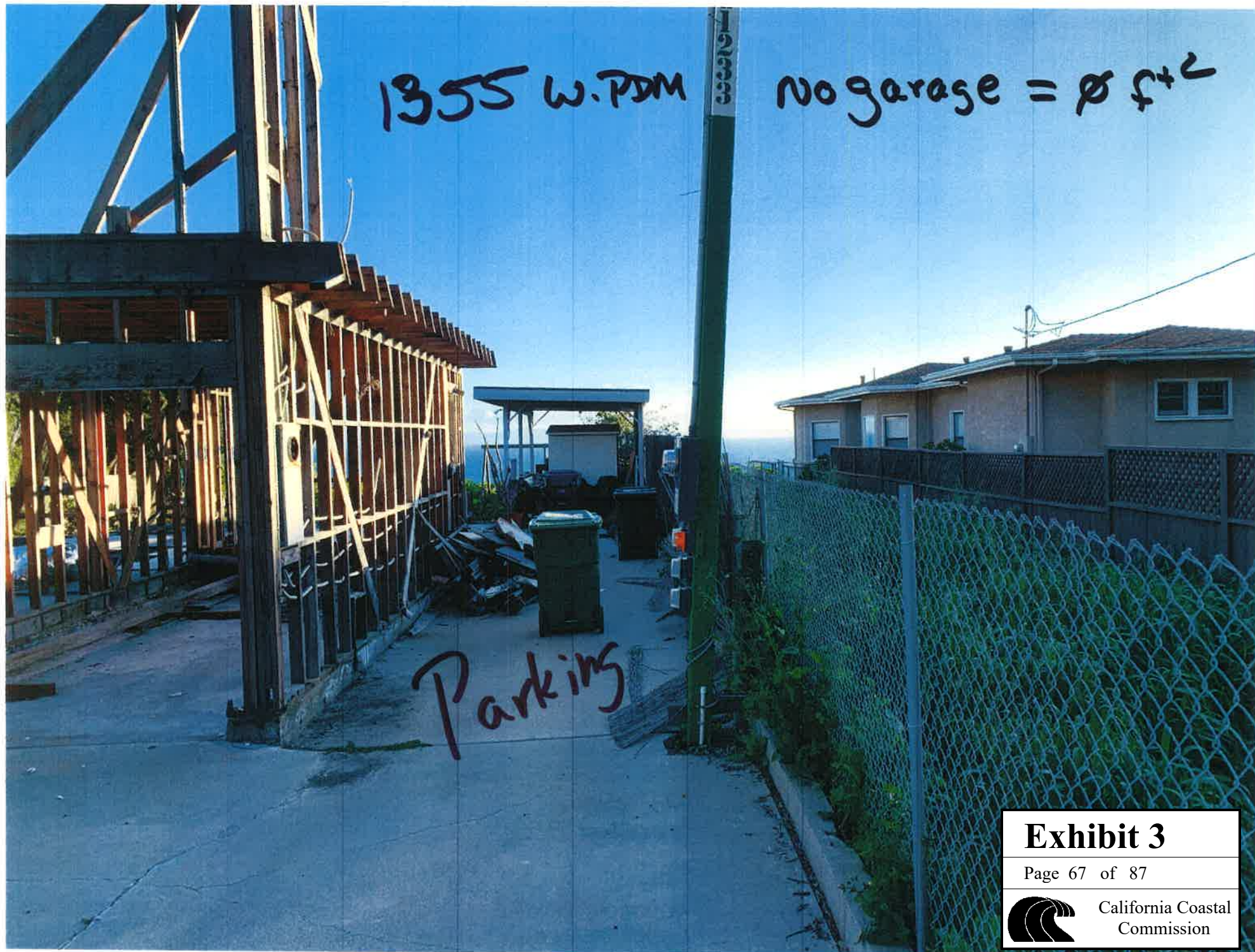


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1355 W. PDM

No garage = ø f+2

Parking

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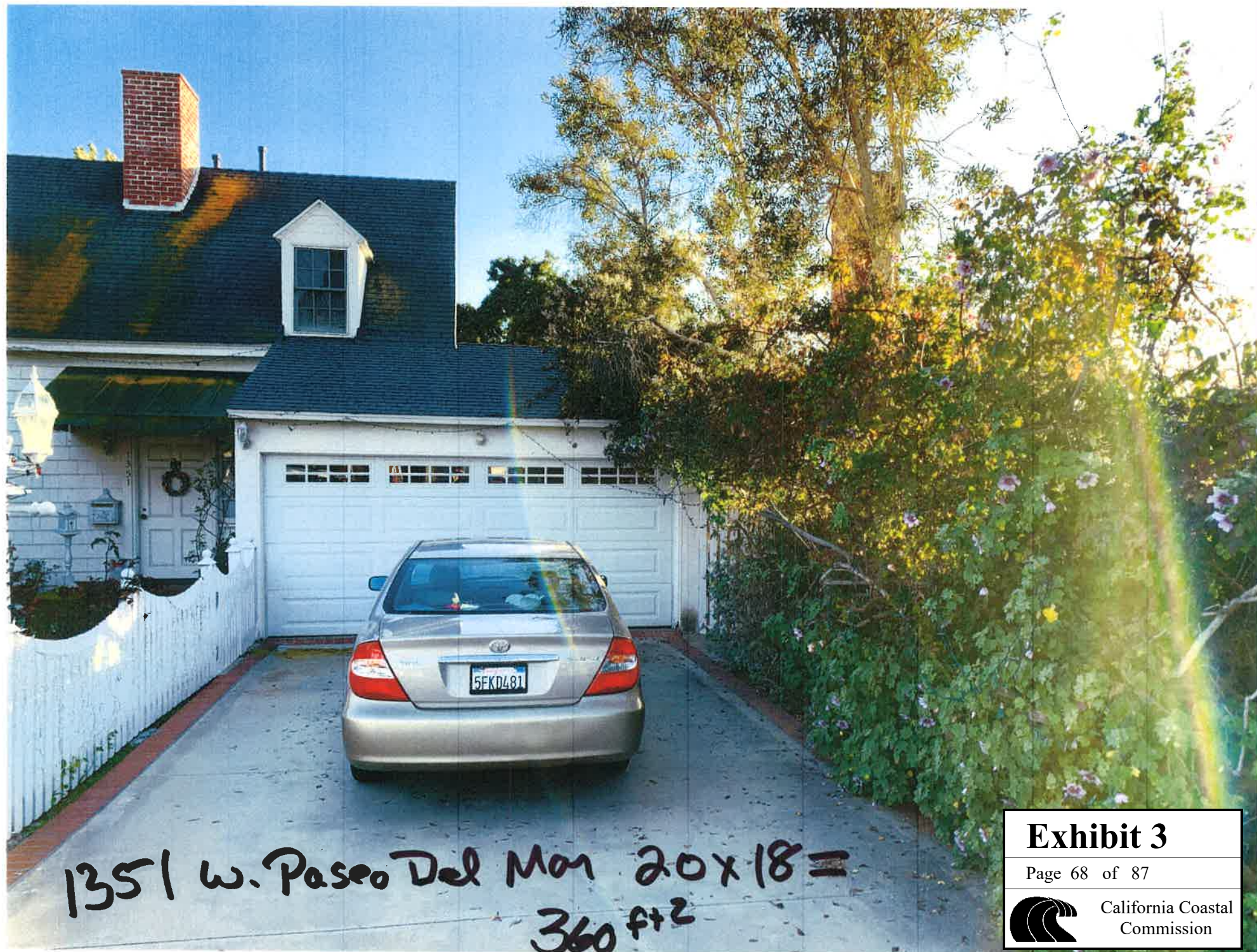


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1327 W. POM 20x20 =
400ft²



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1311 W. PDM 26 x 20 = 520 ft²

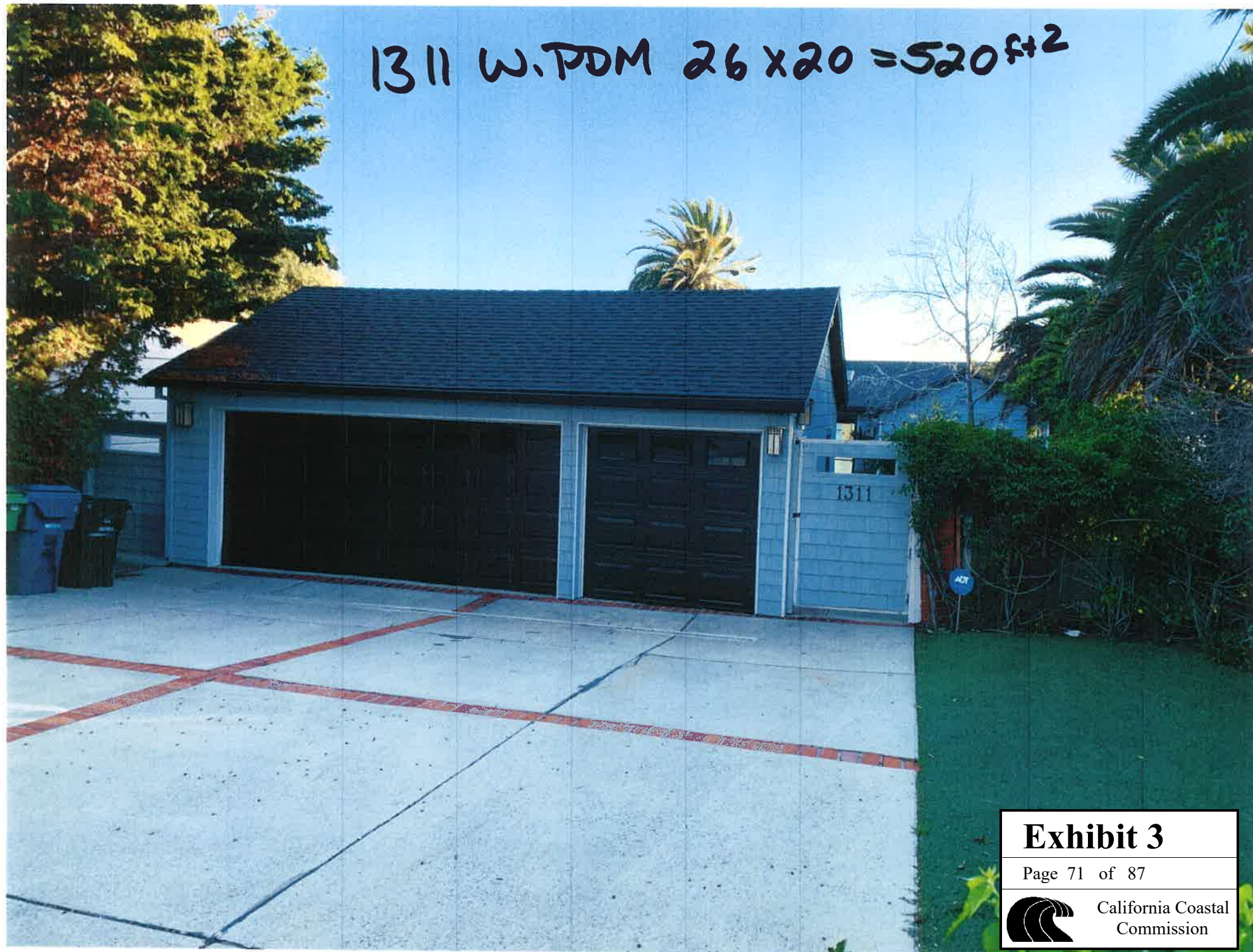


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1307 W.PDM 10 X 15 = 150 F+2

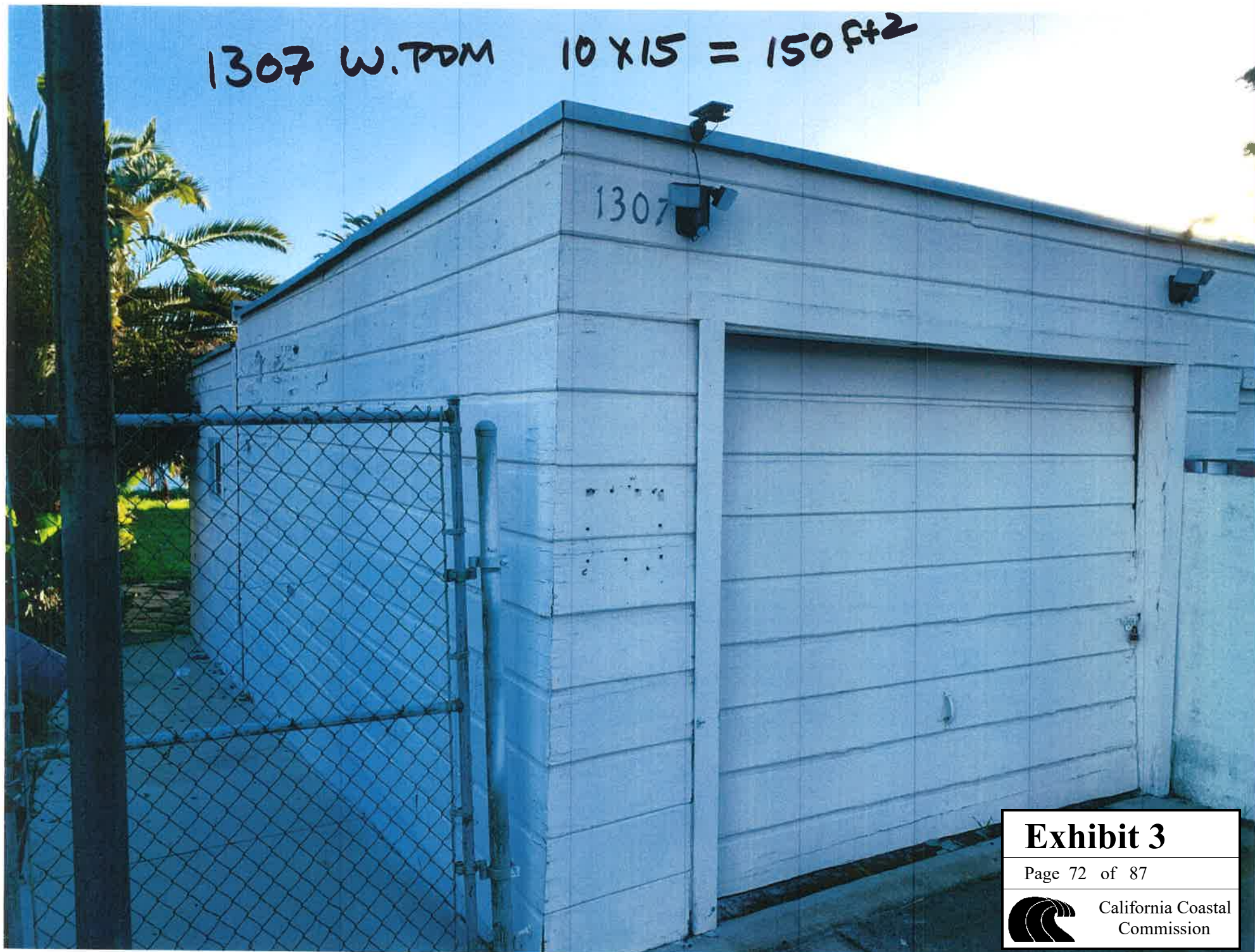


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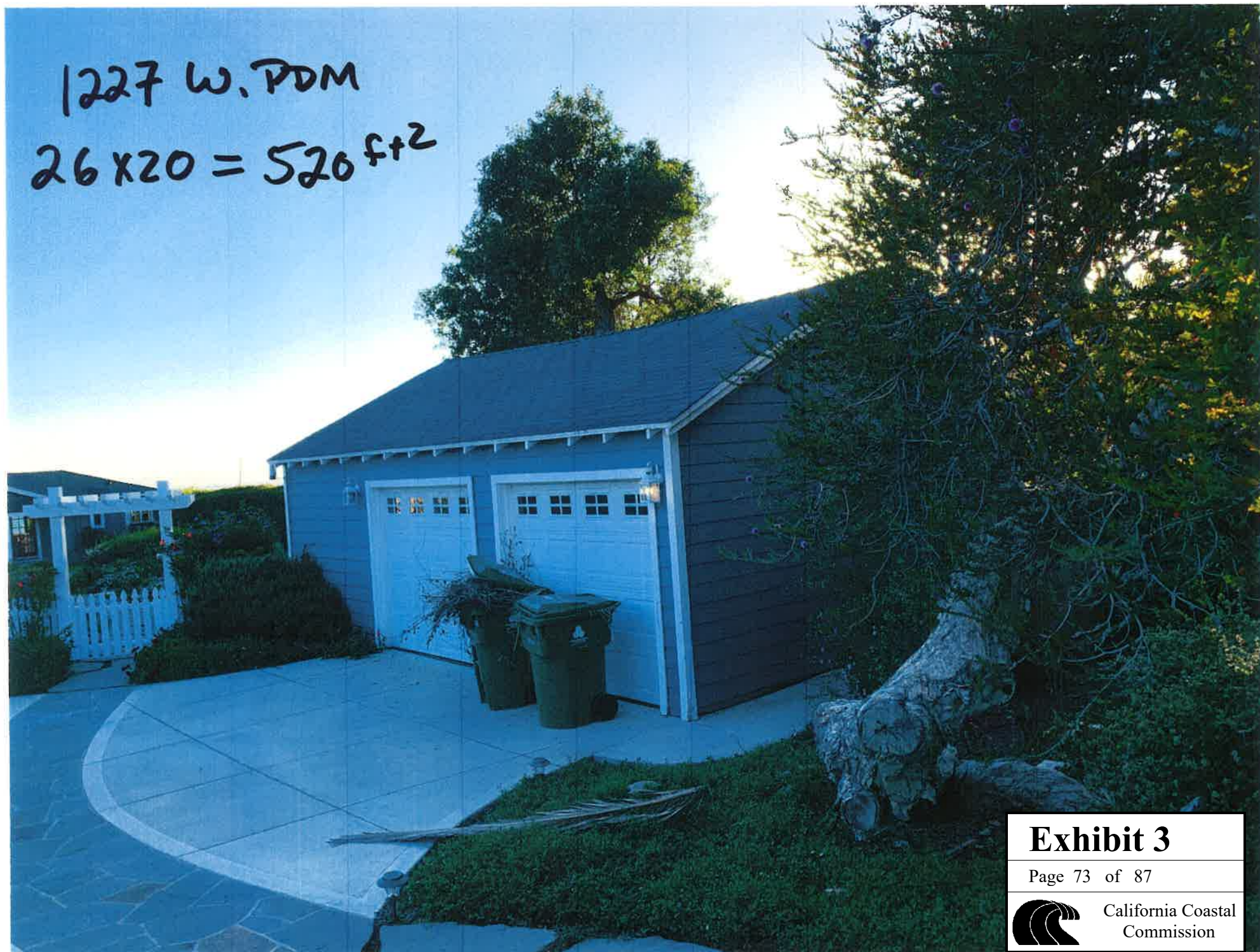


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1223 W. PDM 20x20 = 400sqft



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1221 W. PDM No garage
= $\phi f+2$

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1217 W. PDM $20 \times 20 = 400 \text{ ft}^2$



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1211 W. PDM
 $26 \times 20 = 520 \text{ ft}^2$



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1207 W. PDM 20x20 =
400ft²



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1177 W. PDM
Ø 4+2

No Garage =



Exhibit 3

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California Coastal
Commission

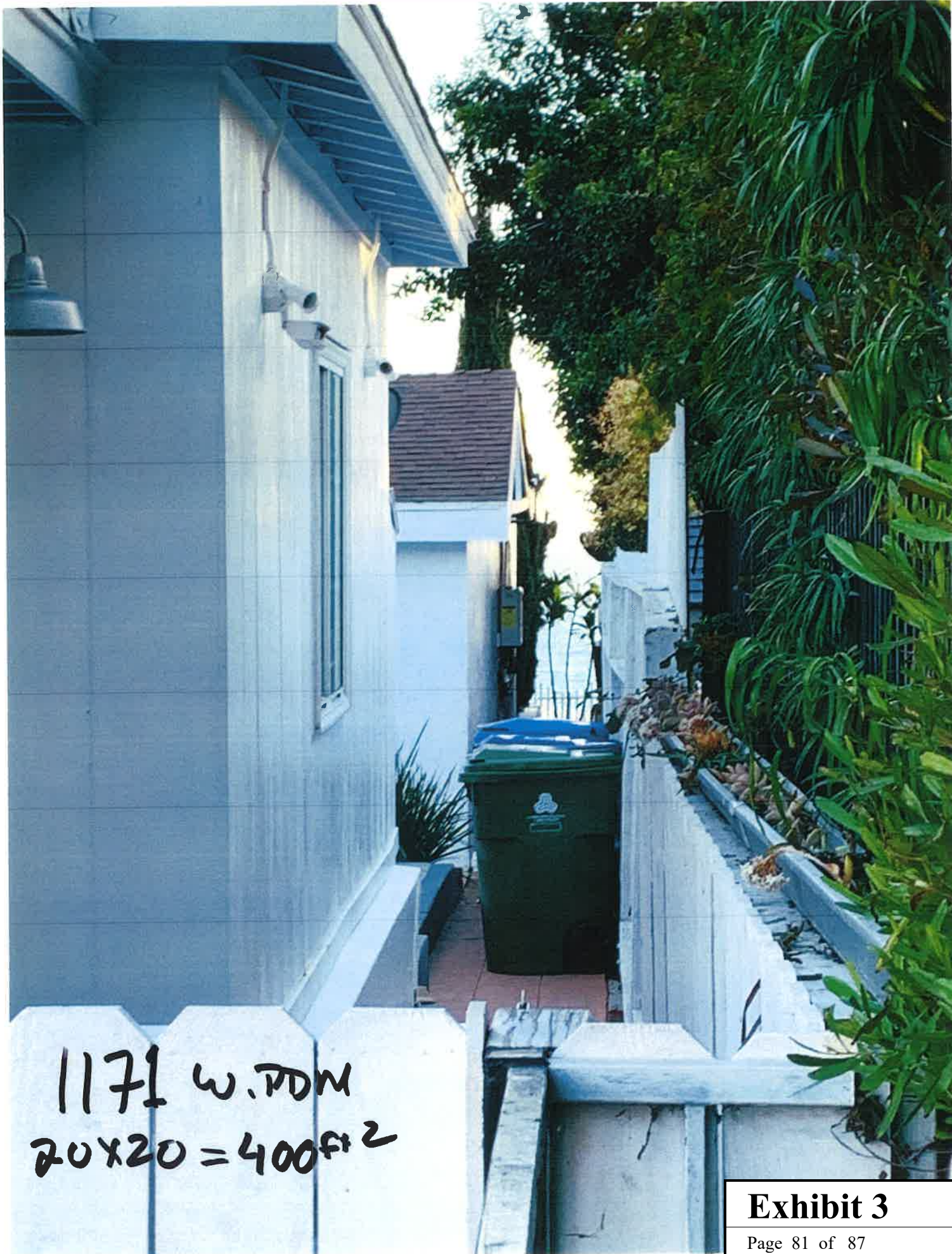


Exhibit 3

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California Coastal
Commission

1167 W.PDM No Garage =
Ø f12



Exhibit 3

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California Coastal
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1161 W.PDM 11 x 12 =
132 ft²



Exhibit 3

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1153 W. PDM $20 \times 20 = 400\text{ft}^2$



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1151 W. TDM $20 \times 19 = 380 \text{ ft}^2$

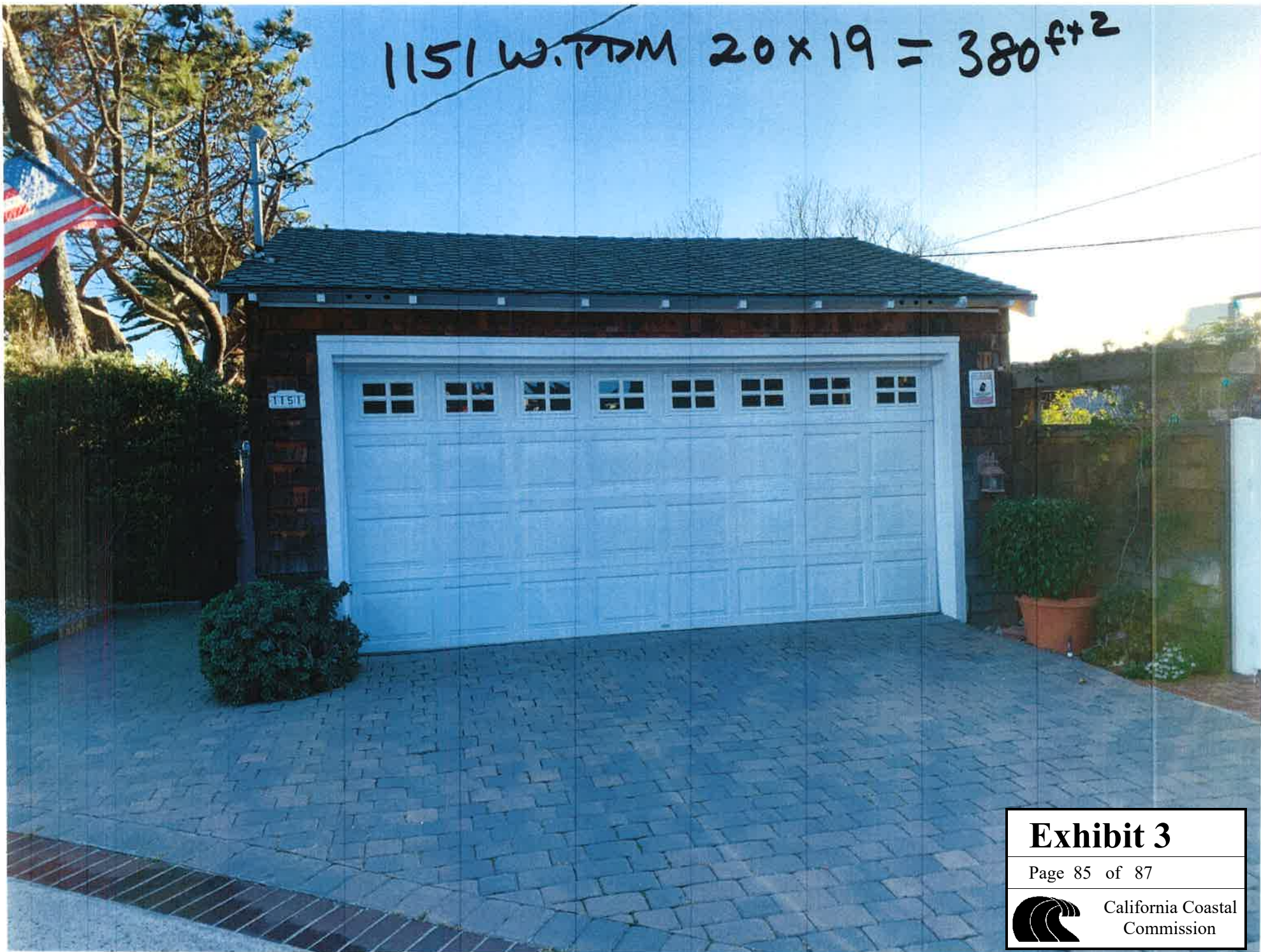


Exhibit 3

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Commission



Exhibit 3

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33°42'45.44" N 118°



Exhibit 3

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Commission

EXHIBIT F



Unpermitted
Development on 1307
PDM

Unpermitted
Development on 1305
PDM

Exhibit 4

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Before Removal of Unpermitted Stairways



Exhibit 4

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California Coastal
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After Removal of
Unpermitted
Stairways

Exhibit 4

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California Coastal
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After Removal of
Unpermitted
Stairways

Exhibit 4

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California Coastal
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Project Site (Aerial
taken in October
1979).

ITEM #3

Community Character Analysis

W. Paseo del Mar, San Pedro

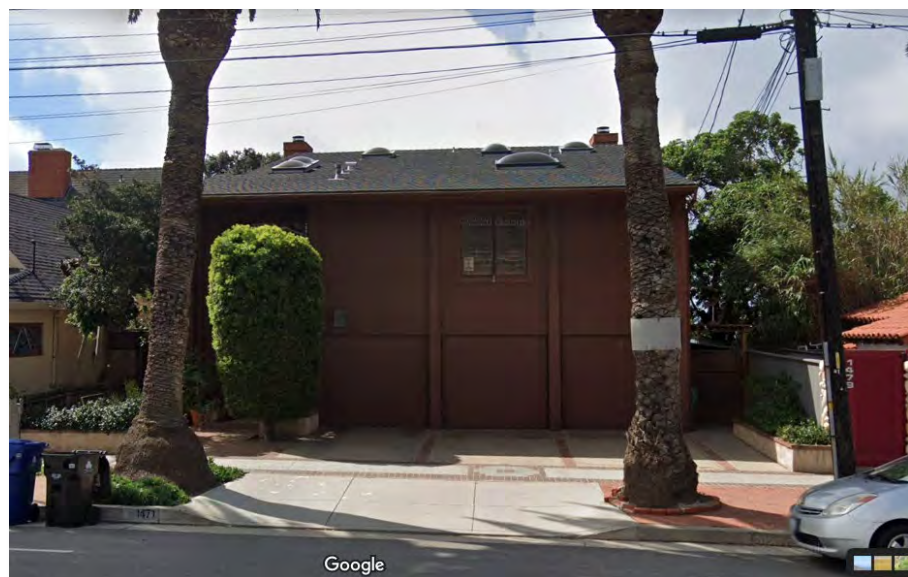
The proposed homes will be approximately 3,500 sq. ft. each with approximately 700 sq. ft. detached garages. CCC staff has asked for a community character analysis summarizing the mass and scale of the blufftop residences along Paseo del Mar between Weymouth Avenue and Barbara Street.

There are a variety of home sizes along the seaward side of Paseo de Mar ranging from approximately 1,000 sq. ft. to 3,000+ sq. ft. Below are photos of existing homes along the blufftop that are of similar size to the proposed homes.

As shown, the area is characterized by a mix of one- and two-story homes that range in mass and scale. The proposed homes will be consistent with the eclectic character of the surrounding community.



1433 W. Paseo del Mar (sq. ft. unknown) and 1441 Paseo del Mar (2,730 sq. ft.)



1471 W. Paseo del Mar (3,410 sq. ft.)

Exhibit 6

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1481 W. Paseo del Mar (2,656 sq. ft.)



1311 W. Paseo del Mar (3,201 sq. ft.)

While not on a blufftop, the home directly across the street from the subject properties is 4,405 sq. ft. See photo below.



1302 W. Paseo del Mar (4,405 sq. ft.)

Additionally, there are numerous homes in San Pedro, beyond the immediate neighborhood requested to be analyzed, that exceed 3,000 sq. ft. and further illustrate the varied architectural style of the community. See photos below.



2135 W. Paseo del Mar (4,030 sq. ft.)



2273 Warmouth Ave (4,753 sq. ft.)



2259 Warmouth Ave (3865 sq. ft.)

Staff's Community Survey*

Address (W Paseo del Mar)	Building Area (sq. ft.)	Year Built
1151	1689.00	1941
1153	2630.00	1962
1161	1217.00	1947
1167	1632.00	1970
1171	1135.00	1935
1177	1013.00	1961
1201	378.00	1955
1207	1096.00	1939
1211	2400.00	2010
1217	1964.00	1946
1221	1298.00	1946
1227	954.00	1937
1311	3201.00	1950
1321	1245.00	1949
1327	2198.00	1947
1351	1432.00	1948
1355	1809.00	1970
1365	3336.00	1916
1371	2188.00	1956
1375	1399.00	1949
1401	900.00	1929
1407	1129.00	1951
1411	1375.00	1951
1417	1640.00	1940
1421	1333.00	1940
1427	1321.00	1941
1431	1821.00	1942
1441	2730.00	1975
1451	816.00	1947
1457	1748.00	1956
1459	1012.00	1963
1461	1406.00	1943
1467	1776.00	1960
1471	3410.00	1981
1479	865.00	1964
1481	512.00	1956
1481	2656.00	1926

Average square footage: 2172.50

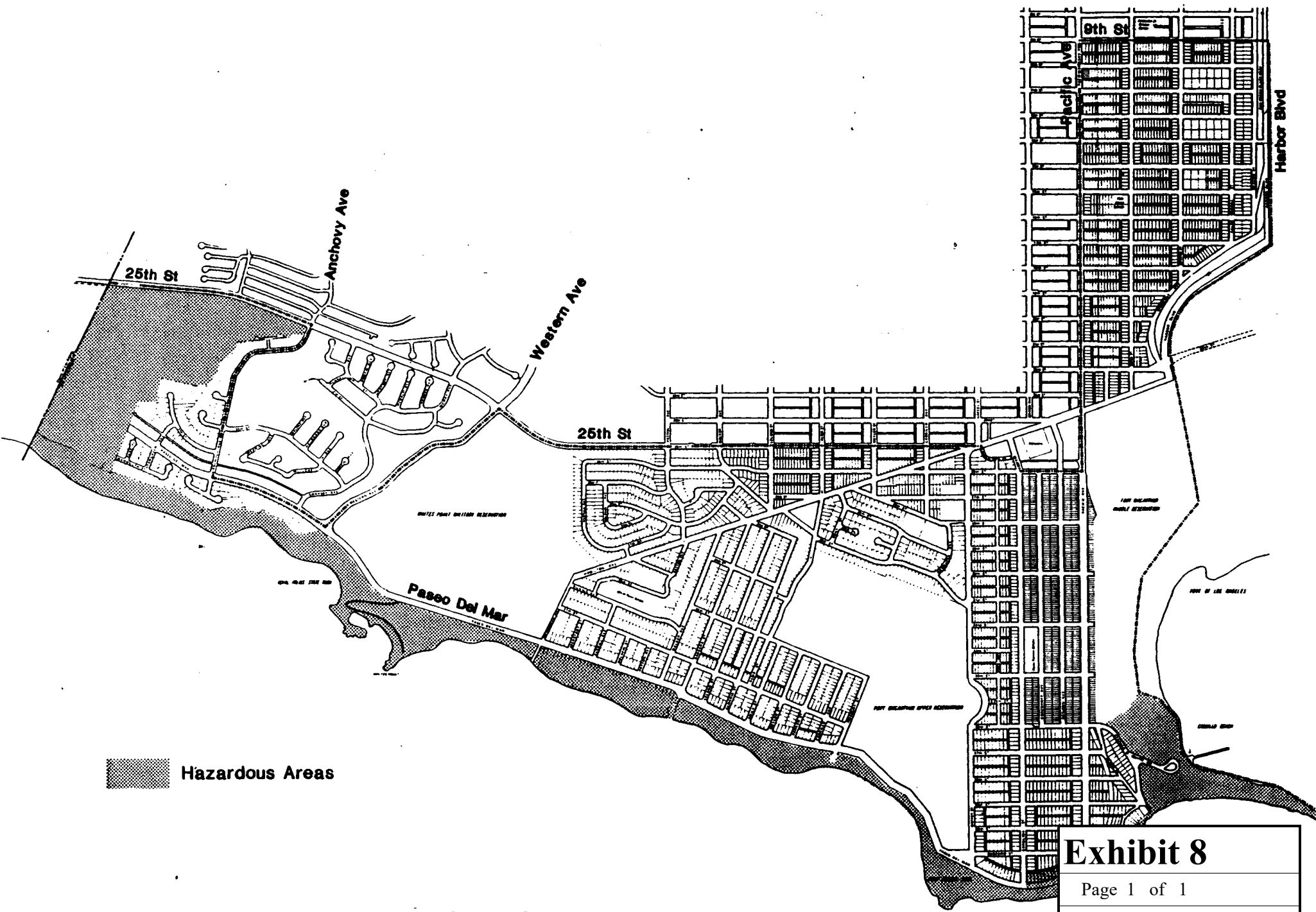
*Data acquired from LandVision on 11.10.2021

Exhibit 7

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**San Pedro Coastal Land Use Plan Area
Geologically Hazardous Areas**

Exhibit 8

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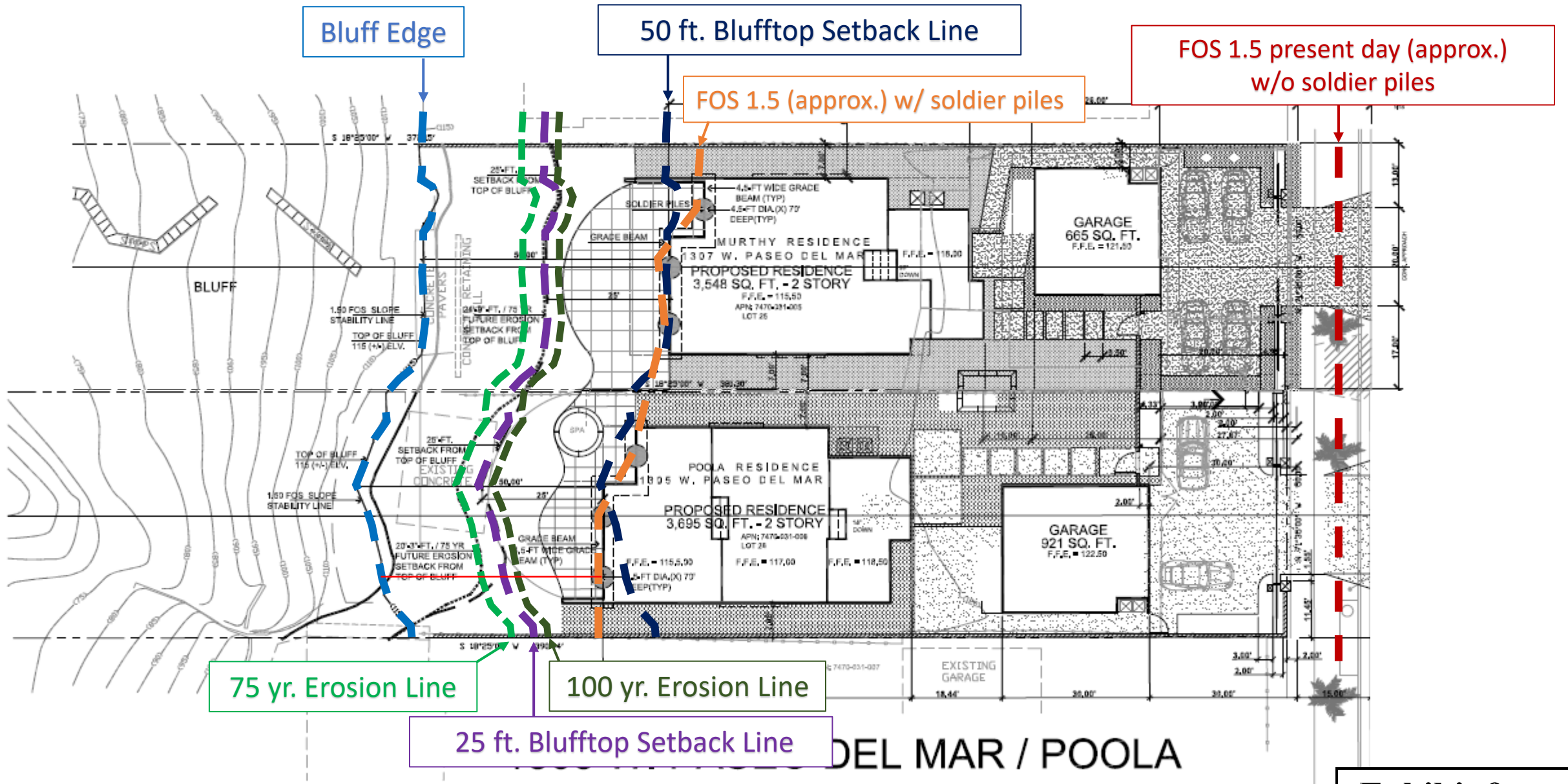


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CALIFORNIA COASTAL COMMISSION

455 MARKET STREET, SUITE 228
SAN FRANCISCO, CA 94105-2219
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FAX (415) 904-5400



December 3, 2021

GEOTECHNICAL REVIEW MEMORANDUM

To: Vince Lee, Coastal Program Analyst

From: Joseph Street, Ph.D., P.G., Staff Geologist *Joseph Street*

Re: 1305 & 1307 W. Paseo Del Mar, San Pedro (Poola & Murthy residences)

Introduction

The primary purpose of this memo is to review (i) the stability of the coastal bluff and (ii) the potential for future bluff retreat at the subject sites, and (iii) to evaluate the adequacy of the proposed 50-foot bluff top setback for minimizing geological hazards and assuring the stability and structural integrity of the proposed residences. The memo also evaluates the potential for the proposed soldier pile ("caisson") stabilization system to act as a bluff protection device and be exposed by erosion within a 75 – 100 year project life.

To this end, I have reviewed the following documents directly related to the subject property:

- 1) Peter & Associates, 2016a, "Supplemental Preliminary Geotechnical Investigation / Response to LADBS Correction Letter Dated May 29, 2015 – Proposed Residential Construction (Two Houses) at 1305 & 1307 W. Paseo Del Mar, San Pedro, City of Los Angeles, CA 90731 [Lots 26 and 25, Tract 7117; M.B. 78-98]", signed by L. N. Pham (RGE 686), W. R. Munson (CEG 866), and S. B. Peter (RCE 38623), April 14, 2016.
- 2) Peter & Associates, 2016b, "Response to LADBS Correction Letter, Dated May 18, 2016, Regarding Proposed Residential Construction (Two Houses) at 1305 & 1307 W. Paseo Del Mar, San Pedro, City of Los Angeles, CA 90731 [Lots 26 and 25, Tract 7117; M.B. 78-98]", signed by L. N. Pham, W. R. Munson, and S. B. Peter, August 4, 2016.
- 3) Peter & Associates, 2017a, "“Eighth” Response to LADBS Correction Letter, Dated November 29, 2016, Regarding Proposed Residential Construction (Two Houses) at 1305 & 1307 W. Paseo Del Mar, San Pedro, City of Los Angeles, CA 90731 [Lots 26 and 25, Tract 7117; M.B. 78-98]", signed by L. N. Pham, W. R. Munson, and S. B. Peter, January 31, 2017.
- 4) Peter & Associates, 2017b, "Addendum / Modification to “Eighth” Response to LADBS Correction Letter, Dated November 29, 2016, Regarding Proposed Residential Construction (Two Residences) at 1305 & 1307 W. Paseo Del Mar, San Pedro, City of Los Angeles, CA 90731 [Lots 26 and 25, Tract 7117; M.B. 78-98]", signed by L. N. Pham, W. R. Munson, and S. B. Peter, June 28, 2017.
- 5) Peter & Associates, 2018, "Response to Hamilton & Associates' “Review of Geotechnical Document” Report Dated June 26, 2018, Regarding Two Proposed Residences,

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1307 Paseo Del Mar, San Pedro Area, City of Los Angeles, CA 90731”, signed by L. N. Pham, W. R. Munson, and S. B. Peter, August 10, 2018.

- 6) Munson, W. R., 2018. “Inter-Office Memorandum: Relevant photographs, data comments to assist your public hearing testimony – to rebut Hamilton & Associates, Inc. response letter assertions, dated 9-21-18”, December 10, 2018.
- 7) GeoSoils, Inc., 2019a, “Coastal Bluff Retreat Evaluation, 1305 & 1307 W. Paseo Del Mar, San Pedro, Los Angeles County, California 90731, Assessor Parcel Numbers (APNs) 7470-031-005 & -006”, signed by J. P. Franklin (CEG 1340), D. W. Skelly (RCE 47857) and R. B. Boehmer, March 15, 2019.
- 8) GeoSoils, Inc., 2019b, “Revised Coastal Bluff Retreat Evaluation, 1305 & 1307 W. Paseo Del Mar, San Pedro, Los Angeles County, California 90731, Assessor Parcel Numbers (APNs) 7470-031-005 & -006”, signed by J. P. Franklin, D. W. Skelly and R. B. Boehmer, November 25, 2019.
- 9) Peter & Associates, 2020, “Response to Coastal Commission Letters Dated May 14, 2019 Regarding Two Proposed Residences, 1305 and 1307 Paseo Del Mar, San Pedro Area, City of Los Angeles, CA 90731”, signed by L. N. Pham, W. R. Munson, and S. B. Peter, February 20, 2020.
- 10) Peter & Associates, 2021, “Response to Coastal Commission Letters Dated March 22, 2021 Regarding Two Proposed Residences, 1305 and 1307 Paseo Del Mar, San Pedro Area, City of Los Angeles, CA 90731”, signed by L. N. Pham, W. R. Munson, and S. B. Peter, April 13, 2021.

I have also reviewed several of City of Los Angeles Geology and Soils Report Correction Letters (dated 5/6/14, 1/26/15, 5/29/15, 9/30/16, 11/29/16) and the Approval Letter dated 6/29/17. I also consulted oblique aerial photographs of the subject sites provided by the California Coastal Records Project (<https://www.californiacoastline.org>), and historical overhead aerial photographs of the area from the U. C. Santa Barbara archive (https://mil.library.ucsb.edu/ap_indexes/FrameFinder/).

Site Description

The proposed projects involve the construction of two new residences on adjoining bluff top lots at 1305 and 1307 W. Paseo Del Mar, San Pedro. The new residences would be sited 50 feet landward of the edge of the approximately 120-foot high coastal bluff. As described in greater detail in Ref. (1), the bluff at the site is composed of the Altamira Shale unit of the Miocene-aged Monterey Formation, overlain unconformably by approximately 4 feet of Quaternary non-marine terrace deposits (silty clay topsoil) and, in places, a thin layer of artificial fill possibly related to prior grading of the lots. Based on borings at the sites, the Altamira Shale consists predominately of thin-bedded, seaward-dipping strata of siltstone and clayey siltstone interbedded with sandstones and multiple bentonitic clay seams.

As interpreted in Refs. (1-5, 9-10), the bluff face at both lots consists almost entirely of massive landslide deposits, except for a steep head scarp at the top of the bluff where intact bedrock strata and terrace deposits are exposed. As a result of the landslide, the bluff slope is on average relatively gentle ($<30^\circ$), but highly variable, and is deeply incised and degraded by erosion. The bluff is fronted by a relatively narrow beach with a large component of rock, cobble, and gravel.

Bluff Stability

The key geologic feature at the site is a large landslide extending more than 300 feet along the bluff face and spanning portions of six lots, including both project sites. Refs. (1 – 5, 9 -10) interpret the landslide as a block glide/bedding plane failure occurring along one or more unsupported, seaward-dipping bentonite-rich clay beds, possibly facilitated by high angle joint fracture sets or minor fault planes within the bluff. Such clay beds, present throughout the Altamira Shale in this area, are weakened by water absorption and are thought to have contributed to two nearby historical landslides (Point Fermin in 1929, Whites Point in 2011). The age of the landslide is unknown, but it appears to predate the development of the area. Although the exact configuration of the landslide is not known, Refs. (1 -5) posit that the landslide failure occurred along an inclined bedding plane (14 – 18° seaward dip) occurring approximately 60 – 70 feet below the subject lots (measured near the bluff edge) and may have been triggered by some combination of high groundwater pressures, earthquake-induced ground shaking, and marine erosion at the bluff toe. Ref. (1) notes that the bluff face landslide terrain shows evidence of on-going shallow slippage, and that there is an area of active, shallow soil creep near the bluff edge on both subject lots.

The applicants' geotechnical consultant (Peter & Associates) performed multiple slope stability analyses in an effort to characterize the stability of the existing landslide and of the intact bluff underlying the project sites (Refs. 1 – 5, 9 - 10). The slope stability analyses followed two distinct approaches that yielded different estimates of the current factors of safety¹ against new landslides within the intact bluff. Both approaches used the same analysis methods (Ordinary Method of Slices, Simplified Janbu), but differed in how they characterized the material strength of the bluff. In the approach favored by Peter & Associates, the shear strength parameters² of the critical bentonite-rich clay beds were determined based on direct shear testing performed in the laboratory on remolded samples. In the approach required by the City of Los Angeles, clay bed shear strength parameters were back-calculated based on a postulated, pre-landslide bluff profile and a factor of safety of ≤ 1.0 ; in other words, the back-calculated shear strength values are those that would be necessary for the bluff to have failed under the assumed conditions. The back-calculation approach yielded significantly lower shear strengths for the clay beds than did direct testing of remolded samples. Using these two basic approaches, Peter & Associates calculated the factors of safety for multiple scenarios, including failures occurring along bedding planes at various depths within the bluff, with and without the existing landslide debris in place. Unsurprisingly, the analyses using the lower, back-calculated shear strength values consistently yielded lower factors of safety than the direct testing based analyses.

Based on these analyses, the bluff failure event most likely to occur at the site in the future is a reactivation of the existing landslide on the previous slide plane, for which the calculated static factor of safety was 1.0 – 1.2 (with a pseudostatic or "seismic" factor of safety of $<<1$) (Refs. 1-3). However, a reactivation of the landslide would not, on its own, directly affect the proposed residences, which would be sited more than 50 feet inland on the unfailed portion bluff.

¹ The factor of safety is an indicator of slope stability, where a value of 1.5 for static analysis and 1.1 for pseudostatic ("seismic") analysis are the industry standard (often included in building ordinances) for geologic stability of new blufftop development. In theory, failure should occur when the factor of safety drops below 1.0. Therefore, the factor of safety at increasing values above 1.0 lends increasing confidence in the stability of the slope. To establish a safe setback for slope stability, the geotechnical analysis needs to establish the distance from the edge of a coastal bluff at which the factor of safety is equal to 1.5 (static) and >1.0 (seismic).

² The shear strength parameters of rock or soil characterize the material's resistance to failure under loading. The key parameters used in many slope stability analyses are the cohesion (c) and internal angle of friction (ϕ) of the material, which can be estimated through a variety of standardized in-situ or laboratory tests.

For the intact, unfailed bluff, the minimum static factor of safety was typically associated with a landslide occurring along a clay bed roughly contiguous with the bottom of the existing landslide. For the analyses based on tested shear strength parameters, minimum factors of safety ranged from 1.5 – 1.9 (static) and 1.0 – 1.25 (seismic), depending on the specific method and shear strengths used (Refs. 1-5, 9-10).³ These results would suggest that the bluff landward of the old landslide is grossly stable and at a very low risk of significant failure over the design life of the proposed project. However, the stability analyses using the lower, back-calculated shear strength parameters yielded lower minimum static factors of safety of 1.2 – 1.3 for failure surfaces occurring up to 25 feet inland of the bluff edge (though still well seaward of the proposed house locations). Ref. (4) included analysis indicating a static factor of safety of 1.32 beneath the house footprint (~65 ft inland of bluff edge), while Ref. (9) included analysis indicating a factor of safety of 1.4 at a point 144 ft inland of the bluff edge.

None of the provided stability analyses using back-calculated shear strengths evaluated the position of the 1.5 factor of safety surface (in the absence of the proposed caissons); however, it can be inferred that the 1.5 factor of safety surface would “daylight” on the bluff top more than 150 feet inland of the bluff edge, beyond the proposed garage and possibly beyond the inland property line. There is little to no space on either property to site new development that would achieve a 1.5 factor of safety (back-calculated shear strengths) without the proposed caissons.

The choice of which shear strength parameters to use in the slope stability analysis (i.e., back-calculated vs. direct tested) is of consequence in this case because it determines whether the proposed building sites possess a static factor of safety of 1.5, the minimum threshold for new development used by the Coastal Commission and in many building codes. Peter & Associates have argued that use of shear strengths derived from direct shear testing, in particular the “residual” (post- sample failure) shear strength values, is adequately conservative, in part because they contend that the thin clay beds on which the landslide is thought to have occurred are discontinuous across the site. The City’s geotechnical staff disagreed, finding that the evidence of discontinuous clay beds was insufficient, and required use of the lower, back-calculated shear strength values in the approved slope stability analysis. Because the calculated static factors of safety at the proposed building sites in this analysis are below 1.5, the City has required that the new development be supported by shear pin systems – i.e., a row of large soldier piles (“caissons”) embedded deeply (~70 ft) into stable bedrock. The caisson systems would provide additional lateral stability for the bluff beneath the proposed houses, increasing the factor of safety to above 1.5.

Without attempting to arbitrate the points of disagreement between Peter & Associates and City staff, I would simply note that the City’s approach to the slope stability analysis is the more precautionary and provides greater assurance of stability for the proposed development. With the City-required caisson systems in place, the proposed residences would be adequately protected against bluff instability under present-day conditions.

Future Bluff Retreat

In addition to minimizing present-day geologic hazards, the Coastal Act requires that new development assure stability and structural integrity without requiring shoreline protective devices. To assure that this standard is met, it is necessary to consider both present-day bluff stability and the potential for future bluff erosion and retreat over the life of the proposed development. Many residences in the project area are more than 75 years old, and some are

³ Except for Ref. (1), Peter & Associates generally reported only static factors of safety (FS); for the seismic coefficient ($K_h = 0.15$) used in the pseudostatic analyses, a static FS > 1.5 will generally correspond to a pseudostatic

over 100 years old, indicating that 75 – 100 years is a reasonable “design life” for evaluating bluff erosion hazards.

Additionally, any evaluation of future coastal bluff erosion must consider sea level rise (SLR), which is expected to continue and accelerate for the foreseeable future. The potential effects of SLR include the narrowing or loss of beaches where they are backed by less-erosive bluffs or artificial barriers to inland migration, and increased rates of coastal bluff erosion where the bluff toe is subjected to more frequent and/or more powerful wave attack (e.g., Vitousek et al. 2017, Limber et al. 2018). The *State of California Sea-Level Rise Guidance* (OPC 2018) and its associated SLR science update (Griggs et al. 2017) provide a range of California-specific projections of future SLR, under several greenhouse gas emissions scenarios, within a quasi-probabilistic framework. For example, under a high emissions pathway (RPC 8.5), the reports estimate that SLR 2100 in southern Los Angeles County (represented by the LA Harbor tide gauge) could, by 2100, exceed 2.2 feet under a 50% probability scenario (median model result), 4.1 feet under the 5% probability scenario (95th percentile model result), and 6.7 feet under the 0.5% probability scenario (>99th percentile result). Both the State Guidance and the Commission’s *Sea-Level Rise Policy Guidance* (2018 update) recommend that new residential development be resilient to the 0.5% probability (“medium high risk aversion”) SLR scenario through intelligent siting, design and/or future adaptation measures.

The bluff retreat evaluations provided by the applicant (Refs. 7, 8) included an analysis of historical bluff edge retreat rates based on aerial photographs dating to 1927. Over the 92-year period evaluated, the bluff edge at 1307 W. Paseo Del Mar retreated 15.5 – 25 feet (0.17 – 0.27 ft/yr), while the bluff edge at 1305 W. Paseo Del Mar retreated 10.5 – 30 feet (0.11 – 0.33 ft/yr). Bluff edge retreat rates appear to have been higher in recent decades (since the 1970s, and especially since 2001), which Ref. (7) attributes to the occurrence of two extreme El Niño events (1983, 1998) during this interval and the effects of uncontrolled runoff on the site. However, as noted in Ref. 6, and as evident in California Coastal Records Project (insert website) photographs dating from 2002 to 2013, there no visible evidence of accelerated bluff edge erosion over the last two decades.

Based on the long-term average historical erosion rates since 1927, Refs. (7, 8) projected between 8 – 24 feet of bluff edge retreat at the sites over the next 75 years. The applicant’s study concluded that SLR would have no effect bluff edge retreat at the subject site, based on the following key considerations:

- The nearshore profile and beach fronting the site will adjust to changes in sea level, and will continue to attenuate incoming wave energy;
- Incoming waves will impact the same bluff materials as at present, just at a slightly higher elevation;
- The bluff profile and geomorphology are indicative of an erosion regime dominated by subaerial processes; SLR may exacerbate erosion at the bluff toe, but this will not translate into increased erosion at the top of the bluff.

In my opinion, the most convincing of these arguments is the last, invoking the shape of the bluff and the apparent lack of connection between erosional processes occurring at the bluff toe and the bluff top. As noted previously, the overall gradient of the bluff is not steep, with an average slope of less than 30 degrees. As a result, the bluff edge is 180 – 200 horizontal feet inland of the bluff toe, with most of the intervening material consisting of a thick lobe of landslide deposits. For marine erosion to resume at the base of the intact portion of the bluff, approximately 150 horizontal feet of landslide debris would first need to be eroded away by wave action at the toe of the slope.

In order to better understand the potential for marine erosion at the toe of the bluff, I compared the bluff toe position in the 1927 aerial photograph⁴ with a recent (1/2/2020) aerial image from Google Earth, using the center line and seaward sidewalk of Paseo Del Mar as fixed reference points. Bluff toe (measured as the line of vegetation or an obvious scarp) retreat rates over this 92-year period ranged from 0.09 – 0.15 ft/yr. These historical rates suggest a lower bound of 7 – 15 feet of bluff toe retreat over the next 75 -100 years, without considering the effects of SLR.

As a rapid check on the potential effects of SLR on bluff toe retreat, I consulted the U.S. Geological Survey Coastal Storm Modeling System (“CoSMoS”) cliff retreat dataset (Barnard et al. 2018, Limber et al. 2018), which provides projections of future bluff retreat for individual transects in the project area with varying amounts of SLR. For the 19 transects along W. Paseo Del Mar nearest the project site, CoSMoS projects that bluff retreat rates could on average increase by a factor of 1.8 with 1 m (3.3 ft) of SLR, and by a factor of 2.8 with 2 m (6.6 ft) of SLR. If applied to the long-term historical bluff toe retreat rates discussed above, these modeled “acceleration factors” suggest that the bluff toe at the project site could retreat by 12 – 42 feet over the next 75 – 100 years, assuming 3.3 – 6.6 feet of SLR. These projected amounts of bluff toe erosion are substantial but would still represent the removal of only a fraction of the landslide debris that separate the present-day bluff toe from the base of the intact, unfailed bluff. In summary, it is likely that future wave attack at the bluff toe will erode into the landslide debris, possibly resulting in renewed movement within the existing landslide. However, the available evidence indicates that it is very unlikely that SLR will affect erosion rates at the top of the bluff or result in erosion that would threaten the proposed development.

Proposed Caisson Stabilization Systems

As noted above, the City of Los Angeles’ approval of the proposed projects requires the use of deep caisson stabilization systems at each project site to achieve a 1.5 factor of safety (static) against slope failure (using the City’s required, back-calculated shear strength parameters). This is of practical concern because the Commission has previously found that caisson stabilization systems, in some situations, can act as protective devices that alter natural landforms, inconsistent with Coastal Act Section 30253(b). In coastal bluff settings, caissons can also adversely affect visual resources if they become exposed by erosion.

In my opinion, the proposed soldier piles at the subject sites would not, at least in the near term, act as “protective devices” that significantly alter natural shoreline processes. In their proposed locations the soldier piles would enhance the lateral stability of the bluff, increasing the static factor of safety above 1.5. However, in contrast to other coastal settings in which caisson systems have been used to stabilize bluffs at a high risk of failure (e.g., with calculated factors of safety near 1.0), the bluff at the subject sites is not at a high risk of failure, even when assessed using the more conservative slope stability analysis required by the City (see “Bluff Stability”, above). Based on the analyses in Refs. 4 and 5, the static factors of safety of the bluff beneath the proposed building footprints are approximately 1.3 – 1.4. While these factors of safety are lower than the precautionary standard of 1.5 typically applied to new development, in real terms they are indicative of a low risk of bluff failure at the location of the proposed homes. Phrased differently, the proposed caissons would not be actively preventing a failure that is otherwise likely to occur.

⁴ Fairchild Aerial Surveys, Flight C-113, Frame 22, August 1, 1927. Available from UC Santa Barbara library at: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

Some amount of bluff erosion and retreat is inevitable over the next 75 to 100 years, but the available evidence (see “Future Bluff Retreat”, above) suggests that the bluff edge is unlikely to retreat close to the position of the caissons or to result in their exposure. Similarly, chance of a very large slope failure exposing the caissons appears to be small. However, to guard against coastal resource impacts (e.g., landform alteration, visual impacts, future installation of protective devices) in the future if more significant erosion and bluff retreat does occur, it would be prudent to include special conditions that require (a) the removal of all or portions of the caissons if they are in danger of becoming exposed, and (b) relocation or removal of any portion of the residences threatened with instability. Construction and demolition work on eroding and potentially unstable bluffs can present significant safety and logistical challenges. It is important that any caisson removal work occur *before* the caissons are exposed on the bluff face, when there is still adequate bluff stability and enough space between the house and the bluff edge to allow the work to proceed.

References

- Barnard, P.L., Erikson, L.H., Foxgrover, A.C., Limber, P.W., O'Neill, A.C., and Vitousek, S., 2018, Coastal Storm Modeling System (CoSMoS) for Southern California, v3.0, Phase 2 (ver. 1g, May 2018): U.S. Geological Survey [data release](https://doi.org/10.5066/F7T151Q4). <https://doi.org/10.5066/F7T151Q4>.
- California Coastal Commission, 2018. [*Sea Level Rise Policy Guidance: Interpretive Guidance for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits*](#). Adopted August 12, 2015; updated November 7, 2018.
- California Ocean Protection Council (OPC), 2018. [*State of California Sea-Level Rise Guidance, 2018 Update*](#).
- Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group), 2017. *Rising Seas in California: An Update on Sea-Level Rise Science*. California Ocean Science Trust, April 2017.
- Limber, PW, Barnard, PL, Vitousek, S, and Erikson, LH, 2018. A model ensemble for projecting multi-decadal coastal cliff retreat during the 21st century. *Journal of Geophysical Research Earth Surface*, doi: 10.1029/2017JF004401.
- Vitousek, S, Barnard, PL, Limber, P, Erikson, LH and Cole, B, 2017. A model integrating longshore and cross-shore processes for predicting long-term shoreline response to climate change. *Journal of Geophysical Research-Earth Surface*, doi: 10.1002/2016JF004065.