CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
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Staff: J. Johnson
Staff Report: 10/15/98
Hearing Date: 11/4/98
Commission Action:

W 3 b.

STAFF REPORT: CONSENT

APPLICATION NO.: 4-97-226

APPLICANT: Dr. Elliot Felman AGENT: Edward Niles, Architect

PROJECT LOCATION: 24604 Malibu Road, City of Malibu, Los Angeles County

PROJECT DESCRIPTION: Demolish garage, construct new two story, two car garage and bedroom structure attached through a gallery connection to existing one story residence. Existing 1,060 sq. ft. residence to be remodeled with additions to seaward and landward sides creating a total 2,324 sq. ft. residence and 504 sq. ft. garage. Install six new caissons to support new landward structure, remove shed, and upgrade sewage disposal system.

Lot area:	7,115 sq. ft.
Building coverage:	2,044 sq. ft.
Pavement coverage:	41 sq. ft.
Landscape coverage:	660 sq. ft.
Parking spaces:	2 spaces
Avg. ht. abv. sloped grade:	32 ft.
Ht. Abv. Malibu Road:	25.6 ft.

SUMMARY OF STAFF RECOMMENDATION:

Staff is recommending approval, subject to conditions, for the proposed demolition, construction of new garage and bedroom structure, and remodeled and enlarged residence. The new garage and bedroom structure is located on the landward portion of the site, while a 75 sq. ft. addition to the existing one story residence will bring the residence seaward to a location within the stringline of adjoining properties. A portion of the existing residence is located seaward of the stringline. The project site, located on Amarillo Beach, was initially developed with single family homes between 1924 and the late 1940's. The subject site includes a one story residence, detached garage, without a bulkhead, constructed prior to the effective date of the Coastal Act in 1951. The existing residence is located on pilings while the new garage and bedroom structure will be constructed on caissons adjacent to Malibu Road. The proposed septic system will be located beyond the wave up rush area within the

front yard. No shoreline protective device is proposed or needed. As a result, the proposed project will not create any increased adverse impacts to public access or shoreline processes.

Staff is recommending approval of the proposed project subject to the following special conditions which would bring the project into conformance with the Coastal Act: 1) applicant's assumption of risk; 2) plans conforming to geology and engineering report recommendations; and 3) construction responsibilities and debris removal.

LOCAL APPROVALS RECEIVED: City of Malibu Planning Department Approval in Concept, dated 11/6/97; City of Malibu Environmental Health Department Approval in Concept, dated March 17, 1997; City of Malibu Geology and Geotechnical Engineering Review, Approved in Concept, dated 10/31/97; City of Malibu Geology Referral Sheet, Geologically feasible, dated 7/31/97; County of Los Angeles, Fire Department, Coastal Commission Approval Only, dated 10/23/97.

SUBSTANTIVE FILE DOCUMENTS: Appendix A

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants, subject to the conditions below, a permit for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, is located between the sea and first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Compliance. All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. Applicant's Assumption of Risk.

Prior to the issuance of the coastal development permit, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide: (a) that the applicant understands that the site may be subject to extraordinary hazard from liquefaction, storm waves, erosion or flooding and the applicant assumes the risks from such hazards; and (b) that the applicant unconditionally waives any claim of liability on the part of the Commission and agrees to indemnify and hold harmless the Commission and its advisors relative to the Commission's approval of the project for any damage due to natural hazards. The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens which the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Coastal Commission approved amendment to the coastal development permit unless the Executive Director determines that no amendment is required.

2. Plans Conforming to Geology and Engineering Report Recommendations

All recommendations contained in the Wave Uprush Study, Timber Pile Review, and one Update by David Weiss Structural Engineer & Associates dated April 2, 1996 through June 26, 1998 and the Limited Geologic and Soils Engineering Investigation, prepared by GeoConcepts, Inc. dated November 22, 1995 and

Updated Report dated October 17, 1997 shall be incorporated into all final design and construction plans including friction pile foundations, drainage and maintenance, grading and earthwork, foundations, excavations, retaining walls, sewage, finished floor elevation, reinforced concrete pile system, and retrofit existing timber piles which must be reviewed and approved by the consultants prior to commencement of development. Prior to issuance of the coastal development permit, the applicant shall submit evidence to the Executive Director of the consultant's review and approval of all final design and construction plans.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading and drainage. Any substantial changes in the proposed development approved by the Commission which may be required by the consultant shall require an amendment to the permit or a new coastal permit.

3. Construction Responsibilities and Debris Removal

The applicant shall, by accepting this permit, agree and ensure that the project contractor: a) not stockpile dirt on the beach; b) properly cover and sand-bag all stockpiling beyond the beach to prevent runoff and siltation; c) not store any construction materials or waste where it may be subject to wave erosion and dispersion; d) promptly remove any and all debris from the beach that results from construction or demolition materials to an appropriate disposal site; e) implement measures to control erosion at the end of each day's work; and f) not allow any mechanized equipment in the intertidal zone at any time.

IV. Findings and Declarations.

A. Project Description and Location

The project site is located at 24604 Malibu Road, Malibu on a 7,115 sq. ft. lot along Amarillo Beach seaward of Malibu Road. *(Exhibits 1 and 2)* The applicant is proposing to demolish the garage and construct a new two story, two car garage and three bedroom structure attached through a gallery connection to an existing one story residence. The existing 1,060 sq. ft. residence is proposed to be remodeled with 200 sq. ft. additions on the seaward and landward sides and attached to the new 1,064 sq. ft. garage/bedroom structure creating a total 2,324 sq. ft. residence and 504 sq. ft. garage. The applicant proposes to install six new caissons to support the new garage and bedroom structure and upgrade the existing sewage disposal system located on the landward portion of the lot. The applicant also proposes to remove a small storage shed prior to the start of construction.

A portion of the existing deck on the seaward side of the residence is proposed to be enclosed as part of a small seaward extension/addition of the residence

located within the stringline of the adjoining residences. A portion of the existing residence now extends beyond the stringline. *(Exhibits 3-6)* There are no shoreline protective devices, such as a bulkhead or seawall, located on this site, nor are any proposed. The septic system, consisting of a 1,500 gallon septic tank and drainfield, is proposed to be located outside the wave uprush area, according to the applicant's engineer. A minimal amount of excavation (36 cubic yards) is proposed to construct the new structure; the cut material is proposed to be disposed outside the coastal zone in an appropriate disposal site. The existing house and garage were constructed in approximately 1951.

Vertical public access to Amarillo Beach is located to the east and adjacent to the subject site leading from Malibu Road. A second vertical public access is located about 700 feet to the west leading from Malibu Road. These public accessways have been operated and maintained by Los Angeles County since the 1960's. To the north of the subject site is Malibu Lagoon State Recreation Area, also known as Bluff's Park, which overlooks the subject site.

The Los Angeles County Malibu Land Use Plan has designated the site as Residential III B which allows 4-6 dwelling units per acre. The residence is therefore, considered conforming to the Land Use Plan.

B. Shoreline Erosion

The applicant proposes to construct a new garage and bedroom structure on concrete caissons. The existing sewage disposal system located adjacent to Malibu Road will be upgraded. The upgraded sewage disposal system is located on the seaward portion of the site beneath the garage and bedroom structure within twenty (20) feet of the base of the slope and the Malibu right-of-way line. The applicant also proposes to embed the concrete caissons supporting this new structure into bedrock.

After identifying the applicable Coastal Act sections and the Los Angeles County Land Use Plan (LUP) policies, the discussion of whether or not the proposed sewage disposal system requires a shoreline protective device (bulkhead) will proceed in the following manner. First, the staff report describes the physical characteristics of the Amarillo Beach shoreline. Second, the staff report analyzes the dynamics of the Amarillo Beach shoreline. Third, the staff report analyzes the location of the proposed sewage disposal system in relation to wave action. Finally, the staff report analyzes whether a shoreline protective device[1] is needed.

As described in the discussion below, there is evidence that most developments along this section of Amarillo Beach may require a shoreline protective device that has the potential to impact the natural shoreline processes. Therefore, it is

[1] Shoreline Protective Device is also referred to in the findings as a bulkhead or seawall.

necessary to review the proposed project for its consistency with Sections 30235, 30250(a), and 30253 of the Coastal Act.

Section 30235 of the Coastal Act states:

> Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Section 30250(a) of the Coastal Act states (in part):

> 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 30253 states (in part):

> 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.

Coastal Act Section 30235 provides for two tests applicable to this project. The first test is whether or not a shoreline protective device is needed to protect either coastal dependent uses, existing structures, or public beaches in danger of erosion; the second test is whether or not the device is designed to eliminate or mitigate adverse impacts on shoreline sand supply.

The subject property is currently developed with a residence and septic system and a sloped yard area supporting Malibu Road. The project includes the demolition of an existing garage, the construction of a new garage and bedroom structure, the remodeling of the existing residence, and the construction of additions to the existing residence, which in effect, more than doubles the size of the existing residence. The proposed project also includes upgrading a sewage disposal system located as far landward and adjacent to Malibu Road as

possible. There is no shoreline protective device protecting the sewage disposal system or protecting the embankment supporting Malibu Road. No shoreline protective device is proposed. The applicant proposes to upgrade the existing septic system with a new septic tank, a drainfield and a future drainfield. Therefore, the Commission finds that the proposed project meets the first test of Coastal Act Section 30235 because no shoreline protective device is proposed. Since the applicant is not proposing to construct a shoreline protective device, there is no need to discuss the second test of Section 30235.

Regarding Section 30250, the new development proposed in this project consists of the new garage and bedroom structure, gallery, residential additions, and six new caissons. Because an existing residence already exists on site and surrounding properties are already developed, all with adequate public services, the new development will be located within an existing developed area able to accommodate it. Therefore, the proposed project meets Section 30250.

Regarding Section 30253, the proposed development is located within an area of high geologic and flood hazard due to wave erosion, storm waves, and liquefaction. This Section of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard. The location of the proposed upgraded sewage disposal system will be outside the ocean wave scour area, as determined by the applicant's engineer. The new garage and bedroom structure will be located on six new concrete caissons embedded in bedrock and the wood piles supporting the existing residence will be retrofitted. These issues are further discussed below.

1. Proposed Project and Site Shoreline

The City of Malibu includes a 27 mile long narrow strip of coast that is backed by the steep Santa Monica Mountains. Unlike most of the California coast, the shoreline in Malibu runs from east to west and forms south-facing beaches. Amarillo Beach is located approximately 2 1/2 miles west of Malibu Creek and is backed by coastal bluffs on the landward side of Malibu Road.

Amarillo Beach is located within the Dume Littoral Subcell, which geographically extends from approximately Point Dume to Redondo Beach. The Dume Subcell is part of the larger Santa Monica Littoral Cell. The fluvial sediment from Malibu Creek and Topanga Canyon Creek is the major contributing sediment source in this Subcell. Given that Amarillo Beach is upcoast from Malibu Creek and Topanga Canyon Creek, sediment to this beach is predominately derived from the upcoast Zuma Littoral Subcell, in which approximately 90% of the sediment continues downcoast bypassing the Dume Canyon Submarine Canyon. In contrast to the Dume Littoral Subcell, where the major sediment source is the large streams referenced above, 60% of the sediment from Zuma Cell's net total

sediment is derived from beach/bluff erosion and only 40% is derived from the local streams.[2]

The main sources of sediment for bluff backed beaches are the bluffs themselves, as well as the material that has eroded from inland sources and is carried to the beach by small coastal streams. While beaches seaward of coastal bluffs follow similar seasonal and semiannual changes as other sandy beaches, they differ from a wide beach in that a narrow, bluff backed beach does not have enough material to maintain a dry sandy beach area during periods of high wave energy. Thus, unlike a wide sandy beach, a narrow, bluff backed beach may be scoured down to bedrock during the winter months. In the case of Amarillo Beach, a road was constructed at the base of the bluff area in the 1920s and has thus altered the natural process of shoreline nourishment in which beaches such as Amarillo would expose the back of the bluff to frequent wave attack as the beach erodes. In a natural setting, this wave attack leads to eventual erosion and retreat of the lower portions of the bluff. The dynamic of bluff erosion and retreat results in landward movement of the beach's location and, in turn, eroded bluff material provides beach nourishment material to establish a new beach area. In the case of Amarillo Beach, the back of the beach has been fixed in part by Malibu Road and in part by shoreline protective devices that have been constructed on the beach to protect single family residences.

2. Amarillo Beach Is an Eroding Beach

Having defined Amarillo Beach as a narrow, bluff-backed beach, the next step is to determine the overall erosion pattern of the beach. Determining the overall beach erosion pattern is one of the key factors in determining the impact of the seawall on the shoreline. In general, beaches fit into one of three categories: 1) eroding; 2) equilibrium; or 3) accreting. The persistent analytical problem in dealing with shore processes in California is distinguishing long-term trends in shoreline change from the normal, seasonal variation.

Two studies regarding long-term trends in shoreline processes were reviewed. First, a U.S. Army Corps of Engineers 1994 Reconnaissance Report regarding the Malibu/Los Angeles County coastline, concludes that Puerco Beach to Amarillo Beach is a narrow beach backed, by a high bluff and frontage road. The Army Corps forecasts long term retreat averaging a little less than one (1) foot per year for Amarillo Beach. [2] Second, a report prepared for the City of Malibu by Moffatt and Nichol, Engineers dated June 30, 1992 was reviewed. This report concludes that this specific section of Amarillo Beach is retreating over the 1938 - 1988 time period; however, the estimated rate of erosion is between 0.25 and 0.5 feet per year.

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[2] Army Corps of Engineers, Los Angeles District, Reconnaissance Study of the Malibu Coast. 1994.

The applicant produced two reports with one update letter that discussed the proposed project relative to wave uprush and the shoreline processes: Partial Wave Uprush Study by David Weiss, Structural Engineer & Associates, dated April 2, 1996; Report on Review of Existing Timber Pile System by David Weiss, dated October 25, 1996; and Response to Letters of May 5, 1998 and May 20, 1998 from Coastal Commission, dated June 26, 1998.

David Weiss, Structural Engineer & Associates identified the design beach profile, wave uprush calculations, design waves, analyzed possible storm wave damage to existing and proposed structures, and provided coastal engineering recommendations for use by design professionals for the design of the remodel and addition to the house along Amarillo Beach. David Weiss provides no conclusion regarding shoreline advancement or retreat along Amarillo Beach. The report identifies the historical mean high tide line location (July 1945) on the subject site as about 150 feet seaward from the landward property line along Malibu Road.

Staff reviewed the proposed project against the above cited shoreline data. The data presented indicates that this section of Amarillo Beach is an eroding beach. The applicant's consultant has provided no significant analysis to the contrary. The studies performed by the U. S. Army Corp of Engineers, indicate that Amarillo Beach is an eroding beach. More specifically, the Moffatt & Nichol report identifies in detail this subject beach location as eroding between about 0.25 and 0.5 feet per year. Therefore, the Commission finds that Amarillo Beach is an eroding beach.

3. Location of the Proposed Sewage Disposal System in Relation to Wave Action

A key factor in determining potential impacts on the proposed upgraded sewage disposal system is its locational relationship to the expected wave runup. The existing sewage disposal system is located landward of the existing residence along Malibu Road. The applicant proposes to construct an upgraded sewage disposal system beneath the proposed garage and bedroom structure within 20 feet of the most landward property line along Malibu Road. The profile data, cited in detail below, shows that the position of the proposed septic system do not intrude on the historical areas of wave run-up and beach sediment transport. The data also shows that the proposed sewage disposal system and new structure is not located near documented positions of the Mean High Tide Line (MHTL).

It is important to accurately calculate the potential for wave runup and wave energy potentially affecting the sewage disposal system in the future. David Weiss, & Associates, the applicant's engineering consultant states in their June 26, 1998 report, that they completed a partial wave uprush study. The report further concludes:

> In the case of this project, no device is required to protect the proposed sewage disposal system so long as it is placed within the twenty-foot strip bounded on the north by the Malibu Road right of way line. Additionally, no protective device is required for the pile foundation system specified to support the proposed addition. ... The sewage disposal system is to be located under the footprint of the addition, within the area recommended in the uprush study of Reference Number One (Partial Wave Uprush Study dated April 2, 1996).

The submitted Partial Wave Uprush Study included two wave designs to determine the location of where waves would break and the most landward extent of the wave uprush. According to both wave design scenarios, the waves would break seaward of the design shoreline. Wave uprush would extend to about 22 feet seaward from the Malibu Road right-of-way, which would be two (2) feet landward of the proposed location of the upgraded sewage disposal system. In response to Staff questions about the potential for wave uprush adversely affecting the sewage disposal system, a "Response to Lettters of May 5, 1998 and May 20, 1998 from Coastal Commission" was provided by David Weiss and Associates, dated June 26, 1998. The Response states:

> Subsequent to the recent severe coastal storms, while involved in another project, I had occasion to observe the project site. At that time I noticed that there had been no change to that portion of the project site landward of the north side of the existing dwelling structure. It was my observation that as severe as the storms of January and February 1998 were, the wave uprush appeared not to have passed the north side of the existing dwelling structure and certainly did not reach the area of the proposed sewage disposal system.

Given that there is strong evidence that Amarillo Beach is subject to long-term erosional trends, the frequency of wave exposure on the beach will increase as the beach width decreases with time. This condition will only be exacerbated in the future given the documented long term erosional trends, however, it is not feasible to move the sewage disposal system further landward, as it is located on the most landward portion of the subject property.

Based on the above discussion and facts concerning Amarillo Beach, the Commission finds that the proposed sewage disposal system is located as far landward on the property as possible above the beach on the sloped area leading up to Malibu Road outside of the wave uprush area.

4. Conclusion

In conclusion, the Commission finds that the proposed sewage disposal system, located beyond the wave uprush area, will not have any adverse impacts on the shoreline processes. The proposed project will not need a shoreline protective

device due to the proposed location of the sewage disposal system, and therefore, meets Section 30235 of the Coastal Act. In addition, the Commission finds that the proposed residential remodel and additions of new development are located within an existing developed area able to accommodate it and therefore meets Section 30250 of the Coastal Act. The Commission also finds that the proposed project, as conditioned, will minimize risks to life and property in areas of flood hazard and assure stability and structural integrity that will not require the construction of shoreline protective devices that would substantially alter natural landforms along the coast. Therefore, the Commission finds that, only as conditioned, is the proposed project consistent with Sections 30235, 30250, and 30253 of the Coastal Act.

D. Public Access.

One of the basic mandates of the Coastal Act is to maximize public access and recreational opportunities along the coast. The Coastal Act has several policies which address the issues of public access and recreation along the coast.

Section 30210 of the Coastal Act states:

> In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211 of the Coastal Act states:

> Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212 of the Coastal Act states (in part):

> (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:
> ...
>
> (2) adequate access exists nearby...

Section 30220 of the Coastal Act states:

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

1. Public Access

Coastal Act sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Likewise, section 30212 of the Coastal Act requires that public access to the sea be provided, except where adequate access exists nearby. Section 30211 provides that development not interfere with the public's right of access to the sea including the use of dry sand and rocky coastal beaches. Section 30220 of the Coastal Act requires coastal areas suited for coastal recreational activities, that cannot be provided at inland water areas, be protected.

All beachfront projects requiring a Coastal Development Permit must be reviewed for compliance with the public access provisions of Chapter 3 of the Coastal Act. The Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline. The major access issue in such permits is the occupation of sand area by a structure, in contradiction of Coastal Act policies 30210, 30211, and 30212. However, a conclusion that access may be mandated does not end the Commission's inquiry. As noted, Section 30210 imposes a duty on the Commission to administer the public access policies of the Coastal Act in a manner that is "consistent with ... the need to protect ... rights of private property owners..." The need to carefully review the potential impacts of a project when considering imposition of public access conditions was emphasized by the U.S. Supreme Court's decision in the case of Nollan vs. California Coastal Commission. In that case, the court ruled that the Commission may legitimately require a lateral access easement where the proposed development has either individual or cumulative impacts which substantially impede the achievement of the State's legitimate interest in protecting access and where there is a connection, or nexus, between the impacts on access caused by the development and the easement the Commission is requiring to mitigate these impacts.

The Commission's experience in reviewing shoreline residential projects in Malibu indicates that individual and cumulative impacts on access from such projects can include among others, encroachment on lands subject to the public trust, thus, physically excluding the public; interference with natural shoreline processes which are necessary to maintain publicly-owned tidelands and other beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the public's ability to use beach access and cause adverse impacts on public access.

As proposed, this project will not extend any further seaward than the existing residence and deck that is now located over the sandy beach. The existing residence and deck is now located up to approximately 77 feet from the landward property line at Malibu Road (Exhibits 3 and 5). The construction of the additions to the first floor of the existing residence and the construction of a

new two story garage and bedroom structure with six new supporting caissons, does constitute new development under the Coastal Act. The remodel of the existing residence, the retrofitting of the existing wood pilings, and the upgrade of the sewage disposal system does not constitute new development.

The proposed project must be judged against the public access and recreation policies of the State Constitution, Sections 30210, 30211, 30212, and 30220 of the Coastal Act. Along the California coast, the line between land and ocean is complex and constantly moving. This dynamic environment has introduced uncertainty into questions about the location of public and private ownership as well as rights of public use. It is generally accepted that the dividing line between public tidelands and private uplands, or the tidal boundary, in California is the mean high tide line (MHTL), essentially the same as the ordinary high water mark or line. What is not well-settled as a legal matter is how that line translates into an on-the ground location.

The courts have not fully resolved the question of the extent to which the location of the tidal boundary in California changes as the profile of the shoreline changes. Where there has not been a judicial declaration of a reasonable definite boundary based upon evidence in a specific case, or where the upland owner has not entered into an agreement with the state fixing the boundary, uncertainty remains.

Nevertheless, despite this legal uncertainty, as a practical matter the actual dividing line between sea and land moves constantly, and this gives rise to issues involving protection of public rights based on use, rather than ownership. These use rights arise as the public walks the wet or dry sandy beach below the mean high tide plane. This area of use, in turn moves across the face of the beach as the beach changes in depth on a daily basis. The free movement of sand on the beach is an integral part of this process, and it is here that the effects of structures are of concern.

The beaches of Malibu are extensively used by visitors of both local and regional origin and most planning studies indicated that attendance of recreational sites will continue to significantly increase over the coming years. While the Commission cannot determine if prescriptive rights exist on the subject property, it must protect those potential public rights by assuring that any proposed shoreline development does not interfere with or will only minimally interfere with those rights. Presently, this shoreline remains open and can be used by the public for access and general recreational activities.

Regarding vertical public access from Malibu Road to the beach, the project site is located west of and adjacent to a vertical public accessway (owned and operated by the County of Los Angeles since the 1960's) that has historically been used by the public to access Amarillo, Puerco and Malibu Beaches. Additionally, there are approximately four other vertical accessways that lead

from Malibu Road to Puerco and Amarillo Beaches in the vicinity. Therefore, vertical access to the beach exists nearby.

Regarding lateral public access and state tidelands ownership, the State Lands Commission, in a letter dated March 2, 1998, reviewed the proposed project. The State Lands Commission staff noted that they do not have sufficient information to determine whether the project intrudes upon state sovereign lands and accordingly asserted no claims. The applicant's engineer, in the Wave Uprush Study, has identified the Mean High Tide Line (MHTL) as of July 1945 to be located between about 150 feet seaward of the Malibu Road right-of-way. The applicant did not submit any evidence of any known and more recent MHTL survey. The proposed seaward addition to the residence is located as far seaward as about 68 feet (within stringline) from Malibu Road (Exhibits 3 and 5). Assuming this line is accurate, beyond the enlarged residence, there is about 100 feet of beach until the Mean High Tide Line is reached. It is important to note that although the MHTL is ambulatory there is no evidence that the proposed additions will extend to the MHTL or onto state sovereign lands. According to the Commission's access records, there are no existing offers to dedicate public access easements recorded on the applicant's property.

The analysis cited in the preceding section indicates that the proposed project including the proposed upgraded sewage disposal system will not have any impacts on the shoreline processes. The analysis further indicates that there is a strong possibility that the shoreline is eroding. However, since the sewage disposal system is located at the farthest landward location along the slope of the bluff leading to Malibu Road beneath the landward portion wall of the proposed addition to the residence, there will be no impacts on public access. Further, because the proposed sewage disposal system is sited as far back above the beach as feasible, the Commission finds that there will be no new or additional beach scour or end impacts on the beach which would affect lateral access along the beach. Therefore, there is no basis to require a condition to establish a lateral access easement across the applicant's property.

2. Stringline Review and Visual Resources

Section 30251 of the Coastal Act states:

> 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.

Through Coastal Act Sections 30210, 30211, 30251 and 30253 noted above and in other sections of this report, the Commission has developed the "stringline" policy to control the seaward extent of buildout in past permit actions. As applied to beachfront development, the stringline limits extension of a structure to a line drawn between the nearest corners of adjacent structures and limits decks to a similar line drawn between the nearest corners of adjacent structures and decks.

The Commission has applied this policy to numerous past permits involving infill on sandy beaches and has found it to be an effective policy tool in preventing further encroachments onto sandy beaches. In addition, the Commission has found that restricting new development to building and deck stringlines is an effective means of controlling seaward encroachment to ensure maximum public access as required by Sections 30210 and 30211 and to protect public views and scenic quality of the shoreline as required by Section 30251 of the Coastal Act.

The applicant has submitted a plan with a stringline connecting the existing residences on either side of the project site. The plan indicates that the existing one story residence with the proposed seaward addition and the existing seaward deck structure are located behind the stringline with the adjacent buildings. However, a portion of the existing residence is located seaward of the stringline. Therefore, the Commission finds that the proposed project does conform to this setback. As proposed, the additions to this project will not extend new development further seaward than adjacent development, minimizing potential impacts to public access opportunities, public views and the scenic quality along the sandy beach. Further, the applicant does not propose any new shoreline protective device which could interfere with coastal processes.

And lastly, pursuant to Section 30251 of the Coastal Act, the Commission reviews the publicly accessible locations along adjacent public roads and the sandy beach where the proposed development is visible to assess visual impacts to the public. The Commission examines the building site and the size of the building. The existing residence and solid wall along Malibu Road already blocks public views from the highway to the beach and ocean. Although the proposed two story garage and bedroom structure and additions to the existing one story residence may be visible from the public sandy beach, the existing one story residence already blocks inland views from the beach. Moreover, the more scenic inland views of the Santa Monica Mountains as viewed from the water are well above the proposed development as viewed from locations further offshore and at low tide. Thus, the proposed additions will not adversely affect existing public views.

Therefore, the Commission finds that the proposed project, as conditioned, will have no individual or cumulative impacts on public access on the sandy beach seaward of the residence or public views to and along the coast, and is thus,

consistent with Sections 30210, 30211, 30212, 30220, and 30251 of the Coastal Act.

E. Hazards and Geologic Stability

Coastal Act Section 30253 states (in part):

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.

Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard. In addition to Section 30253 of the Coastal Act, the certified Malibu/Santa Monica Mountains LUP includes several policies and standards regarding hazards and geologic stability. These policies have been certified as consistent with the Coastal Act and used as guidance by the Commission in numerous past permit actions in evaluating a project's consistency with Section 30253 of the Coastal Act. For example, Policy 147 suggests that development be evaluated for impacts on and from geologic hazards.

1. Storm, Wave and Flood Hazard

The Malibu coast has been subject to substantial damage as a result of storm and flood occurrences, geological failures and firestorms. Therefore, it is necessary to review the proposed project and project site against the area's known hazards. The proposed project involves the demolition, remodel and addition to an existing residence on a lot located on a developed stretch of Amarillo Beach.

The site is susceptible to flooding and/or wave damage from storm waves and storm surge conditions. Past occurrences have resulted in public costs (through low-interest loans) in the millions of dollars in the Malibu area alone. Along the Malibu coast, significant damage has occurred to coastal areas from high waves, storm surge and high tides. In the winter of 1977-78, storms triggered numerous mudslides and landslides and caused significant damage along the coast. Damage to the Malibu coastline was well documented in the paper presented at the National Research Council, which stated that:

> The southerly and southwesterly facing beaches in the Malibu area were especially hard hit by waves passing through the open windows between offshore islands during the 1978 and 1980 storms. These waves broke against beaches, seawalls, and other structures, causing damages of between $2.8 and $4.75 million to private property alone. The amount of erosion resulting from a storm depends on the overall climatic conditions and varies widely from storm to storm. Protection from this erosion depends largely on the funds available to construct various protective structures that can withstand high-energy waves.[3]

The "El Nino" storms in 1982-83 caused additional damage to the Malibu coast, when high tides of over 7 feet were combined with surf between 6 and 15 feet. These storms caused over $12.8 million in damage to structures in Los Angeles County, many located in Malibu. Due to the severity of the 1982-83 storm events, they have often been cited as an illustrative example of an extreme storm event and used as design criteria for shoreline protective structures. Damage to the Malibu coastline was documented in an article in California Geology. This article states that:

> In general, the storms greatly affected the character of the Malibu coastline. Once quiet, wide, sandy beaches were stripped of their sand and high surf pounded residential developments .... The severe scour, between 8 to 12 feet, was greater than past scour as reported by "old timers" in the area. Sewage disposal systems which rely on the sand cover for effluent filtration were damaged or destroyed creating a health hazard along the coast. Flotsam, including pilings and timbers from damaged piers and homes, battered coastal improvements increasing the destruction. Bulkhead failures occurred when sand backfill was lost due to scour exceeding the depth of the bulkhead sheeting, or scour extending beyond the return walls (side walls of the bulkhead which are extended toward the shore from the front wall of the bulkhead).[4]

Other observations that were noted included the fact that the storm's damage patterns were often inconsistent. Adjacent properties suffered different degrees of damage sometimes unrelated to the method or age of construction. The degree of damage was often related to past damage history and the nature of past emergency repairs. Upcoast (west) of Amarillo Beach, walls at Zuma Beach and the parking lots were damaged by wave uprush and scour. Debris was deposited onto the margin of Pacific Coast Highway.

Storms in 1987-88 and 1991-92 did not cause the far-reaching devastation of the 1982-83 storms, however, they too were very damaging in localized areas and

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[3] "Coastal Winter Storm Damage, Malibu, Los Angeles County, Winter 1977-78", part of the National Research Council proceedings, George Armstrong.

[4] "Assessment of 1982-83 Winter Storms Damage Malibu Coastline", by Frank Denison and Hugh Robertson, in California Geology, September 1985.

could have been significantly worse except that the peak storm surge coincided with a low tide rather than a high tide. The 1998 El Nino Storms have damaged a number of residences and public facilities and infrastructure in Malibu and is currently being assessed.

As proposed, the existing residence with the proposed additions is an elevated structure on existing wood pilings with a ground floor elevation of 24.4 feet above Mean Sea Level. The residence is located well above the minimum floor elevation of 15.1 feet Mean Sea Level, as recommended by the Wave Uprush Report, to protect the structure from storm waves and storm surge. The garage and bedroom structure is proposed to be located on six concrete caissons embedded into bedrock. The structure and caissons are almost entirely located outside the wave uprush area. In addition the ground floor elevation of the garage and bedroom structure is about 27 feet above Mean Sea Level. Therefore, the structure will not be subject to storm waves and storm surge.

The applicant's submittal includes a Limited Geologic and Soils Engineering Investigation and Report and an update letter for the proposed additions prepared by GeoConcepts, Inc. dated November 22, 1995 and October 17, 1997, respectively. The Report concludes:

> It is the finding of this corporation, based upon the subsurface data, that the proposed project will be safe from settlement, landsliding or slippage and will not adversely affect adjacent property, provided this corporation's recommendations and those of the Los Angeles County Code are followed and maintained.

The Wave Uprush Study Response to Letters dated May 5, 1998 and May 20, 1998 from Coastal Commission by David Weiss and Associates, dated June 26, 1998 concludes that:

> With regard to the foundation of the proposed addition (garage and bedroom structure), it is my understanding that it will be a cast in place, reinforced concrete pile system socketed into the bedrock strata. That type of system is adequate to resist storms the magnitude experienced winter of 1982 – 83. With regard to the timber pile system supporting the existing one story structure, this office was asked to observe the timber piles in order to render an opinion whether or not the structure could be extended five feet to the west at pile "P-1". The report of Reference Number Two ("Report on Review of Existing Timber Pile System" dated October 25, 1996) was generated for that purpose. If the recommendations of that report are incorporated into the plans of remodel, the existing timber piles should be adequate to withstand the wave forces experienced during the 1982-83 storms.

"The Report on Review of Existing Timber Pile System" by David Weiss and Associates, dated October 25, 1996 concludes that:

> Please be advised that this preliminary analysis considers the capacity of the timber piles only. When considering changes to the existing one story structure, one must also consider requirements other than the vertical load capacity of the piles. The issues to be considered will be the capacity of the cap beams as well as the lateral load resisting capacity of the existing structure (i.e. capacity to resist wind, seismic and wave action). Because of the age and the type of construction of the existing structure, extensive retrofitting might be required. Those issues have not been investigated above, since they are beyond the scope of my instructions and really cannot be investigated in detail until a remodel plan is formulated.

During the winter season, the existing one story residence, to be remodeled and added to, will continue to extend into an area exposed to wave uprush, flooding, and erosion hazards that in the past have caused significant damage to development along the California coast, including the Malibu coastal zone and the beach area nearby the subject property. The Coastal Act recognizes that development, such as the proposed residential remodel and additions, may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to determine who should assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his property.

The Commission finds that due to the unforeseen possibility of liquefaction, storm waves, erosion, and flooding, the applicant shall assume these risks as a condition of approval. Because this risk of harm cannot be completely eliminated, the Commission is requiring the applicant to waive any claim of liability on the part of the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's assumption of risk, as required by condition number one (1), when executed and recorded on the property deed, will show that the applicant is aware of and appreciated the nature of the hazards which exist on the site, and which may adversely affect the stability or safety of the proposed development.

2. Site Geologic Stability

Beachfront development and development at the base of a coastal bluff raise issues relative to a site's geologic stability. As stated previously, Malibu Road, which abuts the subject property, is at the base of a coastal bluff. Malibu Road was the original route of State Highway 1, however, the right-of-way was relocated further inland as a result of historical erosion and bluff sloughing problems.

The Malibu shoreline has experienced coastal damage regularly from geologic instability induced by winter rains and heavy surf conditions. For instance, in Living with the California Coast, Griggs and Savoy discuss development at the seaward base of a cliff on the Malibu coastline and note that:

> As the amount of land along the immediate shoreline was consumed by subsequent housing, however, more and more structures were built on pilings in potentially dangerous locations at the base of crumbling bluffs ... Over the past 60 years, therefore, the pattern of beach erosion has grown in significance until many houses formerly built at the rear of broad backshores now find themselves stranded high above eroding foreshores, the waves periodically pummeling the underlying bluffs that connect the houses to the highway. The management problems facing this coast can only increase with time, as society as a whole has to pay the penalty for unwise, uncoordinated, and irrational developments of the past. (emphasis added)[5]

These problems associated with geologic instability are particularly serious in older subdivisions. Developments at the base of natural slopes within older subdivisions suffered severe damage in the 1977-78 winter storms, where a series of intense rainstorms triggered numerous mudslides and landslides. Within the City of Los Angeles alone, losses to public and private property were estimated to be $100 million. Slosson and Krohn stated that:

> Damage from debris flows and mudflows appears to be increasing in magnitude and is caused, in part, by the increased construction of homes at the base of natural slopes or partial natural slopes associated with older subdivisions. Most severely hit appear to be those sites or lots that were a part of pre-1963 or even pre-1952 subdivisions but were not built upon until recent years. ... The potential for mudflow and debris flow hazard is easily recognized, but few consultants will acknowledge evidence unless required by code. [6]

As stated previously, the applicant submitted a Limited Geologic and Soils Engineering Investigation Report and Update Letter prepared by GeoConcepts, Inc. dated November 22, 1995 and October 17, 1997, respectively. The report states that the project site will not be affected by hazards as long as the Corporation's (GeoConcepts, Inc.) and Los Angeles County Code are followed and maintained. In addition, the applicant has submitted a Geology Referral Sheet from the City of Malibu, dated 7/31/97, which states that the project is geologically feasible and can proceed through the planning stage. As noted

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[5] Living with the California Coast, Griggs and Savoy

6 "Southern California Landslides of 1978 and 1980" by James Slosson and James Krohn, in Storms, Floods and Debris Flows in Southern California and Arizona 1978 and 1980, Proceedings of a Symposium by the National Research Council.

above, the "Report on Review of Existing Timber Pile System" by David Weiss and Associates, dated October 25, 1996 recommended that extensive retrofitting of the timber pile foundation may be needed.

As set forth in Section 30253 of the Coastal Act, new development shall assure structural integrity neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. The Commission finds that the development is consistent with Section 30253 of the Coastal Act so long as the geologic and engineering consultant's recommendations are incorporated into project plans. Therefore, the Commission finds it necessary to require the applicant to submit project plans, including the retrofitting of the existing wood pile foundation, that have been certified in writing by the consulting Engineering Geologist and Coastal Engineer as conforming to their recommendations as required by condition number two (2).

Lastly, as noted above, the project involves some demolition and construction on a beachfront lot subject to tidal influence. The proposed development, with its limited excavation of terrace deposits, debris, and with beach level construction activity, may result in disturbance of the offshore rocky intertidal and kelp bed habitat through erosion, siltation, and debris deposition. Construction equipment, materials and demolition debris could pose a significant hazard if used or stored where subject to wave contact or situated in a manner that creates a hazard for beach users. To minimize impacts to the beach, the applicant proposes to construct the new caissons and pilings with the use of construction equipment located on Malibu Road and not on the beach. Furthermore, this construction activity, if not properly mitigated, would add to an increase of pollution in the Santa Monica Bay.

To avoid this possibility, the Commission finds that it is necessary to require the applicant to agree and ensure that the project contractor: a) not stockpile dirt on the beach; b) that all stockpiling beyond the beach shall be properly covered and sand-bagged to prevent runoff and siltation; c) not store any construction materials or waste where it may be subject to wave erosion and dispersion; d) remove promptly from the beach any and all debris that results from construction materials; e) that measures to control erosion must be implemented at the end of each day's work; and, f) not allow any mechanized equipment in the intertidal zone at any time. Condition number three (3) addresses this issue. This condition will also ensure that the construction of the proposed project will minimize risks to life and property in this public beach area that is subject to wave hazards and to protect coastal resources.

Therefore, the Commission finds that the proposed development, as conditioned, is consistent with section 30253 of the Coastal Act.

F. Septic System

The Commission recognizes that the potential build-out of lots in Malibu, and the resultant installation of septic systems, may contribute to adverse health effects and geologic hazards in the local area.

Section 30231 of the Coastal Act states that:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.

Section 30250 (a) of the Coastal Act states (in part):

> New residential, ... development, ... shall be located within, ... existing developed areas able to accommodate it ... and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.

As described in the preceding project description section, the existing sewage disposal system will be upgraded to include a 1,500 gallon septic tank, a drainfield, and a future drainfield located landward of the existing residential structure on a sloped area beneath the proposed garage and bedroom structure. The applicant has submitted a conceptual approval for the sewage disposal system from the City of Malibu Department of Environmental Health, based on a three bedroom single family residence. This approval indicates that the sewage disposal system for the project in this application complies with all minimum requirements of the Uniform Plumbing Code.

The Commission has found in past permit actions that compliance with the health and safety codes will minimize any potential for wastewater discharge that could adversely impact coastal waters. In addition, the proposed upgraded sewage disposal system will be located as far landward on the subject site as possible, outside the area of wave uprush. As reviewed by the City and as set forth in the geotechnical analysis of the septic system, the proposed project will not adversely impact the biological productivity and quality of the coastal waters. Therefore, the Commission finds that the proposed project is consistent with Sections 30231 and 30250 of the Coastal Act.

G. Local Coastal Program

Section 30604 of the Coastal Act states that:

> a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the

> proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the project and accepted by the applicant. As conditioned, the proposed development will not create adverse effects and is found to be consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the City's ability to prepare a Local Coastal Program for Malibu which is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

H. CEQA

The Coastal Commission's permit process has been designated as the functional equivalent of CEQA. Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effects which the activity may have on the environment.

The Commission finds that, the proposed project, as conditioned, will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified effects, is consistent with the requirements of CEQA and the policies of the Coastal Act.

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS

Malibu/Santa Monica Mountains District Interpretive Guidelines. Coastal Commission. 1981

Certified Malibu/Santa Monica Mountains Land Use Plan. County of Los Angeles. 12/11/86.

Adopted City of Malibu General Plan. November 1995

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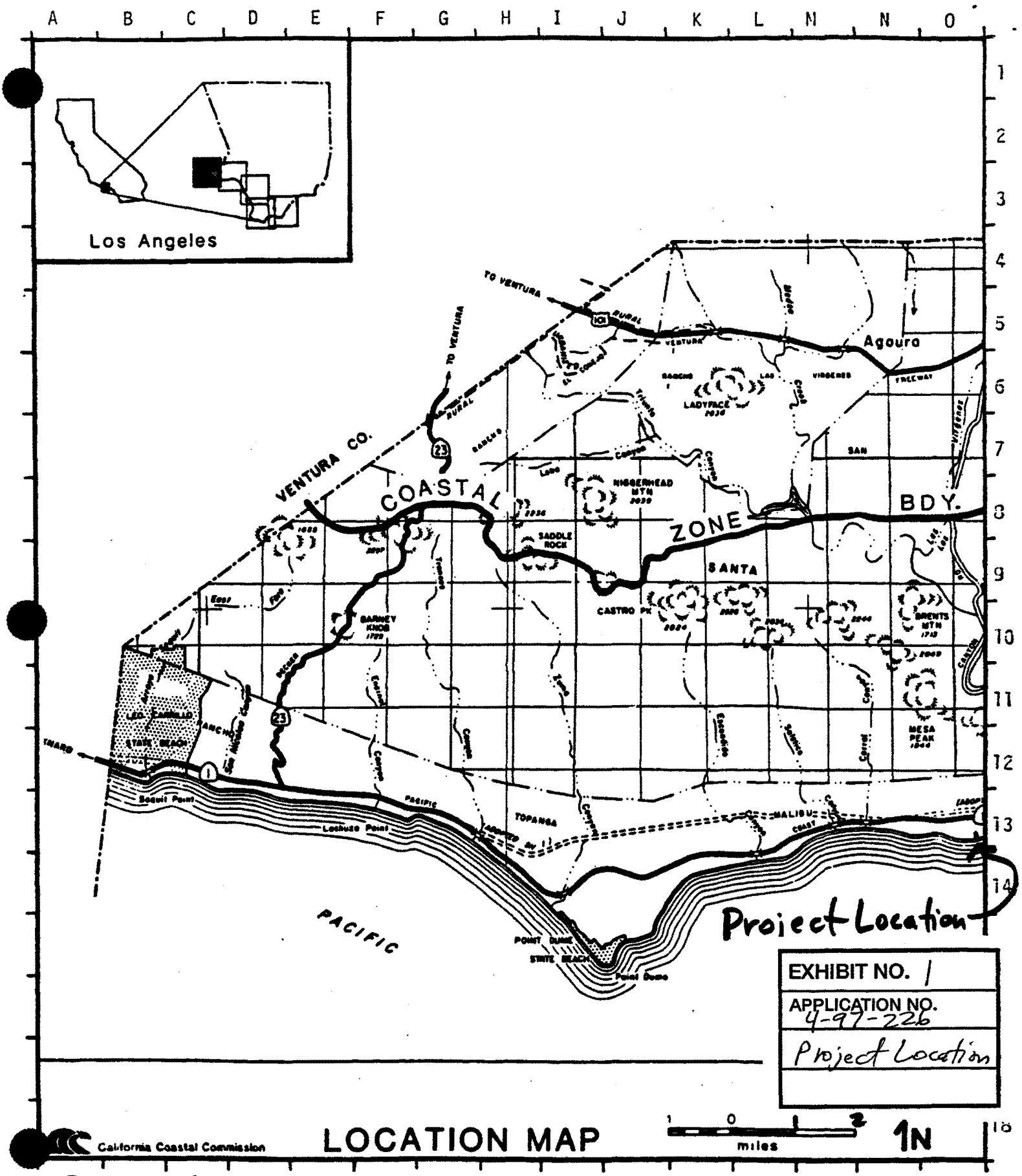
Letter to Lesley Ewing from Douglas Inman, Ph.D., February 25, 1991

Letter to Lesley Ewing from Dr. Craig Everts of Moffatt and Nichol Engineers, March 14, 1994

COASTAL PERMIT APPLICATIONS Staff Report Lechuza Villas West 2/4/97; Coastal Permit 4-94-200, Dussman; Coastal Permit 4-97-191, Kim.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LADYFACE
NIGGERHEAD MTN
SADDLE ROCK
CASTRO PK
BARNEY KNOB
BRENTS MTN
MESA PEAK
TOPANGA
MALIBU
COAST
PACIFIC
Project Location
EXHIBIT NO. 1
APPLICATION NO. 4-97-226
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California Coastal Commission
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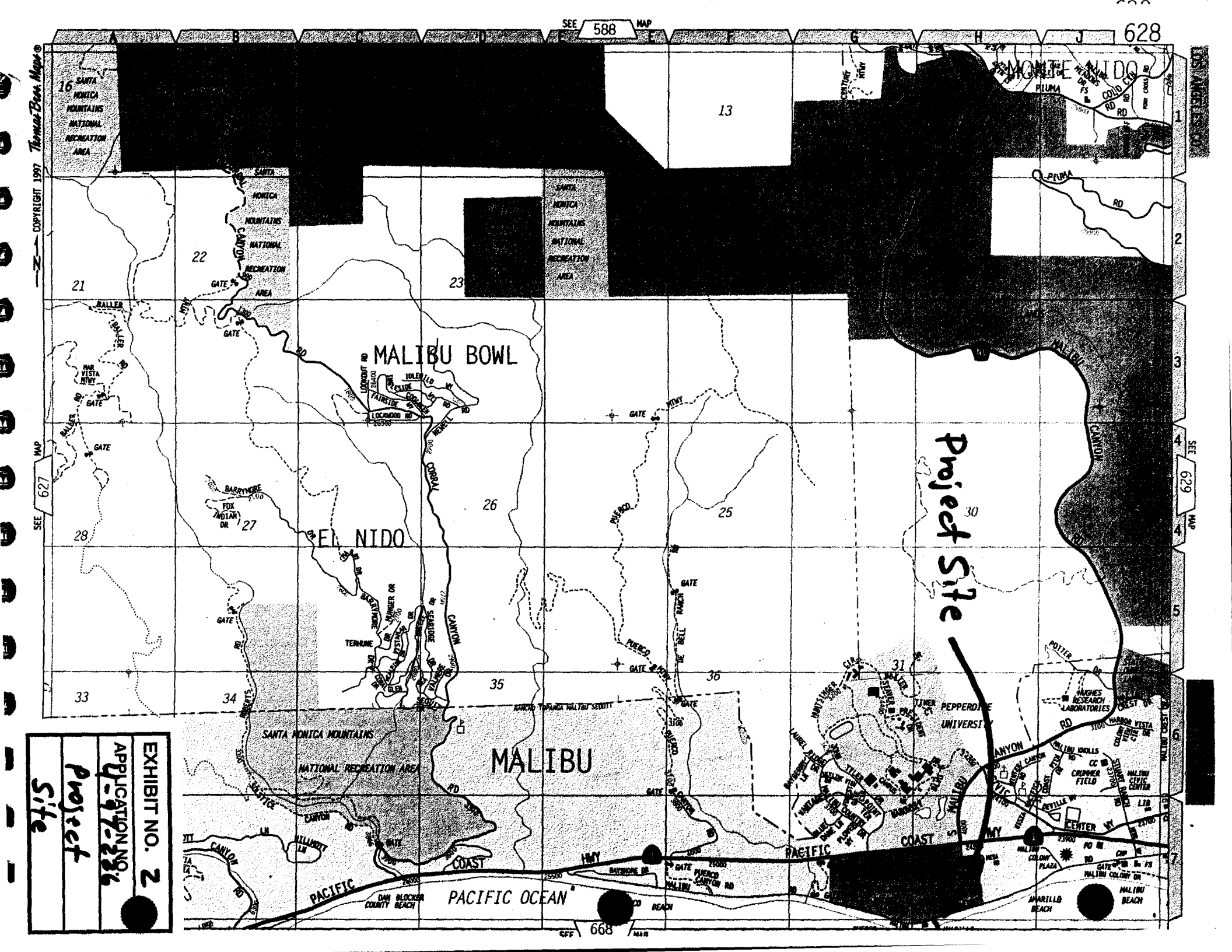
Sheet 1 of 5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Project Site
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EL NIDO
MALIBU
SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA
PACIFIC OCEAN
PACIFIC COAST HWY
MONTE NIDO
PEPPERDINE UNIVERSITY
SEE MAP 588
SEE MAP 627
SEE MAP 629
SEE MAP 668
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Architectural Survey

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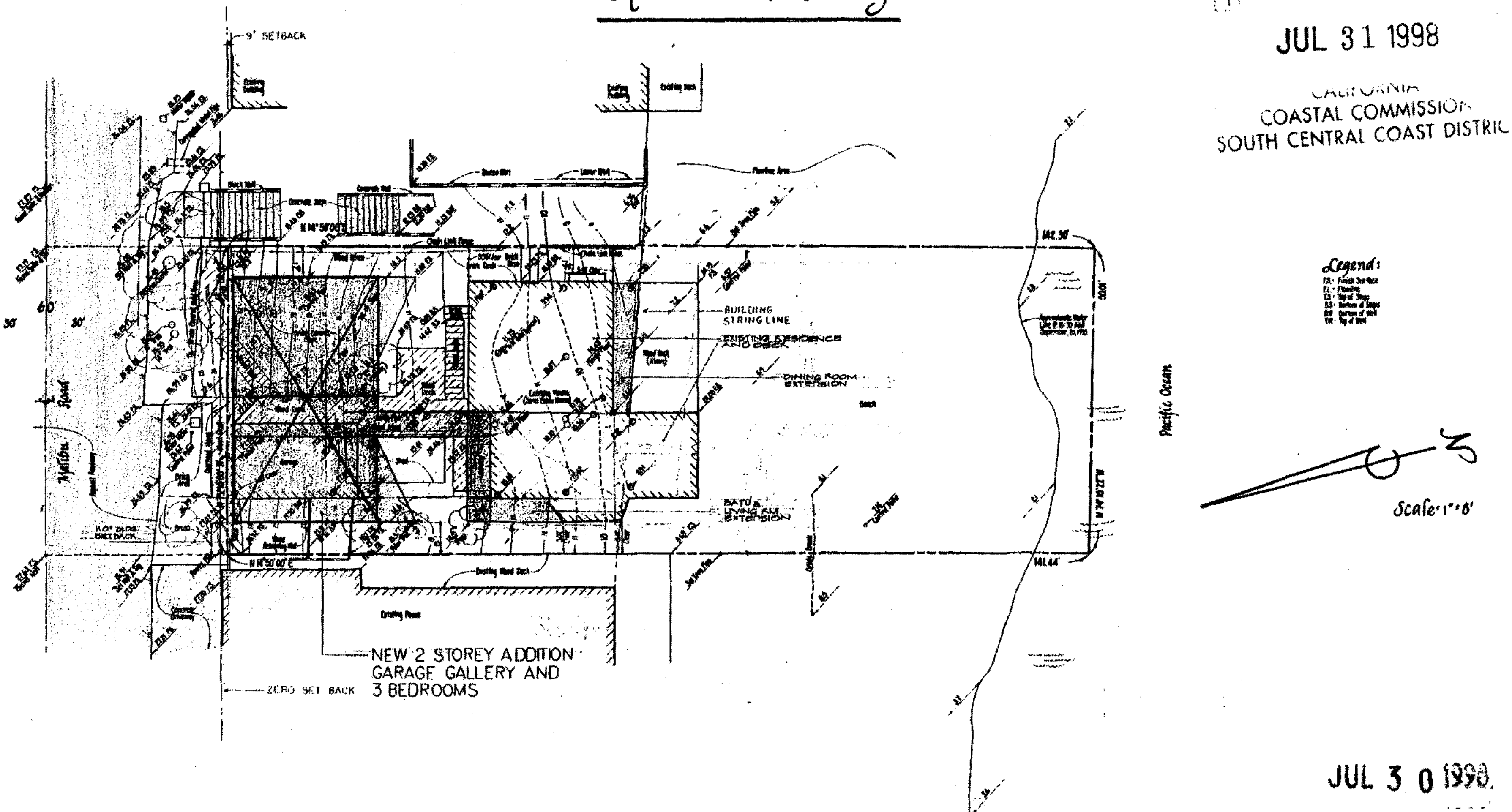
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT



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Mark: Sea Level Datum
y: Record information adjusted to found city centerline monuments.
ress: 24604 Malibu Road, Malibu
Survey: September 22, 1995
7,115 sq. ft., 0.16 Acres

Plan Prepared For: Elliot Felman
24604 Malibu Road
Malibu, Ca. 90265
(310) 456-6012

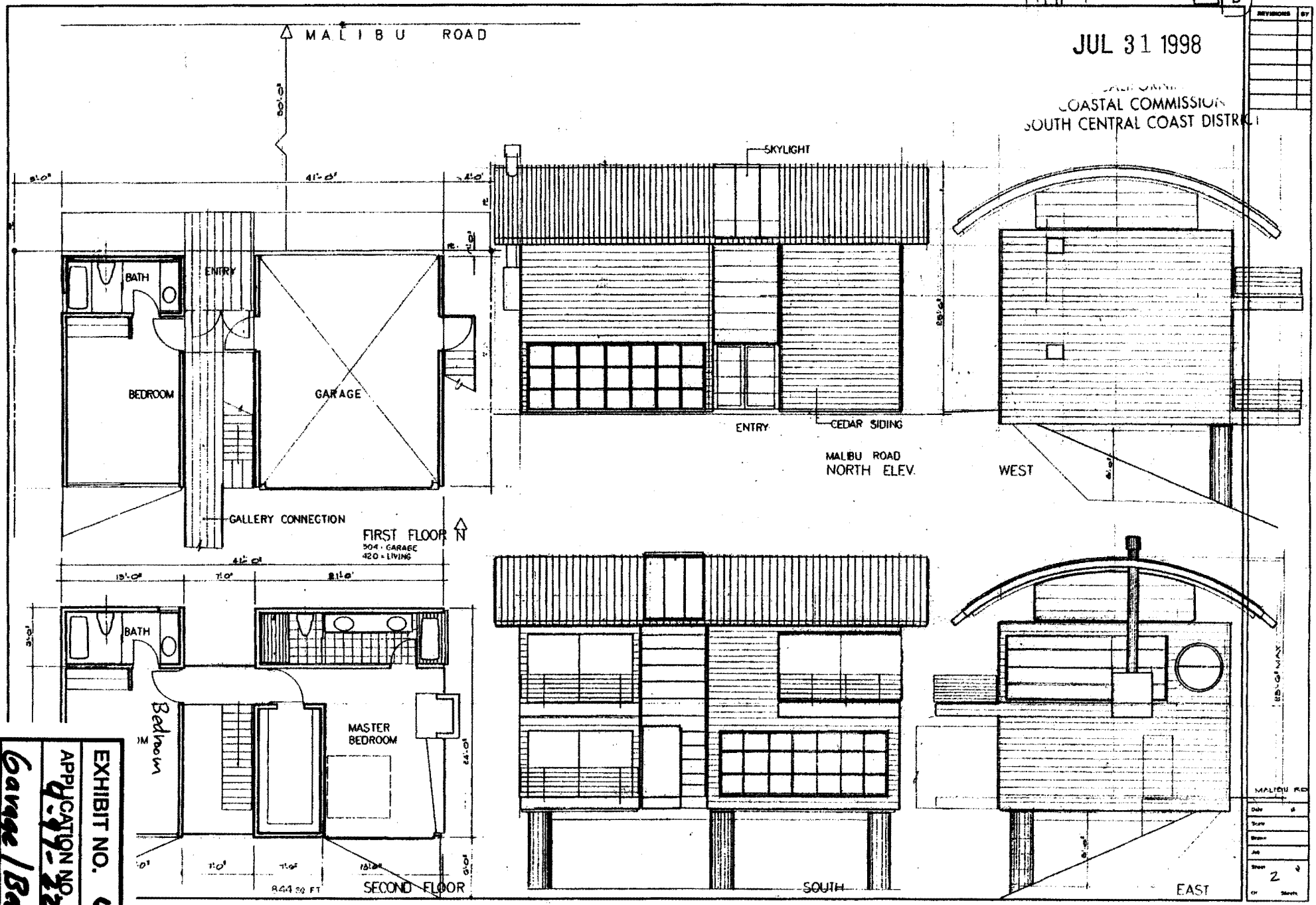
Plan Prepared By: M & M & Co.
Encino Avenue
Northridge, Ca. 91325
(818) 885-1100
Michael J. Amoroso LS 5542

GARAGE AND THREE BEDROOM ADDITION
DR ELLIOT AND CINDY FELMAN
24604 MALIBU ROAD

1

ORIGINAL

EXHIBIT NO. 3
APPLICATION NO. 4-97-226
Site Plan



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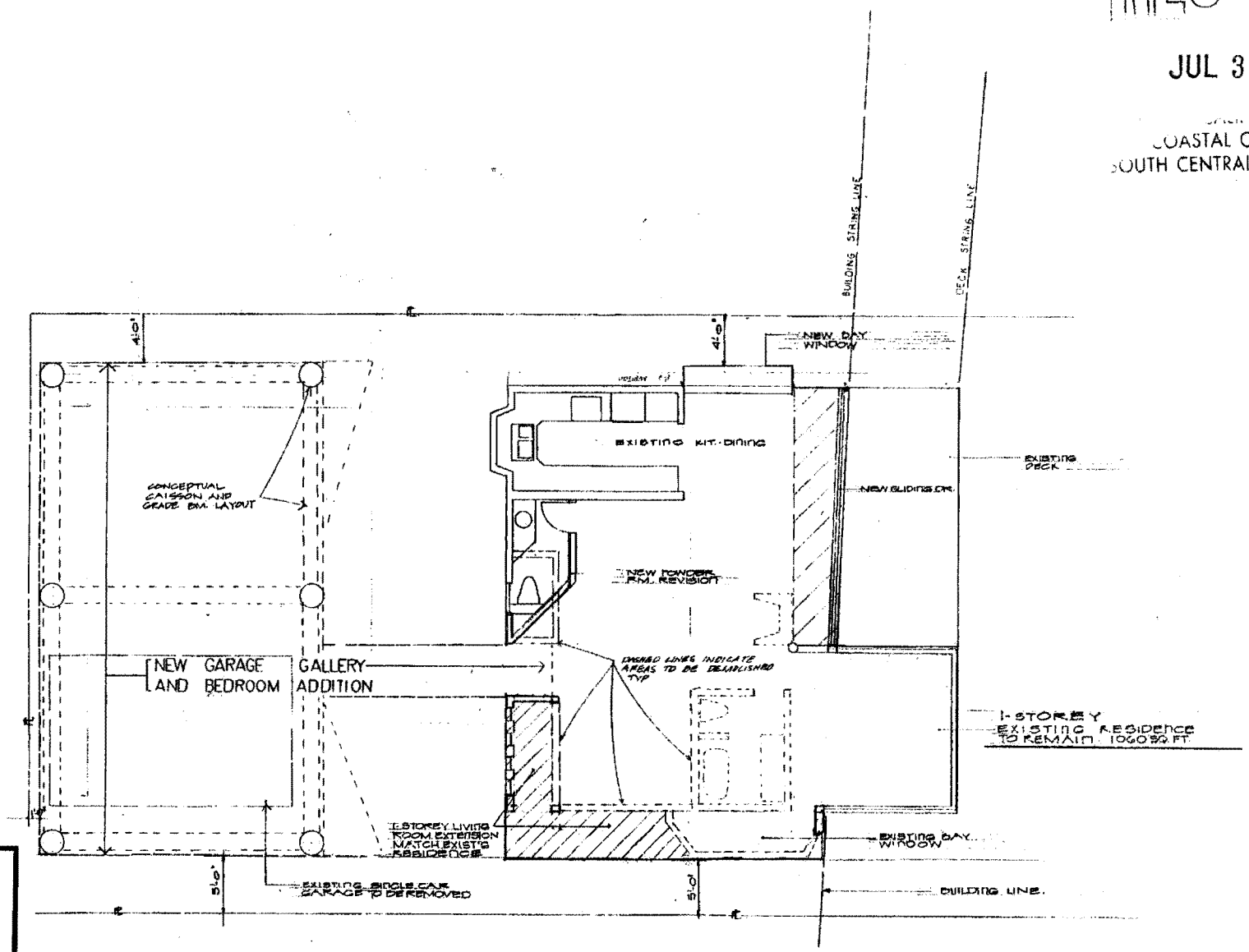

DR ELLIOT AND CINDY FELMAN

REVISIONS | BY

Scale 1/4"

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EXHIBIT NO. 5
APPLICATION NO. 4-98-226
Existing Results
Remodel 4 Adds

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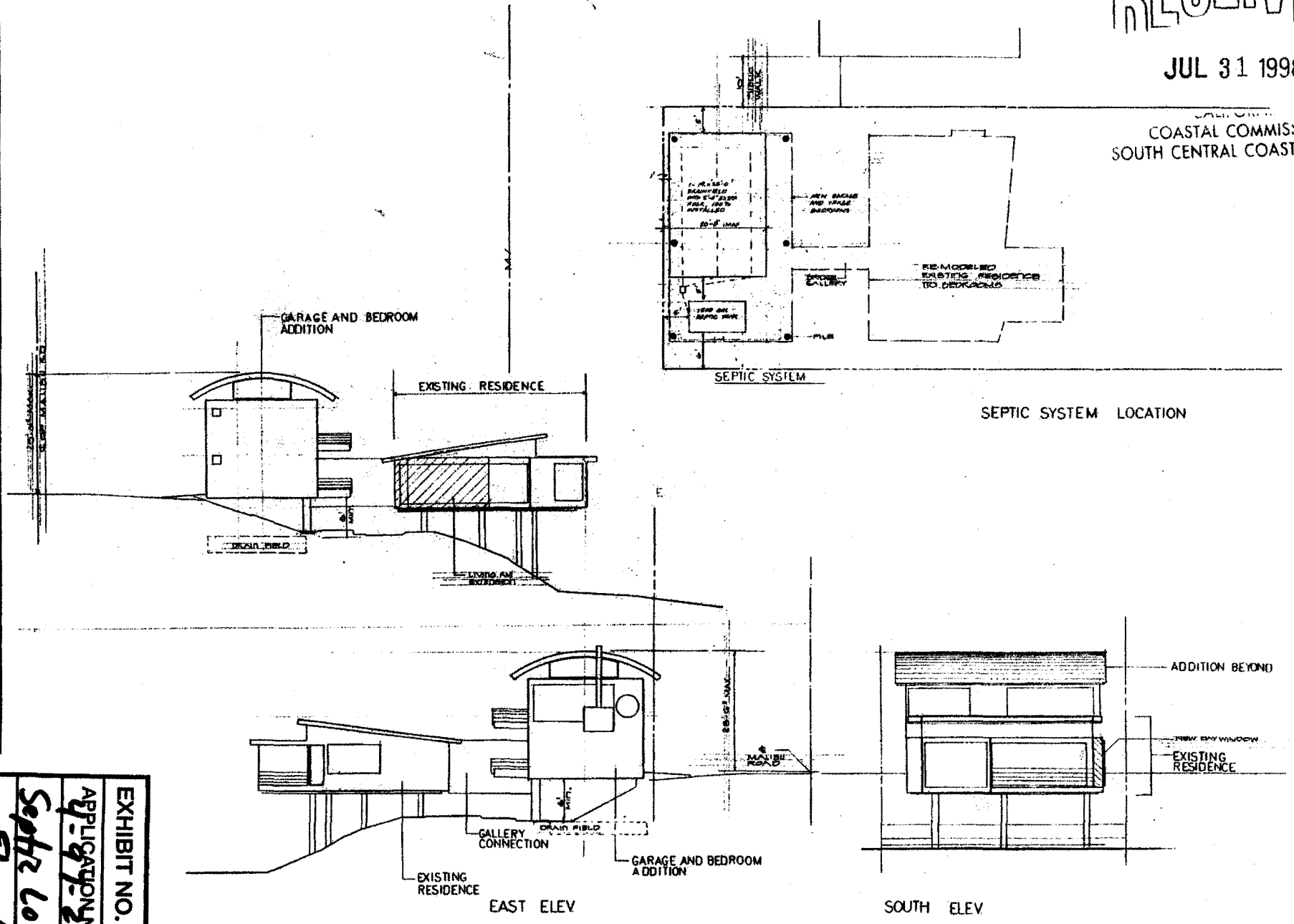

EXHIBIT NO. 6
APPLICATION NO. 4-98-226
Septic Location
Elevations