

CALIFORNIA COASTAL COMMISSION

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Hearing Date: January 12-14, 2005
Commission Action:

**STAFF REPORT: REGULAR CALENDAR****APPLICATION NUMBER:** 5-04-162**APPLICANT:** Matt Murphree**AGENT:** R.S. Lewis**PROJECT LOCATION:** 1713 Crestview Avenue, City of Seal Beach, County of Orange

PROJECT DESCRIPTION: Construction of a series of retaining walls along the rear yard of a sloping lot in association with an existing single-family residence. Grading will consist of 304 cubic yards of cut, 248 cubic yards of fill and 56 cubic yards of export to a location out side of the coastal zone.

SUMMARY OF STAFF RECOMMENDATION:

The subject site is a sloped lot adjacent to the Gum Grove Park and the lowland wetland habitat located on the Hellman property in the City of Seal Beach. The primary issues addressed in this staff report are conformance of the proposed development with the geologic hazard, visual resource, water quality, and public access and park protection policies of the Coastal Act.

Commission staff is recommending **APPROVAL** of the proposed project with **Eight (8) Special Conditions** regarding: **1)** assumption of risk; **2)** additional approvals for any future development; **3)** evidence of conformance with geotechnical recommendations; **4)** submittal of a final drainage and run-off control plan; **5)** submittal of a revised landscaping plan; **6)** a deed restriction against the property, referencing all of the special conditions contained in this staff report; **7)** construction responsibilities and debris removal; and **8)** submittal of a construction access, storage and staging area plan construction responsibilities and debris removal.

LOCAL APPROVALS RECEIVED: Approval-in-Concept from the City of Seal Beach Planning Department dated March 17, 2004.

SUBSTANTIVE FILE DOCUMENTS: Letter from Commission staff to R.S. Lewis dated April 2, 2004; Letter from Commission staff to R.S. Lewis dated May 28, 2004; Response from R.S. Lewis to Commission staff received April 29, 2004; Letter from R.S. Lewis to Commission staff received August 5, 2004; *Geotechnical Report for Proposed Remodel and Addition to Existing Residence* prepared by Peter E. Borella, Ph. D. dated January 10, 1002; and Letter from Peter E. Borella to Commission staff received August 5, 2004.

LIST OF EXHIBITS

1. Location Map
 2. Assessor's Parcel Map
 3. Site Plan/Drainage and Run-Off Control Plan
 4. Elevation Plans
 5. Section Plans
 6. Landscape Plan
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STAFF RECOMMENDATION:

Staff recommends that the Commission adopt the following motion and resolution:

MOTION:

"I move that the Commission approve Coastal Development Permit No. 5-04-162 pursuant to the staff recommendation."

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

I. APPROVAL WITH CONDITIONS

The Commission hereby **GRANTS** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and 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. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

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 this permit is reported to the Commission. 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. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. 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.
5. 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. Assumption of Risk, Waiver of Liability and Indemnify

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from slope instability, erosion, and landslides; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

2. Future Development

This permit is only for the development described in Coastal Development Permit No. 5-04-162. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply to the development governed by Coastal Development Permit No. 5-04-162. Accordingly, any future improvements to the single family house authorized by this permit, including but not limited to improvements to the pool, spa, retaining walls, and hardscape, change in use from a permanent residential unit and repair and maintenance identified as requiring a permit in Public Resources Section 30610(d) and Title 14 California Code of Regulations Sections 13252(a)-(b), shall require an amendment to Permit No. 5-04-162 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

3. Conformance with Geotechnical Recommendations

- A. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with all recommendations contained in the geologic engineering investigations: *Geotechnical Report for Proposed Remodel and Addition to Existing Residence* prepared by Peter E. Borella, Ph. D. dated January 10, 1002; and Letter from Peter E. Borella to Commission staff received August 5, 2004.

- B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriately licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all the recommendations specified in the above-referenced geologic engineering reports.
- C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment unless the Executive Director determines that no amendment is required.

4. **Drainage and Run-Off Control Plan**

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval of the Executive Director, two (2) full size sets of a final drainage and run-off control plan. The drainage and run-off control plan shall show that all roof drainage, including roof gutters and collection drains, and sub-drain systems for all landscape and hardscape improvements for the residence and all yard areas, shall be collected on site for discharge to the street through piping without allowing water to percolate into the ground.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.
- C. The applicant shall maintain the functionality of the approved drainage and run-off control plan to assure that water is collected and discharged to the street without percolating into the ground.

5. **Landscaping Plan**

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, in a form and content acceptable to the Executive Director, two (2) full size sets of a revised landscaping plan prepared by an appropriately licensed professional which demonstrates the following:
 - (1) The plan shall demonstrate that:
 - (a) All planting shall provide 90 percent coverage within 90 days and shall be repeated if necessary to provide such coverage;
 - (b) All plantings shall be maintained in good growing condition throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan;

- (c) Landscaped areas in the rear yard area not occupied by hardscape shall be planted and maintained for erosion control. To minimize the need for irrigation and minimize encroachment of non-native plant species into adjacent or nearby native plant areas, all landscaping shall consist of native or non-native non-invasive, drought resistant plants.
- (d) Landscaped areas in the front (street-facing) and side yards shall consist of native or non-native non-invasive drought tolerant plant species.
- (e) No permanent in-ground irrigation systems shall be installed on site. Temporary above ground irrigation is allowed to establish plantings.
- (f) For visual purposes, landscaping shall be designed to soften, through selective placement of vegetation, the visual impact of large expanses of wall on the project site that would be visible from the adjacent open space areas (e.g. Gum Grove Park). The plan shall provide for the adequate planting of shrubs, vines, groundcover, and occasional trees, selectively placed to soften the visual impact of approved development from the adjacent open space areas.

(2) The plan shall include, at a minimum, the following components:

- (a) A map showing the type, size, and location of all plant materials that will be on the developed site, the irrigation system, topography of the developed site, and all other landscape features, and
- (b) a schedule for installation of plants.

B. The permittees shall undertake development in accordance with the approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. Deed Restriction

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the landowner have executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or

termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

7. Construction Responsibilities and Debris Removal

The permittee shall comply with the following construction-related requirements:

- A. No construction materials, debris, or waste shall be placed or stored where it may enter a storm drain leading to the ocean;
- B. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours of completion of construction;
- C. Erosion control/sedimentation Best Management Practices (BMP's) shall be used to control sedimentation impacts to coastal waters during construction. BMPs shall include, but are not limited to: placement of sand bags around drainage inlets to prevent run-off/sediment transport into the storm drain system and a pre-construction meeting to review procedural and BMP guidelines;
- D. Construction debris and sediment shall be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris, which may be discharged into coastal waters.

8. Construction Staging Area Plan

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit a plan for the review and approval of the Executive Director which indicates that the construction staging and storage area(s) and construction corridor(s) will not adversely impact public access within Gum Grove Park.
 - (1) The plan shall demonstrate that:
 - (a) no construction access or staging or storage of construction materials or debris for the proposed project will take place within the adjacent open space area (e.g. Gum Grove Park); and
 - (b) construction access shall be taken from the street side of the residence.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Project Location and Description

The proposed project is located within an existing developed urban residential area at 1713 Crestview Avenue in the City of Seal Beach, County of Orange (Exhibits #1-2). The project site is located on the north side of Crestview Avenue. The Southern 2/3 of the lot is flat lying with an elevation of 45 to 46 feet above mean sea level. Total lot area is 7,875 square feet. The northern (rear) portion of the lot contains a slope 23 feet in vertical relief. The slope is at an angle of 30 degrees for approximately 50 feet. Small surficial failures have occurred on this slope in the past. To the west and east of the project site are single-family residences. Crestview Avenue is located to the south of the project site. To the north of the slope is Gum Grove Park, which is a public nature park, and the open space lowlands area of the Hellman property. These areas harbor upland and wetland habitats that contain sensitive vegetation and wildlife. While the site isn't adjacent to the open ocean, the subject site is considered to be between the first public road (Crestview Avenue) and the sea because the wetlands areas on the adjacent property are tidally influenced.

The proposed project consists of construction of a pool and spa, pool equipment room, lawn, concrete deck, stairway with gates and a series of retaining walls along the rear yard of a sloping lot in association with an existing single-family residence (Exhibits #3-6). Grading will consist of 304 cubic yards of cut, 248 cubic yards of fill and 56 cubic yards of export to a location outside of the coastal zone. The stepped retaining walls will consist of three separate tiers and the height of these three walls is 6' high, 6' high and 12' high. The total height of the retaining walls is 19'-4". On each tier there will be a landscaped planter area. In addition, there will be a 4-1/2'-foot high pool fence and 3' high metal guardrail located along the edge of the concrete deck. The neighbor to the adjacent west has a similar retaining wall in the rear yard that is approximately 21-feet high.

B. Geological Hazards

Section 30253 of the Coastal Act states, in relevant part states:

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.*

The findings in this section of the staff report include generalized findings regarding the susceptibility of slope erosion and site-specific findings from the geological report.

1. General Findings on Slope Erosion

The proposed development is located on a slope located on privately owned property which is adjacent to a public park known as Gum Grove Park. Slope erosion is caused by a combination of inherent environmental factors and erosion caused by human activity. Environmental factors include gravity, seismicity, wetting and drying of slope soils, wind erosion, rodent burrowing and piping, percolation of rain water, poorly structured bedding, surface water run-off and poorly consolidated soils.

Factors attributed to human activity include: improper irrigation practices; improper site drainage; use of impermeable surfaces which concentrate run-off; use of water-dependent vegetation; pedestrian or vehicular movement across the slope, and breaks in irrigation lines, water or sewer lines. In addition to irrigation water or run-off on the slope, increased residential development inland leads to increased water percolating beneath the surface soils and potentially outletting on the slope, forming a potential slide plane.

2. Site Specific Slope Information

The applicants have submitted a geotechnical investigation entitled *Geotechnical Report for Proposed Remodel and Addition to Existing Residence* prepared by Peter E. Borella, Ph.D. dated January 10, 2002. This investigation consisted of literature review, stereoscopic aerial photograph study, site reconnaissance, geologic mapping and observations of this property and the surrounding areas, topographic and geologic profile construction, drill borings, soil and slope stability analysis, rock descriptions, liquefaction analyses and preparation of the report. The purpose of the investigation was to evaluate the engineering geologic and soils conditions on this flat lot with a 30 degree slope in the rear of the property (23 feet of vertical relief) and to provide foundation information and recommendations for the proposed addition that is to be located on the flat portion of the lot and a possible pool on the slope in the rear of the property. The major issues with the project location were the close proximity to the Newport Inglewood fault, potential damage due to high ground acceleration (G-forces), potential for liquefaction in a seismic event, and possible flooding due to tsunamis and excess precipitation. This submitted geotechnical investigation was specifically for a remodel and addition to the existing single-family residence, which has not been proposed and is not part of the current project. While this submitted geotechnical investigation did not specifically review the currently proposed pool and retaining walls (these are reviewed in a separate letter from Peter E. Borella received August 5, 2004 which will be discussed later in the staff report), the report provides information relevant to the currently proposed project.

The investigation states the following soil conditions exist on site: *"The upper 15-20 feet of the property is an artificially built lot consisting of sandy clays, which are non-expansive and contain between 6 and 12 percent moisture content (see appendices 1 and 2). Beneath this upper sandy clay zone are unconsolidated terrace sands that extend to depths beyond out borings. The water table, or upper level of the zone of saturation, was encountered at 45 feet below the flat position of the lot in B-1. Since samples were taken every 5 feet, and the sampler is 18 inches in length, it is possible that the water table exists 3.5 feet higher than the 45 foot level (41.4 feet below the surface). This conforms to a ground water elevation equal to sea level. ... This site is located within the active Newport Inglewood Fault (Fig. 3a and 3b) and as such special consideration has to be given to the*

foundation design for...[new development on the site] ... Earthquake induced shaking, liquefaction and settlement within the underlying saturated sand is the major concern." In addition, the investigation states that the saturated sand is loose and possesses very little cohesion and thus if saturated, these sands are subject to liquefaction in a seismic event. Also, the Newport Inglewood Fault zone is located 200 feet from the project site. Therefore, the site has a high probability that it will be subjected to seismic and associated hazards, such as liquefaction due to seismic shaking. High consideration should be taken into the foundation design. At the present time, there was no evidence of active faulting or ground rupture on site.

The investigation indicates that surficial failures have occurred in the past along the rear portion of the property. It states: *"Based on our obtained soil analyses that are the basis of our stability analyses, the 23 foot high slope with an slope angle of 30 is grossly and pseudostatically stable. Factors of safety in excess of 1.5 and 1.1 are achieved. Both Janbu rotational slope stability analysis and Slices stability analyses are presented. See stability analyses in appendix 2. Surficially, the rear slope is unstable as our analysis to a saturated depth of 4 feet produces a factor of safety of 1.12, which is below the acceptable value of 1.5 Surficial instability on the slope to depths of 4 feet will have to be addressed by the...[proposed retaining wall system and pool]."* Furthermore, the geotechnical investigation states that: *"The possibility of building a pool and a series of retaining walls on the rear slope was discussed and may be in future plans not associated with this remodel."*

This geotechnical investigation for the remodel and addition to the existing single-family residence closes by making several conclusions: *"The geotechnical impact of construction on this lot and that of the adjoining lots will be tolerable, if proper care is taken in site preparation, emplacement of foundation elements, and drainage ... The conclusions and recommendations that follow are preliminary because the final foundation plans are dependent in part on the contents of this report. Final geotechnical recommendations may require additional geotechnical work depending on the foundation design chosen."* The investigation recommends that to best prevent liquefaction that a deep foundation system consisting of caissons or driven piles be used. It also states that another technique would be to use a mat or post-tension slab design in coordination with over-excavation and recompaction of soils. In addition, another way to offer liquefaction protection would be to use standard footings and conventional slabs, however this would offer the least protection during a liquefaction event. The investigation states that if a proposed pool and retaining walls were to be proposed, they should be built on an integrated caisson-grade beam system. Also, it states that pool walls bordered by concrete decking should be designed assuming no support from the surrounding soil and rock. In regards to surface drainage, the investigation states that all discharged water should be conducted off the slope and offsite in a non-erosive manner, making sure that no water ponds near the slabs, footings or retaining walls. Furthermore, the geotechnical investigation states: *"To avoid localized saturation of soils, landscaping of the backyard should be planned such that no planter boxes are located in the immediate vicinity of the pool and/ or spa shell, or a moisture barrier should be provided for such plant containers ... Ground water is not anticipated at the present time. However, perched ground water may accumulate in the future. Swimming pool excavations may encounter ground water or seepage and should be evaluated for temporary slope stability and provisions made for pumping during construction, if necessary. Swimming pools/spas should be provided with ground moisture pressure relief valves to help prevent damage to the pool due to ground water. It is also*

recommended that a drain system be placed underneath the pool in case the pool develops leaks. The drain system is to have a proper outlet and be non-erosive."

As stated previously, to specifically analyze the proposed pool and retaining walls, the applicant submitted a separate letter from Peter E. Borella received August 5, 2004 evaluating the proposed pool and retaining walls. The letter states that from a geotechnical standpoint, the proposed project is acceptable. Furthermore it states in regards to the proposed pool: *"The retaining wall and pool shell will be embedded into competent artificial fill. Since the pool will be built at the top of the slope and on the upper portions of the slope, a creep depth of 5 feet is to be assumed. A total loss of soil support for this depth is to be assumed in the structural calculations. Also as stated in the report, due to the expansive nature of the soil, the pool shell is to be designed for an equivalent lateral fluid pressure of 125 pcf. See referenced report for recommendations."* In regards to the proposed retaining walls, the letter states that the placement of the retaining walls at the bottom of the slope and on the slope will stabilize and buttress the slope, which would prevent deep-seated loss of lateral support and failure. In addition, it states: *"Because the position of the proposed pool has changed, the original recommendation to build the pool on a caisson-grade beam system may be changed to the proposed plan."* Furthermore, the applicants have stated that the drainage for the pool will be directed to the sewer system and that a moisture pressure release valve system beneath the pool to release any potential water pressure accumulated beneath the pool will be installed.

In order to assure the stability and structural integrity of the development, and to assure the development doesn't create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area, as required by Section 30253 of the Coastal Act, **Six (6) Special Conditions** are being imposed. These special conditions are more thoroughly discussed later in Section 3.

3. Conclusions and Special Conditions

Section 30253 of the Coastal Act states that new development shall minimize the impacts of the proposed development on slope erosion and instability. William Kockelman, U.S. Geological Survey, wrote an article entitled "Some Techniques for Reducing Landslide Hazards" that discusses several ways to minimize landslide hazards such as slope erosion and instability, including:

- A. Require a permit prior to scraping, excavating, filling, or cutting any lands.
- B. Prohibit, minimize, or carefully regulate the excavating, cutting and filling activities in landslide areas.
- C. Provide for the proper design, construction, and periodic inspection and maintenance of weeps, drains, and drainage ways, including culverts, ditches, gutters, and diversions.
- D. Regulate the disruption of vegetation and drainage patterns.
- E. Provide for proper engineering design, placement, and drainage of fills, including periodic inspection and maintenance.

Kockelman also discusses the option of disclosure of hazards to potential buyers by the recordation of hazards in public documents. The recordation of hazards via the assumption of risk is one means the Commission utilizes to inform existing and future buyers of property of the potential threat from soil erosion and slope failure (landslide) hazards. Several of these recommendations are routinely required by local government, including requiring permits for grading, minimizing grading, and requirements for proper engineering design.

The Commission has imposed many of these same recommendations, including requiring the consulting geologist to review foundation and drainage plans in order to confirm that the project conforms to the policies of the Coastal Act. The findings in the staff report regarding the general causes of slope erosion and the specific findings from the geotechnical report confirm that the slope at this location is eroding and that measures to minimize slope erosion are necessary. The following special conditions will mitigate the impacts of the proposed development on slope erosion and instability, as required by Section 30253 of the Coastal Act.

a. Assumption of Risk

Any development on an eroding coastal slope involves some risk to development. Although adherence to the geotechnical consultant's recommendations will minimize the risk of damage from erosion, the risk is not entirely eliminated. The findings in sections 1-2 above, including site-specific geologic information, support the contention that development on slopes involves risks and that structural engineering can minimize some of the risk but cannot eliminate it entirely. Therefore, the standard waiver of liability condition has been attached via **Special Condition No. 1**.

By this means, the applicants and future buyers are notified that the proposed development is located in an area that is potentially subject to slope erosion that can damage the applicants' property. In addition, the condition insures that the Commission does not incur damages as a result of its approval of the Coastal Development Permit.

b. Future Development

The development is located within an existing developed area and is compatible with the character and scale of the surrounding area. However, without controls on future development, the applicants could construct amenities to the proposed home that would have negative impacts on coastal resources, and could do so without first acquiring a coastal development permit, due to the exemption for improvements to existing single-family residences in Coastal Act Section 30610 (a). In order to prevent the current authorization from allowing such future negative effects, it is necessary to ensure that any future development -- including the development of amenities that would otherwise normally be exempt -- will require a permit. To assure that future development is consistent with the Chapter 3 policies of the Coastal Act, the Commission imposes **Special Condition No. 2**, which is a

future improvements special condition. As conditioned the development conforms with the Chapter 3 policies of the Coastal Act relating to geologic hazards.

c. Conformance with Geologic Recommendations

The geotechnical consultants have found that the proposed development is feasible provided the recommendations contained in the geotechnical reports prepared by the consultants are implemented in regards to the design and construction of the project. The geotechnical recommendations address foundations and excavation. In order to insure that risks of development are minimized, as per Section 30253, the Commission imposes **Special Condition No. 3**, which states that the geotechnical consultants' recommendations should be incorporated into the design of the project. As a condition of approval the applicants shall submit for the review and approval of the Executive Director foundation plans reviewed and signed by a consulting geologist testifying that the plans incorporate the geotechnical recommendations.

d. Drainage and Run-Off and Landscaping

The geologic instability of slopes has been increased through the addition of large volumes of irrigation water required to maintain lawns and non-native, non-drought tolerant vegetation in the yards of homes on slopes. Landscape irrigation alone is estimated to add the equivalent of 50 to 60 inches of additional rainfall each year to garden and lawn areas. This irrigation has led to a slow, steady rise in the water table that has progressively weakened slopes, which can lead to slides and instability. It is extremely difficult to discover breaks in in-ground irrigation lines until after a certain period of time passes and plants start to die. By then the slope may have become saturated.

It is also difficult to assess the long-term damage caused by the accumulation of water on slopes due to watering of lawns and other water intensive vegetation that are water-dependent. It is estimated that watering a lawn on a regular basis is the equivalent of 60 inches of rainfall a year. The average rainfall in southern California is 12 to 20 inches per. In fact, although the consulting geologists routinely make recommendations concerning landscaping and site drainage, geologists do not review landscaping plans. In this respect the Commission fills an important role in minimizing landsliding and erosion.

The geotechnical investigation states that water should be directed away from the slope and the applicants have stated that surface water will be drained to a sump pump through a series of area drains and then pumped to the storm drain and directed to the street. The applicants have also submitted a drainage and run-off control plan (Exhibit #3) attempting to show their intentions. However, the plans are unclear on how the water will be directed to the street. Therefore, the Commission is imposing **Special Condition No. 4**, which requires the applicants to submit a final drainage and run-off control plan.

The proposed project also consists of construction of a pool and spa in the rear yard. If water from the proposed pool and spa is not properly controlled there is a

potential for slope failure due to the infiltration of water into the slope. For this reason, the potential for infiltration into the slope should be minimized. This can be achieved by various methods, including having the pool double lined and installing a pool leak detection system to prevent the infiltration of water into the slope due to any possible pool or spa problems. The applicants have stated that the drainage for the pool will be directed to the sewer system and that a moisture pressure release valve system beneath the pool to release any potential water pressure accumulated beneath the pool will be installed. The foundation system for the pool and spa is reinforced gunite with a plaster finish. These protective measures will assist in preventing any damage to the structural stability of the slope.

Because of the fragile nature of coastal slope and their susceptibility to erosion, the Commission requires a special condition regarding the types of vegetation to be planted. The applicants have submitted a landscaping plan (Exhibit #6) detailing what the landscaping improvements involve. The submitted landscaping plan proposes use of the following vegetation: *Archontophoenix Cunninghamiana* (King Palm), *Arecastrum romanzoffianum* (Queen Palm), *Washingtonia robusta* (Mexican Fan Palm), *Neodypsis decaryi* (Triangle Palm), *Phoenix roebelinii* (Pigmy Date Palm), *Agapanthus africanus* (African Daylily), *Dietes bicolor* (Peacock Flower), *Hemerocallis hybrida* (Daylily), *Raphiolepis indica* (India Hawthorne) *Agave Mayoensis* (Octopus Agave), *Rosa* (Roses), *Redwood Bark*, *Tall Fescue* and *White Crushed Rock*. As discussed previously, any plants in the landscaping plan should be drought tolerant to minimize the use of water. The term "drought tolerant" is equivalent to the terms 'low water use' and 'ultra low water use' as defined and used by "A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California" prepared by University of California Cooperative Extension and the California Department of Water Resources dated August 2000 available at <http://www.owue.water.ca.gov/landscape/pubs/pubs.cfm>. Commission staff reviewed the submitted landscaping plan for drought tolerant vegetation and determined that *Archontophoenix Cunninghamiana* (King Palm), *Arecastrum romanzoffianum* (Queen Palm), *Neodypsis decaryi* (Triangle Palm), *Phoenix roebelinii* (Pigmy Date Palm), *Agapanthus africanus* (African Daylily), *Dietes bicolor* (Peacock Flower), *Hemerocallis hybrida* (Daylily), and *Rosa* (Roses) are not drought tolerant.

The Commission imposes **Special Condition No. 5**, which requires that the applicants shall prepare prior to issuance of this permit a revised landscape plan, which shall be submitted for the review and approval of the Executive Director. To minimize the potential for the introduction of non-native invasive species and to minimize the potential for future slope failure, a revised landscaping plan shall be prepared by a licensed landscape architect and shall incorporate the following criteria: 1) to minimize the introduction of water into the ground, no permanent in-ground irrigation shall be permitted, temporary above ground irrigation to establish the plantings is permitted; and 2) landscaping shall consist of native or deep-rooted drought tolerant non-native plants which are non-invasive. While one intent of the condition is to address geologic issues at the site, as discussed more fully below, use of non-native vegetation that is invasive can have an adverse impact on the existence of native vegetation. Invasive plants are generally those identified by the California Invasive Plant Council (<http://www.caleppc.org/>) and

California Native Plant Society (www.CNPS.org) in their publications. Commission staff reviewed the landscape plan and determined that the plan does contain an invasive species: *Tall Fescue*. Invasive, non-indigenous plant species, which tend to supplant native species shall not be used. Thus, the special condition requires removal of this plant species.

e. Deed Restriction

To ensure that any prospective future owners of the property are made aware of the applicability of the conditions of this permit, the Commission imposes **Special Condition No. 6** requiring that the property owners record a deed restriction against the property, referencing all of the above special conditions of this permit and imposing them as covenants, conditions and restrictions on the use and enjoyment of the Property. Thus, as conditioned, any prospective future owners will receive actual notice of the restrictions and/or obligations imposed on the use and enjoyment of the land including the risks of the development and/or hazards to which the site is subject, and the Commission's immunity from liability.

f. Conclusion

The Commission has required **Six (6) Special Conditions**, which are intended to bring the proposed development into conformance with Section 30253 of the Coastal Act. These special conditions include: **1)** assumption of risk; **2)** additional approvals for any future development; **3)** evidence of conformance with geotechnical recommendations; **4)** submittal of a final drainage and run-off control plan; **5)** submittal of a revised landscaping plan; and **6)** a deed restriction against the property, referencing all of the special conditions contained in this staff report. Only as conditioned to comply with the provisions of these special conditions does the Commission find that the proposed development conforms with Section 30253 of the Coastal Act.

C. Scenic Resources

Section 30251 of the Coastal Act pertains to visual resources. It 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...

Section 30251 of the Coastal Act requires that scenic and visual qualities of coastal areas be protected. The project is located on a slope overlooking Gum Grove Park. The site is visible from the park below. Because the project will potentially affect views from the park any adverse impacts must be minimized. The applicants have proposed landscaping upon the three (3) tiered retaining wall. The proposed landscaping would soften the appearance of the of the 19'-4" high retaining wall and minimize any adverse visual impacts. The submitted landscaping plan contained an invasive species and non-drought tolerant plants. As discussed previously, the landscape plan should consist of native or deep-rooted drought tolerant non-native plants which are non-invasive. So in addition to minimizing the potential for the introduction of non-native

invasive species and potential for future slope failure, the landscape plan can also include elements to soften the appearance of the retaining wall and minimize any adverse visual impacts. Therefore, the Commission imposes **Special Condition No. 5**, which requires that the applicants shall prepare prior to issuance of this permit a revised landscape plan, which shall be submitted for the review and approval of the Executive Director. The condition requires that landscaping be designed to soften, through selective placement of vegetation, the visual impact of large expanses of wall on the project site that would be visible from the adjacent open space areas (e.g. Gum Grove Park). The plan must provide for the adequate planting of shrubs, vines, groundcover, and occasional trees, selectively placed to soften the visual impact of approved development from the adjacent open space areas. Only as conditioned does the Commission find the proposed development to be consistent with Section 30251 of the Coastal Act.

D. Water Quality

Section 30230 of the Coastal Act states, in pertinent part:

Marine resources shall be maintained, enhanced, and where feasible, restored...

Section 30231 of the Coastal Act states:

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, and minimizing alteration of natural streams.

The proposed project takes place on the rear portion of a lot that contains a slope 23 feet in vertical relief. Any development on a slope involves some risk to development. In addition, the geologic instability of slopes has been increased through the addition of large volumes of irrigation water required to maintain lawns and non-native, non-drought tolerant vegetation in the yards of homes on slopes. Typically, adverse water quality impacts to coastal waters can be avoided or minimized by directing storm water discharges from impervious surfaces to landscaped areas where pollutants may settle out of the storm water. In addition, reducing the quantity of impervious surfaces and increasing pervious water infiltration areas can improve water quality. These methods would allow the pollutants found in storm water discharge to settle out of the storm water before heading into coastal waters. Water pollution decreases the biological productivity of coastal waters. However, these common techniques of addressing water quality problems, by design, result in increased infiltration of water into the ground. As previously noted in the Hazard section of this staff report, the infiltration of water into the slope would result in adverse impacts to the site. Therefore, directing run-off to pervious areas and encouraging water infiltration for water quality purposes could have adverse impacts upon slope stability.

There are other measures, however, that would contribute to increases to water quality that could feasibly be applied even to slope lots, such as the project site, without decreasing stability. One of those measures is the use of native drought tolerant plantings. Low water use, drought tolerant, native plants require less water than other types of vegetation, thereby minimizing the amount of

water introduced into the slope. As these plantings use less water than ornamental plants, incidents of over-watering, causing saturation and excess run-off, is substantially reduced. As previously stated, reducing site run-off reduces the extent of pollutants carried into the storm drain system and into the ocean. The applicants have submitted a landscaping plan (Exhibit #6). However, this plan contains landscaping that was determined to be non-drought tolerant and/or invasive. Another measure that would contribute to increases water quality is in regards to construction responsibilities and debris removal. Storage or placement of construction materials, debris, or waste in a location which may be discharged into coastal waters via the storm drain system would result in adverse impacts to the biological productivity of coastal waters. For instance, construction debris entering coastal waters may cover and displace soft bottom habitat.

Therefore, in order to make sure that there are no adverse impacts to water quality, the Commission imposes **two (2) Special Conditions**. **Special Condition No. 5** requires that the applicants shall prepare prior to issuance of this permit a revised landscape plan, which shall be submitted for the review and approval of the Executive Director. To minimize the potential for the introduction of non-native invasive species and to minimize the potential for future slope failure, a revised landscaping plan shall be prepared by a licensed landscape architect and shall incorporate the following criteria: 1) to minimize the introduction of water into the ground, no permanent in-ground irrigation shall be permitted, temporary above ground irrigation to establish the plantings is permitted; and 2) landscaping shall consist of native or deep-rooted drought tolerant non-native plants which are non-invasive. **Special Condition No. 7** dictates construction responsibilities and debris removal. Only as conditioned for submittal of a revised landscape plan and construction responsibilities and debris removal does the Commission find the proposed development to be consistent with Sections 30230 and 30231 of the Coastal Act.

E. Public Access and Recreation

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 30212 of the Coastal Act states, in relevant part states:

- (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 30240 (b) of the Coastal Act, in relevant part states:

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 proposed development is located on a lot with an existing single-family dwelling. The proposed development will not change the use or intensity of use of the site. Public access opportunities exist at Gum Grove Park, which is located at the rear of the project site (Exhibits #1-2). Construction access, or the staging or storage of construction equipment, materials or debris would disrupt the public's ability to access the park, would degrade the park and wouldn't be compatible with the continuance of the park as a "nature park". In order to make sure that there are no adverse impacts to public access due to the proposed project, the Commission imposes **Special Condition No. 8. Special Condition No. 8** requires the applicant to submit a construction-staging plan. The plan shall demonstrate that there will not be any construction access, or staging or storage of construction equipment, materials or debris within Gum Grove Park and that construction access be taken from the street side of the residence and not from Gum Grove Park. Only as conditioned for construction access, staging and storage does the Commission find the proposed development to be consistent with Section 30210, 30212, and 30240 (b) of the Coastal Act regarding public access.

F. Local Coastal Program

Section 30604 of the Coastal Act provides for the issuance of coastal development permits directly by the Commission in regions where the local government having jurisdiction does not have a certified local coastal program. The permit may only be issued if the Commission finds that the proposed development will not prejudice the ability of the local government to prepare a Local Coastal Program, which conforms with the Chapter 3 policies of the Coastal Act.

On July 28, 1983, the Commission denied the City of Seal Beach Land Use Plan (LUP) as submitted and certified it with suggested modifications. The City did not act on the suggested modifications within six months from the date of Commission action. Therefore, pursuant to Section 13537(b) of the California Code of Regulations, the Commission's certification of the land use plan with suggested modifications expired. The LUP has not been resubmitted for certification since that time.

The proposed development is consistent with the Chapter Three policies of the Coastal Act. Therefore, the Executive Director finds that the proposed development would not prejudice the ability of the City to prepare a certified coastal program consistent with the Chapter 3 policies of the Coastal Act.

G. California Environmental Quality Act (CEQA)

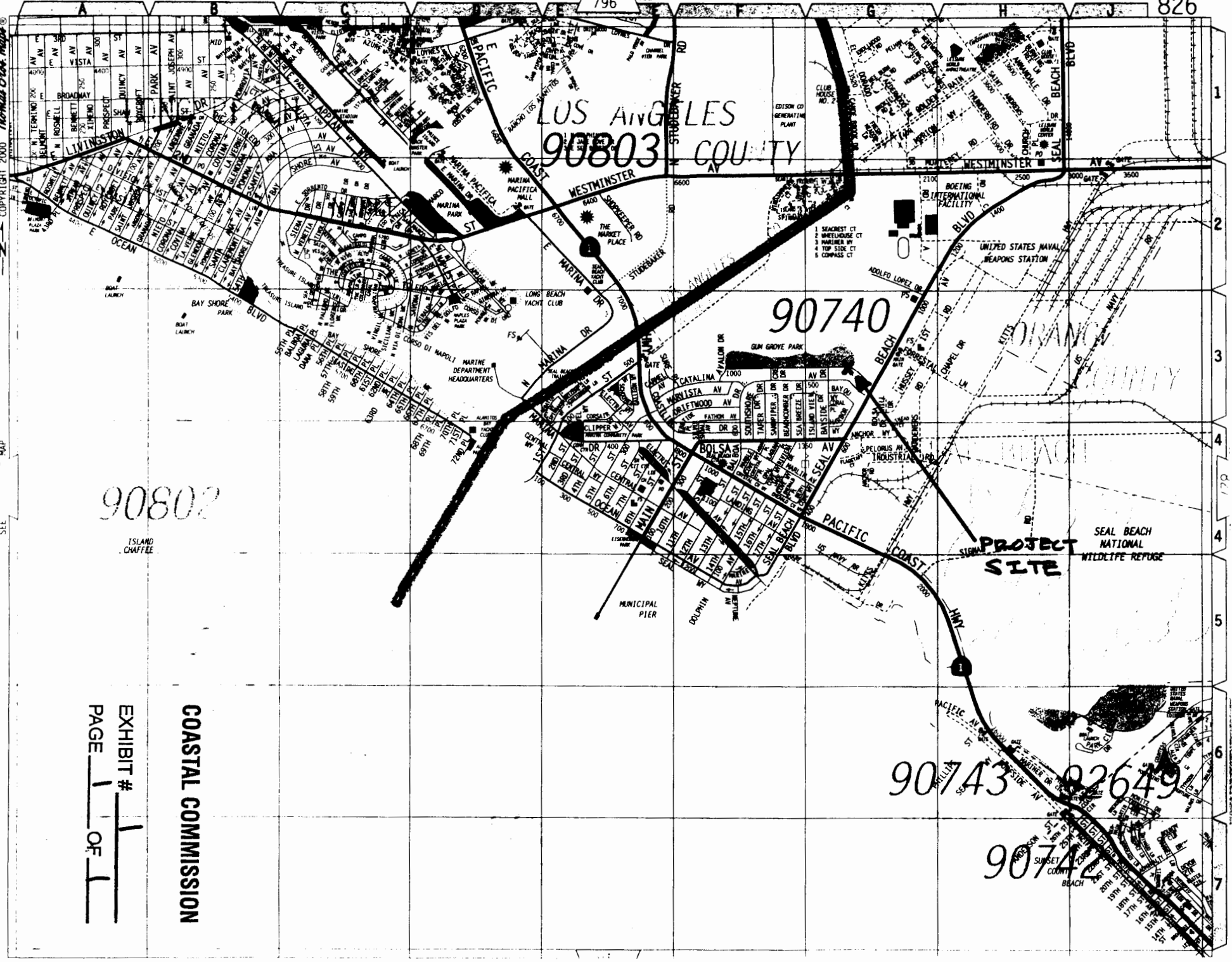
Section 13096(a) of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California 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 further feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project is located in an urban area. All infrastructure necessary to serve the site exists in the area. As conditioned, the proposed project has been found consistent with the hazard, visual resource, water quality and public access and park protection policies of Chapter 3 of the Coastal Act. Mitigation measures include special conditions requiring conformance with

geotechnical recommendations, submittal of a final drainage and run-off control plan and submittal of a revised landscaping plan.

As conditioned, there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

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ISLAND CHAFFEE

LOS ANGELES COUNTY
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COASTAL COMMISSION

EXHIBIT # 1
PAGE 1 OF 1

THIS IS NOT A SURVEY OF THE LAND,
 BUT IS COMPILED FOR INFORMATION
 ONLY, NOR IS IT A PART OF THE REPORT
 OR POLICY TO WHICH IT IS ATTACHED

THIS MAP WAS PREPARED FOR ORANGE COUNTY
 ASSASSOR'S REF. PURPOSES ONLY. THE ASSASSOR
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 NOR ASSUMES ANY LIABILITY FOR OTHER DATA.
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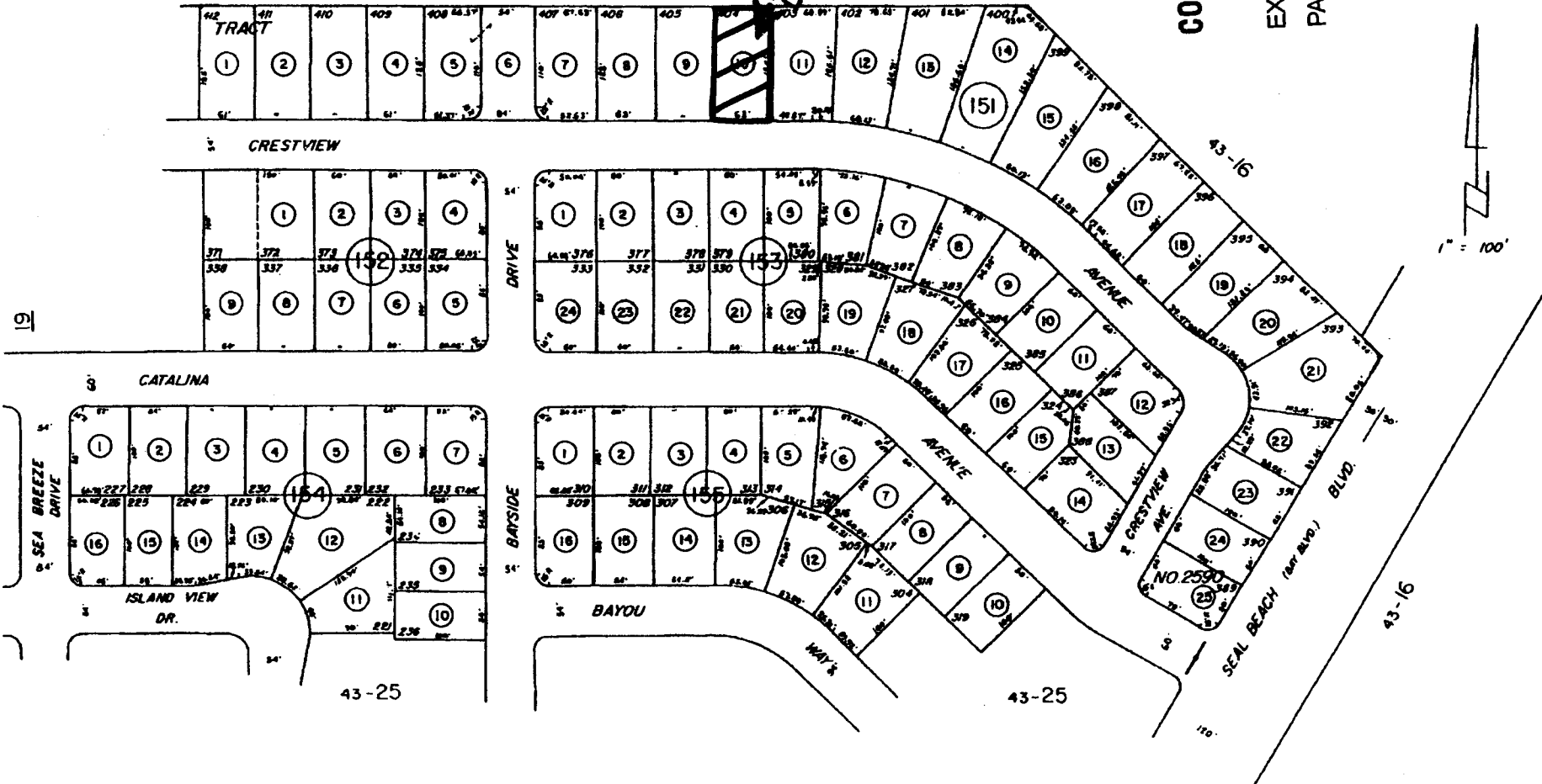
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COASTAL COMMISSION

EXHIBIT # 2
 PAGE 1 OF 1

199-15



MARCH 1983

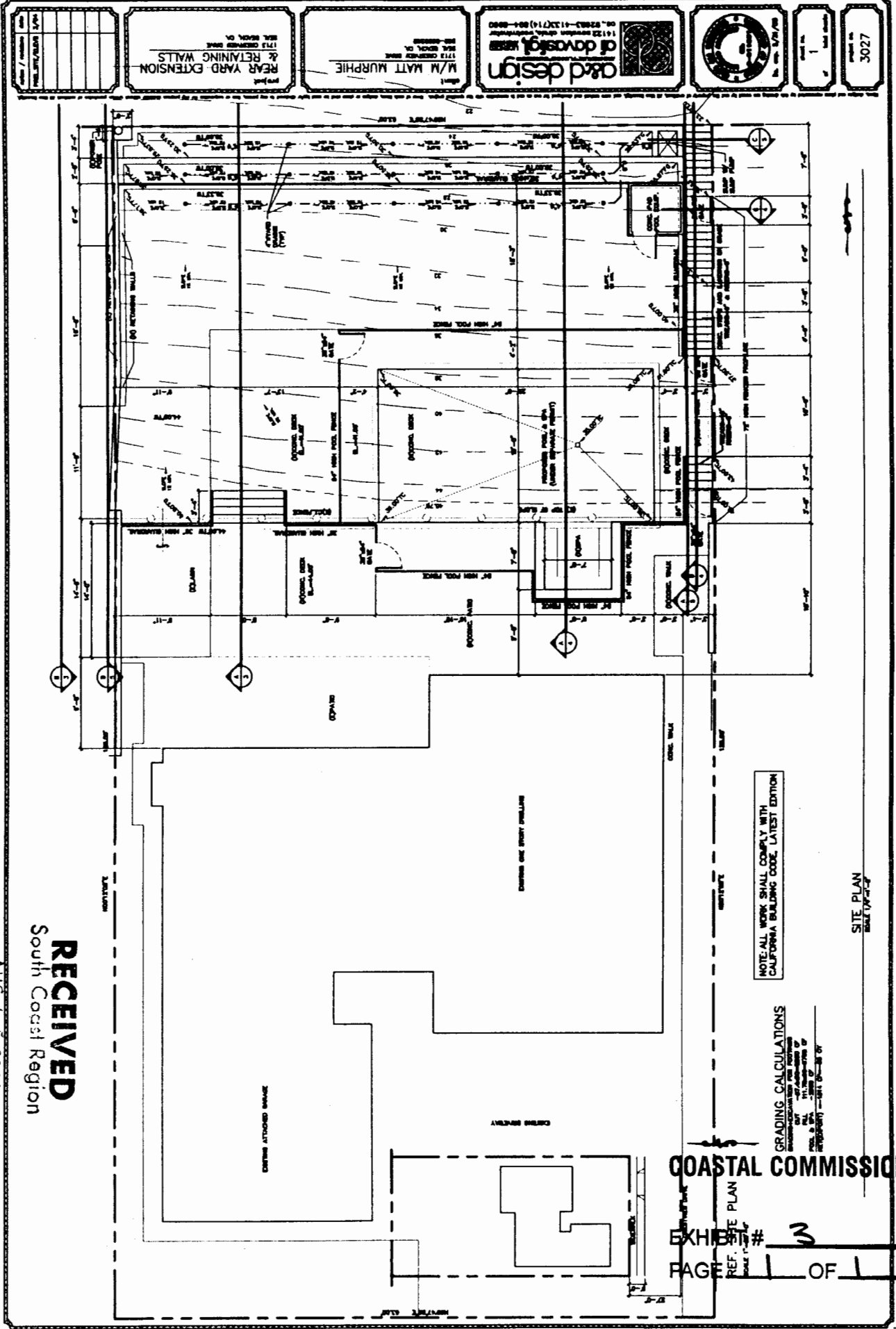
TRACT NO. 2590

M. M. 82-32 TO 38 INC.

NOTE - ASSASSOR'S BLOCK &
 PARCEL NUMBERS
 SHOWN IN CIRCLES

ASSASSOR'S MAP
 BOOK 199 PAGE 15
 COUNTY OF ORANGE

THIS MAP SHOULD BE USED FOR REFERENCE PURPOSES ONLY. NO LIABILITY
 IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. PARCELS MAY NOT
 COMPLY WITH LOCAL SUBDIVISION OR BUILDING ORDINANCES.



SITE PLAN
DATE: 10/27/03

NOTE: ALL WORK SHALL COMPLY WITH CALIFORNIA BUILDING CODE, LATEST EDITION

GRADING CALCULATIONS
FOR THE PROPOSED
CONCRETE DRIVE AND SIDEWALK
DATE: 10/27/03
BY: [Signature]
PROJECT NO.: 03-001

COASTAL COMMISSION

EXHIBIT # 3
PAGE 1 OF 1

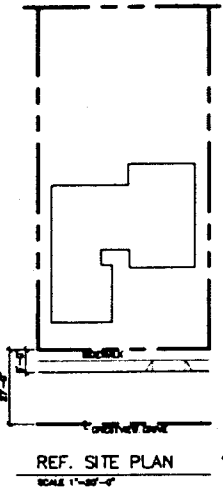
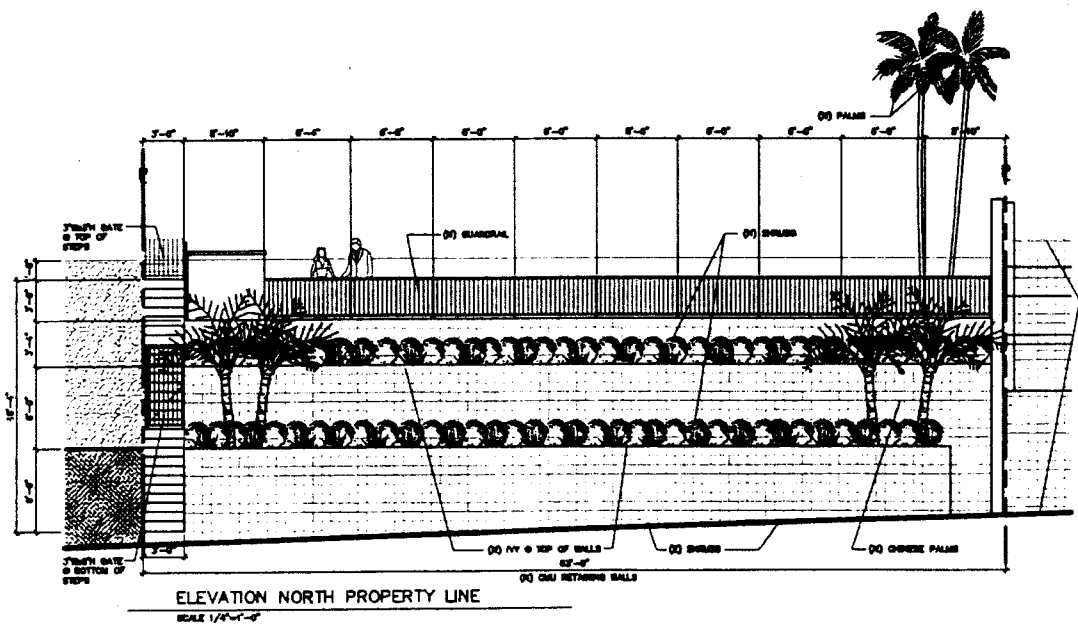
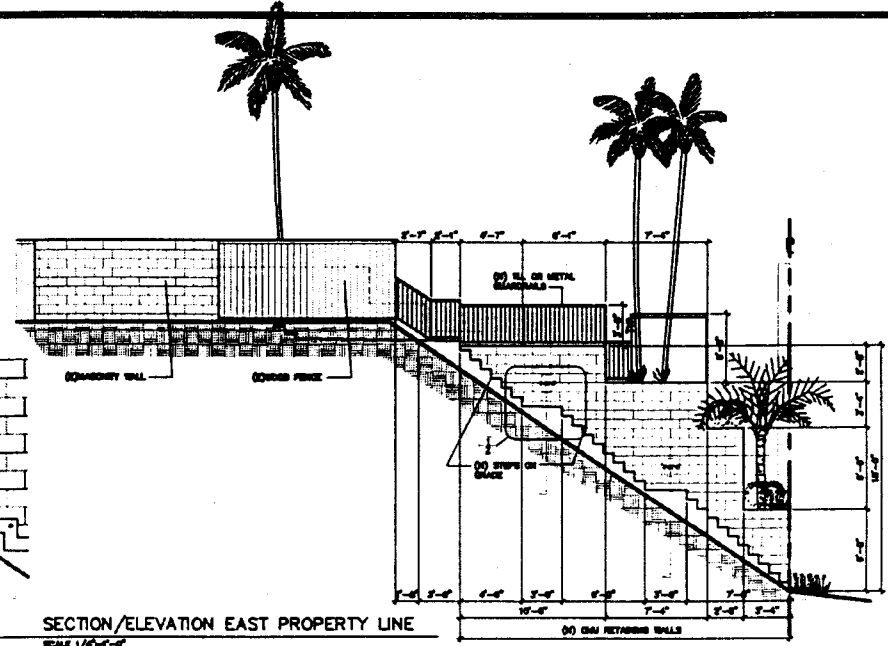
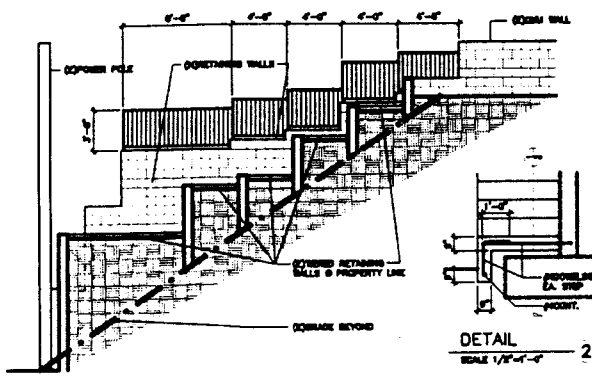
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COASTAL COMMISSION

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COASTAL COMMISSION

EXHIBIT # 4

PAGE 1 OF 1

DATE / REVISION	BY

PROJECT
REAR YARD EXTENSION
& RETAINING WALLS
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DULLES, VA

M/M MATT MURPHIE
173 CONVERSE TRAIL
DULLES, VA
TEL: 703-271-1111

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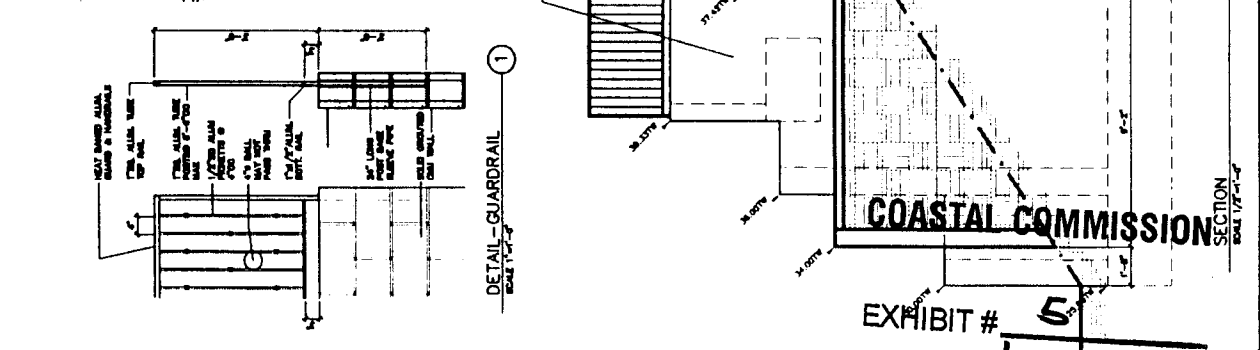
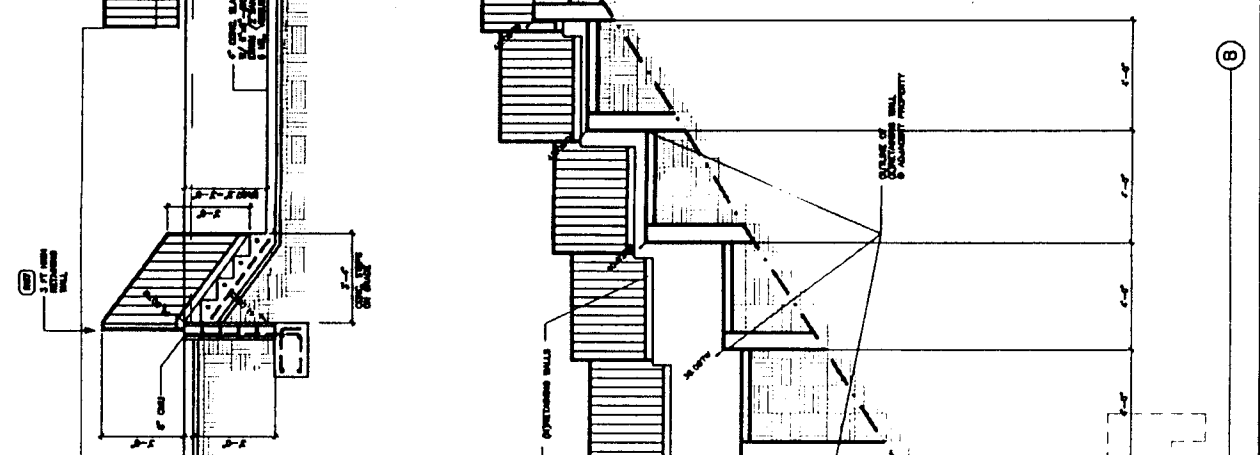
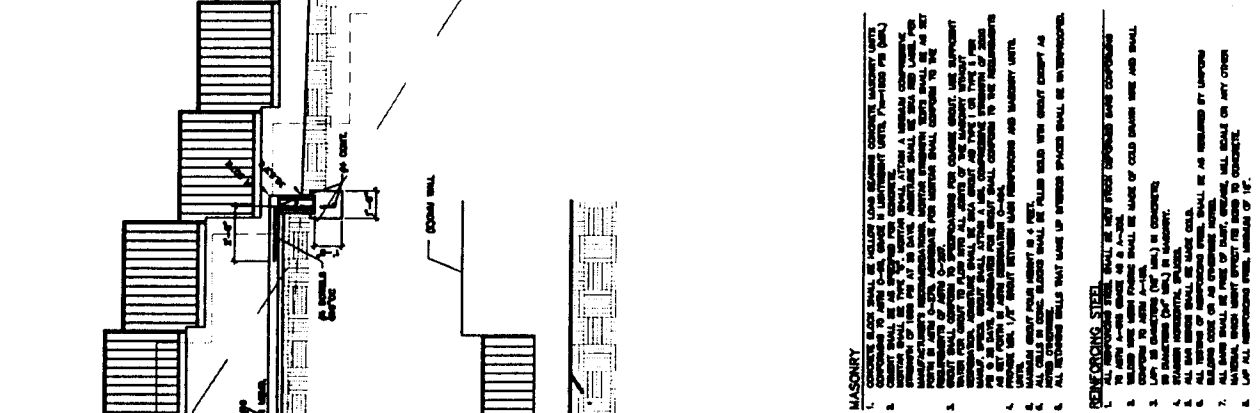
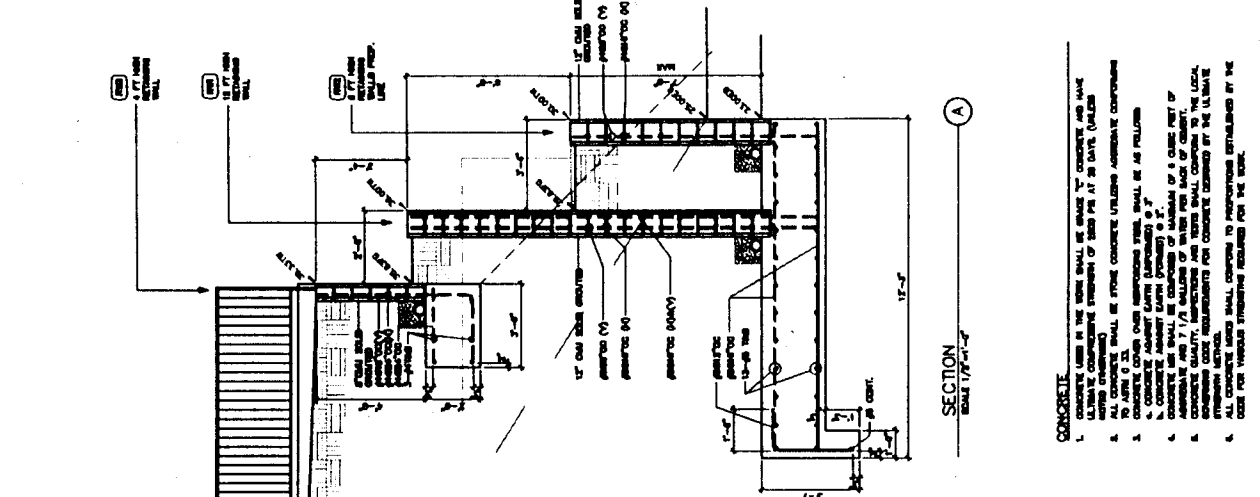
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DULLES, VA 20146
TEL: 703-271-1111




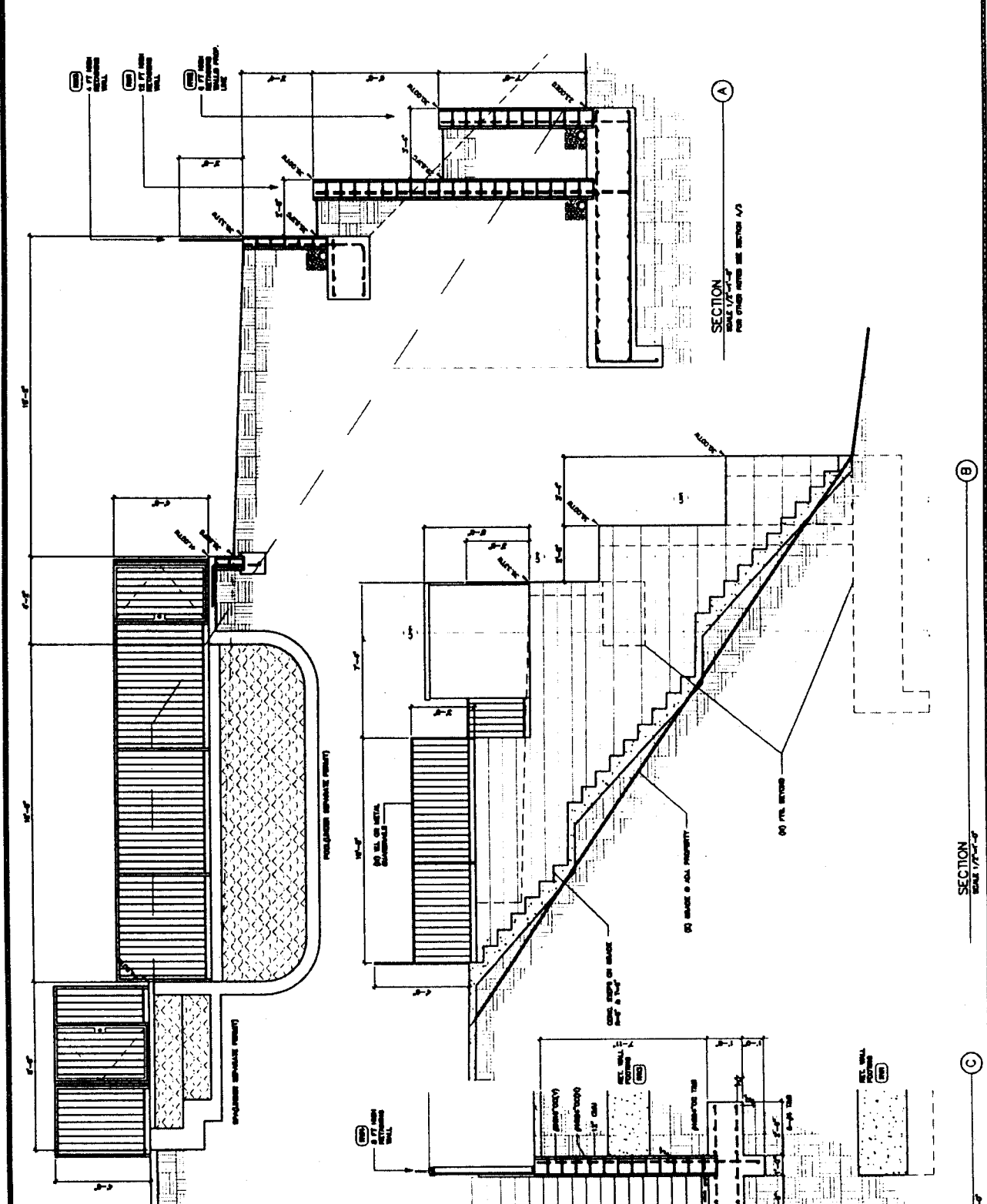
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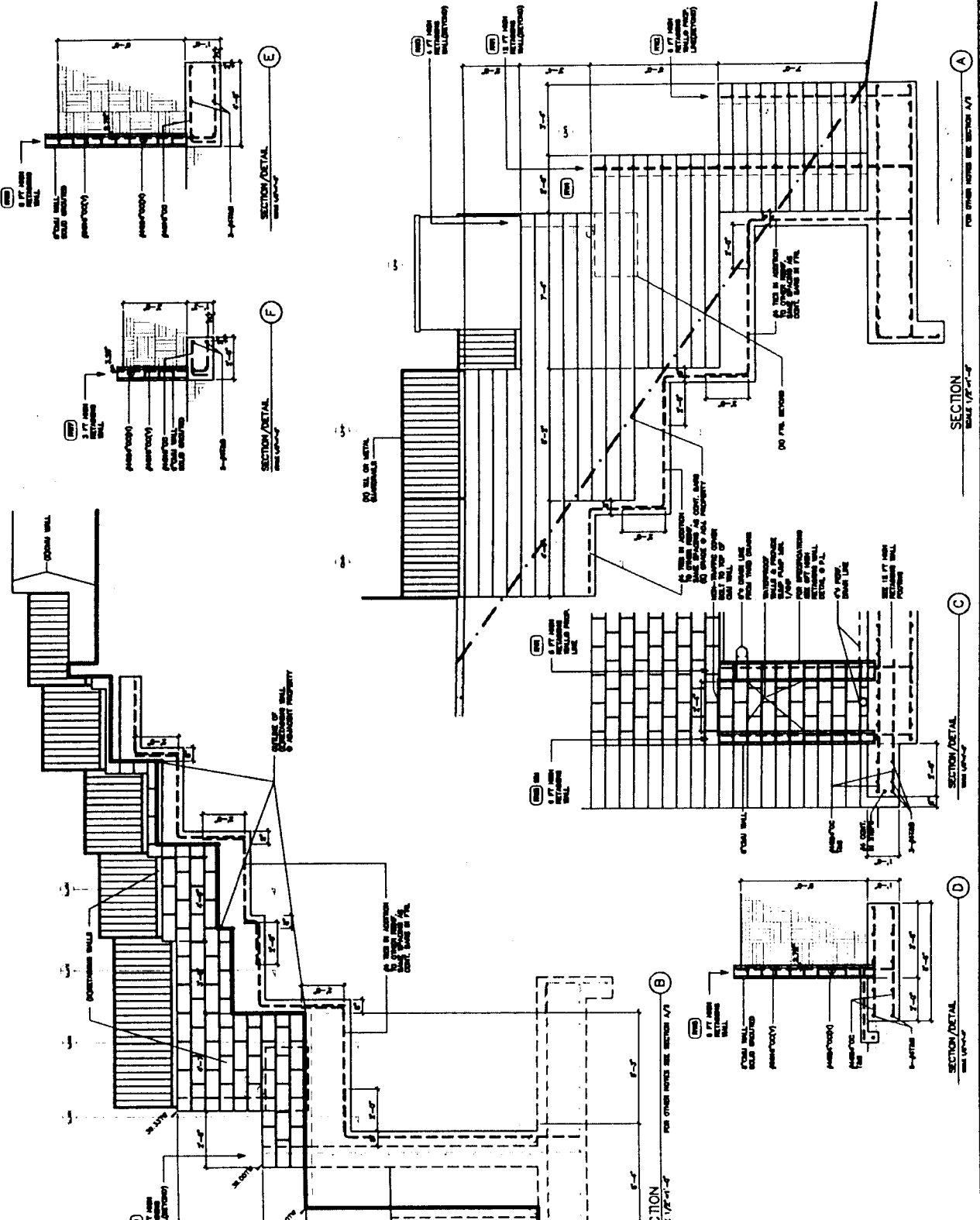
Project No. 3027



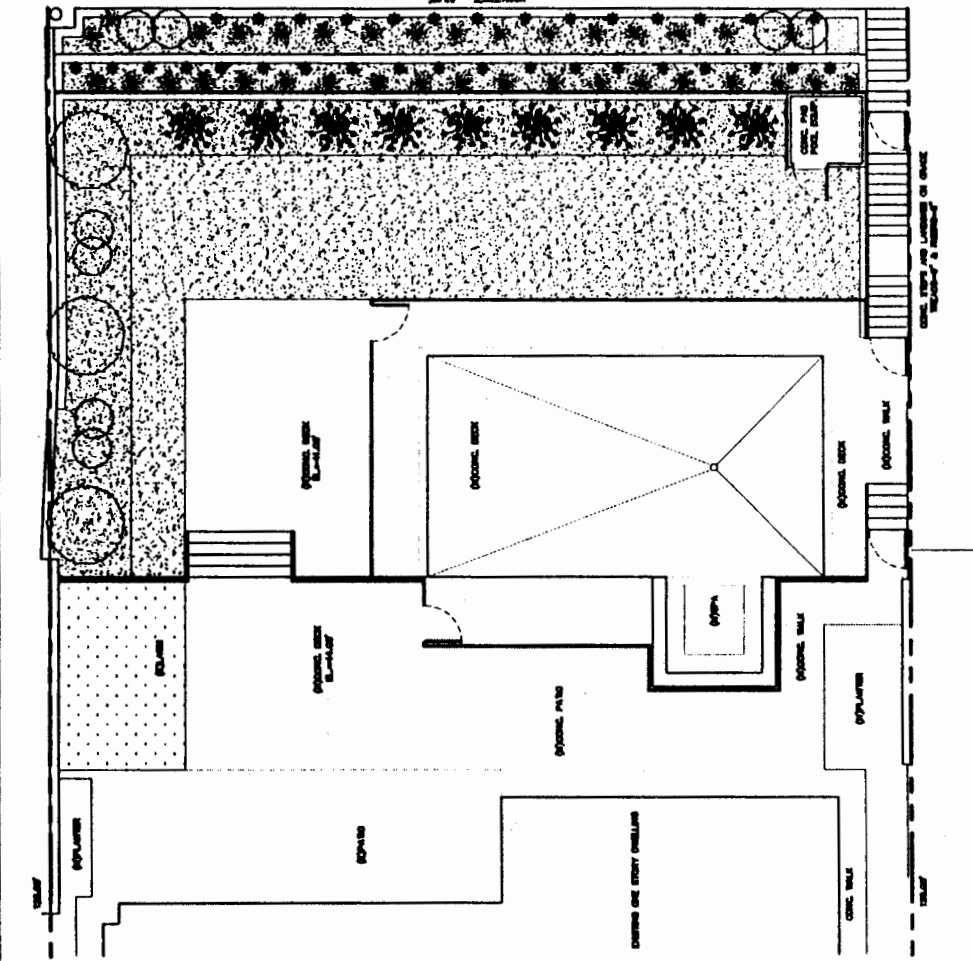
3027 PROJECT NO.	1715 COMMERCIAL BLVD IRVINE, CA 92614 REAR YARD EXTENSION & RETAINING WALLS	M/M MATT MURPHY 1715 COMMERCIAL BLVD IRVINE, CA 92614	and design 14122 COLLEGE BLVD IRVINE, CA 92618-1412 949-453-1100		3027 SHEET NO.
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COASTAL COMMISSION



COASTAL COMMISSION



GENERAL PLANT LEGEND		
SYMBOL	CATEGORY/DESCRIPTION	QTY/AMOUNT
○	4" PALM TREE	3
●	8" PALM TREE	1
●	12" PALM TREE	AS REQUIRED
●	18" PALM TREE	AS REQUIRED
●	24" PALM TREE	AS REQUIRED
●	36" PALM TREE	AS REQUIRED
●	48" PALM TREE	AS REQUIRED
●	60" PALM TREE	AS REQUIRED
●	72" PALM TREE	AS REQUIRED
●	84" PALM TREE	AS REQUIRED
●	96" PALM TREE	AS REQUIRED
●	108" PALM TREE	AS REQUIRED
●	120" PALM TREE	AS REQUIRED
●	132" PALM TREE	AS REQUIRED
●	144" PALM TREE	AS REQUIRED
●	156" PALM TREE	AS REQUIRED
●	168" PALM TREE	AS REQUIRED
●	180" PALM TREE	AS REQUIRED
●	192" PALM TREE	AS REQUIRED
●	204" PALM TREE	AS REQUIRED
●	216" PALM TREE	AS REQUIRED
●	228" PALM TREE	AS REQUIRED
●	240" PALM TREE	AS REQUIRED
●	252" PALM TREE	AS REQUIRED
●	264" PALM TREE	AS REQUIRED
●	276" PALM TREE	AS REQUIRED
●	288" PALM TREE	AS REQUIRED
●	300" PALM TREE	AS REQUIRED
●	312" PALM TREE	AS REQUIRED
●	324" PALM TREE	AS REQUIRED
●	336" PALM TREE	AS REQUIRED
●	348" PALM TREE	AS REQUIRED
●	360" PALM TREE	AS REQUIRED

PLANTING NOTES:

1. LANDSCAPING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL JURISDICTION'S REGULATIONS.
2. ALL PALM TREES SHALL BE PLANTED IN ACCORDANCE WITH THE LOCAL JURISDICTION'S REGULATIONS.
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