



# County of Santa Barbara Planning and Development

**Lisa Plowman, Director**  
Jeff Wilson, Assistant Director  
Steve Mason, Assistant Director

## **Isla Vista Bluff Policy** *(Revised Jan 2020)*

### **Introduction:**

The coastal bluff in Isla Vista is dynamic in nature and is in constant retreat. The rate of retreat varies depending on weathering, raveling, wave action, slumping, landslides or other processes. The more rapid processes (e.g. landslides) can happen without warning and can create a safety hazard for those living in structures along the edge of the Isla Vista bluff.

### **Purpose:**

It is the intent of the Planning & Development Department to establish a policy to protect the safety and welfare of the occupants of buildings abutting the coastal bluff in Isla Vista.

### **Background:**

In 2004, Planning & Development issued a policy as it relates to properties that abut the edge of the Isla Vista bluff. That policy required property owners to retain services of a licensed professional to evaluate the safety of their structures once staff has determined that the bluff is within 15 feet of the structure's foundation. The policy used a 5-foot wide single event failure as the safety threshold for these structures. During the winter of 2017, a single event failure exceeded the 5-foot wide single event failure threshold and prompted the County to conduct additional studies to evaluate the continued adequacy of this threshold.

The County contracted with Cotton, Shires, and Associates (CSA) to evaluate the adequacy of the County's 2004 IV Bluff Policy. CSA's report stated, in part: *“Multiple factors can affect the stability and rate of retreat of coastal bluffs, including bluff height, earth materials, beach width, blufftop drainage patterns, blufftop improvements, rainfall, mechanical weathering, wave action, and sea level rise. Based upon our observations, there appear to be several modes of failure of the Isla Vista bluffs: 1) shallow sloughing, calving or slumping within the upper unconsolidated alluvial and marine terrace deposits; 2) wedge-type, discontinuity-undercut by wave action; and 3) full-height bluff failures of both the lower bedrock and upper alluvial/terrace deposits, likely initiated by mode 2 above.”*

The CSA report further stated that the frequency of events is not a relevant factor in establishing a life safety issue. Rather, CSA recommended that a revised policy be based, to some extent, upon the maximum known event rather than events that can occur with greater frequency. The CSA report continues to state: *“Based upon this rationale, it is our recommendation that the 5-foot threshold currently incorporated in the policy should at least be doubled to 10 feet as the possible single-event failure at any given time, and policy should be formulated around this higher threshold.”*

### **Building Code Requirements and Setback Authority**

Pursuant to the California Building Codes, buildings are generally required to meet certain prescriptive setbacks from areas with descending slopes. In the case of Isla Vista, this would require a minimum setback of 40 feet as measured from the bluff face to any part of the building's foundation. However, California Building Code Section 1808.7.5 authorizes the Building Official to approve alternate setbacks from descending slopes based on the investigation and recommendations of a qualified engineer so long as the intent of the code section has been satisfied. Such investigation shall include consideration of material, height of slope, slope gradient, load intensity, and erosion characteristics of the slope material.

Based on previously conducted investigations, the Building Official has determined that the 40 feet minimum setback is not warranted at this time. Rather, the Building Official has determined that a 10-foot threshold be set as the minimum threshold for any portion of a building foundation from the bluff face. This threshold is approved by the Building Official under California Building Code Section 1808.7.5 and is incorporated into this IV Bluff Policy (revised 2020). The Building Official may consider site specific conditions such as the slope of bluff face, rate of erosion in the past, presence of vegetation on the bluff face and existing sea walls to establish a less stringent site specific policy without a site specific geotechnical study.

### **IV Bluff Policy (revised 2020)**

Based on the information provided in the CSA report and the information available to the Building Official from several geotechnical and geological studies performed to date on affected Isla Vista properties, the following policy shall apply to all properties that abut the coastal edge of the Isla Vista bluff.

- *Properties within 20 feet of the Isla Vista bluff*

If any portion of a building foundation is deemed to be within 20 feet of the Isla Vista bluff, the County will send a Notification Letter to the property owner *requesting* a geotechnical study specific to the site in question. Refer to Attachment B for additional information regarding Geotechnical Report Requirements. The purpose of this study is to ascertain the maximum single event width of bluff failure that could occur on that particular site. The County will work with the property owner to create an abatement plan based on the results of the study. Refer to Attachment A for additional information regarding property owner options. The Building Official may consider site specific conditions such as the slope of bluff face, rate of erosion in the past, presence of vegetation on the bluff face and existing sea walls to establish a less stringent site specific policy without a site specific geotechnical study.

- *Properties within 15 feet of the Isla Vista bluff*

If any portion of a building foundation is deemed to be within 15 feet of the Isla Vista bluff, the County will issue a Notice of Violation (NOV) to the property owner *requiring* a geotechnical study specific to the site in question. Refer to Attachment B for additional information regarding Geotechnical Report Requirements. The purpose of this study is to ascertain the maximum single event width of bluff failure that could occur on that particular site and to adopt an abatement plan based on the results of the study. Refer to Attachment A for additional information regarding property owner options. The Building Official may consider site specific conditions such as the slope of bluff face, rate of erosion in the past, presence of vegetation on the bluff face and existing sea walls to establish a less stringent site specific

policy without a site specific geotechnical study. Refer to Attachment B for additional information regarding Geotechnical Report Requirements.

- *Properties within 10 feet of the Isla Vista bluff*

If any portion of a building foundation is deemed to be within 10 feet of the Isla Vista bluff, the County will issue a Notice to Vacate those specific portions of the structure that are within the 10-foot threshold. The property owner will be required to hire a geotechnical engineer to prepare a site specific study to establish the maximum collapse width during a single event for that site. Refer to Attachment B for additional information regarding Geotechnical Report Requirements. The County will work with the property owner to develop an abatement plan based on the results of the study. Refer to Attachment A for additional information regarding property owner options. The Building Official may consider site specific conditions such as the slope of bluff face, rate of erosion in the past, presence of vegetation on the bluff face and existing sea walls to establish a less stringent site specific policy without a site specific geotechnical study.

### **Decks and Appurtenances**

This policy applies to any foundation element, including structural deck foundations.

### **Site Specific Thresholds and Abatement Plans**

Abatement plans may vary depending on the site and the study conducted.

Shallow foundation sites may be required to obtain a permit to cut back the building to a distance that is outside the maximum collapse width identified in the site specific study. Deep foundation sites may require a structural engineer and a geotechnical engineer to evaluate the capacity and effectiveness of existing caissons. A building permit may be required based on the results of the study.

### **Permits Required**

Permits are required to perform any demolition or alteration to structures. There are two different types of permits that are required, each addressing a different set of laws and regulations. Some of the plans and other documentation required may be common to both permit types.

- A *land use approval* (specifically a Coastal Development Permit) is required to ensure that the alterations meet the County's zoning regulations and policy requirements. The processing and review of this permit includes consideration of available options and impacts to the environment. This type of permit may require a public hearing. An Emergency Permit may be issued in advance of the Coastal Development Permit depending on the nature of the work (e.g. mitigating a potentially dangerous condition requiring immediate action). However, this type of permit will require a follow-up Coastal Development Permit. Please contact the County's zoning information counter at (805)568-2090 for additional information on Coastal Development Permits.
- A Building Permit is also required for alteration and/or demolition projects. Building permits are required to ensure the structure's compliance with California's building, electrical, mechanical, and plumbing codes. Please contact the County's Building and Safety Division at (805)568-3030 for additional information regarding building permits.

## IV Bluff Policy (revised 2020)

### Attachment A

#### **PROPERTY OWNER OPTIONS**

Action by the property owner is required when a building foundation is determined to be within 20 feet of the bluff face. Typically, this action takes one of three forms:

1. *Site Specific Study* – Property owners may hire a California licensed geotechnical engineer to conduct a site specific study and provide a site specific geotechnical report outlining the soil conditions and estimating the maximum width of bluff failure based on the soil condition, the proximity and/or existence of discontinuities, site drainage, any man-made development, and other contributing factors at the site. Upon review and acceptance of the report by the County, a site specific threshold for mitigation against sudden failure of the bluff will be established and will outline when the building must be cut back. In the absence of providing a site specific geotechnical study, the thresholds will be set assuming a 10 feet single event failure: A) the threshold for issuance of notice of violations will be set at 15 feet and B) those portions of the building supported on foundation within 10 feet of the bluff will be ordered to vacate when the bluff erodes within 10 feet of the building.
2. *Cut Back* – Property owners may choose to cut the building back from the bluff. Property owners with buildings that have no caissons and grade beams must cut back their building prior to the bluff reaching 10 feet of their building foundation or within the maximum bluff failure established by the approved site specific study, whichever is less. Plans must be submitted in advance of the bluff reaching the maximum site specific bluff failure limit in order to avoid issuance of a Notice to Vacate. Preparing drawings and construction documents can take considerable time and we highly recommend that owners hire a California licensed architect or civil engineer to lead this effort when the building is at least 15 feet from the bluff face. Property owners would be expected to cut back the building and its foundation by at least 30 feet from the bluff face, although a lesser cutback may be permitted on a case-by-case basis. This option would require a Coastal Development Permit AND a Building Permit. Building plans showing the configuration of the revised building layout would be necessary as part of the review process. Structural engineering work would also be involved, however, this work may be relatively minor in nature. Refer to the document entitled Cutting the Building Back – Submittal Requirements and Permit Process for additional information regarding this approach.
3. *Site Specific Study Deepened Foundations* – Property owners with existing deepened foundation elements that were constructed with proper permits and construction inspections may choose to hire a California licensed civil or structural professionals to collaborate with the geotechnical engineer of the project to evaluate the condition and capacity of the deepened foundations and to prepare a structural report justifying the safety of the structure. This would require the property owner to provide a soils investigation by a licensed soils engineer and a structural evaluation by a licensed structural or civil engineer. The report must clearly identify conditions when the deepened foundation can lose its stability and capacity to support the structure above should a sudden maximum bluff failure occur at the site. The site specific geotechnical and structural study will be evaluated by the County consultants and plan check staff for completeness and compliance with the scope defined in this document and customary professional standards of the profession. The geotechnical engineer will then be required to conduct a site investigation once a year and after every major storm. The geotechnical engineer must prepare and submit an updated report to the County for review after each site investigation.

Any deepened foundation that are deemed incapable of supporting the applicable forces and loading from the building and appendages by such a foundation must be removed after the structure supported by such a foundation is removed. The level of cutback of the structure will be based on site specific soil conditions and capacity of remaining foundation to support the remaining structure.

Refer to the document entitled Foundation Strengthening – Building and Safety Submittal Requirements and Permit Process for additional information regarding this approach.

IV Bluff Policy (revised 2020)  
Attachment B

**GEOTECHNICAL REPORT REQUIREMENTS**

Geotechnical reports submitted in response to the IV Bluff Policy must:

- Provide an estimate of the maximum width of a single event bluff failure at the site. For the purposes of this policy, a single event is considered failures within a duration period that does not allow for timely evaluation of the building.
- Verify the average bluff retreat rate at the site.
- A foundation investigation prepared by a California Licensed Geotechnical Engineer and/or Engineering Geologist in accordance with Chapter 18 of the California Building Code. Field work and reporting is to be signed by both the Geotechnical Engineer and the Engineering Geologist.
- Provide a geologic cross-section at scale, showing soil and bedrock conditions. Foundation elements are to be included in the cross-section.
- Perform work to sufficiently characterize relevant geotechnical engineering parameters of the soil and bedrock (may require soil drilling and sampling).
- Perform site-specific static and seismic slope stability analyses-issues of potential importance: shear strength, bedrock fracturing, possible tension cracks, coastal bluff conditions. (Note: see *Ashfor S.A. and Sitar N. (2002), Simplified Method for Evaluating Seismic Stability of Steep Slopes*, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 128 No. 2, or other published resources on bluff/steep slope stability for more information).
- Evaluate liquefaction potential and consequences of liquefaction to the structure and adjacent bluff stability.
- Assess impacts of bluff instability/loss of bluff on drilled piers and resulting lateral loads/pressures on drilled piers, if applicable.
- Provide input regarding potential bluff instability/loss of bluff to an Architect or Professional Engineer for evaluation of foundations and structure.
- The Building Official requires that Liquefaction Potential and Soil Strength Loss is evaluated per California Building Code Chapter 18.

**Interpretation of Geologic Conditions**

The project engineering geologist is responsible for the interpretation of geologic conditions, explaining the interpretations, and for supporting the interpretations with adequate subsurface exploration, earth material sampling, and laboratory test data. Significant emphasis should be placed on the mapping of discontinuities within the bedrock formational materials exposed generally in the lower half of the bluff. Geologic analysis should include stereonet evaluation of discontinuities, including joint or fracture patterns, and wedge-failure potential based upon intersecting joints/fractures, bedding, and local faults if present. Geologic evaluations should be based on accurate and up-to-date topographic information. Topographic surveys should be conducted to provide accurate information.

Geologic cross-sections should clearly show an interpretation of the site stratigraphy across the section and should not be limited to the interpretation only at exploration points. It is expected that interpretations include bedding, faults, material types, folds, pervasive joint sets or fracture patterns, shallow failures or slumps, and landslides.

Exception: The geotechnical engineer with prior concurrence of the Building official may provide reduced scope of geotechnical reports based on readily verifiable conditions that preclude a particular site from sudden and catastrophic failure. Those verifiable conditions may include but will not be limited to the slope of bluff face, rate of erosion in the past, presence of vegetation on the bluff face and seawalls.



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## **CUTTING THE BUILDING BACK Submittal Requirements and Permit Process**

### **A. Drawing Requirements common to the Coastal Development Permit and the Building Permit**

Buildings are to be cut back 30' minimum from the bluff face, though lesser cutbacks may be permitted on a case-by-case basis. The following drawings will be required. These will be necessary for both the Coastal Development Permit and the Building Permit. Drawings are to be legible and drawn to scale.

#### **1. Site Plan, to include (at a minimum):**

- Drawings to be drawn to scale and dimensioned
- Project address
- Name, address, and telephone number of the owner and the person responsible for the preparation of the plans
- Name, address, and telephone number of all consultants involved with the project design
- Easements and/or restricted use areas, with dimensions
- North arrow
- Location of all property lines/dimensions from buildings to property lines
- Current location of bluff top
- Show new footprint of structure/show location of existing footprint to be demolished in a dashed outline
- Locations of all buildings / structures on adjacent property within 10 feet of property line.
- Location and dimensions of walks, driveways and other hardscape
- Drainage information, to include site drainage patterns and drainage devices (catch basins, area drains, sump pumps, etc.)
- Project Data, to include square footage breakdown by floor, Type of Occupancy, Type of Construction (include whether or not building is fire-sprinkled), Assessor's Parcel Number and/or Legal Description

#### **2. Existing/Demolition Floor Plans:**

- Drawings to be drawn to scale and dimensioned
- Show existing walls, windows, doors and rooms to remain with solid lines/show walls, windows, doors and rooms to be removed in dashed lines

#### **3. Proposed Floor Plans:**

- Drawings to be drawn to scale and dimensioned
- Show proposed walls, windows, doors and rooms
- Provide both upper and lower floors for two-story applications
- Show location and type of electrical fixtures, outlets and switches, main electrical panel with amperage rating and smoke detectors (may be shown on separate electrical plan if so desired)
- Show location of proposed plumbing fixtures, new connection to existing building drain or sewer (if applicable)
- Show location and BTU rating of existing or proposed heating system, ducts and registers and method of proposed mechanical ventilation

#### 4. Elevations:

- Drawings to be drawn to scale
- Provide elevations that detail vertical dimensions of existing and proposed wall(s), door(s), window(s), chimneys and projections

### **B. Additional drawings and other documentation required for obtaining the Building Permit:**

In addition to the requirements above, the following drawings and other documentation will be required for the Building Permit.

#### 1. Building and/or Wall Sections:

- Drawings to be drawn to scale and dimensioned
- Provide building and/or wall sections at critical locations showing new construction

#### 2. Schedules:

- Specify size, configuration, window and door types, types of glazing (alternatively may be shown on floor plans)

#### 3. Foundation Plan:

- A soils/geology report is not required. Foundations are to be constructed to minimum requirements in accordance with Chapter 18 of the California Building Code
- Drawings to be drawn to scale and dimensioned
- Foundation elements are to be included in the cross-section.
- Provide detailing and dimensioning of new footings showing steel reinforcement
- Provide detail showing tie of existing footings to new footings

#### 4. Framing Plans:

- Drawings to be drawn to scale and dimensioned
- Show existing and proposed roof and floor framing
- Show size, species, and spacing of all members
- Projects must be engineered or meet conventional framing section of California Building Code Chapter 23
- Show all hardware and connectors; Provide minimum nailing specifications
- Provide framing details as necessary

#### 5. Energy Conservation:

- Project must be shown to meet the provisions of the California Energy Code; either a prescriptive or performance approach may be utilized to show compliance

#### 6. Structural Engineering:

- Structural engineering not required if building can be shown to meet conventional framing standards of the California Building Code (structural engineering may be desirable to maximize the amount of openings in the ocean facing wall, however)

### **C. Additional Submittal Requirements:**

Additional submittal requirements for the Coastal Development Permit may be found at the following web link: <https://countyofsb.org/plndev/forms.sbc> (click on "Coastal Development Permit – Hearing Required". Additional information on Building Permit submittals and application form may be found at the following website: <https://countyofsb.org/plndev/building-more.sbc>.



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## **STRUCTURAL CONDITION REPORT Submittal Requirements and Permit Process**

The following documentation is required for a structural condition report. A Conditional Certificate of Occupancy and monitoring and abatement plan will also be required if the building is determined to be unsafe for occupancy. The structural condition report and Conditional Certificate of Occupancy and monitoring and abatement plan are reviewed under a building permit submittal to the Building and Safety Division. A Coastal Development Permit is not required for review and approval of the structural condition report, the Conditional Certificate of Occupancy and the monitoring and abatement plan. A Coastal Development Permit is required when alteration or demolition work is planned, as discussed in the next section below.

### **A. Structural Condition Report – submittal requirements:**

#### **1. Site Plan, to include (at a minimum):**

- Project address
- Name, address, and telephone number of the owner and the person responsible for the preparation of the plans
- Name, address, and telephone number of all consultants involved with the project design
- Easements and/or restricted use areas, with dimensions
- North arrow
- Location of all property lines/dimensions from buildings to property lines
- Current location of bluff top and toe, location of Mean High Tide Line
- Locations of all buildings / structures on adjacent property within 10 feet of property line.
- Location and dimensions of walks, driveways and other hardscape
- Drainage information, to include site drainage patterns and drainage devices (catch basins, area drains, sump pumps, etc.)
- Project Data, to include square footage breakdown by floor, Type of Occupancy, Type of Construction (include whether or not building is fire-sprinkled), Assessor's Parcel Number and/or Legal Description

#### **2. Geotechnical Report:**

- A foundation investigation is to be prepared by a CA Licensed Geotechnical Engineer and/or Engineering

#### **3. Structural Analysis and Existing Foundation Plans/Detailing:**

- The information provided in the Geotechnical/Geological report is to be communicated to a Licensed Architect or Professional Engineer for evaluation, who shall determine the structural integrity of the building and its foundation. The report shall include a Site Plan which shows the building location relative to the descending slope and the current elevation of key foundation elements (e.g., finish floor elevation at building corners, finish deck elevation, etc.)



- Structural Engineer is to provide an evaluation of the existing foundation system relative to the findings in the prepared soils report.
- Structural calculations are to include the effects of lateral loads such as wind, seismic, potential wave damage, hydrostatic pressure and/or soil pressure on structural elements including caissons or columns
- Include structural key, design dead and live loads
- Provide size and spacing of all structural elements, construction assemblies, critical connection details, reinforcement detailing, and any other structural elements referred to in the structural calculations
- Provide an assessment on the condition of the existing structure (i.e., cracking, weathering, corrosion, erosion, etc.) Include recommendations for testing, if required, to determine structural properties of materials.

### **B. Conditional Certificate of Occupancy and Monitoring Program:**

If the building is shown by the structural condition report to be safe for continued occupancy, a Conditional Certificate of Occupancy for a one year time period may be issued when accompanied with a documented ongoing monitoring program and abatement plan. The Conditional Certificate of Occupancy would be subject to renewal on a yearly basis. The Conditional Certificate and Occupancy and monitoring and abatement plan is to include the following components:

#### **1. Trigger Conditions:**

- Structural engineer of record needs to establish well defined and documented trigger conditions and what course of action will be taken when trigger conditions are reached. Trigger conditions are to be established through structural calculations. Triggers are to describe a clear course of action to be taken in advance of any condition which would render the building unsafe. (For example, structural calculations may show that a caisson may be safe up until 50% of its height is exposed on the bluff face. Trigger condition may dictate that the building be cut back prior to the 20% of the caisson's becoming exposed.)
- Trigger conditions are to be comprehensive and conclusive, addressing all possible triggers that would affect the safety of the structure
- Once established, the trigger conditions at the subject site are to be periodically observed by the property owner, a property manager or by another responsible individual as designated by the property owner (herein referred to as "Responsible Individual"). The Responsible Individual's site observations are to be performed and recorded on a continuing basis as agreed to by the County based on the structural engineer's recommendations in addition to any inspections required as a result of Significant Events (see item #4 below).

#### **2. Baseline Structural Report:**

- Structural engineer of record is to provide a baseline report, which includes 1) a current Site Plan and Site Profile drawing representing current bluff and building/deck conditions, 2) photograph(s) as necessary to show the current condition of the bluff, and 3) the list of trigger conditions established for the project and documentation (may include or require photographic evidence, measurements, elevations, or other evidence) establishing the current condition of the trigger.
- A copy of the baseline structural report is to be retained by the structural engineer of record to allow comparison with future conditions

### **3. Annual Inspections:**

- Inspections by the structural engineer of record and such other experts as the structural engineer of record deems necessary are to be performed once per year following the initial report. A report containing the results of the annual inspection is to be filed with the property owners and the Building and Safety Division no later than May 30 of each year. The report shall include 1) results from the annual inspection, describing current conditions relative to each of the initial trigger conditions discussed under item a) above, 2) updated Site and Profile drawings representing current bluff and deck conditions, 3) photograph (s) of the current bluff condition and 4) recommended inspection/observation requirements for the year forthcoming for the Responsible Individual (described under “Trigger Conditions”).

### **4. Significant Events:**

- The Responsible Individual as designated by the property owner (described under “Trigger Conditions”) is to perform an inspection on the building within twelve (12) hours following notification or learning of the occurrence of any of the following events. If any of the “trigger conditions” are observed, the Responsible Individual is to contact the property owner, the Engineer- of-Record and the Building and Safety Division immediately. If the Responsible Individual is unsure of the condition of the property or is unable to make a determination of any of the “trigger conditions”, the structural engineer of record will arrange an inspection of the property within 48 hours. The Responsible Individual will keep a written record of his/her inspection that shall be made available for inspection by either the Engineer of Record or Building and Safety Division, upon request. The significant events are 1) any seismic event causing significant shaking at the building site including any event measuring 4.0 or greater on the Richter scale with its epicenter at a location within a 75 mile radius of the subject property, 2) a rainfall event exceeding one inch per hour for a time period of greater than two hours, or a rainfall event exceeding four inches in any one twenty-four hour period, or a rainfall event exceeding six inches in any forty-eight hour period, 3) any tidal event associating a NOAA-declared high surf advisory coupled with tides higher than two feet over Mean High Tide Level and 4) the mechanism under which the Building and Safety Division is to be contacted shall be specified in the Conditional Certificate of Occupancy.

### **C. Alterations or Strengthening of Foundations:**

Additional documentation will be required for proposals to correct substandard conditions which require work on the bluff or existing buildings. See the attached document entitled Foundation Strengthening – Submittal Requirements and Permit Process for additional information on this type of work.



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## **FOUNDATION STRENGTHENING Building and Safety Submittal Requirements and Permit Process**

The following is required for strengthening of an existing foundation. Some of these requirements are a duplication of the requirements for a structural condition report. This work will require approval of a Coastal Development Permit, which is subject to discretionary review and a public hearing, and a Building Permit. A Conditional Certificate of Occupancy and a monitoring and abatement plan will also need to be approved as part of the Building Permit.

### **A. Foundation Strengthening – submittal requirements:**

#### **1. Site Plan, to include (at a minimum):**

- Project address
- Name, address, and telephone number of the owner and the person responsible for the preparation of the plans
- Name, address, and telephone number of all consultants involved with the project design
- Easements and/or restricted use areas, with dimensions
- North arrow
- Location of all property lines/dimensions from buildings to property lines
- Current location of bluff top and toe, location of Mean High Tide Line
- Locations of all buildings / structures on adjacent property within 10 feet of property line.
- Location and dimensions of walks, driveways and other hardscape
- Drainage information, to include site drainage patterns and drainage devices (catch basins, area drains, sump pumps, etc.)
- Project Data, to include square footage breakdown by floor, Type of Occupancy, Type of Construction (include whether or not building is fire-sprinkled), Assessor's Parcel Number and/or Legal Description

#### **2. Geotechnical Report**

- A foundation investigation is to be prepared by a CA Licensed Geotechnical Engineer and/or Engineering

#### **3. Structural Analysis and Existing Foundation Plans/Detailing:**

- The information provided in the Geotechnical/Geological report is to be communicated to a Licensed Architect or Professional Engineer for evaluation, who shall determine the structural integrity of the building and its foundation. The report shall include a Site Plan which shows the building location relative to the descending slope and the current elevation of key foundation elements (e.g., finish floor elevation at building corners, finish deck elevation, etc.)
- Structural Engineer is to provide an evaluation of the existing foundation system relative to the findings in the prepared soils report

- Structural calculations are to include the effects of lateral loads such as wind, seismic, potential wave damage, hydrostatic pressure and/or soil pressure on structural elements including caissons or columns
- Include structural key, design dead and live loads
- Provide size and spacing of all structural elements, construction assemblies, critical connection details, reinforcement detailing, and any other structural elements referred to in the structural calculations
- Provide an assessment on the condition of the existing structure (i.e., cracking, weathering, corrosion, erosion, etc.). Include recommendations for testing, if required, to determine structural properties of materials.

#### **4. Structural Analysis and Proposed Foundation Improvements:**

- Drawings to be drawn to scale and dimensioned
- Structural calculations for proposed improvements which include the effects of lateral loads such as wind, seismic, potential wave damage, hydrostatic pressure and/or soil pressure on structural elements including caissons or columns. Include structural key, design dead and live loads
- Provide size and spacing of all proposed structural elements, construction assemblies, critical connection details, reinforcement detailing, and any other structural elements referred to in the structural calculations
- Provide a minimum of one building cross-section showing the new work in relation to the bluff
- Provide detailing and dimensioning of new footings showing steel reinforcement
- Provide detail showing tie of existing footings to new footings

#### **B. Conditional Certificate of Occupancy and Monitoring Program:**

A Conditional Certificate of Occupancy and a monitoring and abatement plan will need to be approved as part of the Building Permit. The Conditional Certificate of Occupancy would be good for one year and may be issued once the work has been completed. It would then be subject to renewal on a yearly basis depending on the structure's current condition. The Conditional Certificate and Occupancy and monitoring and abatement plan is to include the following components:

##### **1. Trigger Conditions:**

- Structural engineer of record needs to establish well defined and documented trigger conditions and what course of action will be taken when trigger conditions are reached. Trigger conditions are to be established through structural calculations. Triggers are to describe a clear course of action to be taken in advance of any condition which would render the building unsafe. (For example, structural calculations may show that a caisson may be safe up until 50% of its height is exposed on the bluff face. Trigger condition may dictate that the building be cut back prior to the 20% of the caisson's becoming exposed.)
- Trigger conditions are to be comprehensive and conclusive, addressing all possible triggers that would affect the safety of the structure
- Once established, the trigger conditions at the subject site are to be periodically observed by the property owner, a property manager or by another responsible individual as designated by the property owner (herein referred to as "Responsible Individual"). The Responsible Individual's site observations are to be performed and recorded on a continuing basis as agreed to by the County based on the structural engineer's recommendations in addition to any inspections required as a result of Significant Events (see item #4 below).

## **2. Baseline Structural Report:**

- Structural engineer of record is to provide a baseline report, which includes 1) a current Site Plan and Site Profile drawing representing current bluff and building/deck conditions, 2) photograph(s) as necessary to show the current condition of the bluff, and 3) the list of trigger conditions established for the project and documentation (may include or require photographic evidence, measurements, elevations, or other evidence) establishing the current condition of the trigger.
- A copy of the baseline structural report is to be retained by the structural engineer of record to allow comparison with future conditions

## **3. Annual Inspections:**

- Inspections by the structural engineer of record and such other experts as the structural engineer of record deems necessary are to be performed once per year following the initial report. A report containing the results of the annual inspection is to be filed with the property owners and the Building and Safety Division no later than May 30 of each year. The report shall include 1) results from the annual inspection, describing current conditions relative to each of the initial trigger conditions discussed under item a) above, 2) updated Site and Profile drawings representing current bluff and deck conditions, 3) photograph (s) of the current bluff condition and 4) recommended inspection/observation requirements for the year forthcoming for the Responsible Individual (described under “Trigger Conditions”).

## **4. Significant Events:**

- The Responsible Individual as designated by the property owner (described under “Trigger Conditions”) is to perform an inspection on the building within twelve (12) hours following notification or learning of the occurrence of any of the following events. If any of the “trigger conditions” are observed, the Responsible Individual is to contact the property owner, the Engineer- of-Record and the Building and Safety Division immediately. If the Responsible Individual is unsure of the condition of the property or is unable to make a determination of any of the “trigger conditions”, the structural engineer of record will arrange an inspection of the property within 48 hours. The Responsible Individual will keep a written record of his/her inspection that shall be made available for inspection by either the Engineer of Record or Building and Safety Division, upon request. The significant events are 1) any seismic event causing significant shaking at the building site including any event measuring 4.0 or greater on the Richter scale with its epicenter at a location within a 75 mile radius of the subject property, 2) a rainfall event exceeding one inch per hour for a time period of greater than two hours, or a rainfall event exceeding four inches in any one twenty-four hour period, or a rainfall event exceeding six inches in any forty-eight hour period, 3) any tidal event associating a NOAA-declared high surf advisory coupled with tides higher than two feet over Mean High Tide Level and 4) the mechanism under which the Building and Safety Division is to be contacted shall be specified in the Conditional Certificate of Occupancy.

## **C. Additional Submittal Requirements:**

Additional submittal requirements for the Coastal Development Permit may be found at the following web link: <https://countyofsb.org/plndev/forms.sbc> (click on “Coastal Development Permit – Hearing Required”). Additional information on Building Permit submittals and application form may be found at the following website: <https://countyofsb.org/plndev/building-more.sbc>.