

**CALIFORNIA COASTAL COMMISSION**

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**Th-13a****RECORD PACKET COPY**

Appeal Filed: August 7, 2000  
49<sup>th</sup> Day: September 25, 2000  
Staff: VAE – SF  
Staff Report: December 22, 2000  
Hearing Date: January 11, 2001

**APPEAL STAFF REPORT  
DE NOVO REVIEW**

**APPEAL NO.:** A-2-DYC-00-027

**APPLICANT:** Korean Central Presbyterian Church  
City of Daly City

**AGENT:** Ted Kim

**LOCAL GOVERNMENT:** City of Daly City

**LOCAL ACTION:** Approval with Conditions

**LOCAL PERMIT NO.:** UP99-08 and DR99-30

**SUBSTANTIAL ISSUE:** The Commission found that the appeal of the local government action on this project raised a substantial issue on September 13, 2000.

**PROJECT LOCATION:** 50 Northridge Drive, Daly City, San Mateo County  
APNs 008-191-630, 008-191-620, and 008-010-040

**PROJECT DESCRIPTION:** Construction of a 22,580-square-foot church and 131-space parking lot, and lot line adjustment between KCPC and City parcels

**APPELLANT:** Anthony Gangloff

**SUBSTANTIVE FILE:** See Appendix A

## **1.0 EXECUTIVE SUMMARY**

The staff recommends that the Commission approve the proposed project with conditions. The applicants, the Korean Central Presbyterian Church (KCPC) and the City of Daly City, propose to construct a two-story, 22,580-square-foot church and 131-space parking lot on a parcel at the top of the coastal bluff and Avalon Canyon in Daly City. In 1998, the City demolished an existing church on the property to use the soil to repair Avalon Canyon after a major landslide. The applicants are now proposing to develop a new church on the same parcel farther from the coastal bluff than the previous church. The applicants also propose to provide off-street parking, including 29 spaces on City property adjacent to the KCPC property. The KCPC will share the 29 parking spaces with the City and users of Northridge Park. The previous building did not provide any formal off-street parking.

On September 13, 2000, the Commission found substantial issue existed with respect to the approved project's consistency with the City's Local Coastal Program (LCP) policies for the prevention of hazards and shoreline erosion, the protection of visual resources, and the LCP and Coastal Act policies for the provision of public access. Since the substantial issue determination, the applicants have provided information requested by staff concerning site geology, visual resources, and public access.

The staff recommends approval of the project with special conditions addressing geologic hazards and impacts to visual resources and water quality.

### **Staff Note**

At a City Council meeting scheduled for January 8, 2001, the City will consider a proposal for public access improvements. The City, as a co-applicant to this project, proposes to amend the project description for the proposed project to include a dedication of public access on City-owned property from Avalon Drive to the Golden Gate National Recreation Area at the base of Avalon Canyon. The proposed pedestrian public access will satisfy the LCP's goal to provide access to the shoreline in the Avalon Canyon area. Pending action by the City Council, the Commission staff will prepare an addendum to this staff report containing the findings for public access.

## **2.0 STAFF RECOMMENDATION**

### **Approval**

The staff recommends that the Commission **approve** Coastal Development Permit Application A-2-DYC-00-027 as follows:

### **Motion**

I move that the Commission approve Coastal Development Permit No. A-2-DYC-00-027 pursuant to the staff recommendation.

### **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.

## Resolution to Approve the Permit

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned (1) will be in conformity with the City of Daly City certified LCP, and (2) is between the first public road and the sea and is in conformity with the access and recreation policies of Chapter 3 of the Coastal Act. 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.

### 2.1 Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of 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.

### 2.2 Special Conditions

#### 1. Church Setback from Top of Avalon Canyon Slope.

**PRIOR TO ISSUANCE OF PERMIT**, the applicants shall submit, for the review and approval by the Executive Director, modified project site plans showing a 20-foot setback from the top of the slope of Avalon Canyon for the church structure, the foundations, and the patios. All project site plans shall depict the location of the top of the Avalon Canyon slope in relation to the church structure, foundations, and patios.

**2. Assumption of Risk, Waiver of Liability and Indemnity.**

A. By acceptance of this permit, and notwithstanding any other agreements between the applicants, the applicants, on behalf of (1) themselves, (2) their successors and assigns, and (3) any other holder of the possessory interest in the development authorized by this permit, acknowledge and agree:

1. that the site may be subject to hazards from seismic activity and bluff retreat;
2. 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;
3. 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
4. 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 amount paid in settlement arising from any injury or damage due to such hazards.

**B. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicants shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition. The deed restriction shall include a legal description of each applicants' entire parcel(s). The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

**3. No Future Bluff or Cliff Protective Device.**

A.

1. By acceptance of this permit, the applicants agree, on behalf of themselves and all successors and assigns, that no protective device(s) that would alter the natural landforms of bluffs or cliffs shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. A-1-DYC-00-027, including, but not limited to, the church, foundations, decks, driveways, stormwater distribution system, or the parking lots and any other future improvements in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, or other natural hazards in the future. For purposes of this condition, bluff shall be defined as set forth in Title 14, Section 13577 of the California Code of Regulations. By acceptance of this permit, the applicants hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under LCP/Coastal Act Policy 30235.

2. By acceptance of this permit, the applicant further agrees, on behalf of himself and all successors and assigns, that the landowner shall remove the development authorized

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by this permit, including the parking lots and church, if any government agency has ordered that the structures be abandoned or removed due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

3. In the event the edge of the bluff recedes to within 10 feet of the western parking lot or to within 25 feet of the church but no government agency has ordered that the western parking lot be abandoned or removed, a geotechnical investigation shall be prepared by a licensed civil engineer with experience in coastal engineering and a licensed geologist retained by the applicant, that addresses whether any portions of the western parking lot are threatened by wave, erosion, storm conditions, or other natural hazards. The report shall identify all those immediate or potential future measures that could stabilize the western parking lot or church without shore or bluff protection, including but not limited to removal or relocation of portions of the parking lot or church. If the geotechnical report concludes that the parking lot or church or any portion of the parking lot or church is unsafe for use, the permittee shall, within 90 days of submitting the report, apply for an amendment to this coastal development permit to remedy the hazard, which may include removal of the threatened portion of the western parking lot or church.

B. **PRIOR TO ISSUANCE OF PERMIT**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which reflects the above restrictions on development. The deed restriction shall include a legal description of the applicants' entire parcel(s). The deed restriction shall run with the land binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

4. **Landscaping.**

**PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit, for the review and approval by the Executive Director, a landscaping plan for the project site. The landscaping plan shall be designed to maintain open views to the coast from Northridge Drive and shall conform with the additional landscaping requirements specified by **Special Condition 7.B.2.**

5. **Fencing.**

All fencing in the permanent vista corridor, as designated on **Exhibit 14**, including any entry gate to the western parking lot, shall be a maximum of 3 feet and designed to allow views of the coast from Northridge Drive through the fence.

6. **Construction Period Erosion Control Plan.**

**A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall provide, for the review and approval of the Executive Director, an Erosion Control Plan to reduce erosion and, to the maximum extent practicable, retain sediment on-site during construction. The plan shall be designed to minimize the potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. The Erosion Control Plan shall incorporate the Best Management Practices (BMPs) specified below.

**1. Erosion & Sediment Source Control**

- a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. Land clearing activities should only commence after the minimization and capture elements are in place.
- b. Time the clearing and grading activities to avoid the rainy season (October 15 through April 30).
- c. Minimize the area of bare soil exposed at one time (phased grading).
- d. Clear only areas essential for construction.
- e. Within five days of clearing or inactivity in construction, stabilize bare soils through either non-vegetative BMPs, such as mulching or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within two weeks of seeding/planting.
- f. Construction entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.
- g. Control wind-born dust through site watering and/or the installation of wind barriers such as hay bales. Site watering shall be monitored to prevent runoff.
- h. Soil and/or other construction-related material stockpiled on site shall be placed a minimum of 200 feet from any drainages. Stockpiled soils shall be covered with tarps at all times of the year.
- i. Excess fill shall not be disposed of in the Coastal Zone unless authorized through either an amendment to this coastal development permit or a new coastal development permit.

**2. Runoff Control and Conveyance**

- a. Intercept runoff above disturbed slopes and convey it to a permanent channel or stormdrains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.
- b. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

3. Sediment-Capturing Devices

- a. Install stormdrain inlet protection that traps sediment before it enters the storm sewer system. This barrier could consist of filter fabric, straw bales, gravel, or sand bags.
- b. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/basins shall be cleaned out when 50% full (by volume).
- c. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5 acre or less per 100 feet of fence. Silt fences should be inspected regularly and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion-resistant species.

4. Chemical Control

- a. Store, handle, apply, and dispose of pesticides, petroleum products, and other construction materials properly.
- b. Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff.
- c. Develop and implement spill prevention and control measures.
- d. Provide sanitary facilities for construction workers.
- e. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents should not be discharged into sanitary or storm sewer systems. Washout from concrete trucks should be disposed of at a location not subject to runoff and more than 50 feet away from a stormdrain, open ditch or surface water.
- f. Provide adequate disposal facilities for solid waste, including excess asphalt, produced during construction.
- g. Develop and implement nutrient management measures. Properly time applications, and work fertilizers and liming materials into the soil to depths of 4 to 6 inches. Reduce the amount of nutrients applied by conducting soil tests to determine site nutrient needs.

B. Erosion Control Monitoring and Maintenance

1. Throughout the construction period, the applicants shall conduct regular inspections of the condition and operational status of all structural BMPs provided in satisfaction of the approved Erosion Control Plan. Major observations to be made during inspections shall include: locations of discharges of sediment or other pollutants from the site; BMPs that are in need of maintenance; BMPs that are not performing, failing to operate, or inadequate; and locations where additional BMPs are needed.
2. Authorized representatives of the Coastal Commission and/or the City of Half Moon Bay shall be allowed property entry as needed to conduct on-site inspections throughout the construction period.
3. Sediment traps/basins shall be cleaned out at any time when 50% full (by volume).

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4. Sediment shall be removed from silt fences at any time when it reaches 1/3 the fence height.
  5. All pollutants contained in BMP devices shall be contained and disposed of in an appropriate manner.
- C. The applicants shall be fully responsible for advising construction personnel of the requirements of the Erosion Control Plan.
- D. The permittee shall undertake development in accordance with the final erosion control plan approved by the Executive Director. No proposed changes to the approved final erosion control plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.
- 7. Post-Construction Stormwater Pollution Prevention Plan.**
- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicants shall submit to the Executive Director for review and written approval, a Stormwater Pollution Prevention Plan with final drainage and runoff control measures, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of stormwater leaving the developed site after completion of construction. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is in conformance with geologist's recommendations. The plan shall incorporate structural, flow-based, post-construction BMPs (or suites of BMPs) designed to treat or filter stormwater runoff from the project site for each storm event, up to and including the 85th percentile, 1-hour storm event, with an appropriate safety factor, prior to the runoff's entry into any stormwater conveyance systems or surface water bodies and shall assure that runoff will be conveyed offsite in a non-erosive manner.
- B. The stormwater pollution prevention plan shall incorporate the BMPs described below:
1. Parking Lots and Buildings
    - a. **PRIOR TO ISSUANCE OF PERMIT,** the applicants shall modify site plans to remove the 53 parking spaces in the western parking lot closest to bluff. The area where the parking spaces are removed shall be appropriately landscaped to prevent erosion. The applicants shall submit the revised plans for the review and approval of the Executive Director.
    - b. Install vegetative filter strips, catch basins with filter inserts or other media filter devices, clarifiers, or a combination thereof to remove or mitigate oil, grease, hydrocarbons, heavy metals and particulates from stormwater draining from all buildings and parking lots.
    - c. Parking lots shall be swept monthly at a minimum, to remove debris and contaminant residue.



- d. Runoff exiting the project site shall not be conveyed into Avalon Canyon through unlined swales.
2. Landscaping
    - a. Native or drought tolerant adapted vegetation shall be selected, in order to minimize the need for fertilizer, pesticides/herbicides, and excessive irrigation.
    - b. Irrigation within 50 feet of the bluff edge is prohibited except for the minimum necessary to establish landscaping at initial planting. Throughout the project site, where irrigation is necessary, the system must be designed with efficient technology. At a minimum, all irrigation systems shall have flow sensors and master valves installed on the mainline pipe to ensure system shutdown in the case of pipe breakage. Irrigation master systems shall have an automatic irrigation controller to ensure efficient water distribution. Automatic irrigation controllers shall be easily adjustable so that site watering will be appropriate for daily site weather conditions. Automatic irrigation controllers shall have rain shutoff devices in order to prevent unnecessary operation on rainy days.

B. Stormwater Pollution Prevention Maintenance and Monitoring

1. The plan shall include provisions for maintaining the drainage system, including structural BMPs, in a functional condition throughout the life of the approved development. Such maintenance shall include the following: (1) All structural BMPs shall be inspected prior to the start of the wet season (no later than October 15<sup>th</sup>), after the first storm of the wet season, and monthly thereafter until April 30<sup>th</sup>; (2) should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicants or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system and BMPs and restoration of the eroded area. If repairs or restoration are necessary, prior to the commencement of such repair or restoration work, the applicants shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

All BMP traps/separators and/or filters shall be cleaned prior to the onset of the wet season and no later than October 15<sup>th</sup> each year. All pollutants contained in BMP devices shall be contained and disposed of in an appropriate manner.

2. The permittees shall conduct an annual inspection of the condition and operational status of all structural BMPs provided in satisfaction of the approved stormwater pollution prevention plan. The results of each annual inspection shall be reported to the Executive Director in writing by no later than June 30<sup>th</sup> of each year following the completion of construction for three years. Major observations to be made during inspections and reported shall include: locations of discharges of sediment or other pollutants from the site, BMPs that are in need of maintenance, BMPs that are not performing, failing to operate, or inadequate, and locations where additional BMPs are needed. Authorized representatives of the Coastal Commission and/or the City of

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Daly City shall be allowed property entry as needed to conduct on-site inspections of the detention basin and other structural BMPs.

3. Non-routine maintenance activities that are expensive but infrequent, such as detention basin dredging, shall be performed as needed based on the results of the monitoring inspections described above.
- C. The permittee shall undertake development in accordance with the final stormwater pollution prevention plan approved by the Executive Director. No proposed 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.

**8. Parking**

- A. A total of 78 parking spaces shall be provided within the boundaries of the project site (Assessor's Parcel Numbers 008-191-630, 008-191-620, and 008-010-040). Seventy-two parking spaces shall be available for passenger cars, and six parking spaces shall be available for the Church bus and vans. Consistent with **Special Condition 7**, such spaces shall be located the maximum distance from the bluff edge as is feasible, but in no event shall any space be within 100 feet of the bluff edge.
- B. **PRIOR TO ISSUANCE OF PERMIT**, the permittee shall submit (1) revised plans reflecting the above requirements, and (2) written evidence that the 78 parking spaces shall be provided for the exclusive use of the Church or its successor(s) during all Church services and functions for the life of the development.

**3.0 PROJECT SETTING AND DESCRIPTION**

**3.1 Site Location**

The proposed project is located on a parcel at the top of a coastal bluff and Avalon Canyon in the City of Daly City, San Mateo County (**Exhibits 1 and 2**). The parcel (Assessor Parcel Number 008-191-630) is 110,074 square feet in area (**Exhibit 3**). The project site includes approximately 5,000 square feet of Assessor Parcel Number 008-010-040, a City-owned parcel north of the KCPC parcel (**Exhibit 4**) (see Project Description in Section 3.3 below for more discussion).

The property is adjacent to single-family homes directly to the east and across Northridge Drive to the south. Northridge Park is located on the adjacent property to the southwest, and approximately 400-foot tall coastal bluff, beach, and the Pacific Ocean border the site to the west. Other churches are located east and south of the project site at 30 and 90 Northridge Drive, respectively. Avalon Canyon is immediately north of the project site. Avalon Canyon, called Daisaku Ikeda Canyon in the certified LCP, is a steeply-sloped canyon bounded by Northridge Drive, Avalon Drive, and Westmoor Avenue. The City owns parcels in the Canyon at elevations above 150 feet above mean sea level, and the Golden Gate National Recreation Area of the National Park Service owns the westernmost parcel, including the former Highway 1 alignment (**Exhibit 4**).

The project site is designated as Open Space in the LCP's Land Use Plan (LUP). The southern

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portion of the site is located in the Single-Family Residential District (R-1) as determined by the Zoning Code and Map. The remainder of the site is within the Open Space District (OS). The entire parcel is also within the Resource Protection Combining District (RP), which includes land designated as OS or land adjacent to OS. The intent of this designation is to regulate allowable development in these areas for open space compatibility. The RP designation adds provisions to the underlying zone to ensure that development does not create or contribute to adverse impacts on sensitive resources or geotechnically hazardous areas. The provisions for the RP District (Section 17.27.010 of the Zoning Code) state:

*These regulations are in addition and supplemental to the regulations of the underlying zone or zones, and where the regulations of the RP zone and the underlying zone are inconsistent, the regulations of the RP zone shall prevail. Furthermore, all development shall be in accordance with the policies contained in the Daly City general plan and, if applicable, the Daly City coastal program.*

According to City Zoning Code Sections 17.08.010, 17.23.020(B), 17.23.030(B), and 17.27.030, a church is a principal permitted use in the R-1 and OS Districts and a conditional use in the RP District.

### **3.2 Background**

#### **Korean Central Presbyterian Church**

The original church structure on the project site was built in 1958. It was located on the northwestern portion of the property, at the site of the currently proposed west parking lot (Exhibit 5). At the time of the LCP certification in 1984, the Nichiren Shoshu Academy owned the property. The Academy property referenced in the LCP is the same property now owned by the Korean Central Presbyterian Church. The Korean Central Presbyterian Church purchased the property from the Nichiren Shoshu Academy around 1990. In 1992, the KCPC applied for a development permit to construct three new single-family residences on the KCPC parcel. According to the local record, the City did not approve the proposed residences due to concerns regarding potential damage to adjoining property, impacts to neighborhood parking that would be caused by removing existing parking spaces, and erosion and aesthetic concerns.

#### **Avalon Canyon Repair Project**

In 1998, El Niño winter storms produced severe wave action, surface erosion and ground saturation from runoff, and caused the rupture of a major storm drainage discharge pipe in Avalon Canyon. In February 1998, the rupture of the 30-inch diameter pipe, designed to carry 80 cubic feet of water per second, undercut the slopes at the canyon head. Approximately 150,000 cubic yards of soil eroded from the canyon into the ocean, causing a landslides that forced the evacuation of nine residences on Avalon Drive and removed a portion of the street. The landslides threatened properties adjacent to the canyon on Northridge Drive and Westmoor Avenue, including the KCPC property, and destroyed the surface drainage system and service road. The Governor declared the Avalon Canyon an official State emergency.

To repair Avalon Canyon, the City entered into an agreement with the Korean Central Presbyterian Church to demolish the church and use soil on the property to reconstruct the canyon slopes. The City used the soil from the site in order to avoid traffic impacts and costs associated with importing approximately 72,000 cubic yards of fill needed for the slide repair.

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The Avalon Canyon repair project consisted of the removal of the church, slope stabilization, construction of a temporary access road and manhole, reconstruction of Avalon Drive, replacement of sediment control basins and rock revetment, and installation of underground storm drains and surface drains. The City used about 439,000 cubic yards of fill, with all of the fill except about 28,000 cubic yards originating from Avalon Canyon. The City used approximately 72,000 cubic yards of fill from the KCPC site to construct an earthen buttress and to regrade slopes. As a result, the project site was lowered to an elevation of 465 feet Mean Sea Level (MSL), approximately 15 feet below the elevation of Northridge Drive (480 feet MSL). The Avalon Canyon repair project also included rough grading of the project site in preparation for the construction of a new church to replace the church that was removed.

The Avalon Canyon Repair Project was exempt from the requirement to apply for a coastal development permit, pursuant to Coastal Act Section 30600(e)(1), because the work was necessary to protect life and property and to repair a public service facility as a result of a disaster in an area in which a state of emergency had been proclaimed by the Governor.

**Substantial Issue**

On July 24, 2000, the Daly City City Council approved a coastal development permit (CDP) to construct a 25,245 square-foot church and 131 parking spaces on the project site. Forty-three conditions of approval were imposed. The City Council's approval was appealable to the Coastal Commission as defined in Section 30603 of the Coastal Act because the proposed development is located between the first public road and the sea and within 300 feet of the top of the seaward face of a coastal bluff.

The Commission received an appeal from Anthony Gangloff on August 7, 2000. The appellant asserted that the project as approved by the City was inconsistent with the policies of the City's certified LCP concerning geologic hazards, visual resources, and public access. On September 13, 2000, the Commission found that the appellant's contentions raised a substantial issue regarding the project's conformance with the City's certified LCP and the public access policies of the Coastal Act. In accordance with Policy 30625 of the Coastal Act and Section 13115 of the Coastal Commission regulations, the Commission is now considering the CDP application *de novo*.

**3.3 Project Description**

The applicants propose to construct a church and two parking lots (**Exhibit 6**). The applicants have also amended the project to incorporate the conditions of the City's approval (**Exhibit 7**), including the proposal to adjust the lot line between the City and KCPC properties in the northeast portion of the project area.

The 22,580-square-foot proposed church is located on a 91,476-square-foot parcel owned by the Korean Central Presbyterian Church (APN 008-191-630). The church will consist of a main sanctuary, meeting hall, classrooms, office space, and corridors, restrooms, and storage. The proposed church will be 35.5 feet tall, have a 12,109-square-foot footprint, and be constructed of wood and masonry. The first floor exterior walls will be rust-colored concrete masonry, and the second floor will be finished with a light tan stucco. A walkway will connect the second story of the church to Northridge Drive (**Exhibit 8**). As proposed, the main sanctuary of the proposed church will contain 428 permanent seats. The church as originally proposed was 25,245 square feet in area, 44 feet tall, and held 627 seats. The applicants, after discussion with the City's

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Architectural Design Committee, removed a small sanctuary and decreased the size of the main sanctuary, reducing the area of the building from 25,245 to 22,580 square feet.

The applicants further propose to construct a 20-space parking lot to the east of the church, and a 111-space lot to the west of the building. Both lots have separate entries on Northridge Drive. The eastern parking lot is proposed to be constructed at street level. Its easternmost edge is approximately five feet from the adjacent residence at 34 Northridge Drive. The western parking lot includes a 12,000-square-foot portion of City-owned property (APN 008-191-620) adjacent to the KCPC parcel. The lot winds downhill at a slope ranging from 2% to 10%, flattening out at the lowest level at an elevation of 452 feet MSL. The eastern parking lot covers 39,960 square feet, and the western parking lot covers 6,000 square feet, for a total of 45,960 square feet.

The northeastern part of the project site includes an approximately 5,000-square-foot portion of a City-owned parcel (APN 008-010-040) (**Exhibit 4**). About 1,000 square feet of the church and 600 square feet of the eastern parking lot are proposed to be located on the City parcel. In the construction agreement between the City and the Korean Central Presbyterian Church, the City agreed to deed the 5,000-square-foot area to the KCPC. The KCPC now proposes under this permit to adjust the lot line to reflect the size increase to the KCPC parcel.

The proposed project provides drainage improvements to the site and incorporates erosion control methods to collect runoff from the rooftops, parking lots, and other paved areas, prevent the accumulation of water near the church building, and reduce soil erosion.

## 4.0 FINDINGS AND DECLARATIONS

### 4.1 Standard of Review

The City's Coastal Zone generally includes portions of the City west of Skyline Drive and Skyline Freeway (State Highway 35). The project site is located in the City's coastal permitting jurisdiction and governed by the Daly City certified Local Coastal Program. Since the proposed development is located between the sea and the first public road paralleling the sea, the project must also conform to the public access policies of the Coastal Act.

### 4.2 Geologic Hazards

#### Issue Summary

The project site is located in a geologically hazardous area at the top of a coastal bluff and the top of the slope of Avalon Canyon. The site is located 0.5 miles from an active trace of the San Andreas Fault and as close as 120 feet from the currently inactive Wood's Gulch Fault. The active Westline Drive landslide is located approximately one mile to the south. In its finding of substantial issue, the Commission previously raised further concerns regarding the potential for expandable soils, slope instability, and bluff retreat to threaten the proposed development.

The Commission finds that the proposed church and parking are located on an inherently dangerous site, and imposes **Special Condition 2** to require the applicants to assume the risks to the applicant and the property from hazards in connection with the permitted development, waive any claim of liability against the Commission for such losses, and indemnify and hold harmless the Commission if third parties bring an action against the Commission as a result of the failure of the development to withstand hazards. **Special Condition 3** further prohibits the applicants

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from installing protective devices on the bluff or cliff to protect the parking lots and church. The Commission additionally imposes **Special Condition 7** to remove the 53 parking spaces closest to the bluff. As conditioned, the Commission finds that the proposed project conforms with the LCP policies for the minimization of risks and assurance of geologic stability in areas of high geologic hazard.

**LCP Policies**

Chapter 3 of the City's LUP states:

*The Coastal Act policies ...are copied verbatim to be adopted as part of the Daly City Coastal Plan.*

The City incorporates a number of Coastal Act policies into its LCP. One of the Coastal Act policies incorporated into the LCP is Policy 30235, which requires revetments, seawalls, cliff retaining walls, and other devices that alter shoreline processes to be permitted when required to protect existing structures from erosion.<sup>1</sup>

LCP/Coastal Act Policy 30253 requires new developments to (1) minimize risks to life and property in areas of high geologic hazard, and (2) assure stability and neither create nor contribute to erosion or geologic instability on the project site or its vicinity, or in any way require protective devices that would alter natural landforms along bluffs and cliffs.

Zoning Code Section 17.27.040 requires use permit applications for development in RP Districts to include additional information to allow the City to evaluate the project site for specific criteria. This information includes a geotechnical report that contains past and possible future landslide and/or erosion conditions, both natural and artificially induced, mitigation measures or potential alternatives necessary to insure structural integrity of the site and structures for the economic life of the project, and certification that development will have no adverse effect on the site or adjacent areas, will not endanger life or property, and will not require protective structures at any time during the economic life of the project.

Zoning Code Section 17.27.050(C) prohibits buildings or structures closer than 50 feet from the edge of the bluff, and prohibits grading or filling on blufftop properties in an RP district unless required for drainage or erosion control purposes.

These policies are listed in their entirety in Appendix B.

**Discussion**

The coastline of Daly City extends from Thornton State Beach on the northern end of the City to Mussel Rock at the southern boundary. The coastline is generally inaccessible due to the 300 to 600 foot-tall, steep coastal bluffs. This 2.6-mile stretch of coastline has historically been subject to landslides and erosion, with the potential for earthquakes to accelerate cliff retreat and contribute to the instability of the bluffs. The Ocean Shore Railroad from 1906 to 1920 and State Highway 1 from 1936 to 1957 crossed Avalon Canyon on a shelf about 150 feet above the beach. Earthquakes, erosion, and landslides made the site unsafe for public use and infeasible to maintain. Caltrans abandoned the alignment in 1957. Disturbance of the bluffs and cliffs by residential development has increased the frequency of landslides over the years, causing the ruin

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<sup>1</sup> The staff report refers to a Coastal Act policy incorporated into the City of Daly City LCP as an LCP/Coastal Act Policy. For example, Policy 30235 of the Coastal Act is cited as LCP/Coastal Act Policy 30235.

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of homes on Lynvale Court above Thornton State Beach and Westline Drive above Mussel Rock. In 1973, large quantities of sediment from erosion, siltation, and landslides were removed to repair storm drain pipes in Avalon Canyon. In 1983, a debris slide associated with El Niño storms occurred on the northern slope of the canyon. In 1998, severe wave action, surface erosion and ground saturation from runoff caused the rupture of a major storm drainage discharge pipe in Avalon Canyon. Stormwater from the rupture of the pipe eroded approximately 150,000 cubic yards of soil. The City repaired this damage using about 71,000 cubic yards of fill from the project site to assist with the recontouring of slopes in Avalon Canyon.

The applicants propose to construct parking lots with 131 parking spaces. One hundred eleven of the 131 total proposed parking spaces will be located west of the church in a Z-shaped lot that winds from street level to an elevation of 452 MSL. The area of the proposed western parking lot was graded and compacted in this configuration as part of the Avalon Canyon Repair Project. The applicants estimate that the proposed project will have a useful economic life of 50 years.

The applicants' consultant describes the geologic conditions of the site and recommends methods for the design and construction of the building foundation and earthwork in the January 3, 2000 report entitled *Foundation Investigation, Korean Central Presbyterian Church* (foundation investigation). The recommendations are based on the consultant's previous work on the landslide repair of Avalon Canyon in 1998 and the analysis of field and laboratory data of the project site. In response to the Commission's finding of substantial issue on geologic hazards, the applicants' geologic and engineering consultants submitted reports and plans to supplement the erosion control, storm drainage, bluff retreat, and slope stability information in the foundation investigation. The staff geologist has reviewed the geotechnical information provided by the applicants (**Exhibit 9**) and concurs with the results of the analyses, including the conclusion that the project site does not contain significant expansive soils (Gray 2000a).

***Seismic Hazards***

According to the foundation investigation, the main geologic hazards of the site are the potential for earthquakes and the instability of the slopes surrounding the project site. Two traces of the inactive Woods Gulch Fault are located 120 and 330 feet northeast of the proposed church. The San Andreas Fault is one half mile southwest of the project site, and the Hayward Fault is about 19 miles northeast of the project site. The investigation states that the site is likely to experience a large to severe earthquake during the building's lifetime. The foundation investigation recognizes that earthquake shaking may cause liquefaction and densification of sand, but concluded that such effects are unlikely to occur, given that the sand at the site is already medium to very dense, and groundwater was not observed. The foundation investigation recommends the building design to be in accordance with current seismic building code criteria to minimize the risk to life and property and to assure stability. These recommendations are consistent with the requirements of LCP/Coastal Act Policy 30253.

***Avalon Canyon Slope Stability***

Since the recontour of the canyon slopes by the Avalon Canyon repair project in 1998, the applicants' engineering consultant has not observed excessive erosion on the canyon slope adjacent to the proposed project. The consultant concludes that erosion of the engineered slope will be negligible, since there has been little accumulation of eroded material in drainage structures (Miralle 2000a). Furthermore, the Commission staff geologist concurs that the slope

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stability analyses contained in documentation of the Avalon Canyon repair project demonstrate that the engineered slope possesses an adequate factor of safety and thus, the proposed church and parking lots will not create or contribute to geologic instability of the slope.

The proposed project also contains specific elements to ensure that the project does not cause or contribute to instability of the Avalon Canyon slope. For instance, the proposed project includes the construction of a foundation over piers with a diameter of at least 16 inches that are drilled at least 15 feet deep where the building foundation is closer than 25 feet from the top of the Avalon Canyon slope as recommended by the foundation investigation. A stormwater drainage design with grading, perimeter curbing, and drainage inlets as proposed and enhanced by **Special Condition 7** will prevent runoff from flowing over the project site and over the Avalon Canyon surface and potentially causing erosion of the slope. Furthermore, to prevent erosion of the Avalon Canyon slopes, **Special Conditions 6 and 7** require the applicants to install and maintain erosion control measures during and after construction.

The applicants have agreed that the project will conform and comply with the mitigation measures in the *Korean Central Presbyterian Church Mitigation Monitoring Program (Exhibit 10)* and the recommendations in the *Foundation Investigation, Korean Central Presbyterian Church (Exhibit 11)*. One of the mitigation measures states that, "the building shall be set back at least 20 feet from the top of the slope to reduce risk that slope failure would impact the building support." The foundation investigation recommends the same 20-foot setback from the top of the Avalon Canyon slope. However, as proposed, the northeast portion of the church is as close as 12 feet from the top of the slope of Avalon Canyon, less than the setback required in the monitoring program. (The western parking lot extends to the top of the slope of Avalon Canyon, and a portion of the eastern parking lot extends five feet over the top of the Avalon Canyon slope and requires fill to raise the area to street level. However, the monitoring program and foundation investigation do not require setbacks from the top of the Avalon Canyon slope for the parking lots.) To reduce the risk that slope failure would impact the building support, the Commission imposes **Special Condition 1**, requiring the applicants to modify the project site plans to show a 20-foot setback from the church to the top of the slope of Avalon Canyon. All project site plans are required to depict the location of the top of the Avalon Canyon slope in relation to the church. As conditioned, the project has insured the structural integrity of the church and Avalon Canyon slope for the economic life of the project in accordance with LCP/Coastal Access Policy 30253 and Zoning Code Section 17.27.040.

***Bluff Setback and Inherent Site Hazards***

The applicants' geotechnical consultant has demonstrated in slope stability evaluations that the overall stability of the bluff exceeds a factor of safety of 1.5, the generally accepted level for the type of development proposed. Therefore, over the life of the project, the slope, in its current configuration, should be safe from a massive landslide originating low on the slope and involving the entire bluff. However, the geotechnical consultant has noted that the slope stability analyses were for deep-seated failures, and that while the overall bluff is stable, the bluff is superficially unstable. The bluff has experienced repeated shallow landslides occurring in response to weathering of the sandstone surface and ongoing erosion of the bluff toe. The surficial instability will gradually erode the bluff, resulting in a landward retreat of the bluff edge over time.



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The foundation investigation acknowledges that the bluff slopes "remain susceptible to erosion-induced progressive failures" due to surface water runoff and unmaintained erosion damage. The geotechnical consultant also reports that wave undercutting at the base of the bluff contributes to shallow landsliding and bluff retreat on the west side of the project area. The consultant estimates erosion of the bluff on the western portion of the project area at a rate of up to 1 to 2 feet per year. A supplemental study by the consultants' geotechnical consultant concludes from historical information dating back to 1905 and from aerial photographs from 1973 to 1998 that the bluff retreat rate at the project site is about 1.7 feet per year. This estimation includes periods of significant erosion as well as those with little or no bluff retreat. Assuming the useful economic life of the project is 50 years, at the retreat rate of 1.7 feet per year, the bluff is estimated to retreat approximately 83 feet. This estimation is within the geotechnical consultant's original range of erosion of 50 to 100 feet over the 50-year project life. The Commission staff geologist has reviewed the bluff retreat study and concludes that the retreat rate is well-supported by the historical documentation and aerial photographs.

As proposed, the western parking lot is located 50 feet from the bluff edge at its closest point. The proposed church on the southeast portion of parcel is 300 feet from the bluff edge. (The previous church on the property was as close as approximately 60 feet from the bluff edge.) The foundation investigation states that no parking spaces will be lost if the bluff erodes 50 feet during the life of the project, and that six spaces will be lost if the bluff erodes 100 feet. Bluff retreat of 83 feet will result in minor damage to the parking lot over an area less than 40 square feet but will not cause the direct loss of any spaces. However, the spaces closest to the bluff in the western parking lot are in an area that may become geologically unstable over the useful economic life of the project. Erosion of 83 feet of the existing bluff will render the parking spaces closest to the bluff unusable due to the instability of the parking lot caused by the erosion, the potential for parking to further contribute to instability, and the risk to life and property posed by parking near the unstable bluff edge. Bluff retreat over the life of the project could result in the loss of use of the westernmost parking spaces, inconsistent with LCP/Coastal Act Policy 30253 and Zoning Code Section 17.27.040. To be consistent with these policies, the Commission geologist recommends that development be set back from the bluff edge at least 83 feet. He states that an additional level of security would be achieved by a setback of 100 feet. As a condition to minimize the area of impervious surface generated on the project site consistent with LCP requirements to maintain coastal water quality, the Commission requires the applicants to remove the 53 of the 111 parking spaces in the western parking lot closest to the coastal bluff under **Special Condition 7**. The elimination of the 53 closest parking spaces would relocate the proposed western edge of the western parking lot to more than 100 feet from the bluff edge. The additional distance from the bluff edge ensures that bluff retreat as estimated by the consultants will not encroach into the western parking lot during the life of the project. Therefore, as conditioned to remove the 53 parking spaces closest to the bluff, the project minimizes risks to life and property in an area of high geologic hazard and assures stability and neither creates nor contributes to erosion or geologic instability on the project site or its vicinity, consistent with LCP/Coastal Act Policy 30253.

***Future Shoreline Protection***

Past geologic events in the Avalon Canyon area demonstrate that conditions such as the high tides and heavier-than-normal rainfall of the El Niño storms may produce significant bluff erosion that may impact the western parking lot over the life of the project, despite the removal

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of the parking spaces closest to the bluff.<sup>2</sup> Consequently, the applicants or their successor(s) in the future may wish to construct a protective device on the bluff or shoreline to maintain the parking spaces. However, the construction of protective devices that substantially alter natural landforms along bluffs and cliffs is prohibited by LCP/Coastal Act Policy 30253. Zoning Code Section 17.27.040 also requires the geotechnical report to certify that the project will not require protective structures during the economic life of the project. Additionally, LCP/Coastal Act Policy 30235 only allows structures that alter natural shoreline processes to protect existing structures or coastal-dependent uses.

The applicant has incorporated the geotechnical report's recommended design measures into the project to reduce the danger to life and property and to lessen the potential for geologic instability and erosion. However, although a comprehensive geotechnical evaluation such as that provided by the applicants' consultant is a necessary and useful tool that the Commission relies on to determine if proposed development is appropriate at all on any given blufftop site, the Commission finds that a geotechnical evaluation alone is not a guarantee that a development will be safe from bluff retreat. It has been the experience of the Commission that in some instances, even when a thorough professional geotechnical analysis of a site has concluded that a proposed development will be safe from bluff retreat hazards, unexpected bluff retreat episodes that threaten development during the life of the structure sometimes still occur. Examples of this situation include:

- The Kavich Home at 176 Roundhouse Creek Road in the Big Lagoon Area north of Trinidad (Humboldt County). In 1989, the Commission approved the construction of a new house on a vacant blufftop parcel (CDP 1-87-230). Based on the geotechnical report prepared for the project, it was estimated that bluff retreat would jeopardize the approved structure in about 40 to 50 years. In 1999, the owners applied for a coastal development permit to move the approved house from the blufftop parcel to a landward parcel because the house was threatened by 40 to 60 feet of unexpected bluff retreat that occurred during a 1998 El Niño storm event. The Executive Director issued a waiver of coastal development permit (1-99-066-W) to authorize moving the house in September, 1999.
- The Denver/Canter home at 164/172 Neptune Avenue in Encinitas (San Diego County). In 1984, the Commission approved construction of a new house on a vacant blufftop lot (CDP 6-84-461) based on a positive geotechnical report. In 1993, the owners applied for a seawall to protect the home (CDP Application 6-93-135). The Commission denied the request. In 1996 (CDP Application 6-96-138), and again in 1997 (CDP Application 6-97-90) the owners again applied for a seawall to protect the home. The Commission denied the requests. In 1998, the owners again requested a seawall (CDP Application 6-98-39) and submitted a geotechnical report that documented the extent of the threat to the home. The Commission approved the request in November, 1998.
- The Bennett home at 265 Pacific Avenue, Solana Beach (San Diego County). In May 1995, the Commission approved a request to construct a substantial addition to an existing blufftop

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<sup>2</sup> The Daly City LCP does not contain a definition of bluff. Therefore, for purposes of the Commission's consideration of this coastal development permit application, bluff shall be defined as set forth in Title 14 Section 13577 of the California Code of Regulations.

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home (CDP 6-95-23). The minimum setback for the area is normally 40 feet. However, the applicants agreed to waive future rights to shore/bluff protection if they were allowed to construct 25 feet from bluff edge based on a favorable geotechnical report. In 1998, a substantial bluff failure occurred, and an emergency permit was issued for a seawall. The follow-up regular permit (CDP 6-99-56) was approved by the Commission in May, 1999. In August, 1999, the Commission approved additional seawall and upper bluff work on this and several other properties (CDP 6-99-100).

- The Arnold project at 3820 Vista Blanca in San Clemente (Orange County). A coastal development permit (CDP 5-88-177) for a blufftop project required protection from blufftop erosion, despite geotechnical information submitted with the permit application that suggested no such protection would be required if the project conformed to a 25-foot blufftop setback. An emergency coastal development permit (CDP 5-93-254-G) was later issued to authorize blufftop protective works.

The Commission notes that the examples above are not intended to be absolute indicators of bluff erosion on the subject parcel, as coastal geology can vary significantly from location to location. However, these examples do illustrate that site-specific geotechnical evaluations cannot always accurately account for the spatial and temporal variability associated with coastal processes and therefore, cannot absolutely predict bluff erosion rates. Collectively, these examples have helped the Commission form its opinion on the vagaries of geotechnical evaluations with regard to predicting bluff erosion rates.

In the Commission's experience, geologists have no way of absolutely predicting if or when bluff erosion on a particular site will take place, and cannot predict if or when a structure or property may become endangered. Geologic hazards are episodic, and bluffs that may seem stable now may not be so in the future. Therefore, the Commission finds that the subject lot is an inherently hazardous piece of property, that the bluffs are clearly eroding, and that the proposed new development will be subject to geologic hazard and may someday require a bluff or shoreline protective device, inconsistent with LCP/Coastal Act Policy 30253.

Based upon the geologic report, the Commission finds that the risks of geologic hazard are minimized if the project has an appropriate setback from the bluff edge. However, given that the risk cannot be eliminated and the geotechnical information does not assure that shoreline protection will ever be needed to protect the residence, the Commission finds that the proposed residence is consistent with the certified LCP only if it is conditioned to provide that shoreline protection will not be constructed. Thus, the Commission further finds that due to the inherently hazardous nature of the project site, the fact that no geology report can conclude with any degree of certainty that a geologic hazard does not exist, the fact that the approved development and its maintenance may cause future problems that were not anticipated, and because new development shall not engender the need for shoreline protective devices, it is necessary to impose **Special Condition 3** to prohibit the construction of shoreline protective devices.

As noted above, some risks of an unforeseen natural disaster, such as an unexpected landslide, massive slope failure, or erosion could result in destruction or partial destruction of the parking lots and/or church as approved by the Commission under this permit. In addition, the development itself and its maintenance may cause unanticipated future problems. When such

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an event takes place, public funds are often sought for the cleanup of structural debris that falls to the beach or on an adjacent property. As a precaution, in case such an unexpected event occurs on the subject property, the Commission also imposes **Special Condition 3** to require the landowner to accept sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion on the site, and agree to remove the parking lot or church should the bluff retreat reach the point where a government agency has ordered that the development be abandoned or removed.

**Special Condition 3** further requires the preparation of a geotechnical investigation, if the bluff retreats to within 10 feet of the western parking lot or within 25 feet of the church, that identifies threats to the parking lot and/or church and recommends immediate or potential future measures to stabilize the structures without shore or bluff protection.

The requirements of **Special Condition 3** are consistent with LCP/Coastal Act Policy 30253, which states that new development shall minimize risk to life and property in areas of high geologic, flood, and fire hazard, assure structural integrity and stability, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas, nor in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The Commission finds that the proposed development could not be consistent with LCP/Coastal Act Policy 30253 if projected bluff or cliff retreat would affect the proposed project and necessitate construction of a bluff or cliff protective device to protect it. In addition, LCP/Coastal Act Policy 30235 allows the construction of shoreline protective devices only for the protection of *existing* development. However, the policy does not permit the construction of shoreline protective devices to protect *new* development as proposed under this permit. Therefore, as conditioned to prohibit the construction of shoreline protective devices to protect the proposed new church and parking lots, the project is consistent with LCP/Coastal Act Policy 30235.

The Commission also finds it is necessary to impose **Special Condition 2**, which requires the landowner to assume the risks of any losses associated with the proposed development due to seismic, geologic, and geotechnical hazards of the property, waive any claim of liability on the part of the Commission for such losses, and indemnify the Commission in the event that third parties bring an action against the Commission as a result of the failure of the development to withstand hazards. **Special Condition 2** also requires the applicants to record a deed restriction incorporating all of the terms listed above.

The Commission finds that **Special Condition 2** is required because the applicants have voluntarily chosen to implement the project despite the risk of hazards. Recordation of the deed restriction will additionally provide notice of potential hazards of the property and eliminate false expectations of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely into the future. In addition, the condition ensures that future owners will be informed of the Commission's immunity from liability and the indemnity afforded the Commission. As conditioned, the proposed project conforms with the requirement of LCP/Coastal Act Policy 30253 to minimize risks to life and property in areas of high geologic hazard, assure stability and neither create nor contribute to erosion or geologic instability on the project site or its vicinity. The proposed project further conforms with Zoning Code Section 17.27.040, which requires the

geotechnical report to certify that development will not have adverse effects on the site or adjacent areas or endanger life or property.

**Grading**

Zoning Code Section 17.27.050(C) states that buildings or structures must not be closer than 50 feet from the edge of the bluff, and that no grading or filling is permitted for blufftop development except for drainage or erosion control. The City Engineer determined the blufftop line and the subsequent 50-foot setback from the blufftop as required by Zoning Code Section 17.27.050(C) (**Exhibit 12**). In accordance with this requirement, the applicants do not propose any development within 50 feet of the bluff edge.

Section 17.27.040 of the Zoning Code requires that the geotechnical report include proposed changes to the project site caused by grading. The applicants have submitted a plan showing the proposed grading on the project site (**Exhibit 13**). The total proposed cut and fill consists of approximately 1,600 cubic yards each and will be balanced on site. The grading is necessary to permit stormwater runoff to properly flow to drainage structures, prevent runoff from collecting at the base of the church, and to prepare the site for construction. Given that the repair of Avalon Canyon removed about 71,000 cubic yards of material from the site and left the project area in its current roughly-graded configuration, the proposed grading of 1,600 cubic yards is relatively minimal. Since the project is conditioned to provide fewer parking spaces in the western parking lot than proposed (see Section 4.4 on Water Quality), the final grading volumes will be even less than 1,600 cubic yards. Therefore, because the proposed grading is for erosion control and drainage purposes, it is consistent with Section 17.27.050(C).

**Conclusion**

The proposed church and eastern parking lot are located several hundred feet from the edge of the bluff. Bluff retreat rates indicate that erosion is unlikely to occur in these areas during the useful economic life of the project. However, the western parking is proposed in an area that may be lost due to bluff retreat over the life of the project. Therefore, the Commission imposes **Special Condition 7** to remove the 53 parking spaces closest to the edge of the bluff on the western portion of the project site. As conditioned, the parking lot is relocated farther inland and away from potential geologic instability, minimizing the risk to life and property during the life of the project.

However, although the applicants have demonstrated that the design and engineering of the proposed church and parking lots assure stability and neither create nor contribute to geologic instability of the site, Avalon Canyon, and the vicinity, the Commission finds that the project site itself is inherently dangerous due to the potential for earthquakes and bluff retreat. The Commission therefore imposes **Special Condition 3** to require the applicants to not construct protection devices or cliff retaining walls to protect the church and parking lots. The Commission also finds that the proposed church and parking are located on an inherently dangerous site, and imposes **Special Condition 2** to require the applicants to assume the risks to the applicant and the property from hazards in connection with the permitted development, waive any claim of liability against the Commission for such losses, and indemnify and hold harmless the Commission if third parties bring an action against the Commission as a result of the failure of the development to withstand hazards.

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As conditioned, the project minimizes risks to life and property in an area of high geologic hazard, and assures stability and neither creates nor contributes to erosion or geologic instability on the project site or its vicinity, or in any way requires protective devices that would alter natural landforms along bluffs and cliffs, consistent with LCP/Coastal Act Policy 30253 and Zoning Code Section 17.27.040.

Zoning Code Section 17.27.040 requires use permit applications for development in RP Districts to include additional information to allow the City to evaluate the project site for specific criteria. This information includes a geotechnical report that contains past and possible future landslide and/or erosion conditions, both natural and artificially induced, mitigation measures or potential alternatives necessary to insure structural integrity of the site and structures for the economic life of the project, and certification that development will have no adverse effect on the site or adjacent areas, will not endanger life or property, and will not require protective structures at any time during the economic life of the project.

The project does not propose development within 50 feet from the edge of the coastal bluff and proposes grading for erosion and drainage purposes and is consistent with Zoning Code Section 17.27.050(C).

Therefore, as conditioned, the Commission finds that the project conforms with LCP/Coastal Act Policies 30235 and 30253 and Sections 17.27.040 and 17.27.050 of the Zoning Code.

### **4.3 Visual Resources**

#### **Issue Summary**

The Daly City LCP requires the protection of coastal views. The proposed church is 35.5 feet tall<sup>3</sup>, 175 feet long and 107 feet wide. The proposed church will block views of the coast from Northridge Drive, a residential neighborhood street. The project also includes landscaping and fencing on the eastern and western property lines with the potential to block views of the coast from Northridge Drive.

The applicants propose to locate the building on the eastern part of the parcel, approximately 280 feet east of the blufftop, 60 feet west of the eastern property line, and 30 feet north of Northridge Drive. The development will retain a 70-foot-wide permanent vista corridor on the western portion of the property. The proposed City-owned joint-use parking area will range from street level to about 15 feet below the grade of Northridge Drive, providing an additional 75 feet of open views from the roadway. **Special Condition 4** requires that the landscaping is designed to maintain open views of the coast from Northridge Drive. **Special Condition 5** requires that any fencing in the permanent vista corridor, including any entry gate to the western parking lot, be designed to protect visual access of the coastline from Northridge Drive.

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<sup>3</sup> Section 17.04 of the Zoning Code defines "building height" as

*...the vertical distance from the average of the finished ground level at the center of all walls of a building to the highest point of the coping of a flat roof or the deck line of a mansard roof or to the average height level between eaves and ridge for gable, hip, or gambrel roofs. In no case shall the front of a building which faces a street exceed the required height limit. However, a building may be 'stepped' to allow a total front building height in excess of this requirement, providing that no part of any upper building section shall intercept a plane having an angle of forty-five degrees from the horizontal toward the interior of the lot. Said plane shall originate at the intersection of the roof line of the lowest building section with the front of the building section.*

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As conditioned, the development is sited and designed to protect public views to and along the coast, consistent with the policies of the City's LCP.

**LCP Policies**

LCP/Coastal Act Section 30251 requires development to: (1) be sited and designed to protect public views to and along the ocean, (2) minimize landform alteration, (3) be visually compatible with surrounding areas, and (4) restore the visual quality of visually-degraded areas as practicable.

LUP Public Access Policy 11 requires development on blufftop properties to be designed to enhance visual access of the coastline from the street.

Section 17.27.050(C)(3) of the Zoning Code requires all blufftop structures to provide a permanent vista corridor extending 15% of the width of the lot.

The Commission found, in part, that the project raised a substantial issue with the height and site coverage limits of LUP New Development Policy 6. LUP New Development Policy 6 requires, in relevant part, new development of properties referred to in New Development Policies 3, 4, and 5 be in the least visually obtrusive configuration feasible, have land coverage compatible with the open space character and cover less than 10% of the site area, have a structural mass compatible with the open space character, and be less than 20 feet in height or one-story above grade, whichever is less.

However, as discussed below, LUP New Development Policy 6 does not apply to the project site, since New Development Policy 6 applies to "properties referred to in [New Development] Policies 3, 4, and 5" only. The project site is not among these specified properties.

New Development Policy 3 states:

*A transfer of property rights or a public dedication on the part of the owner of the beach property south of Thornton State Beach shall be requested in order to acquire control of this public recreation site, if the State does not require it for its Park expansion. In the event development is permitted, a dedication of lateral access along the beach shall be required.*

New Development Policy 3 refers to "beach property south of Thornton State Beach". The proposed development is not located on the beach property referenced in this policy.

New Development Policy 4 states:

*Development of remaining vacant parcels along the blufftops shall be prohibited, unless geologic and seismic constraints and public safety requirements can be mitigated.*

New Development Policy 4 describes 18 "privately-owned but physically undevelopable vacant propert[ies] ... located along the blufftops" with parcel sizes ranging from 3,000 to 17,000 square feet. The only other vacant blufftop property described in the LCP New Development section is a parcel "on the lower terraces" owned by Caltrans. At the time of the LCP certification, the 110,074 square-foot church parcel had a 12,000-square-foot, 23-foot-tall church on it. The church site was not vacant at the time the LCP was certified and has never been owned by Caltrans. Clearly, the project site is not one of the specific properties subject to the requirements of LUP New Development Policy 4.

New Development Policy 5 states:

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*The re-use of vacant parcels which were once occupied by dwellings that have since been removed because of land failure shall be prohibited unless sufficient engineering, soils and geology data is presented to support the proposed redevelopment. Such properties shall be rezoned Open Space and Resource Protection.*

New Development Policy 5 refers to "vacant parcels which were once occupied by dwellings that have since been removed because of land failure". The KCPC parcel has never been occupied by dwellings. Furthermore, the old church was removed voluntarily. The property owners allowed the razing of the church so that the City could use the underlying soil to repair a landslide in Avalon Canyon. Thus, the removal of the previous church was not due to any geologic or structural failure on the parcel. Therefore, development of the project site is not subject to the requirements of LUP New Development Policy 5.

The locations referred to in LUP New Development Policies 3, 4, and 5 do not include any of the parcels on which the applicants propose development. Therefore, LUP New Development Policy 6 is not applicable to the Commission's consideration of the proposed development.

The relevant LCP and Coastal Act policies are listed in their entirety in Appendix B.

**Discussion**

The LCP policies for visual resources protect *public* viewsheds to and from the coast, and not views from private property. Accordingly, the Commission must evaluate the project's visual impacts on the public areas surrounding the proposed development. These areas include the shoreline, Bay Ridge Trail, Northridge Park, Northridge Drive, and other public streets.

The applicants propose to construct a two-story, 35.5-foot-tall church in the eastern portion of the parcel. Prior to the Avalon Canyon Repair Project in 1998, the project area was generally at the same grade as the adjacent street, Northridge Drive. As a result of the soil excavation of the site to supply fill to Avalon Canyon, the building pad was lowered approximately 15 feet (from an elevation of 480 feet MSL to about 465 feet MSL). The proposed church as viewed from Northridge Drive is 20.5 feet tall.

The Table of Uses in Section 17.08.010 of the Zoning Code shows that the maximum allowable height of a church in the R-1 Single-Family Residence District is 50 feet. The OS and RP Districts do not have a height standard for buildings. Thus, as proposed, the church is consistent with the Zoning Code's height standard.

The proposed church will replace the previously existing church on the property. While the proposed 22,580-square-foot, two-story building is larger than the former 12,000-square-foot, one-story church, the proposed church generally has the same size footprint and will not take up more ground area than the former structure. Since the grade of the project site is about 15 feet lower than the grade of Northridge Drive, the proposed church will also appear to be the same height as the former church as viewed from the street. (The proposed church will actually be 20.5 feet tall from street level, 2.5 feet shorter than the former church.)

The previous church was 23 feet tall and located about 200 feet farther west than the proposed church. The church and several dozen Monterey pine trees, planted along the edge of the bluff and Avalon Canyon by the previous owner, impeded views to the coast from Northridge Drive. The demolition of the original church, the removal of the trees, and the lowering of the site grade



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for the Avalon Canyon Repair Project opened northward and westward coastal views, enhancing visual access of the coast from Northridge Drive.

In October, 2000, the applicants erected story poles corresponding to the heights of the main walls and roof to demonstrate how the proposed project will appear from surrounding areas. From the base of Avalon Canyon at the shoreline, the proposed church is not visible, due to the configuration of the Canyon and coastal bluff. From Northridge Park, the public City park immediately south of the project site on Northridge Drive, the proposed church will not interfere with views to and along the ocean, since the church is located farther inland than the park and is not in the park's line of sight to or along the coast. From the Bay Ridge Trail, which runs along public streets, including Northridge Drive, Avalon Drive, Westmoor Drive, and Morningside Drive in the project vicinity, the proposed development will be visible but will not adversely affect views to the ocean and coast.

The proposed church will not be visible from Highway 1 or any major coastal access routes. The project is located in a residential neighborhood that is not typically used by visitors to the coast from outside of the local area. The proposed church will be visible from Avalon Drive and Westmoor Avenue, the two public streets surrounding Avalon Canyon, but it will not obstruct views from these streets to the coastline. However, the proposed church will block northwestern views to the coast for 235 feet of the site's 380-foot frontage on Northridge Drive. The proposed project will leave 145 feet of road frontage along the KCPC property on Northridge Drive on the western side of the parcel and along the City-owned joint parking area. Thus, construction of the church as designed will maintain a total of 145 feet of the 380 feet of road frontage, or 38% of the lot width, for the public's visual access of the coastline in conformance with the 15% minimum required by Zoning Code Section 17.27.050(C)(3).

As proposed, trees planted on the site will be trimmed to maintain a sight clearance of seven feet from grade. However, the applicants' November 11, 1999 Preliminary Landscape Plan shows ornamental trees in locations which may block open views of the coast from Northridge Drive. In particular, the cajeput, plane, and New Zealand Christmas trees at street level near the western parking lot entrance and on the landscaped island immediately north of the western parking lot entrance may obstruct views of the coast. The black pine trees on the western property line will also block views of the coast from Northridge Drive and Northridge Park. Some of the shrubs, such as escallonia, flax, and lilac, can grow to eight or more feet, obstructing coastal views. In order to maintain views to the coast from the street and be visually compatible with the surrounding open area along the blufftop, **Special Condition 4** requires that any landscaping on the project site shall not be planted where it may obstruct open views of the coast from Northridge Drive. The landscaping plan, showing the types of plants and the locations of plantings shall be reviewed and approved by the Executive Director to ensure that the landscaping will not significantly interfere with views of the coast. As conditioned, the proposed landscaping is consistent with LUP Public Access Policy 11 and LCP/Coastal Act Section 30251.

The applicants propose to remove the existing four-foot-tall chain link fence along the perimeter of the project site, including the joint-use parking area, and install wood or masonry fencing on the eastern and western property lines. The proposed fencing has not yet been designed. The proposed fencing on the eastern property line is necessary to maintain the privacy of the single-family residence at 34 Northridge Drive and would not block views to the coast. However, a

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wood or masonry fence on the western property line may obstruct views to the coast from Northridge Drive and Northridge Park. To ensure that fencing on the project site will not block visual access to the coast from Northridge Drive, **Special Condition 5** requires that any fencing in the permanent vista corridor, shown in **Exhibit 14**, including any entry gate to the western parking lot, be sited and designed to protect visual access of the coastline from Northridge Drive. Fences shall be a maximum of 3 feet and designed to allow views through the fence. As conditioned, the proposed fencing conforms with LUP Public Access Policy 11 and LCP/Coastal Act Section 30251, which require development to protect public views to and along the ocean, be visually compatible with surrounding areas, and be designed to enhance visual access of the coastline from the street.

To protect the scenic and visual qualities of coastal areas, the proposed project must be visually compatible with its surrounding areas. The proposed church is located in an area with several established churches. The closest church is All Saints' Parish on 30 Northridge Drive, approximately 60 feet east of the project site in a single-family house on the top of the slope of Avalon Canyon. Trinity Baptist Church on 90 Northridge Drive is several hundred feet from the project site and on the seaward side of the street. Other churches exist within a half mile of the project site. Furthermore, a church has been located on the project site since 1958. These churches, although larger than the single-family residences that comprise the majority of structures in the neighborhood, are also part of the existing surroundings and are an allowable use under the City's Zoning Code.

The applicants' architect, in consultation with the City's Architectural Design Review Committee, has designed the proposed church to complement the surrounding neighborhood. The building is proposed to be constructed of wood and masonry. The first floor exterior as proposed will have rust-colored concrete masonry walls, and the second floor exterior will have light tan stucco walls. The building materials and neutral colors are visually compatible with the surrounding neighborhood. As proposed, the project is visually compatible with the surrounding areas and conforms with LCP/Coastal Act Section 30251.

**Conclusion**

The proposed church will maintain open visual access of the coastline from surrounding streets over 38% of the project site. Conditions for landscaping and fencing ensure that the proposed development maintains these open views from Northridge Drive to the coast. The proposed development does not interfere with views from the coast into Avalon Canyon or views of the coast from public areas such as Northridge Park or surrounding City streets. The proposed church is also designed to be visually compatible with the neighborhood. The church footprint and height from Northridge Drive is consistent with those of nearby churches. In addition, the building materials and exterior colors were selected to complement the visual quality of the surrounding area.

Therefore, the Commission finds that as conditioned, the proposed development conforms with LUP/Coastal Policy 30251, LUP Public Access Policy 11, and Section 17.27.050(C)(3) of the Zoning Code.

#### 4.4 Water Quality

##### *Issue Summary*

The applicants propose to construct a church and 131 paved parking spaces, resulting in the creation of 1.3 acres of impervious surfaces on the top of a coastal bluff and Avalon Canyon.

The Zoning Code requires the applicants to provide 72 parking spaces. As proposed, the project contains 131 parking spaces, 59 more than required by the Zoning Code. The number of proposed parking spaces translates into impervious surfaces on the project site. In turn, the impervious surfaces will produce extra runoff that must be treated by the project's storm drainage system. The extra runoff may carry nutrients and chemicals that, if untreated, will discharge into the ocean and impact the quality of coastal waters, in conflict with the LCP/Coastal Act policies protecting the productivity of coastal waters. To reduce the amount of impervious surfaces, and, as discussed above, to ensure an adequate bluff setback, the Commission imposes **Special Condition 7** to remove the 53 spaces in the western parking lot closest to the coastal bluff. Although 72 spaces are required by the Zoning Code, six extra spaces shall be reserved for five 15-passenger vans and a 45-passenger bus used by the KCPC to carpool members of the congregation.

To ensure that the proposed project adequately controls erosion during construction and treats stormwater after construction, the Commission imposes **Special Conditions 6 and 7**, requiring the applicants to develop and implement erosion control and stormwater pollution prevention plans which meet specified requirements. The plans must also include monitoring and maintenance of the erosion control and stormwater treatment measures sufficient for their proper function. As conditioned, the proposed development conforms with the LCP policies requiring the protection of coastal water quality.

##### **LCP Policies**

LCP/Coastal Act Policy 30231 states in relevant part:

*The biological productivity and the quality of coastal waters... 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...*

The relevant LCP and Coastal Act policy is listed in its entirety in Appendix B.

##### **Discussion**

The applicants propose a 22,580-square-foot church and 131 parking spaces over two lots. The proposed church will have an asphalt-shingled roof and concrete patios and walkways on its south, west, and north sides. The proposed church will be constructed on a level foundation on a 12,109-square-foot footprint. The applicants also propose to construct a parking lot east of the church on a flat surface at street elevation, and a parking lot west of the church on slopes ranging from 2% to 10% winding from street level to an elevation of 452 feet MSL. As proposed, the parking lots will be paved with 1.5 to 2.0 inches of asphalt concrete. The 111-space eastern parking lot is 39,960 square feet in area, and the western parking lot is 6,000 square feet. Together, the proposed church and parking lots cover an area of 58,069 square feet, or about 1.3 acres of the 2.5-acre project area.

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The applicants' engineering consultant attributes the primary source of erosion at the site to the concentration of storm runoff and flow across bare soil and down the canyon and bluff slopes. The consultant states that the proposed development will decrease erosion caused by the site through the use of temporary and permanent erosion control, perimeter curbing, and grading intended to prevent runoff from flowing into the canyon.

To prevent downslope runoff during project construction, the applicants propose measures shown on a grading and drainage plan by Mid-Valley Engineering, dated August 25, 2000. In the plan, the applicants propose to install silt fencing around the slope toes in the eastern and southern portions of the project site and in the proposed eastern parking lot. Filter fabric will be placed over the existing catch basin at the proposed entrance of the western parking lot to protect the basin from the temporary gravel drive necessary for construction vehicle access. Sandbags or strawbales will be placed to direct runoff to the open metal pipe inlet in the northwestern portion of the project site. The inlet connects to the project site's primary drainage pipe that carries stormwater down Avalon Canyon and to the shoreline. A temporary sediment basin will be constructed near the entrance to the project on Northridge Drive. The applicants also propose to maintain the temporary erosion control methods to ensure that they are functioning as intended.

In order to find the proposed development consistent with the water quality policies of the LCP, the Commission requires the applicants to incorporate into the project Best Management Practices (BMPs) to control erosion on the project site during construction. To ensure that the church and parking lots use BMPs for erosion control, thereby maintaining water quality to protect the productivity of coastal waters, **Special Condition 6** requires the applicants to submit an erosion control plan for the construction phase. The components of the plan are intended to minimize the potential sources of erosion within the project area, control the amount of runoff and sediment transport, and treat pollutants. **Special Condition 6** also limits the use of toxic substances and the runoff of nutrients to surface waters. Additionally, the condition requires the applicants to inspect and maintain the erosion control measures during the construction period and holds the applicants responsible for compliance with the erosion control plan. The erosion control plan shall be submitted for review and approval by the Executive Director prior to the issuance of the coastal development permit to ensure that the plan meets the requirements set forth in the condition.

To provide permanent erosion control measures and storm drainage for the site, the applicants propose to follow the recommendations of the applicants' geotechnical engineering consultant as contained in the foundation investigation for the Korean Central Presbyterian Church (GEI Consultants, Inc. 2000a). The consultant recommends the use of gutters and downspouts to collect roof runoff from the church and discharge the water into floor drains and closed pipes connecting to the storm drainage system. The consultant also recommends a 2% slope for ground surfaces to prevent water accumulation next to the building and foundation, and paved surfaces to direct runoff into storm drains. Landscaping is also suggested as slope protection from runoff and precipitation. Consequently, the applicants propose to vegetate the first 50 feet of the slopes below the proposed church and parking lots. The applicants also propose to prepare a slope retention plan for the project area. As recommended, these measures are anticipated to reduce erosion and collect runoff into the site's storm drainage system. The applicants further propose to clean and properly dispose of motor oil and vehicle fluid from the parking lots to reduce the amount of vehicle-related pollutants entering the storm drain system.

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Runoff from the proposed eastern parking lot will slope 1.5% toward an asphalt concrete swale in the center of the lot, which in turn will slope 0.02% toward Northridge Drive. The parking lot will not slope toward the canyon and will be bound by curbing and therefore should not contribute runoff to or erosion of Avalon Canyon. Instead, the runoff will flow down Northridge Drive and enter the City's storm drainage system on Avalon Drive. From there, corrugated aluminum pipes carry the runoff untreated down Avalon Canyon and to an outlet at the beach at the base of the canyon.

The proposed church will have downspouts and gutters leading to two floor drains at the southern side of the building. The floor drains will connect to underground reinforced corrugated pipes leading to an existing 1.5-foot diameter corrugated aluminum storm drain pipe. The existing pipe carries runoff down Avalon Canyon and discharges untreated through another outlet at the beach at the base of the canyon. (This outlet is separate from the outlet connected to pipes originating from Avalon Drive.)

Runoff from the western parking lot is directed to swales with slopes ranging from 1.4 to 11% running down the center of the parking lot. The swales discharge into catch basins that, like the church runoff, also connect to the corrugated aluminum storm drain pipe running from the project site to the base of the canyon. The applicants propose to install fossil fuel (oil and grease) filters at each of the five catch basins in the western parking lot. Two open metal pipes northeast and west of the parking lot are proposed to allow surface flow to enter into the underground storm drainage system. The applicants propose to construct a 0.5-foot-tall curb around the perimeter of the parking lots and behind the northern wall of the church with an opening on the northwestern end of the parking lot to allow drainage into an existing unlined ditch.

In addition to the structural measures proposed to treat stormwater, the applicants propose to monitor and maintain the structures to ensure that they are functioning as intended. The maintenance measures include clearing debris from drainage inlets and maintaining landscaped areas. The foundation investigation recommends checking the slopes around the project site each fall and after major storms for signs of erosion or blockage. Any necessary repairs to the post-construction erosion control or stormwater treatment devices will be done before the wet season, from October 15 to April 15.

As proposed, the applicants propose to treat the stormwater in the western parking lot only by installing oil and grease filters. The applicants do not propose to treat the remaining runoff from the project site. In order to find the proposed development consistent with the water quality policies of the LCP, the Commission requires the applicants to incorporate BMPs to control the volume and velocity of stormwater and treat the runoff's pollutant load leaving the church and parking lots. Appropriate design standards for BMP size are critical to the ability of BMPs to remove pollutants in stormwater to the maximum extent practicable. Since the majority of runoff is generated from small storms (because most storms are small), and stormwater runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event, the design of BMPs for small, more frequent storms rather than for large infrequent storms results in improved BMP performance at a lower cost.

The Commission finds that sizing post-construction structural BMPs to treat the runoff generated from the 85<sup>th</sup> percentile 1-hour storm event is equivalent to sizing BMPs based on the point of diminishing returns (that is, the point beyond which expanding BMP capacity produces relatively

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insignificant increases in pollutant removal). However, the Commission acknowledges that the runoff generated by the proposed development cannot be retained onsite and treated in sediment basins or similar onsite volume-based treatment structures due to geologic stability issues associated with the coastal bluff and canyon slope. The proposed treatment of stormwater consists mainly of directing flow, some untreated, into pipes that discharge on the shoreline and into the ocean. The discharge of stormwater pollutants to coastal waters can cause cumulative impacts resulting from acute and sublethal toxicity in marine organisms, leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters, reduce optimum populations of marine organisms, and have adverse impacts on human health. For this reason, the Commission imposes **Special Condition 7** to require all post-construction, flow-based structural BMPs, including those BMPs designed to work collectively, to be designed to treat or filter stormwater from each storm, up to and including the 85<sup>th</sup> percentile, 1-hour storm event, and including an appropriate safety factor. The safety factor is typically the same intensity as the 85<sup>th</sup> percentile, 1-hour storm event. Thus, the BMPs must be able to treat two times the 85<sup>th</sup> percentile hourly rainfall intensity. Treatment at this level ensures that the proposed church and parking lots will be designed to minimize adverse impacts to coastal resources in a manner consistent with the water quality policies of the LCP.

**Special Condition 7** also requires the applicants to submit a stormwater pollution prevention plan. The condition requires the stormwater pollution prevention plan to include BMPs that minimize the creation of impervious surfaces, treat the runoff generated from the necessary impervious surfaces, maintain parking lots, and employ native and drought-tolerant landscaping. The applicants must submit the stormwater pollution prevention plan for the review and approval of the Executive Director prior to the issuance of the coastal development permit to ensure the plan meets the requirements set forth in the condition. Additionally, **Special Condition 7** requires the applicants to inspect and maintain the post-construction stormwater treatment devices. The applicants must submit annual inspection reports on the condition of the structural BMPs required under this condition to the Executive Director for the three years following the completion of construction by the applicants. The condition holds the applicants responsible for compliance with the stormwater pollution prevention plan.

To reduce the impact of the proposed development on water quality, the Commission requires the minimization of impervious surfaces generated by the church and parking lot. The reduction of impervious surfaces results in less runoff required to be treated. Under the City's Zoning Code, the proposed church must provide 72 parking spaces to serve the proposed 428-seat church. In addition, 6 spaces must accommodate five vans and one bus. However, the applicants propose to construct 131 spaces. The proposed 131 parking spaces are in excess of the requirements of the Zoning Code. According to Zoning Code Section 17.34.020(H), a church requires one parking space for every six permanent seats in the main auditorium. As proposed, the church will provide 428 permanent seats in the main sanctuary. Thus, the proposed church must provide 72 parking spaces to satisfy the City's requirement. The project as proposed will provide 131 spaces, 59 spaces more than required by the Zoning Code. Since the KCPC currently uses five 15-passenger vans and one 45-passenger bus to transport members to church services, thereby reducing the number of vehicles accessing the church, six additional spaces are reserved in the western parking lot for the carpool vehicles. Seventy-two spaces are therefore still available for other vehicles.

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In order to comply with LCP Policy 30231 to maintain the quality and biological productivity of coastal waters, **Special Condition 7** requires the applicants to revise the project plans to remove the 53 spaces closest to the coastal bluff in the 111-space western parking lot. The removal of 53 spaces reduces approximately 19,000 square feet of impervious surface. As discussed above in Section 4.2 (Geologic Hazards), the removal of these spaces also ensures that bluff retreat will not encroach into the western parking during the life of the project.

Residents in the vicinity of the proposed church have expressed concerns about the KCPC's potential to use excessive street parking during church-related functions, as observed with the previously existing church on the project site. The previous church had an informal off-street parking lot that accommodated about 40 cars. It was not paved, striped, or otherwise improved in accordance with City standards. Church members parked in the lot and also along Northridge Drive and the surrounding streets. The 72 spaces required by the Zoning Code will alleviate much of the on-street parking used by the previous church. In addition, the applicants propose to have at least two parking monitors during peak arrival and departure times on Sunday to ensure the full use of the parking lots and to prevent vehicles dropping off passengers from blocking Northridge Drive. Also, it is important to note that the applicants propose to schedule official church services only on Sundays and Wednesday and Friday nights. The applicants' transportation engineer estimates attendance at each of the Sunday morning services to be about 300 members. The Sunday afternoon and Wednesday and Friday night activities will generate much fewer members. Since the entire 650-member congregation will most likely not be present at any one time, the off-street parking will not be at capacity for all of the activities scheduled by the applicants.

**Conclusion**

The applicants propose to install temporary and permanent erosion control measures to prevent erosion generated by the church and two parking lots. The applicants also propose to convey runoff into an existing drainage swale and existing pipes that convey stormwater down through Avalon Canyon and to the beach and ocean. Monitoring and maintenance activities are also proposed to ensure the proper functioning of the erosion control and stormwater treatment measures. As proposed, the project treats only the runoff entering catch basins in the western parking lot with fossil fuel filters. The applicants have not specified the level of treatment provided by these filters. No treatment is proposed for the runoff from the church and eastern parking lot. All of the runoff from the project site discharges onto the shore through two outlets, carrying sediment, nutrients, heavy metals, and chemicals. These pollutants have the potential to adversely impact the biological productivity and quality of coastal waters, in conflict with LCP/Coastal Act Policy 30231. Therefore, **Special Conditions 6 and 7** require the applicants to submit erosion control and stormwater pollution prevention plans which meet specified requirements. The required erosion control and stormwater pollution prevention plans must specify methods to prevent impacts to water quality during and after construction, respectively, and include maintenance and monitoring requirements.

The proposed project's 131 off-street parking spaces provide more spaces than required by Section 17.34.020(H) of the Zoning Code. The excessive parking creates impervious surfaces above and beyond that needed for the proposed church. To minimize the volume of runoff generated by new impervious surface areas, **Special Condition 7** requires the applicants to revise the project to remove 53 spaces in the western parking lot closest to the coastal bluff.

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As conditioned, the Commission finds that the proposed water quality protection measures conform with LCP/Coastal Act Policy 30231.

**4.5 Traffic**

***LCP Policies***

LCP/Coastal Act Policy 30252, in relevant part, requires new development to maintain and enhance public access to the coast.

***Discussion***

The proposed church is located on 50 Northridge Drive, a two-lane residential street. Northridge Drive connects to Skyline Drive, a two-lane collector street, about 500 feet east of the church site. The intersection of Northridge Drive and Skyline Drive is controlled by a three-way stop sign. The intersection of Westmoor Avenue and Skyline Drive, about 1.5 miles from the project site, is the first intersection between the turnoff from Skyline Freeway (State Highway 35) and the proposed church. The intersection has stop signs on all but the westbound approach.

The applicants' traffic engineering consultant conducted a traffic analysis for the proposed project using the level of service rating method. The level of service rating describes the operational conditions along roadways and within intersections. Level of service is reported using an A through F letter system to describe travel delay and congestion. Level of service (LOS) A indicates free-flowing conditions with very low delay, equal to or less than 10 seconds per vehicle. LOS E indicates the maximum capacity condition with significant congestion and delays in the range of 35 to 50 seconds per vehicle. A LOS F rating indicates traffic that exceeds operational capacity with delays in excess of 50 seconds per vehicle and congestion.

According to the applicants' consultant, the intersections of Skyline Drive with Northridge Drive and Westmoor Avenue currently operate at LOS A during the Sunday peak traffic period (9:00 a.m. to 1:00 p.m.). The proposed project is estimated to generate 550 vehicle trips per Sunday. With the traffic generated by the project, the Northridge Drive and Skyline Drive intersection will remain at LOS A. The intersection of Westmoor Avenue and Skyline Drive will operate at LOS B during the Sunday peak traffic period. The consultant states that this level of service is typical of a local residential street. On Wednesday and Friday evenings, church activities will generate approximately 100 vehicle trips per night. The applicants' consultant states that these vehicle trips should have no impact on the traffic flow or level of service on the aforementioned intersections. Furthermore, the KCPC has an established ridesharing program with one 45-passenger bus and five 15-passenger vans to transport members to church services and activities. This program reduces the overall impact of traffic generated by the church. In addition, the applicants propose to install bicycle racks to accommodate at least 10 bicycles on the project site. This measure may potentially decrease the number of cars accessing the site. Thus, the proposed project will not have a significant adverse affect on traffic in the neighborhood.

Because acceptable service levels will be maintained on area roadways after the construction of the proposed development, the traffic produced by the project will not interfere with the public's ability to access the coast. Therefore, the project as proposed is consistent with LCP/Coastal Act Policy 30252.



## 4.6 Parking

### *LCP Policies*

Zoning Code Section 17.34.020(H) requires churches to provide one parking space for every six permanent seats in the main auditorium.

### *Discussion*

The applicants propose to construct 111 parking spaces: 82 parking spaces on KCPC property and 29 parking spaces on City-owned property (APN 008-191-620) (**Exhibit 3**). The 29 parking spaces are designated as a shared parking area between the City and the KCPC under a joint parking license agreement entered into on July, 1998. The agreement allows the KCPC to park on the City property during church-related functions. The City and public may share the parking area with the KCPC as long as the use does not unreasonably interfere with parking during full congregation church services. The agreement guarantees the joint use of the City-owned parking area for 30 years.

As discussed in Section 4.4 (Water Quality) above, **Special Condition 7** requires the applicants to remove the 53 spaces closest to the coastal bluff to reduce significant adverse impacts to coastal water quality. As conditioned, the project will provide 78 parking spaces. The provision of the 78 parking spaces is consistent with Zoning Code Section 17.34.020(H) requiring the church to provide off-street parking. However, all of the 78 parking spaces must be available for all church-related activities for the duration of the project's useful economic life to assure that the KCPC is providing adequate off-street parking. A portion of the 78 required parking spaces will be located in the joint use parking area. However, the joint use parking agreement guarantees parking for the church for 30 years and does not therefore assure that the joint-use parking area will allow the KCPC to have the minimum required parking spaces for the useful economic life of the project, inconsistent with Zoning Code Section 17.34.020(H).

The Commission therefore imposes **Special Condition 8** to require the applicants to revise the project site plans to show that the 78 parking spaces are located within the project site, and to designate the locations of the passenger car, van, and bus spaces. **Special Condition 8** further requires, consistent with **Special Condition 7**, that the location of the parking spaces be as far from the bluff edge as feasible. As discussed in Section 4.2 (Geologic Hazards), the Commission geologist recommends that development be set back from the bluff edge at least 83 feet, and that an additional level of security would be achieved by a setback of 100 feet. These distances were determined based on the bluff retreat information provided by the applicants' engineering consultant. To assure that the parking spaces are provided over the project life with as little likelihood of loss as possible, **Special Condition 8** requires that the location of the 78 parking spaces be a minimum of 100 feet from the bluff edge. **Special Condition 8** also requires the applicants to provide written evidence that 78 parking spaces are available for the exclusive use of the KCPC over the life of the project during all church-related functions and services. As conditioned, the project provides an adequate number of parking spaces and is consistent with Zoning Code Section 17.34.020(H).

#### **4.7 Environmentally Sensitive Habitat Areas**

##### ***LCP Policies***

LCP/Coastal Act Policy 30240 requires the protection of environmentally sensitive habitat areas against significant disruption of habitat values.

##### ***Discussion***

The removal of approximately 72,000 cubic yards of fill for the slide repair project has left the site of the proposed church in a highly disturbed condition. At this time, the church site is sparsely vegetated with grasses that were seeded as an erosion control measure following the grading and ruderal (weedy) plants. The site contains no wetlands or other sensitive habitat areas, and is not known to support any sensitive plant or animal communities. The church site is bordered by existing development to the south and east, Avalon Canyon to the north and a 400-foot-high bluff to the west. There are no sensitive habitat areas within 100 feet of the church site. Therefore, the Commission finds that the proposed development is consistent with LCP/Coastal Act Policy 30240.

#### **4.8 Lot Line Adjustment**

##### ***LCP Policies***

Zoning Code Section 17.23.030(B) states that educational and cultural uses, including incidental structures existing at the time of the OS designation, are permitted principal uses in an OS District.

Zoning Code Section 17.27.030(A) states that new structures specified as a permitted principal use in the underlying zone is a conditional use permitted in an RP District.

##### ***Discussion***

In order to accommodate portions of the church and eastern parking lot on KCPC property that are currently proposed on City property, the applicants propose to adjust the lot line between the City and KCPC parcels in the northeast portion of the project area (**Exhibit 15**). As a result, the KCPC will increase its current lot (APN 008-191-630) of 91,476 square feet by about 5,000 square feet. The City's parcel (APN 008-010-040) will have a negligible decrease, as it is currently 10.69 acres, or about 465,656 square feet in area.

The City's parcel is zoned as Open Space District (OS). The portions of the KCPC parcel greater than 100 feet from Northridge Drive are also zoned OS and additionally zoned Resource Protection Combining District (RP). The RP designation includes land designated as OS or land adjacent to OS and therefore, the lot line adjustment may only require the transferred area to be additionally zoned as RP. According to Zoning Code Section 17.23.030(B), educational and cultural uses are permitted principal uses in an OS District. The proposed church is both an educational and cultural use and is therefore a principal permitted use in the area of the proposed lot line adjustment. Since Zoning Code Section 17.27.030(A) allows new structures specified as a permitted principal use in the underlying zone to be a conditional use permitted in an RP District, the proposed church is also an allowable use under the RP designation. Therefore, the lot line adjustment does not conflict with the zoning designations of the KCPC and the City's parcels and is consistent with Zoning Code Sections 17.23.030(B) and 17.27.030(A).

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The proposed lot line adjustment does not impact coastal resources, nor does it create a situation in which coastal resources must be impacted to allow development of the KCPC or the City's parcels. As previously discussed in Section 4.2 (Geologic Hazards), **Special Condition 1** requires the applicants to maintain a 20-foot setback between the church and the top of the Avalon Canyon slope. The proposed lot line adjustment does not affect the KCPC's ability to carry out this condition. Therefore, the proposed lot line adjustment is consistent with the policies of the LCP.

**5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

Section 13096 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 feasible mitigation measures available which would substantially lessen any significant adverse effects that the activity may have on the environment.

The Commission incorporates its preceding findings on consistency of the proposed project with the policies of the Daly City certified LCP and the public access policies of the Coastal Act at this point as if set forth in full. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, that would substantially lessen any significant adverse impacts that the development may have on the environment. Therefore, the Commission finds that the proposed project has been conditioned to mitigate the identified impacts and can be found consistent with the Coastal Act requirements to conform to CEQA.

**EXHIBITS**

1. Regional Location Map
2. Vicinity Map
3. Assessor Parcel Map of Project Site
4. Assessor Parcel Map of City-Owned Property
5. Plan Showing Location of Original Church
6. Site Plan
7. City Conditions Adopted by the Applicants as Part of the Proposed Project
8. Proposed Building
9. November 8, 2000 Memorandum from Senior Geologist Mark Johnson to Coastal Planner Virginia Esperanza
10. Korean Central Presbyterian Church Mitigation Monitoring Program
11. January 3, 2000 *Foundation Investigation, Korean Central Presbyterian Church*, by Don Gray of GEI Consultants, Inc.
12. Bluffline determination by Mohinder Sharma, City of Daly City Engineer
13. Proposed Onsite Cut and Fill
14. Road Frontage for Visual Corridor
15. Proposed lot line adjustment

**APPENDICES**

- A. Substantive File Documents
- B. Relevant LCP and Coastal Act Policies

APPENDIX A: SUBSTANTIVE FILE DOCUMENTS

- Aloisi and Gangloff 2000. Letter from Santo Aloisi Jr. and Anthony Gangloff to Daly City Planning Commission, May 2, 2000.
- Daly City (a). Bay Area Ridge Trail Alignment map, date unknown.
- Daly City (b). Bluffline Determination by City Engineer for the City of Daly City, no date.
- Daly City (c). *Draft waiver, indemnification, bonding, and insurance agreement*, no date.
- Daly City (d). *Joint Parking License Agreement*, no date.
- Daly City (e). Photocopies of photographs from project site, no date.
- Daly City 2000a. *Initial Study (Environmental Impact Assessment)*, Korean Central Presbyterian Church, February, 2000.
- Daly City 2000b. Notice of Final Local Action, July 31, 2000.
- Daly City City Council 1974. Resolution 74-225, A Resolution of the City Council of the City of Daly City Authorizing Execution of Agreement Between Nichiren Shoshu Academy and the City of Daly City re: Development of Wildman's Gulch, September 16, 1974.
- Daly City City Council 2000a. City Council agenda report re: Use Permit UP 99-8 and Design Review Permit DR 99-30, May 22, 2000.
- Daly City City Council 2000b. City Council minutes, May 22, 2000.
- Daly City City Council 2000c. Speaker cards for City Council meeting, June 26, 2000.
- Daly City Design Review Committee 2000. *Design Review Committee Report*, July 17, 2000.
- Daly City Planning Department 2000a. Planning Commission staff report, March 8, 2000.
- Daly City Planning Department 2000b. Planning Commission minutes, March 8, 2000.
- Daly City Planning Commission 2000c. Meeting minutes, May 2, 2000.
- Douglas 1999. Letter from Peter Douglas to Andrea Ouse, March 18, 1999.
- Federal Emergency Management Agency 1998a. *Finding of No Significant Impact, City of Daly City, California, Avalon Canyon Repairs*, June 30, 1998.
- Federal Emergency Management Agency 1998b. *Supplemental Environmental Assessment*, June 29, 1998.
- Flowerday 2000. Letter from Helen R. Flowerday to Jung H. Cho, July 31, 2000.
- GEI Consultants, Inc. 1998. *Foundation Investigation Report, Avalon Canyon Repairs*, GEI Consultants, Inc., June 23, 1998.
- GEI Consultants, Inc. 2000a. *Foundation Investigation, Korean Central Presbyterian Church*, GEI Consultants, Inc., January 3, 2000.
- GEI Consultants, Inc. 2000b. *Supplemental Geotechnical Report*, February 14, 2000.
- Gray 2000a. *Response to Expansive Soil Concerns*, letter from Donald Gray, G.E., to Korean Central Presbyterian Church, c/o Ted Kim, October 10, 2000.
- Gray 2000b. *Stability Evaluation of Western Slope, Korean Central Presbyterian Church, Daly City, California*, letter from Don Gray to Korean Central Presbyterian Church, c/o Ted Kim, October 26, 2000.
- Harris 1998. *California Natural Diversity Database Occurrences in Project Vicinity*, fax from Victoria Harris, Thomas Reid Associates, to Andrea Ouse, June 24, 1998.
- Jacobs Associates 1999a. *Avalon Canyon Repairs*, May 1999.
- Jacobs Associates 1999b. *Avalon Canyon Repair, As-Built Finish Grading, Baseline Alignments Profiles*, December 30, 1999.
- Jacobs Associates 1999c. *Avalon Canyon Repair, As-Built Finish Grading, Cut and Fill Plan and Earthwork Quantities*, December 30, 1999.

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- Jacobs Associates 1999d. *Avalon Canyon Repair, As-Built Finish Grading, Detail Plan at Southwest Bluff*, December 30, 1999.
- Jacobs Associates 1999e. *Avalon Canyon Repair, As-Built Finish Grading, Key Plan*, December 30, 1999.
- Johnsson 2000a. E-mail from Mark Johnsson to Andrea Ouse, October 19, 2000.
- Johnsson 2000b. E-mail from Mark Johnsson to Andrea Ouse, October 19, 2000.
- Kwong and Kwong 2000. Letter from Albert and Rita Kwong to Daly City Planning Commission, February 25, 2000.
- McHuron Geosciences 2000. *Sea Cliff Retreat Rates, Korean Central Presbyterian Church, Daly City, CA*, letter from Eric McHuron to Don Gray, GEI Consultants, Inc., November 1, 2000.
- McKay 2000. Letter from Arthur McKay Jr. to Daly City Planning Commission, including petition of support for the Korean Central Presbyterian Church, April 30, 2000.
- Mid-Valley Engineering 2000. *On-Site Improvement Plans Prepared for Korean Central Presbyterian Church*, August 10, 2000.
- Mid-Valley Engineering 2000. *Cut and Fill Volumes on Project Site*, received by Daly City November 14, 2000.
- Miralle 2000a. Letter from Don Miralle to Andrea Ouse, October 5, 2000.
- Miralle 2000b. E-mail from Don Miralle to Andrea Ouse, October 10, 2000.
- Miralle 2000c. E-mail from Don Miralle to Andrea Ouse, October 10, 2000.
- Miralle 2000d. Letter from Don Miralle to Andrea Ouse, October 16, 2000.
- Ouse 2000a. Inter-Office Memorandum from Andrea Ouse to Daly City City Council Committee, Adrienne Tissier, and Mike Guingona, July 11, 2000.
- Ouse 2000b. Letter from Andrea Ouse to Virginia Esperanza, August 8, 2000.
- Ouse 2000c. Letter from Andrea Ouse to Virginia Esperanza, August 11, 2000.
- Ouse 2000d. E-mail from Andrea Ouse to Virginia Esperanza containing digital photos of project site and vicinity, before and after Avalon Canyon repair project, August 16, 2000.
- Ouse 2000e. Photos of Avalon Canyon and Korean Central Presbyterian Church project area, October 12, 2000.
- Ouse 2000f. Letter from Andrea Ouse to Virginia Esperanza, October 16, 2000.
- Ouse 2000g. E-mail from Andrea Ouse to Mark Johnsson, October 19, 2000.
- RKH Civil and Transportation Engineering 2000. *Traffic Impact Study, Korean Central Presbyterian Church*, April 6, 2000.
- Sharma 2000. Inter-Office Memorandum from Mohinder Sharma, City Engineer, to Andrea Ouse, Associate Planner, October 18, 2000.
- Towill, Inc. 1998. *Topographic Map of City of Daly City Coastal Area*, based on July 15, 1998 aerial photograph.
- Wenell Mattheis Bowe 1999. Korean Central Presbyterian Church, New Church Facility Development Plan, Wenell Mattheis Bowe, November 11, 1999.
- Wenell Mattheis Bowe 2000. Korean Central Presbyterian Church, New Church Facility Development Plan, Wenell Mattheis Bowe, August 11, 2000.

**Personal Communications:**

- Jung Cho, Korean Central Presbyterian Church  
Anthony Gangloff, Appellant.  
Ryan Kim, Korean Central Presbyterian Church.

A-2-DYC-00-027

**Korean Central Presbyterian Church, Daly City**

Rich McGough, City of Daly City Public Works Division.  
Andrea Ouse, City of Daly City Planning Division.  
Terry Sedik, City of Daly City.

**APPENDIX B: RELEVANT LOCAL COASTAL PROGRAM (LCP) AND COASTAL ACT POLICIES**

**Local Coastal Program Policies:**

**Land Use Plan Policies:**

**New Development Policy 3**

A transfer of property rights or a public dedication on the part of the owner of the beach property south of Thornton State Beach shall be requested in order to acquire control of this public recreation site, if the State does not require it for its Park expansion. In the event development is permitted, a dedication of lateral access along the beach shall be required.

**New Development Policy 4**

Development of remaining vacant parcels along the blufftops shall be prohibited, unless geologic and seismic constraints and public safety requirements can be mitigated.

**New Development Policy 5**

The re-use of vacant parcels which were once occupied by dwellings that have since been removed because of land failure shall be prohibited unless sufficient engineering, soils, and geology data is presented to support the proposed redevelopment. Such properties shall be rezoned Open Space and Resource Protection.

**New Development Policy 6**

New development of properties referred to in Policies 3, 4, and 5 above, if permissible, shall include the following:

- a. Improved vehicular access and extension of public services to the site shall be allowed only as necessary to serve permitted development.
- b. Location of development within the site shall be in the least hazardous and least visually obtrusive configuration feasible.
- c. Land coverage shall be compatible with the open space character and shall be less than 10% of the site area.
- d. Structural mass shall be compatible with the open space character and shall be less than 20 feet in height or one-story above grade, whichever is less.

**Public Access Policy 11**

Any development or redevelopment of blufftop properties shall be designed to enhance visual access of the coastline from the street. Any significant viewpoint areas identified in the Public Access Component of this LCP shall be dedicated for public use in lieu of physical coastline access requirements.

**Zoning Code Policies:**

**17.08.010 Table of Uses for R-1 Single Family Residence District.**

Church: maximum height = 50 feet

Minimum lot area = 10,000 square feet



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**Korean Central Presbyterian Church, Daly City**

Minimum lot width = 100 feet

17.23.020 Lands to be included.

All lands designated as open space in the open space element of the Daly City general plan may be included in the OS district. Such lands may include but are not limited to the following:

- B. Private school grounds and church grounds of a predominantly open character.

17.23.030 Permitted principal uses.

Following are the principal uses permitted in the OS district:

- B. Educational and cultural uses, including any structures incidental to such uses existing at the time of inclusion in the OS district.

17.23.040 Permitted accessory uses.

Following are the accessory uses permitted in the OS district:

- B. Parking lots and driveways necessary to service permitted principal uses. (Ord. 954 S2(part), 1981).

17.27.010 General provisions.

The -RP combining district is to provide development regulations for designated open space areas and for a buffer zone surrounding designated open space areas to ensure that the character and intensity of allowable development is compatible with, and does not create or contribute to adverse impacts on sensitive resources or geotechnically hazardous areas. These regulations are in addition and supplemental to the regulations of the underlying zone or zones, and where the regulations of the -RP zone and the underlying zone are inconsistent, the regulations of the -RP zone shall prevail. Furthermore, all development shall be in accordance with the policies contained in the Daly City general plan and, if applicable, the Daly City coastal Program. (Ord. 954 S4 (part), 1981).

17.27.020 Lands to be included.

All lands designated as open space or adjacent to lands designated as open space in the open space element of the Daly City general plan may be included in the -RP district.

17.27.030 Conditional uses.

Following are the conditional uses which may be permitted in an -RP district, subject to the approval of a use permit:

- A. New structures, including buildings, fences, walls and swimming pools, specified as a permitted principal use, a permitted accessory use, or a conditional use in the underlying zone.

...

17.27.40 Application requirements.

In addition to information for a use permit required by Chapter 17.44, each application shall include the following:

- A. Additional site plan details, including but not limited to the following:
  1. Existing topography and any proposed changes due to grading or filling operations;
  2. Existing trees and other major vegetation and the proposed landscaping and irrigation plans;
  3. Location and dimension of all roads, driveways, parking and pedestrian and bicycle paths;and

**Korean Central Presbyterian Church, Daly City**

4. Existing and proposed drainage pattern on the site and surrounding area;
- B. Geotechnical report, prepared and signed by a licensed geologist, including but not limited to the following:
1. Site topography;
  2. Soils and geologic composition;
  3. Past and possible future landslide and/or erosion conditions, both natural and artificially induced
  4. Ground and surface water conditions;
  5. Stability of the site, potential impact of the proposed project, and any mitigation measures or potential alternatives necessary to insure structural integrity of the site and structures for the economic life of the project; and
  6. Certification that the development will have no adverse effect on the site or adjacent areas, will not endanger life or property, and will not require protective structures at any time during the economic life of the project;
- C. Environmental evaluation pursuant to CEQA.

17.27.050 Development regulations.

Following are regulations governing all construction within an –RP district:

- A. As specified for the underlying zone or zones:
- B. Conditions specified as part of the use permit approval;
- C. If the development is on a blufftop:
  1. No building or structure shall be placed closer than fifty feet from the edge of the bluff, the setback line to be determined by the city engineer;
  2. No grading or filling operations shall be permitted except for required drainage or erosion control and, if required, the same shall meet the standards and requirements of the state and city in connection with grading and filling operations.
  3. All structures hereafter constructed shall provide a permanent vista corridor with an unobstructed width of at least five feet or fifteen percent of the lot width of each lot, whichever is greater. If more than a single lot is included in a development, the vista corridors shall be combined into a single location;
- D. No development shall be allowed on a bluff or other surface with a slope of thirty degrees or greater and a vertical relief of ten feet or more, except an approved stairway, ramp, or developed trail.
- E. If the development is a shoreline accessway, the standards adopted by the city in its local coastal plan, or as amended, shall be applicable to an accessway.

17.34.020 Schedule of parking requirements.

- H. Clubs, Lodges and Other Assembly Buildings, Including Churches and Theaters – one space for every six permanent seats in the main auditorium. If there are to be no permanent seats, then the off-street parking requirement shall be one space for every two hundred square feet of gross building floor area.

**LCP/Coastal Act Policies:**

**Policy 30231 Biological productivity and water quality.**

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.

**Policy 30235 Construction altering natural shoreline processes.**

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

**Policy 30240 Environmentally sensitive habitat areas.**

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

**Policy 30251 Scenic and visual qualities.**

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

**Policy 30252 Maintenance and enhancement of public access.**

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition

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**Korean Central Presbyterian Church, Daly City**

and development plans with the provision of onsite recreational facilities to serve the new development.

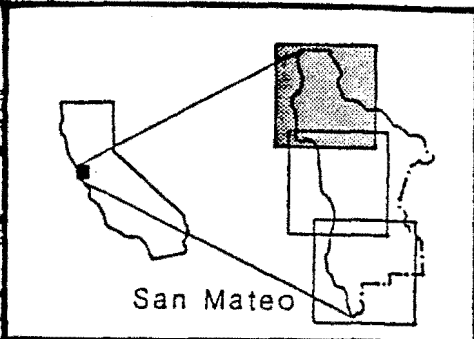
**Policy 30253 Standards for new development.**

New development shall:

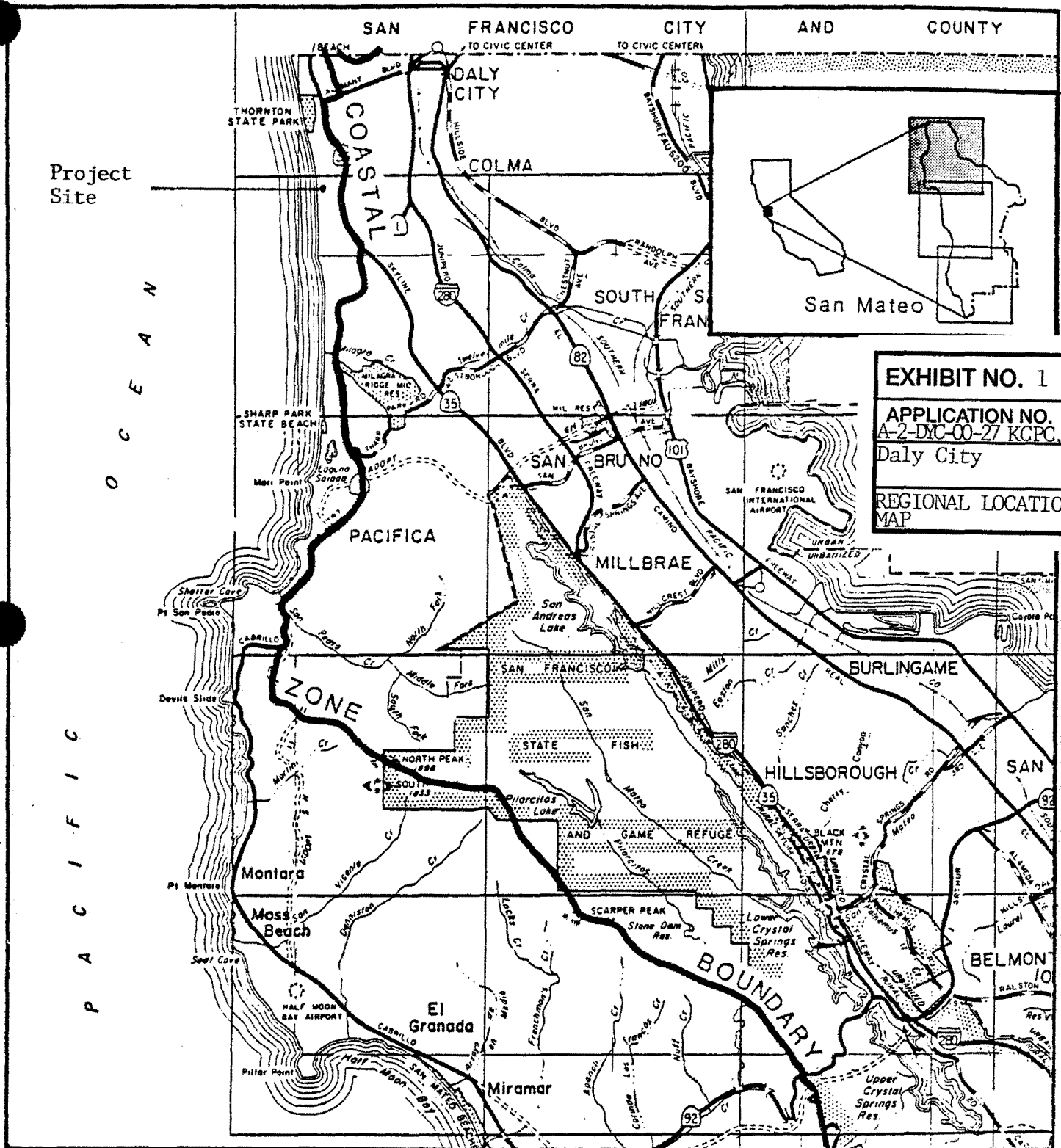
- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.
- (3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.
- (4) Minimize energy consumption and vehicle miles traveled.
- (5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

SAN FRANCISCO CITY AND COUNTY

Project Site

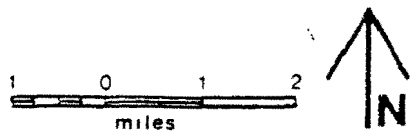


**EXHIBIT NO. 1**  
**APPLICATION NO.**  
 A-2-DXC-00-27 KCPC.  
 Daly City  
**REGIONAL LOCATION MAP**



P A C I F I C O C E A N

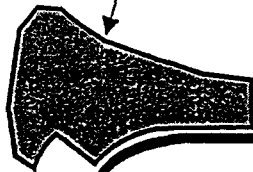
LOCATION MAP



California Coastal Commission



CHURCH SITE



CARMEL AVENUE

HIGHLAND AVENUE

EATON AVENUE

NORTHBRIDGE DRIVE

WAVECREST DRIVE

AVALON DRIVE

SKYLINE DRIVE

WESTMOOR AVENUE

35

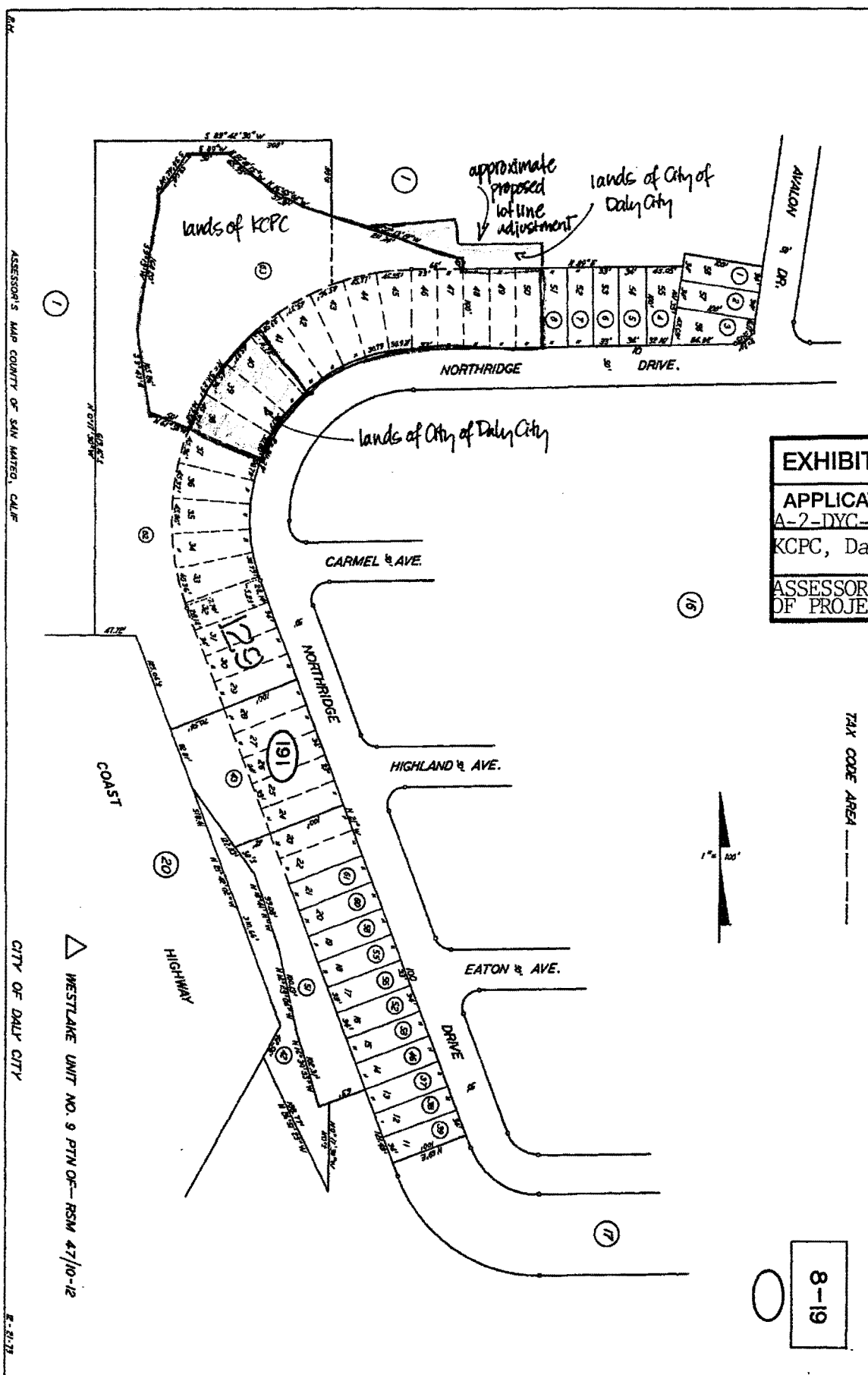
EXHIBIT NO. 2

APPLICATION NO.  
A-2-DYC-00-027

Vicinity Map

LOCATION MAP  
FIGURE 1

RKH

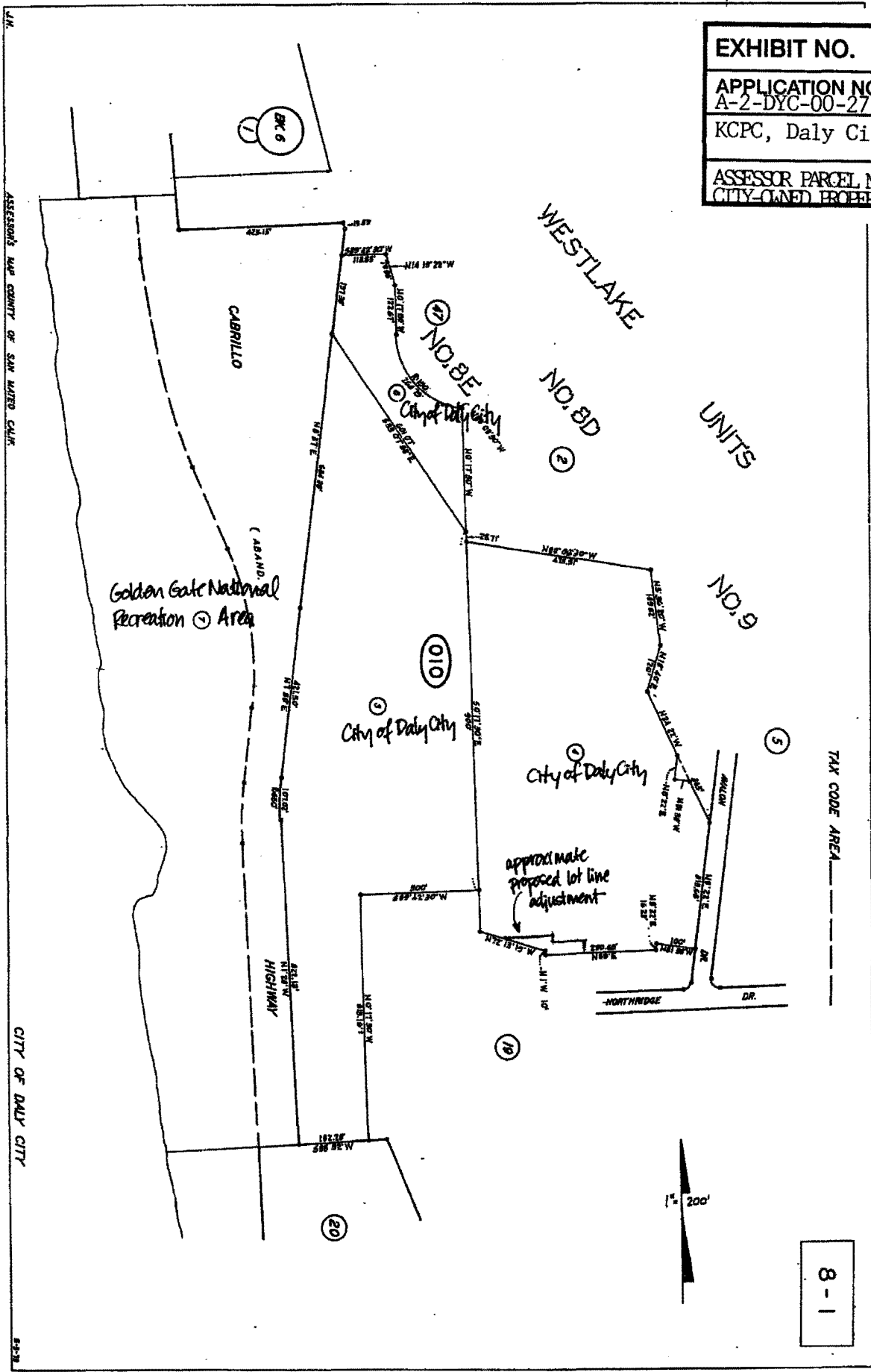


<b>EXHIBIT NO. 3</b>
<b>APPLICATION NO.</b> A-2-DYC-00-27
KCPC, Daly City
<b>ASSESSOR PARCEL MAP OF PROJECT SITE</b>

TAX CODE AREA

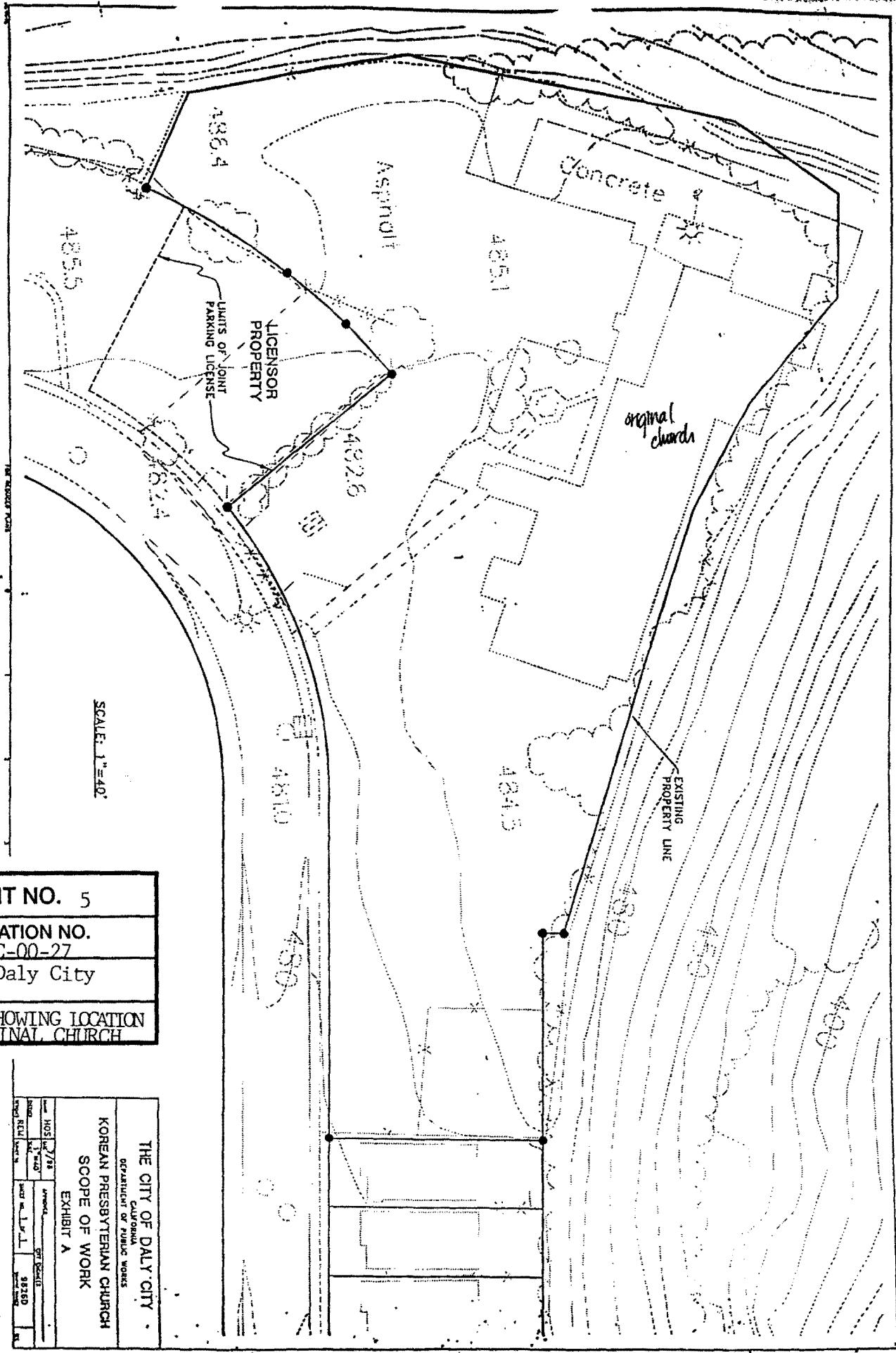
8-19

<b>EXHIBIT NO.</b> 4
<b>APPLICATION NO.</b> A-2-DYC-00-27
KCPC, Daly City
<b>ASSESSOR PARCEL MAP OF</b> <b>CITY-OWNED PROPERTY</b>



8 - 1





**EXHIBIT NO. 5**  
**APPLICATION NO.**  
 A-2-DYC-00-27  
 KCPC, Daly City  
**PLAN SHOWING LOCATION  
 OF ORIGINAL CHURCH**

THE CITY OF DALY CITY CALIFORNIA DEPARTMENT OF PUBLIC WORKS	
KOREAN PRESBYTERIAN CHURCH SCOPE OF WORK	
EXHIBIT A	
NO. 7/78 DATE: 7/78 BY: [Signature]	APPROVED: [Signature] TITLE: [Title]
PREPARED BY: [Name] DATE: [Date]	CHECKED BY: [Name] DATE: [Date]

**EXHIBIT "A"**

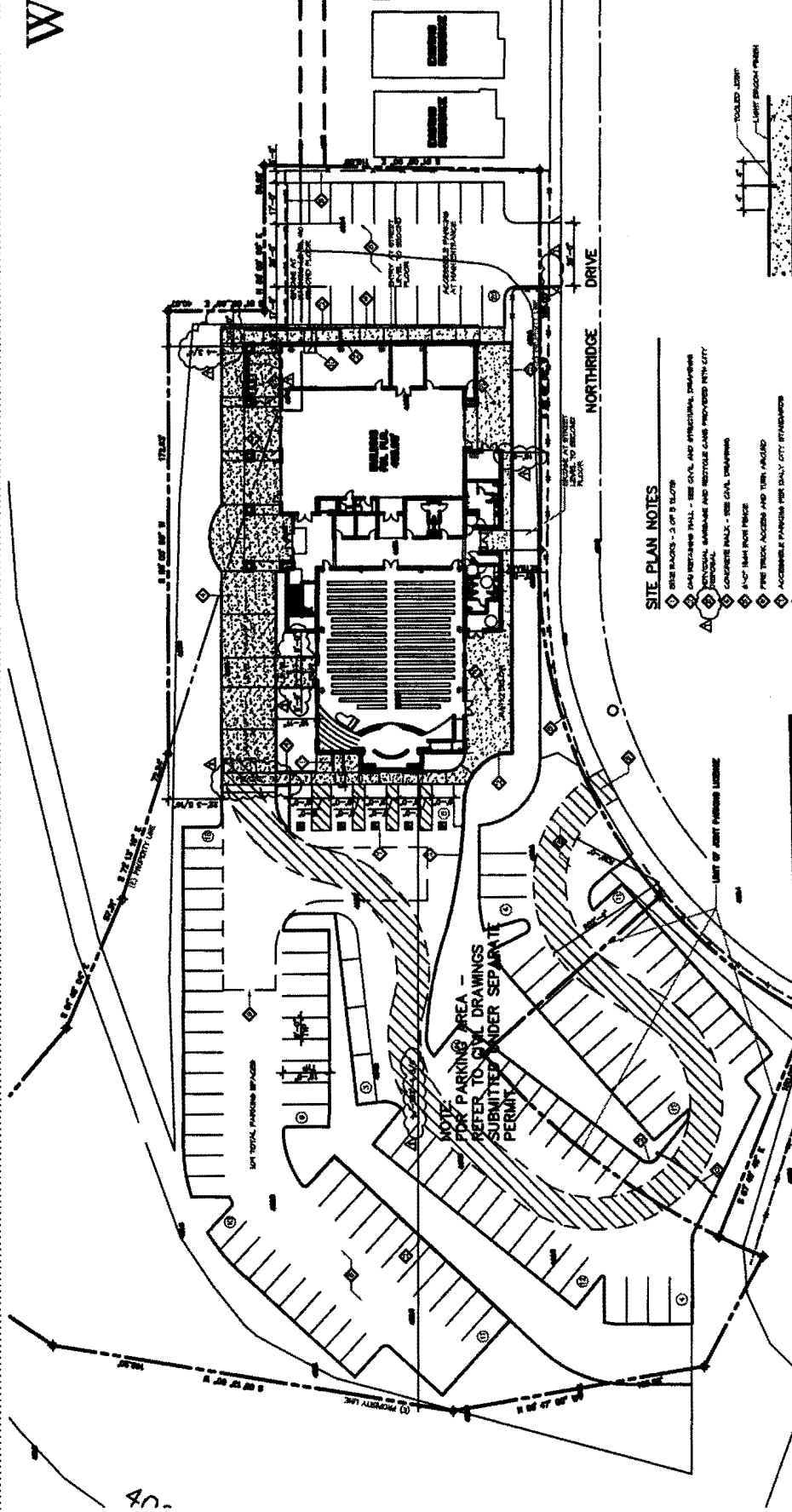


WJIB  
 WHEEL  
 MATTERS  
 PIONEER

ARCHITECTURE	
PLANNING	
INTERIORS	
Site Plan Site Plan Site Plan	
748 748 748	
2 John Street Redwood, California 94061	
Name: 087/M/0310	
Scale: 087/M/0311	
Engineer: Central Engineering Services	

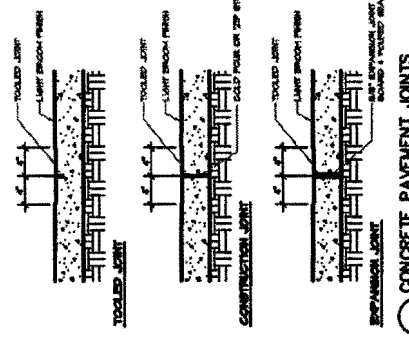
City of Daly City  
 675 Broadway Ave.  
 Daly City, CA  
 SITE PLAN

A1	
APPROVED FOR PERMIT DATE: 8/17/00 BY: JRM/STB PROJECT NO: 00-027	



**SITE PLAN NOTES**

- ① SEE PLANS 1-3 OF 3 SETS
- ② GAB RETAINING WALL - SEE CIVIL AND STRUCTURAL DRAWINGS
- ③ CONCRETE SLAB AND RECYCLE CURB PROVIDED WITH CITY PERMIT
- ④ CONCRETE WALK - SEE CIVIL DRAWINGS
- ⑤ 4" X 4" IRON POST FENCE
- ⑥ FINE TRUCK ACCESS AND TURN ANGLE
- ⑦ ACCESSIBLE PARKING PER DALY CITY SPECIFICATIONS
- ⑧ ADA PARKING - SEE CIVIL DRAWINGS
- ⑨ ADA PRKNG - SEE CIVIL DRAWINGS
- ⑩ BALLFIELD / CHANGING ROOM PER DALY CITY SPECIFICATIONS
- ⑪ EXIT AT SECOND FLOOR - SEE OTHER SETS



**EXHIBIT NO. 6**

**APPLICATION NO. A-2-DYC-00-027**

**KCPC, Daly City**

**SITE PLAN**

**SITE PLAN**  
 SCALE: 1/4" = 10'

**CONCRETE PAVEMENT JOINTS**  
 SCALE: 1/4" = 10'

**CONCRETE CURB**  
 SCALE: 1/4" = 10'

27. The City Council finds that the concerns raised over parking have been addressed through the inclusion of additional parking spaces, above the number required by the Zoning Ordinance, the imposition of vehicles for multiple passengers and the stated intent of the churches administrators.

BE IT FURTHER RESOLVED, that the City Council, after fully presented to it, and carefully balancing all relevant considerations, hereb stated findings of fact and affirms the decision of the Daly City Planning Use Permit UP99-8 and Design Review Permit DR99-30, subject to eac stated conditions of approval:

<b>EXHIBIT NO. 7</b>
<b>APPLICATION NO.</b> A-2-DYC-00-27
KCPC, Daly City City conditions adopted by the applicants as part of the proposed project <i>(6 pages)</i>

Conditions of Approval:

**A. ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT**

General

1. The applicant shall file a declaration of acceptance of all conditions with the City Clerk within thirty (30) days of Council approval. Until said Declaration is filed, the use permit shall not be valid for any purpose.
2. The project shall be valid only in conjunction with detailed plans submitted with this renewal of Use Permit UP99-08 and Design Review Permit DR99-30. Any modifications required, due to the Conditions of Approval and minor changes to the plan, must be approved by the Planning Division. Major site or architectural modifications shall be treated as an amendment and shall be subject to review of the Design Review Committee.
3. The project shall conform substantially to the City of Daly City General Conditions of Approval.
4. The church shall maintain the following hours of operation:

Day/Activity	Time
<b>Sunday</b>	
English ministry worship service	9:00 AM
Korean ministry worship service	11:00 AM
Children's ministry (Sunday school)	11:00 AM
Adult bible study	1:00 PM
Afternoon worship service	3:00 PM
<b>Wednesday</b>	
Evening worship service	7:30 PM
<b>Friday</b>	
English ministry young adult fellowship	7:00 PM
Youth group Friday night fellowship	7:30 PM
Evening prayer meeting	8:00 PM

Changes in the schedule of services shall be reviewed by the City's Planning Division. If changes are determined by the Director of Economic and Community Development to be significant, the schedule shall be considered by a Council Committee appointed by the Mayor.

5. The church shall maintain a high level of ridesharing to the church services. This shall include, but not be limited to, the use of five, 15-passenger vans and one 45-passenger school-type bus, at a minimum. A reduction in the use of the high-occupancy vehicles shall be reviewed by the Director of Economic and Community Development. Significant changes shall be reviewed and considered by the City Council.
6. The applicant shall file a Waiver, Indemnification, Bonding and Insurance Agreement with the City of Daly City. Said document shall be binding upon the property owner as well as its successors in interest. Said document shall be recorded in the San Mateo County Recorder's Office and copies maintained in the Department of Economic and Community Development and City Attorney's Office prior to issuance of a Certificate of Occupancy for the building.
7. The project shall conform and comply with all mitigation measures set forth in the *Korean Central Presbyterian Church Mitigation Monitoring Program*, incorporated into UP99-8 and DR99-30 by this reference as if set out in full in each such permit (UP99-8 and DR 99-30).
8. The project shall conform to the recommendations stated in the certified geotechnical report titled "Foundation Investigation, Korean Central Presbyterian Church", dated January 3, 2000, prepared by GEI Consultants, Inc., and the supplemental geotechnical information and evaluation in the GEI Consultants, Inc., letter dated February 14, 2000.
9. Final building colors, design and signage shall be reviewed and approved by the Design Review Committee prior to issuance of any permits.
10. Both proposed parking lots shall be striped in accordance with the City's Zoning Ordinance. In addition, specific parking spaces shall be designated for use by the church's passenger bus and vanpool. Revisions to the site plan shall be reviewed and approved by the Design Review Committee prior to issuance of any permits.
11. The site, including all off-street parking areas, shall be cleaned of rubbish and litter immediately following Sunday church services.
12. The church shall designate a "Community Liaison" that will provide a communication link between the church and the neighborhood. Said liaison shall be on-call 24 hours a day and shall respond to church-related concerns stated by the neighborhood. The liaison shall be designated prior to issuance of a final Certificate of Occupancy, and shall exist through the life of the church.
13. The church shall designate a minimum of two parking monitors to direct traffic and parking on Sundays during peak arrival and departure times. The monitors shall ensure that the off-street parking lots are fully utilized and that drop-offs do not block traffic along Northridge Drive.
14. The applicant shall utilize anti-graffiti paint for all exterior building walls and any appurtenant structures such as light standards, gas meters and trash receptacles. Any graffiti shall be

removed immediately after it is placed on the building or appurtenant structures, including, but not limited to, walls, light standards, signs, concrete and asphalt areas and public sidewalks adjacent to the site. "Immediately" shall be defined as generally within 24 hours but not to exceed 72 hours.

15. The church shall, twice a year at a minimum, clean the motor oil and other fluid leakage on the off-street parking areas to prevent pollutants from entering the storm drain and dispose of the materials lawfully and properly.
16. The site plans shall include garbage and recycling areas, to be reviewed and approved by the Design Review Committee prior to issuance of any permits.

#### Landscaping

17. The applicant shall provide a complete landscaping and irrigation plan that utilizes native and drought tolerant plantings to the maximum extent possible and materials that maximize erosion control. The plan is subject to review and approval by the Design Review Committee prior to issuance of permits. Plan requirements include:
  - a. A water conserving irrigation system which includes automatic controllers and low volume irrigation system components, including, but not limited to, drip or bubble irrigation components, shall be provided for all required landscaping and shall be maintained at all times.
  - b. The landscaping and irrigation plans shall include planting and irrigation details and diagrams and shall meet the Standard Specifications and Drawings as approved by the City Engineer. The water conserving irrigation system for each shall be maintained at all times. The irrigation plan shall be prepared by a licensed landscape architect.
  - c. All trees shall be planted in accordance with Daly City Standard Specifications and shall be 15-gallon size. All shrubs shall be a minimum of 5-gallon in size. Shrubs shall be planted no greater than three feet on center.
  - d. All shrubs or any vegetation at points of ingress or egress shall be maintained at a height of no greater than 30 inches. Trees shall be trimmed in a manner to maintain a site clearance underneath the branches of seven feet from grade.
  - e. All irrigation improvements shall be located on the subject property.
18. The landscaping plans shall be revised to relocate four trees proposed along the Northridge Drive frontage adjacent to the western parking lot to reduce the obstruction of coastal views from the roadway. In this area, additional shrubs shall be planted.
19. Plans for the church shall include a minimum 5-foot wide planter area along the eastern property line bordering the adjacent residences.

#### Fencing

20. Fencing shall be installed around the perimeter of the property bordering the single-family residences to the east. Fencing shall also be installed along the western property line. Fencing in excess of six feet in height should be considered where necessary to screen the parking areas from neighboring residences. Said fencing shall be constructed using wood or masonry materials and shall be approved by the Design Review Committee prior to issuance of permits.
21. The proposed entry gate at the entrance to the western parking lot shall be relocated to provide unrestricted access to the 29 parking spaces included in the joint parking agreement with the City. Final design and location of the gate shall be approved by the Design Review Committee prior to issuance of permits.

#### Lighting

22. Exterior lighting shall be adjusted so as not to cause excessive glare and light spillover. Exterior lighting shall be reviewed and approved by the Design Review Committee prior to the issuance of any permits.

#### Bicycle Racks

23. The project plans shall be modified to include bicycle racks near the church facility. Said racks shall be easily accessible via Northridge Drive and shall provide parking for a minimum of 10 bicycles. Final location of bicycle racks shall be approved by the Planning Division prior to issuance of permits.

#### **B. DEPARTMENT OF PUBLIC WORKS**

24. The Developer shall vegetate the first 50 feet of the slopes below the proposed church and parking lots with landscaping acceptable to the City Engineer and the Director of Economic and Community Development.
25. The Developer shall apply for a lot line adjustment to accommodate the existing building pad on the subject site. Said lot line adjustment shall be recorded prior to issuance of a building permit.
26. Drainage from the development may be carried to any existing City street or storm drain only per plans approved by the City Engineer prior to issuance of a building permit. Preference shall be given to transporting the storm water runoff through underground conduits and structures.
27. Developer shall provide adequate on-site drainage facilities to prevent flow over slopes.
28. Drainage pipes located below the crown of the main sewer shall discharge into a watertight sump or receiving tank. An approved ejector pump system shall be installed to lift and discharge sewage and other waste from the receiving tank to the building drain. The pump system must be capable of pumping against the established design head with adequate velocity in the sewer lateral, and shall include a check valve or other approved device for backflow prevention.

Stormwater

29. All storm drains abutting the property shall be stenciled with the message – NO DUMPING, FLOWS TO THE OCEAN, if the storm drains have not already been labeled. Stenciling shall be completed in a manner approved by the City Department of Water and Wastewater Resources within 30 days of use permit approval.

**C. FIRE DEPARTMENT**

30. Final design of fire apparatus turn-around shall be subject to review and approval by the Fire Department prior to issuance of a building permit.
31. Each building must be fire-sprinklered per NFPA 13 standard.
32. A fire alarm system is required dependent of classification.
33. A hood and duct extinguishing system is required for the kitchen cooking operation.
34. The access road grade may not exceed 18%.

**D. BUILDING DIVISION**

35. The site plan or plot plan must show all property lines to determine area limitation, and fire-resistive construction of exterior wall.
36. Provide type of construction for the proposed project to determine area limitation.
37. The main sanctuary and fellowship room shall front directly on or discharge directly to a public street.
38. The main sanctuary and fellowship room requires three exits. One of the required exits on the south elevation is not discharging to an exit discharge. Exit discharge cannot discharge to enclosed patio.
39. The main exit of the first floor from the main and small sanctuary including fellowship room shall be sufficient width to accommodate one-half the total occupant load.
40. Classrooms at second floor (E occupancy – Street Level) shall front directly on a public street or an exit discharge.
41. Total number of plumbing fixtures required for each restroom at the “E” occupancy shall be in accordance with CBC appendix Chapter 29 – Minimum Plumbing Fixtures.
42. The distance of building to ascending slope and distance of footing to descending slope shall be established per “Footing on or Adjacent to Slope” regulations in accordance with CBC1806.5.

**E. PARKS AND RECREATION DEPARTMENT**

- 43. A slope retention plan shall be submitted for review prior to issuance of permits. In particular, the landscaped area adjacent to Northridge Drive and the western parking lot shall be included in the plan.

BE IT FURTHER RESOLVED THAT it is the intent of this City Council that the foregoing findings be considered as an integrated whole whether or not any subdivision of these findings fails to cross-reference or incorporate by reference any other subdivision of these findings; and that any finding required or permitted to be made by this City Council with respect to any particular subject matter shall be deemed made if it appears in any portion of these findings.

I hereby certify the foregoing to be a true copy of a Resolution adopted by the City Council of Daly City, California, at a regular meeting thereof held on the 24th day of July, 2000, by the following vote of the members thereof:

AYES, and in favor thereof, Councilmembers: Agrimonti, Guingona,  
Klatt, Tissier  
NOES, Councilmembers: Torres  
ABSENT, Councilmembers: None

*Helena R. Flomberg*  
CITY CLERK OF THE CITY OF DALY CITY

APPROVED:

SAL TORRES  
MAYOR OF THE CITY OF DALY CITY





WMB  
 WENDELL  
 MATTHEW  
 BOYCE

ARCHITECTURE

PLANNING

INTERIORS

244  
 S. Main Street  
 Stockton, California  
 95202

Phone: 509 / 944-9110

FAX: 509 / 944-3771

Kenneth Central  
 Presbyterian Church

EXHIBIT NO. 8

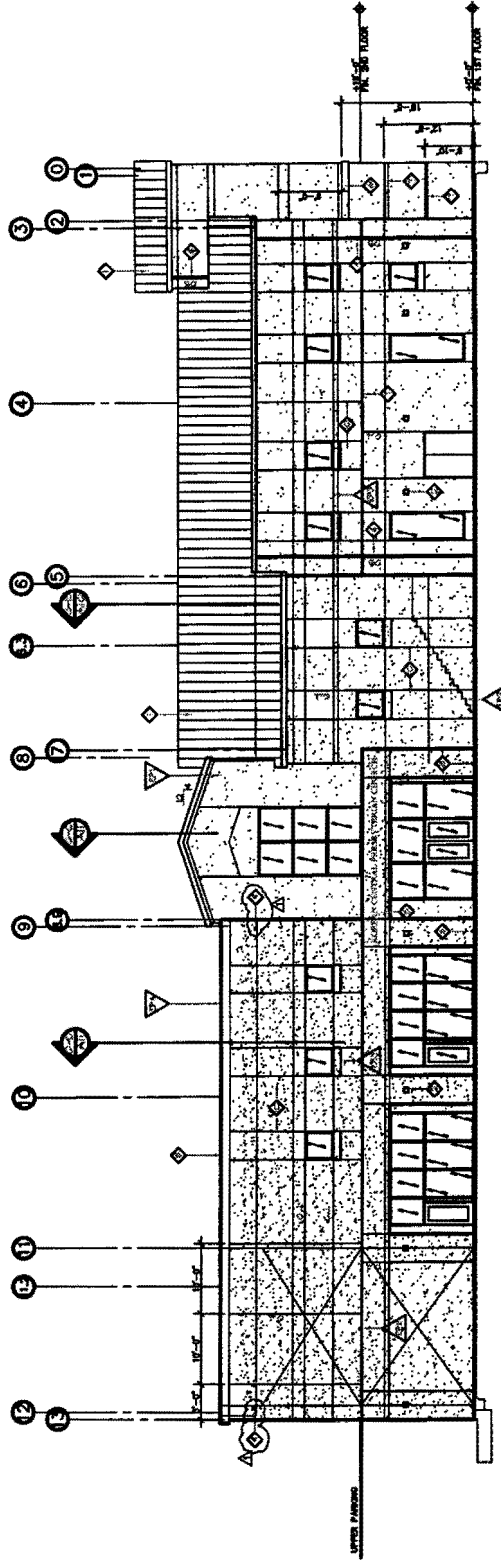
APPLICATION NO.  
 A-2-DYC-00-027

KCPC, Daly City

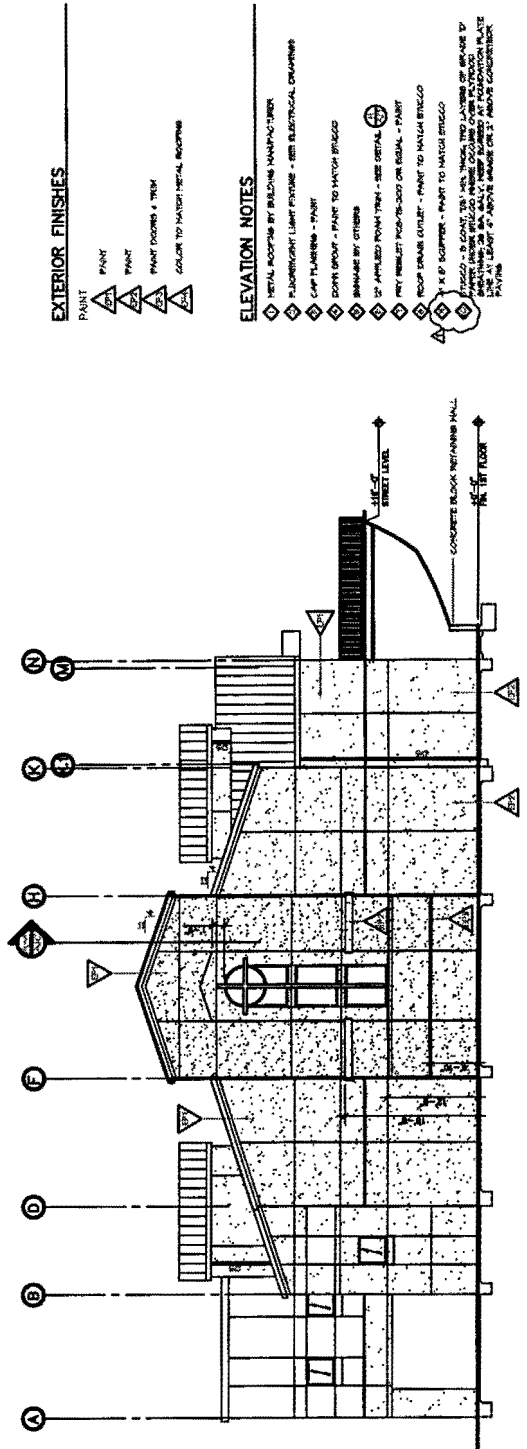
PROPOSED BUILDING  
 (2 pages)

A9

APPROVED BY: [Signature]  
 DATE: 8/11/00  
 TITLE: [Title]



**NORTH ELEVATION**  
 SCALE: 1/8" = 1'-0"



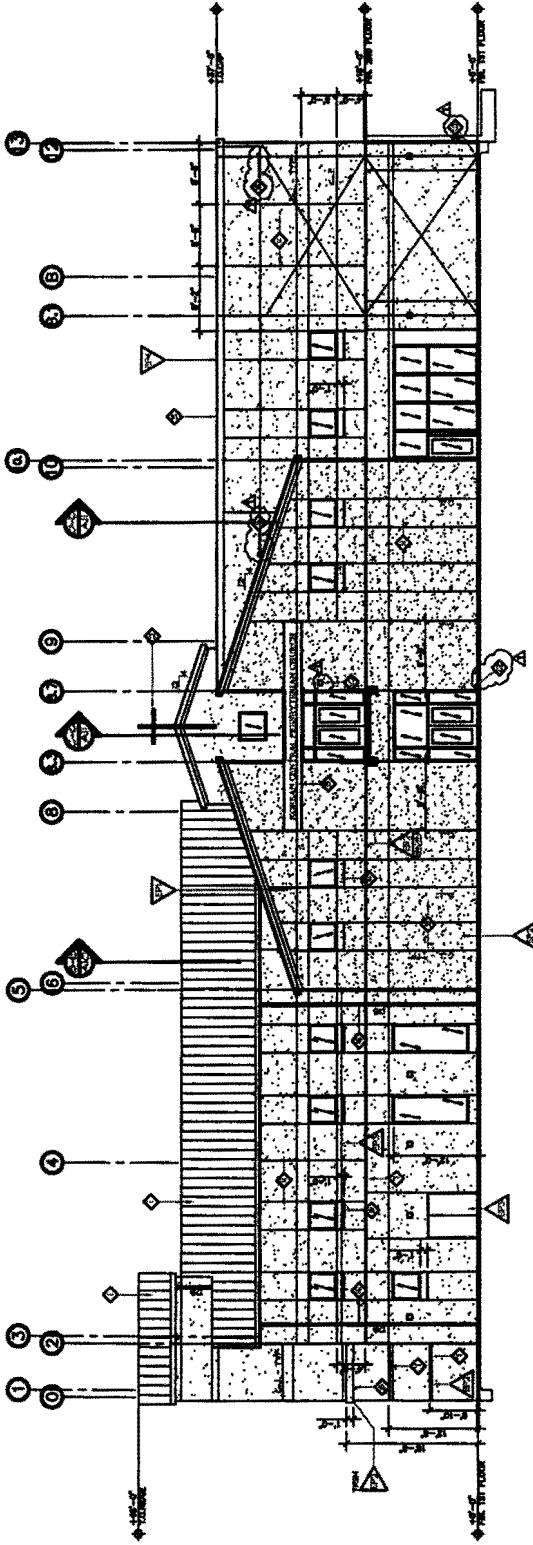
**WEST ELEVATION**  
 SCALE: 1/8" = 1'-0"

**EXTERIOR FINISHES**

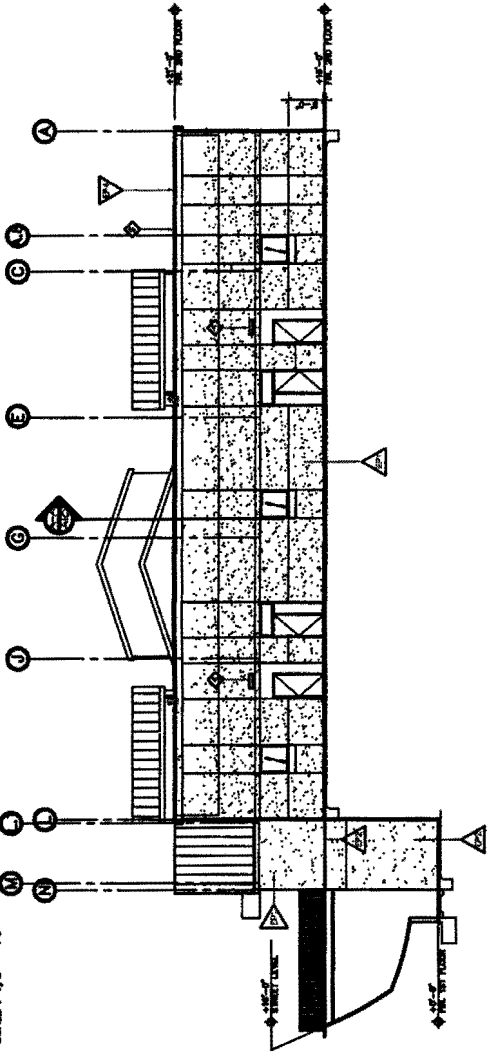
- PAINT
- PAINT
- PAINT
- PAINT DOORS & TRIM
- PAINT
- PAINT TO MATCH METAL ROOFING

**ELEVATION NOTES**

- ◇ METAL ROOFING BY BUILDING MANUFACTURER
- ◇ PAINTWORK LIGHT FINISH - SEE ELECTRICAL DRAWINGS
- ◇ GYP FLARENS - PAINT
- ◇ DOOR SPOUT - PAINT TO MATCH BRICK
- ◇ BRIMMING BY OTHERS
- ◇ IF APPLIED POINT TRIM - SEE DETAIL
- ◇ PVC INSULATED POLYURETHANE ON BRICK - PAINT
- ◇ ROOF DRAIN OUTLET - PAINT TO MATCH BRICK
- ◇ ROOF DRAIN & GUTTER - PAINT TO MATCH BRICK
- ◇ BRICK - 8" CONCRETE BLOCK WITH TWO LAYERS OF BRICK ON EXTERIOR WALLS
- ◇ CONCRETE BLOCK RETAINMENT WALL
- ◇ CONCRETE BLOCK RETAINMENT WALL
- ◇ CONCRETE BLOCK RETAINMENT WALL



**SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**EAST ELEVATION**  
SCALE: 1/8" = 1'-0"

**EXTERIOR FINISHES**

- PAINT
- A PAINT
- AA ALUMINUM CROSS - PAINT
- AAA JOINT GROUT - PAINT
- AAAA COLOR TO MATCH METAL ROOFING

**ELEVATION NOTES**

- ◆ METAL ROOFING BY BUILDING MANUFACTURER
- ◆ ALUMINUM CROSS - PAINT
- ◆ GYP PLASTER - PAINT
- ◆ JOINT GROUT - PAINT
- ◆ REMAINS BY OTHERS
- ◆ BY APPLIED POINT TEST - SEE DETAIL
- ◆ METAL ROOFING MATCHES EXISTING
- ◆ SCUPERS - PAINT TO MATCH STENCIL
- ◆ PLUMBING LIGHT ROOFING - SEE ELECTRICAL DRAWINGS
- ◆ FIRST FLOOR BRICK LETTERS - THE NUMBER 100
- ◆ SECOND FLOOR BRICK LETTERS - THE NUMBER 200
- ◆ TYPICAL BRICKWORK - SEE DETAIL
- ◆ TYPICAL BRICKWORK - SEE DETAIL
- ◆ TYPICAL BRICKWORK - SEE DETAIL
- ◆ TYPICAL BRICKWORK - SEE DETAIL

## CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400



8 November 2000

## MEMORANDUM

To: Virginia Esperanza, Coastal Program Analyst  
From: Mark Johnsson, Senior Geologist  
Re: Korean Central Presbyterian Church Appeal (A-2-DYC-00-027)

In reference to appeal A-2-DYC-00-027, I have reviewed the following documents in order to determine whether the development is consistent with the geologic hazard sections of the Coastal Act:

- 1) Wenell, Matheis, and Bowe site plans "Korean Central Presbyterian Church, New Church Facility, Development Plan, 50 Northridge Drive, Daly City, California," dated 11 November 1999, unsigned.
- 2) GEI Consultants report "Foundation investigation Korean Central Presbyterian Church, 50 Northridge Drive, Daly City, CA," signed by Donald Gray (PE 351) and dated 3 January 2000.
- 3) Mid-Valley Engineering site plans "On-site improvement plans prepared for the Korean Central Presbyterian Church," dated 10 August 2000 and signed by Don Miralle (RCE 20628)
- 4) Mid-Valley Engineering letter report "Korean Central Presbyterian Church, 50 Northridge Drive Site Improvements," dated 5 October 2000 and signed by Don Miralle (RCE 20628)
- 5) GEI Consultants letter report "Response to expansive soil concerns, Korean Central Presbyterian Church, 50 Northridge Drive, Daly City, California," dated 10 October 2000, and signed by Donald Gray (PE 351).
- 6) GEI Consultants report "Stability evaluation of western slope, Korean Central Presbyterian Church, Daly City, CA," dated 26 October 2000 and signed by Donald Gray (GE 351).
- 7) McHuron Geosciences review letter "Sea cliff retreat rates, Korean Central Presbyterian Church, Daly City, CA," dated 1 November 2000 and signed by Eric McHuron (CEG 1023).

EXHIBIT NO. 9
APPLICATION NO. A-2-DYC-00-27
KCPC, Daly City 11/8/00 Memo from
Senior Geologist Mark Johnsson to Coastal planner (3 pages)

In addition, I have more briefly reviewed a topographic survey, geotechnical investigation report, grading plans, and as-built drawings for the Avalon Canyon repair project, which have relevance to the northern slope of the development. Finally, I have had numerous conversations with Donald Gray (GEI Consultants) and Eric McHuron (McHuron Geosciences), consultants to the applicant.

The northern and western limits of the development lie at the top of steep bluffs. The western slope is a coastal bluff approximately 500 feet high, and the northern slope, over 400 feet high, descends to the base of Avalon Canyon. The appellant contends that the site is located on a potentially dangerous site, citing Daly City Land Use Policies 9.3 and 10.1 which require minimizing development in areas with steep slopes, landslide potential, slope instability and general soil hazards, and further specify that development shall not be allowed to significantly disrupt the natural or urban environment.

In its finding that the appeal raised significant issues, the Coastal Commission identified three significant geologic hazards.

First, the possibility exists that the site is underlain by expandable soils that could cause foundation distress. In reference (5), above, GEI Consultants provides soil tests that indicate, to my satisfaction, that the soils present at the site are not excessively expandable. Further, any expandable soils that are encountered can be mitigated by overexcavation and removal.

Second, the site is potentially subject to slope instability. The northern slope at the site is an engineered slope designed in conjunction with the Avalon Canyon repair project. Documents submitted in conjunction with that project demonstrate that the engineered slope possesses an adequate factor of safety. The western slope, which is subject to wave attack, is more problematic. In reference (6), above, the applicant's geologist demonstrates that the overall ("global") stability of the bluff exceeds a factor of safety of 1.5 generally accepted for development of this type. That is, the slope, in its current configuration, should be safe from a massive landslide originating low on the slope and involving the entire coastal bluff. I do note, however, that the cohesion value used in these analyses, although supported by the limited test data provided, is unexpectedly high for rocks of this type. Further, this value is much higher than that reported in reference (2). Nonetheless, given the very high factor of safety calculated, it is my opinion that the applicant's consultants have demonstrated that an adequate factor of safety exists with regard to global stability of the bluff. The bluff has experienced repeated shallow failures, however, and Donald Gray has stipulated, in a telephone conversation with me on 31 October 2000, that the slope is surficially *unstable*. This surficial instability will result in numerous shallow landslides that will gradually erode the bluff, resulting in a landward retreat of the bluff edge over time.

This represents the third potential geologic hazard at the site—that is, that gradual bluff retreat through surficial erosion and shallow landsliding, exacerbated by oversteepening of the bluff through wave attack, will encroach upon the site. In reference (2), the applicant's geologist estimated that the long-term average bluff retreat rate at the site is on the order of 1 foot per year, then established a conservative estimate of potential bluff retreat based on doubling that rate. Neither the 1-foot per year nor the doubled figure are well-supported by data in that report, however. Accordingly, further literature review and an analysis of a series of aerial photographs was undertaken by McHuron Geosciences (reference 7). This report indicates that, for the period 1961 to 1998, a reasonable value for the long-term bluff retreat rate is approximately 20 inches per year. This is roughly equivalent to the "conservative" estimate in reference (2), but is much better supported by data. The northern slope, an engineered slope, does not appear to be subject to excessive erosion, as there has been little accumulation of eroded material in drainage structures according to reference (4).

In addition to these concerns, it should be noted that the site lies less than a mile from the active trace of the San Andreas fault. In addition, two traces of the Woods Gulch fault lie within 400 feet of the property. The Woods Gulch Fault is not recognized as an active fault by the State of California. Nevertheless, the site is likely to be subjected to severe ground shaking during the anticipated economic life of the structure. The slope stability analyses demonstrate the stability of the northern and western slopes even during such shaking events.

In summary, it appears that the site can be developed safely, provided that adequate setbacks from the western slope are observed. The setback should, at a minimum, be equal to the anticipated economic lifespan of the development multiplied by the long-term average bluff retreat rate estimated at 20 inches per year. An additional level of security could be achieved by rounding the retreat rate to 2 feet per year, per reference (2). As proposed, the church will be well behind such a setback. However, parking structures and the access driveway could be subject to erosion before the church itself. I recommend that the permit be so conditioned to prohibit the construction of protective devices such as retaining walls or seawalls to protect this development.

I hope that this information is useful in formulating your recommendation. Please do not hesitate to contact me if you have further questions.

Sincerely,

Mark Johnsson  
Senior Geologist

**DRAFT**

**Attachment 2 - Mitigation Monitoring Program Checklist  
Korean Central Presbyterian Church Project**

Mitigation Measure	Implementation	Implementation Verification	Comments
<b>III. GEOLOGIC PROBLEMS</b>			
III.1 The building shall be set back at least 20 feet from the top of the slope to reduce risk that slope failure would impact the building support.	Applicant/project architect	Economic and Community Development	
III.2 Surface water runoff shall be controlled and erosion damage shall be repaired in a timely manner to prevent progressive slope failures, including a thorough check each fall for signs of erosion or blockage.	Applicant	Economic and Community Development	
III.3 The church building shall be supported on spread footings bearing on the natural site soils or compacted fill provided the foundations are located at least 25 feet from the top of the Avalon Canyon slope. Spread footings should be design using the values indicated in the certified geotechnical report by GEI Consultants, Inc., dated January 3, 2000.	Applicant/project architect	Economic and Community Development	
III.4 <u>All recommendations stated in the certified geotechnical report entitled, "Foundation Investigation - Korean Central Presbyterian Church"</u> shall be included in the project construction.	Applicant/project architect/project engineer	Economic and Community Development	
III.5 The applicant shall use non-vibratory equipment to prevent undue vibration on adjacent property during construction.	Project contractor	Economic and Community Development	

EXHIBIT NO. 10  
 APPLICATION NO.  
 A-2-DIC-00-27  
 KCPC, Daly City  
 Korean Central Presbyterian  
 Church Mitigation  
 Monitoring Program  
 (2 pages)

<b>V. WATER</b>			
V.1 The project shall include the recommendations for erosion control and stormwater pollution prevention indicated in the certified geotechnical report entitled, "Foundation Investigation – Korean Central Presbyterian Church", dated January 3, 2000.	Applicant/project architect/project engineer	Daly City Police Department	

FOUNDATION INVESTIGATION  
KOREAN CENTRAL PRESBYTERIAN CHURCH  
50 NORTHRIDGE DRIVE  
DALY CITY, CALIFORNIA

January 3, 2000

Submitted to:

Korean Central Presbyterian Church  
c/o Mr. Ted Kim  
91 Monesterio Court  
San Ramon, California 94583

Prepared by:

GEI Consultants, Inc.  
2201 Broadway, Suite 321  
Oakland, CA 94612-3017  
(510) 835-9838

Project 99486



EXHIBIT NO. 11
APPLICATION NO. A-2-DYC-00-27
KCPC, Daly City 1/3/00 Foundation
Investigation, KCPC, by Don Gray of GEI Consultants (23 pages)

Donald G. Gray, P.E.  
Geotechnical Engineer

ATTACHMENT E



## 1. INTRODUCTION

This report presents the results of our foundation investigation for the planned new Korean Central Presbyterian Church (KCPC) to be located at 50 Northridge Drive in Daly City, California. The site, located on the south side of Avalon Canyon overlooking the Pacific Ocean, is shown on the Vicinity Plan, Figure 1.

### 1.1 Purpose & Scope

The purpose of our investigation was to evaluate soil conditions for the planned building and provide geotechnical recommendations for foundation support and earthwork. Our scope of services as stated in our proposal dated November 9, 1999 was to:

- Drill and sample five test borings 10 to 20 feet deep in the building area
- Perform laboratory tests to evaluate the physical soil properties
- Perform engineering analyses of the field and laboratory data in order to develop recommendations for foundations and earthwork
- Prepare a written report summarizing our investigation and recommendations

We deepened two of the borings to a depth of 33½ feet based on conditions encountered as discussed later in this report. Our services were authorized by KCPC on November 28, 1999.

### 1.2 Background

GEI previously worked with Jacobs Associates and the City of Daly City to investigate and recommend repair of a large earth failure that occurred in Avalon Canyon in February and March of 1998. The repair consisted of construction of an earth buttress and slope regrading of the canyon north of the church site and regrading of slopes on a portion of the west side of the site. In order to construct the buttress the church property was used as a borrow site and previous grades were lowered by about 16 to 28 feet. The previous church building located at the west end of the site was demolished and removed. Rough grading to provide the buttress fill left the site in its current configuration with terraced parking areas on the west end and a level future building pad on the east end. Our previous investigation included drilling a test boring on the west end of the site and performing slope stability analyses of the south side of the canyon which forms the north side of the KCPC property. This data was used in our current study for the new church development.

## 2. PROJECT DESCRIPTION

The new church building will be a 2-story wood and masonry structure sited in the east side of the site as shown on Figure 2. The first floor will be a slab-on-grade at about the existing site grade, which is about 15 feet below the street level. The second level will be connected to the street sidewalk with a pedestrian bridge that spans over a landscaped slope. The space between the building and an existing slope on the east side will be backfilled to create a small parking area. The east end of the lower level of the building will be a retaining structure to support the

parking lot fill. The main parking area at the west side of the site and the east side parking lot will be asphalt paved. Patios and walkways will be adjacent to the south, west and north sides of the building. The site is currently rough graded to about the planned final configuration. Therefore, no significant cutting or filling except in the parking lot is planned.

### 3. SITE INVESTIGATION

#### 3.1 Field Investigation

We explored subsurface conditions in the planned church building area by drilling five test borings ranging from 14½ to 33½ feet deep on December 6, 1999. Two of the borings were deepened by about 13 feet in order to penetrate into the weathered rock as discussed in section 4.3. The borings were drilled using a truck mounted flight auger drill rig operated by RAM Drilling. The approximate boring locations are shown on Figure 2. Our field engineer logged the conditions encountered in the borings and obtained samples for visual examination and laboratory testing. The samples were obtained by driving a standard split spoon sampler (SPT) or a 2½ inch inside diameter split barrel sampler lined with sleeves. The blows required to drive the samplers using a 140 pound hammer falling 30 inches were recorded and are shown on the boring logs in Appendix A along with the sample locations and a description of the soils encountered. The soils are classified according to the Key to Boring Logs in Appendix A.

The boring locations were estimated by taping and pacing using the topographic map (1 inch = 100 feet) made of the site area after construction of the canyon repairs. Elevations of the borings were estimated using this same map. The locations and elevations are approximate and their accuracy should only be considered commensurate with the methods used. The borings were backfilled with cement grout.

#### 3.2 Laboratory Testing

Laboratory tests were performed on selected samples to help evaluate physical soil properties. The tests were performed by Soil Mechanics Laboratory and included moisture content, dry density, unconsolidated undrained triaxial compression strength and percent passing the #200 sieve analyses. The test results are presented in Appendix B.

### 4. SITE DESCRIPTION

#### 4.1 Seismic Setting

The KCPC site is located in the seismically active San Francisco Bay Area where numerous small to moderate earthquakes occur annually. The site is close to the San Andreas fault which is located about one half mile (¾ km) to the southwest. The Hayward fault is located about 19 miles (30 km) to the northeast. The site is not located in a Special Earthquake Studies Zone. Therefore the danger of fault offset through the site is low. However, current seismologic models suggest the site is likely to experience a large to severe earthquakes during the building's lifetime.

#### 4.2 Surface Features

The site is located on the south flank of Avalon Canyon, which forms the north edge of the property. The west side of the site slopes down to the Pacific Ocean. Portions of these slopes were regraded to about 1 $\frac{2}{3}$  to 2:1 (horizontal to vertical) during the 1998 canyon repair project. Northridge Drive and a park border the south side of the project. An existing house is located to the east of the site. Site elevations vary from about 480 feet (MSL) along Northridge Drive to 452 feet in the lower level of the main parking lot. The building pad is level at approximately elevation 465 feet. Cut slopes on the south and east side of the planned building are inclined at about 1 $\frac{1}{2}$ :1.

Vegetation in the building and parking areas consist of weeds and grasses. Portions of the main driveway from Northridge Drive to the building site are covered by a few inches of asphalt grindings.

#### 4.3 Subsurface Conditions

Our borings indicate that dense silty sands and very stiff sandy silts are exposed at the surface in most of the building area. These soils are deeply weathered sandstones and siltstones of the Merced formation. We have classified them as soils since we believe they will behave and excavate more like a soil than a rock. The notable exception to the surface exposure of the Merced formation is the fill encountered in borings 99-1 and 99-5 located in the northeast corner of the building site. We believe this fill was placed during development of the surrounding neighborhood in the 1950s. The fill consists of medium dense silty sand and stiff sandy clay. The fill was 10 and 7 feet deep in Borings 99-1 and 99-5, respectively. Below the fill in these two borings we encountered 23 and 20 feet of medium dense to dense sands of the Colma formation overlying the Merced formation.

Our previous boring drilled near the former church building at the west end of the site encountered about 17 feet of old fill (placed in the 1950s) underlain by Merced formation. This area was excavated to provide fill for the canyon buttress. Based on our surface reconnaissance on December 6, 1999 it appears Merced formation is exposed at the surface in the lower level of the parking lot. Our reconnaissance also indicates sands of the Colma formation are exposed in the mid level parking area. The old fill placed in the mid 1950s is exposed in the cut slopes on the east and south sides of the building site and in the upper parking area (typically above elevation 465 ft). Based on our boring information fill is likely present in the northeastern portion of the slope located north of the planned church.

#### 4.4 Groundwater

Groundwater was not encountered in any of the five test borings drilled for this investigation. Our previous investigation included both deep and shallow borings, some of which we converted to piezometers to measure water levels. Generally, water levels were well below the current

elevation of the KCPC site. Some locally perched groundwater was encountered at the contact between the old fill and the Merced formation.

## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1 General

The proposed building site is suitable for construction of the new church structure from a geotechnical engineering standpoint. The main concerns for the site are the potential for strong earthquake shaking and instability of the slopes surrounding the building and site. These concerns are discussed in the following sections along with our recommendations for foundation support and earthwork.

### 5.2 Geologic Hazards

The main geologic hazard for the site is the potential for strong to very strong earthquake shaking during the life of the structure due to the proximity to the San Andreas and Hayward faults. The building should be well-reinforced and designed in accordance with current seismic building code criteria. Strong earthquake shaking can also result in ground failures such as liquefaction and densification of sands. We conclude that these phenomena are not likely to occur because the sands encountered in the borings are medium to very dense and no groundwater was observed.

During our analyses of the Avalon Canyon repair we performed slope stability evaluations of the south side of the canyon which indicated seismic loading safety factors of at least 1.5 after the implementation of the repairs. However, these slopes remain susceptible to erosion induced progressive failures. Control of surface water runoff and timely repair of erosion damage is a very important part of ongoing project maintenance. Erosion maintenance is discussed in more detail later in this report. We also recommend that the building be set back at least 20 feet from the top of the slope to reduce the risk that slope failure would impact the building support.

Another slope hazard is cliff retreat caused by waves undercutting the base of the slope on the west side of the parking lot. Rates of cliff retreat have been estimated to be as much as one to two feet per year. Over time you should anticipate that the slope will become steeper and failures could occur that encroach into the parking lot. This type of slope failure impacted the former church building prior to its demolition. While the top portion of the west slope was flattened to improve short-term stability, we do not believe that other options to stabilize the base of the slope are economically feasible.

### 5.3 Foundations

We recommend that the church building be supported on spread footings bearing on the natural site soils or compacted fill provided the foundations are located at least 25 feet from the top of the Avalon Canyon slope. Spread footings should be designed using the following allowable values:

Load Condition	Allowable Bearing Pressure
Dead Loads	2,500 psf <sup>1</sup>
Dead plus Live Loads	3,000 psf
Total Design (including wind and seismic)	3,750 psf

Column and wall footings should be at least 18 inches and 12 inches wide, respectively, regardless of load. All footings should be founded at least 18 inches below lowest adjacent finished grade. If designed and constructed in accordance with these recommendations the footings should experience nominal settlement of less than 1/2 inch.

Resistance to lateral loads can be calculated using an allowable friction factor on the base of the footing of 0.3 times the vertical dead load. Passive resistance on the side of the footings should be evaluated using an allowable equivalent fluid weighing 300 pcf. The upper foot of soil should be neglected when evaluating passive resistance unless paving or slabs confine the adjacent surface. There should be at least seven feet of horizontal confinement adjacent to the footing in order to utilize the recommended passive value. In order to use frictional resistance and passive pressure simultaneously the footings should be poured "neat" or the backfill compacted to at least 90 percent relative compaction<sup>2</sup>.

If building foundations are located closer than about 25 feet from the top of the slope they should be supported on drilled piers that penetrate to at least 15 feet deep. Drilled piers should also be used to support the south end of the walkway bridge that will span from Northridge Drive to the building. The length of the piers should be determined using an allowable dead plus live load frictional resistance along the pier shaft of 500 psf. This value may be increased by 1/3 for total design loads. For piers located on or within 5 feet from a slope the upper 5 feet of soil should be neglected in calculating the friction length. Piers should be at least 16 inches in diameter. The pier holes should be cleaned of loose soil and water prior to concrete placement. Drilled piers should be tied together with grade beams. Resistance to lateral loads can be developed from passive pressure on the sides of the grade beams or pile cap using the criteria presented above for footings. If additional passive resistance is needed, it can be calculated using two times the projected pier diameter.

For seismic design we recommend the 1997 Uniform Building Code (UBC) site profile type Sc. Due to the proximity of the San Andreas fault (Type A seismic source) we recommend near source factors  $N_a = 1.5$  and  $N_v = 2.0$  as listed in UBC Tables 16-S and 16-T. The site is in seismic zone 4.

#### 5.4 Retaining Walls

The east end of the church building will retain fill for the adjacent parking lot and we anticipate low landscaping walls will also be constructed around the project. We assume the east building

<sup>1</sup> psf = pounds per square foot.

<sup>2</sup> Relative compaction should be based on ASTM method D1557 (latest version).

wall will be restrained (not free to rotate significantly) and therefore should be designed for an equivalent fluid pressure of 55 pcf. Surcharge loads, such as parked cars, should be added to the wall loads if they will occur in a triangular zone defined by the back of the wall and a 1 1/2:1 line (horizontal to vertical) extended up from the base of the wall. Unrestrained (cantilevered) walls where deflection of one percent of the wall height is architecturally and structurally acceptable should be designed for an equivalent fluid pressure of 40 pcf. These pressures assume level backfill and drainage of hydrostatic forces. Wall foundation recommendations and resistance to lateral loads are presented in the previous section.

Drainage should be provided behind the wall to prevent the buildup of hydrostatic forces. Drainage can be provided by a subdrain consisting of 3/4 inch crushed rock or gravel wrapped in filter fabric or Class II Permeable material without the fabric. The subdrain should be at least one foot wide and extend to within one foot of the surface. The upper foot should be compacted soil to restrict surface water infiltration unless the surface is paved. A rigid perforated pipe at least four inches in diameter should be placed at the bottom of the wall drain to collect seepage and carry it by gravity (2% min. slope) to a convenient outlet. We recommend Schedule 40 PVC pipe. Flexible perforated pipe is not acceptable. We recommend clean-out risers be installed to allow for future pipe maintenance and inspection. Waterproofing should be applied to walls where migration of moisture would be objectionable.

### 5.5 Slab-on-Grade Floors

The site soils should provide adequate support for slab-on-grade floors. The slab should be underlain by at least 4 inches of clean free-draining crushed rock to act as a capillary moisture break. In areas where moisture migration would be detrimental to floor coverings an impervious membrane should be placed over the capillary rock. A couple of inches of clean sand may be placed over the membrane to protect it during construction. We recommend that slab reinforcing be accomplished with steel bar, not wire mesh. The soil subgrade for the slab should be smooth and the upper six inches should be compacted to at least 90 percent relative compaction.

### 5.6 Pavements

Flexible (asphalt concrete) pavement sections are dependent upon the anticipated traffic load expressed as a Traffic Index (TI) and the supporting capacity of the subgrade soil expressed as a Resistance (R) value. Based on the site soils and our experience we estimate the R-value of the subgrade will be at least 30. Pavement sections for two TIs are tabulated below. The project civil engineer should select the TI that is appropriate for each area. For general application a TI of 4.0 is suggested for parking stalls and 5.0 is appropriate for driveways subjected to only occasional truck traffic.

Traffic Index	Asphalt Thickness (inches)	Aggregate Base Thickness (inches)
4.0	1.5	6
5.0	2.0	8

Aggregate base should conform to Caltrans Class 2 aggregate base rock. The base rock and the upper six inches of soil subgrade should be compacted to at least 95 percent relative compaction. The subgrade and base rock layers should also be smooth and not visibly yielding under the weight of heavy rubber-tired construction equipment (such as a motor grader, or loaded water or dump truck). Pavements edges should be set back at least 3 feet from the top of slopes.

### 5.7 Earthwork

Areas to be graded and developed should be stripped of the upper two inches of soil containing vegetation and roots. This material may be used in landscaped area but is generally not suitable for use in compacted fills. Areas to receive fill should be scarified to a depth of six inches, moisture conditioned near optimum moisture content and recompacted to at least 90 percent relative compaction. Fill and backfill should be spread in lifts less than 8 inches thick, moisture conditioned to near optimum moisture content and compacted with mechanical equipment. Jetting is not permitted.

Compacted fill material should be a granular soil similar to the site soils. The on-site soils are acceptable for fill provided they do not contain more than 3 percent organic matter or rock larger than 4 inches in diameter. If imported fill is needed it should have a maximum Liquid Limit of 40 and a Plasticity Index of less than 12. It should also be a well graded mixture with a maximum rock size of 4 inches and contain between 10 and 49 percent passing the No. 200 sieve.

Slopes should be not steeper than 1 1/2:1 and preferably graded at 2:1 in order to reduce the potential for slope erosion.

### 5.8 Drainage and Erosion Control

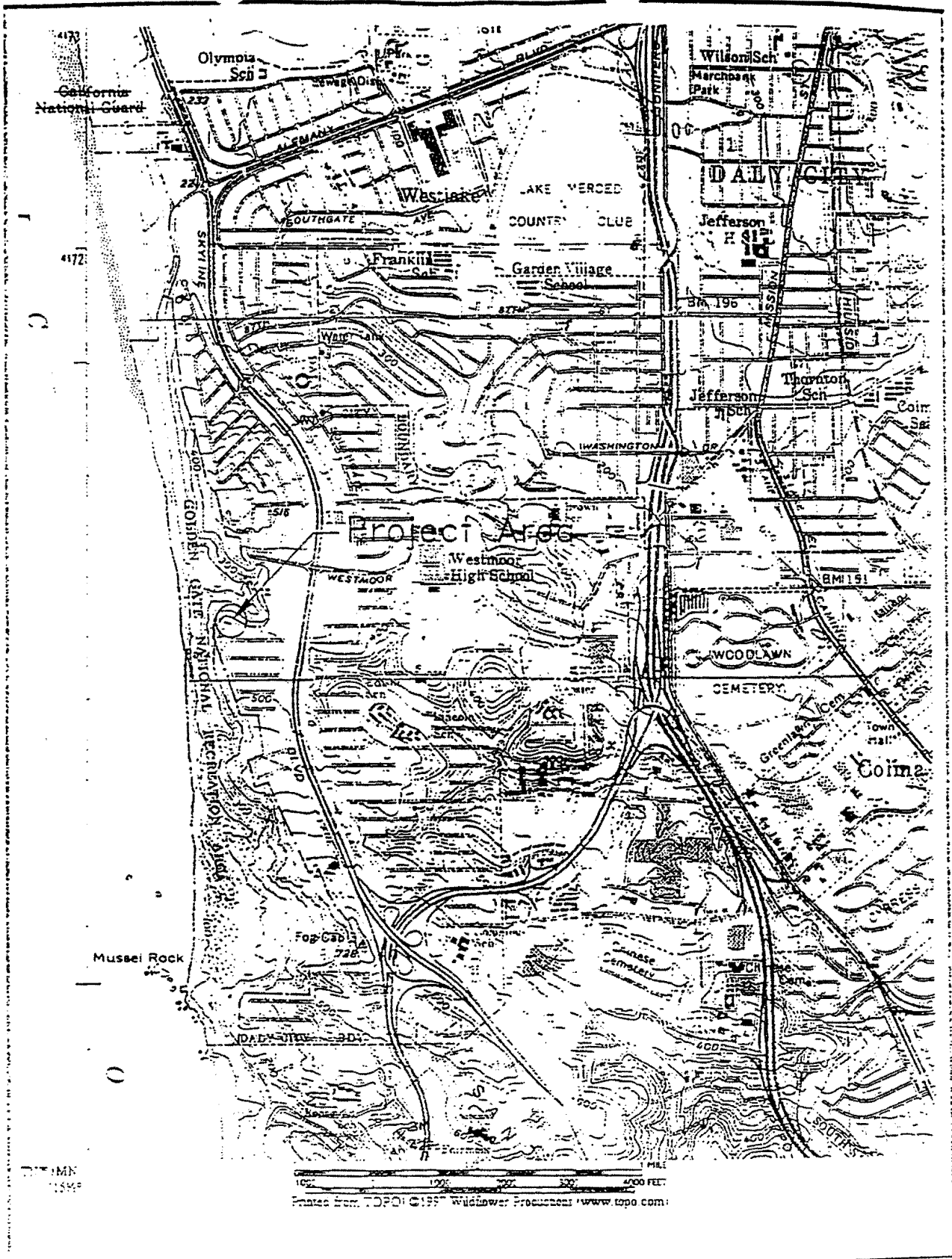
Proper control of surface water runoff, erosion protection and routine slope maintenance are imperative for acceptable site performance. The ground surface should slope at least 2 percent to prevent accumulation of water next to buildings and slabs. Roof runoff should be collected in gutters and downspouts and discharged via closed pipes or onto paved surfaces to the site drainage system. Concentrated surface runoff should be contained to paved surfaces and should be directed to catch basins and closed pipes for discharge away from buildings and slopes. Discharge points should be protected from erosion. The site soils are particularly subject to erosion and progressive failure if not repaired promptly. All exposed soil slopes should be planted or hydroseeded immediately after grading to help reduce surface water erosion. We recommend that slopes and drainage features be checked each fall for signs of erosion or blockage. Repairs should be implemented before the rainy season. After major storms the slopes and drainage should also be checked for damage since unrepaired erosion can become progressively worse and lead to significant slope failure.

### 5.9 Review of Plans and Construction Observations

We should review the geotechnical aspects of the plans and specifications prior to bidding and construction to check that they are consistent with site conditions and comply with the intent of our recommendations.

The analyses and recommendations prepared for this project are based in part upon data obtained from widely spaced test borings. The nature and extent of variations across the site may not become apparent until construction. Therefore, during construction we recommend that we observe foundation and drainage installation and test earthwork. Our services during construction allow us to confirm compliance with the design concepts, specifications and recommendations and to make recommendations in the event subsurface conditions differ from those anticipated prior to the start of construction.





Korean Central  
Presbyterian Church

Foundation Investigation  
Korean Central Presbyterian Church  
Daily City, California

VICINITY MAP

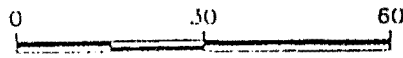
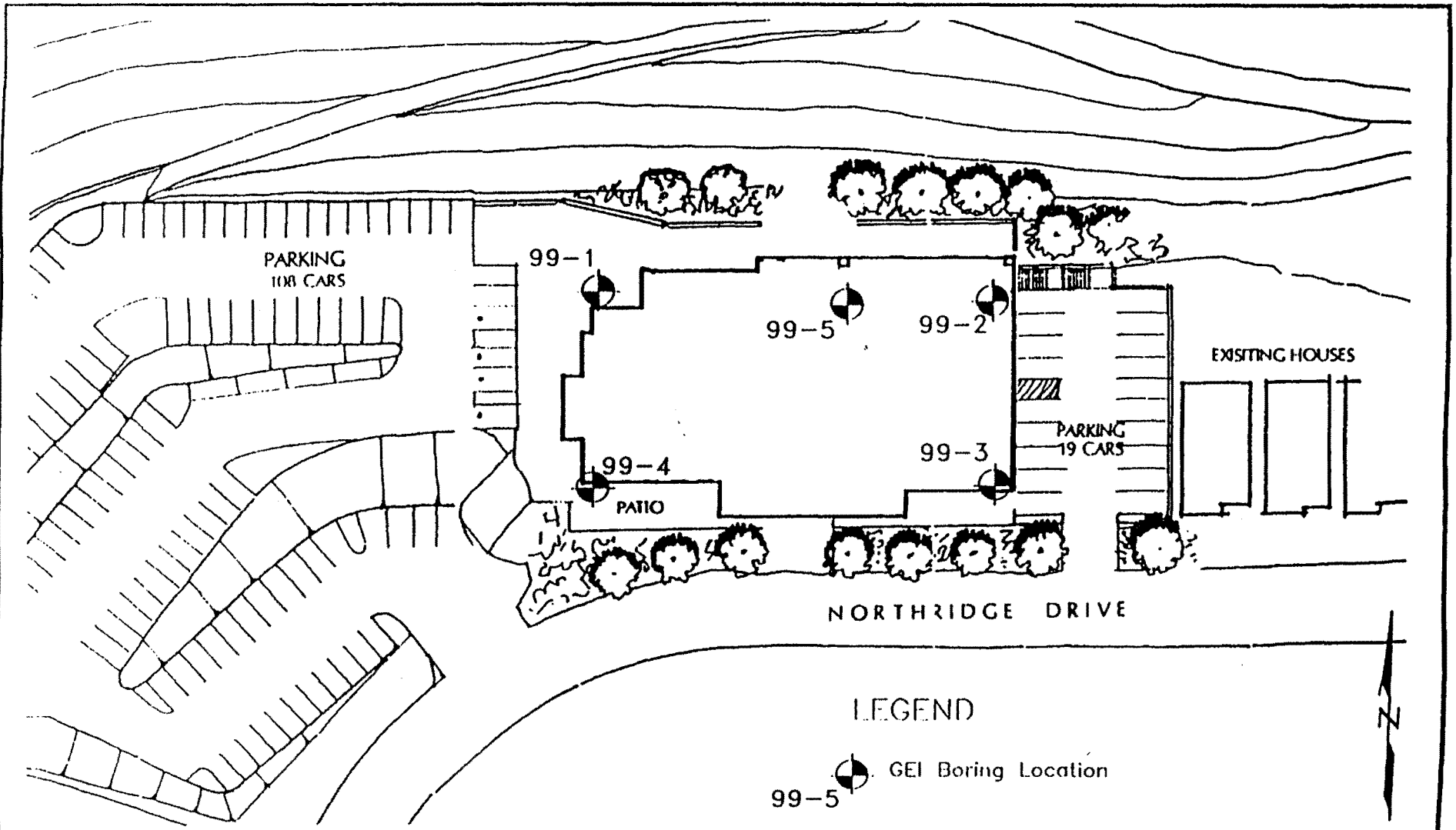


GEI Consultants, Inc.


Project 99486

Dec. 1999

Fig. 1



BY: [Redacted] Mathis Rowe, 1999.

Korean Central Presbyterian Church	Foundation Investigation Korean Central Presbyterian Church Daly City, California	<b>BORING LOCATION PLAN</b>	
 <b>GEI Consultants,</b>	Project 99486	Dec. 1999	Flg. [Redacted]

# SOIL CLASSIFICATION CHART UNIFIED SOIL CLASSIFICATION SYSTEM

GRAPHIC SYMBOL	LETTER	DESCRIPTION OF SYMBOLS USED IN BORING LOGS	MAJOR DIVISIONS		
	GW	WIDELY GRADED GRAVELS	CLEAN GRAVELS (LITTLE OR NO FINES)	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	COARSE GRAIN SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE
	GP	NARROWLY GRADED GRAVELS			
	GM	SILTY GRAVELS	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		
	GC	CLAYEY GRAVELS			
	SW	WIDELY GRADED SANDS	CLEAN SANDS (LITTLE OR NO FINES)	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	
	SP	NARROWLY GRADED SANDS			
	SM	SILTY SANDS	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		
	SC	CLAYEY SANDS			
	ML	SILTS	SILTS & CLAYS LIQUID LIMIT LESS THAN 50		FINE GRAIN SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE
	CL	LEAN CLAYS			
	OL	ORGANIC SILTS/ORGANIC CLAYS			
	MH	ELASTIC SILTS	SILTS & CLAYS LIQUID LIMIT GREATER THAN 50		
	CH	FAT CLAYS			
	OH	ORGANIC CLAYS/ORGANIC SILTS			
	PT	PEATS	HIGHLY ORGANIC SOILS		

### TYPES OF SAMPLERS

SPT = 1.4 in. dia. Standard Penetration Sampler

M = 2.5 in. dia. Modified Californic Sampler

B = Bag

### FIELD TESTS

PP = POCKET PENETROMETER READING (tsf)

TV = TORVANE READING (tsf)

### NOTES

1. For driven samplers sampling resistance is the number of hammer blows required to advance the sampler 12-inches, after an initial 6-inches seating penetration. Liners were not used in the SPT sampler.

2. Descriptions of the hammers used to drive the samplers are presented in the boring logs.

### SOIL SAMPLE SYMBOLS

• Bag Sample

Standard Penetration Sampler

Modified California Sampler

Korean Central  
Presbyterian Church

Korean Central  
Presbyterian Church  
Day City, California

KEY TO BORING LOGS



GEI Consultants, Inc.

Project 99486

Dec. 1999

4-1

99-1

BORING LOCATION		N.W. Corner		DATE START/FINISH		12-6-99 / 12-6-99		<b>99-1</b>	
GROUND ELEVATION (NGVD)		--463		DRILLED BY		Rom Drilling			
GROUNDWATER EL.		NONE		DATE		12-6-99		LOGGED BY	
						C.T.H.		TOTAL DEPTH (FT) 14.5	
PG. 1 OF 1									

EL FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	0							
		M1	19 25 45	18	12			SILTY SAND (SM); Dense to very dense, moist, light gray brown. (DEEPLY WEATHERED SILTY SANDSTONE, MERCED FORMATION)
		S2	17 25 22	18	18			Same as M1
	5							
		M3	27 50/5*	11	11			Same as M1
	10							
		S4	40 50/5.5*	11.5	11.5			Same as M1
	15							Bottom of boring at 14.5'.
	20							
	25							
	30							

BLOWS PER 6 IN.—140 LB. HAMMER FALLING 30 IN. TO DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER

PEN—PENETRATION LENGTH OF SAMPLER OR CORE BARREL

REC—RECOVERY LENGTH OF SAMPLE

M—MODIFIED CALIFORNIA SAMPLER

S—STANDARD PENETRATION TEST SAMPLER

NOTES:

Surface; Lightly Vegetated, Lupine, Yarrow Grasses.

Korean Central  
Presbyterian Church  
Day City, California  
Project 99486 12/6/99

**GEI Consultants, Inc.**

99-1 12/20/99 PYM

99-2

BORING LOCATION N.E. Corner DATE START/FINISH 12-6-99 / 12-6-99

GROUND ELEVATION (NGVD) ~464 DRILLED BY Ram Drilling

GROUNDWATER EL. NONE DATE 12-6-99 LOGGED BY C.T.H. TOTAL DEPTH (FT) 33.5 PG. 1 OF 2

EL FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	0							SANDY CLAY (CL); Stiff, moist, mottled light brown & dark brown. (FILL)
		S1	6 7 6	18	15			Same as S1
	5	M2	7 9 14	18	18			
	10	S3	5 6 10	18	18			SANDY CLAY (CL); Stiff, wet, dark brown.
	15	M4	9 10 17	18	18			CLAYEY SAND (SC); Medium dense, orange-brown. (COLMA FORMATION)
	20	S5	9 16 22	18	18			SAND, SLIGHTLY SILTY (SP-SM); Dense, moist, orange-brown. (COLMA FORMATION)
	25	M6	20 50/6"	12	12			Same as S5
	30							

BLOWS PER 6 IN.-140 LB. HAMMER FALLING 30 IN. TO DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER

PEN=PENETRATION LENGTH OF SAMPLER OR CORE BARREL

REC=RECOVERY LENGTH OF SAMPLE

M=MODIFIED CALIFORNIA SAMPLER

S=STANDARD PENETRATION TEST SAMPLER

NOTES:  
Surface; Lightly Vegetated,  
Lupine, Yarrow Grasses.

Korean Central  
Presbyterian Church  
Daly City, California  
Project 99486 12/6/99

 GEI Consultants, Inc.

99-2A 12/30/99 PNM

99-2

BORING LOCATION <u>N.E. Corner</u>	DATE START/FINISH <u>12-6-99 / 12-6-99</u>	<b>99-2</b>
GROUND ELEVATION (NGVD) <u>~464</u>	DRILLED BY <u>Ram Drilling</u>	PG. 2 OF 2
GROUNDWATER EL. <u>NONE</u> DATE <u>12-6-99</u>	LOGGED BY <u>C.T.H.</u> TOTAL DEPTH (FT) <u>33.5</u>	

EL. FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	30							
		S7	14 27 31	18	18			SANDY SILT (ML); Very stiff, moist, light brown w/ orange mottling. (DEEPLY WEATHERED SILTSTONE, MERCED FORMATION)
	35							Bottom of boring at 33.5'.
	40							

99-2B 12/20/99 PYM

<p>BLOWS PER 6 IN.—140 LB. HAMMER FALLING 30 IN. TO DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER</p> <p>PEN—PENETRATION LENGTH OF SAMPLER OR CORE BARREL</p> <p>REC—RECOVERY LENGTH OF SAMPLE</p> <p>M—MODIFIED CALIFORNIA SAMPLER</p> <p>S—STANDARD PENETRATION TEST SAMPLER</p>	<p>NOTES:</p> <p>Surface: Lightly Vegetated, Lupine, Yarrow Grasses.</p>	<p style="text-align: center;">Korean Centre Presbyterian Church Daly City, California</p> <p style="text-align: center;">Project 99486 12/6/99</p> <div style="text-align: center;"> <b>GEI Consultants, Inc.</b> </div>
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off-2

BORING LOCATION <u>S.E. Corner</u>	DATE START/FINISH <u>12-6-99 / 12-6-99</u>	<b>99-3</b>
GROUND ELEVATION (NGVD) <u>~465</u>	DRILLED BY <u>Rom Drilling</u>	PG. 1 OF 1
GROUNDWATER EL. <u>NONE</u> DATE <u>12-6-99</u>	LOGGED BY <u>C.T.H.</u> TOTAL DEPTH (FT) <u>16.0</u>	

EL. FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	0							<p>SANDY CLAY (CL); Stiff, wet, dark brown &amp; orange. (FILL?)</p> <p>SILTY SAND (SM); Dense to very dense, moist, light gray-brown. (DEEPLY WEATHERED SILTY SANDSTONE, MERCED FORMATION)</p> <p>Same as M2</p> <p>Same as M2</p> <p>Same as M2</p> <p>Bottom of boring at 16.0'.</p>
		S1	7 8 10	18	18			
		M2	10 21 32	18	16			
		M3	19 42 50/4"	16	16			
		S1	45 50/4"	10	9			
	5							
		M3	50/4"	4	2			
	10							
	15							
	20							
	25							
	30							

99-3 12/20/99 PYM

BLOWS PER 6 IN. - 140 LB. HAMMER FALLING 30 IN. TO DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER

PEN=PENETRATION LENGTH OF SAMPLER OR CORE BARREL

REC=RECOVERY LENGTH OF SAMPLE

M=MODIFIED CALIFORNIA SAMPLER

S=STANDARD PENETRATION TEST SAMPLER

NOTES:

Surface; Lightly Vegetated.  
Lupine, Yarrow Grasses.

Korean Central  
Presbyterian Church  
Daly City, California  
Project 99486 12/6/99

**GEI Consultants, Inc.**

Oh-4

BORING LOCATION <u>S.W. Corner</u>	DATE START/FINISH <u>12-6-99 / 12-6-99</u>	<b>99-4</b>
GROUND ELEVATION (NGVD) <u>~45</u>	DRILLED BY <u>Ram Drilling</u>	
GROUNDWATER EL. <u>NONE</u> DATE <u>12-6-99</u>	LOGGED BY <u>C.T.H.</u> TOTAL DEPTH (FT) <u>14.5</u>	PG. <u>1</u> OF <u>1</u>

EL. FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	0							
		M1	25 37 50/5"	17.5	14.5			SILTY SAND (SM); Dense to very dense, moist, light gray brown. (DEEPLY WEATHERED SILTY SANDSTONE, MERCED FORMATION)
		S2	19 23 23	18	18			Same as M1
	5							
		M3	19 35 50/5"	18	18			Same as M1
	10							
		S4	19 42 42	18	18			Same as M1
	15							Bottom of boring at 14.5'.
	20							
	25							
	30							

<p>BLOWS PER 6 IN. - 140 LB. HAMMER FALLING 30 IN. TO DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER</p> <p>PEN - PENETRATION LENGTH OF SAMPLER OR CORE BARREL</p> <p>REC - RECOVERY LENGTH OF SAMPLE</p> <p>M - MODIFIED CALIFORNIA SAMPLER</p> <p>S - STANDARD PENETRATION TEST SAMPLER</p>	<p>NOTES:</p> <p>Surface: Lightly Vegetated, Lupine, Yarrow Grasses.</p>	<p style="text-align: center;">Korean Central Presbyterian Church Daly City, California</p> <p style="text-align: center;">Project 99486    12/6/99</p> <div style="text-align: center;"> <b>GEI Consultants, Inc.</b> </div>
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99-4 12/20/99 PYM



99-5

BORING LOCATION <u>30 ft. West of 99-2</u>		DATE START/FINISH <u>12-6-99 / 12-6-99</u>		<b>99-5</b>	
GROUND ELEVATION (NGVD) <u>-484</u>		DRILLED BY <u>Ram Drilling</u>			
GROUNDWATER EL. <u>NONE</u> DATE <u>12-6-99</u>		LOGGED BY <u>C.T.H.</u>		TOTAL DEPTH (FT) <u>32.5</u>	
PG. <u>1</u> OF <u>2</u>					

EL. FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	0							SANDY SILT (ML); Stiff, moist, light gray-brown. (FILL)
		M1	19 11 17	18	-			
		S2	4 5 7	18	18			Same as M1
		B3				Driller notes change.		SANDY CLAY (CL); Stiff, moist, dark brown, with roots & organic matter. (OLD TOPSOIL)
		M4	8 9 15	18	18			SAND, SLIGHTLY SILTY (SP-SM); Orange brown, medium dense, moist. (COLMA FORMATION)
		S5	8 10 11	18	18			Same as M4
		B6						Same as M4
		B7				Color change in tailings.		Increase in clay content at 27'. SANDY SILT (ML); Very stiff, moist, light gray-brown. (DEEPLY WEATHERED SILTSTONE, MERCED FORMATION)
	30							

<p>BLOWS PER 6 IN. - 140 LB. HAMMER FALLING 30 IN. TO DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER</p> <p>PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL</p> <p>REC = RECOVERY LENGTH OF SAMPLE</p> <p>B = BAG SAMPLE</p> <p>M = MODIFIED CALIFORNIA SAMPLER</p> <p>S = STANDARD PENETRATION TEST SAMPLER</p>	<p>NOTES:</p> <p>Surface: Lightly Vegetated, Lupine, Yarrow Grasses.</p>	<p>Korean Central Presbyterian Church Daly City, California</p> <p>Project 99486 12/8 99</p> <p style="text-align: center;"> <b>GEI Consultants, Inc.</b></p>
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99-5A 12/20/99 PYM

BORING LOCATION L. West of 99-2 DATE START/FINISH 12 19 / 12-6-99  
 GROUND ELEVATION (NGVD) -164 DRILLED BY Ram Drilling  
 GROUNDWATER EL. NONE DATE 12-6-99 LOGGED BY C.T.H. TOTAL DEPTH (FT) 32.5

99-5  
 PG. 2 OF 2


EL FT.	DEPTH FT.	SAMPLE				REMARKS	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
		TYPE and NO.	BLOWS PER 6 IN.	PEN IN.	REC IN.			
	30	S8	17 37 50/5'	17	13			SANDY SILT (ML); Very stiff, moist, light gray-brown. (DEEPLY WEATHERED SILTSTONE, MERCED FORMATION)
								Bottom of boring at 32.5'
	35							
	40							

99-5B 12/20/99 PYM

BLOWS PER 6 IN. - 140 LB. HAMMER FALLING 30 IN. TO  
 DRIVE A 2.0 IN. OD SPLIT SPOON SAMPLER  
 PEN=PENETRATION LENGTH OF SAMPLER OR CORE BARREL  
 REC=RECOVERY LENGTH OF SAMPLE  
 M=MODIFIED CALIFORNIA SAMPLER  
 S=STANDARD PENETRATION TEST SAMPLER

NOTES:  
 Surface; Lightly Vegetated,  
 Lupine, Yarrow Grasses.

Korean Center  
 Presbyterian Church  
 Daly City, California  
 Project 99486 12/16/99

 GEI Consultants, Inc.

MOISTURE AND DENSITY DETERMINATIONS

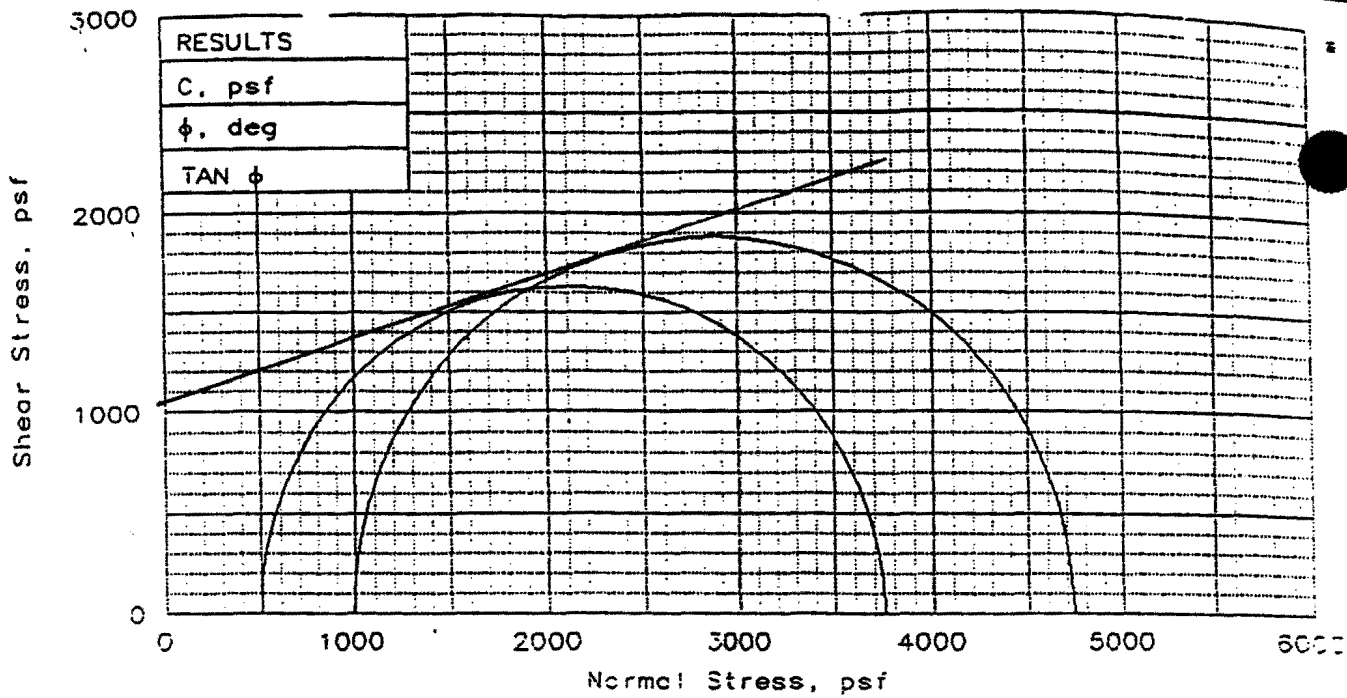
CLIENT: GEI Consultants, Inc.

JOB NO. 99436

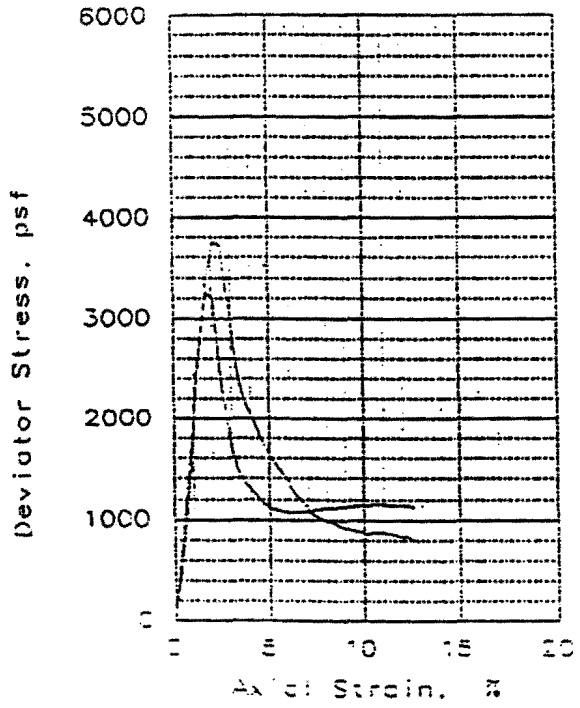
LOCATION: KC PC

SAMPLE & SOIL TYPE	BORING	99-1	99-1	99-2	99-5
	SAMPLE NO.	M1B	M3B	M4A	M4B
	SAMPLE DEPTH	2-2.5'	8.4-8.9'	14.5-15'	8-8.5'
	DATE SAMPLED BY	v dense, olive	same as	Dense, redish	Dense, v. dk.
	DATE TESTED BY	brn. w/ gray	M1B	brn. silty	gray to black
	SOIL TYPE	silty v. fine SAND	- bedded - cemented	f-SAND.	silty f-SAND.
	LABORATORY IDENTIFICATION	SM	SM	SM	SM
DENSITY	NO. OF RINGS	6.0	6.0	5.9	6.0
	WT. OF WET SOIL & RINGS	1155.2	1139.7	1160.8	1196.2
	WT. OF RINGS	215.0	215.0	215.0	215.0
	WT. OF WET SOIL	940.2	924.7	945.8	981.2
	WET DENSITY (LBS./CU.FT.)	129.8	127.6	132.8	135.4
	DRY DENSITY (LBS./CU.FT.)	113.2	114.9	118.7	118.8
MOISTURE CONTENT	DISH NO.	1	9	111	42
	WT. OF WET SOIL & DISH	143.8	153.0	188.7	207.6
	WT. OF DRY SOIL & DISH	129.7	141.0	172.2	186.0
	NET LOSS OF MOISTURE	14.1	12.0	16.5	21.6
	WT. OF DISH	32.8	33.0	31.8	31.6
	WT. OF DRY SOIL	96.9	108.0	140.4	154.4
	MOISTURE CONTENT (% DRY WT.)	14.6	11.1	11.8	14.0

#200 = 22%



RESULTS
C, psf
$\phi$ , deg
TAN $\phi$



	1	2
SAMPLE NO.:	1	2
INITIAL WATER CONTENT, %	22.1	16.1
INITIAL DRY DENSITY, pcf	102.1	105.1
INITIAL SATURATION, %	91.5	72.0
INITIAL VOID RATIO	0.651	0.603
INITIAL DIAMETER, in	2.42	2.42
INITIAL HEIGHT, in	4.73	4.73
AT TEST WATER CONTENT, %	22.1	16.1
AT TEST DRY DENSITY, pcf	102.1	105.1
AT TEST SATURATION, %	91.5	72.0
AT TEST VOID RATIO	0.651	0.603
AT TEST DIAMETER, in	2.42	2.42
AT TEST HEIGHT, in	4.73	4.73
Strain rate, in/min	0.0750	0.0750
BACK PRESSURE, psf	0	0
CELL PRESSURE, psf	994	504
FAIL. STRESS, psf	3751	3255
ULT. STRESS, psf		
$\sigma_1$ FAILURE, psf	4745	3759
$\sigma_3$ FAILURE, psf	994	504

TYPE OF TEST:  
Unconsolidated Undrained

SAMPLE TYPE: 2.5" Mod. Col.

DESCRIPTION: See Remarks

SPECIFIC GRAVITY = 2.7

REMARKS: See 99-2, M25 @ 5-5.8  
Soil from the area around SILT (ML)  
See 99-3, M18 @ 2-2.5" Same  
as Soil #2

Fig. No.

CLIENT: GEI Consultants, Inc.

PROJECT: KCPC

SAMPLE LOCATION: 99-2 & 99-3 See Remarks

PROJECT NO: 99486 DATE 12-13-99



# GEI Consultants, Inc.

ECON/COM DEV C

FEB 15 2000

DALY CITY

February 14, 2000  
99486

2201 Broadway, Suite 321  
Oakland, CA 94612-3017  
510-835-9838  
510-835-9842 Fax

Korean Central Presbyterian Church  
c/o Mr. Ted Kim  
91 Monasterio Court  
San Ramon, CA 94583

Dear Mr. Kim:

Supplemental Geotechnical Report  
Korean Central Presbyterian Church  
Daly City, California

This letter provides supplemental geotechnical information and evaluation for the subject project as requested by the City of Daly City. GEI Consultants, Inc. completed a foundation investigation for the planned new facility to be constructed at 50 Northridge Drive in Daly City as recorded in our report dated January 3, 2000. For the purposes of this letter we have assumed that the useful economic life of the building will be 50 years.

### Site Stability

We do not believe the planned project will have any significant effect on site stability. The planned drainage and landscape improvements should have a beneficial impact on site stability. Our report recommends that portions of the planned building that encroach any closer than about 25 feet to the top of the slope on the north side of the site be supported on drilled, cast-in-place piers. This is a precautionary measure in the very unlikely event that erosion (if it occurs) of the slope north of the project is not repaired on a timely basis and progressive erosion begins to impact developed areas of the church facility. The slope on the west side of the planned parking lot has the potential to be impacted by cliff retreat as discussed below under "Cliff Retreat."

### Impact on Adjacent Properties

Based on our knowledge of site geotechnical conditions and earthwork-related construction experience, we do not anticipate the church project will have an impact on adjacent properties. Planned earthwork is relatively minor except for filling a wedge shaped section between the east side of the church and an existing slope on the east side of the property. This fill will support a planned street level parking lot. Some vibration may be felt by adjacent residents if the contractor uses vibratory compaction equipment. We recommend that the contractor use non-vibratory equipment in this area. Since the fill area will be at least 25 feet away from the nearest residence we don't believe vibrations will cause damage in any event. We expect to be present

ATTACHMENT E

during earthwork and will monitor the type of equipment and resulting vibration affects, if any. The contractor will need to establish erosion/runoff controls if construction takes place during the winter to prevent damage to adjacent lands.

#### Cliff Retreat

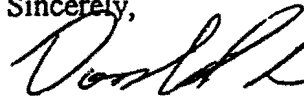
It is possible that cliff retreat could impact the church property during its economic life. Using estimated maximum average cliff retreat rates of one and two feet per year we project that the steep slope down to the Pacific Ocean could encroach into the west side of the parking lot. This is shown graphically on the attached Figure A that is based on the site topography after the 1998 Avalon Canyon repair work. According to the Site Grading and Drainage Plan for the church project dated 10/99 by Jacobs Associates no parking spaces would be lost for the one foot per year retreat scenario. If average retreat occurs at two feet per year we estimate that about six parking stalls could be impacted. While structures could be designed and built to protect the parking lot during the project life, they would be relatively expensive.

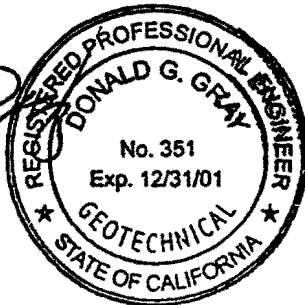
#### Woods Gulch Fault

A geotechnical report dated June 23, 1998 for the Avalon Canyon repairs by GEI discusses the presence of the Woods Gulch Fault in the area. Figure 5-1 in this report shows that the inferred location of two traces of the this inactive fault are located about 120 feet and 330 feet northeast of the planned church building. The traces do not cross the property. This fault is not considered active by the State of California, and it is not expected to impact the design, construction or performance of the church.

We trust this provides the clarification and additional evaluation requested by the City. Please call the undersigned if you have any questions.

Sincerely,

  
Donald G. Gray, G.E.  
Geotechnical Engineer



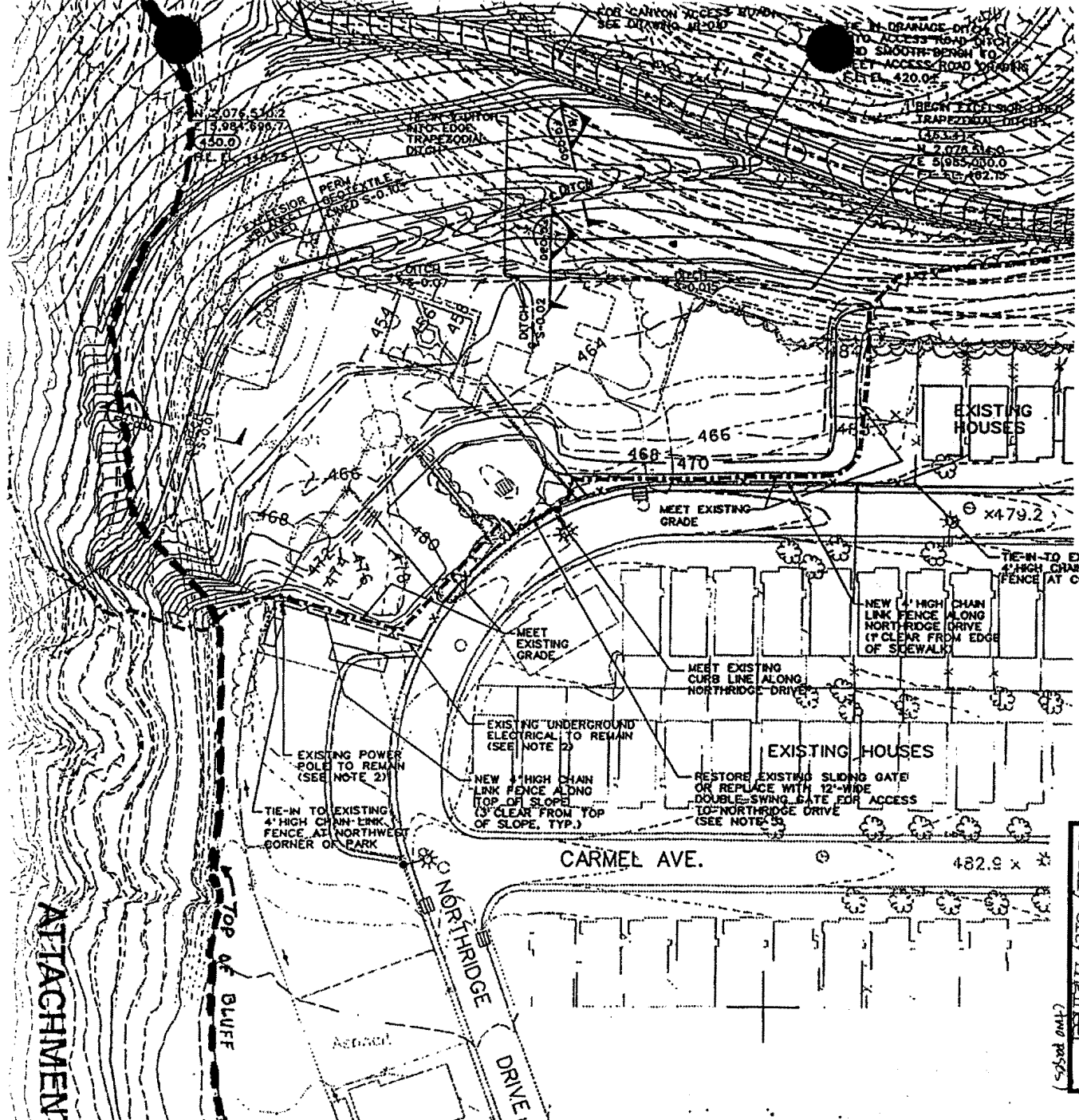
Attachment: Figure A

c: Tom Bowe, WMB Architecture  
Andrea Ouse, City of Daly City

**NOTES:**

1. NEW CONTOURS NOT SHOWN ON 1/2"=1' CUT SLOPE FOR CLARITY.
2. CONTRACTOR SHALL CONFIRM LOCATION OF UNDERGROUND ELECTRICAL AND POWER POLE AND MAINTAIN A CLEAR DISTANCE OF 5 FEET FROM GRADING LIMITS.
3. CHAIN LINK FENCE AND GATES SHALL BE FURNISHED AND INSTALLED PER CITY OF DALY CITY STANDARD DRAWING M-3 ENTITLED "CHAIN LINK FENCE".

# BLUFFLINE DETERMINATION



**LEGEND:**

- 450 — FINISHED GRADE 50' CONTOUR (AERIAL SURVEY 1/8/99)
- 450 — FINISHED GRADE 10' CONTOUR (AERIAL SURVEY 1/8/99)
- - - 450 - - - PRE-CONSTRUCTION GRADE 50' CONTOUR (AERIAL SURVEY 7/15/98)
- - - 10' - - - PRE-CONSTRUCTION GRADE 10' CONTOUR (AERIAL SURVEY 7/15/98)
- LIMIT OF WORK (DESIGN)
- x - x - NEW CHAIN LINK FENCE
- ▭ CUT SLOPE
- (441.0) FINISH GRADE SPOT ELEVATION
- 2% FINISH GRADE SLOPE
- LINED TRAPEZODAL DITCH

**AS-BUILT**

EXHIBIT NO. 12  
 APPLICATION NO. A-2-DYC-00-27  
 CIPC, Daly City  
 Bluffline determination  
 by Mohinder Sharma, City of Daly City Engineer  
 (THW:sp/s)

DATE	DESCRIPTION	BY	CHK	APP.	DATE	DRAWN BY	D. HALL	5/90
5/90	AS-BUILT FOR AS-BUILT	DL	RC	RC	5/20/90	CHECKED	R. COFFIN	5/90

**JACOBS ASSOCIATES**  
 Engineers/Consultants  
 360 SANDHOG STREET, SAN FRANCISCO, CA 94112-2725

CITY OF DALY CITY, CALIFORNIA  
 AVALON CANYON REPAIR  
 FINISH GRADING  
 DETAIL PLAN AT SOUTHWEST BLUFF

SHEET 24 OF 50  
 SCALE 1"=40'-0" (AS SHOWN 3519)  
 JOB REF NO. 9821CS24  
 DRAWING NUMBER FG-012

ATTACHMENT

**DALY CITY INTER-OFFICE MEMORANDUM**

**TO:** Andrea Ouse, Associate Planner  
**FROM:** Mohinder Sharma, City Engineer *MPS*  
**SUBJECT:** Coastal bluffline at 50 Northridge Drive

**RECEIVED**  
DATE: October 18, 2000  
OCT 18 2000  
CALIFORNIA  
COASTAL COMMISSION

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In February 2000, I established the coastal bluffline at 50 Northridge Drive to allow analysis of the proposed Korean Central Presbyterian Church. The coastal bluffline determination was used to assess the building setback from the bluffline, as required in the City's Zoning Code.

The criteria to establish the coastal bluffline is as follows:

The bluffline is the topographic line separating the gently sloped ground from the steeper coastal bluff. The coastal bluffline in the vicinity of 50 Northridge Drive is shown on Attachment A. The bluffline is located above the existing surface cracks near the northwest corner of the church property, but it does not extend east into Avalon Canyon.

Attachment



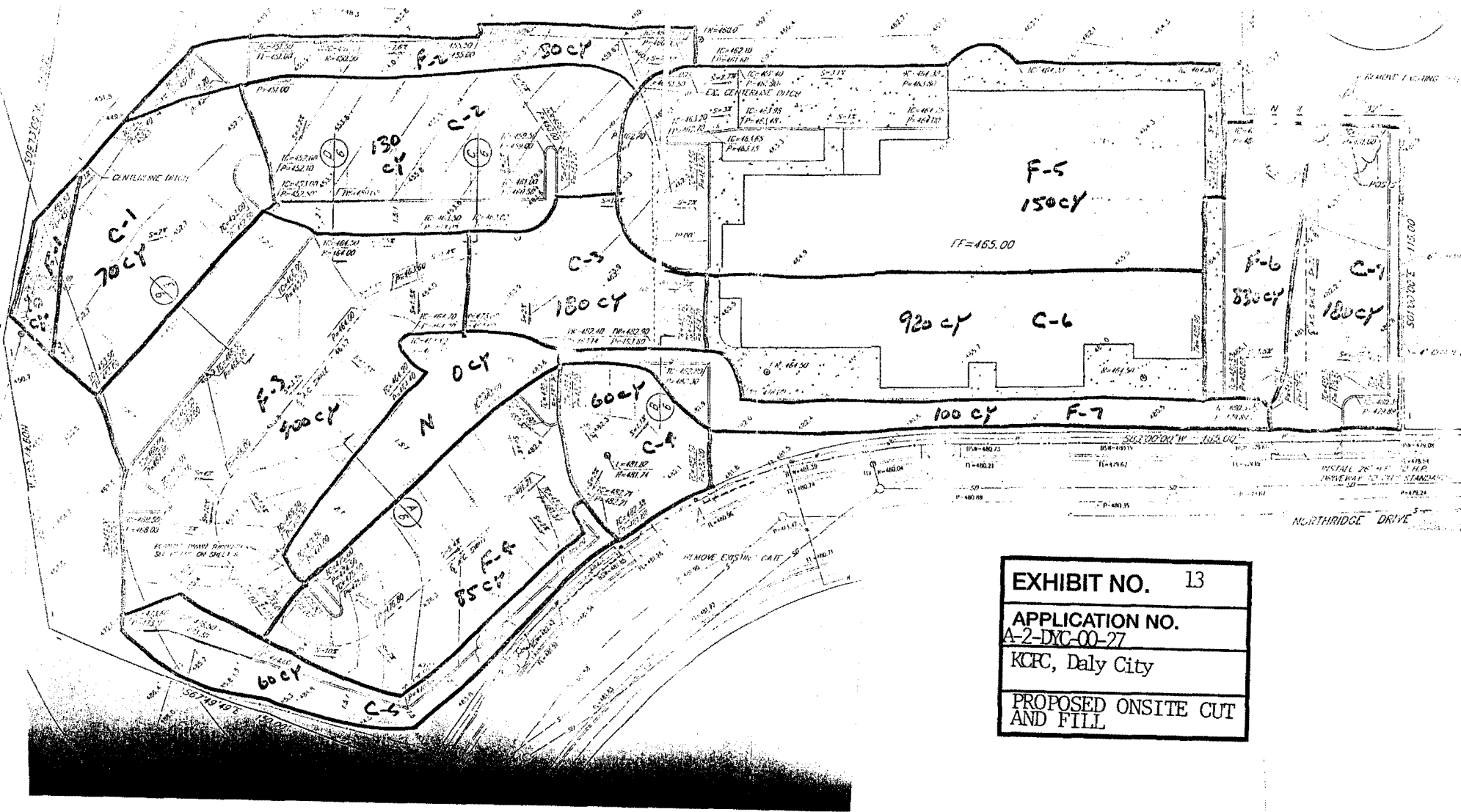
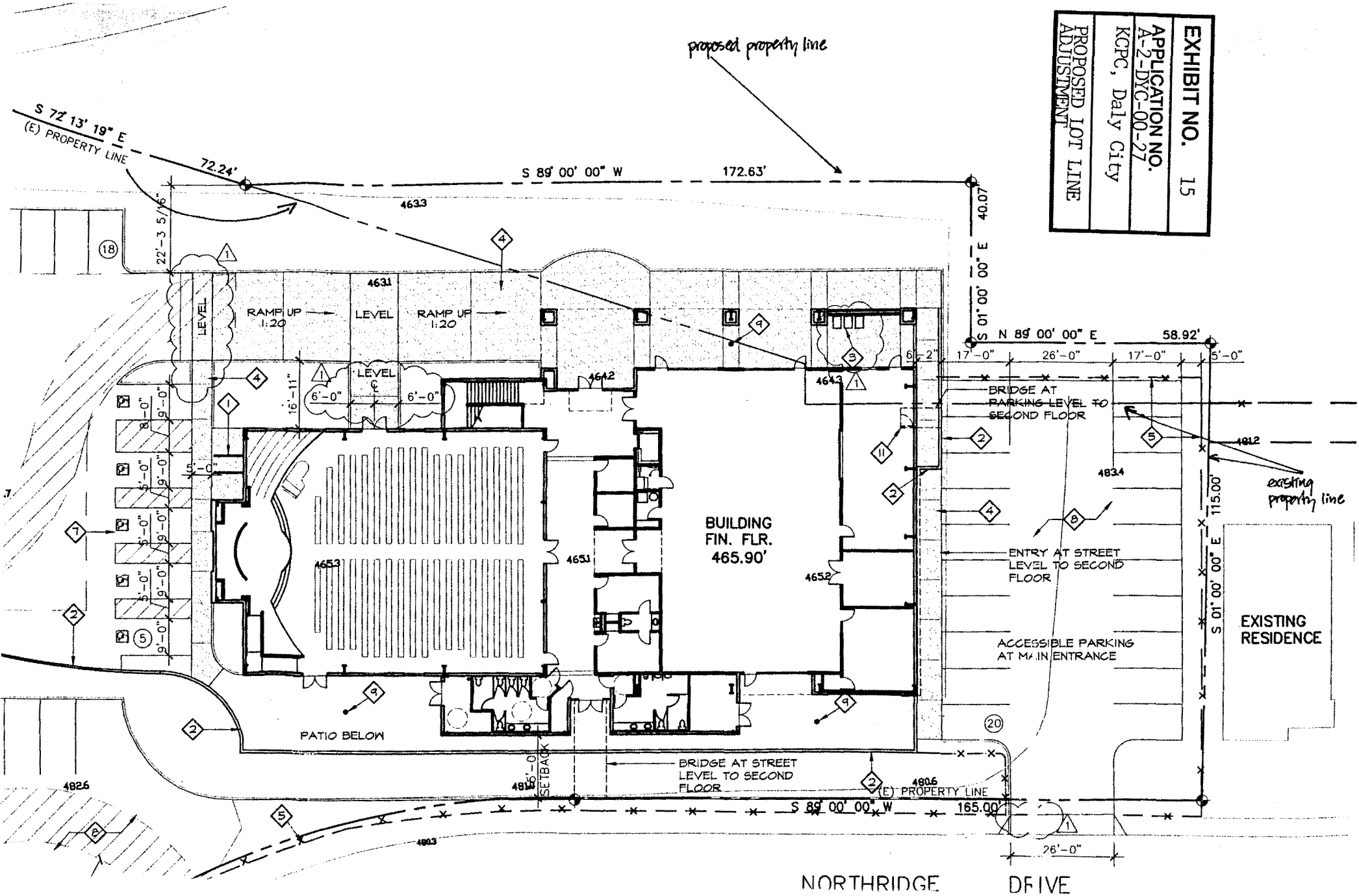


EXHIBIT NO.	13
APPLICATION NO.	A-2-DIC-00-27
KCFC, Daly City	
PROPOSED ONSITE CUT AND FILL	



**EXHIBIT NO. 15**  
**APPLICATION NO. A-2-DYC-00-27**  
 KCPC, Daly City  
**PROPOSED LOT LINE ADJUSTMENT**



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