

2019 JAN -4 AM 11:58

BY

[Signature]

January 4, 2019

VIA HAND DELIVERY AND EMAIL

President Malia Cohen
c/o Angela Calvillo, Clerk of the Board
San Francisco Board of Supervisors
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, CA 94102

Re: Appeal of CEQA Categorical Exemption Determination: File No. 181200
11 Gladys Street, San Francisco

Dear President Cohen and Honorable Members of the Board of Supervisors:

I am a licensed civil and structural engineer, practicing for more than 38 years in San Francisco, California.¹ This letter sets out my findings in relation to the potential significant environmental impacts associated with the proposed project at 11 Gladys Street in Bernal Heights (the "Property"). The project sponsor proposes a vertical addition to the existing two-story single-family home (Building Permit No. 2016.12.08.4425, the "Project"). As set out in this letter, further environmental review of the Project is required.

It is my professional opinion that the Project has the potential to cause significant unmitigated environmental impacts. Such impacts were not analyzed as part of the CEQA review of the Project (attached hereto as **Exhibit A**), and include potential geotechnical and archaeological impacts.

The Project involves excavation and soil disturbance, with potential significant impacts that have not been analyzed.

The Environmental Evaluation Application asserted that the Project will not result in excavation or soil disturbance. (Attached hereto as **Exhibit B**.) This is not correct. There is no feasible way to complete the Project without excavation or soil disturbance occurring. The Project proposes to add a level to the building, which will increase the dead, live, and seismic loads on the existing archaic foundations.

The Property is at the bottom of a steep slope, with a 10-12' tall existing retaining wall along the rear property line, at the base of this slope. The existing building at the Property was constructed circa 1941, and the current retaining wall at the rear appears to be an unreinforced gravity wall. The current Building Code does not allow this type of construction. I have reviewed

¹ A copy of my CV is attached hereto as Exhibit F.

the permit history for the Property, and there is no record of any foundation upgrade work being performed at the Property since the building was constructed in 1941. This means that foundation upgrades will be required for the Project to be constructed. In order to support the increased loading, the Project sponsor will need to retrofit or replace of the existing foundations and retaining wall – this necessarily involves excavation and soil disturbance. At the rear retaining wall, it is an extremely complex engineering and construction issue to retrofit an archaic retaining wall that is 10' tall, plus additional excavation. Replacing this archaic wall with a new 10'-12' tall retaining wall on a neighboring property is just as challenging.

The geotechnical report prepared for the Project notes that grading and excavation will occur. (Attached hereto as **Exhibit C**.) However, neither the EEA nor the geotechnical report disclose the extent of the excavation and soil disturbance that will occur. This is a serious omission, because it means that the potential geotechnical impacts of the Project have not been analyzed. The geotechnical report that was prepared focuses on the Project site, and whether it can be developed in the way proposed. I am greatly concerned that no study of the archaic wall and its associated embedment has been done to determine the feasibility of this Project. The report also does not consider slope conditions uphill from the Property, or the impacts of the proposed excavation work.

This failure to consider conditions uphill is concerning because The College Hill reservoir is uphill from the Subject Property, with a capacity of 13.5 million gallons of water. The City filed a building permit for seismic upgrades of the reservoir in 2000, with the scope of work described as “SEISMIC RETROFIT COLLEGE HILL RESVR WORK INCLUDES CON SHEAR WALL/FOOTINGS, STRUCT STEEL COLLECTORS WO.” (A true and correct copy of the information for this permit is attached hereto as **Exhibit D**). However, this permit was never finally signed off by the Building Department, opening the question about the seismic capability of the reservoir.

The reservoir has a wide, flat berm that acts as a buttress against the force of the water pushing downhill. The berm is between the reservoir and the Subject Property. The Subject Property is below the reservoir. Due to the steepness of the slope between the Subject Property and the reservoir (at a grade of around 30%), there is a small but unresolved risk that foundation work at the Subject Property or failure of the existing archaic retaining wall would destabilize the slope. The destabilization of the slope supporting the reservoir berm could lead to a catastrophic failure of the reservoir. The potential risk of slope stability issues is small, but is a risk with catastrophic consequences. I am also concerned about drainage of groundwater behind the wall.

A geotechnical or geologic report should have been prepared that analyzes the slope stability and other geotechnical impacts of the Project, including the effect on the reservoir.

The required archaeological survey was not undertaken.

The excavation required for the Project will likely result in cumulative soil disturbance/modification greater than eight feet below grade, so that an archeological study should have been required. As set out in the City's Categorical Exemption checklist, where a project proposes soil disturbance / modification greater than eight feet below grade in a non-archaeologically sensitive area, this triggers potential CEQA impacts that must be analyzed. To upgrade the existing foundations by retrofitting them or replacing them will require additional excavation. There is a probability that the archaic gravity wall is not properly embedded into the soil. This will require additional excavation. The current gravity wall appears to have required 10' to 12' of excavation. Retrofitting or upgrading will require an even deeper total excavation – much greater than 8'.

No archeological survey has been prepared in relation to the Subject Property, which is located in a historically populated area of the Rancho Rincon de las Salinas (an 1839 Mexican land grant), near Cayuga Creek and the road to San Jose (now known as San Jose Avenue). (A true and correct copy of a section of V. Wackenreuder's 1861 map of San Francisco, with with the location of the Property labeled on it, is attached hereto as **Exhibit E.**) Given the excavation work that will be required at the Subject Property, an archeological study should have been prepared.

Conclusion

The EEA submitted for the Project failed to disclose the extent of the excavation and soil disturbance associated with the Project, wrongly claiming that no excavation will occur. This omission means that the potential geotechnical and archaeological impacts of the Project have not been disclosed or analyzed, and the CEQA review of the Project was defective. The Project has the potential to cause significant environmental impacts, so that further environmental review should be required.

Very truly yours,



Patrick Buscovich, S.E.

EXHIBIT A



SAN FRANCISCO PLANNING DEPARTMENT

CEQA Categorical Exemption Determination

PROPERTY INFORMATION/PROJECT DESCRIPTION

Project Address		Block/Lot(s)	
11 Gladys Street		5710/027	
Case No.	Permit No.	Plans Dated	
2015-004717ENV	2016.1208.4425	06/01/2016	
<input type="checkbox"/> Addition/ Alteration	<input type="checkbox"/> Demolition (requires HRER if over 45 years old)	<input type="checkbox"/> New Construction	<input type="checkbox"/> Project Modification (GO TO STEP 7)
Project description for Planning Department approval.			
Approx. 660 sq. ft. third story vertical addition to the existing two-story, single-family dwelling.			

STEP 1: EXEMPTION CLASS

TO BE COMPLETED BY PROJECT PLANNER

Note: If neither class applies, an <i>Environmental Evaluation Application</i> is required.	
<input checked="" type="checkbox"/>	Class 1 – Existing Facilities. Interior and exterior alterations; additions under 10,000 sq. ft.
<input type="checkbox"/>	Class 3 – New Construction/ Conversion of Small Structures. Up to three (3) new single-family residences or six (6) dwelling units in one building; commercial/office structures; utility extensions.; ; change of use under 10,000 sq. ft. if principally permitted or with a CU. Change of use under 10,000 sq. ft. if principally permitted or with a CU.
<input type="checkbox"/>	Class___

STEP 2: CEQA IMPACTS

TO BE COMPLETED BY PROJECT PLANNER

If any box is checked below, an <i>Environmental Evaluation Application</i> is required.	
<input type="checkbox"/>	Air Quality: Would the project add new sensitive receptors (specifically, schools, day care facilities, hospitals, residential dwellings, and senior-care facilities) within an Air Pollution Exposure Zone? Does the project have the potential to emit substantial pollutant concentrations (e.g., backup diesel generators, heavy industry, diesel trucks)? <i>Exceptions: do not check box if the applicant presents documentation of enrollment in the San Francisco Department of Public Health (DPH) Article 38 program and the project would not have the potential to emit substantial pollutant concentrations. (refer to EP_ArcMap > CEQA Catex Determination Layers > Air Pollutant Exposure Zone)</i>
<input type="checkbox"/>	Hazardous Materials: If the project site is located on the Maher map or is suspected of containing hazardous materials (based on a previous use such as gas station, auto repair, dry cleaners, or heavy manufacturing, or a site with underground storage tanks): Would the project involve 50 cubic yards or more of soil disturbance - or a change of use from industrial to residential? If yes, this box must be checked and the project applicant must submit an Environmental Application with a Phase I Environmental Site Assessment. <i>Exceptions: do not check box if the applicant presents documentation of enrollment in the San Francisco Department of Public Health (DPH) Maher program, a DPH waiver from the</i>

	<i>Maher program, or other documentation from Environmental Planning staff that hazardous material effects would be less than significant (refer to EP_ArcMap > Maher layer).</i>
<input type="checkbox"/>	Transportation: Does the project create six (6) or more net new parking spaces or residential units? Does the project have the potential to adversely affect transit, pedestrian and/or bicycle safety (hazards) or the adequacy of nearby transit, pedestrian and/or bicycle facilities?
<input type="checkbox"/>	Archeological Resources: Would the project result in soil disturbance/modification greater than two (2) feet below grade in an archeological sensitive area or eight (8) feet in a non-archeological sensitive area? (refer to EP_ArcMap > CEQA Catex Determination Layers > Archeological Sensitive Area)
<input type="checkbox"/>	Subdivision/Lot Line Adjustment: Does the project site involve a subdivision or lot line adjustment on a lot with a slope average of 20% or more? (refer to EP_ArcMap > CEQA Catex Determination Layers > Topography)
<input type="checkbox"/>	Slope = or > 20%: Does the project involve any of the following: (1) square footage expansion greater than 1,000 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (refer to EP_ArcMap > CEQA Catex Determination Layers > Topography) If box is checked, a geotechnical report is required.
<input type="checkbox"/>	Seismic: Landslide Zone: Does the project involve any of the following: (1) square footage expansion greater than 1,000 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (refer to EP_ArcMap > CEQA Catex Determination Layers > Seismic Hazard Zones) If box is checked, a geotechnical report is required.
<input type="checkbox"/>	Seismic: Liquefaction Zone: Does the project involve any of the following: (1) square footage expansion greater than 1,000 sq. ft. outside of the existing building footprint, (2) excavation of 50 cubic yards or more of soil, (3) new construction? (refer to EP_ArcMap > CEQA Catex Determination Layers > Seismic Hazard Zones) If box is checked, a geotechnical report will likely be required.
If no boxes are checked above, GO TO STEP 3. If one or more boxes are checked above, an <u>Environmental Evaluation Application</u> is required, unless reviewed by an Environmental Planner.	
<input checked="" type="checkbox"/>	Project can proceed with categorical exemption review. The project does not trigger any of the CEQA impacts listed above.
Comments and Planner Signature (optional):	

**STEP 3: PROPERTY STATUS – HISTORIC RESOURCE
TO BE COMPLETED BY PROJECT PLANNER**

PROPERTY IS ONE OF THE FOLLOWING: (refer to Parcel Information Map)	
<input type="checkbox"/>	Category A: Known Historical Resource. GO TO STEP 5.
<input checked="" type="checkbox"/>	Category B: Potential Historical Resource (over 45 years of age). GO TO STEP 4.
<input type="checkbox"/>	Category C: Not a Historical Resource or Not Age Eligible (under 45 years of age). GO TO STEP 6.

STEP 4: PROPOSED WORK CHECKLIST
TO BE COMPLETED BY PROJECT PLANNER

Check all that apply to the project.	
<input type="checkbox"/>	1. Change of use and new construction. Tenant improvements not included.
<input type="checkbox"/>	2. Regular maintenance or repair to correct or repair deterioration, decay, or damage to building.
<input type="checkbox"/>	3. Window replacement that meets the Department's <i>Window Replacement Standards</i> . Does not include storefront window alterations.
<input type="checkbox"/>	4. Garage work. A new opening that meets the <i>Guidelines for Adding Garages and Curb Cuts</i> , and/or replacement of a garage door in an existing opening that meets the Residential Design Guidelines.
<input type="checkbox"/>	5. Deck, terrace construction, or fences not visible from any immediately adjacent public right-of-way.
<input type="checkbox"/>	6. Mechanical equipment installation that is not visible from any immediately adjacent public right-of-way.
<input type="checkbox"/>	7. Dormer installation that meets the requirements for exemption from public notification under <i>Zoning Administrator Bulletin No. 3: Dormer Windows</i> .
<input type="checkbox"/>	8. Addition(s) that are not visible from any immediately adjacent public right-of-way for 150 feet in each direction; does not extend vertically beyond the floor level of the top story of the structure or is only a single story in height; does not have a footprint that is more than 50% larger than that of the original building; and does not cause the removal of architectural significant roofing features.
Note: Project Planner must check box below before proceeding.	
<input checked="" type="checkbox"/>	Project is not listed. GO TO STEP 5.
<input type="checkbox"/>	Project does not conform to the scopes of work. GO TO STEP 5.
<input type="checkbox"/>	Project involves four or more work descriptions. GO TO STEP 5.
<input type="checkbox"/>	Project involves less than four work descriptions. GO TO STEP 6.

STEP 5: CEQA IMPACTS – ADVANCED HISTORICAL REVIEW
TO BE COMPLETED BY PRESERVATION PLANNER

Check all that apply to the project.	
<input type="checkbox"/>	1. Project involves a known historical resource (CEQA Category A) as determined by Step 3 and conforms entirely to proposed work checklist in Step 4.
<input type="checkbox"/>	2. Interior alterations to publicly accessible spaces.
<input type="checkbox"/>	3. Window replacement of original/historic windows that are not "in-kind" but are consistent with existing historic character.
<input type="checkbox"/>	4. Façade/storefront alterations that do not remove, alter, or obscure character-defining features.
<input type="checkbox"/>	5. Raising the building in a manner that does not remove, alter, or obscure character-defining features.
<input type="checkbox"/>	6. Restoration based upon documented evidence of a building's historic condition, such as historic photographs, plans, physical evidence, or similar buildings.
<input type="checkbox"/>	7. Addition(s) , including mechanical equipment that are minimally visible from a public right-of-way and meet the <i>Secretary of the Interior's Standards for Rehabilitation</i> .
<input type="checkbox"/>	8. Other work consistent with the <i>Secretary of the Interior Standards for the Treatment of Historic Properties</i> (specify or add comments):

<input type="checkbox"/>	<p>9. Other work that would not materially impair a historic district (specify or add comments):</p> <p>(Requires approval by Senior Preservation Planner/Preservation Coordinator) _____</p>
<input checked="" type="checkbox"/>	<p>10. Reclassification of property status. (Requires approval by Senior Preservation Planner/Preservation Coordinator)</p> <p><input type="checkbox"/> Reclassify to Category A <input checked="" type="checkbox"/> Reclassify to Category C</p> <p>a. Per HRER dated: _____ (attach HRER)</p> <p>b. Other (specify): Per PTR form approved by T. Tam signed 03/20/2017.</p>
<p>Note: If ANY box in STEP 5 above is checked, a Preservation Planner MUST check one box below.</p>	
<input type="checkbox"/>	<p>Further environmental review required. Based on the information provided, the project requires an <i>Environmental Evaluation Application</i> to be submitted. GO TO STEP 6.</p>
<input checked="" type="checkbox"/>	<p>Project can proceed with categorical exemption review. The project has been reviewed by the Preservation Planner and can proceed with categorical exemption review. GO TO STEP 6.</p>
<p>Comments (optional):</p>	
<p>Preservation Planner Signature: Doug Vu Digitally signed by Doug Vu Date: 2017.03.21 10:43:04 -07'00'</p>	

**STEP 6: CATEGORICAL EXEMPTION DETERMINATION
TO BE COMPLETED BY PROJECT PLANNER**

<input type="checkbox"/>	<p>Further environmental review required. Proposed project does not meet scopes of work in either (check all that apply):</p> <p><input type="checkbox"/> Step 2 – CEQA Impacts</p> <p><input type="checkbox"/> Step 5 – Advanced Historical Review</p> <p>STOP! Must file an <i>Environmental Evaluation Application</i>.</p>	
<input checked="" type="checkbox"/>	<p>No further environmental review is required. The project is categorically exempt under CEQA.</p>	
	<p>Planner Name: Doug Vu</p> <hr/> <p>Project Approval Action:</p> <p>Building Permit</p> <p>If Discretionary Review before the Planning Commission is requested, the Discretionary Review hearing is the Approval Action for the project.</p>	<p>Signature:</p> <p>Doug Vu</p> <p>Digitally signed by Doug Vu Date: 2017.09.26 15:12:11 -07'00'</p>
<p>Once signed or stamped and dated, this document constitutes a categorical exemption pursuant to CEQA Guidelines and Chapter 31 of the Administrative Code.</p> <p>In accordance with Chapter 31 of the San Francisco Administrative Code, an appeal of an exemption determination can only be filed within 30 days of the project receiving the first approval action.</p>		



SAN FRANCISCO PLANNING DEPARTMENT

PRESERVATION TEAM REVIEW FORM

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Preservation Team Meeting Date: N/A	Date of Form Completion 2/27/2017
--	--

PROJECT INFORMATION:		
Planner:	Address:	
Doug Vu	11 Gladys Street	
Block/Lot:	Cross Streets:	
5710/027	Santa Marina Street & Appleton Avenue	
CEQA Category:	Art. 10/11:	BPA/Case No.:
B	N/A	2015-004717ENV / 2016.1208.4425

PURPOSE OF REVIEW:			PROJECT DESCRIPTION:	
<input type="radio"/> CEQA	<input type="radio"/> Article 10/11	<input type="radio"/> Preliminary/PIC	<input type="radio"/> Alteration	<input type="radio"/> Demo/New Construction

DATE OF PLANS UNDER REVIEW: 06/01/2016

PROJECT ISSUES:	
<input checked="" type="checkbox"/>	Is the subject Property an eligible historic resource?
<input type="checkbox"/>	If so, are the proposed changes a significant impact?
Additional Notes:	
Supplemental for Historic Resource Determination prepared by Tim Kelley Consulting, dated September 2015.	

PRESERVATION TEAM REVIEW:			
Category:	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
Individual	Historic District/Context		
Property is individually eligible for inclusion in a California Register under one or more of the following Criteria:	Property is in an eligible California Register Historic District/Context under one or more of the following Criteria:		
Criterion 1 - Event: <input type="radio"/> Yes <input checked="" type="radio"/> No	Criterion 1 - Event: <input type="radio"/> Yes <input checked="" type="radio"/> No		
Criterion 2 -Persons: <input type="radio"/> Yes <input checked="" type="radio"/> No	Criterion 2 -Persons: <input type="radio"/> Yes <input checked="" type="radio"/> No		
Criterion 3 - Architecture: <input type="radio"/> Yes <input checked="" type="radio"/> No	Criterion 3 - Architecture: <input type="radio"/> Yes <input checked="" type="radio"/> No		
Criterion 4 - Info. Potential: <input type="radio"/> Yes <input checked="" type="radio"/> No	Criterion 4 - Info. Potential: <input type="radio"/> Yes <input checked="" type="radio"/> No		
Period of Significance: <input type="text"/>	Period of Significance: N/A		
<input type="radio"/> Contributor <input type="radio"/> Non-Contributor			

Complies with the Secretary's Standards/Art 10/Art 11:	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
CEQA Material Impairment to the individual historic resource:	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
CEQA Material Impairment to the historic district:	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Requires Design Revisions:	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Defer to Residential Design Team:	<input checked="" type="radio"/> Yes	<input type="radio"/> No	

PRESERVATION TEAM COMMENTS:

The up- and laterally-sloping property at 11 Gladys Street was originally improved with a two-story single-family dwelling constructed in 1941 in a vernacular traditional style. The house has a roughly L-shaped footprint that is clad in stucco and rustic siding, and capped with a flat roof behind a false hipped eave supported by false rafter tails. The primary facade includes a roll-up garage door and small window at the ground story, and a second story that has a bump-out at the left side with a small corner hung wood sash window and tripartite window to the right underneath a false gable, and the floors separated by scalloped trim. A courtyard is located at the southeast corner of the property, which includes brick entry stairs that run parallel to the street and leads to a diagonally set covered front entrance. The building steps back behind the courtyard at right angles to form the irregular L-shaped plan, and includes multiple wood sash windows. The majority of the buildings on this block of Bernal Heights were constructed between 1900 and 1912, with the exception of two 1940s infill homes that include the subject property.

Pursuant to the Supplemental for Historic Resource Determination prepared by Tim Kelley Consulting dated September 2015 and additional research completed by Department staff, previous alterations to the building include raising the foundation in the garage area to standard grade, installation of four aluminum windows at the primary façade and interior renovations. The subject building is not architecturally distinct and would not qualify for listing in the CA Register under Criterion 3.

The original owner and occupant, Fred Isaacson, resided shortly on the property until 1945, followed by ten unrelated owners between 1945 to present day. The current owner and resident, Robert Oliver, has resided there since 1999. An additional seven people who were unrelated to the respective owners have also occupied the residence between 1943 and 1982. No known historic events occurred at the subject property under Criterion 1, and none of the owners and occupants have been identified as important to history under Criterion 2.

The building is not located within the boundaries of any identified historic district, and is not eligible for listing in the CA Register under any criteria individually or as part of a historic district.


Signature of a Senior Preservation Planner / Preservation Coordinator:	Date:
	3.20.2017

EXHIBIT B



SAN FRANCISCO
PLANNING
DEPARTMENT

APPLICATION PACKET FOR

Environmental Evaluation

Planning Department
1650 Mission Street
Suite 400
San Francisco, CA
94103-9425

T: 415.558.6378
F: 415.558.6409

Pursuant to the California Environmental Quality Act (CEQA), public agencies must review the environmental impacts of proposed projects. The CEQA process is codified in the California Public Resources Code, Sections 21000 et seq., the California Code of Regulations, Title 14, Sections 15000 et seq., and Chapter 31 of the San Francisco Administrative Code.

WHAT IS ENVIRONMENTAL EVALUATION?

Environmental evaluation pursuant to CEQA is an objective process that is intended to disclose to decision makers and the public the significant environmental effects of proposed projects, to require agencies to reduce or avoid environmental effects, to disclose reasons for agency approval of projects with significant environmental effects, to enhance public participation, and to foster intergovernmental coordination. In San Francisco, the Environmental Planning Division of the San Francisco Planning Department administers the CEQA review process. More information on the environmental review process and how it is administered in San Francisco is available on the Planning Department's Environmental Planning web pages.

WHEN IS ENVIRONMENTAL EVALUATION NECESSARY?

Projects subject to CEQA are those actions that require a discretionary decision by the City; have the potential to result in a direct or reasonably foreseeable indirect physical change in the environment; or fall within the definition of a "project" as defined by the CEQA Guidelines in Sections 15060(e) and 15378. A project may be determined to be statutorily or categorically exempt from CEQA or may require an initial study to determine whether a negative declaration or environmental impact report (EIR) is required. Planners at the Planning Information Center (PIC) counter (1660 Mission Street, First Floor) may issue an exemption stamp or require that the project sponsor file an Environmental Evaluation Application.

If your project meets any of the following thresholds, you must first submit a Preliminary Project Assessment (PPA) Application before you submit the Environmental Evaluation Application: (1) the project creates seven or more dwelling units, (2) the project involves a change of use of 25,000 square feet or more, and/or (3) the project involves the construction of a new non-residential building or addition of 10,001 square feet or more. The Department may also request other complex projects not meeting these thresholds to undergo a PPA.

HOW DOES THE PROCESS WORK?

The Environmental Evaluation Application may be filed prior to or concurrently with the building permit application; however, the City may not approve projects or issue permits until the environmental review process is complete.

No appointment is required but Environmental Planning staff are available to meet with applicants upon request. The Environmental Evaluation Application will not be processed unless it is completely filled out and the appropriate fees are paid in full. See the current Schedule of Application Fees (available online). Checks should be made payable to the San

Francisco Planning Department. Fees are generally non-refundable.

WHO MAY SUBMIT AN ENVIRONMENTAL EVALUATION APPLICATION?

Only the property owner or a party designated as the owner's agent may submit an Environmental Evaluation Application. (A letter of agent authorization from the owner must be attached.)

WHAT TO INCLUDE ON THE PROJECT DRAWINGS

Project drawings submitted with the Environmental Evaluation Application must be in 11x17 format and, in most cases, must include existing and proposed site plans, floor plans, elevations, and sections, as well as all applicable dimensions and calculations for existing and proposed floor area and height. The plans should clearly show existing and proposed structures on both the subject property and on immediately adjoining properties; off-street parking and loading spaces; driveways and trash loading areas; vehicular and pedestrian access to the site, including access to off-street parking and parking configuration; and bus stops and curbside loading zones within 150 feet of the site.

SPECIAL STUDIES THAT MAY BE NEEDED

To assist in the environmental evaluation process, the project sponsor may be required to provide supplemental data or studies, as determined by Planning staff, to address potential impacts on cultural, paleontological, or historical resources, soils, traffic, biological resources, wind, shadows, noise, air quality, or other issue areas. Neighborhood notification may also be required as part of the environmental review processes.

HISTORIC RESOURCE REVIEW

All properties over 45 years of age in San Francisco are considered potential historic resources. If the proposed project involves physical alterations to a building over 45 years in age, you may be requested by Planning staff to provide additional information to determine (1) whether the property is a historic resource, and (2) whether the proposed project may cause a substantial adverse change in the significance of a historic resource. If requested by a Planner, you must submit the Supplemental Information for Historic Resource Evaluation form with the Environmental Evaluation Application.

The property may have already been evaluated as a historic resource through previous survey or analysis. Please consult the Preservation tab of the Property Information Map on the Planning Department's website. Certain types of projects will require a complete Historic Resource Evaluation (HRE) to be prepared by a professional preservation consultant. For further

information, please consult with a preservation planner at the PIC counter.

COMMUNITY PLAN EXEMPTION

Community plan exemption (CPE) from CEQA review may be issued for projects within adopted plan areas that would not otherwise be exempt, if they are determined not to create significant impacts beyond those identified in the applicable area plan EIR. There are three possible outcomes of this process: Preparation of (1) a CPE only, (2) a CPE and a focused initial study/mitigated negative declaration, or (3) a CPE and a focused EIR.

PROJECTS THAT ARE DETERMINED NOT TO BE EXEMPT

Projects that require mitigation measures are not eligible for environmental exemption. If Planning staff determines that the project is not exempt from CEQA review, an initial study will be required. The applicable environmental evaluation fee is based on the construction cost of the proposed project. Based on the analysis of the initial study, Planning staff will determine that the project will be issued either (1) a negative declaration stating that the project would not have a significant effect on the environment, or (2) an EIR if there is substantial evidence of one or more significant impacts.

DISCLOSURE REPORT FOR DEVELOPERS OF MAJOR CITY PROJECTS

The San Francisco Ethics Commission S.F. Camp. & Govt. Conduct Code § 3.520 et seq. requires developers to provide the public with information about donations that developers make to nonprofit organizations that may communicate with the City and County regarding major development projects. This report must be completed and filed by the developer of any "major project." A major project is a real estate development project located in the City and County of San Francisco with estimated construction costs exceeding \$1,000,000 where either: (1) The Planning Commission or any other local lead agency certifies an EIR for the project; or (2) The project relies on a program EIR and the Planning Department, Planning Commission, or any other local lead agency adopts any final environmental determination under CEQA. A final environmental determination includes: the issuance of a Community Plan Exemption (CPE); certification of a CPE/EIR; adoption of a CPE/Final Mitigated Negative Declaration; or a project approval by the Planning Commission that adopts CEQA Findings. (In instances where more than one of the preceding determinations occur, the filing requirement shall be triggered by the earliest such determination.) A major project does not

include a residential development project with four or fewer dwelling units.

The first (or initial) report must be filed within 30 days of the date the Planning Commission (or any other local lead agency) certifies the EIR for that project or, for a major project relying on a program EIR, within 30 days of the date that the Planning Department, Planning Commission, or any other local lead agency adopts a final environmental determination under CEQA. Please submit a Disclosure Report for Developers of Major City Projects to the San Francisco Ethics Commission. This form can be found at the Planning Department or online at <http://www.sfethics.org>.

HOW TO SUBMIT THE APPLICATION

The complete Environmental Evaluation Application should be submitted as follows: For projects that underwent Preliminary Project Assessment and already received the PPA letter, send the Environmental Evaluation Application to the attention of Vima Byrd. For all other projects, including those that require historical resource review only, send the Environmental Evaluation Application to the attention of Erica Russell. A preservation planner will be assigned to complete the historical review. Once an application is submitted, historical review questions may be directed to Tina Tam.

Vima Byrd
(415) 575-9025
vimaliza.byrd@sfgov.org

Erica Russell
(415) 575-9181
erica.russell@sfgov.org

Tina Tam
Senior Preservation Planner
(415) 558-6325
tina.tam@sfgov.org

THIS PAGE INTENTIONALLY LEFT BLANK

APPLICATION FOR Environmental Evaluation

1. Owner/Applicant Information

PROPERTY OWNER'S NAME: Robert Oliver	
PROPERTY OWNER'S ADDRESS: 11 Gladys Street	TELEPHONE: (415) 412.3664
	EMAIL: robert@oliver.name

APPLICANT'S NAME, COMPANY/ORGANIZATION (IF APPLICABLE): Rob Oliver Same as Above <input checked="" type="checkbox"/>	
APPLICANT'S ADDRESS:	TELEPHONE: ()
	EMAIL:

CONTACT FOR PROJECT INFORMATION: Gabriel Guerriero Same as Above <input type="checkbox"/>	
ADDRESS: 301 Bocana Street	TELEPHONE: (415) 867-5357
	EMAIL: gg@masonkirby.com

2. Location and Classification

STREET ADDRESS OF PROJECT: 11 Gladys Street	ZIP CODE: 94110
CROSS STREETS: Santa Marina St.	

ASSESSORS BLOCK/LOT:	LOT DIMENSIONS:	LOT AREA (SQ. FT):	ZONING DISTRICT:	HEIGHT/BULK DISTRICT:
5710 / 027	51.5'x25'	1287.5	RH-2	40-X
COMMUNITY PLAN AREA (IF ANY): Bernal Heights				

3. Project Description

(Please check all that apply) <input type="checkbox"/> Change of Use <input type="checkbox"/> Change of Hours <input type="checkbox"/> New Construction <input checked="" type="checkbox"/> Alterations <input type="checkbox"/> Demolition <input type="checkbox"/> Other Please clarify: _____	ADDITIONS TO BUILDING: <input type="checkbox"/> Rear <input type="checkbox"/> Front <input checked="" type="checkbox"/> Height <input type="checkbox"/> Side Yard	PRESENT OR PREVIOUS USE: Single Family residence	
		PROPOSED USE: Single Family residence	
		BUILDING APPLICATION PERMIT NO.:	DATE FILED:

4. Project Summary Table

If you are not sure of the eventual size of the project, provide the maximum estimates.

	EXISTING USES:	EXISTING USES TO BE RETAINED:	NET NEW CONSTRUCTION AND/OR ADDITION:	PROJECT TOTALS:
PROJECT FEATURES				
Dwelling Units	1	1	0	1
Hotel Rooms				
Parking Spaces	2	2	0	2
Loading Spaces				
Number of Buildings	1	1	0	1
Height of Building(s)				
Number of Stories	1	1	1	2
Bicycle Spaces	0	0	0	0
GROSS SQUARE FOOTAGE (GSF)				
Residential	908	908	660	1568
Retail				
Office				
Industrial				
PDR Production, Distribution, & Repair				
Parking	539	539	0	539
Other ()				
Other ()				
Other ()				
TOTAL GSF	1447	1447	660	2,107
Please provide a narrative project description that summarizes the project and its purpose or describe any additional features that are not included in this table. Please list any special authorizations or changes to the Planning Code or Zoning Maps if applicable. THIS SECTION MUST BE COMPLETED.				

Lot dimensions and orientation create a substandard buildable area. The existing non-complying structure covers the entire lot. A variance is required for the rear and front yard set backs.

Applicable code sections:

Section 242.2 Bernal Heights Special Use District, Rear Yards.

Section 132. Front Setback Areas.

Section 134. Rear Yard Setback Areas.

EE Required for Lot slope greater than 20%.

5. Environmental Evaluation Project Information

1. Would the project involve a major alteration of a structure constructed 45 or more years ago or a structure in a historic district? YES NO

If yes, submit the *Supplemental Information for Historic Resource Evaluation* application.

2. Would the project involve demolition of a structure constructed 45 or more years ago or a structure located in a historic district? YES NO

If yes, a historic resource evaluation (HRE) report will be required. The scope of the HRE will be determined in consultation with Preservation Planning staff.

3. Would the project result in excavation or soil disturbance/modification? YES NO

If yes, please provide the following:

Depth of excavation/disturbance below grade (in feet): _____

Area of excavation/disturbance (in square feet): _____

Amount of excavation (in cubic yards): _____

Type of foundation to be used (if known) and/or other information regarding excavation or soil disturbance modification:

Note: A geotechnical report prepared by a qualified professional must be submitted if one of the following thresholds apply to the project:

- *The project involves a lot split located on a slope equal to or greater than 20 percent.*
- *The project is located in a seismic hazard landslide zone or on a lot with a slope average equal to or greater than 20 percent and involves either*
 - *excavation of 50 or more cubic yards of soil, or*
 - *building expansion greater than 1,000 square feet outside of the existing building footprint.*

A geotechnical report may also be required for other circumstances as determined by Environmental Planning staff.

4. Would the project involve any of the following: (1) the construction of a new building; (2) the addition of a dwelling unit; (3) the addition of a new curb-cut; (4) the addition of a garage; and/or (5) a net addition to an existing building of 500 gross square feet or more? YES NO

If yes, you will need to comply with the tree planting regulations of Public Works Code Section 806 prior to receiving a building permit.

4b. Does the project include the removal or addition of trees on, over, or adjacent to the project site? YES NO

If yes, please answer the following questions:

Number of trees on, over, or adjacent to the project site: _____

Number of trees on, over, or adjacent to the project site that would be removed by the project (see definitions of removal, significant, landmark, and street trees):

Significant trees: _____

Landmark trees: _____

Street trees: _____

Number of trees on, over, or adjacent to the project site that would be added by the project: _____

5. Would the project result in any construction over 40 feet in height? YES NO

If yes, please submit a *Shadow Analysis Application*. This application should be filed at the PIC and should not be included with the Environmental Evaluation Application. (If the project already underwent Preliminary Project Assessment, this application may not be needed. Please refer to the shadow discussion in the PPA letter.)

6. Would the project result in a construction of a structure 80 feet or higher? YES NO

If yes, an initial review by a wind expert, including a recommendation as to whether a wind analysis is needed, may be required, as determined by Planning staff. (If the project already underwent Preliminary Project Assessment, please refer to the wind discussion in the PPA letter.)

7. Would the project involve work on a site with an existing or former gas station, auto repair, dry cleaners, or heavy manufacturing use, or a site with underground storage tanks? YES NO

If yes, please submit a Phase I Environmental Site Assessment (ESA) prepared by a qualified consultant. If the project is subject to Health Code Article 22A, Planning staff will refer the project sponsor to the Department of Public Health for enrollment in DPH's Maher program.

8. Would the project require any variances, special authorizations, or changes to the Planning Code or Zoning Maps? YES NO

If yes, please describe.

This variance is for the front and rear yard set back requirements.

9. Is the project related to a larger project, series of projects, or program? YES NO

If yes, please describe.

This variance is for the front and rear yard set back requirements.

Estimated Construction Costs

TYPE OF APPLICATION:	
Environmental Application	
OCCUPANCY CLASSIFICATION:	
R-3	
BUILDING TYPE:	
V	
TOTAL GROSS SQUARE FEET OF CONSTRUCTION:	BY PROPOSED USES:
660 Sq. Ft.	Residential
ESTIMATED CONSTRUCTION COST:	
\$150,000	
ESTIMATE PREPARED BY:	
Architect Mason Kirby	
FEE ESTABLISHED:	

Applicant's Affidavit

Under penalty of perjury the following declarations are made:

- a: The undersigned is the owner or authorized agent of the owner of this property.
- b: The information presented is true and correct to the best of my knowledge.
- c: Other information or applications may be required.

Signature: _____

Date: _____

Print name, and indicate whether owner, or authorized agent:

Owner / Authorized Agent (circle one)

Environmental Evaluation Application Submittal Checklist

APPLICATION MATERIALS	PROVIDED	NOT APPLICABLE
Two (2) originals of this application signed by owner or agent, with all blanks filled in.	<input type="checkbox"/>	
Two (2) hard copy sets of project drawings in 11" x 17" format showing existing and proposed site plans with structures on the subject property and on immediately adjoining properties, and existing and proposed floor plans, elevations, and sections of the proposed project.	<input type="checkbox"/>	
One (1) CD containing the application and project drawings and any other submittal materials that are available electronically. (e.g., geotechnical report)	<input type="checkbox"/>	
Photos of the project site and its immediate vicinity, with viewpoints labeled.	<input type="checkbox"/>	
Check payable to San Francisco Planning Department.	<input type="checkbox"/>	
Letter of authorization for agent.	<input type="checkbox"/>	<input type="checkbox"/>
<i>Supplemental Information for Historic Resource Evaluation</i> , as indicated in Part 5 Question 1.	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) hard copies of the <i>Historic Resource Evaluation</i> , as indicated in Part 5 Question 2.	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical report, as indicated in Part 5 Question 3.	<input type="checkbox"/>	<input type="checkbox"/>
Phase I Environmental Site Assessment, as indicated in Part 5 Question 7.	<input type="checkbox"/>	<input type="checkbox"/>
Additional studies (list).	<input type="checkbox"/>	<input type="checkbox"/>

For Department Use Only

Application received by Planning Department:

By: _____

Date: _____



SAN FRANCISCO
PLANNING
DEPARTMENT

**FOR MORE INFORMATION:
Call or visit the San Francisco Planning Department**

Central Reception
1650 Mission Street, Suite 400
San Francisco CA 94103-2479

TEL: **415.558.6378**
FAX: **415 558-6409**
WEB: **<http://www.sfplanning.org>**

Planning Information Center (PIC)
1660 Mission Street, First Floor
San Francisco CA 94103-2479

TEL: **415.558.6377**
*Planning staff are available by phone and at the PIC counter.
No appointment is necessary.*

Google Maps 11 Gladys St



Image capture: Jul 2015 © 2017 Google

San Francisco, California
Street View - Jul 2015

EXHIBIT C

GEOTECHNICAL INVESTIGATION REPORT

11 GLADYS STREET

SAN FRANCISCO, CALIFORNIA

Prepared for:
Rob Oliver
11 Gladys Street
San Francisco, CA 94110
c/o Gabriel Guerriero
Architect Mason Kirby
gg@masonkirby.com
18 September 2015
15-180505-01.pdf

UNAUTHORIZED USE OF THIS DOCUMENT IS STRICTLY PROHIBITED BY ANYONE OTHER THAN THE CLIENT FOR THE SPECIFIC PROJECT

18 September 2015
Project No. 15-180505

Rob Oliver
c/o Gabriel Guerriero
Architect Mason Kirby
301 Bocana Street
San Francisco, CA 94110
gg@masonkirby.com

Subject: Geotechnical Investigation Report
11 Gladys Street
San Francisco, California

Dear Mr. Oliver:

This letter transmits our geotechnical investigation report for the proposed improvements at 11 Gladys Street in San Francisco, California. We understand the plans for the proposed improvements are being finalized. We can provide additional recommendations and consultation regarding final design upon request. The work described in this report was performed in accordance with our proposal dated 18 May 2015.

The site is located within an area defined by Section 106A.4.1.4 of the 2013 San Francisco Building code and consequently is located within a special study zone under the Slope Protection Act. This was discussed in our proposal and we understand that you are not required to provide a geologic hazard report at this time.

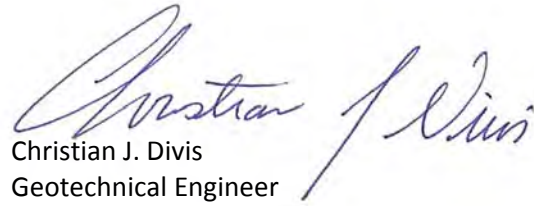
Our report contains detailed recommendations that should be reviewed in their entirety. We should review the geotechnical aspects of the project plans and specifications prior to final design to check that they are in general conformance with the recommendations presented in this report.

Our conclusions and recommendations are based on a limited investigation and variations between the expected and actual soil conditions may be found during construction. A competent experienced person should be present during construction to identify any deviations from the conditions described in this report and the project plans and specifications. We should be notified immediately if a changed condition is encountered.

We should be retained during construction to provide as needed consultation, geotechnical observation and geotechnical special inspection. This will allow us to check the actual soil conditions with those described in our report and make the appropriate changes to our recommendations.

We appreciate the opportunity to be involved with this project. If you have any questions, please call.

Sincerely yours,
DIVIS CONSULTING, INC.



Christian J. Divis
Geotechnical Engineer

ENCLOSURE

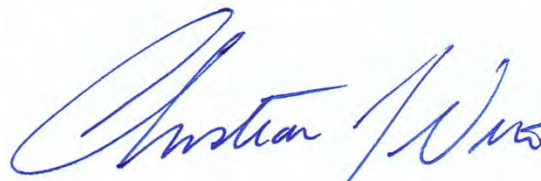
GEOTECHNICAL INVESTIGATION REPORT

11 GLADYS STREET

SAN FRANCISCO, CALIFORNIA

Prepared for:
Rob Oliver
11 Gladys Street
San Francisco, CA 94110
c/o Gabriel Guerriero
Architect Mason Kirby
gg@masonkirby.com
18 September 2015
15-180505-01.pdf

Prepared by:



Christian J. Divis, P.E., G.E.
Geotechnical Engineer #GE2694



UNAUTHORIZED USE OF THIS DOCUMENT IS STRICTLY PROHIBITED BY ANYONE OTHER THAN THE CLIENT FOR THE SPECIFIC PROJECT

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SCOPE OF WORK 1

3.0 FIELD INVESTIGATION 2

4.0 SITE DESCRIPTION 2

5.0 SUBSURFACE CONDITIONS 3

6.0 REGIONAL SEISMICITY 4

7.0 GEOLOGIC HAZARDS 6

 7.1 Ground Shaking 6

 7.2 Fault Rupture 7

 7.3 Liquefaction and Associated Hazards 7

 7.4 Cyclic Densification 8

8.0 CONCLUSIONS AND RECOMMENDATIONS 8

 8.1 Site Preparation and Grading 8

 8.2 Groundwater and Subsurface Drainage 9

 8.3 Surface Drainage 9

 8.4 Temporary Slopes and Excavation 10

 8.5 Foundation Support 11

 8.5.1 Spread Footings 11

 8.5.2 Construction Considerations 12

 8.6 Basement and Retaining Wall Design 12

 8.7 Concrete Slab-on-Grade Floors 14

 8.8 Seismic Design 16

9.0 ADDITIONAL GEOTECHNICAL SERVICES 16

10.0 LIMITATIONS 16

11.0 REFERENCES 17

FIGURES

APPENDIX A – Important Information about Your Geotechnical Engineering Report

LIST OF FIGURES

FIGURES

- FIGURE 1 SITE LOCATION MAP
- FIGURE 2 SITE PLAN
- FIGURE 3 REGIONAL GEOLOGIC MAP
- FIGURE 4 REGIONAL FAULT MAP
- FIGURE 5 TYPICAL FRENCH DRAIN

**GEOTECHNICAL INVESTIGATION REPORT
11 GLADYS STREET
SAN FRANCISCO, CALIFORNIA**

1.0 INTRODUCTION

This report presents the results of the geotechnical investigation performed by Divis Consulting, Inc., for proposed improvements at 11 Gladys Street in San Francisco, California.

The site is located within the Bernal Heights neighborhood of San Francisco. The site is bounded by Gladys Street to the northwest, 5 Gladys Street to the northeast, 48 Santa Marina Street to the southeast and 19 Gladys Street to the southwest. The approximate site location is shown on the site location map, Figure 1.

We understand that development plans have not been finalized and will be determined based on the results of this report, San Francisco Planning requirements and cost.

2.0 SCOPE OF WORK

Our investigation was performed in accordance with our proposal dated 18 May 2015. Our investigation included performing a site visit to observe soil and rock exposed within four test pits. Based on the results of our investigation and engineering analysis, we developed conclusions and recommendations regarding the following:

- most appropriate new foundation type(s)
- estimated total and differential settlement of new foundations
- excavation
- lateral earth pressures and retaining/basement walls
- slab-on-grade subgrade preparation
- criteria for site grading
- preliminary study of geologic hazards

- site seismicity
- 2013 San Francisco Building Code (SFBC) seismic design recommendations
- construction considerations.

3.0 FIELD INVESTIGATION

We observed the near surface soil conditions within four test pits, dug by others. The test pits were approximately two feet deep and their approximate location is shown on the Site Plan, Figure 2.

Strength characteristic of the subsurface soil were investigated by performing Dynamic Penetration Tests DPT(s) within each test pit.

DPTs are performed by driving the 90 degree apex, 1.4-inch-diameter, lost point into the ground with a 35-pound hammer falling 15 inches. The lost point is larger in diameter than the driving rods and cuts clearance for the rods as it is advanced. The point remains lost in the ground at completion of the test. Hammer blows are recorded by the operator for each four inches of penetration into the ground. The DPT-N values are converted to SPT-N values for engineering analysis.

The subsurface conditions encountered and the results of the DPTs are discussed in Section 5.0.

4.0 SITE DESCRIPTION

The site is located on San Francisco City Assessors Block 5710 Lot 027. According to public records, the parcel is 1,250 square feet and the existing residence is 1,000 square feet. As shown on the site plan, Figure 2, the existing residence is located near the front of the property. The first floor of the residence consists of garage and storage space and founded on continuous and isolated spread footings.

The site is relatively flat; however there is a retaining wall along the southeast property line that is between about 7 and 12 feet tall. Furthermore, there are retaining walls within the footprint of the first floor which divide the garage from the storage space. Based on our observations on-site, it appears the existing perimeter walls were repaired and capped with concrete at some point in the past.

5.0 SUBSURFACE CONDITIONS

Our understanding of the subsurface conditions is based on a limited field exploration and familiarity with the project area. The subsurface conditions described within this section should be verified in the field.

We judge the subsurface conditions at the site consist of: fill, residual soil and bedrock.

Fill: Fill consisting of clay with rock fragments was observed adjacent to existing foundations and was most likely placed during construction of the foundations. All existing on-site fill should be characterized as unclassified. Consequently, fill should not be relied upon for foundation support.

Residual Soil: Residual soil is bedrock that has been completely weathered to soil. It is likely that residual soil will be encountered between any fill and the bedrock. The residual soil is suitable for foundation support.

Bedrock: We observed the existing foundations bear on bedrock. The bedrock is relatively strong and incompressible. In general, bedrock was encountered approximately two feet below the existing slab-on-grade. The bedrock consists of sandstone and shale. The bedrock is suitable for foundation support.

We observed the subsurface conditions and existing foundations in four test pits (TP-1 through TP-4). The approximate location of the test pits is shown on Figure 2. We observed a 2-3 inch concrete slab across both the garage and storage area.

TP-1 was performed adjacent to two existing retaining walls at the southern corner of the storage area. The existing wall had been capped and the cap extended to approximately 2 inches below the existing slab. We observed residual soil (clay with rock fragments) to a depth of about 2 feet 2 inches below the top of existing slab. A DPT indicates the residual soil is hard and relatively incompressible.

TP-2 was performed within the storage area and adjacent to an existing perimeter foundation. The foundation bears on weak clay with rock fragments at a depth of about 12 inches below the top of slab.

Fill and topsoil were observed above the bottom of footing. Bedrock was observed approximately two feet below the top of slab.

TP-3 was performed at the northern corner of the garage. The foundation was found to be about 2 foot 6 inches below the top of slab and bears on bedrock. The soil above the bottom of footing consisted of clayey fill.

TP-4 was performed along the southeastern property line at the base of the retaining wall. We observed the foundation (or cap) to be about five inches below the top of existing slab. The existing foundation bears on bedrock. Fill was observed between the slab and bedrock.

Groundwater was not observed during our field investigation. However, since the site is cut into a hillside, groundwater should be anticipated and designed for. Groundwater levels may vary seasonally and depending on a variety of factors such as landscaping activities and seasonal rainfall. Groundwater is typically encountered at the interface between the fill and bedrock and within sand lenses in the native clay. Seasonal springs may also be encountered due to fractures within the bedrock. Where groundwater or evidence of groundwater is encountered during construction, we should be notified to evaluate if additional measures are required to control the flow of groundwater at the site.

6.0 REGIONAL SEISMICITY

The major active faults in the area are the San Andreas, San Gregorio, and Hayward, and Calaveras Faults. These and other faults in the region are shown on Figure 4. The distance from the site and estimated maximum Moment magnitude¹ [Working Group on California Earthquake Probabilities (WGCEP) (2007) and Cao et al. (2003)] for the major active faults within 50 kilometers of the site are summarized in Table 1.

¹ Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

TABLE 1
REGIONAL FAULTS AND SEISMICITY

Fault Segment	Approximate Distance from Site (km)	Direction from Site	Maximum Magnitude
N. San Andreas - Peninsula	8.3	West	7.2
N. San Andreas (1906 event)	8.3	West	8.1
N. San Andreas - North Coast	14	West	7.5
San Gregorio Connected	15	West	7.5
Total Hayward	21	Northeast	7.0
Total Hayward-Rodgers Creek	21	Northeast	7.33
Monte Vista-Shannon	37	Southeast	6.5
Mount Diablo Thrust	37	East	6.7
Total Calaveras	37	East	7.0
Rodgers Creek	39	North	7.1
Green Valley Connected	42	East	6.8
Point Reyes	43	West	6.9
West Napa	50	Northeast	6.7

The most recent earthquake to affect the Bay Area was the Loma Prieta Earthquake of 17 October 1989, in the Santa Cruz Mountains with a M_w of 6.9, approximately 92 km from the site.

In 2006, the Working Group on California Earthquake Probabilities (WGCEP 2008) at the U.S. Geologic Survey (USGS) predicted a 62 percent probability of a magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Area by the year 2031.

The U.S. Geological Survey's Working Group on California Earthquake Probabilities (2008) has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring during the period 2007 to 2037 is 63 percent. The highest probabilities are assigned to the Northern segment of the San Andreas Fault and the northern Hayward/Rodgers Creek Fault. These probabilities are 21 and 31 percent, respectively.

7.0 GEOLOGIC HAZARDS

Because the project site is in a seismically active region, we evaluated the potential for earthquake-induced geologic hazards including ground shaking, ground surface rupture, liquefaction,² lateral spreading,³ and cyclic densification⁴. The results of our evaluation are presented in the following sections.

7.1 Ground Shaking

The seismicity of the site is governed by the activity of the San Andreas Fault, although ground shaking from future earthquakes on other faults, including those presented in Table 1, would also be felt at the site. The intensity of earthquake ground motion at the site will depend upon the characteristics of the generating fault, distance to the earthquake epicenter, and magnitude and duration of the earthquake. We judge that strong to violent ground shaking could occur at the site during a large earthquake on one of the nearby faults.

² Liquefaction is a phenomenon where loose, saturated, cohesionless soil experiences temporary reduction in strength during cyclic loading such as that produced by earthquakes.

³ Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

⁴ Cyclic densification is a phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing ground-surface settlement.

The potential intensity of ground shaking at the site can be quantitatively evaluated in terms of a probability that a particular level of shaking (i.e., ground motions) will be exceeded during the given life of a structure. The Design Basis Earthquake (DBE) for non-critical structures is generally defined as an event with a 10 percent probability of exceedance in 50 years. One measure of the ground motions associated with this event is the peak ground acceleration (PGA), which is expressed as a fraction of the acceleration due to gravity. The California Geological Survey (CGS) website⁵ indicates the PGA with a 10 percent probability of exceedance in 50 years for the subject property is 0.525 times gravity (g).

7.2 Fault Rupture

Historically, ground surface displacements closely follow the trace of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act and no known active or potentially active faults exist on the site.

7.3 Liquefaction and Associated Hazards

When a saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures and sand boils are evidence of excess pore pressure generation and liquefaction.

Considering the site is underlain by clayey fill and native clay, we conclude the potential for liquefaction and associated hazards are very low to nil.

⁵ http://www.quake.ca.gov/gmaps/PSHA/psha_interpolator.html

7.4 Cyclic Densification

Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. Clean sand was not encountered during our investigation and with the exception of localized fills, we do not anticipate loose clean sand at the site. Therefore, we judge the potential for cyclic densification to be very low to nil.

8.0 CONCLUSIONS AND RECOMMENDATIONS

From a geotechnical standpoint, we conclude the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical considerations for the site are the required excavation to lower the storage area, the potential for seasonal groundwater and its impact on the new space, excavation in bedrock and the existing retaining wall along the southeast property line.

8.1 Site Preparation and Grading

We understand that grading activities will be limited to excavation within the existing ground floor; consequently, the foundations and floor slabs should be constructed on undisturbed residual soil and/or bedrock. We further understand that engineered fill will not be required for the proposed work.

Where native soil or bedrock is exposed for new improvements, the soil subgrade should be kept moist until it is covered by concrete, waterproofing, capillary break material, or other materials. If bedrock is exposed at subgrade level, the subgrade should be level and any loose materials generated by the excavation of the rock should be removed.

Material excavated at the site will primarily consist of clay with varying amounts of sand and gravel, and bedrock. Excavation through the bedrock may be difficult with conventional equipment. Some excavation may contain large rocks that will not break down under compaction equipment. We can provide additional recommendations regarding the placement of engineered fill, if required.

8.2 Groundwater and Subsurface Drainage

Groundwater is typically encountered at the interface between the soil and bedrock and within sand lenses in the native clay. Due to the extent of the proposed excavation static groundwater or seasonal springs may be present even though no direct evidence of static groundwater or springs were encountered during construction. Where groundwater is encountered during construction, we should be notified to evaluate if additional measures are required to control the flow of groundwater at the site.

The final design should include measures to intercept groundwater where it may impact the proposed construction. This includes but is not limited to: drainage behind retaining walls, French drains and area drains to intercept groundwater and surface run-off, and waterproofing. Where collected, groundwater should be discharged to a suitable collection point. In San Francisco, intercepted groundwater is typically re-directed to the combined sewer-storm water system.

A typical French Drain is shown on Figure 5. Care should be taken when constructing French drains adjacent to foundations, as discussed in Section 8.5.

We recommend waterproofing be installed and water stops be placed at all construction joints. Waterproofing for basements is generally required by the building code. The design and implementation of the waterproofing system is beyond the scope of our services. The waterproofing system should be designed by others.

8.3 Surface Drainage

Positive surface drainage should be provided around the residence to direct surface water away from new and existing foundations as well as the top of retaining walls and slopes. To reduce the potential for water ponding adjacent to the building, we recommend the ground surface within a horizontal distance of five feet from the building slope down away from the building with a surface gradient of at least two percent in unpaved areas and one percent in paved areas. Any collected runoff should be discharged into the sewer system or a containment system.

Positive surface drainage should also be provided in crawl spaces beneath the residence, if any. The crawl space should be covered with at least two inches of concrete (“ratproofing”) sloped to drain at an inclination of at least one percent to a suitable discharge point. When possible, the discharge can be through one-inch-diameter weepholes in the foundation stem walls and redirected to a suitable collection point.

8.4 Temporary Slopes and Excavation

Where space permits, temporary slopes may be used during excavation. In general, temporary excavation slopes should be no steeper than 2:1 in soil. Vertical cuts of less than five feet may be performed in rock and vertical cuts of less than four feet may be performed in clay provided that they are approved by Divis Consulting prior to excavation and any adjacent improvement (i.e. adjacent foundations) are a minimum distance away from the toe of the cut equal to the height of the cut.

Development plans have not been finalized to date; however, we understand that excavation within the garage and storage areas will occur for new foundations and/or to increase the headroom within the storage areas. The primary geotechnical issue regarding excavation within the garage and storage areas is the presence of retaining walls along the property line. Any excavation within five feet of an existing retaining wall along the property line should be performed in sections.

Vertical cuts in clay and bedrock may be performed provided that the sections are no wider than four feet. To reduce the potential for movement and provide adequate support during installation of the new retaining wall, adjacent sections should not be excavated concurrently; the distance between concurrent sections should be at least eight feet. Sections should also be used where the excavation is deeper than five feet unless otherwise approved by the geotechnical engineer.

We should review the excavation plan once the plans have been finalized. We should be retained to observe the excavation and make adjustments to the sections as necessary.

The contractor should be responsible for all temporary slopes and shoring systems used at the site and should have a competent person on-site who is able to evaluate proposed excavations.

8.5 Foundation Support

We conclude that the proposed improvements may be supported on shallow spread footings bearing on bedrock or residual soil. Foundations designed in accordance with the recommendations presented in this section should not settle more than ½ inch; we anticipate differential settlement will be on the order of ½ inch in 30 feet.

8.5.1 Spread Footings

The proposed improvements may be supported on shallow, spread footings bearing on undisturbed residual soil and/or bedrock. The bottom of the footings should be embedded at least 24 inches below the lowest adjacent soil subgrade and should be at least 18 inches wide for continuous footings and 24 inches for isolated spread footings. We recommend a continuous perimeter footing be installed along the perimeter of the proposed improvements. Footings adjacent to utility trenches or French drains should bear below an imaginary 1.5:1 (horizontal to vertical) plane projected upward from the bottom edge of the utility trench or French drain. New footings should bear

For the recommended minimum embedment, the footings bearing on undisturbed residual soil or bedrock may be designed for an allowable bearing pressure of 3,000 psf for dead plus live loads and may be increased by one-third for total loads, including wind and/or seismic loads.

Lateral loads on footings can be resisted by a combination of passive resistance acting against the vertical faces of the footings and friction along the base of the footings. For foundations relying on existing fill for passive resistance, passive resistance may be calculated using an equivalent fluid weight of 250 pounds per cubic foot (pcf). Where residual soil or bedrock is relied upon for passive resistance, passive resistance may be calculated using a uniform pressure of 1,500 pounds per square foot (psf); the upper foot of soil should be ignored unless confined by a concrete slab or pavement. Frictional resistance should be computed using a base friction coefficient of 0.4 for concrete poured over rock, 0.3 for concrete poured over soil and 0.2 where waterproofing underlies the foundation. The passive

resistance and base friction values include a factor of safety of about 1.5 and may be used in combination without reduction.

Uplift loads may be resisted by the weight of the footing and any overlying soil.

8.5.2 Construction Considerations

Weak soil encountered in the bottom of footing excavations should be excavated and replaced with lean concrete.

The bottom and sides of the excavation should be wetted following excavation and maintained in a moist condition until concrete is placed.

We should check the native soil and rock encountered within the footing excavations prior to the placement of waterproofing, reinforcing steel or other components. Foundation excavations should be free of standing water, debris, and disturbed materials prior to placing concrete.

8.6 Basement and Retaining Wall Design

Retaining walls that retain either native clay or bedrock and are free to rotate at the top may be designed using an active earth pressure. For these walls, we recommend using a design equivalent fluid weight of 35 pounds per cubic foot (pcf) for level backfill. Backfill with a slope less than 4:1 (horizontal:vertical) may be considered level. For restrained walls (no movement at the top of the wall), or walls adjacent to existing improvements, an at-rest equivalent fluid weight of 50 pcf should be used for level backfill.

Where new or existing foundations are located behind retaining walls and an imaginary plane taken from the bottom of the footing projected at 1.5:1 (horizontal to vertical) downward intersects the retaining wall, additional surcharge pressures should be included to account for vertical and lateral foundation loading on the retaining wall. The existing foundation to remain in place at the rear of the

structure will impose a surcharge on the rear wall. We recommend including a uniform surcharge pressure on the rear wall equivalent to 0.5 times the calculated bearing pressure of the existing foundation. We can provide additional design parameters upon request.

Because the site is in a seismically active area, basement retaining walls should be designed to resist pressures associated with earthquake forces. We recommend retaining walls be designed to resist the greater of the restrained pressure given in the preceding paragraph, or the unrestrained pressure plus a seismic increment. For level backfill behind the wall, the seismic increment should be taken as a rectangular distribution of $16H$, where H is the height of the wall in feet.

The design pressures above are based on fully drained walls. Water can accumulate behind the walls from perched groundwater and other sources, such as rainfall, irrigation, and broken water lines. One acceptable method for back draining the wall is to place a prefabricated drainage panel (Miradrain 6000 or equivalent) against the backside of the wall. The drainage panel should extend down to a perforated PVC collector pipe at the base of the wall. The pipe should be surrounded on all sides by at least four inches of Caltrans Class 2 permeable or $\frac{3}{4}$ -inch drain rock wrapped in filter fabric (Mirafi 140NC or equivalent). The perforated collector pipe should be sloped at an inclination of at least one percent to the discharge location. Alternatively, a prefabricated drainage trench may be used in lieu of the PVC pipe and gravel provided it is installed per the manufacturer's recommendations.

Where walls are not back drained, an additional hydrostatic load of 62.4 pcf should be added to the lateral pressures indicated above.

We anticipate that the retaining walls will be poured against vertical cuts; consequently, engineered backfill will not be placed behind the walls. Where minor fills are required, we can provide additional recommendations regarding compaction. Lightweight compaction equipment should be used to reduce stresses induced on the retaining walls during fill placement unless the walls are appropriately braced. Retaining walls should be backfilled before framing or subsequent construction to minimize effects of initial wall deflections from backfill placement.

If moisture migration through the basement walls is undesirable, we recommend waterproofing be installed and water stops be placed at all construction joints. Waterproofing is generally required by the building code. The design and implementation of the waterproofing system is beyond the scope of our services. The waterproofing system should be designed by others.

8.7 Concrete Slab-on-Grade Floors

We anticipate that concrete slab-on-grade floors will be constructed over either undisturbed residual soil or bedrock subgrade. We should provide additional recommendations during construction where engineered fill is required to construct the slab-on-grade subgrade. The slab-on-grade subgrade should be level, clear of debris and standing water and firm. We should check the slab-on-grade subgrade once completed.

We anticipate that waterproofing will be installed below the proposed slab-on-grade. Therefore a capillary moisture break may be a redundant system.

In general, water vapor transmission through the floor slab should be reduced where there is potential for finished floor coverings to be adversely affected by moisture. A capillary moisture break consists of at least four inches of clean, free-draining gravel or crushed rock. The vapor retarder should meet the requirements for Class C vapor retarders stated in ASTM E1745-97. The vapor retarder should be placed in accordance with the requirements of ASTM E1643-98. These requirements include overlapping seams by six inches, taping seams, and sealing penetrations in the vapor retarder. The vapor retarder should be covered with two inches of sand to aid in curing the concrete and to protect the vapor retarder during slab construction. The particle size of the gravel/crushed rock and sand should meet the gradation requirements presented in Table 2.

The sand overlying the membrane should be moist, but not saturated, at the time concrete is placed. Excess water trapped in the sand could eventually be transmitted as vapor through the slab. If rain is forecast prior to pouring the slab, the sand should be covered with plastic sheeting to avoid wetting. If the sand becomes wet, concrete should not be placed until the sand has been dried or replaced.

Concrete mixes with high water/cement (w/c) ratios result in excess water in the concrete, which increases the cure time and results in excessive vapor transmission through the slab. Therefore, concrete for the floor slab should have a low w/c ratio - less than 0.50. If approved by the project structural engineer, the sand can be eliminated and the concrete can be placed directly over the vapor retarder, provided the w/c ratio of the concrete does not exceed 0.45 and water is not added in the field. If necessary, workability should be increased by adding plasticizers. In addition, the slab should be properly cured.

**TABLE 2
GRADATION REQUIREMENTS FOR CAPILLARY MOISTURE BREAK**

Sieve Size	Percentage Passing Sieve
Gravel or Crushed Rock	
1 inch	90 – 100
3/4 inch	30 – 100
1/2 inch	5 – 25
3/8 inch	0 – 6
Sand	
No. 4	100
No. 200	0 – 5

Before the floor covering is placed, the contractor should check that the concrete surface and the moisture emission levels (if emission testing is required) meet the manufacturer’s requirements.

8.8 Seismic Design

For design in accordance with the 2013 San Francisco Building Code (SFBC), we recommend Site Class C (Very Dense Soil and Soft Rock) be used. The latitude and longitude of the site are 37.7400 and -122.4223, respectively.

In accordance with the 2013 SFBC, we recommend the following:

- $SS = 1.513g$, $S1 = 0.764g$
- $SMS = 1.513g$, $SM1 = 0.993g$
- $SDS = 1.009g$, $SD1 = 0.662g$.

9.0 ADDITIONAL GEOTECHNICAL SERVICES

During construction, our field engineer and/or geologist should provide on-site observation and testing during site preparation, excavation, foundation installation, placement and compaction of fill, and other geotechnical aspects of the project. Our observations will allow us to compare actual with anticipated subsurface conditions and to verify that the contractor's work conforms to the geotechnical aspects of the plans and specifications.

10.0 LIMITATIONS

This geotechnical study has been conducted in accordance with the standard of care commonly used as state-of-practice in the profession. No other warranties are either expressed or implied. The recommendations made in this report are intended to protect the life and safety of occupants within the structure during a major seismic event on a nearby fault; damage to the structure and other improvements may still occur due to seismic forces on the proposed improvements. The recommendations made in this report are based on the assumption that the subsurface soil, rock, and groundwater conditions do not deviate appreciably from those described in this report. If any variations or undesirable conditions are encountered during construction, we should be notified immediately so that additional recommendations can be made, as required. The foundation recommendations presented in this report are developed exclusively for the proposed development described in this report and are not valid for other locations and construction in the project vicinity.

11.0 REFERENCES

California Division of Mines and Geology, (1997), *Fault Rupture Hazard Zones in California*, Special Publication 42.

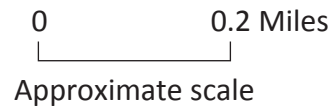
California Geological Survey, (2008), *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, Special Publication 117.

Cao, T., Bryant, W. A., Rowshandel, B., Branum D. and Wills, C. J. (2003). *The Revised 2002 California Probabilistic Seismic Hazard Maps*

John A. Blume & Associates, Engineers, (1974), *San Francisco Seismic Safety Investigation*, June 1974.

State of California, (2000), *Seismic Hazard Zones, City and County of San Francisco, Official Map*.

FIGURES



Base map: (c) 2015 san francisco planning department



11 GLADYS STREET
San Francisco, California

SITE LOCATION MAP

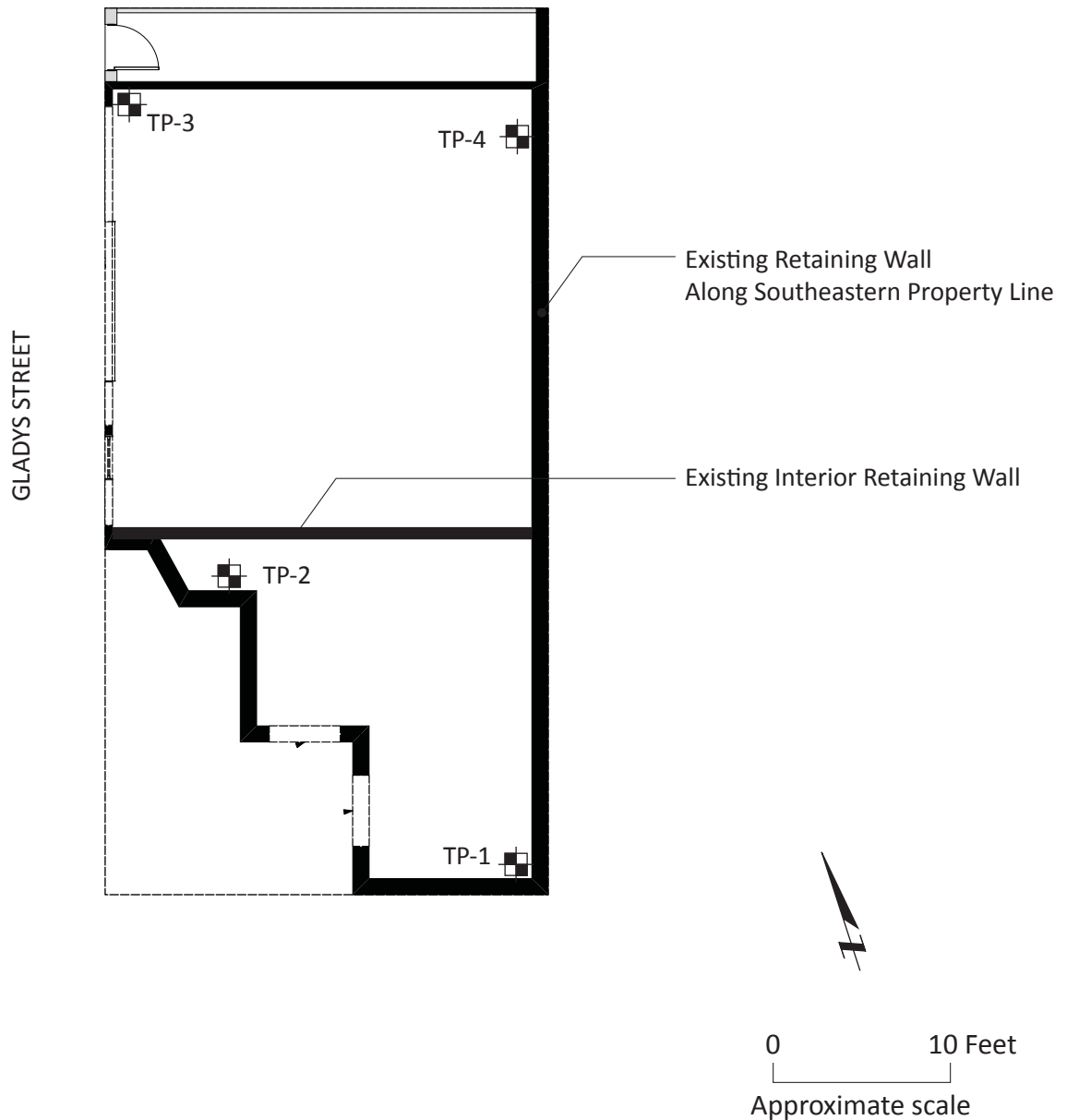
Date 09/18/15

15-180505

Figure 1

EXPLANATION:

■ TP-4 Approximate Location
of Test Pit Logged by
Divis Consulting, Inc.,
July 2015



Reference: SHEET A1.0 - 1 (E) GROUND FLOOR, RESIDENTIAL ADDITION, 11 GLADYS ST, prepared by Architect Mason Kirby, Inc., dated 5/28/15.



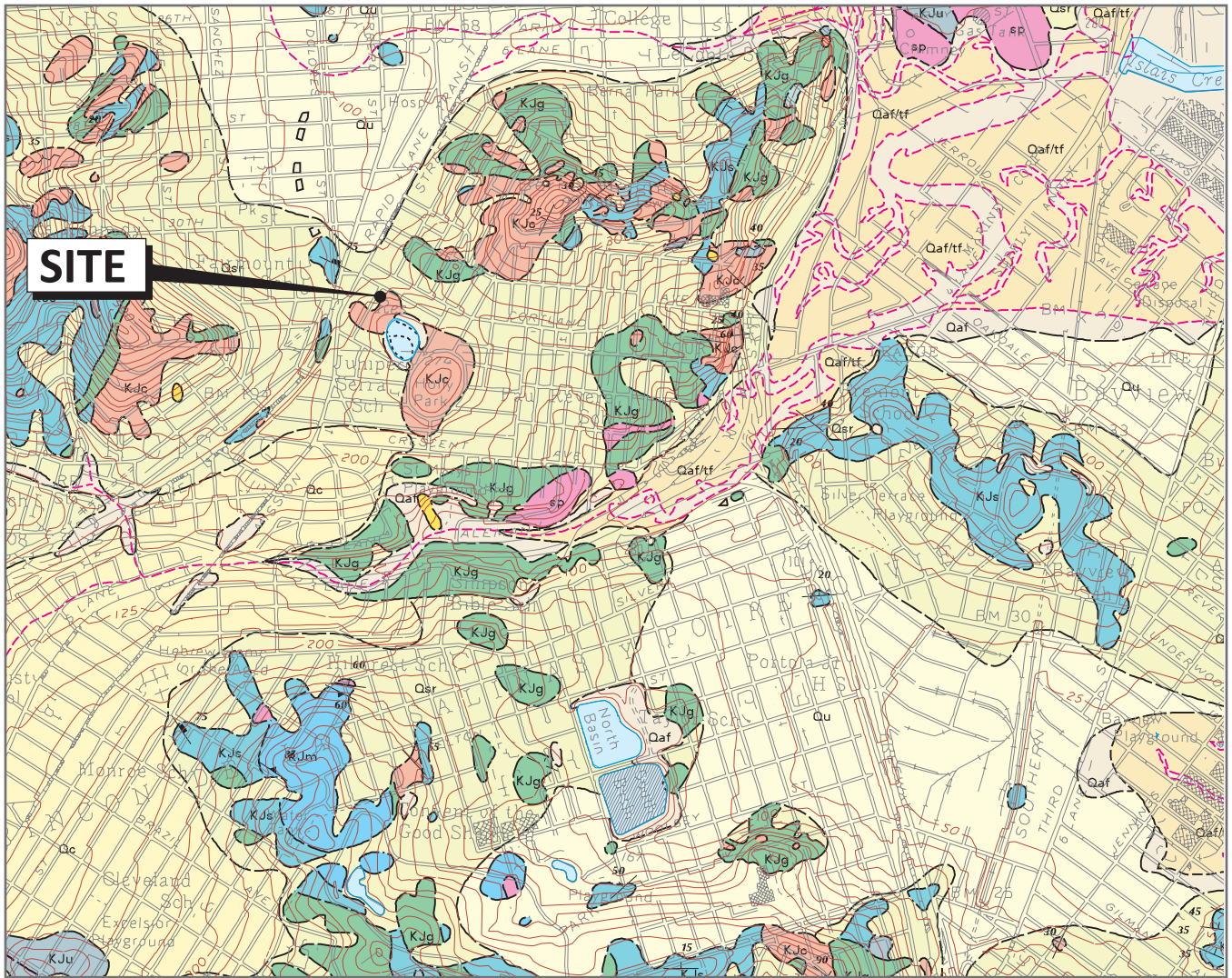
11 GLADYS STREET
San Francisco, California

SITE PLAN

Date 09/18/15

15-180505

Figure 2



- water
- Qaf Artificial fill
- Qaf/tf Artificial Fill over Tidal Flat
- Ql Landslide Deposits
- Qsr Sloe Debris and Ravine Fill
- Qc Colma Formation
- KJg Greenstone
- KJs Sandstone and Shale
- KJc Chert
- Contact, approximately located



0 2000 4000 feet



Approximate scale

Reference: Preliminary Geologic Map of the San Francisco South 7.5' Quadrangle and Part of the Hunters Point 7.5' Quadrangle, San Francisco Bay Area, California, by M.G. Bonilla, 1998



11 GLADYS STREET
San Francisco, California

REGIONAL GEOLOGIC MAP




Date 09/18/15

15-180505

Figure 3



FAULT TYPE

-  Strike slip
-  Thrust (Reverse)
-  Normal



0 5 10 Miles



Approximate scale

Base Map: U.S. Geological Survey, National Seismic Hazards Maps - Fault Sources, 2008.



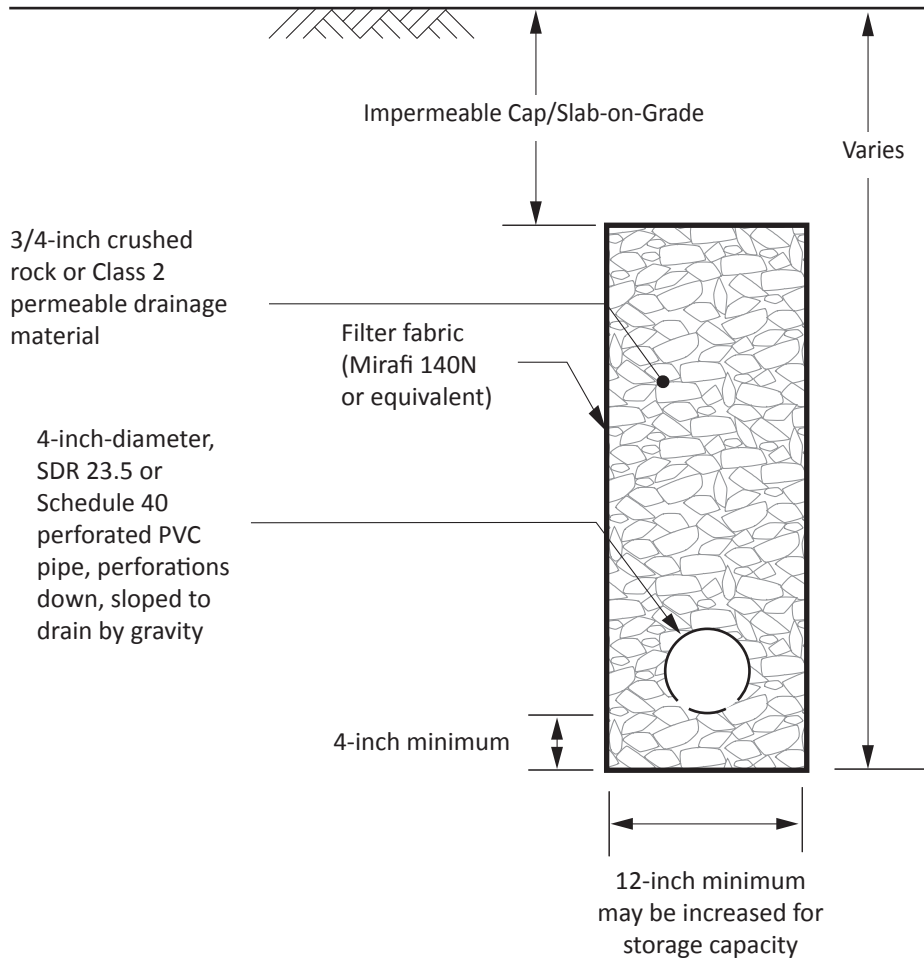
11 GLADYS STREET
San Francisco, California

REGIONAL FAULT MAP

Date 09/18/15

15-180505

Figure 4





APPENDIX A

Important Information About Your Geotechnical Engineering Report

Important Information about Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/THE BEST PEOPLE ON EARTH exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

Copyright 2004 by ASFE, Inc. Duplication, reproduction, or copying of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with ASFE's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of ASFE, and only for purposes of scholarly research or book review. Only members of ASFE may use this document as a complement to or as an element of a geotechnical engineering report. Any other firm, individual, or other entity that so uses this document without being an ASFE member could be committing negligent or intentional (fraudulent) misrepresentation.

EXHIBIT D

Permit Details Report**Report Date:** 1/4/2019 10:11:45 AM

Application Number: 200010233810
 Form Number: 3
 Address(es): 5710 / 005 / 0 155 APPLETON AV
 Description: SEISMIC RETROFIT COLLEGE HILL RESVR WORK INCLUDES CON SHEAR WALL/FOOTINGS,STRUCT STEEL COLLECTORS WO
 Cost: \$920,000.00
 Occupancy Code: S-2
 Building Use: 64 - STORAGE TANKS

Disposition / Stage:

Action Date	Stage	Comments
10/23/2000	TRIAGE	
10/23/2000	FILING	
10/23/2000	FILED	
12/1/2000	PLANCHECK	
12/2/2000	APPROVED	
1/8/2001	ISSUED	

Contact Details:**Contractor Details:****Addenda Details:****Description:**

Step	Station	Arrive	Start	In Hold	Out Hold	Finish	Checked By	Hold Description
1	PAD-PC	10/24/00	11/1/00	11/10/00		11/22/00	LEUNG TED	
2	PAD-STR	11/22/00	11/22/00			11/22/00	LEUNG TED	
3	PAD-MECH	11/29/00	11/29/00			11/29/00	LAI JEFF	
4	ONE-STOP	12/1/00	12/1/00			12/1/00		
5	CPB	12/2/00	12/2/00			12/2/00	SHAWL HAREGGEWAIN	APPRVD,YLB

This permit has been issued. For information pertaining to this permit, please call 415-558-6096.

Appointments:

Appointment Date	Appointment AM/PM	Appointment Code	Appointment Type	Description	Time Slots
------------------	-------------------	------------------	------------------	-------------	------------

Inspections:

Activity Date	Inspector	Inspection Description	Inspection Status
1/10/2002	Adwin Lau	PRE-FINAL	SITE VERIFICATION
6/27/2001	Darlene Hartley	REINFORCING STEEL	FORMS

Special Inspections:

Addenda No.	Completed Date	Inspected By	Inspection Code	Description	Remarks
0			01	CONCRETE	
0			02	BOLTS IN CONCRETE	
0			04	REBAR/TENDONS	
0			05	WELDING	
0			23	OTHER	GLU-LAM
0			13	GRADING/EXCAVATION	
0			19	SHEAR DIAP	
0			20	SPECIAL CASES	PULL-TEST
0			06	HIGH STRESS BOLTS	

For information, or to schedule an inspection, call 558-6570 between 8:30 am and 3:00 pm.

Station Code Descriptions and Phone Numbers

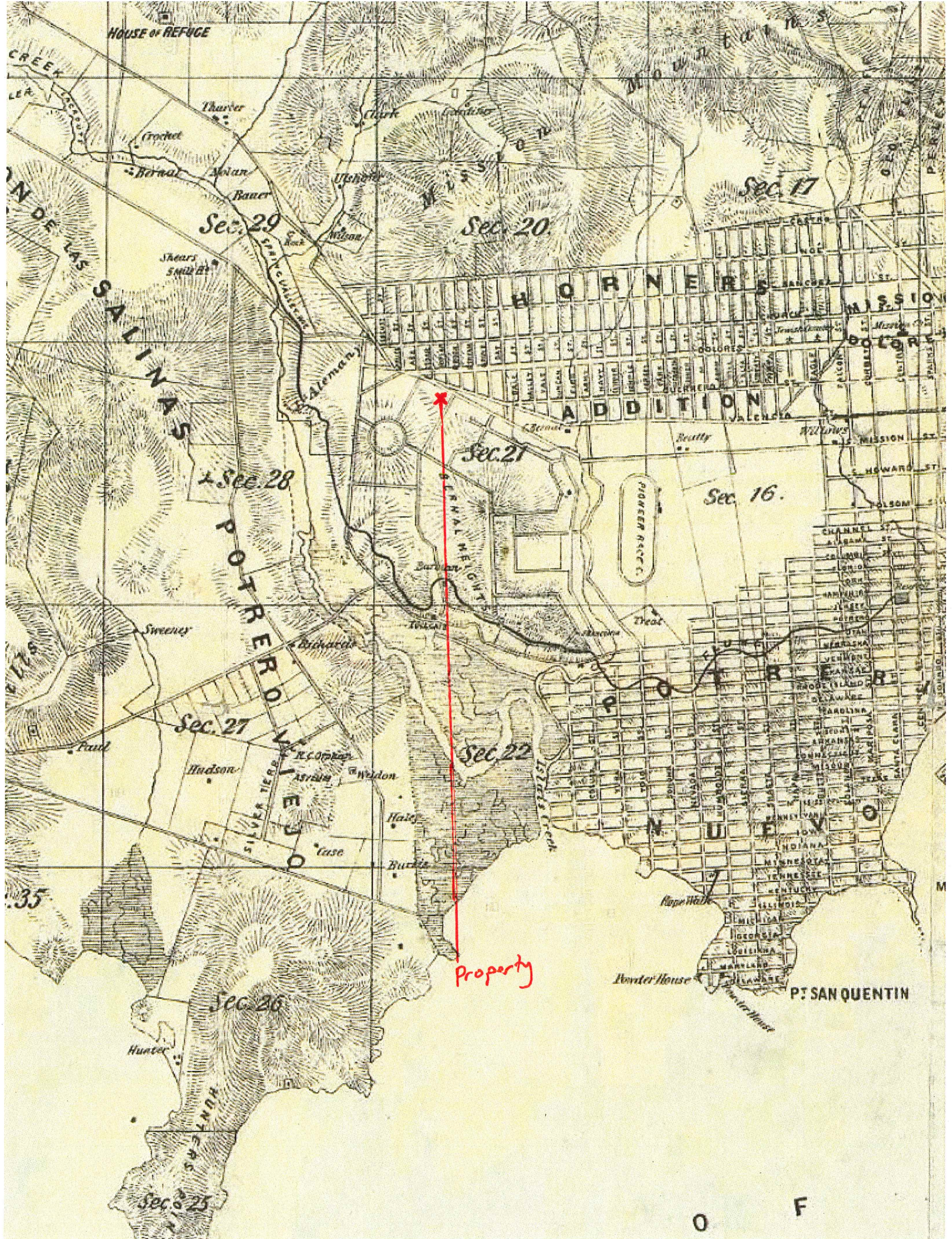
[Online Permit and Complaint Tracking](#) home page.

Technical Support for Online Services

If you need help or have a question about this service, please visit our [FAQ](#) area.

[Contact SFGov](#) [Accessibility](#) [Policies](#)
City and County of San Francisco © 2019

EXHIBIT E



HOUSE OF REFUGE

CREEK
SAN DE LAS

SALINAS

Sec. 29

Sec. 20

Sec. 17

Sec. 28

Sec. 21

Sec. 16

Sec. 27

Sec. 22

35

Sec. 26

HUNTERS
Sec. 25

Property

Booster House

PT. SAN QUENTIN

O

F



Property X

BERNAL HEIGHTS

ST. MARY'S PARK

Holly Park

Bernal Heights Park

Paul Revere Elementary School

The San Francisco School

EXHIBIT F

Patrick Buscovich & Associates Structural Engineers, Inc.

235 MONTGOMERY STREET, SUITE 823, SAN FRANCISCO, CALIFORNIA 94104-3105 • TEL: (415) 788-2708 FAX: (415) 788-8653

Patrick Buscovich S.E. Oracle

Education: University of California, Berkeley ~ Bachelor Science, Civil Engineering 1978
~ Master Science, Structural Engineering 1979

Organizational: State of California; Building Standards Commission
Commissioner 2000 – 2002
City & County of San Francisco; Department of Building Inspection (DBI)
Commissioner/Vice President 1995 – 1996
UMB Appeal Board 2005-2006.
Code Advisory Committee 1990-1992
Chair of Section 104 Sub-Committee.
Structural Engineers Association of Northern California (SEAONC)
President 1997 – 1998
Vice President 1996 – 1997
Board of Directors 1994 – 1999
College of Fellows
Edwin Zacher Award 1999
Structural Engineers Association of California (SEAOC)
Board of Directors 1996 – 2000
Applied Technology Council (ATC)
President 2007 – 2008
Board of Directors 2000 – 2009

License: California, Civil Engineer C32863, 1981
Structural Engineer S2708, 1985

Experience: *Patrick Buscovich and Associates, Structural Engineer – Senior Principal (1990 to Present)*
Specializing in existing buildings, seismic strengthening, rehabilitation design, building code/permit consultation/peer review, expert witness/forensic engineering

- Expert Witness/Forensic Engineering/Collapse & Failure Analysis
- Commercial Tenant Improvement.
- Seismic Retrofit Consultation.
- Peer Review/Building Code Consulting.
- Permit Consultant in San Francisco (DBI, DCP, SFFD & BSUM).
- Member of the following SEAONC/DBI Ad-Hoc Committees:
Committee to revise San Francisco Building Code Section 104F/3304.6.
Committee to draft San Francisco UMB ordinance.
1993 Committee to revise the San Francisco UMB ordinance.
Blue-Ribbon panel to revise earthquake damage trigger, 1998
Secretary, Blue Ribbon Panel on seismic amendments to the 1998 SFBC.
Secretary, Blue Ribbon Panel Advising San Francisco Building Department on CAPSS.
- Co-Authored of the following SF DBI Code Sections.
EQ damage trigger
- Coordinator for San Francisco UMB Seminars 1992, 1993 & 1994. SEAONC.
- Seminar on San Francisco UMB Code 1850 to Present. SEAONC.
- Member San Francisco UMB Bond Advisory Committee.
- Speaker at numerous San Francisco Building Department Building Inspection Seminar on UMB, 1993.
- Speaker at numerous code workshops for the San Francisco Department Building Inspection.
- Co-author of 1990 San Francisco UMB Appeals Board Legislation.
- Co-author of San Francisco Building Code Earthquake Damage Trigger for Seismic Upgrade, Committee Rewrite 2008.
- As a San Francisco Building Commissioner, directed formulation of Building Occupancy Resumption Plan (BORP)
- Chaired the 1995 update on the San Francisco Housing Code.
- Directed formulation of UMB tenant protection program
- Consultant to the City of San Francisco for evaluation of buildings damaged in the Loma Prieta October 17, 1989 earthquake to assist the Bureau of Building Inspection regarding shoring or demolition of “Red-Tagged” structures.
- Consultant to San Francisco Department of Building Inspection on the Edgehill Land Slide.
- Consultant to numerous private clients to evaluate damage to their buildings from the October 17, 1989 earthquake.
- Project Administrator for multi-team seismic investigation of San Francisco City-owned Buildings per Proposition A, 1989 (\$350 million bond).
- Project Manager for seismic strengthening of the Marin Civic Center.
- Structural engineer for Orpheum Theater, Curran Theater and Golden Gate Theater.
- Consultant on numerous downtown SF High Rise Buildings.
- Rehabilitation & seismic strengthening design for 1000’s of privately owned buildings in San Francisco.
- Structure Rehabilitation of Historic Building.
- Structural consultant for 1000’s single family house alteration in San Francisco

Previous Employment

- Previous Employment 1979-1980 PMB, Senior Designer
1980-1990 SOHA, Associate

Public Service: Association of Bay Area Government – Advisory Panels
Holy Family Day Home – Board of Director
Community Action Plan for Seismic Safety (CAPPs) advisory panel.