Oakland City Planning Commission

STAFF REPORT

Case File Number APL19-004 (Related Cases: CP18-009)

May 15, 2019

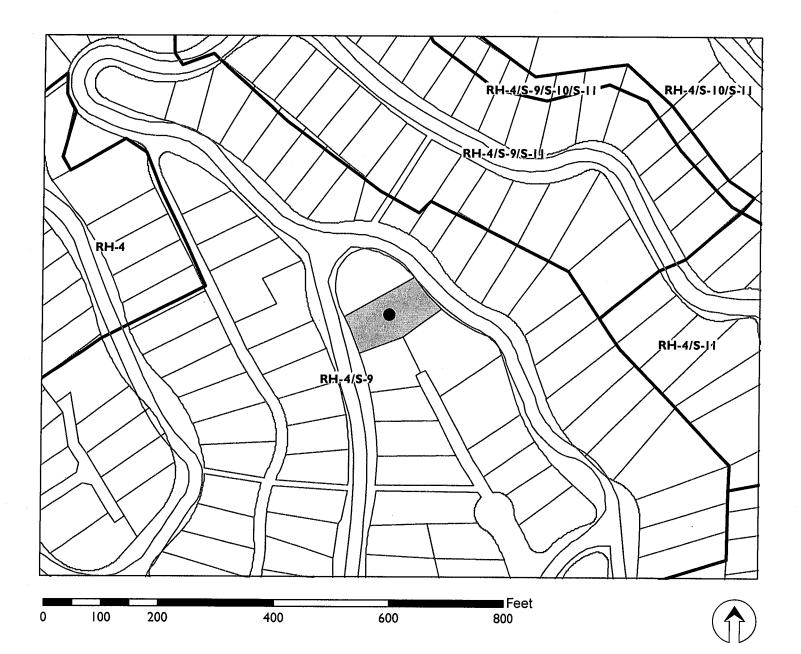
Location:	7196 Saroni Drive
Assessor's Parcel Number:	048E-7330-003-00
Proposal:	Appeal of Zoning Manager's approval of a Creek Protection Permit
	to construct biotechnical bank stabilization, consisting of rock riprap, biodegradable erosion control blankets, and vegetative
	rootwads, to stabilize incising banks of an existing stream tributary
	of Shepherd Creek; to construct retaining walls to stabilize local
	slide erosion below a residence; and to incorporate biotreatment, revegetation, and stormwater dissipation measures to reduce
	erosion, sedimentation, and protect the stream channel bank.
Appellant:	Nicholas Vigilante
Phone Number:	510-339-6855 Jansen Lum
Owner: Planning Pormits Doquined.	Category IV Creek Protection Permit, Section 13.16 of the City of
Planning Permits Required:	Oakland Creek Protection Ordinance.
General Plan:	Hillside Residential
Zoning:	RH-4/S-9
Environmental	Exempt, Section 15269(c) of the State CEQA Guidelines –
Determination:	Emergency Projects; Section 15301(d) Existing Facilities; Section 15183 of the State CEQA Guidelines:
	Projects Consistent with a Community Plan, General Plan or
	Zoning
Historic Status:	Not a historic property
Service Delivery District:	2
City Council District:	4 Fahmany 4, 2010
Date Filed:	February 4, 2019
Staff Recommendation:	Deny the Appeal and uphold the Zoning Manager's decision
Finality of Decision:	Final (Not Appealable pursuant to Oakland Municipal Code Sec. 17.132.030)
For Further Information:	Contact case planner Caesar Quitevis, Planner II at (510) 238-6343 or cquitevis@oaklandca.gov

SUMMARY

On February 4, 2019, the appellant filed a timely appeal (Attachment A) requesting that the City Planning Commission overturn the Zoning Manager's decision to approve a Category IV Creek Protection Permit to construct biotechnical bank stabilization, consisting of rock riprap, biodegradable erosion control blankets, and vegetative rootwads, to stabilize incising banks of an existing stream tributary of Shepherd Creek; to construct retaining walls to stabilize local slide erosion below a residence; and to incorporate biotreatment, revegetation, and stormwater dissipation measures to reduce erosion, sedimentation, and protect the stream channel bank (the "Project").

The Creek Protection Permit enables proposed work to protect the creek, remediate slope erosion, stabilize the creek bank, protect the public health and safety, and correct conditions found not in compliance with the Creek Protection Ordinance.

CITY OF OAKLAND PLANNING COMMISSION



Case File:APL19004 (CP18009)Applicant:Nicholas VigilanteAddress:7196 Saroni DriveZone:RH-4/S-9

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The Creek Protection Permit is one of three approvals required before repair work can commence:

- Category IV Creek Protection Permit issued by the Bureau of Planning for exterior work from the centerline of the creek to within 20' of the creek top of bank;
- Section 401 Water Quality Certification issued by the Regional Water Quality Control Board to stabilize the channel bank and protect water quality; and
- Building permit issued by the Bureau of Building to construct a retaining wall to repair the slope erosion, install stormwater dissipation, prevent erosion, and protect existing residences.

The multi-agency review involves coordination and consensus from several professional disciplines including geology, hydrology, biology, planning, engineering, and construction.

The Zoning Manager found that the Creek Protection Permit, CP18009, is consistent with the Planning Code, the Creek Protection Ordinance (Section 13.16.200), and the Oakland General Plan Element - Open Space Conservation and Recreation Element (OSCAR), and is exempt from CEQA under emergency projects provision (Section 15269(c) in accordance with CEQA Guidelines. The contents of the Water Quality Certification are incorporated into the Creek Permit by reference.

The administrative decision to grant Creek Protection Permit CP18009 is subject to the Appeal Procedures as per Section 13.16.450 of the Oakland Municipal Code. In this appeal of the Creek Protection Permit, Appellant raises procedural claims about his opportunity to review project elements during the public comment process, and also substantive issues related to the Project's potential effect on Appellant's property. Appellant did not submit a challenge to the environmental determination or to design review. Therefore, review of the Appeal shall be based on the Appeal Specifications and Appeal Investigative File (AIF), the Creek Protection Permit decision CP18009, Creek Ordinance Appeal Procedures (Section 13.16.450), and applicable Administrative Determination or Interpretation Appeal Procedures (Section 17.132.020).

Staff believes there is sufficient evidence in the record to support the decision of the Creek Protection Permit by the Zoning Manager. Staff also believes further delay will be detrimental to the emergency project and resolving immediate erosion issues. Staff believes it will be imperative that stabilization be implemented prior to the 2019-2020 rainy season. Staff recommends that the City Planning Commission deny the appeal and uphold the Zoning Manager's decision on the grounds that the appellant fails to demonstrate that the Zoning Manager's decision was in error or was not supported by substantial evidence in the record.

PROPERTY DESCRIPTION

The property is a 6,814 square foot, down-sloping creek-side property with a completed single family dwelling from December 2011 with the address of 7196 Saroni Drive. The property has frontage on Saroni Drive along both the front and rear property lines. The existing creek channel flows north to south and bisects the rear half of the parcel. There are several oaks, and redwood trees located on the lot. The surrounding neighborhood homes are developed with two and three–story, single family dwellings of various architectural styles. The subject property is one of three contiguous properties (7196, 7200, and 7236 Saroni Drive) located near the City-maintained storm drain outfall serving a larger watershed area of approximately 61.3 acres. The tributary valley upstream of the properties contains hillside homes. The watershed runoff from this developed area is discharged at this outfall and into an open creek channel which serves as a tributary to Shepherd Creek.

BACKGROUND

The subject of the Creek Protection Permit and area of concern relates to the erosion impacts on an existing creek channel that flows through the area and abutting properties at 7200, 7236, and 7196 Saroni Drive. The process to remediate issues with the creek involve the submittal, review, and approval for a Category IV Creek Protection Permit as per Section 13.16 of the Oakland Municipal Code. No improvements within the creek channel are allowed without first the approval of the Creek Protection Permit. The following provides background information and a chronology of recent events involving the existing creek:

- A. Channel Rip Rap Rock Revetment and Retaining Wall (7200 Saroni Drive): 1998-2002 Record rainfall during the 1998 El Nino winter caused erosion and landslide movement to the rear of, and downslope of, 7200 Saroni Drive (Appellant property). Stormwater runoff saturated the soil and storm drainage runoff discharged from the culvert weakened the creek bank.
 - A building permit was secured by Nicholas Vigilante (Appellant) to construct a retaining wall to stabilize the rear of his property (Permit # RB9801033 with the work finaled on 5/29/98).
 - Further work to stabilize erosion/slide problems was installed by the Public Works Department (Project C142810, 11/2000), involving construction of a below grade retaining wall and rock rip rap revetment in 2002.
 - William E. Langbehn, Geotechnical Engineer, was retained to conduct a post construction site review on 1/26/02, and prepared an analysis on 1/29/02. The study identified an area susceptible to further earth movement located at the rear slope area below the wall towards the base of the rock revetment, and recommended a number of long-term remedial measures. These recommendations for long term remediation were never implemented by Mr. Vigilante. (Attachment 3, Preliminary Geotechnical Evaluation, Retaining Wall and Rear Slope, William K. Langbehn, Geotechnical Engineer, 1/29/02; Pages 5-7; Attachment 8, AIF, Exhibit P, Pages 212-214; Attachment 4, Langbehn Geotechnical Group, 12/5/17, Pages 1-2; Attachment 7 Langbehn Geotechnical Group, 2/26/19, Pages 1-2).

B. Design and Construction of a New Single Family Dwelling (DR07327, CP06159, 7196 Saroni Drive): 2007 -2011

Applications for Design Review, a Creek Protection Permit, and a Tree Removal Permit to construct a new single-family dwelling on a creekside property were filed by Project applicant Jansen Lum on 2/23/07.

• Geotechnical analysis was provided by the Langbehn Geotechnical Group and a hydrology analysis was provided by Clearwater Hydrology to provide expertise and advise the safe construction of the project next to the creek. No work was proposed within 20' of the top of creek bank, and therefore, no channel stabilization work was required. For the record, the 4/4/07 hydrology report prepared by Clearwater Hydrology noted that should erosion of the lower creek

banks occur biotechnical bank stabilization measures may need to be installed (Attachment 8, AIF Exhibit B, Page 11).

- Public comments, including Mr. Vigilante's, were received, noted, and incorporated into the project as Conditions of Approval for an approved stormwater drainage dissipation, erosion control, and sedimentation control both during and post construction as part of the Planning approval.
- The Design Review and Category III Creek Protection Permit applications were approved with Conditions of Approval attached on 9/28/07 (DR07327, CP06159). Building construction commenced with a Grading Permit and Building Permit issued on 5/03/10 (GR1000054, RB0903864); the Applicant was issued a Certificate of Completion on 11/23/11 (ACCELA permit database) once construction ended.

C. Post Construction Creek Channel Erosion (7196 Saroni Drive, 7236 Saroni Drive): 2017

Winter season rains in 2017 exacerbated site drainage issues in the area where <u>no approved</u> stormwater drainage dissipation or erosion-sedimentation control measures had been installed as required under the Conditions of Approval of the Planning (DR07327, CP06159) decision for 7196 Saroni Drive. Pursuant to complaints filed with the Public Works Department, Department Watershed Staff investigated and advised Mr. Lum on 2/22/17 to retain geotechnical professionals to resolve the erosion issues on the slope and further recommended to the Bureau of Building Inspections that a Creek Protection Permit be required prior to any proposed work in the creek. (Attachment 8, AIF, Exhibits E – Page 65; F – Page 67; H – Pp 79-85; I – Page 88; Exhibits K & L,).

D. Code Enforcement and Permit Records (7196 Saroni Drive) 2017-2018

A series of Code Enforcement Complaints, filed by Mr. Vigilante and related Zoning counter discussion reflected in ACCELA records, identify the following:

- 1701870 On 5/01/17, Complaint was filed noting missing stormwater energy dissipaters as required per building permit RB1104255.
- 17ROW00013 On 5/30/17, Right of Way Complaint was filed citing erosion due to excessive storm runoff and annotations from 2007 on original slide concerns during the design review for 7196 Saroni Drive.
- 1702523 On 6/06/17, Complaint was filed and a Notice of Violation (NOV) issued to property 7196 Saroni Drive property owner because Conditions of Approval attached to the approval were not met (DR07327, CP06159).
- ZW170061 On 10/06/17, Zoning Worksheet was filed regarding counter discussion with Mr. Lum on a proposal for a new retaining wall to repair erosion and notes reflect the necessary requirement for a Creek Protection Permit.
- RB1704591 On 10/6/17, Retaining Wall permit application was filed by Jansen Lum to repair erosion; On 10/23/17 Applicant was informed that review will be placed on hold pending creek protection permit review. Retaining wall design was revised. Permit review was

completed, but permit issuance was placed on hold 5/11/18, pending approval of Creek Protection Permit.

• 18ROW00007 On 2/28/18, Right of Way Complaint was filed to compel an investigation into the lack of erosion repair.

E. Creek Protection Permit (CPP) and Channel Stabilization Plan (7196 Saroni Drive): March 2018 – January 2019 A Category IV Creek Protection Permit was filed on 3/12/18, (#CP18009), for a new retaining wall to repair erosion and stabilize the creek bank.

- A public notice was issued on 6/15/18 for a 10-day public comment period per Section 13.16 OMC. The project application required the simultaneous review by other regulatory agencies including Regional Water Quality Control Board (RWQCB), the State Department of Fish and Wildlife (CDFW), and the U.S. Army Corps of Engineers (USACE) because proposed work may impact in stream channel conditions.
- An updated 3/28/18 proposal by Langbehn Geotechnical Group to construct a new retaining wall and rock revetment were further amended by Clearwater Hydrology's "Supplemental Design for Creek Stabilization, Shepherd Creek Tributary (9/11/18). The project hydrologist and RWQCB staff inspected the site and worked out stabilization plan revisions by 9/28/18, for a biotechnical solution to satisfy the Regulatory Agencies and provide a more robust geomorphic-based solution.
- Both the Supplemental Design for Creek Stabilization and the Water Quality Certification were incorporated into the Creek Protection Permit by reference. On January 23, 2019, the Creek Protection Permit was approved by the Zoning Manager (Attachment 2, CP18009 decision).

F. Appeal of Creek Protection Permit decision (APL19004 of CP18009, 7196 Saroni Drive), February 2019

The property owner (Appellant) of 7200 Saroni Drive requested, on 1/30/19, a temporary abeyance of the administrative decision, in order, to request and conduct a peer review of the project, and specifically, the geotechnical analysis from 12/5/17. However, the decision was issued on 1/23/19, and there was nothing for the Zoning Manager to hold in abeyance. An appeal of the Zoning Administrator's decision was filed on 2/4/19 (APL19004) with Appeal Specifications and Appeal Investigative File (Attachment 1, Appeal Form; Exhibit 8, AIF in its entirety). The Appeal claims procedural defects in the review including the public comment process and an incomplete geotechnical analysis. These are explained in more detail under Appeal Issues.

G. Supplemental Information submitted after the Appeal filing date, February 4, 2019

- <u>On 2/14/19</u>, the Appellant filed a complaint with the Public Works Department call center on the noticeable color change to the water quality (clear to muddy) as channel water passed by the eroded hillside on the Lum property;
- <u>On 2/24/19</u>, Appellant submits and requests new Exhibit R, be included with the Appeal Investigative File (AIF);

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;

- <u>On 3/20/19</u>, new information was filed to be included under Exhibit S, containing "Geotechnical Engineering Opinions" offered by Don Hillebrandt, Geotechnical Consultant, based on his review of the file and site reconnaissance conducted on 2/12/19 and 2/26/19;
- In response to the Appeal, written responses by project professional consultants and regulatory agencies were submitted to Planning (Exhibit 6):

<u>On 2/26/19</u>, Langbehn Geotechnical Group, project geotechnical consultant; <u>On 3/4/19</u>, Clearwater Hydrology, project consultant hydrologist; <u>On 4//12/19</u>, Brian Wines, RWQCB staff; and <u>On 4/16/19</u>, Marcia Grefsrud, CDFW staff, in concurrence with RWQCB

GENERAL PLAN ANALYSIS

The proposal conforms in all significant respects with the Hillside Residential land use classification described in the Land Use and Transportation (LUTE) Oakland General Plan, which encourages the development of single family homes appropriately designed for hillsides. The Hillside Residential classification applies in the hill areas of Oakland where low densities and residential character are affected by slope, environmental, transportation, and fire safety constraints. The project is consistent with the Open Space Conservation and Recreation Element (OSCAR) General Plan Policies including:

Objective CO-5: Water Quality – Minimize the adverse effects of urbanization on Oakland's groundwater, creeks, lakes, and nearshore waters;

Objective CO-6: Surface Waters – To protect the ecology and promote the beneficial use of Oakland's creeks, lakes, and nearshore waters.

Policy CO 6.1: Creek Management – Protect remaining natural creek segments by retaining creek vegetation, maintain creek setbacks, and control bank erosion; and

Policy CO 6.2: Creek Maintenance and Safety – Strictly enforce local, state, federal laws and ordinances on the maintenance of creeks and watercourses

ZONING ANALYSIS

The property is located in the RH-4 Hillside Residential Zone and the S-9 Fire Safety Protection Combining Zone. The intent of the RH-4 zone is: "to create, maintain, and enhance areas for single family dwellings. The intent of the S-9 zone is: "to promote the public health, safety and welfare by ensuring that activities that are located, in whole, or part, within High Fire Hazard Severity Zones, and accessed form streets or cul-de-sacs that do not meet emergency access standards, develop in such a manner as not to be a serious threat to public health or safety." Staff found that the proposed application met the applicable RH-4 zoning as the project is consistent with the surrounding residential character, protects the function and capacity of the creek, maintains water quality, and protects public health and safety as discussed in the Zoning Manager's decision letter dated January 23, 2019.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines categorically and statutorily exempt specific types of projects from environmental review. Specifically, Section 15301(d) and Section 15269(b)(c) of the State CEQA Guidelines exempts projects that rehabilitate deteriorated or damaged structures, facilities, or mechanical equipment to meet current standards of public health and safety, repairs publicly or privately served facilities necessary to maintain service essential to the public health, safety, and welfare, or involve specific actions necessary to prevent or mitigate an emergency. The Zoning Manager found that the proposed project meets the Section 15301 and Section 15269, and that none of the exceptions to the exemption apply. The project is therefore exempt from environmental review as well as Section 15183 as described in the *General Plan Analysis* section above. The Appellant has provided no specific claims wherein the Zoning Administrator erred with regards to the environmental determination.

KEY ISSUES

COMPLIANCE WITH CREEK PROTECTION ORDINANCE

In order to mitigate erosion in the Shepherd Creek tributary, any work proposed in the creek channel is subject to review for a City of Oakland Category IV Creek Protection Permit. The Creek Protection, Storm Water Management and Discharge Control Ordinance, Section 13.16 of the Oakland Municipal Code, (adopted by City Council on 6/1/93 and updated by City Council resolution on 7/29/97), conforms with General Plan policy, promotes creek protection measures, provides enforcement tools, and establishes criteria by which Creek Protection Permits may be issued for projects in or around streams, lakes, and near shore waterbodies. The basic criteria for approval includes the following (Section 13.16.200 OMC):

- a. That the proposed activity will not directly or indirectly adversely affect the Creek. In determining whether the Creek would be adversely impacted, the Chief of Building Services or his/her agent shall at a minimum, consider the following factors:
 - 1) Whether the proposed activity may discharge pollutants into the Creek;
 - 2) Whether the proposed activity may result in modifications to the natural flow of water in the Creek;
 - 3) Whether the proposed activity may deposit new material into the Creek or cause bank erosion or instability;
 - 4) Whether the proposed activity may result in alteration of the capacity of the Creek; and
 - 5) Such other factors as the Chief of Building Services deems appropriate.
- b. That the proposed activity will not adversely affect the Riparian Corridor, including Riparian Vegetation, animal wildlife or result in loss of wildlife habitat;
- c. That the proposed activity will not degrade the visual quality and natural appearance of the riparian corridor;
- d. That the proposed activity is consistent with the intent and purposes of this Chapter;
- e. That the proposed activity will not endanger public or private property; and

f. That the proposed activity will not directly or indirectly threaten the public's health or safety.

Other regulatory agencies must also approve the project that have interest in watershed protection. The list includes the following:

U.S. Army Corps of Engineers California Department of Fish and Wildlife San Francisco Regional Water Quality Control Board.

The Zoning Manager found the Category IV Creek Protection Permit application at 7196 Saroni Drive for remedial work in the creek, satisfied the criteria to grant approval on January 23, 2019. Although the Appellant does not specifically cite how the project with the incorporated Supplemental Design for Channel Stabilization Shepherd Creek Tributary or the Water Quality Certification is not in conformance with the Creek Protection Ordinance, the Appellant's arguments raise questions relevant to criteria (e) and (f) with respect to geotechnical stability. This is addressed in Staff responses to Issues Raised in Appeal.

ISSUES RAISED IN APPEAL

An Appeal shall specifically cite the error or abuse of discretion by the Zoning Manager and/or where their decision is not supported by evidence in the record. The City Planning Commission determines whether the proposal conformed to applicable criteria and may uphold, reverse, or modify the approval (Section 17.132.020 Section 13.16.450 OMC).

The Appellant is submitting the Appeal to raise procedural and substantive problems related to the Creek Protection Permit, CP18009, approval issued on January 23, 2019. The Appellant's basis for the Appeal of the Zoning Manager's decision, is described in the Appeal Specifications, Statement of Facts, and documented in the Investigative File, shown in normal type. Staff's responses, which relate to Findings from the decision letter, are shown in *italics*.

General Issues:

Appellant: 1 The City of Oakland building permit inspection process failed to identify and address the deficiencies (incorporate erosion control measures and dissipation systems recommended by Geotechnical and Hydrology Engineers) after construction of the home was completed in December 2010 and through May 2017, and only commenced enforcement action after I filed a Code Enforcement Complaint on May 30, 2017. That is a period of around seven (7) years. The review processes for the Creek Protection Permit, building permit for the retaining wall, and Code Enforcement Complaint 1702523 dragged on for almost two (2) years, and the erosion problems at the location are getting worse even though the areas have been covered with tarp in most recent times.

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Staff Response: The building permit inspection process is not subject to appeal. Appellant's argument does not cite where the decision by the Zoning Manager on the Creek Protection Permit reflects error or abuse of discretion. The Zoning Manager determined that the approval of the Creek Protection Permit would reduce the sedimentation into the creek and would also provide both a private and public benefit by protecting residential properties upstream and downstream. Substantial evidence in the record supports the Zoning Manager's decision, which was based on the design of the Project that included stabilization measures, conditions of approval and best management practices to minimize pollutants, measures such as silt fencing and fiber rolls, erosion control blankets, limitations on heavy mechanized equipment during construction, and other standard conditions of approval to protect the creek and private property. Furthermore, the Project has also been approved by the Regional Water Quality Control Board, California Department of Fish and Wildlife, and the U.S. Army Corps of Engineers.

Appellant: 2 The public comment process is flawed because a firm hydrology study and remediation plan was not developed until September 11, 2018 and plans were revised during the first week of January 2019. The public comment process denied me the opportunity to review and think about the contents of the December 5, 2017 review that referenced my property and will impact it, and to provide comments during the permit application comment period.

Staff Response The Creek Protection Permit public comment period is 10 days by ordinance. The Public Notice Comment Period does not require final project plans before soliciting public comment, nor is the final description of the scope of work required in the public notice. Public comment followed procedures in accordance with the Creek Protection Ordinance. The Creek Protection Permit application, CP18009, filed March 12, 2018, followed the requisite 10-day public notification and comment period on June 15, 2018, after the applicant satisfied all application submittal requirements.

> Furthermore, there is supporting evidence in the record that the Appellant was provided adequate opportunity to review the contents of the file and comment during the 10 day period. The Appellant was also afforded opportunity beyond the public comment period. Comments were provided prior to the application for a Creek Protection Permit, before public notification, and during the building permit review for the retaining wall. Building permits are ministerial, with no public comment process. Even so, the Appellant was allowed to submit comments during each phase requiring agency approval:

> > **#5**

- Building permit by the Bureau of Building during the separate application for the retaining wall;
- Category IV Creek Protection Permit during the public comment period and throughout the review; and
- Section 401 Water Quality Certification during the analysis and draft development of the channel stabilization plan.

By 9/28/18, the proposal was revised to the satisfaction of the other regulatory agencies. A channel stabilization plan was developed by Clearwater Hydrology to supplement the original retaining wall and rock revetment proposed by the Langbehn Geotechnical Group. These supplemental reports did not substantially alter the original proposal locations which Langbehn determined appropriate for the stream channel from a geotechnical standpoint, and no further comment period was required.

Appellant: 3 A geotechnical engineering report dated December 5, 2017 on the second area of erosion next to my property was also not included nor referenced for the public to review and comment on. It was not included in the January 23, 2019 approval decision, and it was not disclosed and provided me until January 29, 2019 despite my request for all such reports on September 19, 2018 and on November 17, 2017 to review and comment on.

As requested by the Appellant, technical reports required for the Creek Protection Permit review were forwarded to the Appellant, namely, the Clearwater Hydrology (CH) Supplemental Design Channel Stabilization Plan and even a draft of the RWQCB 401 Water Quality Certification. Geotechnical reports are typically not available during Creek Protection Permit application review, but instead are reviewed during building permit review. Nevertheless, the geotechnical reports were forwarded to the Appellant upon request on January 29, 2019, prior to the end of the appeal period.

It must be noted that the 9/26/17 and 12/5/17 geotechnical engineering reports were submitted for the separate building permit review, as is typical. However, the Appellant was provided access to the building permit application file well before the Creek Protection Permit was even submitted. Again, building permits are typically a ministerial review with no public comment process.

Appellant: 4 First - The geo tech engineering review is based on conditions at the end of calendar year 2017 and the eroded area has increased in size during 2018 and 2019, and therefore, the review is no longer current and may not be accurate. Second - The review does not contain a soils report and other forms of analysis for the eroded area on lot 989. The geo tech engineer used only the soils report prepared in 2009. The current landslide behind the house on lot 988 should raise a "red flag" of concern about the accuracy of all geo technical engineering reviews of lots 988 and 989.

Staff Response: The Zoning Manager did not abuse his discretion to rely on, in addition to all other studies in the record, the field reconnaissance in September 2018 by the Regional

Water Quality Board and Clearwater Hydrology in coordination with CDFW. To approve a Section 401 Water Quality Certification issued by the RWQCB, the findings for an in-stream channel stabilization plan must be current and accurate, and the Zoning Manager determined that the studies were current and accurate.

The assertion that the geo tech engineer used only the soils report prepared in 2009 is incorrect. The 2009 soils report was used in the design of the residential home at 7196 Saroni Drive. The 9/26/17 Geotechnical Investigation and Retaining Wall Design, used for the eroded area, includes subsurface soil boring exploration, laboratory testing, and retaining wall calculations necessary to design the new stabilization retaining wall (at Landslide #1). The 12/5/17 geotechnical review submitted for the building permit review contains recommendations for remedial work immediately adjacent to the Vigilante property (at Landslide #2). As part of the ministerial building permit review, public comment is not required.

This area (lot 989) is also considered in the Creek Protection Permit approval with respect to the CH Supplemental Design Channel Stabilization Plan incorporated into the approval as the designated area for upstream cascade repair and the midreach left bank toe stabilization. Biotreatment to stabilize the channel bank is the preferred method over a strictly geotechnical engineered solution to satisfy other regulatory agency requirements.

Finally, the Clearwater Hydrology (CH) Supplemental Design Channel Stabilization Plan addresses erosion nearest the Park property and attributed to headcut erosion and potentially migrating upstream (Right - north bank bend stabilization). The Water Quality Certification imposes additional conditions and monitoring requirements to insure the work satisfies regulatory agency requirements. Appellant has expressed no objection to the RWQCB Water Quality Certification. It should be noted that RWQCB Water Quality Certification would not have agreed to the amount of rock proposed in Langbehn's proposal.

- Appellant: 5 Attachment B, Section 20 of the approval letter requires the project applicant to submit a soils report prior to the approval of construction-related permit. The work to repair the second area of erosion is part of the permit review and approval process, but there is no current review and soils report as explained above for that planned work.
- Staff Response: A soils report (9/26/17) was submitted with the building permit application, which is not the subject of this appeal. Staff reviewed the soils report as part of the building permit application.
- Appellant: 6 The Appellant's concerns on the procedural defect and to substantive problems was brought to the attention of the Zoning Manager and the Appellant requested that the approval decision be held in abeyance temporarily to allow an outside geo technical engineering peer review of the second area of erosion on the property. The Zoning Manager declined the request. The City of Oakland needed to make sure the Lum/Ham hillside adjacent to his property was still stable and the proposed rock revetment plan sufficient to address all the causes of erosion on the hillside, not

just the erosion in, and next to the creek. Such review needs to be included in the approval process and decision.

Staff Response: The design and technical reports supporting the approvals for the retaining wall, creek permit, and channel stabilization plan provided the overall technical basis for the Zoning Manager to not seek an outside geotechnical peer review of the second area of erosion on the property. The Zoning Manager considered the thoroughness of design for each project component, and did not error in determining, based on substantial evidence in the record, that there is little likelihood that adverse effects due to erosion will result.

> Furthermore, there has been no specific objection to the Supplemental Stabilization Plan or the 401 Water Quality Certification cited in the Appeal. The Water Quality Certification and the Supplemental Design for Channel Stabilization have been included in the approval decision by reference. Based on the required approvals to commence the repair work, the hillside below Mr. Vigilante's property will likely remain stable.

> Finally, in a response to the subject Appeal, Langbehn's February 26,2019 letter reaffirms that the proposed channel stabilization is appropriate from a geotechnical standpoint and no further geotechnical investigation appears warranted. Langbehn's response was also reviewed by City Staff from both Building Services and the Watershed Division concur there is substantial technical evidence in support of the Creek Protection Permit as approved

- Appellant: 7 The Appellant requests that the Bureau of Planning include the Hillebrandt, geotechnical consultants' analysis to the Appeal Investigative File as Exhibit R, and require the applicant address and incorporate all the recommendations contained in the correspondence (Hillebrandt Geotechnical Consultants Memorandum to Lunski & Stimpert LLP regarding Geotechnical Engineering Opinions). The supplemental information was received by the City of Oakland on March 20, 2019.
- Staff Response: Planning Code Section 17.132.010 describes the process to appeal an administrative decision. This section specifically states:

"The appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Director or wherein his or her decision is not supported by the evidence in the record. <u>The</u> <u>appeal shall be accompanied by such information as may be</u> <u>required to facilitate review.</u>"

The appellant submitted an engineering review prepared by Don Hillebrandt on March 20, 2019, forty-four days after the filing of the Appeal on February 4, 2019. Therefore, staff and the City Planning Commission are not required to consider this report as part of the appeal. Nevertheless, staff did review the document and solicited comments by the project consultants and regulatory agencies citing their agreement that work to stabilize the bank should be

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completed before the next rainy season. This work may not be completed in time should additional review of this creek permit be required. (Attachment 7, Appeal Response comments, Attachment 8, AIF Exhibit R & S).

CONCLUSION

In conclusion, there is no substantial evidence to indicate the Zoning Manager erred or indicate wherein his or her decision is not supported by the evidence in the record:

- Evidence in the record reflects consistency in the geotechnical analysis and approach in mitigating long term erosion issues.
- The bioengineering channel stabilization plan enhances the erosion repair utilizing less equipment and material, and the 401 Water Quality Certification includes timely monitoring and reporting requirements to maintain water quality and channel stability.
- Evidence in the record reflects the Appellant has had adequate opportunity to comment on aspects and impacts of the proposed project throughout the process.
- The Project public comment period followed proper notification procedure as defined in the Creek Protection Ordinance, Section 13.16.180.
- The Project is exempt from CEQA per the provision for emergency projects, Section 15269(c) of the CEQA Guidelines, and conforms with the Creek Protection Ordinance with respect to emergency work for the abatement of an imminent threat to the public's health, safety or property, Section 13.16.130(f).

There is no reasonable basis for overturning the Zoning Administrator's decision. Staff recommends that the City Planning Commission uphold the Zoning Manager's decision and deny the Appeal. Outside of this decision, cooperation between property owners is essential to getting the repair work completed as a component of the work extends beyond individual property lines. Some mutual access will be necessary. As the RWQCB has stated, "cooperation will be necessary for the project. The forces of nature don't respect property lines."

Oakland City Planning Commission	May 15, 2019
Case File Number APL19-004 (CP18009)	Page 15

RECOMMENDATIONS:

- 1. Affirm staff's environmental determination.
- 2. Uphold the Zoning Manager's decision and deny the Appeal.

Prepared by:

Caesar Quitevis Planner II

Reviewed by:

KŐBERT MERKAMP Zoning Manager

Approved for forwarding to the Oakland City Planning Commission:

ED MANAŠSE, Deputy Director Planning Bureau

ATTACHMENTS:

- Attachment 1: Appeal form with Appeal Specifications dated February 4, 2019
- Attachment 2: CP18009, 7196 Saroni Drive, Administrative Decision Approval dated January 23, 2019 including Attachment C Supplemental Design for Creek Stabilization, Clearwater Hydrology 9/11/18, and Attachment D Water Quality Certification for Project to Stabilize a Tributary to Shepherd Creek, RWQCB dated 9/27/18
- Attachment 3: Preliminary Geotechnical Evaluation Retaining Wall and Rear Slope, William K. Langbehn, dated January 29, 2002
- Attachment 4: Supplemental Recommendations Shallow Sloughing on Lot 989, Langbehn Geotechnical Group dated, December 5, 2017
- Attachment 5: Geotechnical Investigation and Retaining Wall Design, Langbehn Geotechnical Group, dated September 26, 2017
- Attachment 6 Creek Protection Permit related graphics and photographs
- Attachment 7: Appeal Response Comments (Langbehn Geotechnical Group, RWQCB, CDFW) dated February 26, 2019
- Attachment 8: Appeal Investigative File (230 pages) Appellant documentation filed February 4, 2019 and includes documentation after February 4, 2019 date (Exhibit R & S).

APPEAL AND INVESTIGATIVE FILE (AIF)

CP 18009 RB 1704591 Code Enforcement Complaint 1702523

Prepared By: Nicholas J. Vigilante Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611

APPEAL AND INVESTIGATIVE FILE TABLE OF CONTENTS

Completed Appeal Form and Appeal Specifications.

Statement of Facts.

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Exhibit A - 2007 Correspondences with Oakland CEDA Building Services Planner Caesar Quitevis, Planner III Darin Ranelletti, and Jansen Lum.

Exhibit B - 2007 Clearwater Hydrology Report, certified by William Vandivere, Principal.

Exhibit C - 2000 Geotechnical Report of Lot 988, certified by William Langbehn, Principal.

Exhibit D – Professional Information About Jansen Lum, Architect and Construction Project Manager/Owner.

Exhibit E - 2017 City Request to Clear Debris From Creek, and Picture of Landslide Behind 7196 Saroni Drive photographed by Jansen Lum.

Exhibit F - 2017 Email from Interim Planning and Building Department Director Darin Ranelletti to Ken Park for Grete Park (7236 Saroni Drive) About Erosion at 7196 Saroni Drive.

Exhibit G – 2017 Email from Interim Director Ranelletti to Vigilante About Landslide at 7196 Saroni Drive.

Exhibit H - Evidence That Jansen Lum failed to incorporate permitted and required dissipation systems in the construction of the home at 7196 Saroni Drive, and Notice of Violation issued by City on June 16, 2017.

Exhibit I - 2017 and 2018 Emails to Assistant City Engineer Jennifer Wong About Status of Landslide and Erosion Remediation.

Exhibit J - February to April 2018 Communications With William Vandivere and Attorney Leila Moncharsh.

Exhibit K - Attestation of Authenticity and Origin of cellular smart phone picture showing dissipation systems required but not installed by Jansen Lum, and how copies of Exhibit B and C were obtained.

Exhibit L - Various pictures of areas of erosion at 7196 Saroni Drive from 2017 to April 2018 with attestation of authenticity.

Exhibit M - June 15, 2018 Notice of Creek Protection Permit Application CP18009 and comments provided by Nicholas Vigilante on June 23, 2018.

Exhibit N - Various Communications With City of Oakland Planner Caesar Quitevis and Brian Wines, Water Resource Control Engineer, California State Water Quality Control Board, and other officials.

Exhibit O - City of Oakland, Planning and Building Department Approval Decision handdated January 23, 2019 and postmarked that date, including attachments A through D.

Exhibit P - Landslide and erosion history excerpts on lots 989 and 900 and adjacent Saroni Drive roadway.

Exhibit Q - William Langbehn December 5, 2017 geo tech engineering review not provided to Nicholas Vigilante, and request of Nicholas Vigilante for temporary abeyance of January 23, 2019 approval decision until a peer geo tech engineering review is conducted of the second area of erosion at 7196 Saroni Drive, also included is a current parcel map.

Exhibit R - Service Request #879626 dated 2-19-2019 regarding muddy water in creek behind 7196 Saroni Drive.

Exhibit S – March 20, 2019 Letter To Planning and Building Director Gilchrist transmitting March 15, 2019 GeoTechnical Engineering opinions and recommendations and requesting incorporation of them as conditions for approval of remediation work at 7196 Saroni Drive.

Original - NOU



CITY OF OAKLAND APPEAL FORM FOR DECISION TO PLANNING COMMISSION, CITY **COUNCIL OR HEARING OFFICER**

PROJECT INFORMATION

Case No. of Appealed Project: CP18009, RB1704591, and Code Complaint 1702523 Project Address of Appealed Project: 7196 Saroni Drive, Oakland, CA 94611 Assigned Case Planner/City Staff: Caesar Quitevis, Jennifer Wong, and Dennis Larks

APPELLANT INFORMATION:

Printed Name: Nicholas James Vigilante III Mailing Address: 7200 Saroni Drive City/Zip Code: Oakland, CA 94611 Email: NVigilante@msn.com

Phone Number: 1-510-339-6855 Alternate Contact Number: Representing:

An appeal is hereby submitted on:

AN ADMINISTRATIVE DECISION (APPEALABLE TO THE CITY PLANNING COMMISSION OR HEARING OFFICER)

YOU MUST INDICATE ALL THAT APPLY:



Approving an application on an Administrative Decision Denying an application for an Administrative Decision Administrative Determination or Interpretation by the Zoning Administrator

Other (please specify) Please see Appeal and Investigative File (238 pages) included herewith.

Please identify the specific Administrative Decision/Determination Upon Which Your Appeal Based Pursuant to the Oakland Municipal and Planning Codes listed below: is

- Administrative Determination or Interpretation (OPC Sec. 17.132.020)
- Determination of General Plan Conformity (OPC Sec. 17.01.080)
- Design Review (OPC Sec. 17.136.080)
- Small Project Design Review (OPC Sec. 17.136.130)
- □ Minor Conditional Use Permit (OPC Sec. 17.134.060)
- □ Minor Variance (OPC Sec. 17.148.060)
- □ Tentative Parcel Map (OMC Section 16.304.100)

Certain Environmental Determinations (OPC Sec. 17.158.220)

- Creek Protection Permit (OMC Sec. 13.16.450)
- Creek Determination (OMC Sec. 13.16.460)
- □ City Planner's determination regarding a revocation hearing (OPC Sec. 17.152.080)
- Hearing Officer's revocation/impose or amend conditions (OPC Sec. 17.152.150 &/or 17.156.160)



X Other (please specify) See attached Appeal and Investigative File (238) pages (Continued on reverse)

L: Zoning Counter Files Application, Basic, Pre, Appeals Originals Appeal application (7-20-15) DRAFT.doc (Revised 7/20/15)

Original - NOC

(Continued)

A DECISION OF THE CITY PLANNING COMMISSION (APPEALABLE TO THE CITY COUNCIL)

Granting an application to:

OR Denying an application to:

YOU MUST INDICATE ALL THAT APPLY:

Pursuant to the Oakland Municipal and Planning Codes listed below:

□ Major Conditional Use Permit (OPC Sec. 17.134.070)

- □ Major Variance (OPC Sec. 17.148.070)
- Design Review (OPC Sec. 17.136.090)
- □ Tentative Map (OMC Sec. 16.32.090)
- □ Planned Unit Development (OPC Sec. 17.140.070)
- □ Environmental Impact Report Certification (OPC Sec. 17.158.220F)
- Rezoning, Landmark Designation, Development Control Map, Law Change (OPC Sec. 17.144.070)
- Revocation/impose or amend conditions (OPC Sec. 17.152.160)
- Revocation of Deemed Approved Status (OPC Sec. 17.156.170)
- □ Other (please specify)

FOR ANY APPEAL: An appeal in accordance with the sections of the Oakland Municipal and Planning Codes listed above shall state specifically wherein it is claimed there was an error or abuse of discretion by the Zoning Administrator, other administrative decisionmaker or Commission (Advisory Agency) or wherein their/its decision is not supported by substantial evidence in the record, or in the case of Rezoning, Landmark Designation, Development Control Map, or Law Change by the Commission, shall state specifically wherein it is claimed the Commission erred in its decision. The appeal must be accompanied by the required fee pursuant to the City's Master Fee Schedule.

You must raise each and every issue you wish to appeal on this Appeal Form (or attached additional sheets). Failure to raise each and every issue you wish to challenge/appeal on this Appeal Form (or attached additional sheets), and provide supporting documentation along with this Appeal Form, may preclude you from raising such issues during your appeal and/or in court. However, the appeal will be limited to issues and/or evidence presented to the decision-maker prior to the close of the public hearing/comment period on the matter.

The appeal is based on the following: (Attach additional sheets as needed.)

Please see attached Appeal and Investigative File (238 pages). The January 23, 2019 approval letter states that the appeal filing fee is \$3,195.79. In a clarification e-mail dated February 1, 2019, Planner Quitevis stated the appeal filing fee is \$1,878.46. Enclosed herewith is a personal check for the latter amount. A10-

Supporting Evidence or Documents Attached. (The appellant must submit all supporting evidence along with this Appeal Form; however, the appeal will be limited evidence presented to the decision-maker prior to the close of the public hearing/comment period on the matter.

(Continued on reverse)

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Original - Alt

(Continued)

Nicholas J. Vigilante II

bruary Date

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Cashier's Receipt Stamp Below:

Signature of Appellant or Representative of Appealing Organization

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TO BE COMPLETED BY STAFF BASED ON APPEAL TYPE AND APPLICABLE FEE

APPEAL FEE:	

Fees are subject to change without prior notice. The fees charged will be those that are in effect at the time of application submittal. <u>All fees are</u> <u>due at submittal of application</u>.

Below For Staff Use Only

Date/Time Received Stamp Below:

APPEAL SPECIFICATIONS

The Appeal is submitted to raise relevant procedural and substantive problems related to the CP18009 approval decision issued on January 23, 2019. The Appeal Investigative File (AIF) contains a preponderance of evidence and a Summary of Facts in support of the Appeal Specifications below:

In 2007, I notified in writing the owners of 7196 Saroni Drive, Jansen Lum and Sabrina Ham, and City of Oakland Planning and Building officials, before the house was built about the potential erosion and land movement issues and problems. The owners assured me and the City of Oakland they would address these concerns with their Engineers. However, they did not incorporate the erosion prevention recommendations from their Geotechnical and Hydrology Engineers nor did they install the promised and permitted dissipation systems and/or other systems and still have not done so to date, although repair work is hoped to begin sometime in 2019. That is a period of around eleven (11) years.

The City of Oakland building permit inspection process failed to identify and address the above deficiencies after construction of the home was completed in December 2010 and through May 2017, and only commenced enforcement action after I filed a Code Enforcement Complaint on May 30, 2017. That is a period of around seven (7) years.

The review processes for CP18009, RB1704591, and Code Enforcement Complaint 1702523 dragged on for almost two (2) years, and the erosion problems at the location are getting worse even though the areas have been covered with tarp in most recent times. The employees who worked the cases are knowledgeable and good employees, but they are overworked impacting timeliness and quality of performance.

The public comment process which commenced on June 15, 2018 and ended ten (10) calendar days later on June 25, 2018 was flawed because a firm hydrology study and remediation plan was not developed until September 11, 2018, and plans were revised during the first week of January 2019. A geo technical engineering report dated December 5, 2017 on the second area of erosion next to my property was also not included nor referenced for the public to review and comment on. It was also not included in the January 23, 2019 approval decision, and it was not disclosed and provided to me until January 29, 2019 despite my request for all such reports on September 19, 2018 and on November 7, 2017 to review and comment on.

The public comment process was designed to give the public a fair and full opportunity to comment on specific aspects of the project and repairs that will or might impact them. What happened here does not align to the purpose and intent of the public comment

process. The process denied me the opportunity to review and think about the contents of the December 2017 review that referenced my property and will impact it, and to provide comments during the permit application comment period.

The above procedural defect contributes to substantive problems and questions about the December 5, 2017 geo tech engineering review that should have been addressed in the permit review process, as follows:

---First, the review is based on conditions at the end of calendar year 2017. The eroded area has increased in size during the rains in calendar year 2018 (not covered with tarp until November) and in 2019; therefore, the review is no longer current and may not be accurate.

--Second, the review does not contain a soils report and other forms of analysis for the eroded area on lot 989. The geo tech engineer used only the soils report prepared in 2009 for lot 988 where the house was built and claims that the current eroded area on lot 989 is essentially the same area. The current landslide behind the house on lot 988 should raise "a red flag" of concern about the accuracy of all geo technical engineering reviews of lots 988 and 989. Moreover, the current erosion and land movement activity on lots 988 and 989 appears to be similar to previous erosion and land movement activity on lots 989, 990 and on Saroni Drive next to the creek.

--Third, Attachment B, Section 20 of the approval letter requires the project applicant to submit a soils report prior to the approval of construction-related permit. The work to repair the second area of erosion is part of the permit review and approval process, but there is no current review and soils report as explained above for that planned work.

I brought most of the concerns in the above paragraph to the approving official Robert Merkamp beginning on January 30, 2019 and requested that the January 23, 2019 approval decision be held in abeyance temporarily to allow for an outside geo technical engineering peer review of the second area of erosion on the property at 7196 Saroni Drive. I agreed to pay for this review. I will accept the outcome of it. In a reply later that day, Zoning Manager Merkamp declined my request.

My recommendation to Zoning Manager Merkamp was intended to improve the quality of the study and permit review process, and an effort to make sure that problems at the second area of erosion do not arise in the future. Future problems would not only impact my property, but also the owners of 7196 Saroni Drive, and potentially other properties and areas around it including the creek.

Nicholes J. Vigilante III

STATEMENT OF FACTS

The following summary is based on documentary evidence contained in the Appeal Investigative File (AIF).

In 2007, during the City of Oakland public comment period on Lum/Ham's request to build the home at 7196 Saroni Drive, Vigilante sent Lum and the City of Oakland (Building Planner Caesar Quitevis and Manager Darin Ranelletti) correspondences wherein he indicated that care needed to be exercised in building the home because of its proximity to a creek, and because of prior erosion history in the area. Lum assured Vigilante and the City of Oakland in writing that Vigilante's concerns would be properly addressed by Engineers. (AIF Exhibit A, pages 1-6; Exhibit P, pages 196-217B)

In 2007, Lum hired William Vandivere's firm, Clearwater Hydrology, to study and submit a hydrology report of the vacant land before construction of the home commenced, as required by the City of Oakland. Lum did not incorporate the erosion prevention recommendations in Clearwater Hydrology's report during and after construction of the home. The report was prepared by one of Vandivere's employees (Nick Miller) and while it does not bear Vandivere's personal signature, it bears Vandivere's State of California engineering certification stamp, but not that of Miller who actually performed the study. (AIF Exhibit B, pages 7-11; Exhibit H, page 78)

Beginning In 2007, Lum retained William Langbehn's Geo Tech Engineering firm and in a geo tech engineering report submitted by Lum to the City of Oakland, Langbehn outlined recommendations to prevent erosion which Lum/Ham did not incorporate during and after construction of the home. (AIF Exhibit C, pages 27, 55-62; Exhibit H, pages 78, 86-87)

Continuously from at least 2000 to the present time, Lum has been a registered Architect with State of California certification. He possesses a college degree in that field, and he has construction project management experience. Lum drew up his own engineering specifications and drawings for the construction of the home at 7196 Saroni Drive. One of the engineering drawings reflects a promised installation of "dissipation systems" to address management of rainwater and erosion prevention. The "dissipation systems" were approved by the City of Oakland and were continuing conditions of approval for construction of the home. (AIF Exhibit D, pages 63-64; Exhibit H, pages 78, 86-87; and Exhibit K, pages 106-107)

In late 2010, construction of the home at 7196 Saroni Drive was completed and Lum/Ham commenced residing there. At that time (and until June 2017), the City of Oakland failed to inspect and identify Lum/Ham's failure to incorporate the "dissipation systems" required by the building permit approval process. (AIF Exhibit H, pages 78, 86-87)

Beginning in early 2017, the Lum/Ham property at 7196 Saroni Drive began showing signs of significant erosion on the lower and upper ends of the property. Lum covered

some of the area on the lower end next to his home with blue tarp but not the area below it near the creek. Lum/Ham also failed to align three water discharge pipes from the home to prevent those pipes from discharging water onto the property at 7236 Saroni Drive (Grete Park). These conditions are believed to have caused erosion next to an old Oak tree on the property at 7236 Saroni Drive. It was not until April 2018, that Lum took steps to properly cover the eroded area and adjust the discharging pipes so they no longer threw water on the property at 7236 Saroni Drive. (AIF Exhibit E, pages 65-66; Exhibit H, pages 82-83; Exhibit I, pages 91-93; and Exhibit L, 109-112)

Beginning in early 2017, Lum also failed to address the erosion damage on the upper end of his property adjacent to the Vigilante property. Lum was aware of this erosion as early as 2007. This erosion is reflected in the engineering drawings Lum drew and submitted to the City of Oakland along with the promised installation of rock revetment at that location to address the existing erosion noticed in 2007. Installation of rock revetment was a component of the "dissipation systems" that were required by the building permit approval process. It was not until November 2018 that Lum covered the second area of erosion with tarp. (AIF Exhibit H, pages 78, 82; Exhibit I, pages 88-91; 96; Exhibit L, pages 109 and 113; and Exhibit N, pages 130-131)

In January 2017, officials from the City of Oakland Public Works Agency instructed Lum to clean out debris from the creek which was impacting the flow of water. Lum/Ham failed to do as instructed. (AIF Exhibit E, page 65; Exhibit H, page 79; Exhibit N, pages 127-128; Exhibit O, page 183)

On April 20, 2017, the City of Oakland Planning and Building Dept Interim Director, Darin Ranelletti stated that his Department would address the conditions at 7196 Saroni Drive with the owners. However, the City of Oakland took no action on its own at that time. (AIF Exhibit F, pages 67-68; Exhibit G, pages 69-70; Exhibit H, pages 85A-85B)

On May 30, 2017, Vigilante filed a code enforcement complaint with the City of Oakland about the conditions on the Lum/Ham property. (AIF Exhibit H, pages 85A-85D)

On June 16, 2017, the City of Oakland issued Lum/Ham a Notice Of Violation. In support of the Notice, an internal memorandum issued by City officials states that Lum/Ham never incorporated the "dissipation systems" called for in the engineering drawings that Lum/Ham submitted which were continuing conditions for approval of the permit to build the home (AIF Exhibit H, pages 78-84; Exhibit K, pages 106-108)

In March 2018, Vigilante and Grete Park (7236 Saroni Drive) hired Oakland Attorney Leila Moncharsh for advice about their respective situations. Moncharsh suggested hiring Vandivere to examine the problems on the Lum/Ham property. At that time, no one, including Moncharsh, was aware that Vandivere's firm had prepared a hydrology report in 2007 of the vacant lot for the construction of the Lum/Ham property. Later in March 2018, Vandivere conducted a site visit and after the visit, he notified Vigilante in writing of his firm's prior relationship with Lum/Ham. Vandivere offered initial opinions as to the causes of the erosion activity at the Lum/Ham property. After learning that

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Vandivere's firm had prepared a hydrology report in 2007, Vigilante decided not to continue to utilize Vandivere's assistance. (AIF Exhibit J, pages 100-105)

In April 2018, Lum covered the entire area of erosion from the back of the home and down to the creek with brown tarp and adjusted the water distribution pipes so they were not throwing water at the property at 7236 Saroni. Lum did not place any tarp on the upper end of his property where there was erosion next to the Vigilante property. (AIF Exhibit N, pages 130-131; Exhibit L, page 109)

On April 4, 2018, The City of Oakland gave Vigilante copies of the 2007 engineering reports of Vandivere and Langbehn. Vigilante was also given "in camera" access to the engineering drawings and plans Lum had submitted in 2007, however, he was not allowed copies of those drawings and plans. With his cellular smart phone, Vigilante photographed a picture of the "dissipation systems" that Lum/Ham had drawn into the plans which were approved but had not been installed. (AIF Exhibit K, pages 106-107)

In May 2018, Lum submitted an application to State of California regulatory boards (Wildlife and Waterboards), as well as the US Army Corps of Engineers, for approval of a creek protection permit required by the City of Oakland as part of the erosion remediation process. (AIF Exhibit N, pages 121-131)

In June 2018, the City of Oakland issued a public notice of a request for an application submitted by Lum for a creek protection permit, Case File Number CP 18009, wherein the public was given an opportunity to provide comments. Vigilante provided timely and extensive written comments. (AIF Exhibit M, pages 114-120)

In an e-mail dated September 19, 2018 to Planner Quitevis and Assistant City Engineer Wong, Vigilante requested to review and obtain copies of any hydrology, geomorphology, and engineering reports and/or studies that Lum has submitted this in connection with CP18009 and RB1702523 this year. He was provided only a copy of the hydrology study and plan completed by Vandivere's firm dated September 11, 2018. (AIF Exhibit N, pages 129-130)

In e-mails dated September 22, 25, October 16, 17 and 18, 2018, Vigilante provided extensive written feedback to City officials and to the State and Federal officials who were involved in the review process. Vigilante outlined concerns about the adequacy of the rock revetment plan, specifically the size of the rocks recommended, to address the erosion in the second area of erosion at 7196 Saroni Drive adjacent to his property at 7200 Saroni Drive. He also noted that a fallen tree was in the creek next to that area and impacting the flow of water in the creek. (AIF Exhibit N, pages 121-129; Exhibit O, pages 153-190)

Sometime during the month of November 2018, Lum for the first time covered with black plastic tarp the erosion on the upper end of his property next to the Vigilante property. (AIF Exhibit L, page 109)

In a letter hand-dated January 23, 2019, Zoning Manager Robert Merkamp issued an approval decision on CP18009. The letter is postmarked on the day of issuance (AIF Exhibit O, pages 132-195)

In an e-mail to Planner Quitevis and Assistant Engineer Wong dated January 25, 2019, Vigilante outlined concerns about the absence in the approval decision of a current and thorough geo technical engineering report with soil samples regarding the second area of erosion on the Lum property next to his property at 7200 Saroni Drive. Vigilante noted that the only review in the approval decision was an April 10, 2018 review regarding ground coverings for hillsides which he had not been given a copy of, per his request of September 19, 2018 for a copy of all engineering reviews. Vigilante opined that the City of Oakland needed to make sure the Lum/Ham hillside adjacent to his property was still stable and the proposed rock revetment plan sufficient to address all the causes of erosion on the hillside, not just erosion in and next to the creek. Such a review needed to be included in the approval process and decision (AIF Exhibit N, pages 129-130, Exhibit O, pages 132-195)

In an e-mail of January 29, 2019, Planner Quitevis forwarded to Vigilante a copy of a three-page geo technical engineering review dated December 5, 2017 that William Langbehn had performed on the second area of erosion on the Lum property next to the Vigilante property. The December 7, 2017 review also discusses aspects of Vigilante's property yet he was not cc:ed on the review nor provided a copy of it to review. Vigilante had previously requested copies of all reviews in e-mails to Planner Quitevis and Engineer Wong dated September 19, 2018 and before that on November 7, 2017. (AIF Exhibit I, page 88; Exhibit N, pages 129-130; Exhibit Q, pages 218-219, 221-22 3)

In a subsequent e-mail to Planner Quitevis, Engineer Wong and Zoning Manager Merkamp, Vigilante outlined specific concerns about the currency and adequacy of the December 5, 2017 geo technical engineering review. (AIF Exhibit Q, pages 118-119)

In an e-mail to Zoning Manager Merkamp dated January 30, 2019, Vigilante requested that the January 23, 2019 approval decision be held in abeyance temporarily to allow for an outside geo technical engineering peer review of the second area of erosion on the Lum property. Vigilante agreed to pay for this review. In a reply later that day, Zoning Manager Merkamp declined Vigilante's request. (AIF Exhibit Q, page 218)

In a letter dated March 20, 2019, Vigilante transmitted a copy of a correspondence dated March 15, 2019 containing geotechnical engineering opinions and recommendations to the City of Oakland, Planning and Building Department in connection with the above cited matters in the AIF. He requested that the Planning and Building Department review and require the applicants (Jansen Lum and Sabrina Ham) to address and incorporate all the recommendations contained in the March 15 correspondence as conditions for approval of remediation work at 7196 Saroni Drive. (AIF Exhibit S, pages 229-234)

Attachment 2

CITY OF OAKLAND



DALZIEL BUILDING 0 250 FRANK H. OGAWA PLAZA 0 SUITE 3315 0 OAKLAND, CALIFORNIA 94612

Planning and Building Department Bureau of Planning (510) 238-3941 FAX (510) 238-6538 TDD (510) 238-3254

January 23, 2019

Mr. Jansen Lum 7196 Saroni Drive Oakland, CA 94611

RE: Case File No. CP18009, 7196 Saroni Drive, APN: 048E-7330-003-00

Dear Mr. Lum:

Your application, as described below, has been **APPROVED** for the reasons stated in Attachment A, which contains the findings required to support this decision. Attachment B contains the Conditions of Approval for the project. This decision is effective ten (10) days after the date of this letter unless appealed as explained below.

The following table summarizes the proposed project:

b ir	To construct biotechnical bank stabilization, consisting of rock riprap, iodegradable erosion control blankets, and vegetative rootwads, to stabilize ncising banks of an existing stream tributary of Shephard Creek; to construct etaining walls to stabilize local slide erosion below a residence foundation; and
ir	ncising banks of an existing stream tributary of Shephard Creek; to construct
re	etaining walls to stabilize local slide erosion below a residence foundation; and
tc	o incorporate biotreatment, revegetation, and stormwater dissipation measures
tc	o reduce erosion, sedimentation, and protect the stream channel bank
Planning Permits Required: C	Category IV Creek Protection Permit, Section 13.16 of the City of Oakland
C	Creek Protection Ordinance
General Plan: H	Iillside Residential
Zoning: R	RH-4/S-9
Environmental Determination: E	Exempt per Sections 15269(c) of the State CEQA Guidelines – Emergency
P	rojects; Section 15301(d) Existing Facilities;
S	ection 15183, Projects consistent with a Community Plan, General Plan, or
X Z	Coning
Historic Status: N	Not a Potential Designated Historic Property
City Council District: 4	

If you, or any interested party, seeks to challenge this decision, an appeal <u>must</u> be filed by no later than ten calendar (10) days from the date of this letter, by 4:00 pm on February 4, 2019. An appeal shall be on a form provided by the Bureau of Planning of the Planning and Building Department, and submitted to the same at 250 Frank H. Ogawa Plaza, Suite 2114, to the attention of Caesar Quitevis, Planner II. The appeal shall state specifically wherein it is claimed there was error or abuse of discretion by the Zoning Manager or wherein his/her decision is not supported by substantial evidence and must include payment of \$3,195.79 in accordance with the City of Oakland Master Fee Schedule. Failure to timely appeal will preclude you, or any interested party, from challenging the City's decision in court. The appeal itself must raise each and every issue that is contested, along with all the arguments and evidence in the record which supports the basis of the appeal; failure to do so may preclude you, or any interested party, from raising such issues during the appeal and/or in

court. However, the appeal will be limited to issues and/or evidence presented to the Zoning Manager prior to the close of the previously noticed public comment period on the matter.

A signed Notice of Exemption (NOE) is enclosed certifying that the project has been found to be exempt from CEQA review. It is your responsibility to record the NOE and the Environmental Declaration at the Alameda County Clerk's office at 1106 Madison Street, Oakland, CA 94612, at a cost of \$50.00 made payable to the Alameda County Clerk. Please bring the original NOE related documents and five copies to the Alameda County Clerk, and return one date stamped copy to the Bureau of Planning, to the attention of Caesar Quitevis, Planner II. Pursuant to Section 15062(d) of the California Environmental Quality Act (CEQA) Guidelines, recordation of the NOE starts a 35-day statute of limitations on court challenges to the approval under CEQA.

If you have any questions, please contact the case planner, Caesar Quitevis at (510) 238-6343, or cquitevis@oaklandca.gov, however, this does not substitute for filing of an appeal as described above.

Very Truly Yours ROBERT D. MERKAMP Zoning Manager

Nicholas Vigilante, 7200 Saroni Drive, Oakland, CA 94611 Grete Park, Ken Park, 7236 Saroni Drive, Oakland, CA 94611 Brian Wines, Water Resource Control Engineer, San Francisco Bay Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, CA 94612 Marcia Grefsrud, Environmental Scientist, Department of Fish and Wildlife, Bay Delta Region, 7329 Silverado Trail, Bill Vandivere, Principal, Clearwater Hydrology, 2974 Adeline St, Berkeley, CA 94703 William Langbehn, Langbehn Geotechnical Group, 1034 Richmond Street, El Cerrito, CA 94530 Kristin Hathaway, Watershed Program Supervisor, Watershed & Stormwater Management, Public Works

Craig Pon, Water Program Specialist, Watershed & Stormwater Management, Public Works Department Jennifer Wong, Assistant Engineer II, Bureau of Building, Planning & Building Department, City of Oakland

Attachments:

cc:

- A. Findings
- B. Conditions of Approval, including Standard Conditions of Approvals
- C. Supplemental Design for Creek Stabilization, Clearwater Hydrology, dated September 11, 2018 D. Water Quality Certification for the Project to Stabilize a Tributary to Shepherd Creek, San Francisco Bay Regional Water Quality Control Board, dated September 27, 2018
- E. Groundcover Vegetation Memorandum, Langbehn Geotechnical Group, dated April 10, 2018 F. Notice of Exemption

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This proposal meets all the required findings under the Section 13.16 of the Creek Protection, Storm Water Management and Discharge Control Ordinance, of Oakland Municipal Code as set forth below and which are required to approve your application. Required findings are shown in **bold** type; reasons your proposal satisfies are shown in normal type.

SECTION 13.16.200 CREEK PROTECTION PERMIT CRITERIA:

A. Will the proposed activity (during construction and after project is complete) (directly or indirectly) cause a substantial adverse impact on the creek?

⊡Yes/**No**

The proposed activity will not cause a substantial adverse impact on the creek because the project takes into consideration the hydraulic and geomorphic nature of the stream channel and repairs areas of bank erosion and shallow sloughing located along the steep slopes of an existing creek and downslope of existing residences. Conformance with the proposed biotechnical creek stabilization design will result in a stabilized stream channel, introduce new rock weirs to prevent future erosion, and maintain the overall riparian character and hydrology of the creek. Approximately 110 linear feet of open channel is within the project area, and, within this area, stabilization treatment is focused on the following stream bank segments (Supplemental Design for Creek Stabilization (Clearwater Hydrology, September 11, 2018):

- a. Upstream boulder cascade area;
- b. Upper slope stabilization;
- c. Left (south) bank bend stabilization; and
- d. Right (north) bank bend stabilization.

Segment (a) will repair a rock slope cascade wall that shows sidecut erosion from wet winter rains, is subject to the highest rate of water flow, and will protect the upstream property (7200 Saroni Drive) - Reference Sheet 2; Sheet 4, Section A; of Supplemental Design for Creek Stabilization, Clearwater Hydrology, Engineering Design Plans; Segment (b) is a subsection of the cascade repair with proposed smaller-sized rock infill, proposed revegetation of the

slope with shade-tolerant plants - Sheet 2; Sheet 4, Section A, near Erosion Landslide #1;

Section (c) will repair and install rock at the toe of the bank at a tight bend in the creek - Sheet 2; Sheet 4, Section C; Section (d) will repair and introduce three a stepped rock weir and incorporate the rootwad of existing fallen trees -Sheets 2 and 3; Sheet 4, Section D, near Erosion Landslide #2 and opposite the Park property.

As described in the Supplemental Design for Creek Stabilization, the objectives of the creek stabilization design are three-fold:

- "Repair the City installed rock wall located at the upstream end of the project reach below the culvert outfall a. where the rock cascade collapse has contributed to the secondary slide failure.
- b. Use limited rock coverage, bank grading, and rootwad installation to stabilize two sections of channel located below the main landslide and the proposed retaining wall;
- Integrate the rootwad and rock slope treatment below the proposed retaining wall with a short rock cascade c. wall to secure the existing instream buried fallen log and allow for a more stable transition between the sloped areas of the Lum property and the abutting Park property."

In addition, the project proposes a new retaining wall with soldier pile footings (Langbehn Geotechnical Consulting) to repair and prevent further erosion and protect the foundation of the upslope residence at 7196 Saroni Drive. Strict conformance with Conditions of Approval of the Creek Protection Permit, including, but not limited to, an approved staging plan, erosion and sedimentation control measures during construction, limitations on mechanical equipment to minimize disturbance of the site's upstream hillslopes, post construction biodegradable erosion control blankets, stormwater dissipation measures, and revegetation of disturbed slope areas, will minimize impacts on the creek.

In making the above finding, the Director of Building Services must, at a minimum, consider the following factors:

1. Will the proposed activity discharge a substantial amount of pollutants into the creek? □Yes/No 2

Yes/No

Successful creek stabilization will reduce sedimentation into the creek channel and conformance with Conditions of Approval and Best Management Practices will minimize pollutants from entering the creek. With protective measures, to be implemented prior to, during, and post construction, the Project will not discharge a substantial amount of pollutants into the creek.

2. Will the proposed activity result in substantial modifications to the natural flow of water in the creek?

The project will provide an ecologically sensitive approach to maintain bank stability, water quality, and prevent erosion and sedimentation into the creek. The proposed activity will stabilize the creek channel and result in improved conditions for the natural flow of water in the creek and no substantial erosion of the creek banks with the proposed rock weir, rootwads, and rock infill repair.

3. Will the proposed activity deposit a substantial amount of new material into the creek or cause substantial bank erosion or instability?

□Yes/No 🗹

With successful creek stabilization, the project will not result in substantial new material deposits into the creek because of the following: approved creek protection measures during construction, the creek bank stabilization design, post construction monitoring, and implementation of an approved revegetation plan.

4. Will the proposed activity result in substantial alteration of the capacity of the creek?

The proposed activity has undergone a thorough analysis to anticipate the volume, flow velocity, and capacity of the creek. Strict conformance with the biotechnical creek stabilization design and approved creek protection plan will result in a stabilized creek channel that improves water flow and avoid adverse alterations on the creek.

5. Are there any other factors which would indicate that the proposed activity will adversely affect the creek?

There will be temporary impacts during construction, but creek protection measures are incorporated in the Project that will monitor the capacity, health, and function of the creek. The Project will benefit the long-term stability of the creek bed and channel.

6. Will the proposed activity substantially adversely affect the riparian corridor, including riparian vegetation, animal wildlife or result in loss of wildlife habitat?

□Yes/No 2

The project will provide an ecologically sensitive approach to maintain bank stability, water quality, and prevent erosion and sedimentation into the creek. Revegetating the bank and the bioengineered bank stabilization will improve and enhance the riparian corridor.

B. Will the proposed activity substantially degrade the visual quality and natural appearance of the riparian corridor?

□Yes/No 🗹

The Project will alter the visual appearance of the creek by the repair of the existing rock cascade wall, introduce new rock weir and incorporate fallen trees to provide a rootwad to stabilize channel banks. The visual change is

comprehensively designed, so as to not substantially degrade the visual quality. Successful channel stabilization and creek protection will enhance the overall appearance of the creek channel.

C. Is the proposed activity inconsistent with the intent and purposes of OMC Chapter 13.16?

□Yes/No 🗹

The scope of the proposed work to repair, stabilize, and minimize disturbance of the creek, complies in all significant elements of the Creek Protection Ordinance, Chapter 13.16. Additionally, all elements of the proposal conform with the Oakland General Plan and its policies regarding creek restoration and protection elements in the Open Space, Conservation, and Recreation (OSCAR) General Plan Element, e.g. Objective CO-6 Surface Waters - Ecology Protection, Benefits Promotion, and Policy CO-6.1, Creek Management.

D. Will the proposed activity substantially endanger public or private property? □Yes/No 2

Due to creek stabilization design and creek protection measures, including silt fencing and fiber rolls, biodegradable erosion control blankets, limitations on heavy mechanized equipment during construction, the proposed activity will not result in substantial danger to public or private property.

E. Will the proposed activity (directly or indirectly) substantially threaten the public's health or safety?

The Project provides both a private and public benefit by protecting residential properties upstream/downstream and safeguarding the water quality, capacity, and long term stability of the creek. Overall, the proposed activity will not threaten the public's health and safety.

Based on the forgoing, the Creek Protection Permit for the above described project is hereby GRANTED.

ATTACHMENT B: CONDITIONS OF APPROVAL

1. Approved Use

The project shall be constructed and operated in accordance with the authorized use as described in the approved application materials, the consultant study "Supplemental Design for Creek Stabilization, Shepherd Creek Tributary by Clearwater Hydrology," dated 9.11.18, "Water Quality Certification for the Project to Stabilize a Tributary to Shepherd Creek by RWQCB, originally dated 9.27.18, and the approved Erosion Control Pollution Protection plans, dated October 28 2018, and revised January 9, 2019, and as amended by the following conditions of approval and mitigation measures, if applicable ("Conditions of Approval" or "Conditions").

2. Effective Date, Expiration, Extensions and Extinguishment

This Approval shall become effective immediately, unless the Approval is appealable, in which case the Approval shall become effective in ten (10) calendar days unless an appeal is filed. Unless a different termination date is prescribed, this Approval shall expire one calendar year from the Approval date, or from the date of the final decision in the event of an appeal, unless within such period a complete building permit application has been filed with the Bureau of Building and diligently pursued towards completion, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this Approval, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit or other construction-related permit for this project may invalidate this Approval if said Approval has also expired. If litigation is filed challenging this Approval, or its implementation, then the time period stated above for obtaining necessary permits for construction or alteration and/or commencement of authorized activities is automatically extended for the duration of the litigation.

3. Compliance with Other Requirements

The project applicant shall comply with all other applicable federal, state, regional, and local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Bureau of Building, Fire Marshal, Department of Transportation, and Public Works Department. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition #4.

4. Minor and Major Changes

- a. Minor changes to the approved project, plans, Conditions, facilities, or use may be approved administratively by the Director of City Planning
- b. Major changes to the approved project, plans, Conditions, facilities, or use shall be reviewed by the Director of City Planning to determine whether such changes require submittal and approval of a revision to the Approval by the original approving body or a new independent permit/approval. Major revisions shall be reviewed in accordance with the procedures required for the original permit/approval. A new independent permit/approval shall be reviewed in accordance with the procedures required for the procedures required for the new permit/approval.

5. Compliance with Conditions of Approval

a. The project applicant and property owner, including successors, (collectively referred to hereafter as the "project applicant" or "applicant") shall be responsible for compliance with all the Conditions of

Approval and any recommendations contained in any submitted and approved technical report at his/her sole cost and expense, subject to review and approval by the City of Oakland.

- b. The City of Oakland reserves the right at any time during construction to require certification by a licensed professional at the project applicant's expense that the as-built project conforms to all applicable requirements, including but not limited to, approved maximum heights and minimum setbacks. Failure to construct the project in accordance with the Approval may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension, or other corrective action.
- c. Violation of any term, Condition, or project description relating to the Approval is unlawful, prohibited, and a violation of the Oakland Municipal Code. The City of Oakland reserves the right to initiate civil and/or criminal enforcement and/or abatement proceedings, or after notice and public hearing, to revoke the Approval or alter these Conditions if it is found that there is violation of any of the Conditions or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it, limit in any manner whatsoever the ability of the City to take appropriate enforcement actions. The project applicant shall be responsible for paying fees in accordance with the City's Master Fee Schedule for inspections conducted by the City or a City-designated third-party to investigate alleged violations of the Approval or Conditions.

6. Signed Copy of the Approval/Conditions

A copy of the Approval letter and Conditions shall be signed by the project applicant, attached to each set of permit plans submitted to the appropriate City agency for the project, and made available for review at the project job site at all times.

7. Blight/Nuisances

The project site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within sixty (60) days of approval, unless an earlier date is specified elsewhere.

8. Indemnification

- a. To the maximum extent permitted by law, the project applicant shall defend (with counsel acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the Oakland Redevelopment Successor Agency, the Oakland City Planning Commission, and their respective agents, officers, employees, and volunteers (hereafter collectively called "City") from any liability, damages, claim, judgment, loss (direct or indirect), action, causes of action, or proceeding (including legal costs, attorneys' fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called "Action") against the City to attack, set aside, void or annul this Approval or implementation of this Approval. The City may elect, in its sole discretion, to participate in the defense of said Action and the project applicant shall reimburse the City for its reasonable legal costs and attorneys' fees.
- b. Within ten (10) calendar days of the filing of any Action as specified in subsection (a) above, the project applicant shall execute a Joint Defense Letter of Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations. These obligations and the Joint Defense Letter of Agreement shall survive termination, extinguishment, or invalidation of the Approval. Failure to timely execute the Letter of Agreement does not relieve the project applicant of any of the obligations contained in this Condition or other requirements or Conditions of Approval that may be imposed by the City.

9. Severability

The Approval would not have been granted but for the applicability and validity of each and every one of the specified Conditions, and if one or more of such Conditions is found to be invalid by a court of competent jurisdiction this Approval would not have been granted without requiring other valid Conditions consistent with achieving the same purpose and intent of such Approval.

10. <u>Special Inspector/Inspections, Independent Technical Review, Project Coordination and Monitoring</u>

The project applicant may be required to cover the full costs of independent third-party technical review and City monitoring and inspection, including without limitation, special inspector(s)/inspection(s) during times of extensive or specialized plan-check review or construction, and inspections of potential violations of the Conditions of Approval. The project applicant shall establish a deposit with Engineering Services and/or the Bureau of Building, if directed by the Director of Public Works, Building Official, Director of City Planning, Director of Transportation, or designee, prior to the issuance of a construction-related permit and on an ongoing as-needed basis.

11. Public Improvements

The project applicant shall obtain all necessary permits/approvals, such as encroachment permits, obstruction permits, curb/gutter/sidewalk permits, and public improvement ("p-job") permits from the City for work in the public right-of-way, including but not limited to, streets, curbs, gutters, sidewalks, utilities, and fire hydrants. Prior to any work in the public right-of-way, the applicant shall submit plans for review and approval by the Bureau of Planning, the Bureau of Building, Engineering Services, Department of Transportation, and other City departments as required. Public improvements shall be designed and installed to the satisfaction of the City.

12. Regulatory Permits and Authorizations from Other Agencies

<u>Requirement</u>: The project applicant shall obtain all necessary regulatory permits and authorizations from applicable resource/regulatory agencies including, but not limited to, the Regional Water Quality Control Board, Bay Area Air Quality Management District, Bay Conservation and Development Commission, California Department of Fish and Wildlife, U. S. Fish and Wildlife Service, and Army Corps of Engineers and shall comply with all requirements and conditions of the permits/authorizations. The project applicant shall submit evidence of the approved permits/authorizations to the City, along with evidence demonstrating compliance with any regulatory permit/authorization conditions of approval.

When Required: Prior to activity requiring permit/authorization from regulatory agency

<u>Initial Approval</u>: Approval by applicable regulatory agency with jurisdiction; evidence of approval submitted to Bureau of Planning

Monitoring/Inspection: Applicable regulatory agency with jurisdiction

AESTHETICS

13. Trash and Blight Removal

Requirement: The project applicant and his/her successors shall maintain the property free of blight, as defined in chapter 8.24 of the Oakland Municipal Code. For nonresidential and multi-family residential projects, the project applicant shall install and maintain trash receptacles near public entryways as needed to provide sufficient capacity for building users.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

14. Graffiti Control

Requirement:

- a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation:
 - i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces.
 - ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces.
 - iii. Use of paint with anti-graffiti coating.
 - iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED).
 - v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement.
- b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following:
 - i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.
 - ii. Covering with new paint to match the color of the surrounding surface.
 - iii. Replacing with new surfacing (with City permits if required).

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

AIR QUALITY

15. Dust Controls - Construction Related

<u>Requirement</u>: The project applicant shall implement all of the following applicable dust control measures during construction of the project:

- a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible.
- b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- d. Limit vehicle speeds on unpaved roads to 15 miles per hour.
- e. All demolition activities (if any) shall be suspended when average wind speeds exceed 20 mph.

- f. All trucks and equipment, including tires, shall be washed off prior to leaving the site.
- g. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

16. Criteria Air Pollutant Controls - Construction Related

<u>Requirement</u>: The project applicant shall implement all of the following applicable basic control measures for criteria air pollutants during construction of the project as applicable:

- a. Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points.
- b. Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations").
- c. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Equipment check documentation should be kept at the construction site and be available for review by the City and the Bay Area Air Quality District as needed.
- d. Portable equipment shall be powered by grid electricity if available. If electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand.
- e. Low VOC (i.e., ROG) coatings shall be used that comply with BAAQMD Regulation 8, Rule 3: Architectural Coatings.
- f. All equipment to be used on the construction site shall comply with the requirements of Title 13, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") and upon request by the City (and the Air District if specifically requested), the project applicant shall provide written documentation that fleet requirements have been met.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

CULTURAL RESOURCES

17. Archaeological and Paleontological Resources - Discovery During Construction

<u>Requirement</u>: Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of

factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented.

In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project

In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

18. Human Remains - Discovery During Construction

<u>Requirement</u>: Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of the project applicant.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

GEOLOGY AND SOILS

19. Construction-Related Permit(s)

<u>Requirement</u>: The project applicant shall obtain all required construction-related permits/approvals from the City. The project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

20. Soils Report

<u>Requirement</u>: The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

HAZARDS AND HAZARDOUS MATERIALS

21. Hazardous Materials Related to Construction

<u>Requirement</u>: The project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following:

- a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction;
- b. Avoid overtopping construction equipment fuel gas tanks;
- c. During routine maintenance of construction equipment, properly contain and remove grease and oils;
- d. Properly dispose of discarded containers of fuels and other chemicals;
- e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and
- f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s)

affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

HYDROLOGY AND WATER QUALITY

22. <u>Vegetation Management on Creekside Properties</u>

<u>Requirement</u>: The project applicant shall comply with the following requirements when managing vegetation prior to, during, and after construction of the project:

- a. Identify and leave "islands" of vegetation in order to prevent erosion and landslides and protect habitat;
- b. Trim tree branches from the ground up (limbing up) and leave tree canopy intact;
- c. Leave stumps and roots from cut down trees to prevent erosion;
- d. Plant fire-appropriate, drought-tolerant, preferably native vegetation;
- e. Provide erosion and sediment control protection if cutting vegetation on a steep slope;
- f. Fence off sensitive plant habitats and creek areas if implementing goat grazing for vegetation management;
- g. Obtain a Tree Permit before removing a Protected Tree (any tree 9 inches diameter at breast height (dbh) or greater and any oak tree 4 inches dbh or greater, except eucalyptus and Monterey pine);
- h. Do not clear-cut vegetation. This can lead to erosion and severe water quality problems and destroy important habitat;
- i. Do not remove vegetation within 20 feet of the top of the creek bank. If the top of bank cannot be identified, do not cut within 50 feet of the centerline of the creek or as wide a buffer as possible between the creek centerline and the development;
- j. Do not trim/prune branches that are larger than 4 inches in diameter;
- k. Do not remove tree canopy;
- 1. Do not dump cut vegetation in the creek;
- m. Do not cut tall shrubbery to less than 3 feet high; and
- n. Do not cut short vegetation (e.g., grasses, ground-cover) to less than 6 inches high.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

23. Creek Protection Plan

a. Creek Protection Plan Required

<u>Requirement</u>: The project applicant shall submit a Creek Protection Plan for review and approval by the City. The Plan shall be included with the set of project drawings submitted to the City for site improvements and shall incorporate the contents required under section 13.16.150 of the Oakland Municipal Code including Best Management Practices ("BMPs") during construction and after construction to protect the creek. Required BMPs are identified below in sections (b), (c), and (d).

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

b. Construction BMPs

<u>Requirement</u>: The Creek Protection Plan shall incorporate all applicable erosion, sedimentation, debris, and pollution control BMPs to protect the creek during construction. The measures shall include, but are not limited to, the following:

- i. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.
- ii. The project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent biodegradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.
- iii. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.
- iv. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.
- v. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the City at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.
- vi. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.
- vii. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.
- viii. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the creek or storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.
- ix. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed at least on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

- x. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.
- xi. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, or storm drains.
- xii. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).
- xiii. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of the City.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

c. Post-Construction BMPs

<u>Requirement</u>: The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains. The Creek Protection Plan shall include site design measures to reduce the amount of impervious surface to maximum extent practicable. New drain outfalls shall include energy dissipation to slow the velocity of the water at the point of outflow to maximize infiltration and minimize erosion.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

d. Creek Landscaping

<u>Requirement</u>: The project applicant shall include final landscaping details for the site on the Creek Protection Plan, or on a Landscape Plan, for review and approval by the City. Landscaping information shall include a planting schedule, detailing plant types and locations, and a system to ensure adequate irrigation of plantings for at least one growing season.

Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

e. Creek Protection Plan Implementation

<u>Requirement</u>: The project applicant shall implement the approved Creek Protection Plan during and after construction. During construction, all erosion, sedimentation, debris, and pollution control measures shall be monitored regularly by the project applicant. The City may require that a qualified consultant (paid for by the project applicant) inspect the control measures and submit a written report of the adequacy of the control measures to the City. If measures are deemed inadequate, the project applicant shall develop and implement additional and more effective measures immediately.

When Required: During construction; ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

NOISE

24. <u>Construction Days/Hours</u>

<u>Requirement</u>: The project applicant shall comply with the following restrictions concerning construction days and hours:

- a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m.
- b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday.
- c. No construction is allowed on Sunday or federal holidays.

Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

25. Construction Noise

<u>Requirement</u>: The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following:

- a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible.
- b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.
- c. Applicant shall use temporary power poles instead of generators where feasible.
- d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.
- e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

When Required: During construction

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

26. Extreme Construction Noise

a. Construction Noise Management Plan Required

<u>Requirement</u>: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following:

- i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;
- ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;
- iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;
- iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and
- v. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

b. Public Notification Required

<u>Requirement</u>: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.

When Required: During construction

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

27. Operational Noise

<u>Requirement</u>: Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

TRANSPORTATION/TRAFFIC

28. Construction Activity in the Public Right-of-Way

a. Obstruction Permit Required

<u>Requirement</u>: The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops.

When Required: Prior to approval of construction-related permit

Initial Approval: Department of Transportation

Monitoring/Inspection: Department of Transportation

b. Traffic Control Plan Required

<u>Requirement</u>: In the event of obstructions to vehicle or bicycle travel lanes, bus stops, or sidewalks, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian accommodations (or detours, if accommodations are not feasible), including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The Traffic Control Plan shall be in conformance with the City's Supplemental Design Guidance for Accommodating Pedestrians, Bicyclists, and Bus Facilities in Construction Zones. The project applicant shall implement the approved Plan during construction.

Initial Approval: Department of Transportation

Monitoring/Inspection: Department of Transportation

c. Repair of City Streets

<u>Requirement</u>: The project applicant shall repair any damage to the public right-of way, including streets and sidewalks, caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.

When Required: Prior to building permit final

Initial Approval: N/A

Monitoring/Inspection: Department of Transportation

UTILITY AND SERVICE SYSTEMS

29. Construction and Demolition Waste Reduction and Recycling

<u>Requirement</u>: The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of \$50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at <u>www.greenhalosystems.com</u> or manually at the City's Green Building Resource Center.

When Required: Prior to approval of construction-related permit

Initial Approval: Public Works Department, Environmental Services Division

Monitoring/Inspection: Public Works Department, Environmental Services Division

PROJECT SPECIFIC CONDITIONS OF APPROVAL

30. Creek Stabilization Design

<u>Requirement</u>: The stabilization treatment specified in the "Supplemental Design for Creek Stabilization, Shepherd Creek Tributary by Clearwater Hydrology," dated September 11, 2018, is herein incorporated by reference. The project applicant shall implement the creek stabilization biotechnical design and retain necessary professional services to monitor progress of the project to be consistent with the approved design.

<u>When Required</u>: Ongoing <u>Initial Approval</u>: Bureau of Planning <u>Monitoring/Inspection</u>: N/A

31. Water Quality Certification

<u>Requirement</u>: All conditions specified in the "Water Quality Certification for the Project to Stabilize a Tributary to Shepherd Creek" by the RWQCB, dated September 27, 2018, is herein incorporated by reference. The project applicant shall implement the monitoring program for a minimum of five years as specified in the conditions of the Water Quality Certification.

When Required: Ongoing

Initial Approval: Bureau of Planning

Monitoring/Inspection: Ongoing

32. <u>Revegetation</u>

<u>Requirement</u>: The biotechnical groundcover vegetation planting as specified in the Langbehn Geotechnical Group memorandum, dated April 10, 2018, is herein incorporated by reference. All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. Any additional conditions as required by CDFW to comply with the Streambed Alteration Agreement shall also be included. See also Conditions of Approval #23(d).

When Required: Ongoing

Initial Approval: Bureau of Planning

Monitoring/Inspection: Ongoing

33. Retaining Wall Design

<u>Requirement</u>: The project applicant shall submit plans of the proposed retaining wall for review and approval by the City of Oakland Building Services to mitigate shallow sloughing downslope of the building foundation. Any associated grading permit required shall also be filed for review and approval.

When Required: Prior to approval of construction related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: Bureau of Building

34. Retaining Wall Construction Staging

<u>Requirement</u>: The project applicant shall limit use of heavy mechanical equipment (no excavator) by utilizing a mobile drill rig staged from the same side as the residence. Best Management Practices to prevent erosion and sedimentation shall be strictly enforced.

When Required: During course of construction

Initial Approval: Bureau of Planning

Monitoring/Inspection: Bureau of Building

Applicant Statement

I have read and accept responsibility for the Conditions of Approval. I agree to abide by and conform to the Conditions of Approval, as well as to all provisions of the Oakland Planning Code and Oakland Municipal Code pertaining to the project.

Name of Project Applicant

Signature of Project Applicant

Date

ATTACHMENT C



Consultants in Hydrology and Water Resources

Watershed Management

Stream and Wetland Restoration

Wetland Delineation and Permit Acquisition

Stormwater Drainage and Flooding SUPPLEMENTAL DESIGN FOR CREEK STABILIZATION SHEPARD CREEK TRIBUTARY LUM PROPERTY REACH 7196 SARONI DRIVE, OAKLAND, CA

Prepared for:

Jansen Lum 7196 Saroni Drive Oakland, CA

Prepared by:

William Vandivere, M.S., P.E., Principal Jake Kramarz, M.S., Hydrologist Clearwater Hydrology Berkeley, CA

Sept. 11, 2018

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TECHNICAL APPENDIX

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1.0 INTRODUCTION

The owner of the property at 7196 Saroni Drive, Jansen Lum, retained Clearwater Hydrology (CH) to review his existing plan for slope stabilization prepared by Langbehn Geotechnical Consulting, Inc. (LGC) and to develop supplemental design recommendations based on a hydrogeomorphic assessment of the intermittent tributary to Shepard Creek. Figure 1 is a location map for the project site. The LGC stabilization plan specified engineering measures for the repair of two landslides that occurred on the Lum property during the wet winter of 2016-2017, as well as rock stabilization of two short reaches of an intermittent creek that roughly bisects the Lum property. The plan's slope repair consisted of one segmented, pier-supported, soldier pile retaining wall to stabilize the main slide, immediately downslope of the residence, and a rock bank/slope revetment to stabilize the second, smaller slump failure that extends upslope from the right toe of bank of the creek. Mr. Lum approached CH after staff engineers and biologists at the SF Bay Regional Water Quality Control Board (Board) and the CA Dept. of Fish and Wildlife (CDFW) raised concerns regarding the LGC plan's lack of consideration of the tributary's geomorphic condition and the appropriateness of the recommended in-channel stabilization measures. The intent of the present assessment and design is to provide a geomorphic context for assessment of the proposed measures and to provide a creek stabilization plan that protects the integrity of the LGC retaining wall and addresses creek stability and longer term water and habitat quality.

2.0 HYDROLOGIC SETTING

2.1 Regional Setting

The on-site tributary to Shepard Creek supports intermittent flow during the winter season which typically extends from Nov. - March. The 61.3-acre tributary watershed is delineated on the USGS 7.5-min. Oakland East quadrangle in Figure 2. The tributary valley upstream of the property reach has been filled for hillside residential and watershed runoff is conveyed through the valley fill in a storm drain system. This system discharges along the southern edge of the neighboring Vigilante property into the above-ground creek that then traverses the Lum property as it continues in a south-southeastly direction toward Shepard Canyon Road and Shepard Creek. Shepard Creek joins with Palo Seco Creek just west of the CA Highway 13 crossing to form Sausal Creek. Sausal Creek drains portions of the Diamond, Highland Park and Fruitvale Districts before entering a storm drain system through the commercial areas along I-880 and discharging to East Creek Slough and the Oakland Inner Harbor.

2.2 Local Hydrogeomorphic Setting

CH staff conducted a total station topographic survey of the intermittent creek and its adjoining hillslopes on Aug. 15, 2018. The site topographic mapping is shown along with indicated hydrogeomorphic features in Figure 3: Existing Conditions and Topography. Aside from a short stream terrace that flanks the right bank downslope of the main landslide area, the hillslopes

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adjoining the well-incised channel are steep at roughly 1:1 (Photo 1). The property reach of the creek totals roughly 110 feet in length.

The longitudinal channel profile is shown in the upper portion of Plan Sheet 1. It comprises two steep segments. The upper approximately 60 ft. is extremely steep at 26%, while the lower remaining sub-reach has a composite slope of 6.7%, which is still very steep. The excessively steep upper sub-reach is partially reinforced by a rock cascade constructed by the City of Oakland (Photo 2). Its installation pre-dates the 2016-2017 winter. The right side (looking downstream) of the cascade has been side-cut by floodflows and the larger elements placed over this portion of the cross-section have collapsed, leaving a gully with fine-grained materials exposed on the cut-bank and the now-exposed channel bed (Photo 3). The left side of the cascade appears to be relatively stable. This avulsing of the channel reinforcement most likely triggered the slump failure on the right hillslope which fords stream stations 0+20 to 0+33 (see Figure 3, Photo 3).

The lower channel sub-reach consists of a mildly sloping section followed by a short precipitous section, forming the eroding headcut. The relatively milder portion of the sub-reach (~ 2.8%) is maintained by a mostly buried tree trunk that fords the left half of the channel bottom (Photo 4). The original position of this log is uncertain, although it likely originated on the Lum property, since flows conveyed by the stream are not of a magnitude necessary to move this large a tree for more than a few feet. If this log were removed, or substantially decomposed, the headcut which is currently beginning to undermine the downstream end of the log would quickly advance upstream. This would increase bank heights, contain higher magnitude flows and increase bank shear stresses, which would decrease bank and hillslope stability upstream to the lower end of the rocked cascade. The side cutting action of flows around this buried log have created scalloped-type bank failures along the affected meander and led to the collapse of a tree that formerly sat atop the right cut-bank, at roughly the Lum-Kim property boundary. This tree is propped up on the right bank and its root fan is dangling into the incised channel (Photo 4).

3.0 DESIGN FOR BIOTECHNICAL CREEK STABILIZATION

The purpose of this report is to present a stable channel design that relies on biotechnical stabilization to the extent feasible and mitigates the existing channel instability and ecological degradation through the project reach. The objectives guiding the development of the creek stabilization design were three-fold:

1) Repair the City-installed rock cascade at the upstream end of the project reach below the culvert outfall. The right half of the cascade has been undercut, collapsed and has exposed the right earthen bank to eroding floodflows. It is also likely responsible for the slump failure on the right bank, i.e. the secondary slide failure.

2) Use limited rock coverage, bank grading and rootwad installations to stabilize two sections of the channel, one of the left bank below the cascade and one along the eroded right bank downslope from the main landslide and the proposed soldier pile retaining wall.

3) Integrate the rootwad and toe rock treatment of the right bank below the proposed retaining wall with a short rock cascade that will secure the existing instream buried log and allow for a more stable transition to the more mildly sloping channel along the Kim property. The left bank just below the cascade (on Kim property) will be lightly rocked to protect the rooted riparian tree atop that bank.

The design stage for the rock treatments was determined for the treatment sites as follows:

- Upstream cascade repair (right side only): 100-yr. peak discharge
- Mid-reach left bank toe stabilization: 10-yr. peak discharge
- Downstream meander with rootwads and toe rock: 2-yr. peak discharge
- Transitional cascade from meander to Kim property: 10-yr. peak discharge

3.1 Hydrologic and Hydraulic Analysis

3.1.1 Peak Flow Rates

Estimated storm peak flow rates were used to derive design stages for the aforementioned stabilization treatments. Peak discharges for the 2-yr, 10-yr and 100-yr flood events for the project reach of Shepard Creek tributary were computed using the updated USGS flood frequency method for California (Gotvald, et.al. 2006). The detailed computations are presented in spreadsheet form in the attached Technical Appendix. The computed 2-yr, 10-yr and 100-year peak discharges were 9.9 cfs, 27.2 cfs and 49.4 cfs, respectively. Per the USGS methodology, the peak discharges were computed for unurbanized watershed conditions and then adjusted for the extent urbanization and its associated impact on channel character.

3.1.2 Hydraulic and Geomorphic Assessment

The present creek stabilization design does not include a realignment of the existing channel. The proposed, mostly biotechnical, treatments are intended to increase local stability, both of the incised channel and the adjoining hillslopes. Thus, the average channel cross-section in the upper (cascade) and lower project reaches will not undergo any substantial modification. Representative channel cross-sections for the two project reaches were extracted from the CH topographic survey DTM for assessment of flow characteristics. The CAD-based hydraulic analysis platform, Hydraflow Express, was used to assess the hydraulic behavior of floodflows for the selected recurrence interval flood events. The input and output data for those normal depth computations performed by Hydraflow Express are attached in the Technical Appendix. The results are also incorporated into the hydraulic and geomorphic analysis conducted to size the rock within the treatments. Rock sizing analysis was conducted using two methods, the simple computation of channel bed shear stress (Leopold 1994) and a Shields-based equation referenced in the US Army Corps of Engineers' publication on Habitat Boulder Design (Fischenich and Seal 2000). The bed shear stress values noted in the spreadsheets were calculated as the product of the specific weight of water, the hydraulic radius and the channel slope. Mobilization size was determined using an empirical relationship between bed shear stress and the initiation of motion for various particle/sediment sizes (Leopold et al., 1964). Mobilization size simply presents an estimate of the maximum sediment size that can be moved by a given design discharge.

As shown in the spreadsheets, the results of the two methods were in good agreement. For the treatments at the 2-yr. peak flow stage, the prescribed boulder size was 12 inches. For the sites where 10-yr. or 100-yr. stages were indicated, the prescribed boulder size ranged from 12-inches to more than 2.0 feet. Neither of the computations account for some of the unpredictable factors that affect rock placement, such as 3-point bearing between adjacent elements. It is also possible that the conditions for construction will be so constrained that use of a bucket excavator may not be feasible. Therefore, the CH design specifies 12"-18" rock (Caltrans Light class rock) to be used in the lower reach and up to 2.0 ft. rock (Caltrans ¼ ton class rock) to be used to rebuild the City-installed boulder cascade. The larger diameter rock would only be employed if a small bucket excavator were able to negotiate the steep south slope. Otherwise, the largest rock installable by laborers will be used. In either case, it will be important to have some engineering oversight of the placement to maximize the 3-point bearing and overall cascade stability.

3.2 Creek Stabilization Design Components

The CH stabilization design is intended to supplement the main retaining wall design provided by LGC and to substitute for the bulk of its channel stabilization prescriptions. As such, we concur with LGC that the retaining wall is necessary to safeguard the Lum residence and to prevent future slope instability. Shoring up the hillslope in this manner will also reduce future sediment yield to the tributary channel. Due to the substantial shading that is present along the existing creek corridor, quickly establishing trees such as willow that require significant sunlight are inappropriate for the site. Shade-tolerant shrubs and grasses should be installed within and around the stabilization treatment areas, as well as biodegradable erosion control blankets on disturbed or bared banks. This would apply to any disturbance on the hillslopes by mechanized equipment.

The CH creek stabilization design is depicted on the attached Engineering Design Plans which consist of:

- Pre- and Post-Project Channel Longitudinal Profile and Grading Plan (entire reach),
- Grading Plan (entire reach)
- Detailed Grading Plan- Downstream Transition Zone
- Pre- and Post-Project Creek Cross-Sections

Schematic Details of Converging-Flow Boulder Weir for Downstream Step Transition

The stabilization treatments are summarized as follows:

<u>Upstream boulder cascade repair</u>- As previously noted, this cascade has been sidecut and the right side of the cascade has mostly collapsed. The repair will involve filling the bulk of the variable-sized void space with a bedding layer consisting of a combination of sand-small gravel mix and gravel-cobble material (6-in. minus). The deeper cavities can be pre-filled with sand-gravel mix. The boulder cascade itself will be constructed from downstream to upstream in a stair-stepped manner, and will provide foundation "footer" rocks for the exposed surface elements. At the right bank interface, a layer of rock will be pressed into the low bank to reduce the risk of future side-cutting. The extent of the repair work is shown on Plan Sheet 1 in both the longitudinal profile and the plan views and on Plan Sheet 2: Grading Plan.

<u>Upper slope stabilization</u>- This treatment comprises a sub-section of the cascade repair. However, the extent of the below-grade channel fill will be less than that required further upstream and the rock may extend above the 100-yr. flood stage. The actual height of the abovebed rocking will be determined by the local slope break, but will not extend to the top of the failure scarp as was prescribed under the LGC design. Seeding of the slope with erosion control grasses will be attempted, but its steepness may defeat such an effort. We do recommend planting of the slope with native, shade-tolerant shrubs such as native blackberry. Other native species could also establish there if planted.

<u>Left (south) bank bend stabilization</u>- This site comprises a short low bank failure at the downstream end of a very tight meander upstream of and opposite the main landslide site (Photo 5). A substantial tree sits atop the incised channel and its root system is anchoring the bank around this bend in the creek. The short rock stabilization treatment proposed here will prevent further erosion along this more vulnerable portion of the bank and will protect the tree from undermining.

<u>Right (north) bank bend stabilization</u>- This bend extends through the main landslide zone and has experienced significant lateral erosion, tree collapse and an unstable bed profile. The buried log that underlies the surface sediments on the left side of the channel has stabilized the reach against upstream headcut migration. However, the current condition of the channel suggests that the winter of 2016-2017 re-activated headcutting around the buried log and the combination of this lateral erosion and headcut activation is likely the cause of the right bank tree collapse and the advanced bank erosion. While a mildly sloping terrace abuts the eroding bank immediately adjacent to the main landside, unchecked erosion will likely erode the terrace and allow the headcut to migrate further upstream, destabilizing the reach. Thus, the biotechnical treatment includes rootwad installations to move the main current out away from the eroding bank; a graded and revegetated bank; and installation of a low-moderate stage, keyed rock revetment to

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protect the toe of bank between the rootwads and to integrate with three rock steps to stabilize the channel grade through the transition onto the Kim property. This treatment requires the cooperation of Mrs. Kim, since it cannot end at the property line and achieve its purpose.

This right bank stabilization will re-purpose the downed tree as one of the rootwads. A second rootwad will have to be imported. The trunk diameters should be 9-12 inch and the root boles left intact, although the supervising restoration engineer will advise on selective trimming of the root fan as warranted for the installation.

As noted above, plantings and/or seeding for revegetation of any bare or disturbed areas following construction, as well as their monitoring and maintenance will be the responsibility of the project owner. Shade-tolerant natives should be employed in recognition of site conditions. Coir-based, biodegradable erosion control blanket should be used along the main channel bend (right bank) and the failure scarp at the upstream slump site. It could also be advisable to install blanket over any distrupted hillslope zones if an excavator can be used to install the cascade rock. Some level of engineering oversight is also advisable during the cascade repair work, be it installed mechanically or manually.

REFERENCES

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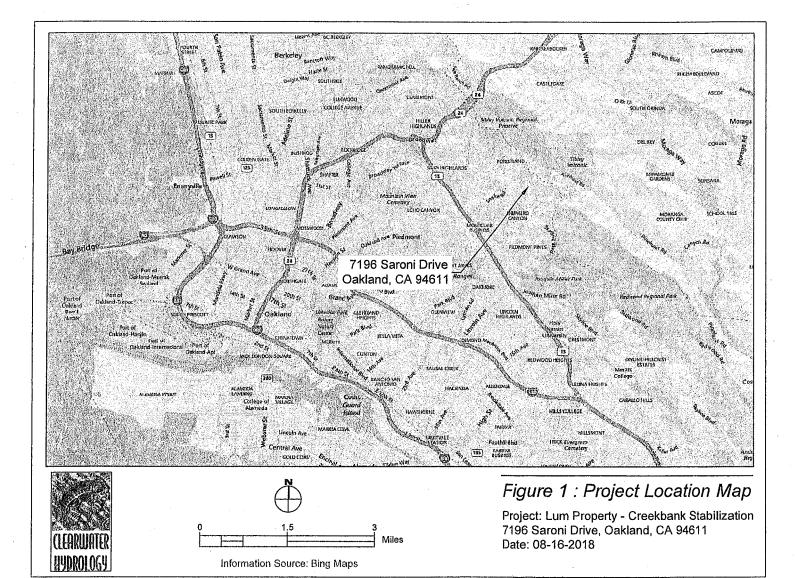
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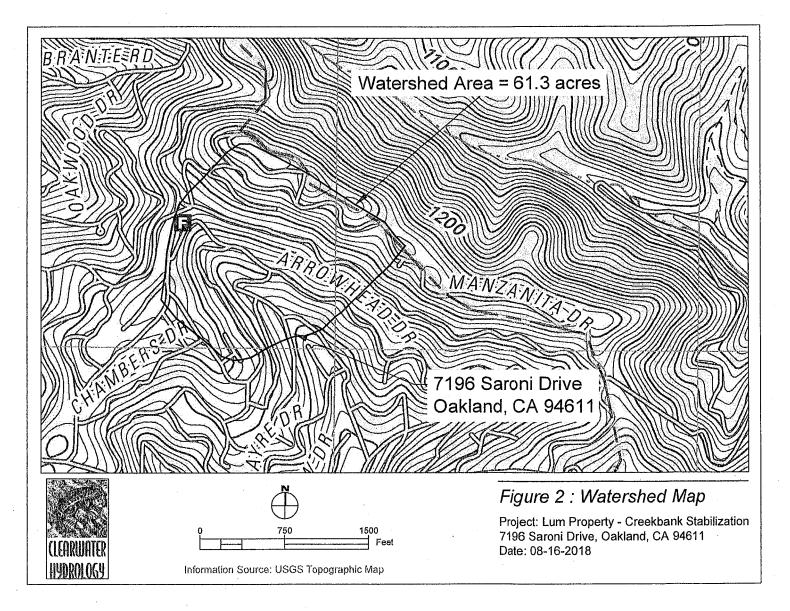
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Rosgen, D. 1996. <u>Applied River Morphology</u>. Wildland Hydrology Consultants, Pagosa Springs, CO.

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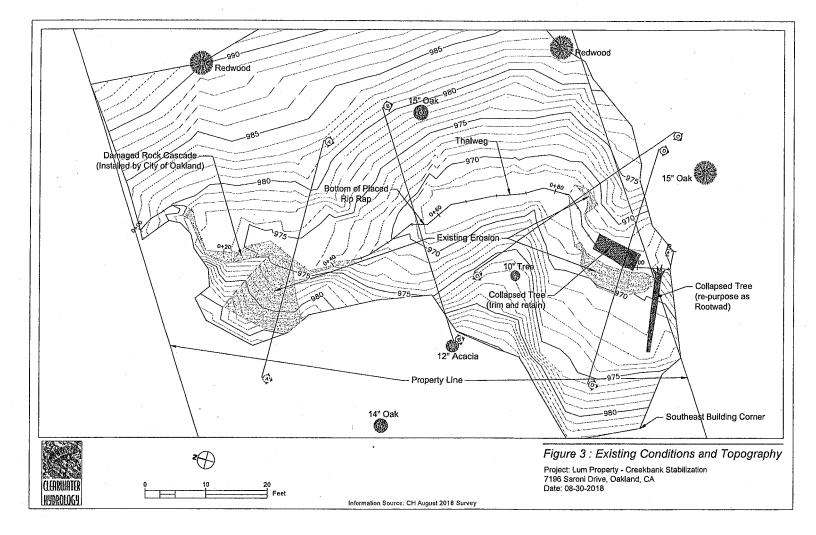


PHOTO LOG: SHEPARD CREEK TRIBUTARY- LUM PROPERTY REACH SUMMER 2018

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CLEARWATER HYDROLOGY



Photo 1: Upstream view of upper portion of Lum property reach showing generally steep, adjoining hillslopes.

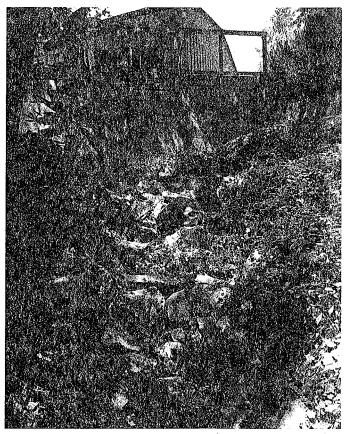


Photo 2: Upstream view onto adjoining 7200 Saroni Dr. property and rock cascade below 24-inch culvert outlet. The cascade was built by the City of Oakland.



Photo 3: Oblique downstream view along upper to middle portions of the City-installed rock cascade, showing exposed and eroded right bank and bed of the channel. The right bank/hillslope slump failure is visible at center- top half of photo.



Photo 4: Downstream view along lower bend in creek, just upstream of Kim-Lum property line. The right bank is being eroded by flows deflected around the buried log, the end of which is visible at center of photo. The creek bed drops in headcut fashion to the right of the log.

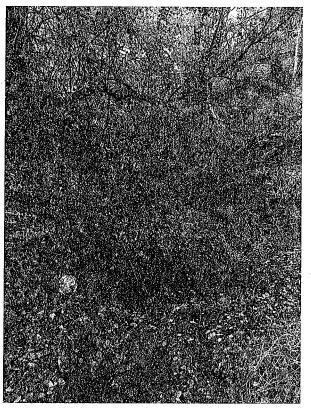
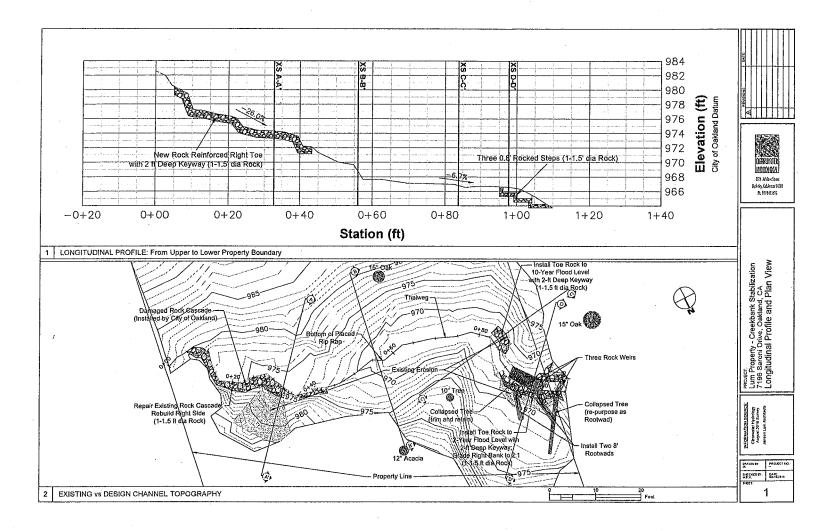


Photo 5: Downstream view toward mid-reach slump failure on left bank- at lower left (ball is 12" dia). Downstream bend erosion along right bank is visible at center-right.

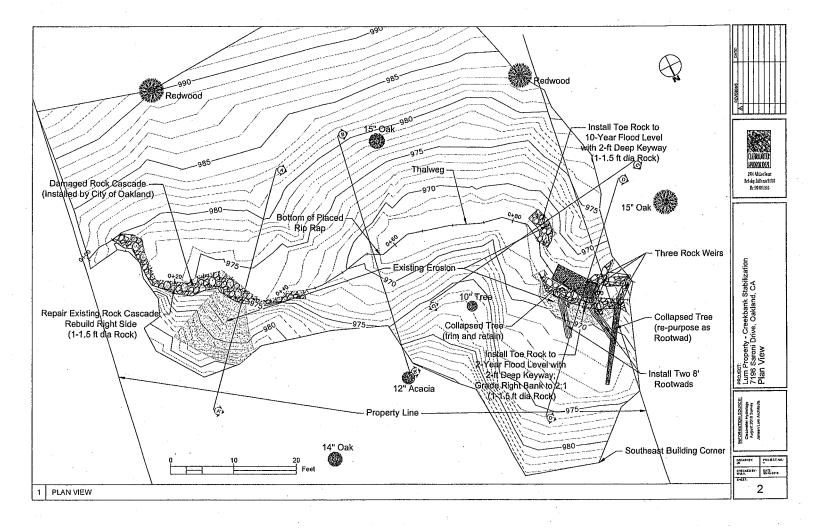
ENGINEERING DESIGN PLANS

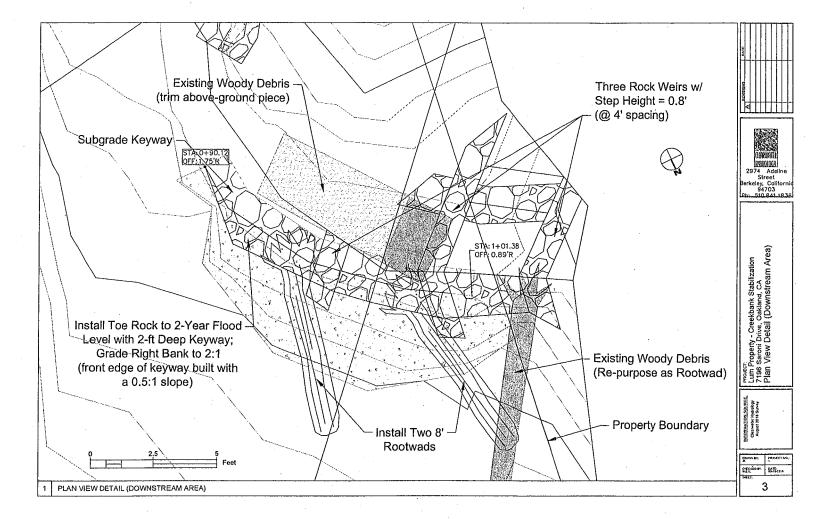
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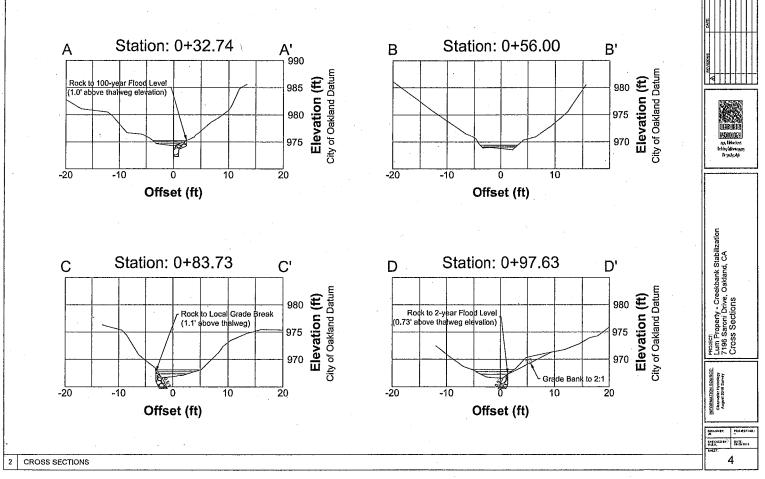
CLEARWATER HYDROLOGY



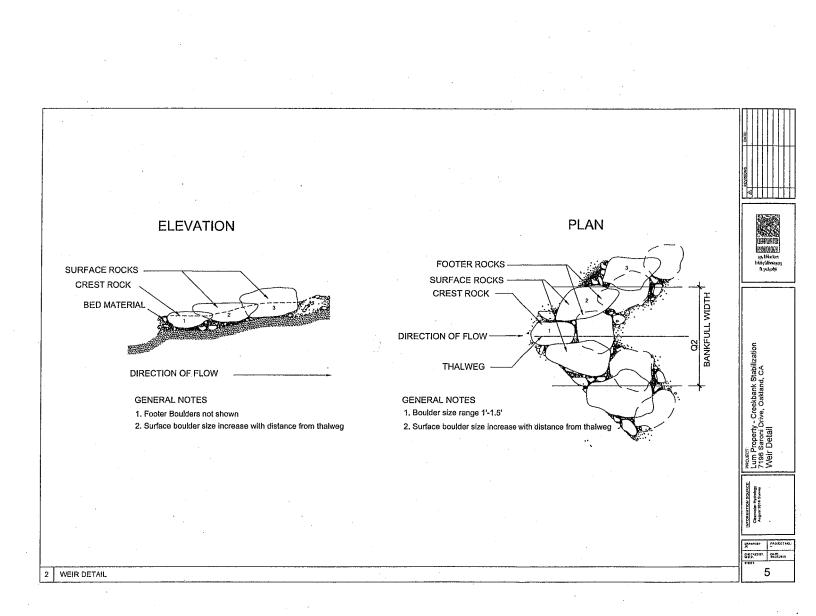
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TECHNICAL APPENDIX

CLEARWATER HYDROLOGY

PEAK FLOW CALCULATIONS FOR LUM PROPERTY STABILIZATION DESIGN 7196 SARONI DRIVE, OAKLAND, CA

Apply USGS 2006 Regional Flood Frequency Calculations for North Coast, CA, Rural Ungaged Streams

Watershed Characteristics								
Watershed Area ¹	A	2671861	sq ft					
Watersned Area	A	0.10	mi ²					
Mean Annual Precipitation ²	Р	29.50	. in					

2 year	$Q_2 = 1.82^* (Area)^{0.904} (Precipitation)^{0.983}$	6.08	cfs
10 year	$Q_{10} = 14.8*(Area)^{0.880}(Precipitation)^{0.696}$	19.82	cfs
50 year	Q ₅₀ = 36.3*(Area) ^{0.870} (Precipitation) ^{0.589}	34.64	cfs
100 year	$Q_{100} = 48.5^{*} (Area)^{0.866} (Precipitation)^{0.556}$	39.86	cfs

¹ Watershed delineated in AutoCAD Civil 3D using USGS Topographic Map 7.5 Minute Series Oakland East

² Mean annual precipitation value from ACFCWCD Isohyetal Map (ACFCWCD 2016).

USGS 1977 Magnitude and Frequency of Floods in California: Augmented Flood Discharge for Urbanization

- Apply adjustments to unurbanized peak discharges based on estimated 35% watershed urbanization and 35% storm drain installation (USGS 1977, Figure 4).

	Rural Discharge		Augmented Discharge	
2 year	6.08	1.63	9.92	cfs
10 year	19.82	1.37	27.15	cfs
100 year	39.86	1.24	49.43	cfs

c:/shared/Lum Property Stabilization/Discharge Calcs

Jansen Lum - Shepherd CK. Stabilization Project Using Existing XS A-A'- Upstream Cascade Boulder Size Determination for Rock Cascade Using Incipient Movement Graph JK 8.29.18 p.1/2

-This worksheet calculates average shear stress (lb/ft²) for a given cross section from the tabular results from Hydraflow Express. -Minimum element (boulder) size (mm) is read from Figure 6-11A, "Laboratory and field data on critical shear stress required to initiate movement of particles", Fluvial Processes in Geomorphology, page 170, by Leopold et. al., 1964.

	Using Cross-Section A-A'						
	n	S	Q	A	Р	Tw	
Existing Reach - 2yr	0.04	0.26	9.92	1.31	4.81	4.65	
Existing Reach - 10yr	0.04	0.26	27.15	2.51	5.71	5.38	
Existing Reach - 100yr	0.04	0.26	49.43	3.84	6.63	6.17	

Des	sign Reac	h - 2yr	Design Reach -	10yr	-	Design Reach	- 100yr	
Shear stress, $\tau_0 = \gamma^* R^* S$	f		Shear stress, $\tau_0 = \gamma^* R^* S_f$			Shear stress, $\tau_0 = \gamma^* R^* S_f$		
where γ =	62.4	lb/ft ³	where $\gamma =$	62.4	lb/ft ³	where γ =	62.4	lb/ft ³
	lb/ft ²	Q2 4.4		lb/ft ²	Q10 7.1		lb/ft ²	Q100 9.4
Element Size	mm ft	415	Element Size	mm ft	700	Element Size	mm ft	920 3.0
	in	16		in	28		in	36

Notes:

- Computed bed shear does not account for 3-pt. bearing of installed rock, so carefully placed smaller rock could withstand movement at higher flows than suggested by the above analysis.

- Use alternative sizing method (USACE) and reach conclusion based on results of both methods.

c:/shared/Lum Property Stabilization/Rock Sizing Calcs

CLEARWATER HYDROLOGY

Jansen Lum - Shepherd CK. Stabilization Project Using Existing XS D-D'- Lower Reach Boulder Size Determination for Toe Rock and Rock Weirs Using Incipient Movement Graph

-This worksheet calculates average shear stress (lb/ft²) for a given cross section from the tabular results from Hydraflow Express. -Minimum element (boulder) size (mm) is read from Figure 6-11A, "Laboratory and field data on critical shear stress required to initiate movement of particles", Fluvial Processes in Geomorphology, page 170, by Leopold et. al., 1964.

· [Using Cross-Section D-D'						
	n	S	Q	А	P	Tw	
Existing Reach - 2yr	0.04	0.067	9.92	2.61	5.53	5.18	
Existing Reach - 10yr	0.04	0.067	27.15	5.29	7.27	5.38	
Existing Reach - 100yr	0.04	0.067	49.43	8.20	8.92	8.07	

	Desi	gn Read	ch - 2yr	Design Reach -	10уг		Design Reach	- 100yr	
 	Shear stress, $\tau_0 = \gamma^* R^* S_f$			Shear stress, $\tau_0 = \gamma^* R^* S_f$			Shear stress, $\tau_0 = \gamma^* R^* S_f$		
	where γ =	62.4	lb/ft ³	where γ =	62.4	lb/ft ³	where γ =	62.4	lb/ft ³
		lb/ft ²	Q2 2.0		lb/ft ²	Q10 3.0		lb/ft ²	Q100 3.8
	Element Size	mm ft	170 0.6	Element Size	mm ft	250 0.8	Element Size	mm ft	350 1.1
		in	7		in	10		in	14

Notes:

1/ S=friction slope; for non-cascade portion of design reach taken as overall reach slope= 0.067 ft./ft;

- Use alternative sizing method (USACE) and reach conclusion based on results of both methods.

c:/shared/Lum Property Stabilization/Rock Sizing Calcs

CLEARWATER HYDROLOGY

JK 8.29.18 p.2/2

BOULDER SIZING I UPSTREAM CASCA			BILIZATION - JANSEN LUM	PROPERTY			p. 1/2
Following the anal	ytical procedu	re described i	in Fischenich and Seal (200	0):			JK 8.29.18
			incipient motion equation ven no replacement boulder			reach	• •
ds= (18ySt)/(G-1)	where: (y= channel Sf= friction	um boulder diameter, ft. full flow depth (assume 10 slope (assume Sr= So _{reach}) gravity of boulder (approx.		for immobile	steps), ft.	
For Q100= 49.43 c y = 0.96 S _f =S _o = 0.26	fs, ignoring ba	ckwater effec	sts;				
ds=	2.7 ft.	(Caltrans 1,	/4 ton class rock)				
For Q100, $\tau_0 = \gamma$	*R*S	=	4.71 lbs/sf	V=	5.1 fps	(FlowMaster run)	
Referring to Table	1 of Fischenic	h and Seal:					

-For small boulders 10-20 inch dia: Vc, permissible velocity= 10 fps, permissible bed shear= 4.7 lb/sf; permissible vel.= 10 fps.

For Design: Use 2 ft. diameter rock, if small bucket excavator can negotiate steep slope; if not, use 1-1.5 ft. dia. rock as prescribed for lower reach.

c:/shared/Lum Property Stabilization/USACE habitat boulder design-sizing

CLEARWATER HYDROLOGY

BOULDER LOWER RE		D CREEK TR	CREEK TRIBUTARY STABILIZATION - JANSEN LUM PROPERTY							
-To check	second method for bo	oulder sizing	use the following analytical	procedure descri	ibed in Fische	nich and Seal (2000):	JK 8.29.18			
Initially co	omoute minimum hou	lder size usin	ig incipient motion equation	Iderived via Shie	lds pan):		0.29.10			
iniciany, co	•		given no replacement boulde	•		reach				
ds= (18ySf)/(G-1) where:	y= channe Sf= frictio	num boulder diameter, ft. el full flow depth (assume 10 n slope (assume Sr= So _{reach}) ic gravity of boulder (approx		for immobile	steps), ft.				
		0- speen	e Bravity of bounder (approx	. 2.057						
For Q100=	49.43 cfs, ignoring ba	ickwater effe	ects;			ч. Т				
γ =	1.58									
S _f =S _o =	0.067									
ds=	1.2 ft.	(Caltrans	Light Class Rock)							
For Q100,	$ au$ o= γ *R*S	=	4.71 lbs/sf	v=	5.1 fps	(FlowMaster run)				
Referring t	o Table 1 of Fischenic	h and Seal:				•				
-For small	boulders 10-20 inch d	ia: Vc, permi	issible velocity= 10 fps, perm	issible bed shear	r= 4.7 lb/sf; p	ermissible vel.= 10 fps.				

For Design: Use 12-18 inch. boulders for stabilization treatments downstream of the steep, upper cascade.

c:/shared/Lum Property Stabilization/USACE habitat boulder design-sizing

CLEARWATER HYDROLOGY







San Francisco Bay Regional Water Quality Control Board

Sent via electronic mail: No hard copy to follow

September 27, 2018 CIWQS Place No. 851095 (bkw) CIWQS Reg. Meas. No. 425300 Corps File No. 2018-00395

Jansen Lum (jansenlum@gmail.com) 7196 Saroni Drive Oakland, CA 94611

Subject:

Water Quality Certification for the Project to Stabilize a Tributary to Shepherd Creek at 7196 Saroni Drive in the City of Oakland, Alameda County

Dear Mr. Lum:

San Francisco Bay Regional Water Quality Control Board (Water Board) staff has reviewed materials submitted by you (the Applicant) for the subject project (Project), and received by the Water Board on September 17, 2018. The Project is eligible for authorization by the U.S. Army Corps of Engineers (Corps) under a Clean Water Act (CWA) Section 404 non-reporting Nationwide Permit (NWP) No. 13 (*Bank Stabilization*) (Corps File No. 2018-00395). You have applied to the Water Board pursuant to CWA section 401 for a water quality certification (Certification) verifying that the Project will not violate State water quality standards.

Project Description: The following Project description is derived from the application materials received by the Water Board on September 17, 2018, and supplemental application materials received through September 25, 2018. The Project purpose is to stabilize the Project reach of a tributary to Shepherd Creek at 7196 Saroni Drive in the City of Oakland.

Project Location: The Project site is located on Jansen Lum's property at 7196 Saroni Drive (Latitude 37.804364, Longitude -121.271114) (See Figure 1 in Attachment A). The on-site tributary to Shepherd Creek supports intermittent flow during the winter season, which typically extends from November through March. The 61.3-acre tributary watershed is delineated on the USGS 7.5-min. Oakland East quadrangle in Figure 2 in Attachment A. The tributary valley upstream of the property reach has been filled for hillside residential development and watershed runoff is conveyed through the valley fill in a storm drain system. This system discharges along the southern edge of the neighboring Vigilante property at 7200 Saroni Drive into the above-ground creek that then traverses the Lum property (See Figure 3 in Attachment A) as it continues in a south-southeastly direction toward Shepherd Canyon Road and Shepherd Creek. Shepherd Creek joins with Palo Seco Creek just west of the California Highway 13 crossing to form Sausal Creek. Sausal Creek drains portions of the Diamond, Highland Park and Fruitvale Districts before entering a storm drain system through the commercial areas along I-880 and discharging to East Creek Slough and the Oakland Inner Harbor.

DR. TERRY F. YOUNG, CHAIR | BRUCE H. WOLFE, EXECUTIVE OFFICER

Jansen Lum

Project Side Condition. Aside from a short stream terrace that flanks the right bank at the downstream end of the Lum property, the hillslopes adjoining the well-incised channel are steep, at roughly 1:1 (Photo 1 in Attachment A). The Lum property reach of the creek is about 110 feet long. The longitudinal channel profile is shown in the upper portion of Plan Sheet 1 in Attachment B. It comprises two steep segments. The upper 60 feet long segment has an extremely steep slope of 26 percent, while the lower remaining sub-reach has a composite slope of 6.7 percent, which is still very steep. The excessively steep upper sub-reach is partially reinforced by a rock cascade constructed by the City of Oakland (Photo 2 in Attachment A). Its installation pre-dates the 2016-2017 winter. The right side (looking downstream) of the cascade has been side-cut by flood flows and the larger elements placed over this portion of the cross-section have collapsed, leaving a gully with fine-grained materials exposed on the cut-bank and the now-exposed channel bed (Photo 3 in Attachment A). The left side of the cascade appears to be relatively stable. This avulsing of the channel reinforcement most likely triggered a slump failure on the right hillslope which fords stream stations 0+20 to 0+33 (see Figure 3 and Photo 3 in Attachment A).

The lower channel sub-reach consists of a mildly sloping section followed by a short precipitous section, forming the eroding headcut. The relatively milder portion of the sub-reach (about 2.8 percent slope) is maintained by a mostly buried tree trunk that fords the left half of the channel bottom (Photo 4 in Attachment A). If this log were removed, or substantially decomposed, the headcut which is currently beginning to undermine the downstream end of the log would quickly advance upstream. This would increase bank heights, contain higher magnitude flows and increase bank shear stresses, which would decrease bank and hillslope stability upstream to the lower end of the rocked cascade. The side cutting action of flows around this buried log have created scalloped-type bank failures along the affected meander and led to the collapse of a tree that formerly sat atop the right cut-bank, at roughly the downstream property boundary. This tree is propped up on the right bank and its root fan is dangling into the incised channel (Photo 4 in Attachment A).

Two landsides occurred at the Project site during the wet winter of 2016 to 2017. The smaller landslide is adjacent to the rock cascade that has been side-cut and appears to have been triggered by the side cut. The larger landslide is at the downstream end of the property, immediately downslope of the foundation of the Lum residence. A retaining wall will be constructed at the location of this slide to support the foundation of the residence. This retaining wall is sufficiently distant from the creek channel to be outside of the jurisdiction of the Water Board and is not discussed further in this Certification.

Project Design: The design of the bioengineered bank stabilization is presented in the Supplemental Design for Creek Stabilization, Shepard Creek Tributary, Lum Property Reach, 7196 Saroni Drive, Oakland, CA (Clearwater Hydrology, September 11, 2018). The Clearwater Hydrology creek stabilization design is illustrated in the Engineering Design Plans in Attachment B, which consist of:

- Pre- and Post-Project Channel Longitudinal Profile and Grading Plan (entire reach),
- Grading Plan (entire reach)
- Detailed Grading Plan- Downstream Transition Zone
- Pre- and Post-Project Creek Cross-Sections
- Schematic Details of Converging-Flow Boulder Weir for Downstream Step Transition

The Project design has the following subcomponents.

<u>Upstream boulder cascade repair</u>. This cascade has been sidecut and the right side of the cascade has mostly collapsed. The repair consists of filling the bulk of the variable-sized void space with a bedding layer consisting of a combination of sand-small gravel mix and gravel-cobble material. The deeper cavities can be pre-filled with a sand-gravel mix. The boulder cascade itself will be constructed from downstream to upstream in a stair-stepped manner that will provide foundation "footer" rocks for the exposed surface elements. At the right bank interface, a layer of rock will be pressed into the low bank to reduce the risk of future side-cutting. The extent of the repair work is shown on *Plan Sheet 1* in both the longitudinal profile and the plan views and on *Plan Sheet 2: Grading Plan* (See Attachment B).

- 3 -

<u>Upper slope stabilization</u>. This treatment is a sub-section of the cascade repair. However, the extent of the below-grade channel fill will be less than that required further upstream and the rock may extend above the 100-year flood stage. The actual height of the above-bed rocking will be determined by the local slope break. Seeding of the slope with erosion control grasses will be attempted, but its steepness may defeat such an effort. The slope will be planted with native, shade-tolerant shrubs, such as native blackberry.

Left (south) bank bend stabilization. This site comprises a short low bank failure at the downstream end of a very tight meander upstream of and opposite the main landslide site (Photo 5). A substantial tree sits atop the incised channel and its root system is anchoring the bank around this bend in the creek. The short rock stabilization treatment to be installed here will prevent further erosion along this vulnerable portion of the bank and will protect the tree from undermining.

<u>Right (north) bank bend stabilization.</u> This bend extends through the main landslide zone and has experienced significant lateral erosion, tree collapse, and an unstable bed profile. A buried log that underlies the surface sediments on the left side of the channel has stabilized the reach against upstream headcut migration. However, the current condition of the channel suggests that the winter of 2016-2017 re-activated headcutting around the buried log and the combination of this lateral erosion and headcut activation is likely the cause of the right bank tree collapse and the advanced bank erosion. While a mildly sloping terrace abuts the eroding bank immediately adjacent to the main landside, unchecked erosion will likely erode the terrace and allow the headcut to migrate further upstream, destabilizing the reach. The biotechnical treatment includes rootwad installations to move the main current out away from the eroding bank; a graded and revegetated bank; and installation of a low to moderate stage, keyed rock revetment to protect the toe of bank between the rootwads and to integrate with three rock steps to stabilize the channel grade through the transition onto the downstream Park property. This treatment requires the cooperation of the neighboring property owner at 7236 Saroni Drive, Ms. Grete W. Park, since it cannot end at the property line and achieve its purpose.

This right bank stabilization will re-purpose the downed tree as one of the rootwads. A second rootwad will be imported. The trunk diameters will be 9 to 12 inches and the root boles left intact, although the supervising restoration engineer will advise on selective trimming of the root fan as warranted for the installation.

Due to the substantial shading that is present along the existing creek corridor, quickly establishing trees such as willow that require significant sunlight is inappropriate for the site. Shade-tolerant natives will be used to vegetate disturbed soil surfaces. Coir-based, biodegradable

erosion control blankets will be used along the main channel bend (right bank) and the failure scarp at the upstream slump site.

Impacts: The San Francisco Bay Basin Water Quality Control Plan (Basin Plan) defines the beneficial uses of waters of the State. The Project will impact a tributary to Shepherd Creek, which is tributary to Sausal Creek. Sausal Creek has the beneficial uses of: cold freshwater habitat, fish spawning, preservation of rare and endangered species, warm freshwater habitat, wildlife habitat, contact water recreation, and non-contact water recreation. By the tributary rule, the beneficial uses assigned to a water body in the Basin Plan are assumed to apply to its tributaries.

Table 1 summarizes construction dimensions and impacts to the tributary to Shepherd Creek. The Project will permanently impact 0.00299 acre of the Creek, extending along 62.5 linear feet of the bank, through the placement of 11 cubic yards of fill, consisting of 0.5 cubic yards of rootwads, 2.1 cubic yards of gravel-cobble bedding, and 8.4 cubic yards of 12-inch to 24-inch rock riprap.

	Table 1. Fill	Information	
Location	Reason for Discharge	Type and Amount of Material	Surface Area of Permanent Fill
62.5 Linear Feet of new rock riprap armoring at left bank bend and right bank bend stabilization and boulder steps	Bank Stabilization	12" to 24" diameter rocks; 8.4 CY*	0.00270 acres
Under riprap at cascade	Support new rock riprap armoring.	Crushed gravel- cobble bedding material; 2.1 CY	NA (will be placed in some footprint as rock armoring)
Downstream transition to boulder steps	Biotechnical bank stabilization	Rootwads; 0.5 CY	0.000293 acres
Total		11 CY	0.00299 acres

* This quantity includes rocks to be used in stabilizing the cascade, which are not included in the linear feet of new impacts, since the cascade is currently armored.

CY = cubic yards

Mitigation: The Project purpose is to provide biotechnical bank stabilization for the Project reach of the Creek at the Project site. Successful stabilization of the Project reach will the reduce the input of sediment to the creek channel and protect mature trees at the downstream end of the Project reach from being undermined by a headcut that is migrating into the Project reach. Mitigation for the Project will consist of tracking the successful implementation of the biotechnical bank stabilization.

This Certification requires the Project site to be monitored and maintained for a minimum period of five years to ensure that the bank armoring, boulder steps, and rootwads are successfully stabilizing the creek banks.

EcoAtlas: The Water Board tracks routine riparian repair and creek maintenance projects in an effort to detect potential systemic instabilities and document project performance in the creeks of the Bay Area. As such, the Applicant is required to submit a Riparian Repair and Maintenance (short) Form describing Project size, type, and performance measures. An electronic copy of the short form and instructions can be downloaded at:

http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml.

Project information will be made available at the web link: http://www.ecoatlas.org/regions/ecoregion/bay-delta/projects

CEQA: The California Environmental Quality Act (CEQA) requires all discretionary projects approved by public agencies to be reviewed in compliance with CEQA. The City of Oakland, acting as the CEQA lead agency, has determined that the project is categorically exempt from review under CEQA pursuant to [GET INFO FROM CITY]. The City of Oakland filed a Notice of Exemption for the Project with the Alameda County Clerk on [DATE]. The Water Board, as a responsible agency under CEQA, concurs with the NOE.

Certification: I hereby issue an order certifying that any discharge from the referenced Project will comply with the applicable provisions of CWA sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification," which require compliance with all conditions of this Certification. The following conditions are associated with this Certification:

- 1. The Project shall be constructed in conformance with the Project description in the body of this Certification and the design sheets in Attachment B. Any changes to these plans must be submitted to the Water Board's Executive Officer for review and approval before they are implemented. During stabilization of the cascade, armoring of the upper landslide, armoring of the left bank, and armoring of the right bank, including construction of rock steps and rootwad placement, the designer of the Project shall be present to ensure that any field fitting necessary during Project construction is consistent with the approved designs in Attachment B and is appropriate for stabilizing the Project reach of the creek;
- 2. No debris, rubbish, creosote-treated wood, soil, silt, sand, cement, concrete, or washings thereof, or other construction related materials or wastes, oil or petroleum products or other organic or earthen material shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into the Creek. Any of these materials placed within or where they may enter the Creek by the Applicant or any party working under contract or with the permission of the Applicant shall be removed immediately. When operations are completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be washed into the Creek. During construction, the contractor shall not dump any litter or construction debris within the riparian/stream zone. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site;

- 3. The Applicant shall comply with the requirements of the Lake or Streambed Alteration Agreement (LSAA) (Notification No. 1600-2018-0164-R3) issued for the Project by CDFW;
- The Applicant shall comply with general and regional conditions associated with the Corps non-reporting Nationwide Permit No.13 (see conditions at: <u>www.spn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_13.pdf;</u> <u>www.spn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_GC.pdf;</u> and www.spn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_RC.pdd) (Corps File No. 2018-00395);
- 5. Prior to the start of the rainy season (October 31), and no later than 24 hours prior to a likely rain event (any day for which the National Weather Service has predicted a 25 percent or more chance of at least 0.1 inch rain in 24 hours), the Applicant shall ensure that disturbed areas that drain to waters of the State are protected with correctly installed erosion control measures (e.g., jute, straw, coconut fiber erosion control fabric, coir logs). The likely rain event is defined as any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the Project area. The Applicant shall obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the Project's location at http://www.srh.noaa.gov/forecast);
- 6. No equipment shall be operated in areas of flowing or standing water; no fueling, cleaning, or maintenance of vehicles or equipment shall take place within any areas where an accidental discharge to waters of the State may occur; and construction materials and heavy equipment must be stored outside of the active flow of the Creek. When work within waters of the State is necessary, the entire streamflow shall be diverted around the work area. Prior to diverting flow, the Applicant shall submit the diversion plan to the Executive Officer and only implement the plan upon receiving written approval from the Water Board. At the completion of work, any diversion structure placed in the channel shall be completely removed from the creek channel;
- 7. Prior to conducting any work on the property at 7236 Saroni Drive, the Applicant shall provide written confirmation to the Water Board that the property owner, Ms. Greta W. Park, has consented to allow the creek stabilization work to be performed on her property (Note: In an email sent at 10:01 am, on September 22, 2018 (See attachment A), the property owner at 7200 Saroni Drive, Mr. Nicholas Vigilante, agreed to allow construction access across his property in order to repair the boulder cascade and stabilize the associated landslide);
- 8. Construction in waters of the State is restricted to the April 15 to October 31 dry season, or the end of any extension granted by CDFW;
- 9. All work performed within waters of the State shall be completed in a manner that minimizes impacts to beneficial uses and habitat; and measures shall be employed to minimize disturbances along waters of the State that will adversely impact the water quality of waters of the State. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete Project implementation. Any surfaces disturbed by the operation of construction equipment shall be stabilized and vegetated with shade-tolerant native vegetation species after Project construction is completed;

- 10. Crews shall maintain a clean work area, including properly containing trash in covered garbage cans and removing all food trash from the site daily, to prevent attracting wildlife to the site;
- 11. Within 30 days of the first Project-related disturbance of waters of the State, the Applicant shall provide the Executive Officer with written notification that the Project has disturbed waters of the State. The Notice shall be sent via email to <u>RB2-401Reports@waterboards.ca.gov</u>, or by mail to the attention of 401 Certifications Reports (see address on the letterhead);
- 12. At least 6 permanent photographic documentation stations shall be established to provide representative views of the Project site. The photographic documentation stations shall be selected to document: the stability of the repaired boulder cascade and associated armoring of the adjacent right bank slide; the left bank bend stabilization; and the right bank bend stabilization, including the biotechnical bank stabilization measures and the three rock steps. The locations of the photographic documentation stations shall be recorded using a GPS, and the direction of the photographs documented with a compass. The Applicant shall prepare a site map(s) with the photo-documentation points clearly marked for the Project site. Prior to implementing the Project, the Applicant shall photographically document the pre-Project condition of the Project site. Following implementation of the Project, the Applicant shall photographs, the post-construction photographs, and the site maps with the locations of the photo-documentation points along with the as-built report required by Condition 17;
- 13. Within the same year that the Project is constructed, the Applicant shall attempt to vegetate bare surfaces of soil with shade tolerant, native plant species (e.g., California blackberry). Revegetation shall be completed as soon as possible after grading at the Project site is completed. Seeding placed between October 15 and April 15 shall be covered with broadcast straw, jute netting, coconut fiber blanket, or similar erosion control blanket. Erosion control products with monofilament or woven plastic strands shall not be used. Plant material shall be obtained from a native plant nursery, with emphasis on collection or propagation from local plant sources, or be grown from propagules collected from, or near, the Project site. Any container plants used for revegetation shall be supplied by a local nursery that has experience in growing native plants to ensure that seed and cuttings used are collected from approved sites and are free of *Phytophthora* pathogens known to cause sudden oak death. Container plants shall be free of weeds and invasive species before transport to the Project site;
- 14. The Applicant shall not plant, seed, or otherwise introduce invasive exotic plant species. Prohibited exotic plant species include those identified in the California Exotic Pest Plant Council's database, accessible at: http://www.calipc.org/paf/;
- 15. The Permittee shall submit an Annual Project Status Report each year by January 31 commencing the calendar year after issuance of this Certification. The Report shall reference CIWQS Place ID No. 851095 and state whether Project construction activities have been initiated or delayed. Annual reporting shall continue until a Notice of Project Construction Completion is received (see Condition 16). The Notice shall be sent via

email to <u>RB2-401Reports@waterboards.ca.gov</u>, or by mail to the attention of 401 Certifications Reports (see address on the letterhead);

- 8 -

- 16. Within 30 days of completing all Project elements with impacts to waters of the State that are authorized by this Certification and implementing revegetation of the Project site, the Applicant shall submit to the Water Board a Notice of Project Construction Completion that includes: (a) the Project name; (b) CIWQS Place ID No. 851095; and (c) the date Project impacts to waters of the State at the Project site were completed. The Notice shall be sent via email to <u>RB2-401Reports@waterboards.ca.gov</u>, or by mail to the attention of 401 Certifications Reports (see address on the letterhead);
- 17. Within 45 days of completing Project construction and vegetation, the Applicant shall submit an as-built report for the Project site that documents any significant deviations between the extent of actual impacts to waters of the State and the impacts authorized by this Certification. The report shall describe Project implementation, including revegetation of the Project site, and describe any deviations from the Project description in the body of this Certification or the plans in Attachment B. Technical justifications shall be provided for any deviations in Project implementation. The as-built report shall include the pre- and post-construction photo-documentation of the Project from the photo-documentation points established for compliance with Condition 12, as well as a site map with locations of the photo-documentation points;
- 18. The Applicant shall monitor and maintain the Project site for an initial 5-year period to assess the condition of native vegetation planted to stabilize disturbed surfaces at the site and to assess the stability of the creek bed and banks. Monitoring of creek channel stability will consist of the collection of photos from the established photo points (See Condition 12), and observations of the channel bed and banks for any signs of instability (e.g., rilling, slumping, rotational failures, headcuts, avulsions, under cut banks, or toe scour). Observations and photo-documentation (see Condition 12) will be compared to data in the as-built report (See Condition 17) to assess the long-term stability of the Project site and the progress of revegetation; this information shall be included in the monitoring reports (See Condition 19). If the creek bed and banks at the Project site are not stable after 5 years of monitoring, remedial actions (See Condition 20) shall be developed and implemented;

19. The Applicant shall prepare monitoring reports that include the assessments described in Condition 18 and summarize revegetation condition and channel stability during each year in the initial five years following completion of Project construction. Monitoring reports shall be submitted to the Water Board by January 31 following each monitoring year. The reports shall include a summary of qualitative observations, and photographs taken from the photo-documentation points (See Condition 12), along with a site map with the location of the photo-documentation points. The first report shall also provide a species list of the native species planted at the Project site, and the quantity of those species planted at the Project site. Monitoring reports shall include descriptions of the condition of erosion control materials, any evidence of browsing of vegetation, evidence of insect damage, indications of water stress, or other factors that could affect revegetation success. Monitoring reports shall also describe any maintenance efforts completed during the previous year. Monitoring reports shall summarize any indications of bank instability (e.g., rilling, slumping, rotational failures, movement of rock riprap,

indications of undercut banks, headcuts, or avulsions). Annual reports shall be sent via email to <u>RB2-401Reports@waterboards.ca.gov</u>, or by mail to the attention of 401 Certifications Reports (see address on the letterhead);

20. If the channel is not stable 5 years after completing Project construction, the Applicant shall coordinate with Water Board staff to determine appropriate remedial measures. Remedial measures to be considered shall include, but are not limited to, supplemental planting or seeding, reconstruction of the creek channel, increased maintenance, or alteration of maintenance strategies. Additional monitoring of the Project site will be required if remedial actions are taken to ameliorate indications of channel instability. The additional monitoring period required to ensure Project success will be determined through consultations between the Applicant and the Water Board. The Applicant shall request approval from the Executive Officer for the remedial measures and implement approved remedial measures. The Applicant is responsible for funding remedial measures;

21. The Applicant shall use the Riparian Repair and Maintenance (short) Form to provide Project information within 14 days from the date of this certification. An electronic copy of the short form and instructions can be downloaded at: <u>http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml</u>. The completed short form and map showing the Project boundaries shall be submitted electronically to <u>habitatdata@waterboards.ca.gov</u> or shall be submitted as a hard copy to both: 1) the Water Board (see the address on the letterhead), to the attention of EcoAtlas; and 2) the San Francisco Estuary Institute, 4911 Central Avenue, Richmond, CA 94804, to the attention of EcoAtlas;

- 22. In accordance with California Water Code (CWC) section 13260, the Applicant shall file with the Water Board a report of any material change or proposed change in the ownership, character, location, or quantity of this waste discharge. Any proposed material change in operation shall be reported to the Executive Officer at least 30 days in advance of the proposed implementation of any change. This shall include, but not be limited to, all significant new soil disturbances, all proposed expansions of development, or any change in drainage characteristics at the Project site. For the purpose of this Order, this includes any proposed change in the boundaries of the area of wetland/waters of the State to be filled;
- 23. This Certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to CWC section 13330 and section 3867 of Title 23 of the California Code of Regulations (23 CCR);
- 24. This Certification does not apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought; and
- 25. Certification is conditioned upon full payment of the required fee as set forth in 23 CCR section 3833. The total fee for this low impact Project is \$1,500. The Water Board received payment in full on September 18, 2018, for the application fee for the Project. An annual fee shall be paid to the Water Board until the monitoring reports required

pursuant to Condition 19 have all been submitted to the Water Board (Note: The Annual Post Discharge Monitoring Fee may be changed by the State Water Board; at the time of Certification it was \$200 per year for low impact projects).

This Certification applies to the Project as proposed in the application materials. Please be advised that failure to implement the Project as proposed is a violation of this Certification. Violation of water quality certification is a violation of State law and is subject to administrative civil liability pursuant to CWC section 13350. Failure to meet any condition of this Certification may subject you to civil liability imposed by the Water Board to a maximum of \$5,000 per day of violation or \$10 for each gallon of waste discharged in violation of the Certification. Any request for a report made as a condition to this Certification is a formal request pursuant to CWC section 13267 (e.g., Conditions 7, 11, 15, 16, 17, 19, 20, 21, and 22), and failure or refusal to provide, or falsification of, such requested report is subject to civil liability as described in CWC section 13268. The burden, including costs, of these reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained.

Should new information come to our attention that indicates a water quality problem with this Project, the Water Board may issue Waste Discharge Requirements pursuant to 23 CCR section 3857. If you have any questions, please contact Brian Wines of my staff at (510) 622-5680, or by email at Brian.Wines@waterboards.ca.gov.

Sincerely,

for Bruce H. Wolfe Executive Officer

Attachment A: Project Figures, Project Photographs, and Neighbor Approval for Construction Access

Attachment B: Supplemental Design for Creek Stabilization, Shepard Creek Tributary, Lum Property Reach, 7196 Saroni Drive, Oakland, CA (Clearwater Hydrology, September 11, 2018).

Cc:

U.S. EPA, WTR-8, Sam Ziegler (Ziegler.Sam@epa.gov) SWRCB-DWQ (Stateboard401@waterboards.ca.gov) Corps, Katerina Galacatos (Katerina.Galacatos@usace.army.mil) Corps, Danielle Mullen (danielle.e.mullen@usace.army.mil) CDFW, Marcia Grefsrud (marcia.grefsrud@wildlife.ca.gov) Clearwater Hydrology, Bill Vandivere (fanshen@clearwater-hydrology.com) Water Board, Victor Aelion (Victor.Aelion@waterboards.ca.gov) EcoAtlas (Habitat.data@waterboards.ca.gov)

ATTACHMENT E



LANGBEHN GEOTECHNICAL GROUP

Www.LangbehnGeotech.com FOUNDATIONS RETAINING WALLS LANDSLIDE INVESTIGATION UP (510) 558-8028 ph (510) 558-8310 fax 1034 Richmond Street El Cerrito, CA 94530 DRAINAGE EVALUATION FORENSIC STUDIES

April 10, 2018

Jansen Lum 7196 Saroni Drive Oakland, CA 94611

RE:

Groundcover Vegetation Proposed Creekbank Protection 7196 Saroni Drive Oakland, California

Dear Mr. Lum:

As requested by the City, the undersigned engineer is providing this letter to respond to plan check comments and concerns about the need for "bio-engineered" groundcover vegetation over the riprap proposed as part of the creekbank protection plan recently submitted to City planning. Our office provided recommendations for some of this work in a letter dated December 5, 2017, and recently reviewed and approved the Creek Protection Plan submitted to the City.

The riprap currently proposed for sloe protection in select areas along the toe of the creekbanks is of very limited extent, typically only about two courses thick on average, and will likely be placed mainly by hand due to the limited vehicle access along the creek. *There is no need to provide permanent groundcover vegetation over this small amount of rock*. The main objective in this case is to minimize disturbance of the existing slopes in adjacent area so that existing permanent groundcover vegetation is left undisturbed and intact to the degree possible. In this way, the existing vegetation will be allowed to pioneer onto and through the slope rock over the course of the remaining spring, summer and fall months before the next rainy season.

Any existing bare spots on the slopes adjacent to the new work areas, and any slopes locally disturbed by the contractor's operations, should be replanted at the completion of the work. Areas within 3 feet of the low water line along the creek can be replanted with native California blackberry, while areas above this line can be replanted using suitable plants from the Native Plants list available from Oakland Planning, such as poison oak, dogwood or chain fern.

Finally, as with all projects of this nature, this office should observe the work during construction to verify that the civil and geotechnical above recommendations are followed during the work.

The undersigned engineer has employed accepted geotechnical engineering procedures, and the professional opinions and conclusions have been made in accordance with generally accepted principles and practices at the time the work was performed. This warranty is in lieu of all other warranties, either expressed or implied.

I hope the above information is adequate for your needs at this time. If you have any questions or require additional information, please feel free to call me at your earliest convenience.

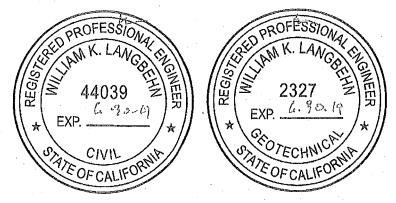
Sincerely,

Willinge

William K. Langbehn CE 44039 GE 2327 Civil and Geotechnical Engineer

WKL/bhs c:\...\proposals\lum.lt5

Copies: Addressee (3, 1 by e-mail)



City of Oakland Bureau of Planning 250 Frank H. Ogawa Plaza, Suite 2114 Oakland, CA 94612

NOTICE OF EXEMPTION

TO: Alameda County Clerk 1106 Madison Street Oakland, CA 94612			
Project Title:	Retaining Wall v	with a Creek Pr	rotection Permit, Case No. CP18009
Project Applicant:	Jansen Lum		
Project Location:	7196 Saroni Driv	ve APN: 048E-	-7330-003-00
Project Description: Exempt Status:	blankets, and ve Shephard Creek; foundation, and t	getative rootw to construct to incorporate b	stabilization consisting of rock riprap, biodegradable erosion control vads to stabilize incising banks of an existing stream tributary of retaining walls to stabilize local slide erosion below a residence biotreatment and stormwater dissipation measures to reduce erosion, stream channel bank
Statutory Exemptions		Categorica	al Exemptions
[] Ministerial {Sec.15268	•		Existing Facilities {Sec.15301}

[] Ministerial (Sec. 15268)		Existing Facilities {Sec. 15301}
[] Feasibility/Planning Study {Sec.15262}	[]	Replacement or Reconstruction {Sec.15302}
[X] Emergency Project {Sec.15269}	[]	Small Structures {Sec.15303}
[] Other: {Sec}}	[]	Minor Alterations {Sec.15304}
	[]	In-fill Development {Sec. 15332}
	[]	General Rule {Sec.15061(b)(3)}

Other

[X] Projects consistent with a community plan, general plan or zoning {Sec. 15183(f)}

[X] Existing Facilities - Rehabilitation of deteriorated or damaged structures or facilities to meet current standards of public health and safety (Sec. 15301.d)

<u>Reasons why project is exempt</u>: Projects consistent with policies of the Hillside Residential General Plan Land Use Classification, Land Use and Transportation General Plan Element (LUTE), and with policies of the Open Space Conservation and Recreation General Plan Element (OSCAR), conforms with the Creek Protection Ordinance, and applicable zoning requirements, are exempt from CEQA review pursuant to the following:

<u>Section 15269(c)</u> Emergency Projects - for specific actions necessary to prevent or mitigate an emergency wherein the channel stabilization project prevents erosion and sedimentation of the stream, maintains water quality and creek channel flow capacity;

<u>Section 15301.d</u> Existing Facilities where rehabilitation of the deteriorated rock cascade and protection/bank stabilization of the existing creek will protect private and public investment, and maintain general public safety for properties abutting the creek either upstream or downstream of the site;

<u>Section</u> 15183 Projects Consistent with Community Plans, General Plans, and Zoning. will result in no significant impacts on the environment where the project is consistent with the LUTE and OSCAR General Plan Elements.

Lead Agency: City of Oakland, Planning and Building Department, Bureau of Planning, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612

Department/Contact

Phone: 510-238 Date

Signature (Robert D. Merkamp for Vd Manasse, Environmental Review Officer)

Pursuant to Section 711.4(d)(1) of the vish and Game Code, statutory and categorical exemptions are also exempt from Department of Fish and Game filing fees.

***ENVIRONMENTAL DECLARATION**

(CALIFORNIA FISH AND GAME CODE SECTION 711.4)

LEAD AGENCY NAME AND ADDRESS

FOR COUNTY CLERK USE ONLY

City of Oakland - Bureau of Planning 250 Frank H. Ogawa Plaza, Suite 3315 Oakland, CA 94612 Contact: Caesar Quitevis

FILE NO:

CLASSIFICATION OF ENVIRONMENTAL DOCUMENT: (PLEASE MARK ONLY ONE CLASSIFICATION)

1. NOTICE OF EXEMPTION / STATEMENT OF EXEMPTION

[X] A - STATUTORILY OR CATEGORICALLY EXEMPT

\$ 50.00 - COUNTY CLERK HANDLING FEE

2. NOTICE OF DETERMINATION (NOD)

[] A - NEGATIVE DECLARATION (OR MITIGATED NEG. DEC.)

\$ 2,280.75 - STATE FILING FEE

\$ 50.00 - COUNTY CLERK HANDLING FEE

[] B - ENVIRONMENTAL IMPACT REPORT (EIR)

\$ 3,168.25 - STATE FILING FEE

\$ 50.00 - COUNTY CLERK HANDLING FEE

**A COPY OF THIS FORM MUST BE COMPLETED AND SUBMITTED WITH EACH COPY OF AN ENVIRONMENTAL DECLARATION BEING FILED WITH THE ALAMEDA COUNTY CLERK.

BY MAIL FILINGS:

PLEASE INCLUDE FIVE (5) COPIES OF ALL NECESSARY DOCUMENTS AND TWO (2) SELF-ADDRESSED ENVELOPES. IN PERSON FILINGS:

PLEASE INCLUDE FIVE (5) COPIES OF ALL NECESSARY DOCUMENTS AND ONE (1) SELF-ADDRESSED ENVELOPE.

ALL APPLICABLE FEES MUST BE PAID AT THE TIME OF FILING.

FEES ARE EFFECTIVE JANUARY 1, 2018

MAKE CHECKS PAYABLE TO: ALAMEDA COUNTY CLERK

EXHIBIT



WILLIAM K. LANGBEHN CE GE

<u>Geotechnical Engineer</u>

1034 Richmond Street, El Cerrito, CA 94530

fax (510) 558-8310

phone (510) 558-8028

"Licensed by the California Dept. of Consumer Affairs, Board for Professional Engineers and Land Surveyors"

January 29, 2002

Nick Vigilante 7200 Saroni Drive Oakland, CA 94611

> RE: Preliminary Geotechnical Evaluation Retaining Wall and Rear Slope 7200 Saroni Drive Oakland, California

Dear Mr. Vigilante:

At your request, the undersigned engineer recently completed a preliminary geotechnical evaluation at the subject property in order to render an opinion on the current condition of the existing retaining wall and slope at the rear of the site. It is my understanding that the existing retaining wall crosses over your rear property line such that the south part of the wall and the slope area below the wall are actually located on the adjacent lot.

Please be advised that this is a reconnaissance-level study based on surficial conditions visible and exposed at the site during my site visit on January 16, 2002. The scope of work performed for this study also included a review of relevant geologic, landslide and fault maps of the area and a review of the retaining wall plans. It should be noted that the preliminary opinions and conclusions presented in this letter could always be modified by more detailed studies at the site that might include: exploratory borings, laboratory testing, detailed examination of historic aerial photographs, review of building records, and site survey(s). However, the scope of work outlined above is considered adequate for this type of preliminary reconnaissance evaluation and any further studies that may be contemplated for this site are duly noted herein.

BACKGROUND AND SITE DESCRIPTION

The subject property is a relatively level lot located on an inside bend of Saroni Drive at the top of an incised stream channel near the center of a prominent valley. In the rear yard, a nearly level terrace is present near the home, supported by a large soldier pile retaining wall that crosses the rear property line as noted above. A small terrace is present on the adjacent lot below the wall, with a steep descending slope down to the creek channel. A City storm drain discharges into the creek channel on the adjacent lot below the north end of the wall. Based on our conversations, it is my understanding that the subject residence was threatened by a landslide in the rear yard in early 1998 following a period of record rainfall. The top of the slide apparently extended up to the garage area, exposing some of the rear foundation piers. The soldier pile and wood-lagging retaining wall was then constructed across the backyard in April and May of 1998 to stabilize the slope and protect the home from further sliding toward the creek. • 79,00

EX 3

According to a plan prepared by Pearl Engineering dated March 20, 1998, the wall consists of steel WF 10x39 I-beams placed in 24-inch diameter drilled holes approximately 8 feet on center with 4x12 pressure-treated wood lagging. The elevation diagram on the plan indicates that the wall varies in height up to a maximum of about 10 feet with some sections of the lagging buried at the edges. The plan also calls for the drilled piers to be extended to depths of over 29 feet with the pier depths verified by the engineer during drilling. In addition, the City permit approval requirements stamped on the jobsite copy of the plan included Special Inspections for drilled piers, excavation and backfill, and special drainage, along with an as-built geotechnical report.

A similar slide problem dating back to early 1998 was also recently stabilized by the City on the east side of the stream channel immediately downstream of the culvert area using a buried soldier pile wall. This work was apparently completed in November 2000. In addition, it is also my understanding that the City plans to install riprap on the creekbanks at the culvert outlet later this year as additional mitigation for this area.

You are reporting no seasonal movements and no major drainage or settlement problems with the home at this time, or in response to the current heavy rains this winter. However, you have noticed some ground cracking on the rear slope below the wall and have asked that I evaluate the current condition of this slope as well as the performance of the retaining wall since in 1998.

PUBLISHED DATA

1. Topography

As shown on Figure 1, the subject site is located within a prominent valley in an area of moderately steep hillside terrain. An incised stream channel is present along the valley floor in this area, beginning at the culvert outlet near the southeast corner of the lot. The existing wall is situated behind the home near the top of a steep slope that appears to be near the transition between the natural slopes along the stream channel and the edge of probable fill placed during the original house construction to create more level space in the building and yard areas around this portion of the site.

2. Geology and Landslides

The geologic map published for this area by the USGS indicates that the subject site and the hillside areas to the east are underlain by Tertiary-aged sedimentary bedrock labeled as the Sobrante Sandstone of the Monterey Group (Radbruch, 1969). The bedrock unit in this area is described by Radbruch as primarily consisting of siltstone and shale with some fine-grained sandstone. A transition to alluvial and colluvial soils is mapped along the stream channel about 200 feet below the site.

The preliminary landslide map published for this area by the USGS (Nilsen, 1975) indicates that the subject site is underlain by bedrock, located upstream of the transition to alluvial valley deposits along the stream channel as suggested on the Radbruch map. However, the southwest corner of the site is mapped at the toe of a possible landslide deposit that occupies the minor secondary drainage swale on the hillside to the west of the site. This feature is queried by Nilsen to indicate some uncertainty in the limits or positive identification of the mapped landslide deposit.

It should be noted that the Nilsen slide maps are preliminary in nature and rely solely on the interpretation of aerial photographs, serving to "red-flag" those areas where more detailed site-specific studies may be appropriate. Aerial photographs reviewed for a recent study by the undersigned engineer on a nearby lot (7188 Saroni Drive) found no obvious indications of recent or historic landsliding visible on or near these sites as indicated on the Nilsen map although some hummocky terrain was visible up in the swale to the west.

3. Faulting and Seismicity

The site is not located within an Earthquake Fault Zone (Special Studies Zone) as established by the state for active faults (CDMG,1982). Therefore, the risk of fault rupture appears to be low at this site. Due to the clayey soils, the risk of soil liquefaction during strong seismic shaking is also generally low in this area. However, due to the proximity to known active faults such as the Hayward fault approximately 1 mile southwest of the site, the primary seismic hazard at this site is the moderate to strong ground shaking expected for all sites in the greater Bay Area during a major earthquake on one of the nearby faults in the region.

SUMMARY OF SITE OBSERVATIONS

1. Interior and Crawlspace

Since no problems are currently being reported with the home, the current evaluation was limited to the existing retaining wall and rear slope and did not include the condition of the existing residence in other areas of the site. Thus, no observations of the interior or crawlspace areas of the residence have been made.

2. <u>Exterior, Site Wall and Yard Areas</u>

No obvious indications of recent settlements or other ground movement problems were noted in the patio/landscaped area in the rear yard between the home and the wall. In addition, no obvious cracks were visible in the exposed sections of the house foundation and in the exterior stucco in this area. Surface drainage conditions above the wall and in the surrounding yard area appeared adequate except for some minor ponding around the catch basin near the wall.

The existing soldier pile wall appeared to be in generally good condition with no obvious indications of any recent movements or distress. Most of the I-beams had a slight outward tilt of about 1/8-inch per foot, a normal and typical amount of deflection to be expected for this type of cantilever wall system. However, one of the central piers had a much greater tilt of almost 1-inch per foot, possibly due to additional depth to firm bearing material at this location near the axis of the former creek channel and near the center of the 1998 slide. Although some minor bulging of the lagging was also noted at this pier, the fence/rail above the wall is still generally straight, suggesting that much of the observed tilt in the wall may be as-built, occurring in response to the initial backfill and first full loading under saturated conditions. Nonetheless, this central pier should be monitored for any further tilt that would indicate ongoing yielding of the wall in this critical area.

3. <u>Rear Slope</u>

The area below the wall consists of a gently sloping bench or terrace extending out about 8 feet or more from the toe of the wall and a steep descending slope down to the creek channel at the outer edge of the terrace. Most of the terrace area is covered by lawn while the steep slope area is covered by dense vegetation, primarily ivy, brush, and numerous trees. A large fallen bay tree is also present on the slope and most of the trees had a noticeable downslope lean. The stump of a large Monterey pine tree is located near the top of the steep slope area. Surface runoff to this area appears to be limited to sheetflow from the more level portions of the lot to the west and no adverse drainage conditions were observed.

Numerous distinct ground cracks were evident in the grass on the terrace below the wall, primarily along the southern part of the wall. Some of the cracks were at least an inch wide and some vertical displacement was noted at the topmost crack near the toe of the wall. These cracks appeared to be tension cracks forming at the top of the slope area below the wall, and generally located within the 1998 slide area as defined on the retaining wall plan by Pearl Engineering. In addition, some fresh hairline cracking was also noted in the bare soils around the tree stump at the top of the slope.

The bottom of the slope appears to bulge into the creek channel, forcing an outer bend in the stream at this location. The existing City storm drain discharge is located on the upstream side of this bend such that some erosion at the toe of the slope is likely occurring during peak flood events, contributing to potential slope instability. However, the loss of material at the toe is largely obscured by the dense vegetation and may also be slowly offset by ongoing encroachment of the slope from periodic creep movements during these peak events. This lower part of the slope along the creek should also be monitored for any sign of major erosion, sloughing or loss of material following major storms or sustained rainfall events.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this preliminary evaluation, it appears that the subject retaining wall has generally performed well since 1998, with the exception of the one pier at the center of the wall with excessive tilt as noted above. However, the slope below the wall appears to only marginally stable and is now experiencing some creep and related ground movements in response to the recent heavy rainfall in this area last November and December. Unfortunately, a more detailed evaluation of the existing wall is not possible without an as-built geotechnical report or the Special Inspection construction documentation apparently required by the City for permit approval. If such documentation was completed by Pearl Engineering at the time of the work, some additional insights could likely be provided on the actual wall construction and on the soil conditions encountered during the work.

At this time, the most significant geotechnical concerns include the potential instability of the rear slope, the possible impact of any major ground movements in this area on the future performance of the wall, and the need for appropriate remedial work, including short-term measures to be undertaken to protect the slope for the remainder of the current winter, and for long-term stabilization of the slope and culvert discharge area. These issues and related items are discussed below.

- 17

1. <u>Slope Stability</u>

The marginally stable rear slope area includes the bench or terrace immediately below the wall along the top of the slope and the steep, heavily-vegetated slope along the creek. The bench area was apparently used as the primary construction access for the wall and only minor grading, mostly local backfill and re-compaction, appears to have been required on this portion of the slope during the wall construction. It is interesting to note that the recent ground cracking and disturbed vegetation pattern observed on and above the steepest part of the slope appear to lie within the portion of the "area of ground movement" as shown on the 1998 wall plan on the slope below the wall. This strongly suggests a partial re-activation of the lower part of the 1998 slide area during recent heavy rains.

Since the wall construction was not intended to stabilize the entire slide area (only the upper part of the slope near the home), some eventual creep, sliding or other ground movements within the lower part of the slide mass could be expected considering the steep slopes along the creek and the location of the culvert discharge at the toe of the slope. A complete slope stability analysis for this slope was beyond the scope of this evaluation and would need to be supported by more detailed engineering studies at the site that would include a topographic site survey of the affected area as well as exploratory borings, groundwater monitoring and a suitable laboratory testing program. However, based on the observations at the site and the available information from 1998, it appears that the rear slope is potentially unstable and vulnerable to additional movements in response to heavy rainfall, particularly within the lower part of the 1998 slide area.

2. <u>Retaining Wall Issues</u>

Fortunately, the recent ground movements appear to have been confined the slope area below the wall and the existing home does not appear to be affected at this time or threatened by future slope movements, *provided the existing retaining wall continues to function as intended.* It should be noted that additional de-stabilization or sliding of the rear slope could result in more serious ground movements, either rapidly or gradually undermining the existing wall piers.

This type of cantilever wall requires a wedge of stable slope materials below the wall for developing passive pressures at depth on the piers. Thus, any loss of ground or over-steepening of the slope below the wall due to slope instability could remove lateral support for the wall piers. Since this type of failure would most likely occur at a time when the wall is fully loaded under saturated conditions, substantial yielding of the wall may result that would be difficult or impossible to repair, with varying degrees of tilt and deflection that would likely be architecturally unacceptable. Any major distress to the wall could also potentially impact the nearby house foundations.

Although the wall construction generally appears to be reasonably conservative and appropriate based on the information on the 1998 plan, any further assessment of the vulnerability of the wall to potential future slope movements should be based on more detailed information on the actual wall construction, either from Special Inspection construction documentation or any as-built geotechnical report available from Pearl Engineering or the City of Oakland building records, as noted above.

3. <u>Temporary Remedial Measures</u>

In order to reduce the risk of further slope movements below the wall this winter, the following temporary measures should be completed as soon as possible:

- The bench or terrace area below the wall should be covered with heavy plastic sheeting anchored with sandbags or roped tires to reduce infiltration of runoff into the slope by covering the area of observed ground cracking.
- A sandbag berm or haybale dike should be installed across the top of the slope starting on the west side to divert runoff from the affected area. A collection point can be constructed at the low end with a temporary flexible pipe to collect and discharge the flow to the creek below. In addition, local ponding around the upper catch basin should be eliminated by local backfill and minor re-grading.

As previously noted, the toe of the slope along the creek near the culvert discharge should be monitored for possible erosion or other problems during peak events and the excessive tilt at the center wall pier should also be closely watched for possible changes during the remainder of the rainy season.

4. Long-term Remedial Measures

To improve the long-term stability of the rear slope and minimize the impact of the adjacent storm drain culvert discharge, the following remedial work items are recommended for this slope:

- A buttress should be constructed at the toe of the slope consisting of a rock revetment along the stream channel using large boulders and riprap placed at an inclination no steeper than about 1:1. The rock should be placed on a small bench cut along the base of the slope near and should extend up to the culvert discharge. A similar riprap revetment is likely envisioned by the City for the culvert outlet and along the east side of the creek. Such a buttress adds weight to the base of the slope using a hard, free-draining material that provides erosion protection along the creek while remaining stable at the steep slope inclinations typically present in the stream channel.
- The existing slope above the rock revetment is over-steepened and should be graded to a flatter slope inclination by removing the tree stump at the top of the slope. This stump is located on a small knob that protrudes into the stream channel on the steepest part of the bank. Selected trees and brush should also be removed from this area only as required to re-grade the slope above the rock buttress to a smooth inclination no steeper than about 1.5:1 and preferably flatter where possible. However, the existing bench below the wall should be left in place and trimmed to no less than 10 feet wide. Surface materials should be compacted on the slope and bench by track-walking and wheel rolling with particular attention given to sealing the tension cracks visible on the slope and the disturbed areas should be covered with mulch and jute mesh for erosion control until permanent vegetation is re-established.

-1 **4**5

The riprap placement, minor slope grading and erosion control measures outlined above are common improvements required along creekbanks in this area, particularly at and below major storm drain culvert outlets. In addition, these remedial work items represent the most practical way to improve the long-term slope stability in sensitive creek areas where major removal and recompaction grading techniques and large retaining wall construction are difficult, expensive and environmentally unsuitable.

5. <u>Project Responsibility</u>

As noted above, most of the retaining wall and the entire rear slope are located on the adjacent lot, which is not part of your property. The owner of this lot should be notified of the current problems and provided a copy of this report. The temporary measures described above should be considered a maintenance responsibility for this owner that requires prompt attention. We first discussed the need for these short-term measures following my site visit, and it is my understanding that you have contacted the owner of this lot with these recommendations, but no action has as yet been taken.

You may wish to also contact Pearl Engineering to evaluate the one central wall pier with excessive deflection and to backfill around the upper catch basin. In addition, a copy of any Special Inspection documentation or as-built geotechnical report prepared by Pearl should also be obtained, if available.

Finally, the 1998 landslide and the recent slope movements appear to be directly related to the presence of the storm drain culvert discharge. Thus, although this is a sensitive area with high groundwater and steep slopes, the observed slope stability problems local to this part of the creek channel cannot be separated from the concentration of runoff to this location from the storm drain. Consequently, the City bears the responsibility of providing a safe and stable discharge point for the storm drain culvert. Therefore, the placement of the rockbuttress described above should be considered part of the creek bank improvements required for this area because of the culvert discharge location and can easily be included with the work already planned for this area. The minor slope re-grading and erosion control measures will benefit all parties and best be accomplished through a cooperative arrangement between the City, yourself and the adjacent property owner.

LIMITATIONS AND CLOSURE

All people who own hillside and creekbank properties should realize that some future landslide or other detrimental soil movements are <u>always</u> a possibility, although generally the likelihood is very low that damaging soil movements will actually occur. The probability of damaging events is substantially reduced by the proper maintenance of surface and subsurface drainage measures at the site and by providing appropriate remedial measures when required. Therefore, the owners should recognize their responsibility for performing adequate maintenance.

The undersigned engineer has employed accepted geotechnical engineering procedures, and the professional opinions and conclusions are made in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

I hope this letter is adequate for your needs at this time and I appreciate the opportunity to be of service to you. If you have any questions regarding this matter, or need additional consultations in the future, please feel free to call.

Very truly yours,

Will is y

William K. Langbehn CE GE Consulting Geotechnical Engineer (510) 558-8028

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PUBLISHED REFERENCES

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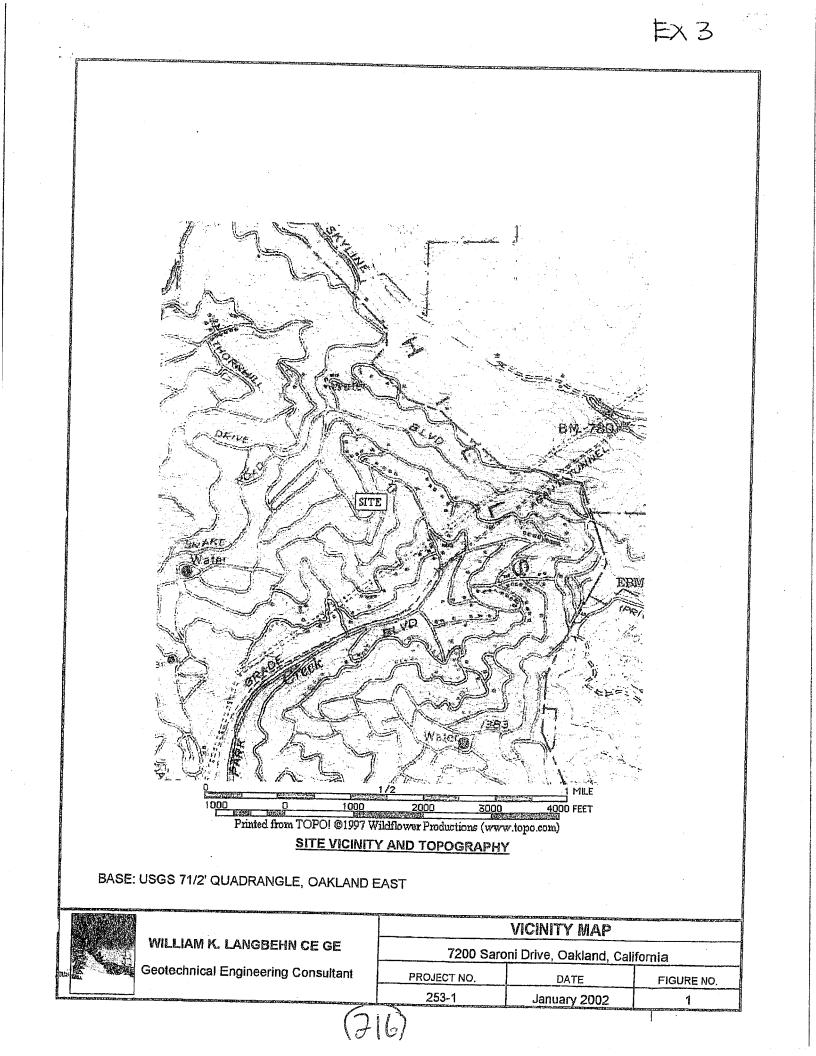


EXHIBIT 4

LANGBEHN GEOTECHNICAL GROUP

FOUNDATIONS RETAINING WALLS LANDSLIDE INVESTIGATION

ION DRAINAGE EVALUATION

(510) 558-8028 ph (510) 558-8310 fax 1034 Richmond Street El Cerrito, CA 94530 FORENSIC STUDIES

December 5, 2017

Jansen Lum 7196 Saroni Drive Oakland, CA 94611

> RE: Supplemental Recommendations Shallow Sloughing on Lot 989 7196 Saroni Drive Oakland, California

Dear Mr. Lum:

As requested by the City, the undersigned engineer is providing supplemental geotechnical recommendations to address a small area of erosion and shallow sloughing recently identified on the adjacent lot (Lot 989), the south half of which is now part of your property in Oakland, California. This feature has been referred to as "Landslide #2" in recent communications, which is a something of a misnomer as an actual landslide condition has not developed at this location, as discussed below. Landslide #1 refers to a slide near the southeast corner of your lot that was the subject of a recent investigation and wall design completed by our firm dated September 26, 2017. Both features appear to have occurred during the recent heavy rains of this past winter and spring.

BACKGROUND INFORMATION

The undersigned completed the original geotechnical investigation for your property (Lot 988) for a previous owner and issued a soil report dated December 5, 2000. This report was later updated for the new construction in a letter dated November 20, 2009. As noted in this soil report, no landslides were observed on Lot 988 during this study. However, an area of erosion and shallow sloughing was noted along the steep slopes along the creek near the southeast corner of the lot, as is common for the steep creekbanks in the area. No specific mitigation measures were competed for this area during construction other than diverting the collected drainage to a safer discharge area. This area is in the same general location as Landslide #1 and the subject of our recent study and wall design.

In 2002, the undersigned was retained by the adjacent property owner at 7200 Saroni Drive (Lot 990 – Vigilante) to evaluate a retaining wall recently constructed across the back of the lot, and on Lot 989, and submitted a report dated January 29, 2002. The wall was apparently required to address a more severe landslide than recent movements in the area, which occurred during the El Nino winter of '97/'98 and threatened the Vigilante home and garage. At that time, the wall appeared to be successful in stabilizing the affected area on Lot 990, but the area below the wall, the lower part of the '98 slide, appeared marginally stable. Recommendations were provided in my 2002 report for improving the stability of this area. Since the slide appeared to be related to the storm drain culvert outfall, the City later completed some rock work along the creek in this area.

Since Lot 989 was separately owned at the time, the mitigation measures outlined in the 2002 report were apparently never done except for the rock work completed by the City. Subsequently, Lot 989 was split into roughly two halves between yourself and Vigilante. Fortunately, no reactivation of the '98 slide has been observed below the wall, either in the wet winter of '05/'06 or in the recent near record rainfall of this past winter. The area below the wall appears to have largely "self-healed" and is now extensively revegetated. The area of the recently observed erosion and shallow sloughing on the south half of Lot 989 ("Slide #2") may be roughly near the toe of the '98 slide area, although this slide was never fully surveyed and this cannot be determined at this time.

SUMMARY OF RECENT FIELD OBSERVATIONS

The affected area on Lot 989 was recently evaluated by an engineer from our office, who identified a small area of shallow sloughing and toe erosion at the base of the slope along the creek channel. This area is about 6 feet wide at the top and perhaps 10 feet wide at the base, and roughly 10 feet in length. There is a small ground crack outlining this feature but no obvious translated slide mass. A small drain pipe was observed discharging along the creek near the toe. Similar areas of minor erosion and shallow sloughing are relatively common on the steep creek banks in the area and are expected following a severe winter. Appropriate mitigation measures are outlined below.

RECOMMENDATIONS

The small affected area on Lot 989 does not represent a major stability problem and in most cases these types of problems are just left alone without further issues. However, given the site history, the area does deserve some attention to prevent a more serious problem from developing on this slope. As discussed in my 2002 report, it should be noted that structural retaining wall solutions, or mass grading removal and recompaction techniques, do not appear to be warranted and would be too difficult to implement, considering the limited equipment access, and too environmentally disruptive. The following recommendations are considered appropriate for the limited size of the affected area, and largely follow the recommendations for this area from my 2002 report:

- 1. Drainage should be carefully controlled above and adjacent to the affected area and concentrated runoff should be diverted by using a straw wattle roll staked around the top of the affected area. It should be noted that any existing drain lines from the Vigilante property located on or near this slope should be diverted to suitable discharge locations on the Vigilante portion of Lot 989 and cannot legally be discharged onto the Lum portion of this lot unless a drainage easement or other suitable agreement is in place.
- 2. A small rock revetment should be placed on the toe of the affected area along the creek. This area is where the rock work installed by the City tapers out. The new rock should be placed by hand as a buttress across the toe and should be set at an inclination of about 1.25:1 using the largest rock that can be moved manually, expected to be about 8 to 12 inches in minimum size, with larger rock near the creek and smaller rock used above on the slope. About 1 to 2 cy of rock should be adequate for this purpose. Care should be exercised to minimize disturbance of existing vegetation on the slope. No rock is needed on the upper half of the affected area. Only a minimum of hand excavation should be used along the creek at the base of the slope to install this small buttress. To promote revegetation, no geotextile should be used under the rock.

7196 Saroni Drive

EXHIBIT 4

Page 3

Finally, as with all projects of this nature, this office should observe the work during construction to verify that the above recommendations are suitably followed during the work.

The undersigned engineer has employed accepted geotechnical engineering procedures, and the professional opinions and conclusions have been made in accordance with generally accepted principles and practices at the time the work was performed. This warranty is in lieu of all other warranties, either expressed or implied.

I hope the above information is adequate for your needs at this time. If you have any questions or require additional geotechnical information, please feel free to call me at your earliest convenience.

Sincerely,

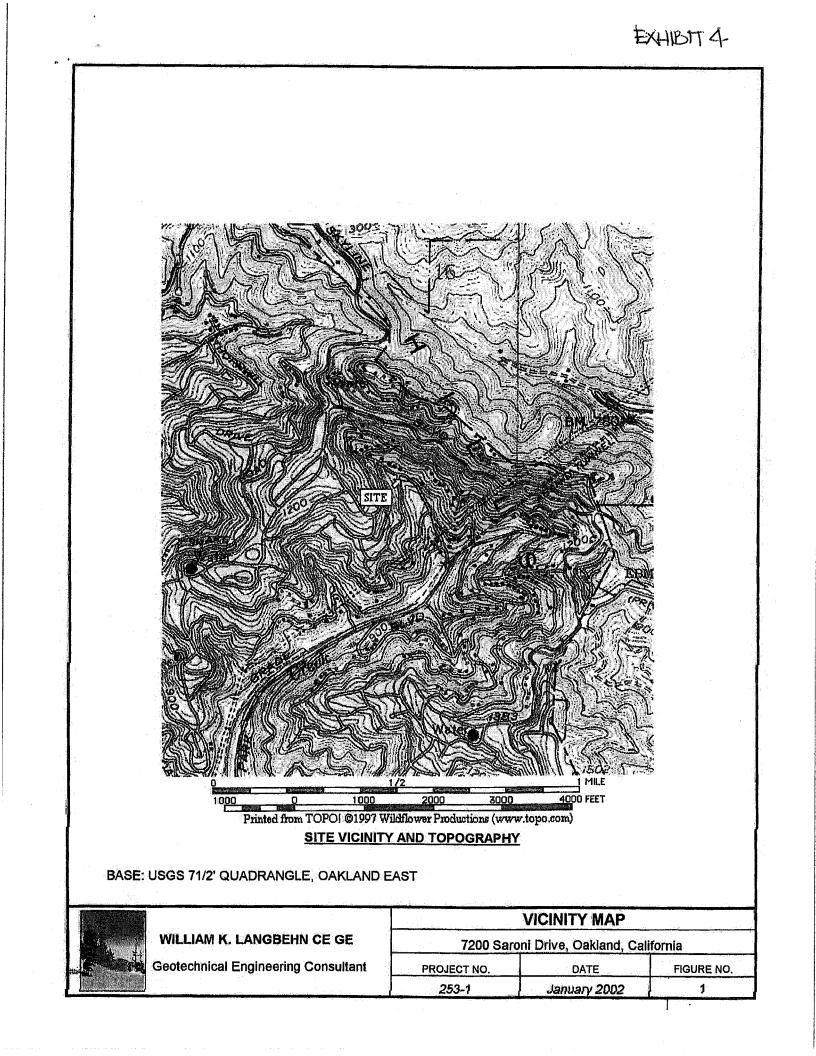
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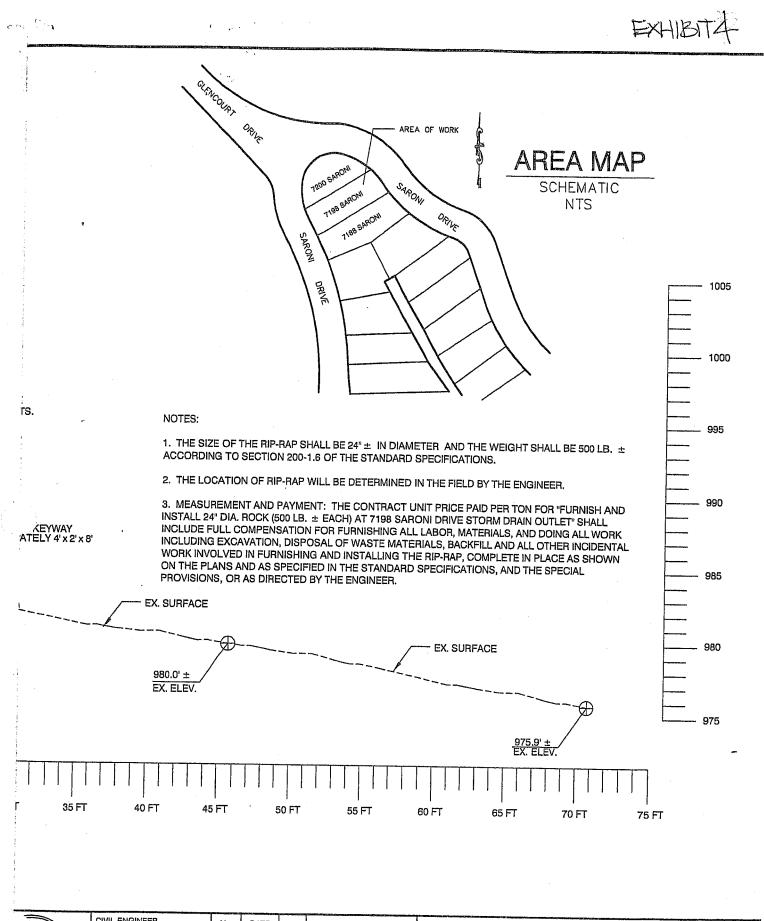
William K. Langbehn CE 44039 GE 2327 Civil and Geotechnical Engineer

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FOUNDATIONS RETAINING WALLS LANDSLIDE INVESTIGATION

TIGATION DRAINAGE EVALUATION

September 26, 2017

Jansen Lum 7196 Saroni Drive Oakland, California 94611

> RE: Geotechnical Investigation and Retaining Wall Design 7196 Saroni Drive Oakland, California

Dear Mr. Lum:

At your request, the undersigned engineer has completed a geotechnical investigation and retaining wall design to address the small landslide along the creek at the rear of your existing home in Oakland, California. The undersigned previously completed a geotechnical investigation for this site for a previous owner, as outlined in a soil report dated December 5, 2000, which was updated for your current residence during plan review in 2009. Our firm also observed the pier drilling for the home in 2010.

The following report summarizes the results of our field exploration and geotechnical analyses and presents suitable geotechnical recommendations and design information for the construction of a new retaining wall to stabilize the area damaged by the sliding.

BACKGROUND INFORMATION AND PROPOSED CONSTRUCTION

It is my understanding the existing slope along the creek behind the home experienced a small slump during or immediately following the heavy rains in early February, a time of widespread sliding in the area. The failure is at least 20 feet wide, with a head scarp that varies from about 3 to 6 feet in height.

The new wall required to stabilize the scarp area includes about 38.5 lineal feet (If) of new soldier-pile wall, including 15 lf of new wall in the north-south direction situated about 8 feet east of the existing deck foundation, along with 18 lf of new wall in the east-west direction, and a 5.5 lf section to connect the two wall segments at the top of the scarp. The maximum height will be about 6.0 feet near the center of the wall and tapering down to no more than 4.0 to 4.5 feet high at each end. The final height may vary slightly with the amount of benching required for drilling access. The new wall construction will require only minor grading, including excavation for a bench along the base of the wall for pier drilling as well as minor slope trimming and local compaction of the wall backfill. A gravel subdrain will also be installed for the new wall. Appropriate erosion control will be also be included as required with the work.

PURPOSE

The purpose of this investigation has been to evaluate the soil and geologic conditions in the immediate area of the observed slide. The investigation was limited to this area of the site and did not include other areas of the site which were previously studied.

The subsurface and laboratory data have been used to develop appropriate geotechnical recommendations and design parameters for the new retaining wall and wall foundations, appropriate drainage measures and temporary erosion control. A design plan and related information for the proposed new wall and related work suitable for obtaining a building permit from the City have also been provided.

LIMITATIONS

Although not anticipated here, it should be noted that this investigation did not include assessment of any environmental hazards or contamination that may be present. It should also be noted that the scope of work for this study did not include structural evaluation of the existing residence, which is apparently undamaged by the sliding in the rear yard. Due to possible changes in the site conditions that could occur with time or changes in geotechnical engineering standards, the recommendations and design information presented in this report may require some modifications if the work cannot be pursued promptly this year. Thus, recommendations for temporary stabilization and/or winterization measures may be required if the work has to be delayed until next spring.

GEOLOGIC SETTING

As shown on Figure 1, the site is located along the west bank of the upper north branch of Shepherd Creek in moderately-sloping hillside terrain, with a steep slope down to the creek channel behind the existing residence. The slope failure occurred directly behind the existing residence, with the toe of the slide along the edge of the creek.

Geologic maps of the area indicate that the site is at the contact between sandstone and shale units on the west and sandstone and siltstone of the Sobrante(?) Formation on the east according to Radbruch (1969), with alluvium and colluvium deposits just south along the creek channel. These bedrock units are all said to consist of mudstone according to Graymer (2000). Deep colluvial soils were encountered in previous borings at the site, with siltstone encountered at the bottom of the recent boring near the creek, as discussed below.

A suspected (queried) landslide is mapped just above the site (Nilsen, 1975) but no evidence of this possible large landslide was found in the previous study or in the recent boring, except for the shallow recent sliding. The nearest active fault is the Hayward fault, located about 1.1 miles to the southwest along Highway 13. As with most sites in the overall area, the primary seismic hazard at this site is strong seismic shaking expected on a moderate or major earthquake on one of the active faults in the region, especially the nearby Hayward fault.

SUBSURFACE EXPLORATION AND LABORATORY TESTING

The subsurface conditions in the slide area were investigated by one exploratory test boring at the approximate location shown on the Site Plan (see attached Sheet RW-1). The boring was located just downslope of the existing head scarp near the middle of the slide and was advanced by continuous sampling with portable equipment. The boring was extended to a maximum depth of about 16.0 feet, after siltstone bedrock material was encountered.

Further details of the subsurface exploration are discussed in Appendix A. Samples of the subsurface materials were recovered using conventional drive samplers. The samples were sealed and transmitted to the laboratory for appropriate testing, as discussed in Appendix B. The detailed descriptions of the subsurface materials encountered in the boring, and the results of the laboratory testing at each sample location, are presented on the boring log, which is included at the end of Appendix A. The detailed results of the Atterberg Limits test are also presented on Figure B-1 in Appendix B. The observed subsurface conditions encountered in the boring are also summarized in the following paragraphs.

The boring revealed a clayey natural soil profile below the slide mass in the area of the new wall. The landslide debris was described as soft to firm, silty and clayey sand with numerous rock fragments. The landslide material extended to a depth of about 3.0 feet and was underlain by colluvial soils. In addition, the fines and fine sand fraction of this material possessed a low to moderate plasticity and a low expansion potential on the basis of the Atterberg limits test (see Figure B-1).

The colluvium was described as very stiff, very sandy and silty clay with occasional rock fragments. This unit extended to a depth of at least 7 feet and was underlain by residual soil. The residual soil was described as stiff, sandy and clayey silt with occasional to numerous rock fragments and extended to a depth of about 13 feet. The residual soil was underlain by bedrock, the bedrock was described as sandy siltstone, interbedded with silty sandstone and clayey siltstone, and was typically severely weathered and severely fractured with soft hardness. The bedrock extended to the bottom of the boring.

The interbedded siltstone and sandstone encountered in the boring is consistent with the sandstone, siltstone and mudstone expected for this area from the published geologic maps.

No free groundwater or seepage was encountered in the boring. The boring was left open but later caved-in with cuttings and no further groundwater measurements were made. In the immediate area of the slide, the groundwater level is expected to be at or near the level of the creek at the base of the site. It should be noted that the boring may not have been left open long enough or extended to sufficient depth to observe the long-term or equilibrium groundwater table. In addition, groundwater levels often change and vary with seasonal rainfall patterns, long-term climate fluctuations and with the influence of large trees or irrigation in the surrounding area.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this investigation, it is the opinion of the undersigned geotechnical engineer that the observed slope failure is the result of the elevated groundwater levels along the creek during the heavy rains of this past winter, combined with minor erosion at the toe of the slope during high water events along the creek. In addition, due to the size of the head scarp, the height of the required new stabilization wall is such that an engineered wall subject to building permit requirements is now needed, as outlined below.

1. New Stabilization Wall

Due to the relatively weak surface soils and the descending slope below the wall, the new wall must be supported by drilled piers extended into the underlying stiff colluvial soil and bedrock.

The most practical wall for these conditions is a cantilever, soldier pile wall employing structural steel WF beams embedded in deep drilled piers as columns, with heavy timber lagging between the beams. The new wall is tended to stabilize the slope above the wall, protecting the existing building pad and adjacent areas. In addition, the excavation required at the base of the wall should help to unload the slide mass and reduce the overall slope below the wall, minimizing the risk of future movement.

As shown on the attached Sheet RW-1, about 38.5 lineal feet (lf) of new wall up to 6.0 feet high is required. The new wall will taper to 4.0 to 4.5 feet or less at each end to roughly match the existing grade. A slightly higher wall will be used behind the residence to allow some additional backfill for this area. In order to keep the wall to no more than 6 feet in height, some minor slope trimming is also required above the north segment of the wall.

2. <u>Wall Design Parameters</u>

The drilled piers will need to be at least 18-inches in diameter and extended at least 13 feet into very stiff colluvium, including at least 4 feet into underlying bedrock, for heights of 5 feet or more, as indicated on the Wall Elevation on Sheet RW-1. An embedment of at least 12 feet into very stiff colluvium is required for piers where the wall height is 4.5 feet or less.

Overall pier depths are expected be on the order of 15.0 to 17.0 feet, as shown on the Wall Elevation, for a total steel beam length of no more than 23 feet at the expected heights. The pier spacing varies between 5.0 and 6.0 feet to accommodate the space needed and to provide a slightly closer pier spacing behind the home. Conventional pressure-treated wood lagging will be used between the piers, and must be placed parallel to the bottom of wall elevations and step up at each pier by about one board height, as shown on the Wall Elevation.

This cantilever wall can be considered unrestrained, with an average backfill slope above the wall that is typically about 2:1, so the appropriate active earth pressure can be taken as an equivalent fluid weighing 70 pcf for the clayey soils. Lateral restraint is provided by the piers through passive pressures in the very stiff colluvium below the slide mass. Passive pressure can be taken as an equivalent fluid pressure of 250 pounds per square foot (psf) per foot of depth, beginning at a depth of about 3 feet in the very stiff colluvium and increased to 400 psf per foot of depth in the bedrock from a depth of 13 feet. These values can be assumed to act on 2.0 pier diameters.

The above active and passive pressures can be assumed to both increase by 20% for earthquake loads and thus will tend to offset. Vertical loading on the piers is not considered to be problematic for this case. If needed, an allowable skin value of 600 psf for dead plus live loads can be used in the very stiff native soils starting at a depth of 3 feet. These values can be increased by 25% for earthquake loads.

2. <u>Construction Considerations</u>

The required pier drilling to depths of up to about 17 feet and at least 4 feet into bedrock will require appropriate drilling equipment that must also be able to set the steel beams into the holes, most of which will be up to 23 feet in length.

Access to the rear slope area will be required for appropriate equipment. A specialty contractor experienced in this type of construction should be consulted for the most practical way of meeting these requirements and minimizing site disruption.

In addition, groundwater seepage could be expected at or near the creek level, which could be fairly shallow, especially if the work occurs later than October or in the winter months. For this reason, the work should ideally be completed as soon as possible and ideally prior to about November 1 to minimize the risk of problems with wet weather and high groundwater. Tremie concrete placement to displace any accumulated seepage may be needed if groundwater is encountered, or the water should be pumped from the hole immediately prior to concrete placement. To minimize the risk of caving, the piers should be poured as soon as possible after drilling and steel placement.

A narrow bench will need to be excavated along the base of the wall to accommodate the pier drilling and beam placement, with bottom of wall elevations stepping up at the increments shown on the Wall Elevation for proper placement of the lagging.

Excavation spoils and pier cuttings can be stockpiled for later wall backfill but excess spoils and cuttings will need to be removed from the site, with no fill placed in the slide area below the wall. The determination of need and the design and installation for any special shoring measures will be the responsibility of the contractor at the time the work is completed.

Wall backfill should be compacted to at least 90% relative compaction after installation of the gravel subdrain for the wall, with additional backfill locally required to fill the existing void area behind the home. Minor grading and slope trimming at the top of the wall should be completed, especially at the north side, to keep the wall heights as designed and to direct runoff to either side following natural grades. Some local removal of dead and downed trees may also be locally needed in this area.

Finally, the construction of the new wall should ideally be pursued as promptly as possible to allow completion prior to the onset of significant winter rains. Special parking arrangements will be needed during the work. If the work is not completed in the coming weeks, winterization measures such as covering the disturbed area with well-anchored plastic sheeting will be needed as well as temporary drainage controls, similar to what was done last winter and spring.

In order to verify the actual depth to bedrock, the pier drilling operations should be observed by the undersigned or a representative of this office, to confirm the wall is being constructed in accordance with the requirements of the approved plan. For proper layout, some construction survey staking is recommended at the beginning of the project to verify layout and elevation controls.

CLOSURE AND LIMITATIONS

All of the conclusions and recommendations presented in this report are given with the understanding that this office will be retained to provide any required design consultations and to make any necessary revisions or other changes in response to plan check or review comments. The analysis and recommendations submitted in this report are based in part upon the data obtained from the soil boring and related observation in the area of the proposed construction as shown on Sheet RW-1.

The nature and extent of variations across the site may not become evident until construction. If variations then become apparent that affect the work, it may be necessary to re-evaluate the recommendations of this report or make revisions to the plan. Therefore, it is recommended that this office be retained to provide geotechnical engineering services during the retaining wall construction, related slope grading and backfill, pier drilling, drainage installation and erosion control phases of the work. This is to observe compliance with the design concepts, specifications and recommendations and to allow design changes in the event that subsurface conditions differ from that anticipated prior to the start of construction.

Finally, all people who own hillside properties should realize that some future erosion or sliding are always a possibility, especially in steeply sloping areas, although generally the likelihood is low that severely damaging events will actually occur. The probability of damaging events can be reduced by installation and maintenance of proper drainage and erosion control measures at the site. Therefore, all homeowners should recognize their responsibility for providing suitable drainage facilities on and near the sloping areas as well as for performing adequate maintenance on the drainage systems. A copy of this report can be provided for this purpose.

The undersigned engineer has employed accepted civil and geotechnical engineering procedures, and the professional opinions and conclusions have been made in accordance with generally-accepted principles and practices at the time this work was performed. This warranty is in lieu of all other warranties, either expressed or implied.

I hope this report provides you with the information you require at this time and appreciate the opportunity to be of service on this project. If you have any questions regarding this report and accompanying plan, or require additional consultations or engineering services in this matter, please feel free to call at your earliest convenience.

Very truly yours,

Well 4

William K. Langbehn CE GE Civil and Geotechnical Engineer

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Copies: Addressee (5, 1 by e-mail)

Attachments: Appendix A – Subsurface Investigation Appendix B – Laboratory Investigation Appendix C – Structural Wall Calculations

Enclosures: Sheet RW-1



PUBLISHED REFERENCES

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CDMG, 1997, "Active Fault Near-Source Zones," Sheet E-17 for use with 1997 UBC.

CDMG, 2000, "Seismic Hazard Zones, portions of the Oakland East, Briones Valley and Las Trampas Ridge Quadrangles."

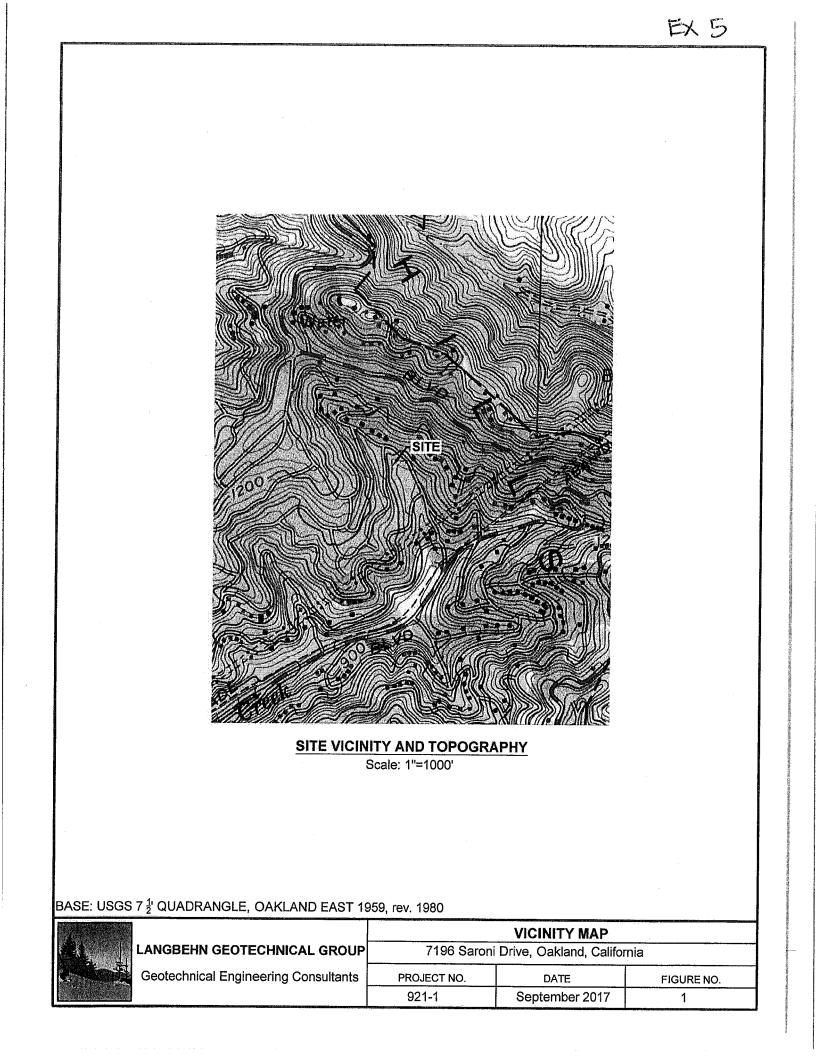
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APPENDIX A - SUBSURFACE INVESTIGATION

The subsurface investigation was performed on August 2, 2017 using portable equipment for one exploratory boring at the location shown on the Site Plan. The boring was advanced by continuous sampling with conventional sampling equipment. The boring was a maximum of 3.5-inches in diameter and was extended to a maximum depth of 16.0 feet. The boring was terminated in competent bedrock.

The materials encountered in the boring were continuously logged in the field at the time of drilling by a representative of this office working under the direction of the geotechnical engineer. The soils are described in accordance with the Unified Soil Classification System (ASTM D-2487). The log of the boring, as well as the key for classification of the soil, are included as a part of this Appendix.

Representative material samples were obtained from the exploratory boring at selected depths. All samples were transmitted to the laboratory for evaluation and appropriate testing, as described in Appendix B. The results of these tests are presented on the attached boring log at the approximate sample depths. Relatively undisturbed samples were obtained using a series of 6-inch long, thinwalled brass liners inside a 3.0-inch O.D. Modified California sampler, and disturbed samples were obtained using the 2.5-inch and 2-inch O.D. Split Spoon samplers. The Modified California sampler is designated on the boring logs by a large "X" and the Split Spoon samplers are designated by one vertical line for the 2-inch sampler and two vertical lines for the 2.5-inch sampler.

Resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration. The blows per foot recorded on the boring logs represent the accumulated number of blows that were required to drive the last 12 inches and converted to standard Penetration Resistance ("N") values. When the 2.0-inch split spoon sampler is used in combination with a standard 140-pound hammer, these blow counts are the standard penetration resistance (SPT) or "N" values. However, when the larger diameter samplers are used, the blow counts recorded are not standard penetration resistance values. Accordingly, these values have been converted to equivalent SPT or N values on the attached log by multiplying by an appropriate factor.

The boring location were obtained by rough field measurements using existing features at the site. Detailed topographic survey information, elevation controls, and the property line were estimated from the existing pre-slide survey information provided by Donald Vegvary LLS dated August 2006 and used as a base for the Site Plan on Sheet RW-1. Elevations and contour lines should be considered approximate only.

The attached boring log and related information show an interpretation of the subsurface conditions at the date and location indicated, and it is not warranted that they are representative of the conditions at other locations or times.

秋5

	PRIMA	RY DIVISIO	NS	GROUP SYMBOL		SECONDARY DIV	ISIONS	
HAN			CLEAN GRAVELS		Well gr	aded gravels, gravel-sand m	ixtures, little or no fines	
S GER T		AVELS	(LESS THAN 5% FINES)	GP		Poorly graded gravels or gravel-sand mixtures, little or no fin		
S LAR	COARSE	FRACTION IS THAN NO. 4		GM		Silty gravels, gravel-sand mixtures, non-plastic fines		
NED (RIAL I /E SIZ	s	IEVE	GRAVEL WITH FINES	GC				
SRAI MATE 0 SIEV				<u> </u>		Clayey gravels, gravel-sand-clay mixtures		
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE		NDS	CLEAN SANDS (LESS THAN 5%	SW		ll graded sands, gravelly san		
	COARSE	AN HALF OF	FINES)	SP	Poorl	y graded sands or gravelly s	ands, little or no fines	
		THAN NO. 4	SANDS WITH FINES	SM	S	ilty sands, sand silt mixtures,	non-plastic fines	
			FINCS	SC		yey sands, sand-silt-clay mix	-	
S IAL IS E SIZE				ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity		
SOIL NATER SIEVE	SILTS AND CI LIQUID LIMIT IS LESS			CL	Inorganic	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays		
NED = 0F № 0. 200				OL	Org	Organic silts and organic silty clays of low plasticity		
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE				МН	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts			
	SILTS AND CLAYS SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50% UP W W		СН	Inorganic clays of high plasticity, fat clays				
F MOR SMAL					Organic clays of medium to high plasticity, organic silts			
	HIGHLY C	RGANIC S	DILS	Pt	Peat and other highly organic soils			
	v			DEFINITION (OF TERMS	3	· ·	
	20	U.S. 9 00 4(STANDARD SERIES	SIEVE	CLEAR SQ 3/4"	UARE SIEVE OPENINGS 3" 12"		
SILTS AN		FINE	SAND MEDIUM	COARSE		AVEL COBBLES	BOULDERS	
		I II Vim	MEDIOW	GRAINS		COARSE		
SANDS AND	GRAVELS	BLOW	/S/FOOT+	SILTS AND	CLAYS	STRENGTH*	BLOWS/FOOT+	
				VERY S		0 - 1/4	0 - 2	
VERY L LOO			0 - 4 - 10	SOFT		1/4 - 1/2	2 - 4	
MEDIUM			0 - 30	FIRM		1/2 - 1	4 - 8	
DEN			0 - 50 0 - 50	VERY ST		1 - 2 2 - 4	8 - 16 16 - 32	
VERY D	ENSE	ov	'ER 50	HARE		OVER 4	OVER 32	
RELATIVE DENSITY			enn ar a waard oo de fining fining oo gebruik	ar anna aistean ann ann an ann an ann ann ann ann an	CONSISTENCY			
Unconfined co	Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D - 1586) Unconfined compressive strength in tons/sq. ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D - 1586), pocket penetrometer, prvane, or visual observation							
				CROUP	1/5			

Geotechnical Engineering Consultants

KEY TO EXPLORATORY BORING LOGS Unified Soil Classification System (ASTM D-2487)

EX5

DRILL RIG: Cont. sample with 140# hammer	ELEVATION (feet): 988 +/-						OWA			
DEPTH TO GROUNDWATER (feet): None	BORING: 3.	.5" O.D. M	ax.		- T	DATE DRILLED:		8/2/2017		
SOIL CLASS	IFICATION	· · · · · · · · · · · · · · · · · · ·			н К		F	>	Ĕ	
DESCRIPTION AND REMAR	KS	SOIL TYPE	(FE	РТН ЕЕТ) 0	SAMPLER	BLOW COUNT (SPT)	WATER CONTENT (%)	DRY DENSITY (PCF)	STRENGTH TESTS (PSF)	OTHER TESTS
LANDSLIDE DEBRIS: Sand, variable, very silty, on numerous rock fragments, mottled, soft to firm, w		SC	- '	- 1	\square					
- 21% gravels and rock fragments at 2'			-	- 2 -	$\left(\right)$	4*	20	99	-200= 37%	LL=34% Pl=10%
<u>COLLUVIUM</u> : Clay, very sandy, silty with occasio fragments, mottled grey, strong brown, olive grey,	nal rock very stiff	CL	4	3 - 4 -	\mathbb{A}	26*	16	106		
- 5% gravels and rock fragments at 6'				5 - 3		24*	26	97		-200= 66%
с			7 - 8 	7 - -		21*	26			
RESIDUAL SOIL: Silt, sandy, clayey with occasion ragments, grey brown, stiff		ML	9 - 10 -) - 0 -		26*	Poo	r Recov	ery	
increasing bedrock texture			1 - 1; -	-		22	27			
<u>BEDROCK:</u> Siltstone, sandy, interbedded with silty slayey siltstone, grey brown, severely weathered a ractured and locally sheared	/ sandstone and nd severely	BR	1: - 14 -	-	****	63	22			
Bottom of Boring at 16.0'			1: - 16	-		47	24			
No Groundwater at time of drilling Boring left open			- 17 -	- -						
			18 - 19 -	-						
			20							
	AL GROUP	EXPLORATO 7196 Saroni Driv			rive	BORIN	<mark>G LOG</mark> Bori		1	
Geotechnical Engineering (Oakland, Califo PROJECT NO.			DATE				I	
		921-1 Sept			tember 2017		PAGE 1 of 1			

APPENDIX B - LABORATORY INVESTIGATION AND TEST RESULTS

The laboratory-testing program was directed toward a quantitative and qualitative evaluation of the physical and mechanical properties of the soil materials at the site.

In-situ Moisture Content

The natural, in-place moisture content was determined on 7 samples of the materials recovered from the borings in accordance with ASTM Test Designation D-2216. These water contents are recorded on the boring log at the appropriate sample depths.

In-situ Dry Density

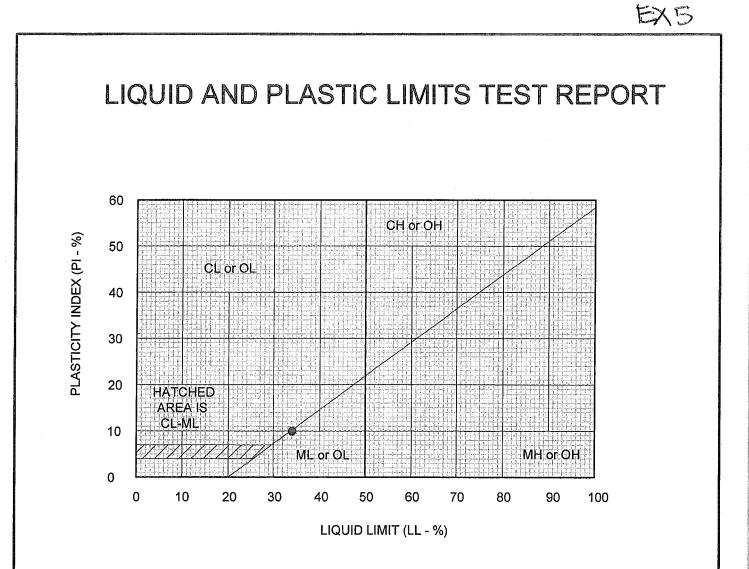
In-place dry density determinations were performed on 3 relatively undisturbed samples of the subsurface materials from the boring to evaluate the physical properties. The results of these tests are also shown on the boring log at the appropriate sample depths.

Atterberg Limits

The Atterberg limits were determined for one sample of the most clayey natural soils to estimate the range of moisture content over which these materials exhibit plasticity. The Atterberg limits were determined in accordance with ASTM Test Designations D-4318. These values are used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil's expansion potential, compressibility and approximate strength. The results of this test are presented on the boring log at the appropriate sample depth and on the attached Figure B-1.

Percent Passing No. 200 Sieve

The percent passing the No. 200 sieve was determined on 2 samples of the native soils to assist in the proper classification of these materials as either predominantly granular sands or fine-grained silts or clays in terms of composition by measuring the overall percentage of fines as well as the sand and gravel fractions. These tests were performed in accordance with ASTM Test Designation D-1140 and the results are shown on the boring log at the appropriate sample depths.



Sample Location & Description	LL	PL	PI	-200	Soil Classification
Boring 1: 1.5' - 2.0': Landslide: silty and clayey Sand	34	24	10		SC

		ATTERBERG LIMITS TEST RESULTS					
	LANGBEHN GEOTECHNICAL GROUP	7196 Saro	ni Drive, Oakland, Califo	ornia			
人 一些	Geotechnical Engineering Consultants	PROJECT NO.	DATE	FIGURE NO.			
(heider heider	· · · · · · · · · · · · · · · · · · ·	921-1	September 2017	B-1			

LANGBEHN GEOTECHNICAL GROUP

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(510) 558-8028 ph (510) 558-8310 fax 1034 Richmond Street El Cerrito, CA 94530 FORENSIC STUDIES

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RETAINING WALLS LANDSLIDE INVESTIGATION DRAINAGE EVALUATION

September 26, 2017 Job No. 921-1

APPENDIX C – STRUCTURAL WALL CALCULATIONS

Lum Property Retaining Wall 7196 Saroni Drive Oakland, California

Prepared By:





WN

William K. Langbehn CE GE Principal Civil and Geotechnical Engineer

921-1	LUM PROPERty Per. Ware gravenues Conculations will 9-26-12	3
Í	A <u>DESIGN CONDITIONS</u> 1. New Soldier Pile Wall required as stabilization wall across log of abid.	
	Use structural sheel we Berns placed in drilled press. 2. Drilled press and <u>16" dia at max 6'o.c.</u> , with pressure - treated wood lagging, min 3" width.	
	3. Boing 1 indicates very chill matice soil below slide at 3 feet, with silfatore bedrook at 13 feet B. <u>DESIGN PARAMETERS</u>	
	1. A assume unrestrained case (cantilever wall) in clayer native soils with backfull alope e 2:1 about wall, use Va (Actie present) = 40 pet	
(2. Take Premine Maintance in very a till ration soils at 3 keef. Uk Vp = 250 pet / hot in soil, <u>Vp = 400pst/14</u> in budrock at 13 feet. 	
	C. <u>FORCE DIAGRAM</u> where: $A_1 = \frac{1}{2} \cdot \frac{3}{2} \cdot \frac{1}{4} \cdot \frac{1}{5} = \frac{1}{2} (\frac{1}{2})(c^2)(c = \frac{1}{4} \cdot 5c^k)$ $A_1 = \frac{1}{2} \cdot \frac{3}{2} \cdot \frac{1}{4} \cdot$	
	$ \begin{array}{l} \Delta_{2} = \mathcal{V}_{a} \cdot \mathcal{H} \cdot d_{a} \cdot (\mathcal{P} = 40 (6 \times 3 \times 1.5) = 1.89 \times 10^{-3} \\ P_{1} = \frac{1}{2} \cdot \mathcal{V}_{p} \cdot (\mathcal{A}^{2}) \cdot 20 = \frac{1}{2} (256) (19^{2}) 3 \\ = 3 \cdot 5 \times 10^{-3} \cdot 10^{-3$	
	$P_{B} = \frac{1}{2} \left(\frac{1}{B} \right) 4^{2} \cdot 20 = 3.6 \text{ K}$ $D: CHECK Grading$	
	Since $\Xi P \gg \Xi A$, sliding one by inspection, over trying controls. Factor of $G_{L}(h_{Y})_{OT}$, $FS_{(OT)} = \frac{\Xi}{\Xi} \frac{M_{P}}{MA} = \frac{(P_{1} \cdot h_{3}) + (P_{0} \cdot h_{3})}{A_{1} \cdot (P + \frac{6}{3}) + A_{2}(\overline{p} - \frac{3}{2})} = \frac{77.5(4.64) + 3.6(1.33)}{7.5((19) + 1.59(16.5))}$ $FS_{0T} = \frac{347.79}{172.9} = \frac{2.0}{OK} (> 1.5)$ See Attached for Spread sheet Realty for Max. Moment and Beam 47.09.	•

EX5

*passive pressures acting on 2 pier diameters, ac				
PARAMETE EQUIVALENT FLUID PR				FIONS (lbs)
ALOWABLE ACTIVE PRESSURE (VA)	(<u>ESSURE</u> (pcf) 70		PASSIVE FORCE SOIL	Ps = (.5)(yPsoil)(de^2)(2)(Dia.
ALLOWABLE PASSIVE PRESSURE SOIL (yPs)	250		PASSIVE FORCE BEDROCK	Pbr = (.5)(yPbr)(deBR^2)(2)(D
			ACTIVE FORCE UNBRACED LENGT	
ALLOWABLE PASSIVE PRESSURE BEDROCK (yPbr) * (total allowable less yPs)	100		ACTIVE FORCE BRACED LENGTH	
	NIC (ACTIVE SURCHARGE FORCE (Aq)	Aq = (qu/3)(H)(s)
ADDITIONAL LOAD SURCHARGE LOAD (gu)	(pst) 0			
FORCE DIAGRAM DIME				
SPACING (s)	6			
WALL HEIGHT (H)	6			
PIER DIAMETER (Dia.)	1,5			
DEPTH TO FIXITY (da)	3			
STIFF SOIL EMBEDMENT DEPTH (de)	14			
BEDROCK EMBEDMENT DEPTH (deBR)				
OVERALL PIER DEPTH (D)	4			
OVERALL PIER DEPTH (D)	17			
I. STABILITY CALCULATIONS				
ACTIVE FORCE UNBRACED LENGTH	A1 = (.5)(yA)(H^2)(s)		.56 kips	7
ACTIVE FORCE BRACED LENGTH	A2 = (yA)(H)(da)(1)(Dia.)		.89 kips	1
SURCHARGE FORCE (Aq)	Aq = (qu/3)(H)(s)			
SUM of ACTIVE FORCES	Aq = (qu/3)(1)(s)		.00 kips	
Som of Active Ponces		2	.45 kips	
PASSIVE FORCE SOIL	Ps = (.5)(yPsoil)(de^2)(2)(Dia.)	73	.50 kips	
PASSIVE FORCE BEDROCK	Pbr = (.5)(yPbr)(deBR^2)(2)(Dia.)		40 kips	
SUM OF PASSIVE FORCES			SD kips	
	······································			1
A. SLIDING			······································	
*if SUM PASSIVE >> SUM ACTIVE then overturning controls (5 x greater)		PASS		
				I .
B. OVERTURNING]
*SUM OF MOMENTS ABOUT BASE				1
FS = SUM PASSIVE MOMENTS / SUM ACTIVE MOM	IEN 15 > 1,5			
PASSIVE MOMENTS				
		_	a a Lu - <i>t</i> u	
PASSIVE MOMENT SOIL (MPs)	MPs = (Ps)(de/3)		00 kips-ft	
PASSIVE MOMENT BEDROCK (MPbr)	MPbr = (Pbr)(deBR/3)		20 kips-ft	
SUM of Passive Moments about base of pier		346.	20 kips-ft	
ACTIVE MOMENTS				
ACTIVE SURCHARGE MOMENT (MAq)	MAq = (Aq)(D + H/2)	0.	00 kips-ft	
ACTIVE MOMENT UNBRACED (MA1)	MA1 = (A1)(D + H/3)		64 kips-ft	
ACTIVE MOMENT BRACED (MA2)	MA2 = (A2)(de + da/2)		30 kips-ft	
SUM of Active Moments about base of pler	· ·		34 kips-ft	
		-,	-	
FACTOR OF SAFTEY = SUM MP / SUM MA	2.00	PASS		
II. BEAM DESIGN				
A. LOCATION OF MAXIMUM MOMNENT ON PIER *critical moment likely below da + de/4				
PASSIVE MOMENTS ABOUT Z				
PASSIVE MOMENT SOIL ABOUT Z (MPs@z)	MPc@r = / 5//vPc//(7-ds)A3//3//Dis ///7-	la /2)\		
PASSIVE MOMENT BEDROCK ABOUT Z (MPbr@z)	MPs@z = (.5)(yPs)((Z-da)^2)(2)(Dia.)((Z-da)^2)(Dia.)((Z-da)^2)(Z)(Dia.)((Z-da))(Z)(Z)(Z)(Z)(Z)(Z)(Z)(Z)(Z)(Z)(Z)(Z)(Z			
SUM OF PASSIVE MOMENTS ABOUT Z (MP@z)	MPbr@z = (.5)(yPbr)((Z-(da+(de-deBR))) MP@z = MPs@z + MPbr@z	-z)(z)(Dia,)((z-(da+(de-de	br .	
	Mr @2 = Mr 3@2 + Mr 51@2			
ACTIVE MOMENTS ABOUT Z				
ACTIVE SURCHARGE MOMENT ABOUT Z (MAg@z)	MAq@z = (Aq)((H/2)+Z)			
ACTIVE MOMENT UNBRACED ABOUT Z (MA1@Z)	MA1@z = (A1)((H/3)+Z)			
ACTIVE MOMENT BRACED ABOUT Z (MA1@Z)	MA2@z = (A2)((H/3)+2) MA2@z = (A2)(Z-(da/2))		Ĩ	
SUM OF ACTIVE MOMENTS ABOUT Z (MA2@Z)	MA2@z = (A2)(2-(da/2)) MA@z = MAq@z + MA1@z + MA2@z			
(inter)				
SUM OF MOMENTS ABOUT Z (M@z)	M@z = MA@z - MP@z			
CRITICAL DEPTH (Z)	MP@z (kips-ft)	MA@z (kips-ft)	M@z (kips-ft)	
6.5	5.36	73.71	68.35	
7.0	8.00	78.44	70.44	
7.5	11.39	83.16	71.77	
8.0	15.63	87.89	72,26	
8.5	20.80	92.61	71.81	
9.0	27.00	97.34	70.34	
9.5	34.33	102.06	67.73	
10.0	41,53	106.79	65.26	
10.5	52.73	111.51		
11.0	64.00	116.24	58.78	
11.5	76.77		52.24	
11.5		120.96	44.19	
12.0 12.5	91.13 107.17	125.69	34.56	
12.5	107.17 125.00	130.41 135.14	23.24	
BEAM SELECTION	TEAINA	103114	10.14	
			BEAM TYPE(S)	
OTAL BEAM LENGTH (TBL = H + D)	23		W8x31	
OTAL UNBRACED LENGTH (TUL = TBL -de))	9.00		W10x30	
IAXIMUM MOMENT (Mmax)	72.26			
LANGBEHN GEOTECHNICAL GROUP			Vall Calculations	
LANGBERN GEOTEGRNIGAL GROUP	7196 Saroni Dri Oakland, Califor		6.0 Foot W	/all Case
	Oakland, Califon PROJECT NO.	11GI		
Geotechnical Engineering Consultants	921-1		DATE September 2017	PAGE 2 of 2



*passive pressures acting on 2 pier diameters, ac PARAMETE	ive pressures acting on 1 plandiameter			
			501/0	TIONS (lbs)
EQUIVALENT FLUID PR			PASSIVE FORCE SOIL	Ps = (.5)(yPsoli)(de^2)(2)(Dia.
	70			
ALOWABLE ACTIVE PRESSURE (yA) ALLOWABLE PASSIVE PRESSURE SOIL (yPs)			PASSIVE FORCE BEDROCK	Pbr = (.5)(yPbr)(deBR^2)(2)(D
	250		ACTIVE FORCE UNBRACED LENG	
ALLOWABLE PASSIVE PRESSURE BEDROCK (yPbr) * (total allowable less yPs)	100		ACTIVE FORCE BRACED LENGTH ACTIVE SURCHARGE FORCE (Aq)	
ADDITIONAL LOAD SURCHARGE LOAD (gu)	I <u>NG</u> (psf) 0			
FORCE DIAGRAM DIME	VSIONS (feet)			
SPACING (s)	6			
WALL HEIGHT (H)	4.5			
PIER DIAMETER (Dia.)	1.5			
DEPTH TO FIXITY (da)	3			
STIFF SOIL EMBEDMENT DEPTH (de)	12			
BEDROCK EMBEDMENT DEPTH (deBR)	0			
OVERALL PIER DEPTH (D)	15			· · · · · · ·
I. STABILITY CALCULATIONS				
ACTIVE FORCE UNBRACED LENGTH	$A1 = (.5)(yA)(H^2)(s)$.25 kips	7
ACTIVE FORCE BRACED LENGTH	A2 = (yA)(H)(da)(1)(DIa.)		.42 kips	
SURCHARGE FORCE (Aq)	Aq = (qu/3)(H)(s)		.00 kips	
SUM of ACTIVE FORCES		5	.67 kips	
PASSIVE FORCE SOIL	Ps = (.5)(yPsoil)(de^2)(2)(Dia.)	EA	.00 kips	
PASSIVE FORCE BEDROCK	Pbr = (.5)(yPbr)(de8R^2)(2)(Dia.)		.00 kips	1
SUM OF PASSIVE FORCES	PDr = (.5/(yPDr)(de6k~2)(2)(Di8.)		.00 kips	
A. SLIDING				7
*If SUM PASSIVE >> SUM ACTIVE		PASS		
then overturning controls (5 x greater)]
B. OVERTURNING				٦ `
*SUM OF MOMENTS ABOUT BASE				1
FS = SUM PASSIVE MOMENTS / SUM ACTIVE MOM	ENITS > 1 E			
FS = SUM PASSIVE MOMENTS / SUM ACTIVE MOM	EIN13 > 1.5			
PASSIVE MOMENTS				
PASSIVE MOMENT SOIL (MPs)	MPs = (Ps)(de/3)	216.	.00 kips-ft	
PASSIVE MOMENT BEDROCK (MPbr)	MPbr = (Pbr)(deBR/3)	0.	00 kips-ft	
SUM of Passive Moments about base of pler			00 kips-ft	
		210.	apart	1
ACTIVE MOMENTS				
ACTIVE SURCHARGE MOMENT (MAg)	MAq = (Aq)(D + H/2)	0.	00 kips-ft	
ACTIVE MOMENT UNBRACED (MA1)	MA1 = (A1)(D + H/3)	70.	17 kips-ft	
ACTIVE MOMENT BRACED (MA2)	MA2 = (A2)(de + da/2)		14 kips-ft	
SUM of Active Moments about base of pler				1
som of Active moments about base of piel		89.	30 kips-ft	1
FACTOR OF SAFTEY = SUM MP / SUM MA	2.42	PASS		J
II. BEAM DESIGN	2.42	PASS		_
	2.42	PASS]
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *critical moment likely below da + de/4	2.42	PASS		
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *critical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z	2.42	PASS		
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *oritical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z PASSIVE MOMENT SOIL ABOUT Z (MPs@z)	MPs@z = (.5)(vPs)((Z-da)^2)(2){Dia.)((Z-d			
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *oritical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z PASSIVE MOMENT SOIL ABOUT Z (MPs@z)	MPs@z = (.5)(vPs)((Z-da)^2)(2){Dia.)((Z-d	a/3))		
II, BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *oritical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z PASSIVE MOMENT SOIL ABOUT Z (MPs@z) PASSIVE MOMENT BEDROCK ABOUT Z (MPbr@z)	MPs@z = (.5)(yPs)((Z-da)^2)(2)(Dia.)((Z-d MPbr@z = (.5)(yPbr)((Z-da+(de-deBR)))	a/3))	3BF	
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *oritical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z PASSIVE MOMENT SOIL ABOUT Z (MPs@z)	MPs@z = (.5)(vPs)((Z-da)^2)(2){Dia.)((Z-d	a/3))	2BF	
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *critical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z (MP5@z) PASSIVE MOMENT BEDROCK ABOUT Z (MP6r@z) SUM OF PASSIVE MOMENTS ABOUT Z (MP6r2)	MPs@z = (.5)(yPs)((Z-da)^2)(2)(Dia.)((Z-d MPbr@z = (.5)(yPbr)((Z-da+(de-deBR)))	a/3))	2BF	
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *critical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z PASSIVE MOMENT SOIL ABOUT Z (MP±@z) PASSIVE MOMENT BEDROCK ABOUT Z (MPbr@z) SUM OF PASSIVE MOMENTS ABOUT Z (MP@z) ACTIVE MOMENTS ABOUT Z	MPs@z = (.5)(yPs)((Z-da)^2)(2){Dia.)((Z-d MPbr@z = (.5)(yPbr)((Z-da+(de-deBR)))^ MP@z = MPs@z + MPbr@z	a/3))	2BF	
II. BEAM DESIGN A. LOCATION OF MAXIMUM MOMNENT ON PIER *critical moment likely below da + de/4 PASSIVE MOMENTS ABOUT Z PASSIVE MOMENT SOIL ABOUT Z (MP5@z) PASSIVE MOMENT BEDROCK ABOUT Z (MP@z) SUM OF PASSIVE MOMENTS ABOUT Z (MP@z) ACTIVE MOMENTS ABOUT Z ACTIVE SURCHARGE MOMENT ABOUT Z (MAq@z)	MPs@z = (.5)(yPs)((Z-da)^2)(2)(Dia.)((Z-d MPbr@z = (.5)(yPbr)((Z-da+(de-deBR)))^ MP@z = MPs@z + MPbr@z MAq@z = (Aq)((H/2)+Z)	a/3))	2BF	
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Attachment 6 (color graphics) are at the end of the attachments.

D	ECE	IVED	EXHIBIT 7
WWW.LangbehnGeotech.com	City of C		(510) 558-8028 ph (510) 558-8310 fax 1034 Richmond Street El Cerrito, CA 94530 EDENNIC STUDIO
FOUNDATIONS RETAINING WALLS LANDSLINE		-drainage evalua	ATION FORENSIC STUDIES
			DECEIVEN
February 26, 2019	,	ſ	
Jansen Lum		Į!	FEB 26 2019
7196 Saroni Drive			City of Oakland
Oakland, CA 94611	RE:	Creek Stabilizat	Planning & Zoning Division
		-	o Appeal Request
		7196 Saroni Dri Oakland, Califor	
		Garianu, Calilo	lina

Dear Mr. Lum:

As requested by the City, the undersigned engineer is providing plan review comments for the current creek stabilization design and is also responding to a request for an appeal of the approval of the planning application for this work, as was presented in a letter from the City dated January 2, 2019.

SUMMARY OF RELEVANT BACKGROUND INFORMATION AND DOCUMENTATION

The original soil report for your property (Lot 988, formerly 7188 Saroni Drive) was prepared by the undersigned for a previous owner and is dated December 5, 2000. This report was later updated during plan review for the new residence in a letter dated November 20, 2009. Our office also provided construction observations during the pier drilling for the home, as outlined in letters dated September 16, and October 21, 2010.

Although no landslides were observed on Lot 988 during this period, an area of erosion and shallow sloughing near the southeast corner of the lot was mentioned in the soil report, common for the steep creekbanks in the area. Drainage was to be diverted away from this area, however the final drainage discharge configuration was not observed by our office at the completion of the work and was not apparently required by the City during final. However, a landslide condition was observed in 2002 on the adjacent upstream properties when the owner of Lot 990 (Vigilante) retained the undersigned to evaluate a retaining wall recently constructed across the back of his lot, and on Lot 989, as outlined in a letter dated January 29, 2002.

The wall was required to address a substantial landslide that evidently occurred during the El Nino winter of 1997-1998 and threatened the Vigilante home and garage. This slide was more severe than recent movements in the area. The wall appeared to be successful in stabilizing the affected area on Lot 990, and is still in service today, but the area below the wall, the lower part of the 1998 slide, appeared marginally stable at that time. My 2002 recommendations for improving the stability of this area were apparently never completed since most of the lower part of the slide was on Lot 989. However, the slide appeared to be related to the storm drain culvert outfall and the City later completed some rock work along the creek in this area.

EXAIBIT

Subsequently, Lot 989 was split between yourself and Vigilante. Fortunately, no reactivation of the 1998 slide has been observed in this area below the wall, either in the wet winter of 2005-2006 or in the recent near-record rainfall of 2016-2017. Although the area below the wall appears to have been largely stabilized by large and small trees and other native vegetation, an area of recent erosion and shallow sloughing that occurred in January and February 2017 was noted along the stream channel on the south half of Lot 989 that appears to be near the toe of the 1998 slide area, although this cannot be accurately determined at this time.

The recent slide that occurred in 2017 behind your home is described in our report dated September 26, 2017, which includes a wall design to stabilize the head scarp and protect the home. Our scope of work at that time did not include design of any creek stabilization measures along the stream channel, which was to be left undisturbed, but you later submitted plans for creek bank repair work at the request of City Planning, which were reviewed by our office. We also provided supplemental recommendations for these plans in our letters dated December 5, 2017 and April 10, 2018.

CREEK STABILIZATION PLANS

Following review by various public agencies, including CDFW and the San Francisco Bay Regional Water Quality Control Board (SFWQCB), it was determined that a more comprehensive program for channel stabilization and bank repair was needed for this reach of the stream channel. A "Supplemental Design for Creek Stabilization" was prepared by William Vandivere PE of Clearwater Hydrology (CH), who presented the design in a report dated September 11, 2018, which included a total of 4 sheets of detailed plans as well as a hydrologic study for this reach of the north branch of Shepherd Creek as the basis of the design. The design was also then certified by SFWQCB in a letter dated September 26, 2018, with numerous conditions of approval.

This design includes four components: repair of the damaged section of the rock cascade installed by the City of Oakland at the upper part of the reach, a rock revetment at the toe and re-planting of the eroded area on the south half of Lot 989 (mentioned above), a rock revetment at the toe of the slope across from the 2017 slide (on the left bank), and the installation of 3 rock weirs and 2 rootwads at the base of the 2017 slide (on the right bank) along with local slope grading above this area. Local revegetation, planting and re-seeding of exposed or disturbed area during construction is also recommended.

Based on a review of the geotechnical aspects of these plans, it is the opinion of the undersigned geotechnical engineer, that this design is appropriate for the subject reach of the stream channel from a geotechnical standpoint. In addition, it should also be noted that the information contained in the CH report and on their design plans is primarily of a hydrologic and geomorphic nature and no further geotechnical input or investigation appears warranted at this time.

RESPONSE TO APPEAL REQUEST OF PLANNING APPROVAL

As noted above, the current planning application for this work (Case File No. CP18009) was approved by the City of Oakland Planning and Building Department, Bureau of Planning in a recent letter dated January 23, 2019, with numerous conditions of approval.

Two of the City's conditions of approval pertain to the need for a soil report and retaining wall design (Nos. 20 and 33). Our soils report and wall design dated September 26, 2017 should be adequate for this purpose, providing both an engineered plan for a stabilization wall along the top of the slide as well as describing soil conditions in the slide area, which are typical for this reach of the stream channel. The CH creek stabilization design dated September 11, 2018 is also incorporated into this approval (Condition 30) as well as our supplemental recommendations for re-planting and re-vegetation outlined in our letter of April 10, 2018 (Condition 32). An extensive Creek Protection Plan is also required (Condition 23).

At this time, each of the areas of concern arising from the near-record rainfall during January and February 2017, including the small slide behind your home as well as the areas of erosion and channel problems along this reach, have now been suitably addressed by the above engineering documents.

Recently, in early February, an extensive request for an appeal of the City planning approval was filed by Nicolaus Vigilante. Much of the complaint and supporting documentation pertains to the construction of your home, and the apparent lack of proper drainage discharge, as well as some items that pertain to Vigilante not being provided the opportunity to review various project elements and engineering documentation.

It should be noted no aspects of the house construction on your lot, including drainage details, have adversely impacted the Vigilante property or any upstream property in any way. In addition, the current project described in the above documents is entirely contained within your property and should be considered a net benefit helping to prevent any potential issues that could develop on the Vigilante property. Finally, since Vigilante is not a registered engineer or hydrogeologist, he is not qualified to review the above documents (by State law) and such a review is typically not afforded to concerned neighbors not directly affected by the work on similar City projects. For these reasons, it is the opinion of the undersigned geotechnical engineer that this request for appeal is counterproductive to the best interests of all project stakeholders.

SUPPLEMENTAL COMMENTS – 7236 SARONI DRIVE

There has been some concerns raised about a tree fall on the adjacent property at 7236 Saroni Drive (Park) that affects the stream flow at the downstream end of the current project reach near the southeast end of your lot. Letters were prepared by Tony Walcott, Arborist dated December 15, 2018, and also Vandivere of Clearwater Hydrology dated December 17, 2018, that suggest this tree most likely was positioned on the Park property prior to falling. Recent site observations by the undersigned support this conclusion.

This tree fall on the right bank has contributed to disrupting the stream flow in this local area, along with a submerged stump now exposed in the center of the stream, and some erosion has resulted below an oak tree on the opposite (left) bank just downstream of the current project reach. The downed tree will be removed as part of the CH creek stabilization measures and re-purposed as a rootwad in an adjacent area on the right bank near the property line, which should help minimize further stream flow disruption and erosion in this area. Some additional erosion protection measures for the left bank may also be recommended by CH during construction.



CONCLUSIONS

The undersigned has been involved with your lot since 2000 and has observed the conditions along the stream channel behind the house site a total of 3 times prior to construction (twice in 2000 and once in 2009), 2 times during construction in 2010, again after the slide in 2017, and recently at end of January 2019 following a period of heavy rain. The Vigilante property was also observed in 2002 and an engineer from our office observed the entire reach in late 2017. This provides the unique and rare perspective of observing the conditions on the rear slope both before and after the slide.

Over the years, the stream channel alignment has largely remained the same, with a tight meander near the southeast end of the stream on your property. Such meanders are areas where erosion of the steep cutbanks is quite common during peak flow events, as mentioned in the 2000 soil report. It should also be noted that the development of the slide behind the home does not appear to be related to an adverse drainage discharge condition, which would most likely cause a <u>surface</u> erosion problem. In this case, the slide was a slump-type failure more the result of a build-up of excess subsurface pore water pressures (and resulting loss of soil strength) within the slope resulting from elevated groundwater levels, as is common along stream channels during peak flow events.

Finally, the current project appears to address typical problems that arise along stream channels during wet winters and in response to peak flow events such as were experienced in January and February 2017, such as slumping of steep creek banks, areas of toe erosion, stream down-cutting and treefalls. All of these types of problems were experienced along stream channels in other parts of Oakland and in the surrounding area during this time. These are common, naturally-occurring events along stream channels that, in this case, do not appear to be the direct result of any adverse or negligent acts or works of man but are primarily associated with the heavy rains during this time as the main causative factor.

As with all projects of this nature, this office or other qualified professional should observe the work during construction to verify that the geotechnical recommendations and project specifications are suitably followed during the work.

The undersigned engineer has employed accepted geotechnical engineering procedures, and the professional opinions and conclusions have been made in accordance with generally accepted principles and practices at the time the work was performed. This warranty is in lieu of all other warranties, either expressed or implied.

I hope the above information is adequate for your needs at this time. If you have any questions or require additional geotechnical information, please feel free to call me at your earliest convenience.

Sincerely, MUL

William K. Langbehn CE 44039 GE 2327 Principal Geotechnical Engineer

WKL/bhs Copies: c:\...\letters\lum.lt6 Addressee (3, 1 by e-mail) Cesar Quitevis, Oakland Planning (1, 1 by email) William Vandivere PE, Clearwater Hydrology (1, 1 by e-mail)



EXHIBTA

RE: Tree Removal Permit Number DR06-154, 7188 Saroni Drive

Attachment 8

Ranelletti, Darin < DRanelletti@oaklandnet.com>

Wed 2/7/2007, 2:16 PM

To: 'Nicholas Vigilante' <NVigilante@msn.com> Cc: Quan, Jean <JQuan@oaklandnet.com>; Cowan, Richard <RCowan@oaklandnet.com>; 'sgpiper@sbcglobal.net' <sgpiper@sbcglobal.net>; Quitevis, Caesar <CLQuitevis@oaklandnet.com>; Gallagher, Daniel <DGallagher@oaklandnet.com>

Mr. Vigilante:

The proposed development at 7188 Saroni Drive requires the approval of a creek protection permit and design review before construction permits are issued and the tree removal permit is effective. The case planner reviewing the applications for the creek protection permit and design review is Cesar Quitevis. He may be reached at (510) 238-5343. I recommend you contact Cesar to make arrangements to see the file on the project and to submit your concerns regarding the proposal.

Regards,

Darin Ranelletti

Darin Ranelletti, Planner III City of Oakland, Planning and Zoning Division 510-238-3663 direct phone 510-238-6538 fax

From: Gallagher, Daniel
Sent: Wednesday, February 07, 2007 1:13 PM
To: 'Nicholas Vigilante'
Cc: Quan, Jean; Cowan, Richard; 'sgpiper@sbcglobal.net'; Ranelletti, Darin
Subject: RE: Tree Removal Permit Number DR06-154, 7188 Saroni Drive

Mr. Vigilante:

On December 11, 2006, Jansen Lum, owner of the vacant property at 7188 Saroni Drive, submitted a Development-related tree removal permit application to the City's Office of Planning and Zoning. Public notice letters were sent to the adjacent property owners on December 21, 2006. As your property, at 7200 Saroni Drive, is not adjacent to the site of the proposed tree removals, you were not notified of this application. To date, your email below has been the only public comment received.

The application was reviewed and determined to be exempt from CEQA under section 15303. The permit application is being reviewed to determine if it meets criteria to approve the removal of five (5) protected Coast Live Oak trees ranging in size from 9 to 15 inches in diameter. The tree removal permit will include conditions of approval that requires fencing to protect trees to be preserved and that native replacement trees be planted and maintained on site as part of the landscape.

If the permit is not appealed, it will be forwarded to the Building Services Department and shall be held until determinations are made regarding any other permit applications affecting the project. The tree removal permit shall only be issued to the applicant concurrent with or subsequent to all other necessary permits pertinent to site alteration and construction.

Mail - Nicholas Vigilante - Outlook

You requested that a "stop order" be issued. A permit may only be suspended based upon substantial evidence that a permit was issued in error. The Planner assigned to this project is Darin Ranelletti. He can phoned at 238-3663. The plans submitted for this property can be viewed at the Community and Economic Development Agency (CEDA), 250 Frank H. Ogawa Plaza, 2nd floor.

Dan Gallagher Tree Supervisor II Public Works Agency <u>dgallagher@oaklandnet.com</u> phone: (510) 615-5856 fax: (510) 615-5845 -----Original Message-----From: Nicholas Vigilante [mailto:NVigilante@msn.com] Sent: Saturday, January 27, 2007 3:34 PM To: jquan@oaklandnet.com; rcowan@oaklandnet.com; sgpiper@sbcglobal.net; dgallagher@oaklandnet.com Subject: Work Stop Order Request: Tree Removal Permit Number DR06-154

Jean, Richard, Sue, and Dan:

My neighbor at 7236 Saroni received the above notice by mail, but I received no notice whatsoever until January 21 when my neighbor mentioned to me that he had received a notice.

The property to which the Permit Number applies, 7188 Saroni, is closer to me at 7200 Saroni, than my neighbor at 7236 Saroni. Further, I have a landscape easement and agreement on file, with my deed of trust, with the owner of the lot (7198) next to the tree removal permit lot (7188). Therefore, I have a substantial interest in what will occur on that lot.

Therefore, I am requesting that a **STOP ORDER** on removal of these trees be issued immediately until I can review the situation. These trees are Oak Trees, and they were planted by the former owners of 7200 and 7195 Saroni; both families owned their homes and the adjoining lots where the trees in question were planted and are standing.

I realize that in order to build a property on the lot, that some of the trees will need to be removed. I would like to review this matter and provide my comments before the removal work commences. If any effort can be made to save some of them, I am in favor of that.

It is my opinion that if the owner wants to remove all of them, that they probably want to build a large home. The lot is not exactly ideal, and it is situated next to an unsecured storm water drain creek, which will require substantial reinforcement if a house, especially a big one, is built there.

Nicholas J. Vigilante 7200 Saroni Drive Oakland, California 94611 339-6855





jansen lum <jansenlum@yahoo.com> Sun 7/29/2007, 7:38 PM

To: caesar quitevis <clquitevis@oaklandnet.com> Cc: nvigilante@msn.com <nvigilante@msn.com> Caesar,

I spoke with Nick Vigilante yesterday extensively about his concerns regarding the development of my property on 7188 Saroni Dr... We concluded our conversation with the understanding that I would have Mr. William Langbehn, geotechnical engineer, on site to assess the property at its' current state, have him do a more comprehensive review of the area, and provide a proposal for erosion control/site stability for the site to accommodate the residence that I plan to construct. I expect to have his report completed within a week or two. I will submit a copy of his report to Planning, as well as Mr. Vigilante, as soon I receive it. If you have any questions, please call or email me.

Sincerely,

Jansen Lum

7188 Saroni Design Review

Bill McLean < billmclean8300@sbcglobal.net> Sun 8/5/2007, 11:05 AM To: Nick Vigilante <nvigilante@msn.com> Cc: jon.parker@gmail.com <jon.parker@gmail.com> Hi Nick!

Hope you are well.

I just received in the mail from the city a notice about the design rerview and Creek protection permit for the new construction at 7188 Saroni.

The notice notes the project is to be a 3 story 3,317 square foot dwelling on the downslope. To me that sounds like an awfully large home for that site. Nothing else in the area is three stories unless they count a yard on the ground rear as at the Camber's renovation.

Have you reviewed the project application and/or plans for this project? Does it fit in to our neighborhood? And is the creek protected?

We will be going out of town later this week so I will not likely have time to talk with the case planner or review the plans at the city office before the 20th.

All the best,

Bill McLean

Bill McLean billmclean8300@sbcglobal.net cell phone/voice mail 510-734-2687

https://outlook.live.com/mail/id/AQMkADAwATIwMTAwAC0wMzBkLWQzZTEtMDACLTAwCgBGAAADjdyFnjuMfEG8v5IC%2BJJKIwcAM%2FiFMevcU... 1/1

Fwd: NEW APPLICATION/SARONI DRIVE

Heidel Tom <tdheidel@yahoo.com> Sun 8/5/2007, 6:41 PM To: nvigilante@msn.com <nvigilante@msn.com> in case you haven't seen this....

stephanie mccloskey <auntstephy@yahoo.com> wrote:

Date: Fri, 3 Aug 2007 14:05:14 -0700 (PDT) From: stephanie mccloskey <auntstephy@yahoo.com> Subject: NEW APPLICATION/SARONI DRIVE To: mike.petouhoff@yahoo.com, cillesa ullman <cillesa@callahandesigngroup.com>, claudia falconer <Falcondraw@aol.com>, Jim Glosli <glosli@llnl.gov>, Tom Heidel <tdheidel@yahoo.com>, Bernie Bishop <bernie_bishop@msn.com>

COMMENTS DUE:	20 AUG 07
LOT SIZE:	6,866 SQ. FT. (APPX)
HOUSE:	3,317 SQ. FT.
ZONED:	R-30
CREEK PERMIT:	Cat. III

Location: 7188 Saroni Drive (APN: 048E-7330-003-00) vacant parcel adjacent 7192 Saroni Drive (7/24/07) Proposal: New three-story 3,317 square foot single family dwelling on a downslope lot adjacent an existing creek. Contact Person/Phone Number: Jansen Lum (510) 882-0817 **Owner:** Jansen Lum Case File Number: DR 07-327 (CP 06-159) Planning Permits Required: Design Review for new construction and a Category III Creek Protection Permit for new construction 20 feet from the top of a creek bank. General Plan: Hillside Residential Zoning: R-30 One-Family Residential Zone Environmental Determination: Exempt, Section 15303 of the State CEQA Guidelines: New construction of small structures Section 15183 of the State CEQA Guidelines: Projects consistent with a community plan, general plan or zoning Historic Status: Not a Potential Designated Historic Property No Survey Rating: Vacant Lot Service Delivery District: 2 **City Council District: 4** For further information: Contact case planner Caesar Quitevis at (510) 238-6343 or clquitevis@oaklandnet.com.





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CEDA, BUILDING SERVICES **CREEK PROTECTION PERMIT**

PERMIT #:	
CATEGORY:	
FEE PAID:	
RECEIPT NO:	

EXHIBIT

B

1. JOB ADDRESS: 7100 GALONI DR. ASSESSOR'S PARCEL #: 48E - 7330 - 3	6. HYDROLOGY REPORT PREPARED BY: NAME: CLEAR WATCH PHONE: 510-241-183
2. APPLICANT (PROPERTY OWNER) NAME: JANSEN LUM PHONE: 510-982-09 ADDRESS: 1051 NORMOOD AVE	ADDRESS: 2974 ADELINE ADDRESS: 2974 ADELINE BEDICELEY, CO 94703 7. DESCRIPTION OF WORK
OAULAND, CA 94610 3. GENERAL CONTRACTOR: LICENSE #:PHONE: ADDRESS:	8. EROSION CONTROL PROTECTION TO BE USED
Please provide the necessary attachements for #s 4-9.	9. CREEK PROTECTION TO BE USED 10. REQUESTED STARTING DATE:
4. SITE PLAN PREPARED BY: (FOR CATEGORY II, III, IV) NAME: <u>ANSON LUM</u> PHONE: <u>510-882-08</u> (7 TITLE: <u>ARUTITELT</u> ADDRESS: <u>1890-LINEOL</u> <u>1057</u> NORWOR OALLAND, 94-61	12. APPROVALS: ENGINEERING SERVICES:
5. CREEK PROTECTION PLAN PREPARED BY: (FOR CATEGORY II, III, IV) NAME: <u>II</u> PHONE: TITLE: ADDRESS: <u>II</u>	ENVIRONMENTAL SERVICES:

This permit is issued pursuant to all provisions of City of Oakland Ordinance No. 12005 C.M.S., "Creek Protection Ordinance". This permit is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under this permit or arising out of permittee's failure to perform the obligations with respect to this permit. The permittee shall, and by acceptance of this permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims or actions brought by any reason for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under this permit or in consequence of permittee's failure to perform the obligations with respect to this permit. Violations of the provisions of the Creek Protection Ordinance are subject to fines and penalties specified under Section 20-3.030 of the Ordinance.

CONDITIONS OF PERMIT

a. All other permits pertinent to the work shown on Item 7 above shall be obtained prior to commencement of work.

- b. This permit is valid only when signed by the Chief of Building services or his authorized representative,
- c. This permit shall be available at the work site at all times.

d. Work shall be conducted in such manner as to minimize dust, debris, noise and impact to the watercourse.

- e. Permittee shall be responsible for cleaning and repair of damage to the surrounding areas resulting from the work. f. Left Blank

g. Permittee shall implement the approved creek protection plan as further specified in the Special Conditions below.

h. Permitee shall implement creek protection measures specified on Item 10 above and in the creek protection brochures provided by the City. i. Special Conditions: See attached Special Conditions.

APPROVED BY THE CHIEF OF BUILDING SERVICES

BY:

DATE:

CREEK PROTECTION PLAN (for Category III and IV work only)

			·		6 a 1
JOD Address:	SARONI D		·까루미디행의연음 ·	یسر دو بواندر د	
Assessors Parcel Number:	48E - 7331	2-3			
Description of Work:			. ,		

Applicant (Property Own Address: <u>1057 NC</u> OALCANC	2WOOD AVE	<u>Phone No. 510 - 882-</u> 0817
General Contractor:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	···/
Address:		Phone No Phone No.
		Phone No Phone No.
Primary Contacts:	1	Phone No
Phatester	4	Phone No

The following are elements that must be addressed in a Creek Protection Plan that is to be prepared by the applicant and submitted for City review prior to the issuance of a Creek Protection Permit for work that is determined by the City to fall into Categories III and IV as described in the Ordinance. The plan may be prepared by the owner of the property, an architect, engineer, or contractor and will obligate the applicant to implement the approved provisions of the plan.

List of informational materials on creek protection provided to workers on the site:

1

Litter prevention measures:

Dust control measures:

HYDROLOGY REPORT

Job Address: 7188 Saroni Drive, Oakland, CA

Assessor's Parcel Number: 048E-7330-003

Description of Work:

A single family residence is proposed for this property. The building is proposed for the western portion of the lot above the creek on the right bank (downstream convention). The creek is an un-named tributary of Shepard Creek. No work is proposed for the creek or for the creek banks below the estimated Water Surface Elevation (WSEL) for the 100-yr. design event.

Applicant (Property Owner): Jansen Lum Address: 7188 Saroni Drive, Oakland, CA

____ Phone No.: (510) 882-0817

The following are elements that must be addressed in a Hydrology Report that is to be prepared by a licensed civil engineer with creek hydrology expertise and submitted for City review prior to the issuance of a Creek Protection Permit for work that is determined by the City to fall into Category IV as described in the Ordinance.

Department of Fish and Game approvals:

No work is proposed for the streambed, on the banks below the estimated 100-yr. WSEL, or in wetted areas. Consequently, a Streambed Alteration Agreement is not required.

Alameda County Flood Control approvals:

No modification of channel cross-section or available flow area is proposed.

5 yr., 10 yr., 25 yr., and 100 yr. flows (provide flows only for storm recurrence intervals determined by the City; attach supporting hydrology map and calculations):

		Pro	e-Development/W	ork	Post Development/Work					
•	5 yr. flow	22 cfs		•	22 cfs		۴९. ۳.			
	10 yr. flow	29 cfs		•	29 cfs	· · · ·	•			
	25 yr. flow	49 cfs			49 cfs					
. '	100 yr. flow	77 cfs		· .	77 cfs	, , , ,				

Calculations for peak flow rates for the property are attached. Enclosed Figure 1 provides the watershed delineation for these calculations. The Rational Method after Rantz (1971) was used to calculate the peak flow rates since this method provided a conservative (i.e. relatively high) estimate of flows.

HYDROLOGY REPORT (Continued)

5 yr., 10 yr., 25 yr., and 100 yr. water surface elevation (WSE) (provide WSE only for flows calculated above; attach supporting hydraulic calculations):

•			Abserving AA OU SE	T ast measuobuseum
	5 yr. WSE	2.2 ft. max depth		2.2 ft. max depth
	10 yr. WSE	2.4 ft. max depth	, un quiz , an , , , , , , , , , , , , , , , , ,	2.4 ft. max depth
	25 yr. WSE	2.9 ft. max depth	· · · · · · · · · · · · · · ·	2.9 ft. max depth
	100 yr. WSE	3.4 ft. max depth	•	3.4 ft. max depth

Pre-Develonment/Work

Profile of stream bed, WSE, and top of bank/ground elevation across the property and upstream and downstream 100 feet in each direction (attach profile). Profile/depth calculations completed with HEC-RAS. See attached HEC-RAS WSEL figure for profiles.

Impact of future development in the area (unrelated to the proposed project) on flows:

The area is composed of low to medium density, single family residences. Increase in density of development in this region of the Oakland Hills is unlikely. If this portion of Oakland is considered to be fully developed, then minimal impact on flows can be expected from future development. However, if unforeseen future development increase the impervious surface area in this region significantly, then an increase in future flows may occur.

Creek bank stability (before and after the project):

The creek banks on the property are steep (generally greater than 2H : 1V) and are covered with a type of ivy. The steepness of the banks is a concern for the long-term stability of the banks. The residence is proposed for the top of the right bank. The effect on bank stability created by the proposed residence has been evaluated by a geotechnical engineer, William K. Langbehn, in a report dated 5 December 200. Assuming that the bank is geotechnically/structurally stable with the construction of the residence, the creek banks need to be protected from scour/erosion as discussed in the special circumstances section.

Impact of proposed work to direction of flow:

The proposed work will not alter the direction of flow.

Upstream and downstream conditions (before and after project construction):

Just upstream of the Lum property, the un-named tributary exits a culvert. From the culvert to the Lum property (moving downstream), rock has been placed in the creek channel to protect the channel from erosion. The creek has steep banks acros the Lum property and downstream of the property. Just downstream of the Lum property a foot bridge crosses the creek. Across the Lum property and extending downstream of the property, the right bank of the creek is covered with a type of ivy. The site layout with upstream and downstream regions is shown on the attached plan sheet HYDR-1.

Location of major drainage facilitles (e.g. trash racks, culverts, discharge points, etc.; attach location map):

The two major drainage related facilities are the culvert just upstream of the Lum property and the foot bridge just downstream of the property. Both are shown on enclosed plan sheet HYDR-1. The culvert comprises the upstream end of the creek. This culvert crosses under Saront Drive to a drop inlet on the northern side of this road.

HYDROLOGY REPORT (Continued)

Cross sections (attach):

Cross sections and a longitudinal profile for the creek are provided on the enclosed plan sheet HYDR-2.

Proposed improvements/mitigations to the creek:

No work is proposed in the creek channel or in areas that are estimated to be inundated by the 100-yr. design event. As a result, no improvements or mitigations are currently proposed for the creek.

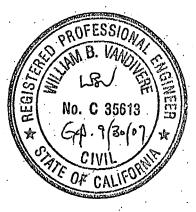
Impacts on exist vegetation or wildlife within affected riparian corridor:

Long-term impacts to vegetation or wildlife in the riparian corridor are not expected from this project since the project involves constructing a residence along Saroni Drive between two existing residences. In the short term, construction activities may temporarily impact vegetation or wildlife.

Special circumstances/additional information (attach additional pages as needed):

Given the steep banks, any erosion along the toe of the creek bank could destabilize the bank. Currently, ivy covers the bank and appears to provide some minimal protection from bank erosion. Vegetation or other protection needs to be maintained on the banks to prevent erosion. If vegetation needs to be removed from the banks for construction, then appropriate erosion control blankets should be installed to protect the banks while vegetation is being re-established. After completion of construction, the property owner should periodically, visually inspect the creek channel and banks for signs of erosion of the lower banks. If erosion of the creek bed or lower banks occurs in the future, biotechnical bank stabilization measures may need to be installed to ensure continued bank stability.

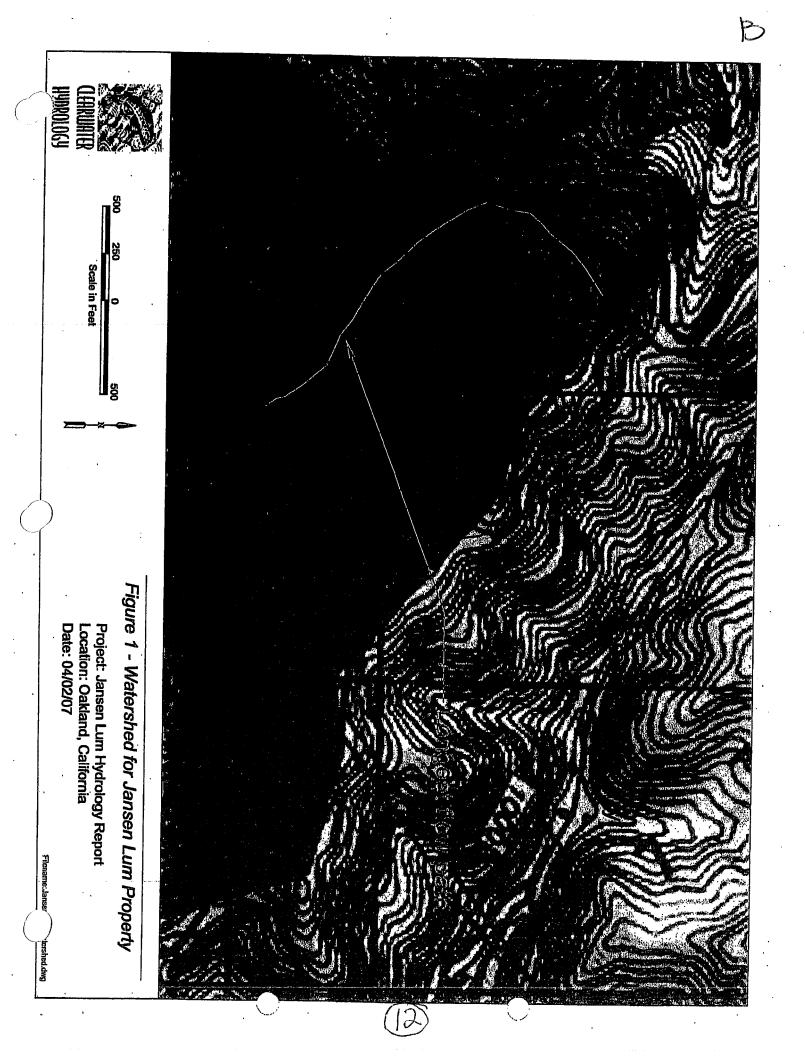
For guidance in selecting appropriate erosion control materials, longitudinal profiles of velocity and shear stress from the HEC-RAS modeling of the property are enclosed (see HEC-RAS Velocity Figure and HEC-RAS Shear Stress Figure). Simulated velocities were less than 4 fps. However, modeled shear stresses are very high (> 10 lbs/sq. ft.). The high shear stresses are likely due to the steep longitudinal slope in the upper portion of the creek profile. If shear stress information is required for specifying erosion control materials, a better estimate of shear stresses for this application can likely be calculated from the depth-averaged velocities provided by HEC-RAS in combination with an assumed logarithmic velocity profile and the "law of the wall" to determine bed shear stress.

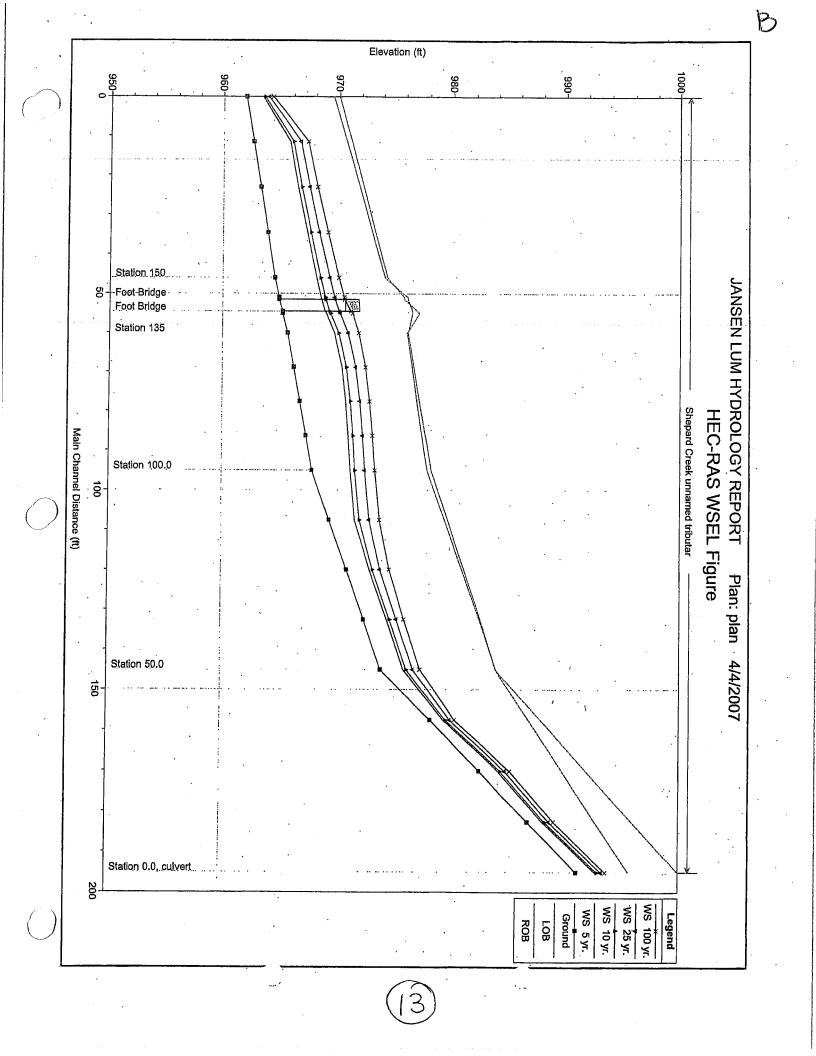


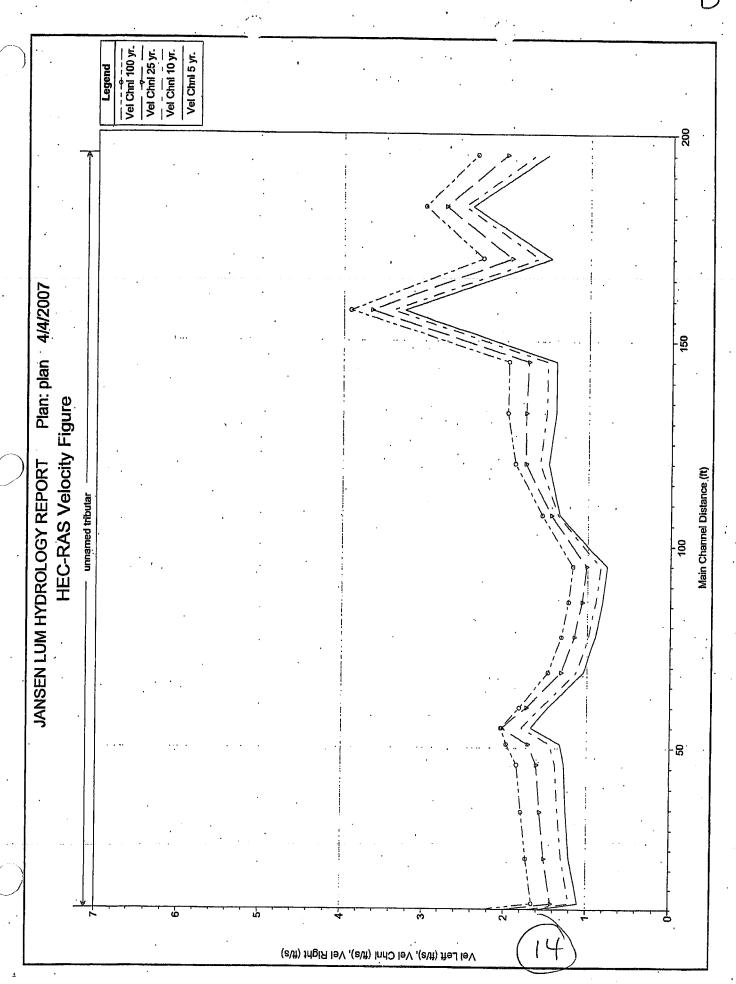
Prepared by: Nick Martin, Hydrologist & William Vandivere, Supervising Principal

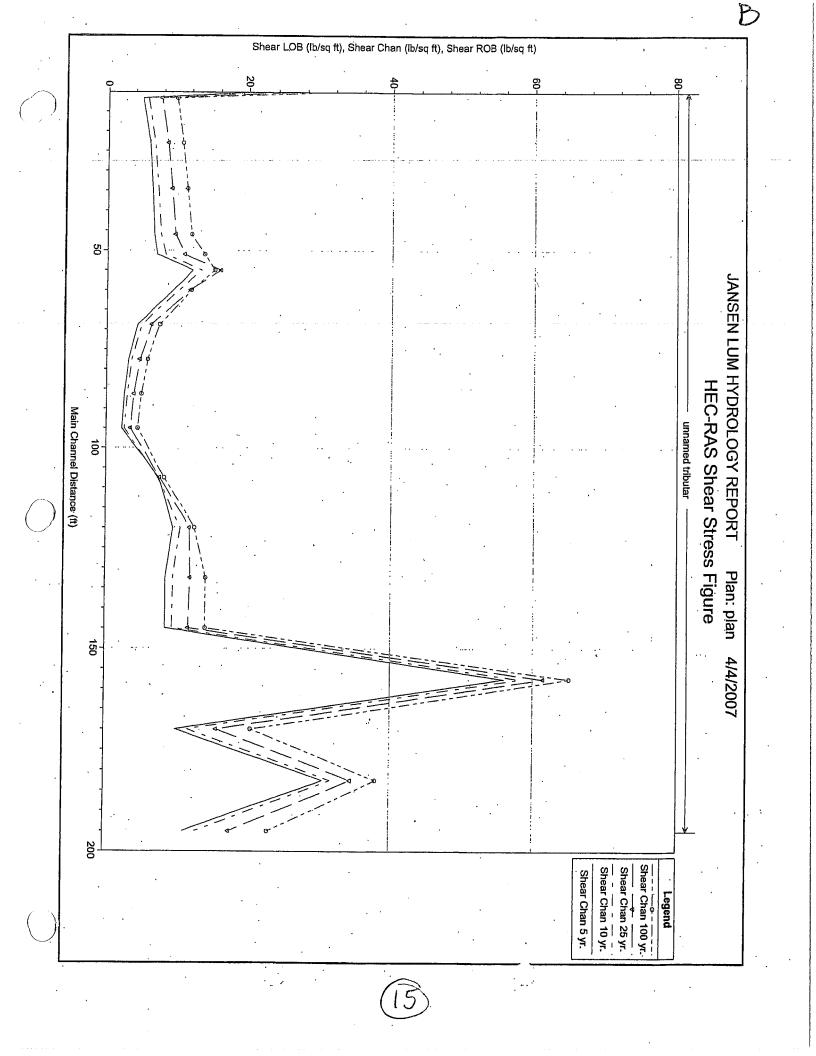
Date: April 4, 2007

(NOTE: Signature and stamp are required.)









Comparison of Calculated Peak Flow Values Hydrology Report for Jansen Lum Property

Tributary of Shepard Creek @ Lum Residence

0.1 mi2

•		•		design value (cfs)**	16	2	22		29	40	f	62		
	(1971)			Rational Method	16		77	6	23	49		62		
	Rantz (1971)		flood frequency flood from and		10	20	-07	26	22	3/	<u>67</u>	5	n/a	
Crinnen (1077)	(1/61) Jiannin		flood frequency		·	13		07	24	0	40		00	
Waananen and Crimon (1677)	÷.	gauged station	extrapolation	. 2		18	20	07	45		/0	1/2		
Deak			(cfs)	02	Ę	3	010		025	020	2025	0100		

rainfall. The Rational Method used for design value and this value might be slightly high Leopold and Dunne, Fig. 16-18 suggests about 10 cfs bankfull discharge for 0.1 mi2 basin with 30 in/yr

** Rational Method ideally is employed with basins no larger than 0.5 mi2.

The Rantz (1971) flood frequency relationships were derived primarily from basins with watersheds Waananen and Crippen (1977) flood frequency relationships derived using a significant number

of watershed with area less than 10 mi2 and using watersheds with areas as small as 0.01 mi.2.

Clearwater Hydrology

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** see below for urbanization adjustment explanation	Calculated Values Q2 Q5 Q10 Q25 Q50	Flood Frequency Equations Q2 = Q5 = Q10 = Q25 = Q50 =
justment explanation	6.5 cfs 14.0 cfs 20.1 cfs 29.5 cfs 54.8 cfs	0.069 A ^A 2 A ^A 7.38 A ^A 16.5 A ^A 69.6 A ^A

1.30	1.40	1.50	dj. Factor** Adj	0.847 P^	0.912 P^	0.922 P^	0.925 P^	0.913 P^	
26	20	10	. Discharge (cfs)						

1.30 1.25 1.23

67 37

0.511	0.797	0.928	1.206	1.965

Method a)

Basin Slope Altitude Index (H) Precipitation (P) Watershed for Tributary to Shepard Creek above Lum Residence متمرير معرفي (۲۰۵۰ عند) متمرير معرفي (۲۰۵۰ watershed for Tributary to Shepard Creek above Lum Residence Т И 62.0 acres 0.1 mi2 30 in/year 0.21 1350 85% elevation 950 10% elevation 1 2 --i>

** Alameda County map

** hand calc. on worksheet from CAD file

method a)

flood frequency equations

method b)

Rational Method

Rantz (1971) provides two methods for determining peak/design flood discharges

Hydrology Report for Jansen Lum Property Peak Flow Calculations Using Methods in Rantz (1971)

Calculation of peak/design flows

Hydrology Report for Jansen Lum Property

Peak Flow Calculations Using Methods in Rantz (1971)

Method b) ပ

Rational Method

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C*i*A

Coefficient

* using Figure 5 and assuming 15% impervious area

	0.20	0.22	0.26	0.38	0.43	0.47
C value						
Ş	20					

Intensity	
Precipitation	

Determine time of concentration = overland flow time plus channel flow time

Overland flow

8

** asume overland flow over top 600 ft. average overland flow slope

1350 ft 1260 ft elevation @600 ft from top top elevation

slope

0.15

from Figure 6 overland travel time given slope and C time - 2 time - 5

19.0 minutes 18.0 minutes 22.0 minutes 21.0 minutes 20.0 minutes

> time - 25 time - 50 time - 10

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							ļ			rology	Clearwater Hydrology 4/2/2007	
	·			0.85 0.91		0.79	100			•		
				0.78		0.68	50				•	
				0.57	•	0.48 0.58	10		•			
			•	0.44		0.38	ט וע					
				0.61 0.66		0.57	100		30.0 30 min	30.0		
·				0.56		0.49	50 50		•			
				0.41 0.48		0.42	2 1 c		• • •	· · ~ ·		·
				0.32	•	0.27	א וט					
			•	30	inches)	annual precip (inches) 20		s)	duration (minutes) 15 15 min			
									ntz (1971)	from Table 4 in Rantz (1971)	frc	
4			2.19	0.855	•		23,4					
	•		1.66	0.816			25.7		time - 50			
(1.35	0.655			27.5		time - 25			
			1.14	0.571			30.2		time - 10			
9			hour)	(inches) 1 (in/ 0.445	storm precip (inches) I (in/hour) 0.445		31.2		time - 2		·	
			4 per below	d from Table	** interpolated from Table 4 per below							
••			0.4	007.0				• .	tion .	Time of concentration	—1	
			7.7	461.5 384 6			4.2 5.0		v100	·· ····		
			8.5 8.5	512.8	•		× 3.8		v50		·	
			0 9 2	549,4			3.5		v25		•	
	•						ა. ა.ე		v5			
			minutes	min	seconds	travel times	ა ჩ	ities ft/s	assumed velocities ft/s v2		•	
			**calculated from Watershed Topo in CAD	from Watersh	**calculated		1923	_	channel length			
									••••	Channel flow		
•						17.0 minutes	17.0		time - 100			
			• • •	y (1971)	Hydrology Report for Jansen Lum Property Peak Flow Calculations Using Methods in Rantz (1971)	ort for Jansen ns Using Meth	vdrology Rep w Calculation	Hy Peak Flo	···· ·-· ·		• • • •	,
•							•		•	•		B

Hydrology Report for Jansen Lum Property Peak Flow Calculations Using Methods in Rantz (1971)

¢ 60.0 1 hr = 60 min

0.48	0.61	0.73	0.86	0.93	1.00
7	5	10	25	50	100

0.84 0.99 1.15

0.56 0.72

Calculated flow rates

Q

025 025 0250 0250 0250 0250 0250

t

assuming 15% impervious for 3-6 units per acre from Waananen and Crippen (1977) and Rantz (1971). This assumption is likely conservative. The result is 30% developed and assume 30% sewered. The table below provides the adjustment factors from W&A Figure 4 and Rantz Figure 3.

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** drainage area difference for gauged versus ungauged exceeds 5%

			Qa50	0161	10025				Ca5	(Qa2	ulscharge from gauged	
	11000	9330	2000	061/	4122	4030	1000	0067	20122		ged	
. b100		b50		704		h10		105			area evnor	
0.88	60-D		0.89		08.0		16.0	0 01	76.0	 and conversion in the equations	ont from on the	

**Note the precip is 24 in/yr where site is about 30.0

Slope Area (Ag) Precip (P) Altitude Index (H) 0.013 37.5 mi2 24 in/year 0.4

11181000

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- USGS . 6

#534

San Lorenzo Creek, Hayward, CA

Gauged station =

Method a)

Basin Slope

0.21

1.2 1.2 Altitude Index (H)

ĪĪ

1350 85% elevation 950 10% elevation

** hand calc. on worksheet from CAD file

Precipitation (P)

62.0 acres

30 in/year

** Alameda County map

** calcualted from CAD using topo map and area command

Peak Flow Calculations Using Waananen and Crippen (1977) Methods Hydrology Report for Jansen Lum Property

Calculation of peak/design flows

Waananen and Crippen (1977) provide 2 methods - a) gauged station extrapolation and b) regional flood frequency equations Region = Central Coast

Shepard Creek Tributary at Lum Property

Hydrology Report for Jansen Lum Property Peak Flow Calculations Using Waananen and Crippen (1977) Methods

for ungauged (Tributary to Shepard Creek)

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. = nO

4.6	13.0	21.7	35.8	46.4	61.3	
Qu2	Qu5	Qu10	Qu25	Qu50	Qu100	

(see helow)**	(MOISO SAC					
Qu = Qg * (Au/Ag) ^b Flow Value Adjsuted for Urbanization (see helow)**			•		•	
Qg * (/ Adjsuted for	•					
Qu = Flow Value	2	18	28	45	57	74

Method b)

Central Coast Region

equations

1	-1.10	01.0	-0.78	100	-0.04		Inc.u-		-0.41		-0.331
2 54 HA		1 Q5 HA	1 2221	1 61 HA		1 JELLA	11/03-1			0 04 LIN	V.04 IT
0.92 Pv		0.911Pv		0.90 Pv		0.89 PA		0.89IPA		0,88,04	
U.UUDI A	0 118 AA	- VI0110	0 582 14	W non-n	2 01 10	W 16.2	VV C O	A 2.0	10 7 6 0	13./ A.	
			1017	100					0100 =		

Calculated Values

92 = 02

3.4	96	15.6	7 AC	20.0	42.0	
= 77	Q5 =	Q10 =	025 =	050 =	Q100 =	

assuming 15% impervious for 3-6 units per acre from Waananen and Crippen (1977) and Rantz (1971).

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This assumption is likely conservative. The result is 30% developed and assume 30% sewered. The table below provides the adjustment factors from W&A Figure 4 and Rantz Figure 3.

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23

Urbanization Adjustment** 02 = 05 = 025 = 025 = 025 = 0100 =

 $\frac{1.40}{1.23}$

<u>3</u> 20

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D

Hydrology Report for Jansen Lum Property Peak Flow Calculations Using Waananen and Crippen (1977) Methods

Adj. Factor

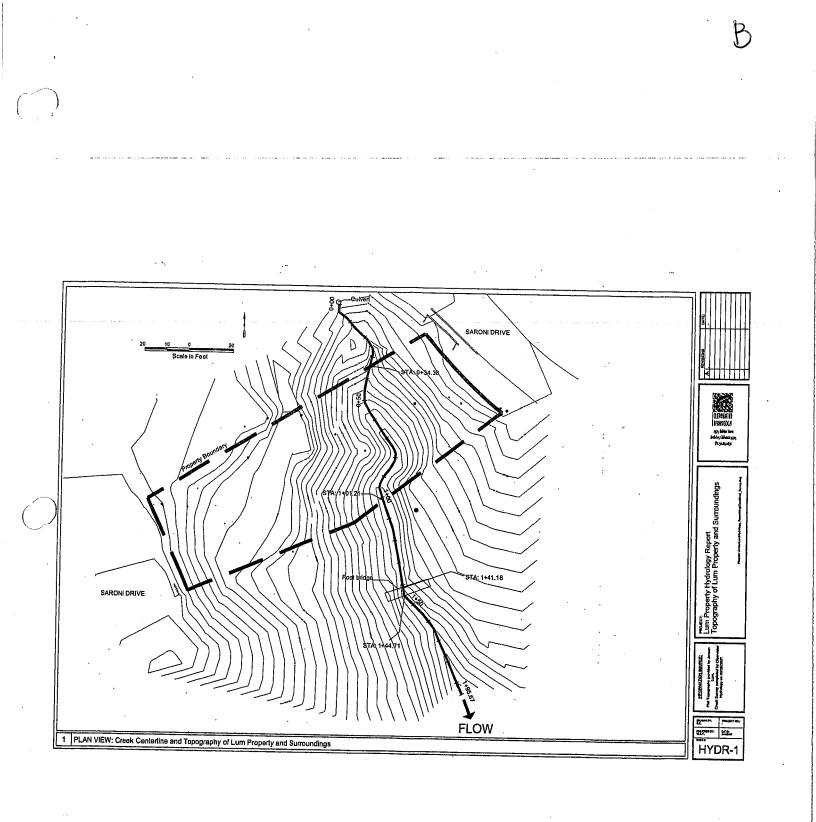
Adj. Discharge (cfs)

•

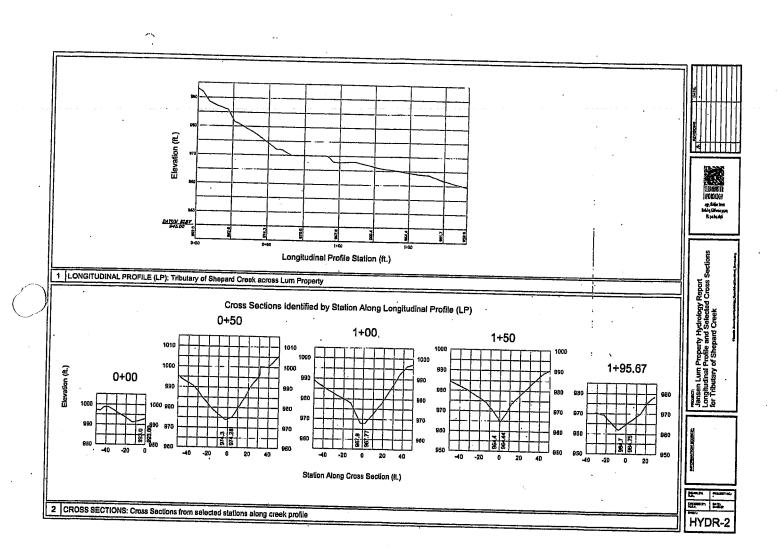
1.50

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WILLIAM K. LANGBEHN CE GE

1034 Richmond Street, El Cerrito, CA 94530

fax (510) 558-8028

Geotechnical Engineer phone (510) 558-8028

December 5, 2000

Bill Boyd 6114 LaSalle Avenue, #232 Oakland, California 94611

RE:

Geotechnical Investigation Lot 988, Forestland Extension 7188 Saroni Drive Oakland, California

Dear Mr. Boyd:

In accordance with your request, the undersigned engineer has completed a geotechnical investigation for a proposed new residence to be located on a vacant property at the address cited above in Oakland, California. The following report presents the results of my research, field exploration, and geotechnical analyses along with suitable geotechnical criteria for the design and construction of the project.

PROJECT DESCRIPTION

It is my understanding that the subject property will be developed for a custom, wood-framed, oneand two-story single-family home with an attached garage on the upslope side of the building area near the street. As currently planned, the development of this moderately-inclined, downslope site will require only minor grading, primarily for retaining wall excavation in the garage and building areas and as required near the steep creekbanks. Surface and subsurface drainage improvements would also be included as part of the development.

PURPOSE

The purpose of this investigation has been to evaluate the soil and geologic conditions at the site in the vicinity of the proposed new construction and immediately adjacent areas. The information obtained during the course of the investigation has been used to develop appropriate recommendations for design and construction of the geotechnical aspects of the project, including earthwork, new building and wall foundations, retaining walls, slabs-on-grade, and both surface and subsurface drainage measures.

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SCOPE OF WORK

As outlined in a proposal dated October 5, 2000, the scope of work performed for this investigation included the following tasks:

- A site reconnaissance of the existing surface conditions.
- A review of the relevant geologic maps of the area and related reports and literature, including information you obtained from City records for the adjacent lot at 7192 Saroni Drive (Lot 989).
- Examination of historic, single and stereo-paired vertical aerial photographs.
- Subsurface exploration consisting of drilling and sampling with portable and truck-mounted equipment a total of two exploratory test borings to characterize the soil and bedrock materials at the subject site.
- Laboratory testing of the soil and bedrock samples obtained from the borings.
- Evaluation and geotechnical engineering analysis of the collected data.
- Preparation of this summary report in compliance with current geotechnical standards to present the relevant findings and conclusions, along with suitable recommendations for the geotechnical aspects of the project appropriate for the observed subsurface conditions and geologic environment.

Although not anticipated at this site, it should be noted that this investigation did not include any assessment of environmental hazards or contamination that may be present.

Due to changes in geotechnical engineering standards and possible environmental changes in the site conditions that could occur with time, this report should not be relied upon for a period of more than three years after the date of issuance without a written update from this office.

PUBLISHED DATA

The subject site is located in the San Francisco Bay Area within the central portion of the Coast Ranges Geomorphic Province, an area typically characterized by steeply sloping hillside areas separated by incised drainages, creating a knob and swale, hillside and canyon topography in this region. The overall geologic structure of the area roughly parallels that of the Hayward and San Andreas faults, generally trending northwest-southeast. In general, landsliding in the site vicinity is relatively common and is primarily related to clayey soils, weak and fractured bedrock materials near the Hayward fault zone, and other factors. Colluvium and valley soils tend to be moderately to highly expansive clays, while the topsoil on ridge sites tends to be more sandy and silty clay loam.

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Site Topography and Surface Conditions

As shown on Figure 1, the subject site is located on moderately to steeply sloping hillside terrain within a large secondary drainage swale that forms a prominent side canyon or valley along the north branch of Shepherd Creek. (USGS, 1959). The site is situated on the southwest bank of an incised stream channel, located on the rear portion of the lot and running along the axis of the valley floor through this area. The site is at the transition from the more steeply sloping terrain on the flank of the ridge upslope of Saroni Drive and the more gently sloping terrain along the creek channel on the valley floor.

The lot is about 45 to 50 feet wide and about 145 to 160 feet in length. The proposed building area is located on the front half of the lot near the street on the west side of the lot, with a transition to steeper slope inclinations along the stream channel at the rear of the building area, as shown on Figure 2.

The property appears to have been subject to prior fill grading over most of the upper portions of the lot as well as some minor creekbank sloughing at various times in the past. Existing slope inclinations at the site vary from about 4:1 (horizontal to vertical) and locally flatter in the proposed building area to about 2:1 and locally as steep as 1.5:1 near the street. However, some sections of the creekbanks are as steep as about 1:1 behind the building area.

Vegetation at the site consists of brush and small trees in the proposed building area, with dense brush and numerous large trees along the stream channel at the rear of the lot. Some erosion is also occurring along portions of the streambanks, leaving locally over-steepened slope conditions as noted above. In addition, the City is apparently restoring the streambank adjacent to a storm drain culvert on the adjacent lot to clean up mud and debris from a 1998 failure on the north side of the creek channel near the rear property line.

Geology and Landslides

The geologic map published for this area by the USGS (Radbruch, 1969) indicates that the subject site is at the contact between hillside areas underlain by Eocene-aged sandstone and shale on the west and slightly younger sandstone and siltstone of the Sobrante Formation (included with the Monterey Group) on the hillsides to the east. This bedrock contact is shown as a buried or inferred fault contact along the stream channel and the transition to alluvial and colluvial soils is mapped on the valley floor about 100 feet further downstream of the site. The bedrock unit in the building area on the west side of the creek is described by Radbruch as a sheared and fractured sandstone interbedded with soft, silty sandstone, siltstone and clay shale.

The text accompanying the Radbruch map indicates that the bedrock in this area typically forms moderately steep-sided ridges and valleys with slope stability and foundation conditions that vary with the material from good to poor. In places, bedrock may stand in 1:1 cuts, but the rock is also subject to sliding if wet and sheared. In addition, weathered rock is typically soft and soils may be as much 15 feet thick in ravines.

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A more recent geologic map for this area (Crane, 1995) also indicates that the site is at the contact between the Eocene-aged sandstone and shale units on the west and the Sobrante "sandstone" to the east. This contact is shown by Crane to be a thrust fault contact with tightly-folded bedrock units to the west. Such bedrock faults shown in this area by Radbruch and Crane are not considered historically active fault traces by the State, as outlined below.

The preliminary landslide map published for this area by the USGS (Nilsen, 1975) indicates that the subject site is at the transition from alluvial valley deposits along the stream channel to hillside areas underlain by bedrock on the ridgeline to the west. However, the northwest corner of the site is mapped at the southeast toe of a possible landslide deposit that occupies the minor secondary drainage swale extending upslope to the northwest of the site. This feature is queried by Nilsen to indicate some uncertainty in the limits or positive identification of the mapped landslide deposit. It should also be noted that the Nilsen slide maps are preliminary in nature and rely solely on the interpretation of aerial photographs, serving to "red-flag" those areas where more detailed sitespecific studies may be appropriate. Potential landslide hazards on or near the site were also further evaluated for the current study by examination of historic aerial photographs, as discussed below.

The geotechnical report for the adjacent lot (Abrille, 1965) although dated does include two exploratory borings that confirm the presence of at least 5.0 to 7.5 feet of unengineered fill on the adjacent parcel, underlain by natural soils. No bedrock was observed in the borings to depths of about 8.0 to 9.5 feet and no landsliding was mentioned, although a tension crack was noted along the top of the steep streambank.

Faulting and Seismicity

The subject site is located within the seismically active San Francisco Bay Area. However, the property is not located within a State of California Earthquake Fault Zone (Alquist-Priolo Special Studies Zone) for active faults (Hart, 1994). There are no known historically active faults on or immediately adjacent to the subject site according to the State. Thus, the potential for on-site ground rupture from earthquake faulting is considered to be low. Due to the relatively dense, clayey soils, the potential for seismically-induced soil liquefaction is also considered to be low as well. However, because of the possible presence of alluvial sand lenses near the stream channel, the risk of local soil liquefaction may be considered moderate along the existing stream banks. The primary seismic risks at the site are thus strong ground shaking and possible ground lurching during potential major earthquake events on one or more of the active faults in the region. The inactive faults mapped by Crane and Radbruch in this vicinity, although apparently not capable of producing measurable earthquake events, have resulted in deeply weathered and sheared bedrock materials as well as a deep colluvial soil mantle, as discussed in subsequent sections.

The known active faults capable of producing earthquakes that would cause the highest ground accelerations at the subject sites are the northwest-southeast trending Hayward, Concord, Calaveras, Green Valley, Rodgers Creek and San Andreas faults. The active Hayward fault is located approximately 1.1 miles (about 1.8 km) to the southwest of the site. In addition, the active Calaveras and Concord faults are located approximately 12 miles to the southeast and about 13.5 miles northeast of the site, respectively.

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The San Andreas fault passes to the west of the San Francisco peninsula and is located approximately 20 miles to the southwest of the property. The Green Valley and Rodgers Creek faults are considered to be the northern extensions of the Concord and Hayward faults, and are located about 18 miles north-northeast and about 24 miles northwest of the site, respectively (Jennings, 1994).

Due to the proximity of the subject site to these major faults, the primary seismic hazard at this site is moderate to severe ground shaking during a major earthquake on one of the nearby faults in the region. In addition, due to the deep colluvium and the locally steep terrain, some potential risk of ground lurching is also present, particularly on the steeper slope areas along the stream banks. Therefore, the proposed construction should be designed to meet or exceed the seismic design criteria as outlined in the latest revision of the Uniform Building Code (1997). Since the Type A Hayward fault (MG max = 7.1, Slip Rate = 9 mm/yr) is located less than 2 km from the site, the following criteria apply in this case: Seismic Zone 4, Soil Profile Type SD, Zone 4 Near-Source Factors $N_a = 1.5$ and $N_v = 2.0$. Some additional structural redundancies may also be appropriate to help mitigate the effects of potential ground lurching hazards, as discussed in the Conclusions section below.

EXAMINATION OF AERIAL PHOTOGRAPHS

Three stereo-pairs and three single, black and white vertical aerial photographs were examined with a stereoscope to observe historic site conditions and evaluate any relevant landslide or development history in the area. The stereo-paired photographs examined for this study were taken in 1947, 1957, and 1983, and the single photographs also examined were from 1946, 1975 and 1992.

The early photographs taken in 1946 and 1947 indicate that the area was still largely undeveloped although Saroni Drive and other major streets were visible as early as 1946. The subject site and adjoining lots were vacant during this period and only a few lots were developed or under construction in the vicinity at this time. The subject site was partially obscured by large trees on the adjacent lots, but appeared to be located on the west side of an incised, brushy and tree-lined stream channel along the axis of the valley floor. The site also appeared to be at the southern margin of a broad, slightly hummocky swale area that occupies the hillside area to the northwest of the site. No obvious indications of any landslide activity was noted within this swale as suggested on the Nilsen map or in the immediate vicinity of the subject site in these pre-development photographs.

By 1957, some of the lots in the vicinity had been developed for single-family residential homes including the adjoining lot to the south at 7192 Saroni Drive. The subject site remained vacant but covered by bare soils on the upper part of the lot near the street, while the rear of the lot and the creek channel appeared largely undisturbed with extensive brush and tree-cover still present. The 1975 photograph indicated additional construction and ongoing development in the area, including the homes on the upslope side of Saroni Drive and the corner lot at 7200 Saroni Drive, two lots to the north. The subject lot and the adjacent lot to the north were still vacant and both lots were covered by bare soils, possibility indicating continuing fill placement. However, no obvious indications of recent landslide activity or other threatening slope stability problems were noted on or in the immediate vicinity of the subject site in these aerial photographs.

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Aerial photographs taken in 1983 also show bare soils on the subject lot and near the north property line, with other site conditions generally similar to 1975. Photographs taken in 1992 show that the subject site was still vacant and covered by dense brush and isolated trees, as today. Some disturbed ground and bare soils were noted on the lot to the north and numerous large trees were visible along the stream channel, but no major changes in the surficial site conditions were observed compared with earlier years. It should be noted that no obvious landsliding or other stability problems were identified on or in the immediate vicinity of the site in any of the aerial photographs reviewed for this study.

SUBSURFACE EXPLORATION PROGRAM

The subsurface conditions at the subject site were investigated by drilling and sampling a total of two exploratory borings at the approximate locations shown on the Site Plan, Figure 2. The borings were located near the front and rear perimeter of the currently proposed building area on the upper portion of the lot near the street as shown on Figure 2.

Both of the borings were advanced using conventional sampling equipment and a portable, "Minuteman" drill rig. The borings were extended to maximum depths on the order of approximately 22.5 to 28.5 feet. Samples of the surface and subsurface materials at each location were recovered at selected intervals using conventional drive samplers. The samples were sealed and transmitted to the laboratory for appropriate testing, as discussed in the following section and in Appendix B. Further details of the subsurface exploration program are discussed in Appendix A. The detailed results of the subsurface exploration are presented on the attached boring logs, which are also included in Appendix A.

The subsurface conditions encountered at the site are summarized below.

<u>Soils</u>

As suspected from the aerial photographs and the known site history, the surficial materials encountered in both of the borings consisted of fill soils that generally appeared to be derived from natural soil and bedrock materials typically found in this area. The fill encountered in Boring 1 generally consists of a firm to stiff, sandy and clayey silt with rock fragments and extended to a depth of about 10 feet at this location. The fill in Boring 2 was described as a very silty and very sandy clay with gravels and rock fragments and extended to a depth of about 8.5 feet at this location. The fill soils in both borings were underlain by the natural soil profile.

The natural soils encountered beneath the fill in both borings consisted of old topsoil underlain by a well-developed colluvium layer that transitioned to residual soils and completely weathered bedrock at depth. A deeper soil profile and no intact bedrock were observed in Boring 1, located closer to the creek, while intact bedrock was observed from a depth of about 19.5 feet in Boring 2 near the street.

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The native topsoil in both borings consists of firm to stiff, very clayey silt and very silty clay with occasional roots, pebbles and rock fragments. The topsoil extended to a depth of about 14 feet in Boring 1 and to a depth of about 12.5 feet in Boring 2, with a gradual transition to the underlying colluvium. The natural topsoil is described as having a low to moderate plasticity and a low expansion potential on the basis of the Atterberg limits tests.

The colluvial soils generally consist of very stiff, very silty and sandy clay with numerous pebbles and rock fragments. The colluvium extended to the maximum depth explored in Boring 1 of 28.5 feet, with a gradual transition to residual soils from about 22 feet. The colluvium in Boring 2 extended to a depth of about 18 feet, where a distinct color change marked the transition to very stiff to hard residual soils, generally similar to the colluvium but with some occasional rock structure.

Bedrock

H

As noted above, bedrock was encountered beneath the natural soil profile in Boring 2 at a depth of about 19.5 feet and extended to the maximum depth explored of 22.5 feet at this boring location. The bedrock unit observed consisted of a soft hardness, sandy siltstone interbedded with shale that was very severely weathered and very severely fractured. The bedrock materials observed in this boring are generally similar to the bedrock units described on the published geologic maps for this area.

Groundwater

No groundwater was encountered in the exploratory borings at the time of drilling. The borings were backfilled at the end of the day and no subsequent groundwater measurements were made. The borings may not have been left open for a long enough period to observe the equilibrium ground water conditions at the time of the subsurface exploration. It should be noted that temporary shallow groundwater may be a transient condition at the fill and native soil contact after heavy rains. In addition, groundwater may be encountered at depth when drilling pier holes due to the proximity of the creek. It should also be noted that groundwater levels may change over time and will vary with seasonal rainfall patterns, long-term climate fluctuations and with the influence of irrigation or any landscape watering in the surrounding areas.

LABORATORY TESTING

The laboratory investigation was directed toward a quantitative and qualitative evaluation of the physical and mechanical properties of the soil and bedrock materials at the subject site. The following tests were performed on selected samples from the field investigation in accordance with the American Society for Testing Materials (ASTM) standards or contemporary geotechnical engineering practices:

- In-situ Moisture Content.
- In-situ Dry Density.
- Atterberg Limits.
- Unconfined Compressive Strength.

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The moisture content tests determine the relative degree of soil saturation and are used to evaluate the soil moisture profile. The dry density tests evaluate variations in soil density and the degree of compaction or consolidation. The dry density tests are also useful for comparing the densities of the in-place soil and bedrock materials and their relative strengths.

The Atterberg limits tests are performed in order to help classify and evaluate the expansion potential of the most highly plastic clayey soils and is also useful for estimating shear strength in clayey soils. Unconfined compression tests were also performed on the clayey native soils as a means for estimating cohesion and relative strength within the likely load-bearing layer.

Further details regarding the laboratory testing program are provided in Appendix B. The results of the laboratory tests are presented in Appendix A on the boring logs at the appropriate sample depths. The detailed results of the Atterberg Limits tests are also presented on Figure B-1 in Appendix B.

DISCUSSION AND CONCLUSIONS

<u>General</u>

Based on the results of this investigation, it is the opinion of the undersigned geotechnical engineer that the site is suitable for the proposed new residence. However, all of the conclusions and recommendations presented in this report should be incorporated into the design and construction of the project to minimize possible soil and foundation problems.

The primary geotechnical concerns for this project include unengineered fill in the building area, the steep slopes on portions of the site, and the deep colluvial soil profile. These issues are discussed in the following paragraphs and detailed recommendations for the geotechnical aspects of the project are presented in the next section of this report.

Soils, Foundations and Drainage

The presence of generally weak, variable surface fill soils at the foundation level, combined with the sloping terrain, are the primary considerations for foundation design at the site. The surface fill and underlying native topsoil are typically highly organic and possess a high clay fraction. These soils tend to lose strength when saturated and are subject to long-term slope creep as well as differential settlements under foundation loads. As a result, the proposed residence, site walls and related structures should be supported on drilled, cast-in-place friction piers that are extended through the upper soils into underlying native materials. The drilled piers should be well-interconnected by grade beams and other foundation elements at the subgrade level to create a rigid system.

As with all hillside homes, surface and subsurface drainage should be properly controlled around the building area to minimize the infiltration of seepage and to reduce the risk of erosion by controlling storm water runoff and all surface drainage from the roof and hardscape areas. A perimeter subdrain or an extensive network of retaining wall subdrains is also recommended in any patio or other hardscape areas on the upslope side of the building area.

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The steep slope areas along the existing stream banks may be subject to occasional erosion and local sloughing, as observed on adjacent properties during recent wet winters. The drainage measures discussed above, combined with proper discharge of the collected water, should help improve the stability of the slope below the building area and minimize the risk of problems during peak winter storms. However, the slope inclinations should be reduced by excavation in the building area and some local riprap placement near the creek and related landscape grading along the upper portion of the stream banks should also be considered in order to maintain a permanent slope inclination of 2:1 or flatter for these areas. Finally, temporary and permanent erosion control measures will also be required for all exposed slopes and long-term landscaping should include appropriate ground-cover plantings on the slope areas.

Geologic Setting, Seismic Hazards and Mitigation Measures

As expected from the geologic maps, a relatively deep colluvial soil profile and a probable bedrock transition are present in this area. Although bedrock was encountered at a depth of about 19.5 feet in Boring 2 near the street, no bedrock was observed to a depth of 28.5 feet in Boring 1 near the top of the streambanks. Such changes in bedrock depth are common along major drainages through this area, particularly at major geologic contacts and near the transition from bedrock hillside areas and colluvium deposits along the creek.

No obvious landslide activity was noted in the potential landslide area mapped by Nilsen in the secondary swale to the immediate northwest of the site, and no obvious landslide debris was encountered in the borings at the site. In addition, the extensive historic aerial photographs reviewed for this study also appear to confirm that the site is well outside the limits of any historic landslide area. No large-scale landslide activity or other major slope stability problems were noted on or near the site, despite record rainfall in recent winters, particularly the El Nino winter of 1997-1998, with the exception of local sloughing of the steep stream banks.

Thus, the most significant geologic hazards for the proposed construction at this site appear to be strong seismic shaking during a moderate or major earthquake on the nearby Hayward fault, and potential ground lurching and associated seismic slope stability concerns related to the deep soils, steep slopes and potentially shallow groundwater.

The strong seismic shaking hazard can be mitigated by a comprehensive structural design employing the criteria from the latest revision of the UBC (1997) for near-field effects, with special attention paid to foundation details and framing connections. The potential for possible ground lurching, which can be described as excessive lateral or down-slope displacements caused by earthquake shaking, is generally a function of the seismic slope stability conditions, with greater potential displacements (and possible slope failure) more likely to occur on marginally stable slopes. Preliminary analysis suggests two critical slope stability cases where potential ground lurching effects should be considered for the proposed construction. The first case is a shallow slide on the steep slopes below the building area and along the creek, while the second case would be a deeper slope "failure" involving most of the lot from the street down to the stream channel and including the building area.

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It should be stressed that no actual slope failure conditions currently exist, but improving the factor of safety for the critical slope stability conditions is the most effective way to minimize the potential for, and the magnitude of, any possible ground lurching effects during strong seismic events.

As noted above, the overall stability of the rear slope will be improved by the recommended drainage measures and by maintaining a slope inclination no steeper than 2.1 for these areas. Thus, the potential for ground lurching is expected to be less for this area once construction is completed. Any small displacements of this slope, and even shallow local slope failures (similar to the erosion and sloughing hazard already present along the creekbanks), should not pose a significant threat to the proposed construction due to the deep drilled pier foundations. However, as with all creekbank conditions, some substantial maintenance efforts may be required for any local slope failures that could result from extreme earthquake or flood events.

In order to improve the overall factor of safety for the second critical slope stability case, and thus reduce the potential for ground lurching in the proposed building area, the following mitigation measures should be incorporated into the design of the project:

- The proposed residence should be constructed near the top of the site along the street and occupy as much of the exposed ground surface as possible in the proposed building area.
- Surface and subsurface drainage should be carefully controlled around the building area, especially on the upslope side of the home, where extensive hardscape should be employed to facilitate surface drainage collection and minimize infiltration of storm water runoff.
- Substantial excavation is recommended in the building area to the extent possible in order to lower the driving forces on the upper part of the slope and to remove most of the existing fill soils. This excavation would also reduce the overall depth required for the drilled pier foundations.
- Relatively deep drilled piers should be used in all areas to "force" any potential slope failure to greater depths, thus providing a higher factor of safety. The drilled pier and grade beam foundation should be integrally connected with the lower floor slab and structural retaining walls to create a rigid support system for the home.

Some modifications may be required to the preliminary design to accommodate the above mitigation measures. Once the final design has been prepared, a design review and any appropriate supplemental analysis should be completed by this office to verify compliance with the recommendations and intent of the measures described herein.

Construction Considerations and Design Details

The possibility of shallow groundwater and the required depth of the drilled piers create difficult construction conditions that may require special measures to prevent the need for casing of the holes. In addition, concrete placement may need to be completed using tremie methods to displace any groundwater or drilling slurry from the bottom of the holes.

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In light of the expected subsurface conditions, and considering the sloping terrain and limited working space, it is thus recommended that a design employing fewer, larger diameter piers be considered to facilitate the foundation construction operations at this site.

Some additional special measures may also be appropriate where significant excavations will be close to or adjacent to the property lines. Consideration should be given to some form of temporary shoring where any existing structure is within 5 feet of an excavation greater than 5 feet deep or where the foundation line is within a projected 1:1 setback line extended up from the base of the cut. Closely spaced drilled piers are usually used for this type of shoring.

Finally, to minimize the risk of seepage affecting the lower floor level, retaining wall subdrain pipes located directly upslope of these areas should be set at an elevation of at least 12 inches below finish floor elevation.

The detailed recommendations for the geotechnical aspects of the work are presented in the following section of this report.

RECOMMENDATIONS

A. <u>General</u>

This report is issued with the understanding that it is the responsibility of the owner or their representative(s) to ensure that the information and recommendations contained in this report are called to the attention of the project design team and all other concerned parties, and that the contractors or subcontractors carry out such recommendations in the field.

For this purpose, the undersigned engineer should review the final plans and remain involved with the project to observe the geotechnical aspects of the work during construction. This is to verify any assumptions regarding the expected ground conditions and to provide any modified or supplemental recommendations should conditions differ from what was originally anticipated. Of particular concern for this project would be design review and observation of the foundation pier drilling operations to evaluate the variations in the subsurface materials and to confirm the required depths at each location.

B. <u>Site Preparation</u>

The site of the proposed construction should initially be cleared of any existing debris, utilities, and other deleterious materials, as required. Any trees and bushes within the building area should also be removed as needed, including their root balls, and then the site should be stripped to sufficient depth to remove surface vegetation.

The debris or other deleterious materials should be removed from the site. However, some of the cleared and stripped organic topsoil may be separately stockpiled and saved for landscaping purposes.

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C. <u>Earthwork and Erosion Control</u>

After the site has been cleared and stripped, required excavations for site retaining walls, building walls or driveway construction should be made. During excavation, temporary shoring should be used as required to prevent the movement of materials exposed in the face of the excavations. The excavations should be performed in accordance with Cal-OSHA standards. The determination of the need for, and the design and construction of any required temporary shoring are the sole responsibilities of the excavating contractor. As noted above, some form of temporary shoring is recommended where any existing structure is within about 5 feet of an excavation greater than 5 feet deep or where the foundation line is within a projected 1:1 setback line extended up from the base of the cut.

It is recommended that excavation and subsequent wall construction or backfill be continuous in order to minimize the length of time the temporary slopes are exposed. The excavated materials can be selectively stockpiled for backfill or engineered fill. However, all excess materials derived from the excavations should be removed from the site. Based on the subsurface conditions encountered in the borings and experience with excavations for other buildings in similar subsurface materials, the excavation of the soils at this site will be straightforward and should not require heavier equipment.

After the site is cleared and stripped, any required filling operations can be made. All fill should be placed on a firm subgrade of compacted on-site materials. Any filling operations on slopes steeper than 5:1 should be keyed and benched into competent materials or should be directly supported by retaining walls. It should be noted that loose soils or spoils resulting from excavations or pier drilling should either be removed from the site, placed and compacted as engineered fill, or placed as compacted wall backfill.

All on-site soils below the stripped layer having an organic content of less than 3 percent by volume are suitable for use as fill. Imported fill material used at the site should be a non-expansive material with a plasticity index of 12 or less. Any fill placed at the site should not contain rocks or lumps greater than 6 inches in greatest dimension with not more than 15 percent larger than 2.5 inches.

Engineered fill should be compacted to at least 90 percent relative compaction by mechanical means only as determined by ASTM Test Designation D-1557-91. However, the top 6 inches of baserock or import fill beneath paved areas should be compacted to at least 95% relative compaction. Fill should be placed in lifts not exceeding 8 inches in uncompacted thickness and the moisture content of the fill should be kept at about 2% to 3% above optimum during placement.

All cut and fill slopes at the site should have a maximum inclination of no steeper than about 2:1 (horizontal to vertical) and should be left at flatter slope inclinations wherever possible. At this inclination, the cut and fill slopes will probably be subjected to some minor erosion and/or sloughing, thus requiring periodic maintenance of the slopes. Where any existing or natural slopes are at steeper inclinations, such as along the creek, special measures such as a riprap revetment should be considered to help improve the stability of these areas.

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It is recommended that all exposed slopes be planted with drought-tolerant, erosion resistant vegetation in order to minimize erosion. Any exposed slopes steeper than about 3:1 should be covered with jute mesh and hydroseeded at the completion of the work to provide temporary erosion control until the permanent landscaping and erosion control plantings are established. A landscape architect or other professional experienced in erosion control planting should be consulted prior to selection of the type of vegetation best suited for this site.

D. <u>Surface and Subsurface Drainage</u>

Positive surface drainage should be provided adjacent to the residence so as to direct surface water away from the foundations of the building into closed pipes that lead to the storm runoff discharge facilities. Ponding of surface water should not be allowed adjacent to the structure or in upslope patio or hardscape areas. Concentrated water should not be allowed to flow over slopes as erosion or weakening of surface soils could occur. Surface runoff should not be allowed to flow from the street above the site and an asphalt berm should be used across the driveway entrance for this purpose.

If a descending driveway is planned to the garage level, a slot drain should be considered along the front of the garage to collect water from the descending concrete driveway. If a new patio is planned upslope of the residence, it should be paved to prevent erosion or weakening of the surface soil near the structure. The patio should be sloped to a central drain leading to suitable discharge facilities. It is recommended that rainwater collected on the roof of the building be transported through gutters, downspouts and closed pipes that lead to the storm runoff discharge facilities.

A perimeter subdrain is recommended around the upslope side of the structure along any foundation walls or grade beams over 30 inches in height. The subdrain should be extended to a minimum depth of at least 12 inches below the level of the adjacent interior floor and should be constructed as close as is practical to the foundation line. The subdrain trench should be a minimum of at least 12 inches wide and the bottom of the trench should be sloped at a minimum of 1% (1/8-inch per foot or more). The invert of the subdrain pipe should be set at least 12 inches below the elevation of any interior floors along the opposite side of the foundation wall.

The subdrain should consist of a 4-inch diameter perforated plastic pipe buried in clean, open graded ³/₄- inch gravel. The gravel and pipe should be wrapped in an approved, non-woven polyester geotextile. The gravel should extend to within 12 inches of the ground surface and the trench should be capped with a layer of compacted native clay soils.

A solid cleanout riser should be installed at the high end of the subdrain pipe. The perforated subdrain pipe should be connected to a solid collector pipe that leads to suitable discharge facilities. A clay plug should be compacted around the junction from perforated to solid pipe.

Flexible drain pipe (flexline) or "2000-Pound Crush" pipe are not acceptable for use in the surface water drainage system because of the likelihood of damage to the pipe during installation and the difficulty of future cleaning with mechanical equipment without damaging the pipe. Surface and subsurface drainage pipes should be rigid, plastic pipe with an SDR of no greater than 33.5.

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It should be noted that suitable discharge facilities do not include so called "dry wells" and these should be avoided. It is anticipated that the surface and subsurface drainage collected at the site can be routed to at least two separate discharge points along the natural stream channel at the rear of the site. Energy dissipation structures consisting of "T"-fittings and riprap aprons should be used to minimize erosion at the discharge points.

Considerable maintenance should be expected in the future after the proposed construction has been completed, including, but not limited to: clearing of catch basins, area drains, subdrain lines and discharge pipes. Should ownership of this property change hands, the new owner(s) should be informed of the existence of this report and not adversely change the grading or drainage facilities and should understand the importance of maintaining proper surface drainage and erosion control.

E. Pier and Grade Beam Foundations

New foundations for the proposed residence and any structural retaining walls should consist of drilled, cast-in-place, straight-shaft concrete piers that are designed to develop their load carrying capacity through friction between the sides of the piers and the surrounding subsurface materials. Friction piers should have a minimum diameter of 18 inches, and there should be a minimum center-to-center spacing of at least four pier diameters between adjacent piers. As previously noted, using larger diameter piers at greater spacings may be more practical for the ground conditions at this site.

The piers should generally extend to a depth adequate to provide at least 12 feet of embedment into stiff native soils or 8 feet of embedment into weathered bedrock, whichever is achieved first. Stiff native soils were encountered at a depth of about 10 feet in the main building area and encountered from a depth of about 9 feet at the top of the site. *Therefore, the piers should generally extend to maximum depths on the order of about 21 to 22 feet below the existing ground surface.* Although the required pier depths will be reduced where substantial excavation is performed in the building area or for site walls, a minimum depth of 15 feet is required for all drilled piers.

To determine whether these depths are adequate to carry the required structural loads, allowable skin friction values of 600 pounds per square foot (psf) for dead plus live loads and 800 psf for all loads, including wind or seismic, can be used for the stiff native soils starting at a depth of 3 feet and for the entire 12 feet of required embedment. Where bedrock is encountered, allowable skin friction values of 900 pounds per square foot (psf) for dead plus live loads and 1200 psf for all loads, including wind or seismic, can be used starting at the bedrock surface.

To minimize damage resulting from the potential "creep" type movement on slopes, any foundation piers on sloping terrain or within 10 feet from the crest of any slope steeper than 4:1 (horizontal to vertical) should be designed to resist a uniform lateral pressure of 300 pounds per square foot acting against the projected diameter of the pier to a depth of 3 feet below the ground surface. The creep load can be neglected for any piers supporting retaining walls at least 3 feet in height.

Lateral loads on the piers may be resisted by passive pressures acting against the sides of the piers. A passive pressure equal to an equivalent fluid weighing 300 pounds per square foot per foot of depth is recommended up to a maximum value of 3000 pounds per square foot. This value can be assumed

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to be acting against $1\frac{1}{2}$ times the diameter of the individual pier shafts starting 3 feet below the bottom of the grade beams or from 2 feet below the ground surface for any retaining wall piers with a level area at least 10 feet wide on the downslope side of the wall.

The bottom of pier excavations should be reasonably free of loose cuttings and soil fall-in prior to installing reinforcing steel and placing concrete. It is recommended that the contractor obtain construction equipment appropriately sized to perform the recommended work. In particular, piers over 20 feet deep may be needed in difficult access areas of the site; equipment capable of performing in these conditions should be employed.

Any accumulated water in pier excavations should be removed prior to placing reinforcing steel and concrete or the concrete should be tremied to the bottom of the hole. Care should be taken during concrete placement to avoid "mushrooming" at the top of the pier because distress in the building may result from either surface fill settlements or expansive soil uplift on the "mushroom caps".

Due to the special nature of the required foundation design, the undersigned engineer should be consulted to assist in the development of the most practical design alternatives. In addition, since the actual depth at each pier location will have to be verified in the field, it is important that the pier drilling operations be performed under the observation of the undersigned engineer or other licensed and qualified professional to confirm that they are constructed in accordance with the recommendations presented herein.

All structural piers should be tied together with grade beams, tie beams, or foundation walls in at least one direction. The grade beams or tie beams should be designed to span between the piers in accordance with structural requirements.

In order to minimize the possible detrimental effects of expansive soils and for additional seismic capacity, the new grade beams or tie beams should be designed to resist an uplift pressure of 1000 pounds per square foot. If the grade beams are to retain soil, they should be designed to resist the appropriate lateral earth pressures provided in Section F, "Retaining Walls".

F. <u>Retaining Walls</u>

All retaining walls for this site must be designed to resist both lateral earth pressures and any additional lateral loads caused by surcharge loads on the adjoining ground surface. The retaining walls to be constructed at this site should be designed to resist the equivalent fluid pressures indicated in the table below.

The appropriate design values should be chosen based on the condition of the wall (restrained or unrestrained) and the angle of the slope behind the wall. Unrestrained wall pressures should only be considered applicable where it would be structurally and architecturally acceptable for the wall to laterally deflect 2 percent of the wall height, such as site or driveway walls. Foundation retaining walls for structures should always be designed for restrained wall pressures.

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	Cut Si	opes	Fill Sl	opes
Condition	4:1 ¹ or flatter	2:1	4:1 or flatter	2:1
Unrestrained	45 pcf ²	55 pcf	45 pcf	60 pcf
Restrained	60 pcf	75 pcf	60 pcf	80 pcf

1 Inclination behind wall, horizontal to vertical.

2 "pcf" signifies "pounds per cubic foot" equivalent fluid pressure.

- A linear interpolation should be use to determine design values for retaining walls where the slope behind the wall is between 4:1 and 2:1.
- For surcharge loads, increase design pressures behind the wall by an additional uniform pressure equivalent to one-half (for restrained condition) or one-third (for unrestrained condition) of the maximum anticipated surcharge load.

The above pressures assume that sufficient drainage will be provided behind the walls to prevent the build-up of hydrostatic pressures from surface and subsurface water infiltration. Adequate drainage may be provided by a subdrain system consisting of a 4-inch rigid perforated pipe bedded in 3/4-inch clean, open-graded rock wrapped in an approved non-woven, polyester geotextile. The rock and fabric placed behind the wall should be at least one foot in width and should extend to within one foot of finished grade. As an alternative, Caltrans Class 2 Permeable Material could be used in lieu of the clean gravel and geotextile. The subdrain system should be at least 12 inches wide and the upper one foot of backfill should consist of on-site, compacted, impervious soils.

Subdrain pipes should be located behind the heel of the wall foundation, which should be sloped back at a gradient of about 2% to drain toward the pipe. In addition, the subdrain pipe for all house retaining walls should be located at least 12 inches below the elevation of the adjacent interior floors. The subdrain pipe should be connected to a system of closed pipes (non-perforated) that lead to the storm runoff discharge facilities. In addition, the "high" end and all 90 degree bends of the subdrain pipe should be connected to a riser which extends to the surface and acts as a cleanout.

Lined surface ditches should be provided behind any walls that will have an exposed sloping surface steeper than 4:1 behind them. These ditches, which will collect runoff water from the slopes, should be sloped to drain to suitable discharge facilities. The top of the walls should extend at least one foot above the ditch. All structural backfill placed behind the walls should be compacted to at least 90 percent relative compaction.

Retaining walls in should generally bear on drilled pier foundations according to Section E.

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G. <u>Slabs-on-Grade</u>

Interior slab-on-grade floors should be supported directly on at least 8 inches of compacted, nonexpansive import fill materials. In addition, any interior slab floors should be designed with the floor elevation set above the elevation of any retaining wall subdrain pipe upslope of the floor area, as noted above.

In any slab area where minor floor wetness would be undesirable, 4 inches of free draining gravel should be placed beneath the floor slab to serve as a capillary barrier between the subgrade material and the slab. An impermeable membrane should be placed over the gravel, and the membrane should be covered with 2 inches of sand to protect it during construction. This moisture barrier system can be used in lieu of the top 6 inches of required non-expansive fill for interior slabs.

Interior slabs should either be entirely structurally supported slab floors or slabs-on-grade integrally connected to the foundation system. Garage slabs-on-grade should be structurally independent from the perimeter grade beams and be "free floating". Score joints should be provided for free-floating slabs at a maximum spacing of 10 feet in both directions.

All slabs-on-grade should be appropriately reinforced according to structural requirements using reinforcing bar only (not wire mesh); any concentrated loads may require additional reinforcing.

Any exterior slabs-on-grade or other hardscape pavements at this site should be supported directly on at least 6 inches of compacted, non-expansive import fill materials placed on a prepared subgrade.

Prior to placement of any import fill, the subgrade surface for interior, exterior or garage slabs should be scarified to depth of 6 inches, moisture conditioned to slightly above optimum water content, and then compacted to at least 90% relative compaction.

All non-expansive fill should be compacted to at least 90% relative compaction and should be proof-rolled to provide a smooth, firm surface for slab support. For any asphalt paving, the non-expansive fill material should consist of high quality road base aggregate and should be compacted to at least 95% relative compaction.

Due to the presence of variable surface fill and topsoil, minor movement of any free-floating slab with resulting cracking should be expected. The recommendations presented above, if properly implemented, should help minimize the magnitude of any cosmetic cracking. However, some cracking, distress and eventual replacement of exterior slabs should be expected due to creep or fill settlement over time, particularly for asphalt pavements.

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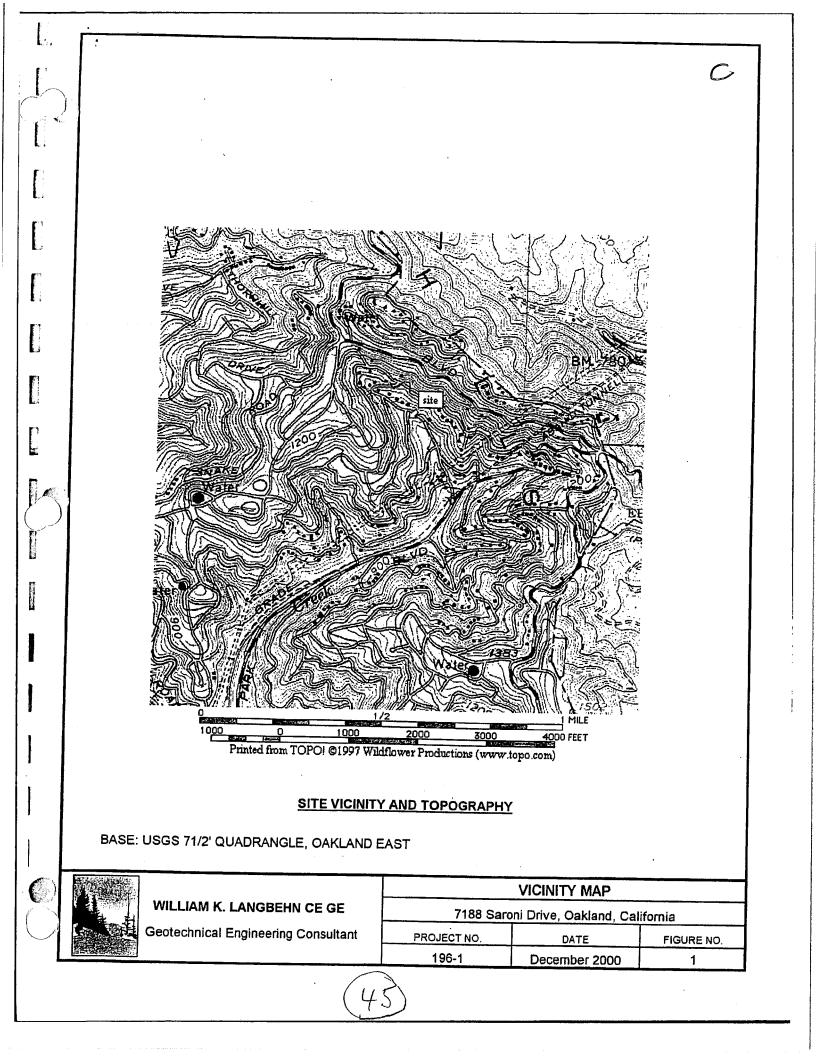
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Appendix A - Subsurface Investigation

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APPENDIX A - SUBSURFACE INVESTIGATION

The subsurface exploration program began on October 9, 2000, was halted by heavy rains and resumed on November 3, 2000. A portable, "Minuteman" drill rig was used for both exploratory borings. The locations of the exploratory borings are shown on the Site Plan, Figure 2. Both of the borings were 3.5-inches in diameter and were drilled with solid, continuous flight augers to maximum depths of approximately 22.5 to 28.5 feet.

The materials encountered in the borings were continuously logged in the field by the geotechnical engineer at the time of drilling. The soils are described in accordance with the Unified Soil Classification System (ASTM D-2487). The logs of the borings, as well as the key for classification of the soil, are included below as a part of this Appendix. Please refer to the text of the report for an additional discussion of the soil and bedrock materials encountered in the exploratory borings at this site.

Representative material samples were obtained from the exploratory borings at selected depths appropriate to the geotechnical investigation. All samples were transmitted to the laboratory for evaluation and appropriate testing, as described in the text of the report and in Appendix B. The results of these tests are presented on the attached boring logs at the approximate sample depths and on the figures in Appendix B. Undisturbed samples were obtained in the borings using a series of 6-inch long, thin-walled brass liners inside a 3.0-inch O.D. Modified California sampler, and disturbed samples were obtained using the 2-inch O.D. Split Spoon sampler. The Modified California sampler is designated on the borings logs by a large "X" in the sampler column and the Split Spoon sampler is designated by a vertical line.

Resistance blow counts were obtained with the samplers by dropping either a 70-pound or a 140pound hammer through a 30-inch free fall. The sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration. The blows per foot recorded on the boring logs represent the accumulated number of blows that were required to drive the last 12 inches and converted to standard Penetration Resistance ("N") values. When the split spoon sampler is used in combination with the 140-pound hammer, these blow counts are the standard penetration resistance or "N" values. However, when a smaller hammer or the larger diameter Modified California sampler is used, the blow counts recorded are not standard penetration resistance values. Accordingly, these values have been converted to equivalent standard penetration values by multiplying by an appropriate factor.

Locations of the borings were established by rough field measurements from known features shown on the topographic survey of the site prepared by Vegvary and Vegvary and dated September 29, 2000. Elevations at each boring location were taken from this map and are based on what appears to be either USGS or City of Oakland datum.

The attached boring logs and related information show the interpretation of the subsurface conditions at the dates and locations indicated, and it is not warranted that they are representative of subsurface conditions at other locations and times.

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GROUP **PRIMARY DIVISIONS** SECONDARY DIVISIONS SYMBOL THAN CLEAN GW Well graded gravels, gravel-sand mixtures, little or no fines GRAVELS MORE THAN HALF OF MATERIAL IS LARGER GRAVELS (LESS THAN Poorly graded gravels or gravel-sand mixtures, little or no MORE THAN HALF OF GP 5% FINES) S fines COARSE GRAINED SOIL COARSE FRACTION IS LARGER THAN NO. 4 GM . Silty gravels, gravel-sand mixtures, non-plastic fines GRAVEL WITH SEIVE FINES GC Clayey gravels, gravel-sand-clay mixtures CLEAN SANDS SW Well graded sands, gravelly sands, little or no fines (LESS THAN SANDS 5% FINES) Poorly graded sands or gravelly sands, little or no fines MORE THAN HALF OF SP COARSE FRACTION IS SMALLER THAN NO. 4 SM Silty sands, sand silt mixtures, plastic fines SANDS WITH SEIVE FINES SC Clayey sands, sand-silt mixture, non-plastic lines MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE Inorganic silts and very fine sands, rock flour, silty or clayey ML fine sands or clayey silts with slight plasticity FINE GRAINED SOILS SILTS AND CLAYS Inorganic clays of low to medium plasticity, gravelly clays, CL LIQUID LIMIT IS LESS THAN 50% sandy clays, silty clays, lean clays OL Organic silts and organic silty clays of low plasticity Inorganic silts, micaceous or diatomaceous fine sandy or MH silty soils, elastic silts SILTS AND CLAYS СН Inorganic clays of high plasticity, fat clays LIQUID LIMIT IS GREATER THAN 50% OH Organic clays of medium to high plasticity, organic silts **HIGHLY ORGANIC SOILS** Pt Peat and other highly organic soils **DEFINITION OF TERMS** U.S. STANDARD SERIES SIEVE CLEAR SQUARE SIEVE OPENINGS 200 40 10 3/4" 3" 12" SAND GRAVEL SILTS AND CLAYS COBBLES BOULDERS FINE MEDIUM COARSE FINE COARSE **GRAIN SIZES** SANDS AND GRAVELS **BLOWS/FOOT+** SILTS AND CLAYS BLOWS/FOOT+ STRENGTH* VERY SOFT 0 - 1/4 0 - 2 VERY LOOSE 0-4 SOFT 1/4 - 1/2 2 - 4 LOOSE 4 - 10 FIRM 1/2 - 1 4 - 8 MEDIUM DENSE 10 - 30 STIFF 1 - 28 - 16 DENSE 30 - 50 VERY STIFF 2 - 4 16 - 32 VERY DENSE OVER 50 HARD OVER 32 OVER 4 RELATIVE DENSITY CONSISTENCY Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D - 1586) Unconfined compressive strength in tons/sq. ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D - 1586), ocket penetrometer, torvane, or visual observation WILLIAM K. LANGBEHN CE GE **KEY TO EXPLORATORY BORING LOGS** Geotechnical Engineering Consultant Unified Soil Classification System (ASTM D-2487)

DRILL RIG:	Minuteman with 70# Hammer	SURFAC	E ELEVA	TION (feet):	998	LOGGE	D BY:	WKL		···
DEPTH TO C	GROUNDWATER (feet): None			. Solid Flight	Auger	1	RILLED:		0/9/00	
	SOIL CLASSIFICATION			1			I	1		T
	ESCRIPTION AND REMARKS	SOIL	ΤΥΡΕ	DEPTH (FEET)	SAMPLER	BLOW COUNT (SPT)	VATER CONTENT %)	DRY DENSITY (PCF)	STRENGTH TESTS (PSF)	OTHER
	ndy, clayey with numerous to	ML	1							\vdash
abundant roc brown, firm to	k fragments, medium brown and yellow o stiff, dry			- 1 						
- lenses of da	ark brown topsoil from about 4 feet			2 3 4 5 		(10*)	13	108		
	· · · · · · · · · · · · · · · · · · ·			6 7 8 	X	(22*)	15	115		
	L: Silt, very clayey, with organics, rown to blackish with rusty veins, pist	ML		- 10 - 11 		8	35			LL= Pl=
very stiff from	n 12.5', lighter color, grades to Colluvium			12 13 	\square	25*	29	91		
ebbles and s	Clay, very silty, sandy, with occasional ubangular rock fragments, medium e, very stiff, moist	CL								
				16 - 17 - 17 18 19 	X	20*	26	97	UC3750	
ontinued on n	ext sheet)			20						
difference.			l		ORATO				ſ	
the second	WILLIAM K. LANGBEHN CE G	E	<u></u>		aroni Dr	ive			ring	1
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Distant And

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	DRILL RIG: Minuteman with 70# Hammer	SURFACE ELE	VATION (feet):	998	LOGGE	D BY:	Y: WKL				
	DEPTH TO GROUNDWATER (feet): None SOIL CLASSIFICATION		O.D. Solid Flight /	Auger		RILLED:					
	DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	WC TNU (F	TER NTENT	DRY DENSITY (PCF)	STRENGTH TESTS (PSF)	ler Ts		
	<u>COLLUVIUM</u> : (con't) Clay, v. silty, sandy, with occ. pebbles and subangular rock frags., med. brown, very stiff, moist	CL	20 21 22 	SA	33) 1日 24	400 22	DR DEI (PC	STF	OTHER TESTS		
	- grades to Residual Soil with occasional rock structure at intervals		23 - 24 - 25 - 26								
e5	Bottom of Boring at 28.5 feet. No groundwater encountered at time of drilling.		27 28 29		27	20	110				
)	Boring backfilled at the end of drilling.		30 - 31 - 32								
			33 - 34 								
-			36 - 37 								
			39 40	BATO							
	WILLIAM K. LANGBEHN CE C		EXPLORATO 7188 Saroni Dri Oakland, Califorr				Boring		1		
	Geotechnical Engineering Cons		DJECT NO.	D Decem	ATE	00	P	AGE	2 of 2		
		(49	\rightarrow								

	/linuteman with 70# Hammer			ATION (feet):	1012	LOGGE	D BY:	WKL		
DEPTH TO G	ROUNDWATER (feet): None SOIL CLASSIFICATION	BORING:	3.5" O.[D. Solid Flight	Auger	DATE D	RILLED:	1	1/3/00	
DESCRIPTION AND REMARKS		SOIL TYPE		DEPTH (FEET)	SAMPLER	BLOW COUNT (SPT)	WATER CONTENT (%)	DRY DENSITY	STRENGTH TESTS (PSF)	OTHER
gravels and ro	y silty, very sandy, with numerous ck fragments, mottled dark brown and n, firm to stiff, moist alt at surface	CL		1 2 3 4 5 6		10*	24	97		
dark greyish br - rusty veins wi subangular ro - gradual trans <u>COLLUVIUM</u> : (pebbles and su	Clay, very silty with some fine roots, own to black, stiff, moist ith depth, occasional pebbles and ock fragments	CL/ML CL		7 - 8 - 9 - 10 - 11 - 12 - 12 - 13 - 13 - 14		11*	22	94		LL= PI=
umerous suba	L: Clay, very silty, very sandy with ngular rock fragments, mottled strong	CL		- 15 - 16 - 16 - 17 - 18 - 18 - 19	X	23*	21	106	UC1900	
rown and med	ium brown, v. stiff to hard, moist ext sheet)									
2012 Contract				20						
WILLIAM K. LANGBEHN CE G		GE	EXPLORATORY B 7188 Saroni Drive Oakland, California				Bo Bo	2		
		sultant				DATE				
		-		196-1		ember 2			PAGE	1 of

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DRILL RIG: Minuteman with 70# Hammer			TION (feet):	1012	LOGGE	D BY:	WKL		
DEPTH TO GROUNDWATER (feet): None	BORING: 3.5" O.D. Solid Flight Auger			uger	DATE DRILLED: 11/3/00				
SOIL CLASSIFICATION DESCRIPTION AND REMARKS	SOIL	TYPE	DEPTH (FEET)	SAMPLER	BLOW COUNT (SPT)	VATER ONTENT %))RY)ENSITY PCF)	STRENGTH TESTS (PSF)	ОТНЕР
BEDROCK: Siltstone, sandy, and Shale, very severely	BR	1	20					<u> </u>	
weathered, very severely fractured with iron			- 21		1				
staining on partings, mottled brown and olive brown,									
soft hardness			- 22		69	18			
Bottom of boring at 22.5 feet.		1	23			10			
No groundwater encountered at time of drilling.									
Boring backfilled at the end of drilling.			24						
			25						
			26						
			 27						
			28 						
			- 29					·	
			- 30						
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			37						
			38						
			- 39						
			40 EXPLC]	
WILLIAM K. LANGBEHN CE	GE		7188 Saroni D						
		Oakland, Calif					Boring		
FL Geotechnical Engineering Con	suitant		ECT NO.		DATE			DACE	n -
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Appendix B – Laboratory Investigation

APPENDIX B - LABORATORY INVESTIGATION AND TEST RESULTS

The laboratory testing program was directed toward a quantitative and qualitative evaluation of the physical and mechanical properties of the soils at the site.

In-situ Moisture Content

The natural, in-place soil moisture content was determined on 11 samples of the materials recovered from the borings in accordance with ASTM Test Designation D-2216. These water contents are recorded on the boring logs at the appropriate sample depths.

In-situ Dry Density

In-place dry density determinations were performed on 8 relatively undisturbed samples of the subsurface materials from the borings to evaluate their physical properties. The results of these tests are also shown on the boring logs at the appropriate depths.

Atterberg Limits

The Atterberg limits were determined for two samples of the most clayey natural soils to estimate the range of moisture content over which these materials exhibit plasticity. The Atterberg limits were determined in accordance with ASTM Test Designations D-4318. These values are used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil's expansion potential, compressibility and approximate strength. The results of these tests are presented on the boring logs at the appropriate sample depths and on the attached Figure B-1.

Unconfined Compressive Strength

Unconfined compression tests were performed on 2 relatively undisturbed samples of the native colluvial soil to estimate the undrained shear strength (cohesion) of these materials. The unconfined tests are used to evaluate the relative in-situ compressive strength of the clay soil and were performed in accordance with ASTM test designation D-1266. The unconfined strength was taken as the peak normal stress at 2% strain. The results of these tests are presented on the boring logs at the appropriate sample depths.

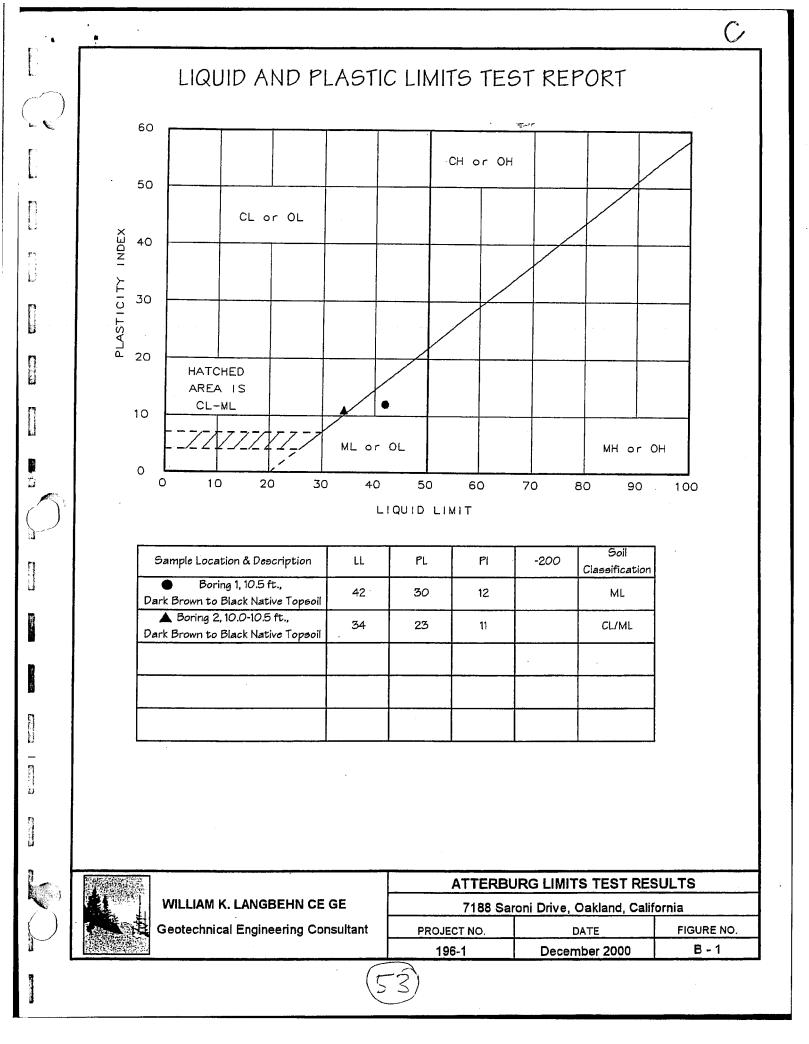
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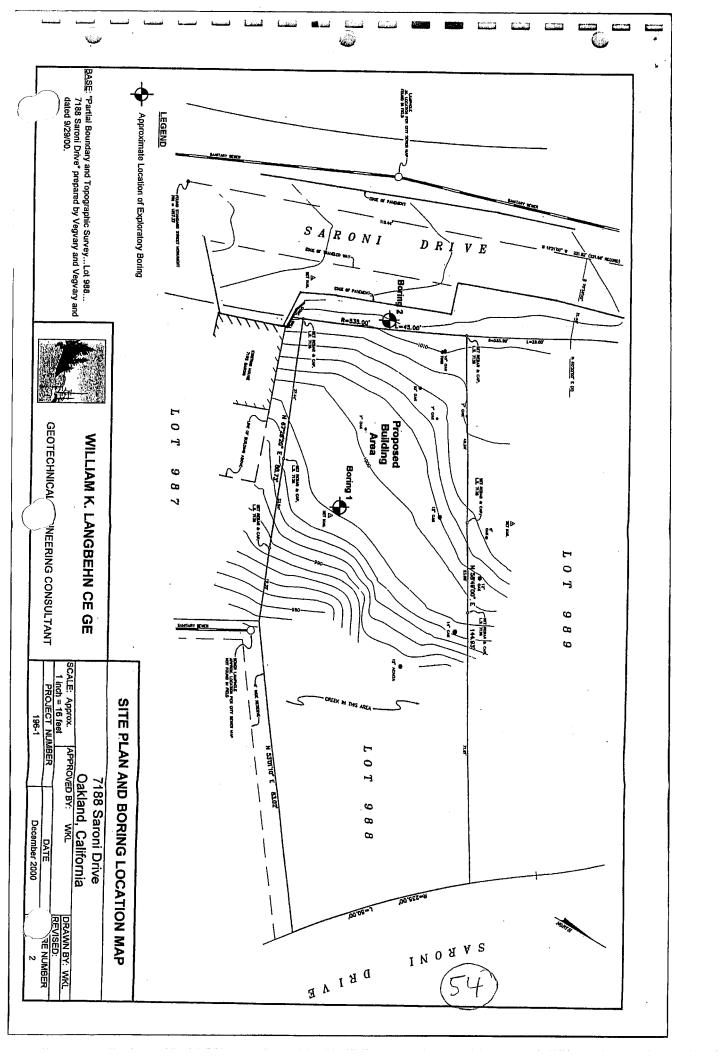
RETAINING WALLS

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ATT: CAESAR QUITEVIS RE: 7188 SARONI DR. SOIL RECOMMENDATIONS

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FROM: JANGEN LUM

Fx: 238-3254

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In light of the expected subsurface conditions, and considering the sloping terrain and limited working space, it is thus recommended that a design employing fewer, larger diameter piers be considered to facilitate the foundation construction operations at this site.

Some additional special measures may also be appropriate where significant excavations will be close to or adjacent to the property lines. Consideration should be given to some form of temporary shoring where any existing structure is within 5 feet of an excavation greater than 5 feet deep or where the foundation line is within a projected 1:1 setback line extended up from the base of the cut. Closely spaced drilled piers are usually used for this type of shoring.

Finally, to minimize the risk of seepage affecting the lower floor level, retaining wall subdrain pipes located directly upslope of these areas should be set at an elevation of at least 12 inches below finish floor elevation.

The detailed recommendations for the geotechnical aspects of the work are presented in the following section of this report.

RECOMMENDATIONS

A. <u>General</u>

This report is issued with the understanding that it is the responsibility of the owner or their representative(s) to ensure that the information and recommendations contained in this report are called to the attention of the project design team and all other concerned parties, and that the contractors or subcontractors carry out such recommendations in the field.

For this purpose, the undersigned engineer should review the final plans and remain involved with the project to observe the geotechnical aspects of the work during construction. This is to verify any assumptions regarding the expected ground conditions and to provide any modified or supplemental recommendations should conditions differ from what was originally anticipated. Of particular concern for this project would be design review and observation of the foundation pier drilling operations to evaluate the variations in the subsurface materials and to confirm the required depths at each location.

B. <u>Site Preparation</u>

The site of the proposed construction should initially be cleared of any existing debris, utilities, and other deleterious materials, as required. Any trees and bushes within the building area should also be removed as needed, including their root balls, and then the site should be stripped to sufficient depth to remove surface vegetation.

The debris or other deleterious materials should be removed from the site. However, some of the cleared and stripped organic topsoil may be separately stockpiled and saved for landscaping purposes.



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C. Earthwork and Erosion Control

After the site has been cleared and stripped, required excavations for site retaining walls, building walls or driveway construction should be made. During excavation, temporary shoring should be used as required to prevent the movement of materials exposed in the face of the excavations. The excavations should be performed in accordance with Cal-OSHA standards. The determination of the need for, and the design and construction of any required temporary shoring are the sole responsibilities of the excavating contractor. As noted above, some form of temporary shoring is recommended where any existing structure is within about 5 feet of an excavation greater than 5 feet deep or where the foundation line is within a projected 1:1 setback line extended up from the base of the cut.

It is recommended that excavation and subsequent wall construction or backfill be continuous in order to minimize the length of time the temporary slopes are exposed. The excavated materials can be selectively stockpiled for backfill or engineered fill. However, all excess materials derived from the excavations should be removed from the site. Based on the subsurface conditions encountered in the borings and experience with excavations for other buildings in similar subsurface materials, the excavation of the soils at this site will be straightforward and should not require heavier equipment.

After the site is cleared and stripped, any required filling operations can be made. All fill should be placed on a firm subgrade of compacted on-site materials. Any filling operations on slopes steeper than 5:1 should be keyed and benched into competent materials or should be directly supported by retaining walls. It should be noted that loose soils or spoils resulting from excavations or pier drilling should either be removed from the site, placed and compacted as engineered fill, or placed as compacted wall backfill.

All on-site soils below the stripped layer having an organic content of less than 3 percent by volume are suitable for use as fill. Imported fill material used at the site should be a non-expansive material with a plasticity index of 12 or less. Any fill placed at the site should not contain rocks or lumps greater than 6 inches in greatest dimension with not more than 15 percent larger than 2.5 inches.

Engineered fill should be compacted to at least 90 percent relative compaction by mechanical means only as determined by ASTM Test Designation D-1557-91. However, the top 6 inches of baserock or import fill beneath paved areas should be compacted to at least 95% relative compaction. Fill should be placed in lifts not exceeding 8 inches in uncompacted thickness and the moisture content of the fill should be kept at about 2% to 3% above optimum during placement.

All cut and fill slopes at the site should have a maximum inclination of no steeper than about 2:1 (horizontal to vertical) and should be left at flatter slope inclinations wherever possible. At this inclination, the cut and fill slopes will probably be subjected to some minor erosion and/or sloughing, thus requiring periodic maintenance of the slopes. Where any existing or natural slopes are at steeper inclinations, such as along the creek, special measures such as a riprap revetment should be considered to help improve the stability of these areas.



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It is recommended that all exposed slopes be planted with drought-tolerant, erosion resistant vegetation in order to minimize erosion. Any exposed slopes steeper than about 3:1 should be covered with jute mesh and hydroseeded at the completion of the work to provide temporary erosion control until the permanent landscaping and erosion control plantings are established. A landscape architect or other professional experienced in erosion control planting should be consulted prior to selection of the type of vegetation best suited for this site.

D. Surface and Subsurface Drainage

Positive surface drainage should be provided adjacent to the residence so as to direct surface water away from the foundations of the building into closed pipes that lead to the storm runoff discharge facilities. Ponding of surface water should not be allowed adjacent to the structure or in upslope patio or hardscape areas. Concentrated water should not be allowed to flow over slopes as erosion or weakening of surface soils could occur. Surface runoff should not be allowed to flow from the street above the site and an asphalt berm should be used across the driveway entrance for this purpose.

If a descending driveway is planned to the garage level, a slot drain should be considered along the front of the garage to collect water from the descending concrete driveway. If a new patio is planned upslope of the residence, it should be paved to prevent erosion or weakening of the surface soil near the structure. The patio should be sloped to a central drain leading to suitable discharge facilities. It is recommended that rainwater collected on the roof of the building be transported through gutters, downspouts and closed pipes that lead to the storm runoff discharge facilities.

A perimeter subdrain is recommended around the upslope side of the structure along any foundation walls or grade beams over 30 inches in height. The subdrain should be extended to a minimum depth of at least 12 inches below the level of the adjacent interior floor and should be constructed as close as is practical to the foundation line. The subdrain trench should be a minimum of at least 12 inches wide and the bottom of the trench should be sloped at a minimum of 1% (1/8-inch per foot or more). The invert of the subdrain pipe should be set at least 12 inches below the elevation of any interior floors along the opposite side of the foundation wall.

The subdrain should consist of a 4-inch diameter perforated plastic pipe buried in clean, open graded ³/₄- inch gravel. The gravel and pipe should be wrapped in an approved, non-woven polyester geotextile. The gravel should extend to within 12 inches of the ground surface and the trench should be capped with a layer of compacted native clay soils.

A solid cleanout riser should be installed at the high end of the subdrain pipe. The perforated subdrain pipe should be connected to a solid collector pipe that leads to suitable discharge facilities. A clay plug should be compacted around the junction from perforated to solid pipe.

Flexible drain pipe (flexline) or "2000-Pound Crush" pipe are not acceptable for use in the surface water drainage system because of the likelihood of damage to the pipe during installation and the difficulty of future cleaning with mechanical equipment without damaging the pipe. Surface and subsurface drainage pipes should be rigid, plastic pipe with an SDR of no greater than 33.5.



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site. Energy dissipation structures consisting of "T"-fittings and riprap aprons should be used to minimize erosion at the discharge points.

Considerable maintenance should be expected in the future after the proposed construction has been completed, including, but not limited to: clearing of catch basins, area drains, subdrain lines and discharge pipes. Should ownership of this property change hands, the new owner(s) should be informed of the existence of this report and not adversely change the grading or drainage facilities and should understand the importance of maintaining proper surface drainage and erosion control.

E. Pier and Grade Beam Foundations

New foundations for the proposed residence and any structural retaining walls should consist of drilled, cast-in-place, straight-shaft concrete piers that are designed to develop their load carrying capacity through friction between the sides of the piers and the surrounding subsurface materials. Friction piers should have a minimum diameter of 18 inches, and there should be a minimum center-to-center spacing of at least four pier diameters between adjacent piers. As previously noted, using larger diameter piers at greater spacings may be more practical for the ground conditions at this site.

The piers should generally extend to a depth adequate to provide at least 12 feet of embedment into stiff native soils or 8 feet of embedment into weathered bedrock, whichever is achieved first. Stiff native soils were encountered at a depth of about 10 feet in the main building area and encountered from a depth of about 9 feet at the top of the site. Therefore, the piers should generally extend to maximum depths on the order of about 21 to 22 feet below the existing ground surface. Although the required pier depths will be reduced where substantial excavation is performed in the building area or for site walls, a minimum depth of 15 feet is required for all drilled piers.

To determine whether these depths are adequate to carry the required structural loads, allowable skin friction values of 600 pounds per square foot (psf) for dead plus live loads and 800 psf for all loads, including wind or seismic, can be used for the stiff native soils starting at a depth of 3 feet and for the entire 12 feet of required embedment. Where bedrock is encountered, allowable skin friction values of 900 pounds per square foot (psf) for dead plus live loads and 1200 psf for all loads, including wind or seismic, can be used starting at the bedrock surface.

To minimize damage resulting from the potential "creep" type movement on slopes, any foundation piers on sloping terrain or within 10 feet from the crest of any slope steeper than 4:1 (horizontal to vertical) should be designed to resist a uniform lateral pressure of 300 pounds per square foot acting against the projected diameter of the pier to a depth of 3 feet below the ground surface. The creep load can be neglected for any piers supporting retaining walls at least 3 feet in height.

Lateral loads on the piers may be resisted by passive pressures acting against the sides of the piers. A passive pressure equal to an equivalent fluid weighing 300 pounds per square foot per foot of depth is recommended up to a maximum value of 3000 pounds per square foot. This value can be assumed



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to be acting against 1½ times the diameter of the individual pier shafts starting 3 feet below the bottom of the grade beams or from 2 feet below the ground surface for any retaining wall piers with a level area at least 10 feet wide on the downslope side of the wall.

The bottom of pier excavations should be reasonably free of loose cuttings and soil fall-in prior to installing reinforcing steel and placing concrete. It is recommended that the contractor obtain construction equipment appropriately sized to perform the recommended work. In particular, piers over 20 feet deep may be needed in difficult access areas of the site; equipment capable of performing in these conditions should be employed.

Any accumulated water in pier excavations should be removed prior to placing reinforcing steel and concrete or the concrete should be tremied to the bottom of the hole. Care should be taken during concrete placement to avoid "mushrooming" at the top of the pier because distress in the building may result from either surface fill settlements or expansive soil uplift on the "mushroom caps".

Due to the special nature of the required foundation design, the undersigned engineer should be consulted to assist in the development of the most practical design alternatives. In addition, since the actual depth at each pier location will have to be verified in the field, it is important that the pier drilling operations be performed under the observation of the undersigned engineer or other licensed and qualified professional to confirm that they are constructed in accordance with the recommendations presented herein.

All structural piers should be tied together with grade beams, the beams, or foundation walls in at least one direction. The grade beams or the beams should be designed to span between the piers in accordance with structural requirements.

In order to minimize the possible detrimental effects of expansive soils and for additional seismic capacity, the new grade beams or tie beams should be designed to resist an uplift pressure of 1000 pounds per square foot. If the grade beams are to retain soil, they should be designed to resist the appropriate lateral earth pressures provided in Section F, "Retaining Walls".

F. <u>Retaining Walls</u>

All retaining walls for this site must be designed to resist both lateral earth pressures and any additional lateral loads caused by surcharge loads on the adjoining ground surface. The retaining walls to be constructed at this site should be designed to resist the equivalent fluid pressures indicated in the table below.

The appropriate design values should be chosen based on the condition of the wall (restrained or unrestrained) and the angle of the slope behind the wall. Unrestrained wall pressures should only be considered applicable where it would be structurally and architecturally acceptable for the wall to laterally deflect 2 percent of the wall height, such as site or driveway walls. Foundation retaining walls for structures should always be designed for restrained wall pressures.

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and Alexandron Control of South Control of Co	Cut Slopes		Fill Slopes		
Condition	4:1 ¹ or flatter	2:1	4:1 or flatter	2:1	
Unrestrained	45 pcf ²	55 pcf	45 pcf	60 pcf	
Restrained	60 pcf	75 pcf	60 pcf	80 pcf	

1 Inclination behind wall, horizontal to vertical.

2 "pcf" signifies "pounds per cubic foot" equivalent fluid pressure.

A linear interpolation should be use to determine design values for retaining walls where the slope behind the wall is between 4:1 and 2:1.

For surcharge loads, increase design pressures behind the wall by an additional uniform pressure equivalent to one-half (for restrained condition) or one-third (for unrestrained condition) of the maximum anticipated surcharge load.

The above pressures assume that sufficient drainage will be provided behind the walls to prevent the build-up of hydrostatic pressures from surface and subsurface water infiltration. Adequate drainage may be provided by a subdrain system consisting of a 4-inch rigid perforated pipe bedded in 3/4-inch clean, open-graded rock wrapped in an approved non-woven, polyester geotextile. The rock and fabric placed behind the wall should be at least one foot in width and should extend to within one foot of finished grade. As an alternative, Caltrans Class 2 Permeable Material could be used in lieu of the clean gravel and geotextile. The subdrain system should be at least 12 inches wide and the upper one foot of backfill should consist of on-site, compacted, impervious soils.

Subdrain pipes should be located behind the heel of the wall foundation, which should be sloped back at a gradient of about 2% to drain toward the pipe. In addition, the subdrain pipe for all house retaining walls should be located at least 12 inches below the elevation of the adjacent interior floors. The subdrain pipe should be connected to a system of closed pipes (non-perforated) that lead to the storm runoff discharge facilities. In addition, the "high" end and all 90 degree bends of the subdrain pipe should be connected to a riser which extends to the surface and acts as a cleanout.

Lined surface ditches should be provided behind any walls that will have an exposed sloping surface steeper than 4:1 behind them. These ditches, which will collect nunoff water from the slopes, should be sloped to drain to suitable discharge facilities. The top of the walls should extend at least one foot above the ditch. All structural backfill placed behind the walls should be compacted to at least 90 percent relative compaction.

Retaining walls in should generally bear on drilled pier foundations according to Section E.

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G. <u>Slabs-on-Grade</u>

Interior slab-on-grade floors should be supported directly on at least 8 inches of compacted, nonexpansive import fill materials. In addition, any interior slab floors should be designed with the floor elevation set above the elevation of any retaining wall subdrain pipe upslope of the floor area, as noted above.

In any slab area where minor floor wetness would be undesirable, 4 inches of free draining gravel should be placed beneath the floor slab to serve as a capillary barrier between the subgrade material and the slab. An impermeable membrane should be placed over the gravel, and the membrane should be covered with 2 inches of sand to protect it during construction. This moisture barrier system can be used in lieu of the top 6 inches of required non-expansive fill for interior slabs.

Interior slabs should either be entirely structurally supported slab floors or slabs-on-grade integrally connected to the foundation system. Garage slabs-on-grade should be structurally independent from the perimeter grade beams and be "free floating". Score joints should be provided for free-floating slabs at a maximum spacing of 10 feet in both directions.

All slabs-on-grade should be appropriately reinforced according to structural requirements using reinforcing bar only (not wire mesh); any concentrated loads may require additional reinforcing.

Any exterior slabs-on-grade or other hardscape pavements at this site should be supported directly on at least 6 inches of compacted, non-expansive import fill materials placed on a prepared subgrade.

Prior to placement of any import fill, the subgrade surface for interior, exterior or garage slabs should be scarified to depth of 6 inches, moisture conditioned to slightly above optimum water content, and then compacted to at least 90% relative compaction.

All non-expansive fill should be compacted to at least 90% relative compaction and should be proof-rolled to provide a smooth, firm surface for slab support. For any asphalt paving, the non-expansive fill material should consist of high quality road base aggregate and should be compacted to at least 95% relative compaction.

Due to the presence of variable surface fill and topsoil, minor movement of any free-floating slab with resulting cracking should be expected. The recommendations presented above, if properly implemented, should help minimize the magnitude of any cosmetic cracking. However, some cracking, distress and eventual replacement of exterior slabs should be expected due to creep or fill settlement over time, particularly for asphalt pavements.

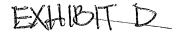


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ABOUT HS

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Key Employees

SERVICES

COMPANY OWNERS

Owner

has worked in the construction industry for his entire Founding partner and president of Construction adult life. He met when they were working as finish carpenters on a kitchen project bartner, In the 1970s. They incorporated in 1951, and since then the work has included all types of multi-unit construction, Is involved in all aspects of the business, including bidding from complex rehabs to new construction. projects, value engineering, overseeing the project management team, and interacting with owners and s most often on one of his bicycles. architects. When not in the office

Jansen Lum, Owner and Project Manager

Jansen, a native from the East Bay, is a licensed architect and contractor that has been involved in design and construction management in the Bay Area for over two decades. He has a Bachelor of Architecture with a minor in Art History from California State Polytechnic University Pomona. He has a background in construction management with on site management experience. His prior position specialized in construction of multi-family housing, but has experience in commercial, retail, health care, institutions, and single-family. Jansen brings a unique perspective to the office having been a design professional as well as a construction project manager.

Owner and Project Manager

has been involved in numerous aspects of the construction industry As a fourth-generation contractor,4 for most of his life. He has worked on various project types ranging from historic restoration, new custom homes, and affordable housing. I graduated with a BS in Urban Studies from San Francisco State University, where his studies focused on land use planning, affordable housing, and green building. Professionally, he has worked for nonprofit developers, community development groups, and city planning development -----ents focusing on sustainable development, planning, and policies at the local and regional levels. responsible for estimating, scheduling, and overseeing projects through completion.

PROJECT MANAGERS

Project Manager

has extensive and diverse project management experience in multiple areas including retirement housing, high-rise structural retrofits, public schools, colleges, community centers, and hazardous abatement. He is a highly effective team leader with a proven ability to successfully manage and deliver multi-million dollar projects that have exceeded customer expectations, on-time and on-budget. Is very organized, professional and able to manage multiple complex projects simultaneously. His project manager duties include plan review, preparing pricing sheets, developing preliminary budget estimates for new projects, scheduling, and ensuring excellent quality control. loves to travel and he also enjoys scuba diving and ice hockey in his spare time.

Project Manager

With over twenty years of experience, has been involved in all aspects of construction -- construction laborer, draftsman, project engineer, project manager, and estimator. Previous work has included cost engineering, CAD, project scheduling, project control activities, contractor bid reviews, and productivity analysis. Is the primary point of contact with the owner and architect, and he works As Project Manager at directly with the job site superintendent in scheduling and coordinating employees, subcontractors, and vendors, is fluent in English and Spanish. He's a licensed amateur radio operator and managing the project budget. and IT enthusiast.

Company Names Sanitized

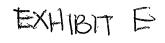
1/-

Jansen Lum architect,aia + contractor 1828 Lincoln Avenue Alameda, CA 94501 t: 510.882.0817 f: 510.663.7511 ^{www.}spacesac.com Jansen@spacesac.com

Business Card given to Nicholas J. Vigilante in 2008



Re: Storm Drain Request



) <jansenlum@gmail.com>

Wed 2/15/2017 9:48 PM

To: Nicholas Vigilante < NVigilante@msn.com>;

Nick,

I sent an email to Mr. Nervis, he responded by calling me back this evening. He said the individuals that were out here today were from the Watershed Department, and the word they passed down to Mr. Nerves was that the slide was on private property and therefore is a private matter. He referenced that the "natural water ways were here before homes were," in fact, the watershed people even told him that it was my responsibility to get my dirt out of the water way. I spoke with my soil engineer yesterday afternoon and he pretty much told me that this would be the City's position. I will try to contact the Watershed Department tomorrow.

Thanks, Jansen



Sent from my iPhone

On Feb 15, 2017, at 6:26 PM, Nicholas Vigilante <<u>NVigilante@msn.com</u>> wrote:

Write Gerald Nervis he is the PWA Supervisor. GNervis@oaklandnet.com

The two guys who came out and inspected the creek and photographed it report to Gerald.

Sent from my BlackBerry 10 smartphone.

From: JL Sent: Wednesday, February 15, 2017 5:11 PM To: Nicholas Vigilante Subject: Re: Storm Drain Request

Wow, I'm equally amazed they came out considering the amount of damage I have seen in the area. Did you happen to have a contact name/number?

Sent from my iPhone

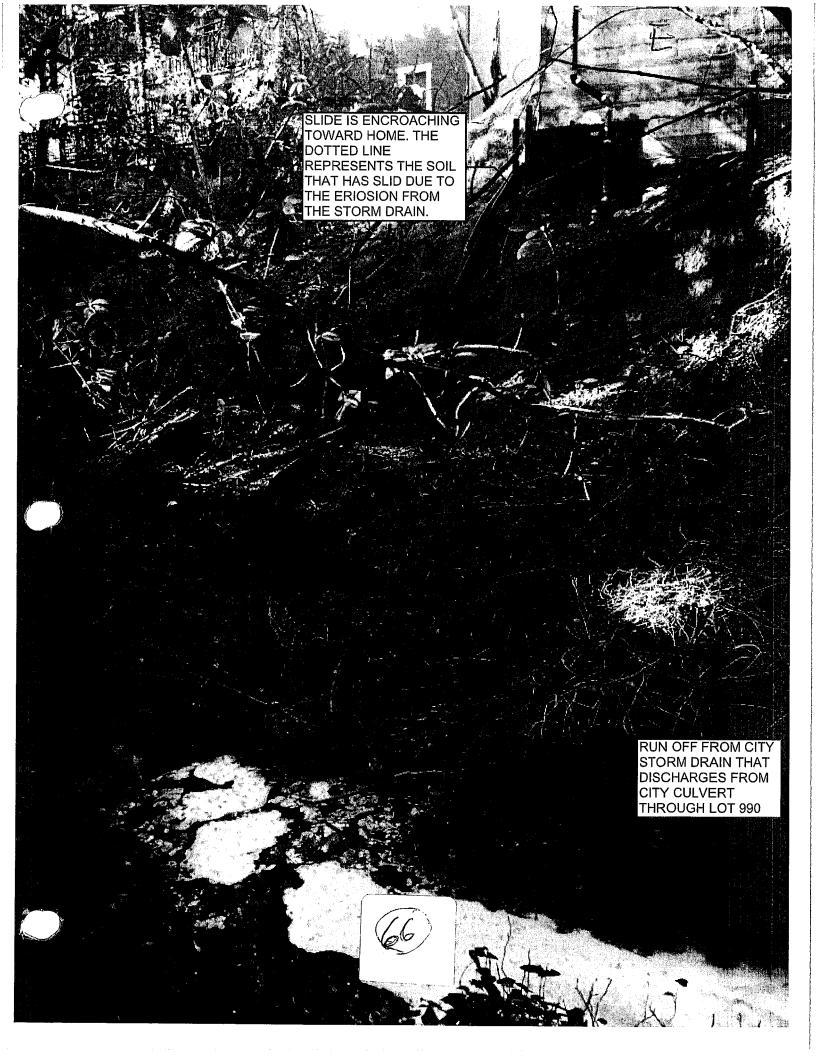
On Feb 15, 2017, at 3:21 PM, Nicholas Vigilante <<u>nvigilante@msn.com</u>> wrote:

The guy is here now and will be walking and taking a movie picture of the whole creek area.

Sent from my BlackBerry 10 smartphone.

From: Nicholas Vigilante Sent: Wednesday, February 15, 2017 2:43 PM To: Jansen Lum Subject: Storm Drain Request

I submitted one to back you up, and I called and spoke to them. They are coming out this afternoon, shortly, to look at it. The latter item surprised me, just learned they are





RE: Creek issues at 7236 Saroni Drive and neighboring properties

Ranelletti, Darin < DRanelletti@oaklandnet.com>

Thu 4/20/2017, 5:05 PM

To: Kenneth W. Park <kpark@cypressleasing.com> Cc: NVigilante@msn.com <NVigilante@msn.com>; Ken Park <kenp911@sbcglobal.net>; nancibelle@sbcglobal.net <nancibelle@sbcglobal.net>; Daniel, Christine <CDaniel@oaklandnet.com>

Dear Mr. Park,

Thank you for the email. The City is looking into the issue of the slide at 7196 Saroni and will be following up directly with the owner of that property if any action is required.

Regards,

Darin Ranelletti

Darin Ranelletti, Interim Director | City of Oakland | Planning and Building Department | 250 Frank H. Ogawa, Suite 3315 | Oakland, CA 94612 | Phone: <u>(510) 238-3663</u> | Fax: <u>(510) 238-6538</u> | Email: <u>dranelletti@oaklandnet.com</u> | Website: <u>www.oaklandnet.com/planning</u>

From: Kenneth W. Park [mailto:kpark@cypressleasing.com]
Sent: Monday, April 10, 2017 8:12 AM
To: Daniel, Christine; Ranelletti, Darin
Cc: NVigilante@msn.com; Ken Park; nancibelle@sbcglobal.net
Subject: Creek issues at 7236 Saroni Drive and neighboring properties

Dear Ms. Daniel and Mr. Ranelletti:

I am writing on behalf of my mother, Ms. Grete Park, who has lived at our family home at 7236 Saroni Drive since 1967. My mother is elderly and as her only child and designated Special Power of Attorney (SPA), I writing to ask for your assistance with on-going erosion along the creek behind our family home due to the excessive amount of storm drain water being discharged there from many streets above Saroni Drive. The volume and force of the storm drain water causes erosion on our family property (we also own the adjoining vacant lot below our family home). The volume and force of the storm drain water in the creek has also caused erosion on our neighbor's properties along Saroni Drive and Chico Court for many years. This problem has been on-going for decades. My father, who passed away in 2015, often had to deal with the effects of the erosion on our family property and on some of the Redwood trees which he planted, and he was frustrated that the City was either unable or unwilling to address the problem.

Our neighbor, Mr. Nicholas Vigilante, has been a longtime advocate for the entire neighborhood. The excessive storm drain water in the creek jeopardized his retaining wall and he and my father fought very hard to get the City of Oakland to address the problems occurring in the creek as well as a serious landslide on Saroni Drive between our homes. They were only partially successful. In 2002, the City placed rip rap rocks in front of the storm drain conduit along a vacant lot next to Mr. Vigilante's retaining wall in order to slow down the force of the storm drain water to prevent further erosion in the creek. The City did not place rip rap below that point. There is now a significant landslide below the rip rap at 7196 Saroni Drive which is directly across from the back of our family home. You can see the landslide from the picture window in the living room of our family home, and it appears that nothing was done at the back of the home when it was built in 2010 to prevent that from happening.

As a result of Mr. Vigilante's efforts to deal with the storm drain and creek problems for many years, along with his other efforts to improve and make our neighborhood safer, my mother and I strongly support Mr. Vigilante in

11/20/2018

Mail - Nicholas Vigilante - Outlook

his efforts to get the City of Oakland to address the storm drain water and creek problems.

Thank you for your prompt attention to this matter. I look forward to hearing from you and how this matter will be addressed.

Sincerely,

Ken Park (son) (510) 414-8004

On Behalf of Grete Park, (and in memory of Synghyok Park) (510) 339-1565

Ken Park Cypress Financial Corporation 2 Theatre Square, Suite 211 Orinda, CA (415)281-3028 (415)281-3023 fax kpark@cypressleasing.com



Mail - NVigilante@msn.com

RE: Additional Info: Request For Audit: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

Ranelletti, Darin < DRanelletti@oaklandnet.com>

Fri 6/9/2017 11:37 AM

To: Nicholas Vigilante <nvigilante@msn.com>; Daniel, Christine <CDaniel@oaklandnet.com>;

cc:Pena, lowayna <IPena@oaklandnet.com>; Campbell Washington, Annie <ACampbellWashington@oaklandnet.com>;

Mr. Vigilante,

I'm so sorry for the delayed response to this. I just left a voice mail message for you. I am checking with staff to see what the current status of this issue is and hope to have an update for you shortly.

Regards,

Darin Ranelletti

Darin Ranelletti, Interim Director | City of Oakland | Planning and Building Department | 250 Frank H. Ogawa, Suite 3315 | Oakland, CA 94612 | Phone: (510) 238-3663 | Fax: (510) 238-6538 | Email: dranelletti@oaklandnet.com | Website: www.oaklandnet.com/planning

From: Nicholas Vigilante [mailto:nvigilante@msn.com]
Sent: Thursday, May 18, 2017 2:20 PM
To: Ranelletti, Darin <DRanelletti@oaklandnet.com>; Daniel, Christine <CDaniel@oaklandnet.com>
Cc: Pena, lowayna <IPena@oaklandnet.com>; Campbell Washington, Annie <ACampbellWashington@oaklandnet.com>
Subject: Re: Additional Info: Request For Audit: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

Mr Ranelletti,

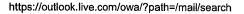
I sent the e-mail below to you about 17 days ago. I would like to know the outcome please. Thank you.

Nicholas Vigilante

Sent from my BlackBerry Passport 10 smartphone.

From: Nicholas Vigilante
Sent: Monday, May 1, 2017 3:28 PM
To: Ranelletti, Darin; Daniel, Christine
Cc: Pena, Iowayna
Subject: Re: Additional Info: Request For Audit: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

Thank you for your response.



Mail - NVigilante@msn.com

I would like to know the outcome (a brief summary is fine) of your inquiry into the issue of the slide at 7196 Saroni.

ຳ ເດິດໄລs Vigilante

From: Ranelletti, Darin <<u>DRanelletti@oaklandnet.com</u>> Sent: Thursday, April 20, 2017 4:57 PM

To: Nicholas Vigilante

Cc: Pon, Craig; Pena, Iowayna; Campbell Washington, Annie; Campbell Washington, Annie; Quitevis, Caesar; Hathaway, Kristin; Daniel, Christine

Subject: RE: Additional Info: Request For Audit: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

Dear Mr. Vigilante,

Thank you for the information. We are looking into the issue of the slide at 7196 Saroni and will be following up directly with the owner of that property if any action is required.

Sincerely,

Darin Ranelletti

Darin Ranelletti, Interim Director | City of Oakland | Planning and Building Department | 250 Frank H. Ogawa, Suite 3315 | Oakland, CA 94612 | Phone: (510) 238-3663 | Fax: (510) 238-6538 | Email: dranelletti@oaklandnet.com | Website: www.oaklandnet.com/planning

m: Nicholas Vigilante [mailto:NVigilante@msn.com]

Sent: Wednesday, April 12, 2017 3:12 PM

To: Quitevis, Caesar; Ranelletti, Darin; Hathaway, Kristin; Daniel, Christine

Cc: Pon, Craig; Pena, Iowayna; Campbell Washington, Annie; Campbell Washington, Annie

Subject: Additional Info: Request For Audit: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

This e-mail contains excerpts of documents which will back up some of the statements which I and some of my neighbors have already made to you in connection with the subject matter.

The problem with the storm drain and creek once threatened Saroni Drive. See the 2000 newspaper article from the Oakland Tribune and thereafter, the 2000 City of Oakland Contract to fix a landslide on the street. A contractor was hired and the street was repaired in 2000. I added a picture of the repair work being done.

Additionally, attached are the engineering schematics from 2002 for the rip rap revetment along 7198 Saroni Drive which were thereafter used by the City of Oakland to hire a contractor to place 80 tons of it along 7198 Saroni Drive in front of the underground conduit next to my cantilever retaining wall (permitted by the City in 1998) where the excessive amount of city storm drain water is deposited for our neighborhood to "manage."

In 2000 and then again in 2002, I and Mr. Synghyok Park (who passed away in 2015) were leading the neighborhood effort to get these deficiencies corrected. Now, 15 years later, I am still "dealing" with this problem even though my personal property is no longer currently impacted. Will the City of Oakland ever do the right thing for this neighborhood?

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611





(510) 339-6855 Reply To: NVigilante G

Jm: Nicholas Vigilante Sent: Saturday, April 8, 2017 9:51 PM To: Quitevis, Caesar; Ranelletti, Darin; Hathaway, Kristin; Daniel, Christine Cc: Pon, Craig; Pena, Iowayna; Jansen Lum Subject: Request For Audit: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

Mr. Ranelletti,

This is a request that you conduct a thorough audit of the approval process your office undertook regarding the construction of the above residence and convey that information to me and to Mr. Lum. It is apparent from Mr. Quitevis' April 5, 2017 e-mail to me that he has not interpreted recorded facts correctly.

It is absurd and inappropriate for Mr. Quitevis to write me an e-mail blaming me, in part, for the landslide at 7196 Saroni Drive without any facts whatsoever to support his blame claim. And, he should not be investigating and speaking for your Department on a complaint involving his job performance.

In an e-mail dated July 29, 2007, Mr. Lum himself communicated my concerns to Mr. Quitevis which mirror the signed and dated 2007 letter that I sent to Mr. Quitevis and before that, the 2007 e-mail which you sent me about my concerns. In the July 29, 2007 e-mail below, Mr. Lum refers to a proposal from a geotechnical engineer for erosion control/site stability for his residence. That establishes that Mr. Lum as aware of the same concerns that I raised with your office including the signed and dated letter to Mr. Jitevis. Mr. Quitevis was aware of my concerns as well because he received the July 29, 2007 e-mail from Mr. Lum and should have thereafter received and reviewed the geotechnical engineer's proposal for erosion control/site stability. You should obtain the geotechnical engineer's proposal archived in the permit file, and you should review that proposal carefully.

<u>Facts</u>: In 2002, the City PWA placed 80 tons of rip rap revetment in front of the storm drain conduit next to my cantilever retaining wall and down the creek on the vacant lot (7198 Saroni) to slow down the force of the storm drain water to prevent further erosion on that lot. The City did not place rip rap below the vacant lot where Mr. Lum's property starts at 7196 Saroni. There is now a significant landslide at 7196 Saroni Drive and it is obvious what caused it - the volume and force of the storm drain water being deposited in the creek and no erosion control behind the residence at 7196 Saroni to prevent slope land movement. Thus, adequate erosion control and site stability were not "baked" into the permit conditions for construction of that home in 2007, despite concerns which I repeatedly communicated to your office and to Mr. Lum before the home was constructed.

A few of my neighbors who have lived in the neighborhood for decades and know well the neighborhood history will soon be writing you to confirm things I told your office in 2007, and things I am saying to you now.

Nicholas Vigilante

Sent: jansen lum <j<u>ansenlum@yahoo.com</u>> **Sent:** Sunday, July 29, 2007 8:38 PM **To:** caesar quitevis

Cc: <u>nvigilante@msn.com</u> Subject: 7188 Saroni Dr. Erosion Control G

əesar,

I spoke with Nick Vigilante yesterday extensively about his concerns regarding the development of my property on 7188 Saroni Dr... We concluded our conversation with the understanding that I would have Mr. William Langbehn, geotechnical engineer, on site to assess the property at its' current state, have him do a more comprehensive review of the area, and provide a proposal for erosion control/site stability for the site to accommodate the residence that I plan to construct. I expect to have his report completed within a week or two. I will submit a copy of his report to Planning, as well as Mr. Vigilante, as soon I receive it.

If you have any questions, please call or email me.

Sincerely,

Jansen Lum

From: Nicholas Vigilante

Sent: Wednesday, April 5, 2017 8:05 PM

Quitevis, Caesar; Ranelletti, Darin; Hathaway, Kristin; Daniel, Christine

د: Pon, Craig; Pena, Iowayna; Jansen Lum

Subject: Re: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

You clearly have not interpreted recorded facts correctly. Moreover, your blanket claim that the permit process was followed above and beyond what was required for the Lum/Ham house is an unsubstantiated opinion on your part because I don't see any proof offered below. Lastly, I get the impression your office is trying to dissuade me from pursuing this matter. I will pursue this matter with earnest and vigor for as long as I believe I am correct and until it is corrected. That is how I am wired. For the record:

First off, Lum/Ham's house was permitted in 2007 and built in 2010 on 7196 Saroni and that is where the landslide occurred in 2017 (directly behind the house). The only fact you got correct was that Lum/Ham and I purchased 7198 Saroni and did a lot line adjustment on it in 2013. There were no deficiencies noted and recorded on 7198 Saroni when we bought and divided it. There were no landslides then, and there is no landslide now on what was 7198 Saroni because in 2002 PWA put rip rap rock revetment there to prevent that from happening.

Secondly, the Surveyor's map from the 2013 lot line adjustment process reviewed and approved by the City of Oakland and recorded by Alameda County does not contain any notations or markings on the map of landslide activity or deficiencies of any kind for any of the lots in question. The surveyor would have recorded landslide activity markings on the map if such conditions existed at the time of the survey. Further, the City would have quired corrective actions of the purchasing parties back then if landslide conditions or deficiencies existed by fore approving the lot line adjustment.

Assuming, arguendo, I am not in compliance with something on my property, your office (as the code enforcement entity for the City of Oakland) is <u>required</u> to tim<u>ely i</u>ssue me a deficiency notice clearly indicating

what those deficiencies are on my property (please include a picture of any deficiencies), along with a description of how generally it should be corrected.

Can assure you that you will be hearing much more from me in the future if I receive a deficiency notice from yr office on what you have written below.

Lastly, you must issue Lum/Ham a deficiency notice because there are clearly some things wrong behind that house (permitted by your office and then built on 7196 Saroni) which I am in **NO WAY** responsible nor liable for. I don't think the Lum/Ham family should be held responsible for these damages. I've made my opinions on that matter abundantly clear to the PWA Watershed staff via e-mail and I won't rehash them here, again. Hopefully, you read all those e-mails before you wrote your e-mail to me?

I included Jansen Lum on my e-mail here so he knows where I am centered on this matter.

Nicholas Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855

From: Quitevis, Caesar <<u>CQuitevis@oaklandnet.com</u>> Sent: Wednesday, April 5, 2017 5:35 PM To: Nicholas Vigilante; Ranelletti, Darin; Hathaway, Kristin; Daniel, Christine Cc: Pon, Craig; Pena, Iowayna **`ybject:** RE: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

wir. Vigilante,

I am responding to your inquiry with additional documentation that may clarify your situation. I have also touched base with Craig Pon on the matter as well. Please find attached excerpts from the Planning applications' (Case File #sDR07-327 and CP06-159, the Design Review and Creek Protection Permit) determination for Mr. Lum's project on Saroni Drive. The Creek Protection Permit determination and Conditions of Approval to entitle development of the site are clearly stated and additional Project Specific Conditions were applied to this project, over and above standard Conditions of Approval. This will answer your questions regarding implementing a comprehensive creek protection plan. This application was approved 9/26/2007 and the project was finalled 12/06/2011.

What may not occur to you, but after some permit history research, this may clarify your concern regarding your personal property. Please find the map excerpt from the Planning application (Case File PMW12012) filed on 11/29/2012, and after the completion of Mr. Lum's residence. The application for a lot line adjustment was granted on 2/21/2013 to adjust lot lines to merge three lots into two. The signatures of Mr. Vigilante, Mr. Lum, and Sabrina Ham appear on the Parcel Map Waiver Map. The lot line adjustment results in larger lot areas for both Mr. Lum and Mr. Vigilante. The larger lot areas benefit each property owner, but they are also subject to the standards of Storm Water Management and Discharge Control Ordinance, Chapter 13.16 of the Oakland Municipal Code. While it is policy to not discuss matters of personal property, the Parcel Map Waiver is public record and must be officially recorded with the County of Alameda Recorder's Office. Mr. Lum's property is subject to post-construction creek protection measures under the approved Creek Protection Permit (CP06-159) and is basically what Mr. Pon is referring to. However, Mr. Vigilante is also subject to the Ordinance under Chapter 13.16, and his enlarged property is without benefit of further creek protection measures. In all probability, the exposed banks after the lot line adjustment contributed to an erosion issue given the wet winter the City has experienced. The Parcel Map Waiver

ap is a ministerial decision, meaning it is ordinarily not subject to discretionary conditions of approval, such as creek dection measures. Both property owners benefit from larger properties, but not without the responsibility to comply with the Storm Water Management and Discharge Control Ordinance.

I hope this clarifies your inquiry.



Regards,

Caesar Quitevis, Planner II | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2316 | Oakland, A 94612 | Phone: (510)238-6343 | Fax: (510) 238-4730 | Email: <u>cquitevis@oaklandnet.com</u> | Website: <u>ww.oaklandnet.com/planning</u>

From: Nicholas Vigilante [mailto:NVigilante@msn.com]
Sent: Tuesday, March 28, 2017 1:14 PM
To: Ranelletti, Darin; Hathaway, Kristin; Daniel, Christine
Cc: Quitevis, Caesar; Pon, Craig; Pena, Iowayna
Subject: Re: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

Mr. Ranelletti,

It has been almost nine calendar days since I sent you the e-mail below and I have not received a response from you nor anyone else in the City of Oakland regarding this matter.

I just left you a message on your telephone voice answering system to please respond to the e-mail or have someone else from the City of Oakland respond to the e-mail.

You may not like the content of the e-mail below and/or the sender of it, but it is a cornerstone expectation of good government and professional courtesy to the public for city officials to acknowledge and respond to requests for information from residents. Moreover, there are serious and well documented problems raised below quiring timely corrective actions under the Oakland Municipal Code.

Nicholas Vigilante

From: Nicholas Vigilante
Sent: Sunday, March 19, 2017 3:56 PM
To: Ranelletti, Darin; Hathaway, Kristin; Daniel, Christine
Cc: Quitevis, Caesar; <u>cpon@oaklandnet.com</u>; Pena, Iowayna
Subject: 2010 Construction of Home at 7196 Saroni Drive (Lum and Ham)

This e-mail is to Mr. Ranelletti:

I am writing you now, **8 years later**, because there was recently a landslide on this developed property on the back side facing the creek. Your office, formerly known as CEDA, permitted the construction of a home on this property in 2010. It was my understanding from you, and from your employee Mr. Quitevis (Case Planner), that a comprehensive creek protection permit would be required before the home was built. In fact, in 2007, I went on public record in writing by e-mails and by a signed and dated letter to Caesar Quitevis that the "creek issues" needed to be addressed in order to avoid problems, such as the current landslide, <u>before</u> the home was built.

Earlier in March, Mr. Pon in PWA Watershed investigated the landslide as a result of an SRN submitted by the owners of 7196 Saroni Drive (Lum and Ham), and by myself. This is a quote from Mr. Pon's investigative findings:

Ve also discussed the construction of your home in 2010, and how the development was subject to the Creek Ordinance and that you were required to obtain a Creek Protection Permit (CPP) and permits from other regulatory agencies for the development. There was a misunderstanding of the intent and requirements of the Creek Ordinance and CPP, and we discussed this in detail." "Additionally, I mentioned that there were CPP Conditions of Approval that were applicable during the development of the property, and that some may continue to be applicable since the property is a Creekside operty and subject to compliance with the Creek Ordinance. One item specifically, are the black plastic orrugated pipes from the down spouts of your home that directs concentrated flows onto the areas of the eroding creek bank."

I am requesting that your office, the successor of CEDA, explain to me in writing what Mr. Pon is referring to above. If you don't know what he means, I encourage you to communicate with PWA Watershed before sending me a response. I have a right to know what went on here.

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855

From: Ranelletti, Darin <<u>DRanelletti@oaklandnet.com</u>>
Sent: Wednesday, February 7, 2007 2:19 PM
To: 'Nicholas Vigilante'
Cc: Quan, Jean; Cowan, Richard; 'sgpiper@sbcglobal.net'; Quitevis, Caesar; Gallagher, Daniel
Subject: RE: Tree Removal Permit Number DR06-154, 7188 Saroni Drive

Mr. Vigilante:

e proposed development at 7188 Saroni Drive requires the approval of a creek protection permit and design review before construction permits are issued and the tree removal permit is effective. The case planner reviewing the applications for the creek protection permit and design review is Cesar Quitevis. He may be reached at (510) 238-5343. I recommend you contact Cesar to make arrangements to see the file on the project and to submit your concerns regarding the proposal.

Regards,

Darin Ranelletti

Darin Ranelletti, Planner III City of Oakland, Planning and Zoning Division 510-238-3663 direct phone 510-238-6538 fax

From: Gallagher, Daniel
Sent: Wednesday, February 07, 2007 1:13 PM
To: 'Nicholas Vigilante'
Cc: Quan, Jean; Cowan, Richard; 'sgpiper@sbcglobal.net'; Ranelletti, Darin
Subject: RE: Tree Removal Permit Number DR06-154, 7188 Saroni Drive



On December 11, 2006, Jansen Lum, owner of the vacant property at 7188 Saroni Drive, submitted a Development-related tree removal permit application to the City's Office of Planning and Zoning. Public notice letters were sent to the adjacent property owners on December 21, 2006. As your property, at 7200 Saroni Drive, is not adjacent to the site of the proposed

tree removals, you were not notified of this application. To date, your email below has been the only public comment received.

application was reviewed and determined to be exempt from CEQA under section 15303. The permit application is being lewed to determine if it meets criteria to approve the removal of five (5) protected Coast Live Oak trees ranging in size from 9 to 15 inches in diameter. The tree removal permit will include conditions of approval that requires fencing to protect trees to be preserved and that native replacement trees be planted and maintained on site as part of the landscape.

If the permit is not appealed, it will be forwarded to the Building Services Department and shall be held until determinations are made regarding any other permit applications affecting the project. The tree removal permit shall only be issued to the applicant concurrent with or subsequent to all other necessary permits pertinent to site alteration and construction.

You requested that a "stop order" be issued. A permit may only be suspended based upon substantial evidence that a permit was issued in error. The Planner assigned to this project is Darin Ranelletti. He can phoned at 238-3663. The plans submitted for this property can be viewed at the Community and Economic Development Agency (CEDA), 250 Frank H. Ogawa Plaza, 2nd floor.

Dan Gallagher Tree Supervisor II Public Works Agency <u>dgallagher@oaklandnet.com</u> phone: (510) 615-5856 fax: (510) 615-5845 -----Original Message-----From: Nicholas Vigilante [mailto:NVigilante@msn.com] nt: Saturday, January 27, 2007 3:34 PM : jquan@oaklandnet.com; rcowan@oaklandnet.com; sgpiper@sbcglobal.net; dgallagher@oaklandnet.com Subject: Work Stop Order Request: Tree Removal Permit Number DR06-154

Jean, Richard, Sue, and Dan:

My neighbor at 7236 Saroni received the above notice by mail, but I received no notice whatsoever until January 21 when my neighbor mentioned to me that he had received a notice.

The property to which the Permit Number applies, 7188 Saroni, is closer to me at 7200 Saroni, than my neighbor at 7236 Saroni. Further, I have a landscape easement and agreement on file, with my deed of trust, with the owner of the lot (7198) next to the tree removal permit lot (7188). Therefore, I have a substantial interest in what will occur on that lot.

Therefore, I am requesting that a **STOP ORDER** on removal of these trees be issued immediately until I can review the situation. These trees are Oak Trees, and they were planted by the former owners of 7200 and 7195 Saroni; both families owned their homes and the adjoining lots where the trees in question were planted and are standing.

I realize that in order to build a property on the lot, that some of the trees will need to be removed. I would like to review this matter and provide my comments before the removal work commences. If any effort can be made to save some of them, I am in favor of that.

is my opinion that if the owner wants to remove all of them, that they probably want to build a large home. The lot is not exactly ideal, and it is situated next to an unsecured storm water drain creek, which will require substantial reinforcement if a house, especially a big one, is built there.

Nicholas J. Vigilante 7200 Saroni Drive Qakland, California 94611 9-6855

Carter, Pat

From: Sent:	Estes, Lesley
	Friday, June 9, 2017 4:55 PM
То:	Quitevis, Caesar; Ranelletti, Darin; Larks, Dennis; Fielding, Rich; Smith, Sandra M; Gray, Neil D.; Candell, Chris; Low, Tim
Cc:	Daniel, Christine; Lau, Danny; Pon, Craig
Subject:	RE: Code Enforcement Case - Complaint Number 17ROW00013

Thank you Caesar. Let us know if you need assistance reviewing future remediation/mitigation/creek plans.

Lesley Estes

Manager, Watershed and Measure DD

City of Oakland | Oakland Public Works Department | Bureau of Engineering & Construction | APWA Accredited Agency 250 Frank Ogawa Plaza Suite 4314 | Oakland, CA 94612 (510) 238-7431 | (510) 238-7227 Fax

lestes@oaklandnet.com

Report A Problem | Public Works Call Center | (510) 615-5566 www.oaklandpw.com | pwacalicenter@oaklandnet.com | Mobile app: SeeClickFix

><(((((°>·..·`·..)<(((((°>·...·`·..)><(((((°>

From: Quitevis, Caesar

Sent: Friday, June 9, 2017 12:07 PM

To: Ranelletti, Darin < DRanelletti@oaklandnet.com>; Larks, Dennis < DLarks@oaklandnet.com>; Fielding, Rich <RFielding@oaklandnet.com>; Smith, Sandra M <SSmith@oaklandnet.com>; Gray, Neil D. <NGray@oaklandnet.com>; Candell, Chris <CCandell@oaklandnet.com>; Low, Tim <TLow@oaklandnet.com> Cc: Daniel, Christine <CDaniel@oaklandnet.com>; Estes, Lesley <LEstes@oaklandnet.com>; Lau, Danny <dlau@oaklandnet.com>; Pon, Craig <cpon@oaklandnet.com> Subject: RE: Code Enforcement Case - Complaint Number 17ROW00013

Darin,

Neil, Chris, and I just finished our meeting regarding this matter. It is clear that the applicant did not adhere to conditions of approval. We are all in agreement. Chris has discussed with Tim, and Tim agreed that the dissipater called for on the drawings require their installation. From site visits conducted by the inspectors, their observation confirm that erosion has exposed the base of the building foundation. At our meeting with Public Works, I pulled those documents that you are referring to and were available at that time. I am coordinating with Chris on the draft enforcement letter to remediate the situation. I don't know Dennis, but will coordinate with Chris on the next steps, which may include an engineer's assessment on the safe conditions of the built home potentially exposed to the erosion; any remediation to stabilize the slope; adequacy of the dissipater design; and if necessary, additional an creek permit to conduct work closer to the creek than what had been granted under the original creek permit. If you have further advice or suggestions, please advise at this time.

Regards

Caesar Quitevis, Planner II | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2316 | Oakland, CA 94612 | Phone: (510)238-6343 | Fax: (510) 238-4730 | Email: cquitevis@oaklandnet.com | Website: www.oaklandnet.com/planning

1



CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA • SUITE 2340 • OAKLAND, CALIFORNIA 94612-2031

Planning and Building Department Bureau of Building Building Permits, Inspections and Code Enforcement Services www.oaklandnet.com

(510) 238-6402 FAX:(510) 238-2959 TDD:(510) 238-3254

NOTICE OF VIOLATION



6/16/17

Certified and Regular mail

To: LUM JANSEN & HAM SABRINA TRS 7196 SARONI DR, OAKLAND CA94611-1421

Code Enforcement Case No.: 1702523 Property: 7196 SARONI DR, OAKLAND 94611 Parcel Number: 48E-7330-3-1

Re-inspection Date:8/9/17

Code Enforcement Services inspected your property on 6/7/17 and confirmed:

that the violations of the Oakland Municipal Code (OMC) marked below are present.

that work was performed without permit or beyond the scope of the issued permit and you are receiving this Notice of Violation because you did not get the required permit within three (3) days of receiving the Stop Work Order. You must contact the inspector indicated below before the Re-inspection Date to stop further code enforcement action.

Photo	Description of Violation	Location	OMC Section	
	Property Maintenance			
	Erosion from water runoff is taking place from your property effecting the creek area.	On backside of the perperty bording the creek.	13.16 15.08 16.20.070	
	Building Maintenance (Code)			

Notice of Violation Page 1of 2

H

Notice of Violation Page 2of 2

At this point no fees or other charges have been assessed for these violations. To stop further code enforcement action, you are advised to correct the above violations and contact Inspector **Dennis Larks**, who is assigned to your case, <u>before the re-inspection</u> date shown above to schedule an inspection. Your inspector is available by phone at 510-238-3669 and by email at **dlarks**@oaklandnet.com.

If the Property Owner Certification is included in this notice you may also complete the form and include photographs of the corrected violations.

Note: If a complaint is filed regarding the same or similar violation(s) and it is confirmed within 24 months from the date of this notice an immediate assessment of \$1,176.00 will be charged as a Repeat Violation. In addition, if violation(s) remain uncorrected after I receive a 30 day Notice of Violation further enforcement action(s) will include additional fees.

If you do not contact your inspector to discuss why you cannot comply or if applicable, complete the Property Owner Certification form and the re-inspection verifies that all violations have not been corrected, you may be charged for inspection and administrative costs, which can total \$2,665.00. The City may also abate the violations and charge you for the contracting and administrative costs, which can also total over \$1,000.00. In addition, Priority Lien fees in the amount of \$1,926.00 may be assessed if fees are not paid within 30 days from the date of the invoice. Charges may be collected by recording liens on your property and adding the charges to your property taxes or by filing in Small Claims or Superior Court. Furthermore, this Notice of Violation may be recorded on your property.

You have a right to appeal this Notice of Violation. You must complete the enclosed Appeal form and return it with supporting documentation in the enclosed envelope. If Code Enforcement Services does not receive your written Appeal within 30 days of the date of this notice, you will waive your right for administrative review. Note: Incomplete appeals including, but not limited to an oral notification of your intention to appeal, a written appeal postmarked but not received by us within the time prescribed or a written appeal received by us without a filing fee are not acceptable and will be rejected.

If you choose to file an appeal no further action can be taken by Code Enforcement Inspectors until you have had the opportunity to be heard by an independent Administrative Hearing Examiner pursuant to the Oakland Municipal Code Section 15.08.380 (B)(3) and a Final Decision is determined. An appeal will be scheduled within 60 days from the date the appeal was filed. A filing fee in the amount of \$110.00 is due at the time of submittal. Payments may be made in person at the Bureau of Building, 250 Frank Ogawa Plaza, 2nd Floor, Cashiering Section or by phone by calling 510-238-4774 (Please include the receipt number and date on your appeal). MasterCard and Visa are accepted.

Administrative Hearing Fees

Filing Fee Conduct Appeals Hearing Processing Fee Reschedule Hearing

\$ 110.00 Actual Cost Appeal (Fee charged only if Appellant loses appeal) \$ 931.00 \$ 329.00

Fees Include 9.5% Records Management Fee and 5.25% Technology Enhancement Fee

Sincerely,

Dennis Larks Sr. Construction Inspector Planning and Building Department

cc:

Enclosures as applicable:

Blight brochure
 Property Owner Certification

May, 2016 Scan to: Code Enforcement-Chronology-Abatement Activities

Residential Code Enforcement brochure
 Mold and Moisture brochure

U Vehicular Food Vending brochure Pushcart Food Vending brochure



Smoke Alarms brochure
 Condominium Conversion brochure



Lead Paint brochure

Photographs

cc:

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA • SUITE 2340 • OAKLAND, CALIFORNIA 94612-2031 Planning and Building Department

Bureau of Building www.oaklandnet.com

PROPERTY OWNER CERTIFICATION

CORRECTED OR REMOVED VIOLATIONS

Property:

Parcel no.

Case no.:

Owner:

Courtesy Notice date:

Re-inspection date:

I certify that the violations do not exist on my property.

I certify that I have corrected the following violations identified in the Notice of Violation I received from the City of Oakland:

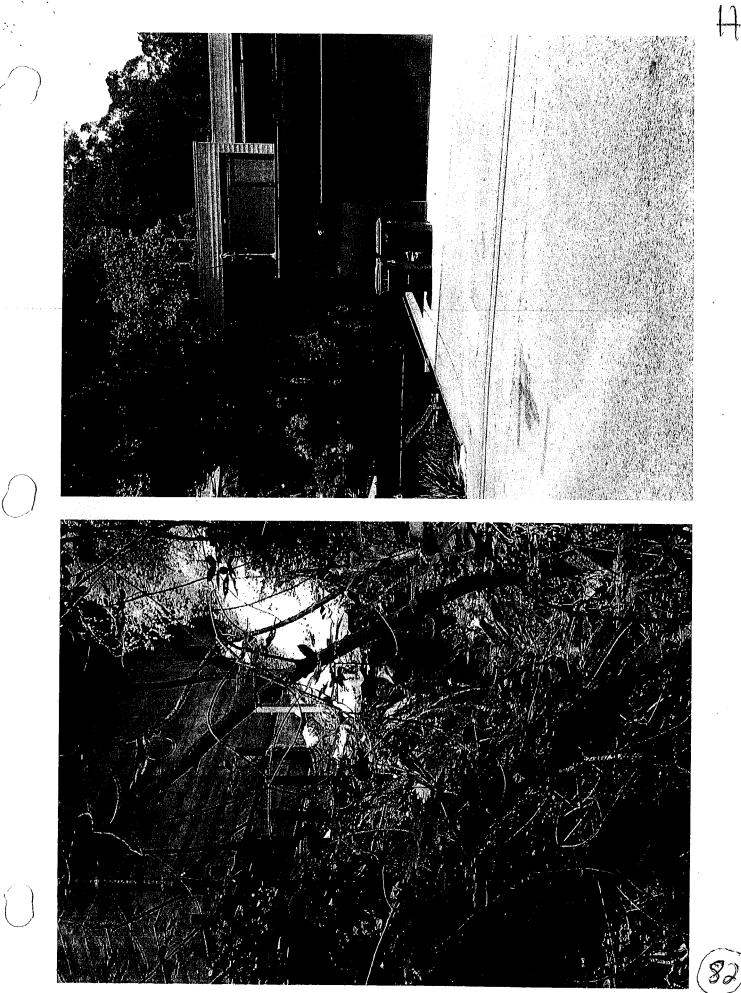
I understand that by signing and returning this form the violation does not exist or that the violation(s) have been corrected.

I will maintain my property free of blight conditions and I understand that if a complaint is filed regarding the same or similar violation(s) and it is confirmed within 24 months from the date of this notice I will immediately be charged \$1,176.00 as a Repeat Violation. In addition, if violation(s) remain uncorrected after I receive a 30 day Notice of Violation further enforcement action will include additional fees.

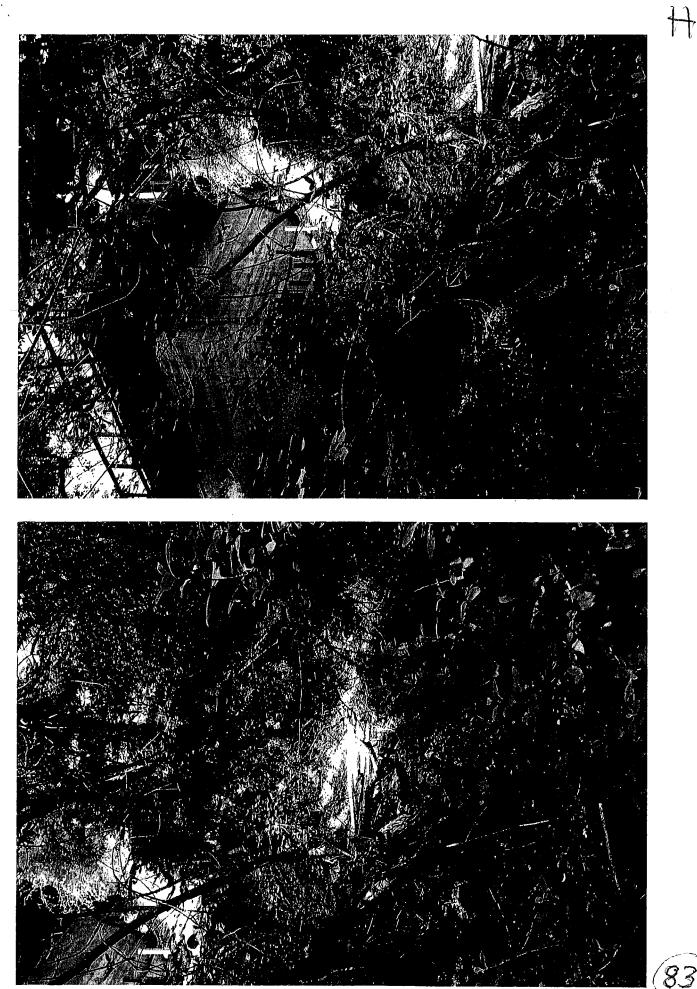
Property Owner Certification

Print Name (print)	Date
Property Owner Signature Day time telephone ()	E-mail:
May, 2016 Scan to: Code Enforcement-Chronology-Abatement Activities	81

	Instructions
inform	v the property address and owner ation shown at the left and make any ary corrections.
shown form <u>w</u>	icable, before the Re-inspection date at the left, complete and return this signed <u>vith dated photographs of your property to</u> the violations were removed or not present:
E-mail:	inspectioncounter@oaklandnet.com
Facsimile	: 510/ 238-2959
Mail:	City of Oakland Bureau of Building
	250 Frank H. Ogawa Plaza Suite 2340 Oakland, CA 94612-2031
	(Envelope enclosed – no postage required)



8.



County Assessor Display

Assessor Parcel Record for APN 048-E-7330-003-01

Parcel Number:	48E-7330-3-1
Property Address:	7196 SARONI DR, OAKLAND 94611
Owner Name:	LUM JANSEN & HAM SABRINA TRS
Care of:	
Attention:	
Mailing Address:	7196 SARONI DR, OAKLAND CA 94611-1421
Use Code:	SINGLE FAMILY RESIDENTIAL HOMES USED AS SUCH
Recorder Number:	-000000
Recorder Date:	
Mailing Address Effective Date:	6/5/2013
Last Document Input Date:	
Deactivation Date:	
Exemption Code:	

Home	<u>Enter</u> <u>Assessor</u> <u>Parcel</u> Number	Property List	<u>Assessments</u>	Property Details	<u>GIS Parcel</u> <u>Map</u>	<u>Alameda</u> <u>County</u> Web Site	Use Codes
	8	24)	アロルト ミル40 0000 722 20 <u>20 20 20 20 20 20 20 20 20 20 20 20 20 2</u>	CERTIFI Domestic Main For delivery info () for entified Mail Fee Adult Signature Requit Adult Signature Requit Adult Signature Requit Adult Signature Requit Contilied Mail Restricte Adult Signature Requit Contilied Mail Restricte Contilied Mail Restricte Continue Mail Res	Check box, add fee as approp onlo: d Delivery \$	20511erat www.usr mate) Por Por Por Por Por Por Por Por	slmark lero

http://revfilesvr/countydisplay/display_assessor_record.asp?apn3=048E733000301

Contact Us Settings



Department of Consumer Affairs Board for Professional Engineers, Land Surveyors, and Geologists

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Applicants

Publications

Online Services

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License Search or Pro essional Engineers and Land Surveyors

Licensee Name: VANDIVERE WILLIAM BENTON License Type: **CIVIL ENGINEER** License Number: 35613 License Status: CLEAR De inition Expiration Date: September 30, 2019 Address: 2974 ADELINE STREET City: BERKELEY State: CA Zip: 94703 **County:** ALAMEDA Actions: No

Public Record Action s)

This information is updated Monday through Friday - Last updated: MAR-09-2018

Mail - NVigilante@msn.com

RE: Code Enforcement Case - Complaint Number 17ROW00013 (re styled as Number 1702523)

<mith, Sandra M <SSmith@oaklandnet.com>

on 6/19/2017 8:38 AM

To:Nicholas Vigilante <NVigilante@msn.com>; Ranelletti, Darin <DRanelletti@oaklandnet.com>;

cc:Daniel, Christine <CDaniel@oaklandnet.com>; Campbell Washington, Annie <ACampbellWashington@oaklandnet.com>; Pena, Iowayna <IPena@oaklandnet.com>;

3 attachments (7 MB)

DOC061917.pdf; violation appeal form july 2015.docx; hearing fact sheet.docx july 2015.docx;

Good Morning Mr. Vigilante,

The Notice of Violation was mailed on Friday, June 16 and we typically scan documents within 1-3 days. I had a copy scanned for you this morning (attached) and the record status in our system is "Violation Verified."

Let me know if you have additional questions.

From: Nicholas Vigilante [mailto:NVigilante@msn.com]

Sent: Saturday, June 17, 2017 1:19 PM

To: Smith, Sandra M <SSmith@oaklandnet.com>; Ranelletti, Darin <DRanelletti@oaklandnet.com>

Cc: Daniel, Christine <CDaniel@oaklandnet.com>; Campbell Washington, Annie <ACampbellWashington@oaklandnet.com>; Pena, Iowayna <IPena@oaklandnet.com> Subject: Re: Code Enforcement Case - Complaint Number 17ROW00013 (re styled as Number 1702523)

I checked the accela.com data base and there is no complaint status information on the above re styled case number, such as enforcement notice mailed on (date). Assuming I was suppose to receive a copy of the notice by e-mail (see below), that has not happened yet.

Further, I requested the complaint and appeals process information and it has not been furnished to me. The latter is basic information which should be part of an administrative complaint process, and it should always be easily available to the general public on the City website, and by way of a letter to the complainant acknowledging receipt of the complaint.

If I am not accessing the accela data base correctly, please provide instructions with the complaint and appeal information.

ky, I asked to meet with Mr. Ranelletti in person to discuss some ideas I have to resolve all the problems that have caused me to file this complaint. I have not heard im Mr. Ranelletti, or a designee if Mr. Ranelletti is unavailable.

This is not how a complaint process should work. I know that for a fact because I spent almost 20 years of my 30+ year Federal career as a senior investigator for a law enforcement agency's civil rights complaint program.

Nicholas Vigilante

From: Smith, Sandra M <<u>SSmith@oaklandnet.com</u>> Sent: Monday, June 12, 2017 8:46 AM To: Nicholas Vigilante; Ranelletti, Darin Cc: Daniel, Christine; Campbell Washington, Annie; Pena, Iowayna Subject: RE: Code Enforcement Case - Complaint Number 17ROW00013 (re styled as Number 1702523)

Good Morning Everyone,

The enforcement notice regarding Complaint 1702523 is being prepared and will be mailed before the end of the week. A copy will be emailed as requested too.

From: Nicholas Vigilante [mailto:NVigilante@msn.com]

Sent: Friday, June 9, 2017 6:19 PM

To: Ranelletti, Darin <<u>DRanelletti@oaklandnet.com</u>>

Cc: Daniel, Christine <<u>CDaniel@oaklandnet.com</u>>; Campbell Washington, Annie <<u>ACampbellWashington@oaklandnet.com</u>>; Pena, Iowayna <<u>IPena@oaklandnet.com</u>>; Smith, Sandra M < <<u>SSmith@oaklandnet.com</u>>

Subject: Re: Code Enforcement Case - Complaint Number 17ROW00013 (re styled as Number 1702523)

Mr. Ranelletti,

Thank you for your e-mail replies, and for the phone message.

I would like to meet with you in person sometime next week to discuss with you some ideas I have to solve all the problems that have caused me to file the instant code enforcement complaint. I am available to meet with you beginning Wednesday next week. The meeting will not take any longer than 30 minutes, and I will adjust to "hatever time you are available."

h also asking Sandra Smith by way of this e-mail, per your directions below, to please send the information about the complaint and appeal process to me via e-mail so

Nicholas Vigilante

Sent from my BlackBerry Passport 10 smartphone.

https://outlook.live.com/owa/?path=/mail/search

From: Ranelletti, Darin Sent: Friday, June 9, 2017 11:36 AM To: Nicholas Vigilante

Paniel, Christine; Campbell Washington, Annie; Pena, Iowayna; Smith, Sandra M

ject: RE: Code Enforcement Case - Complaint Number 17ROW00013

Dear Mr. Vigilante:

Thank you for your email. I apologize for the delayed response. I just left a voice mail message for you to further discuss this.

The below complaint has been assigned the case number 1702523. You can find information about the status of the complaint on our online system located here: https://aca.accela.com/oakland/

City of Oakland - Office of the City Administrator

aca.accela.com

Welcome to the City of Oakland Citizen Portal. This system provides real-time, direct access to information via the Internet, 24 hours a day - seven days a week.

For more information about the complaint process, including appeal rights, please contact Sandra Smith (copied here and also reachable by phone at (510) 238-3239).

Regards,

Darin Ranelletti

Darin Ranelletti, Interim Director | City of Oakland | Planning and Building Department | 250 Frank H. Ogawa, Suite 3315 | Oakland, CA 94612 | Phone: (510) 238-3663 | Fax: (510) 238-6538 | Email: dranelletti@oaklandnet.com | Website: www.oaklandnet.com/planning

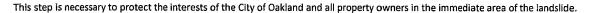
From: Nicholas Vigilante [mailto:NVigilante@msn.com] Sent: Tuesday, May 30, 2017 1:32 PM

To: Ranelletti, Darin < DRanelletti@oaklandnet.com>

Cc: Daniel, Christine <<u>CDaniel@oaklandnet.com</u>>; Campbell Washington, Annie <<u>ACampbellWashington@oaklandnet.com</u>>; Pena, Iowayna <<u>IPena@oaklandnet.com</u>> Subject: Code Enforcement Case - Complaint Number 17ROW00013

Ranelletti,

A formal complaint was filed May 30, 2017 - Record information appended below.



I could not find codified information regarding the complaint process, including appeal rights. I asked the attendant at the Department's complaint telephone number, and she was unable to provide it to me. Please provide me the information or a link to it by e-mail or in a complaint acknowledgement letter.

Although a formal complaint has been filed, I am available to discuss resolution of it.

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 Reply To: <u>NVigilante@msn.com</u>

Record 17ROW00013:

Right of Way Activity Complaint

Record Status: Created

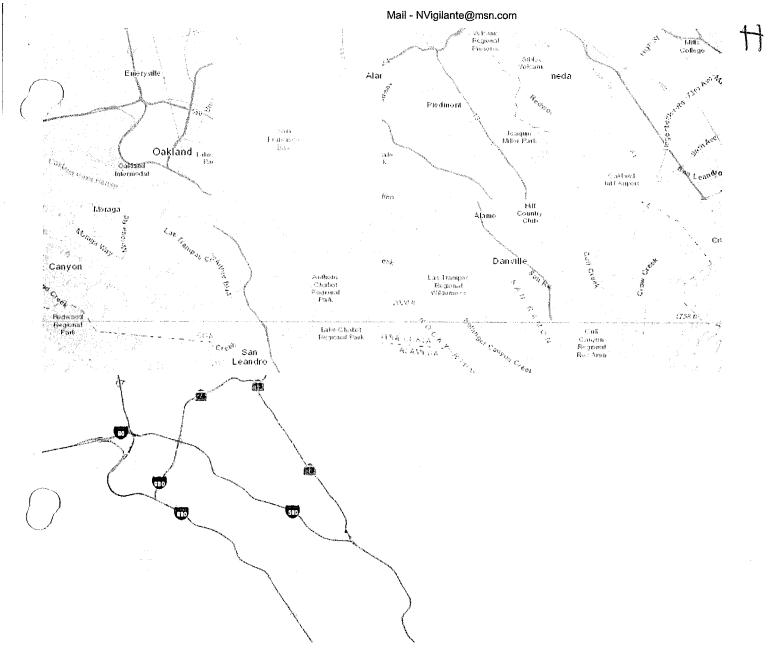
Property Address

/ 7196 SARONI DR





Custom Component



Record Details

Case Description:

A landslide occurred behind the house this winter due to excessive storm drain water traveling in a creek behind the house, and due to substandard City of Oakland permit oversight and inspection when the home was built in 2010. Both the City and the owner were put on notice about the excessive storm drain water traveling in the creek beginning in 2007 but neither party took steps to prevent property damage during and after construction of the house, and neither party has taken prompt action to correct the landslide despite repeated written requests from neighbors to Darin Ranelletti.

More Details

© Application Information VIOLATION CHECKLISTActivity Type:



Mail - NVigilante@msn.com

Illicit Discharge

PROPERTY INFORMATIONCouncil District: undefined

Parcel Information

Parcel Number: 048E733000300



Fwd: Summary of 2/22/2017 Phone Conversation - 7196 Saroni Drive

JL <jansenlum@gmail.com> Fri 3/3/2017 9:14 PM To: nick vigilante <nvigilante@msn.com>

1 attachments (2 MB) 7196_Saroni_Photo-2-11-17.pdf;

Nick.

This arrived this morning, but I was in meetings all day long. I have not responded yet. I take it he did not address your email?

Sent from my iPhone

Begin forwarded message:

From: "Pon, Craig" < <u>cpon@oaklandnet.com</u>> Date: March 3, 2017 at 11:24:46 AM PST **To:** Jansen Lum <jansenlum@gmail.com> Cc: "Lau, Danny" <<u>dlau@oaklandnet.com</u>>, "Estes, Lesley" <<u>LEstes@oaklandnet.com</u>>, "Hathaway, Kristin" <<u>khathaway@oaklandnet.com</u>>, "Pena, Iowayna" <<u>IPena@oaklandnet.com</u>>, "Mitchell, Jason" <<u>JWMitchell@oaklandnet.com</u>> Subject: Summary of 2/22/2017 Phone Conversation - 7196 Saroni Drive

Mr. Lum,

The following is a summary of our phone conversation on Wednesday, February 22, 2017 -

- 1. We reviewed and discussed the attached document titled, "Parcel Map Waiver Lot Line Adjustment," that you provided to the City on February 20, 2017. The review/discussion included:
 - Location of your home at 7196 Saroni Drive, your neighbor's home at 7200 Saroni Drive, and City storm drain and easement on the 7200 Saroni Drive property on the map.
 - Clarification of a blue highlighted area on this map that labeled a Creek on private property as, "City surface storm drain." Additionally, I stated that Creeks in Oakland are part of real property, and that creeks are the responsibility of private property owners to maintain.
 - You mentioned that the City repaired your neighbor's property and City storm drain infrastructure at 7200 Saroni Drive in the past. I do not have any record, knowledge or history of a past repair at this location, and that the City Sewer Sheet shows City storm drain infrastructure in an easement on your neighbor's property.
- As stated in the 2nd and 3rd bullets above, the erosion on your property appears to be a 2. private property issue, and that the storm drain infrastructure/easement in question is NOT located on your property.



1/2

Mail - Nicholas Vigilante - Outlook

I encouraged you to obtain the assistance of geotechnical professionals and/or engineers to resolve the erosion issues on your property in an effort to secure your property from damages.

3. We also discussed the construction of your home in 2010, and how the development was subject to the Creek Ordinance and that you were required to obtain a Creek Protection Permit (CPP) and permits from other regulatory agencies for the development. There was a misunderstanding of the intent and requirements of the Creek Ordinance and CPP, and we discussed this in detail.

Additionally, I mentioned that there were CPP Conditions of Approval that were applicable during the development of the property, and that some may continue to be applicable since the property is a Creekside property and subject to compliance with the Creek Ordinance. One item specifically, are the black plastic corrugated pipes from the down spouts of your home that directs concentrated flows onto the areas of the eroding creek bank.

Per your request, I have included contact information for Kristin Hathaway, my supervisor, and Lesley Estes, the Watershed Program Manager below.

Kristin Hathaway Watershed Program Supervisor khathaway@oaklandnet.com (510) 238-7571

Lesley Estes Watershed Program Manager lestes@oaklandnet.com (510) 238-7431

Thank you

Craig Pon Watershed Program Specialist, Watershed & Stormwater Management City of Oakland | Oakland Public Works Department | APWA Accredited Agency 250 Frank H Ogawa Plaza, Suite 4314 | Oakland, CA 94612 (510) 238-6544 | (510) 238-2233 Fax cpon@oaklandnet.com

Report A Problem | Public Works Agency Call Center | (510) 615-5566 www.oaklandpw.com | pwacallcenter@oaklandnet.com | Mobile app: SeeClickFix

Go Green! Please consider the environment before printing this email, and help the City of Oakland be environmentally responsible.



2/2

RE: RB1704591 (7196 Saroni Drive - Lum/Ham Residence) E-Mail #3

Wong, Jennifer <jjwong@oaklandnet.com> Tue 11/7/2017 4:03 PM To: Nicholas Vigilante <NVigilante@msn.com> Hi Nick,

I have not received anything since I saw you last, which was on the day you met with Tim Low. Once I receive the additional information from Jansen Lum, I will let you know, and you can inform Ms. Park and her son Ken as well. Thank you.

From: Nicholas Vigilante [mailto:NVigilante@msn.com] Sent: Tuesday, November 07, 2017 3:52 PM To: Wong, Jennifer <jjwong@oaklandnet.com> Cc: kenp911@sbcglobal.net Subject: Re: RB1704591 (7196 Saroni Drive - Lum/Ham Residence) E-Mail #3

Jennifer,

I am checking in with you to see if Mr. Lum has provided the additional information you requested. I would like to review all the additional information he provides. Ms. Park, and her son Ken, would also like to come along with me to review the information. Please let me know. Thank you.

Nicholas Vigilante

From: Nicholas Vigilante Sent: Wednesday, October 25, 2017 11:35 AM To: Wong, Jennifer Subject: RB1704591 (7196 Saroni Drive - Lum/Ham Residence) E-Mail #3

Jennifer,

Attached you should find three pictures.

The first two pictures are of the primary landslide behind the residence at 7196 Saroni Drive. The pictures were taken from the backside of the residence at 7236 Saroni Drive which is on the other side of the creek facing the backside of Lum/Ham residence at 7196 Saroni Drive.

The third picture is of the second landslide on 7196 Saroni Drive which is below the flat slope and cantilever retaining wall on my property at 7200 Saroni Drive. There is dead tree and dead branch debris blocking the creek at this location. In February, Mr. Lum told me that the Public Works Watershed Unit advised him that he was responsible for removing debris that was blocking or clogging the creek. Removal of creek debris has not been done yet, the OFD Vegetation Management Unit (Vince Crudele) has been made aware of the wood debris as a result of an audit by the Oakland Firesafe Council, and debris removal from the entire creek on Mr. Lum's property should be made a condition for permit approval. Here is a copy of an e-mail from Craig Pon (on behalf of Lesley Estes and Kristin Hathaway) to Mr. Lum summarizing a phone conversation Mr. Pon had with Mr. Lum on February 22, 2017. It will be relevant in your review of Mr. Lum's plans.



1/3

Nicholas Vigilante

From: "Pon, Craig" < cpon@oaklandnet.com>

Date: March 3, 2017 at 11:24:46 AM PST

To: Jansen Lum <jansenlum@gmail.com>

Cc: "Lau, Danny" < "estes, Lesley" < ">Lestes@oaklandnet.com, "Hathaway, Kristin" < khathaway@oaklandnet.com, "Pena, lowayna" <IPena@oaklandnet.com>, "Mitchell, Jason" <IWMitchell@oaklandnet.com>

Subject: Summary of 2/22/2017 Phone Conversation - 7196 Saroni Drive

Mr. Lum,

The following is a summary of our phone conversation on Wednesday, February 22, 2017 -

We reviewed and discussed the attached document titled, "Parcel Map Waiver Lot Line Adjustment," that you provided to the City on February 20, 2017. 1. The review/discussion included:

> Location of your home at 7196 Saroni Drive, your neighbor's home at 7200 Saroni Drive, and City storm drain and easement on the 7200 Saroni Drive property on the map.

Clarification of a blue highlighted area on this map that labeled a Creek on private property as, "City surface storm drain." Additionally, I stated that Creeks in Oakland are part of real property, and that creeks are the responsibility of private property owners to maintain.

You mentioned that the City repaired your neighbor's property and City storm drain infrastructure at 7200 Saroni Drive in the past. I do not have any record, knowledge or history of a past repair at this location, and that the City Sewer Sheet shows City storm drain infrastructure in an easement on your neighbor's property.

As stated in the 2nd and 3rd bullets above, the erosion on your property appears to be a private property issue, and that the storm drain infrastructure/easement in question is NOT located on your property.

I encouraged you to obtain the assistance of geotechnical professionals and/or engineers to resolve the erosion issues on your property in an effort to secure your property from damages.

We also discussed the construction of your home in 2010, and how the development was subject to the Creek Ordinance and that you were required to 3. obtain a Creek Protection Permit (CPP) and permits from other regulatory agencies for the development. There was a misunderstanding of the intent and requirements of the Creek Ordinance and CPP, and we discussed this in detail.

Additionally, I mentioned that there were CPP Conditions of Approval that were applicable during the development of the property, and that some may continue to be applicable since the property is a Creekside property and subject to compliance with the Creek Ordinance. One item specifically, are the black plastic corrugated pipes from the down spouts of your home that directs concentrated flows onto the areas of the eroding creek bank.

Per your request, I have included contact information for Kristin Hathaway, my supervisor, and Lesley Estes, the Watershed Program Manager below.

Kristin Hathaway Watershed Program Supervisor khathaway@oaklandnet.com (510) 238-7571

Lesley Estes Watershed Program Manager lestes@oaklandnet.com (510) 238-7431



1/30/2019

Thank you

Craig Pon

 Watershed Program Specialist, Watershed & Stormwater Management

 City of Oakland | Oakland Public Works Department | APWA Accredited Agency

 250 Frank H Ogawa Plaza, Suite 4314 | Oakland, CA 94612

 (510) 238-6544 | (510) 238-2233 Fax

 cpon@oaklandnet.com







RB1704591 - 7196 Saroni Drive - Complaint #1702523

Wong, Jennifer <jjwong@oaklandnet.com> Thu 3/22/2018 11:36 AM To: Nicholas Vigilante <NVigilante@msn.com> Hi Nick,

FYI, I just recently received the final version of the revised design for the rear retaining wall by his new engineer. Jansen Lum submitted a Creek Protection Plan and the new engineering plans and calculations, to the Planning and Building Dept., last week on 3/12/18.

You can come in to the Bldg. Dept. office (at the Inspections Counter) from 9 am to 11 am tomorrow morning, if that works for you.

If not, please contact me to make an appointment for next week. Thank you.



7196 Saroni Drive (RB1704591) - Additional Information

Nicholas Vigilante Wed 4/4/2018 1:21 PM

To: langbehn@langbehngeotech.com <langbehn@langbehngeotech.com>; William Langbehn <wmlangbehn@sbcglobal.net> Cc: Wong, Jennifer <jjwong@oaklandnet.com>; Low, Tim <TLow@oaklandnet.com>; Lau, Danny <dlau@oaklandnet.com>; glim@oaklandnet.com <glim@oaklandnet.com>; Dunston, Daryel <DDunston@oaklandnet.com>

1 attachments (3 MB) IMG_20180404_1151239.jpg;

Mr. Langbehn,

This is additional evidence in support of my requests and comments submitted to you on March 27, 2018.

Attached you should find a picture of the 2010 Lum Construction Disapater Plan approved by the City of Oakland which the owners never installed. The 2010 drawing is somewhat smaller in scale and design than the proposed plan in RB1704591 because landslide activity has occurred since then. I believe the landslide activity is due to the owners' failure to install the disapater system in 2010. Again, I am asking you to please recommend to the owners of 7196 Saroni Drive that they adjust the plans to address the small area of erosion next to the old Oak tree at 7236 Saroni Drive. Thank you.

Nicholas J. Vigilante

From: Nicholas Vigilante Sent: Tuesday, March 27, 2018 2:06 PM To: langbehn@langbehngeotech.com; William Langbehn Cc: Wong, Jennifer; Low, Tim; Lau, Danny; glim@oaklandnet.com; Dunston, Darvel Subject: 7196 Saroni Drive (RB1704591)

Mr. Langbehn,

I reviewed the tentative proposed construction plans in the above cited matter today, and I have the following requests and comments to offer.

One - The plans to address the landslide directly behind the house, specifically an "L" shaped cantilever soldier beam retaining wall and the "rip rap" on both sides of the Watercourse, look good to me on the face of it. However, could the proposed "rip rap" alter the flow and direction of the water and cause future erosion below the proposed "rip rap" site? There is currently no "rip rap" between the proposed "rip rap" site and the wooden bridge below it on 7236 Saroni Drive.

Two - In 2007, both your firm and Clearwater Hydrology gave extensive written feedback to the owners of 7196 Saroni regarding the various steps needed to stabilize, protect, and maintain the slope behind the house. I read those reports carefully at City Hall. Those recommendations were very on point. However, none of the feedback has been incoporated at that site in the nearly 10 years which has elapsed since then. It is very likely that the land movement behind the house pushed soil into the Watercourse, thus pushing water against the opposite embankment and causing about eight (8) feet of erosion next to a protected, old Oak tree on the property at 7236 Saroni Drive. This erosion did not exist before 2017. Cearwater

Hydrology recently estimated that it could cost around 30K to repair this small area of erosion. Thus, I would like you to please consider adjusting the plans to address this small area of erosion at 7236 Saroni Drive. The owner of 7236 Saroni Drive is an elderly 85 year-old widow who has never done anything to cause this erosion and thus, she should not be expected to shoulder the financial burden and stress from it.

Three - The plans also address a second area of erosion adjacent to my property at 7200 Saroni Drive via the use of "rip rap." On its face, the proposed plans look good to me. However, I would like a peer review of the proposed plans. I have retained a geo technical engineering firm with a hydrological engineer on staff, and I would like for you to allow them to review your plans along with the creek protection plan and offer feedback to you and the City of Oakland. Please reply and let me know if this is acceptable. If it is not acceptable and/or if I do not hear back from you within (15) calendar days, I will ask my geo engineering firm to begin analyzing the site as much as they can do, and make appointments with appropriate City officials to obtain and review whatever information they can provide.

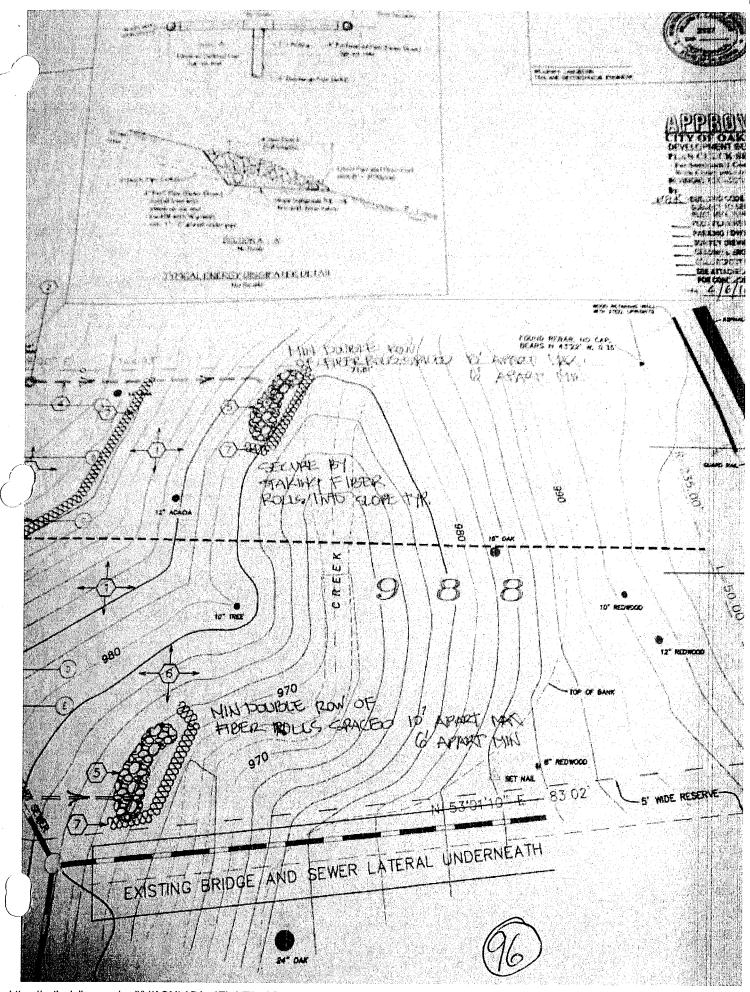
None of the requests and recommendations above are unfair, costly, and/or burdensome. Please reply "all" at your earliest convenience. Thank you.

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: NVigilante@msn.com



1/30/2019

Mail - Nicholas Vigilante - Outlook



RE: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Wong, Jennifer <jjwong@oaklandnet.com>

Fri 5/11/2018 9:59 AM

To: Nicholas Vigilante <NVigilante@msn.com> Cc: Larks, Dennis <DLarks@oaklandnet.com>; Quitevis, Caesar <CQuitevis@oaklandnet.com>; Lim, Gary <GLim@oaklandnet.com>; Low, Tim <TLow@oaklandnet.com> Hi Nick,

Sorry for the delay in response to your email.

In answer to your questions below:

1) Planning and Building Department has not issued final approval of Mr. Lum's plans yet because of the following:

Per my last conversation with Planner Caesar Q. on May 2, the Building permit cannot be issued because it depends on having Planning approval, which needs the Creek Protection permit approval, which is waiting for approvals from the outside regulatory agencies (e.g., CA Dept. of Fish & Wildlife, U.S. Army Corps of Engineers, and CA Regional Water Quality Control Board) affected by work in/adjacent to the creek on his property.

Per my last phone conversation with Jansen on/around May 1, he has contacted these outside regulatory agencies and is working with them to obtain approvals.

- 2) When is Mr. Lum going to being work it depends on when all the approvals are obtained. It could be anywhere from 30 to 90 days out.
- 3) Will Mr. Lum be repairing the minor damage on Ms. Park's property Unless this area is shown on the proposed plans to be corrected or improved, it currently is not addressed.

Regarding Ms. Park's observation of construction work on the weekends in April, Jansen told me it was for minor repair work on his side stairs. I think he said they were welding something onto his stairs. I do not see any permits for stair repairs in the city computer system, ACCELA.

Please keep me posted on any activities, concerns, or other information related to Mr. Lum. Thank you.

From: Nicholas Vigilante [mailto:NVigilante@msn.com]
Sent: Wednesday, May 9, 2018 6:15 PM
To: Wong, Jennifer <jjwong@oaklandnet.com>; Larks, Dennis <DLarks@oaklandnet.com>
Cc: Dunston, Daryel <DDunston@oaklandnet.com>
Subject: Re: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Jennifer,

I have not heard from you or Dennis. Can you atleast tell me when (date) Lum is suppose to start the repair work on his landslides? It is now May 9, 2018 and I see nothing at all happening over there.

Nicholas Vigilante

From: Nicholas Vigilante Sent: Tuesday, May 1, 2018 2:40 AM

To: Wong, Jennifer; Larks, Dennis
Cc: Dunston, Daryel
Subject: Re: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Sorry for sending an e-mail so early in the morning but I just came back from a vacation in SE Asia and jet lag is dogging me.

Three questions:

1 - Has the Planning and Building Department approved Lum's plans?

2 - When, approximately, is Lum going to begin the work?

3 - Will Lum be repairing the minor damage he caused to Ms. Park's property? (I've proven through evidence collected and sent to various city officials that Lum caused this damage by not doing what was recommended by his engineersand what he committed to do by 2010, along with the subsequent lack of oversight by the former CEDA thereafter. In my opinion, Lum is taking advantage of Ms. Park's because of her advanced age and frail status)

While I was away for three weeks in April, Ms. Park told me that Lum has been doing work on weekends with the help of two construction helpers. Ms. Park said that on one weekend in particular she saw a large trail of sparks flying in the air from either a welding machine or a steel cutting machine. Does Lum have a permit to do any welding or steel cutting work before he begins the actual landslide repair work?

Nicholas Vigilante

From: Wong, Jennifer <<u>jjwong@oaklandnet.com</u>> Sent: Thursday, March 22, 2018 12:40 PM To: Nicholas Vigilante Cc: Low, Tim; Lim, Gary Subject: RE: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Ok, see you on Tuesday morning.

From: Nicholas Vigilante [<u>mailto:NVigilante@msn.com</u>] Sent: Thursday, March 22, 2018 12:38 PM To: Wong, Jennifer <<u>jjwong@oaklandnet.com</u>> Subject: Re: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Tuesday 3/27 is good. See you 10am.

Nicholas Vigilante

From: Wong, Jennifer <<u>jjwong@oaklandnet.com</u>> Sent: Thursday, March 22, 2018 12:34 PM To: Nicholas Vigilante Subject: RE: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Hi Nick,

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1/30/2019

Mail - Nicholas Vigilante - Outlook

I am available next week on Tuesday 3/27, Wednesday 3/28, or Friday 3/30 from 9 to 11 am. Those days I am not assigned to work at the permit counter as EOD (Engineer of the Day). Please let me know which day and time works for you. Thanks.

From: Nicholas Vigilante [mailto:NVigilante@msn.com]
Sent: Thursday, March 22, 2018 11:42 AM
To: Wong, Jennifer <jjwong@oaklandnet.com
Subject: Re: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Hi Jennifer,

Next week would be better for me. Any day and time next week that works with your busy schedule will be fine with me. Thanks!

Nicholas Vigilante

From: Wong, Jennifer <jjwong@oaklandnet.com> Sent: Thursday, March 22, 2018 11:36 AM To: Nicholas Vigilante Subject: RB1704591 - 7196 Saroni Drive - Complaint #1702523

Hi Nick,

FYI, I just recently received the final version of the revised design for the rear retaining wall by his new engineer.

Jansen Lum submitted a Creek Protection Plan and the new engineering plans and calculations, to the Planning and Building Dept., last week on 3/12/18.

You can come in to the Bldg. Dept. office (at the Inspections Counter) from 9 am to 11 am tomorrow morning, if that works for you.

If not, please contact me to make an appointment for next week. Thank you.



EXHIBIT

1/5

RE: Creek Issues At 7196 Saroni

fanshen@clearwater-hydrology.com Sun 3/18/2018, 4:59 PM

To: Nicholas Vigilante <NVigilante@msn.com>

1 attachments (218 KB)
 CH Invoice_Vigilante_Saroni Dr. Assess_3.18.18.pdf;

Hi Nicholas,

Please find attached our invoice for my inspection and discussion time spent during the Feb. 22 inspection. Leila knows of another consultant I referred to her for other similar cases, so she (Carol Beahan) would be an option for you.

Bill

William Vandivere (Fanshen), M.S.,P.E., Principal Clearwater Hydrology 2974 Adeline St. Berkeley, CA 94703 <u>www.clearwater-hydrology.com</u> (510) 841-1836 (phone) (510) 841-1610 (fax) email: <u>fanshen@clearwater-hydrology.com</u>

------ Original Message -----Subject: Re: Creek Issues At 7196 Saroni From: Nicholas Vigilante <<u>NVigilante@msn.com</u>> Date: Tue, March 06, 2018 7:48 pm To: "<u>fanshen@clearwater-hydrology.com</u>" <<u>fanshen@clearwater-hydrology.com</u>> Cc: Leila Monscharsh <<u>101550@msn.com</u>>

Dear Bill,

Thank you for your response.

Please let me think about what you have written below, and about whether or not we should have you prepare the report. It may be a week, or two, before I get back to you. I hope that is OK.

I may be able to get items missing from the CH Jansen Lum file. I have submitted public records act request #25865 through the City of Oakland's RecordTrac system for any and all documents and pictures related to hydrology studies and reports beginning in 2007 for 7196 Saroni Drive (styled as 7188 Saroni Drive back then). I may not get these items for awhile.

In the meantime, please send me the \$400.00 invoice for your site visit. I will send you the payment now because you should not have to wait for a payment for services you have already provided us.

Sincerely,



11/20/2018

Nicholas Vigilante

From: fanshen@clearwater-hydrology.com <fanshen@clearwater-hydrology.com> Sent: Tuesday, March 6, 2018 6:31 PM To: Nicholas Vigilante Cc: Leila Monscharsh Subject: RE: Creek Issues At 7196 Saroni

Nicholas,

When you mentioned J. Lum's name, at the time I vaguely recalled him as a client, but couldn't be certain about the context or the project address. We've probably conducted 200+ projects since 2007 and my recollections of individual, particularly small, projects and their circumstances aren't always clearly detailed. Moreover, the Lum project work was conducted principally by a staff hydrologist who left our employ in 2008, so I don't believe I even visited the site at that time. I've searched our files from the Lum project and don't see any photos, which is odd; we normally include a photo log with our reports.

As for our preliminary assessment report, I could outline my observations and what I am able to read from the landscape and the channel environs. I can note the erosional damage and possible contributing factors, but since I have no evidence of what the channel reach looked like through time (especially just before Lum's construction up to the present), I won't be able to definitively indicate a single factor as the cause for erosion at a particular site. For instance, although the main slump failure appears to have been triggered by an overwatering of the slope rather than erosion of the channel bed or low bank, I would not be able to state that poor drainage following construction was a major cause because I did not see the nature of the roof and other property drainage, subdrain outlets for any perimeter french/subsurface drains, etc.

At some sites in the E Bay hills, you see bank failures unrelated to development, triggered by excessive rainfall and infiltration into very steep soils that are loosely consolidated, or due to reverse seepage into the lower portions of high banks that then fail due to high porewater pressures in those bank soils once the creek levels recede. If you had pre-construction, pre-failure photos of the reach you can share, I could be somewhat more detailed in my characterization of channel changes.

Based on the above, you make the call. If you think it would not be fruitful in the manner you'd like, you can pay us for the 2.5 hrs. spent on the inspection, or \$400. I can send you an invoice stating the work conducted.

Thanks, Bill

William Vandivere (Fanshen), M.S.,P.E., Principal Clearwater Hydrology 2974 Adeline St. Berkeley, CA 94703 <u>www.clearwater-hydrology.com</u> (510) 841-1836 (phone) (510) 841-1610 (fax) email: <u>fanshen@clearwater-hydrology.com</u>



------ Original Message ------Subject: Re: Creek Issues At 7196 Saroni From: Nicholas Vigilante <<u>NVigilante@msn.com</u>> Date: Tue, March 06, 2018 5:18 pm To: "<u>fanshen@clearwater-hydrology.com</u>" <<u>fanshen@clearwater-hydrology.com</u>> Cc: Leila Monscharsh <<u>101550@msn.com</u>>

Dear Bill,

Thank you for your reply.

When you were here to perform a preliminary site visit, you mentioned that you had worked for Lum in the past but did not elaborate. I assumed that you had worked for Lum in his capacity as a professional Architect on one or more of his client's projects, not his own property located at 7196 Saroni Drive. Thank you for clarifying your relationship with Lum.

For me, the major question is would a report prepared by you identify any shortcoming or deficiencies that the owners at 7196 Saroni are responsible for that caused or contributed to the erosion problem? Would a report also address the cause of the small area of erosion next to the Oak tree on Ms. Park's property? If a report would not identify any shortcomings and deficiencies that the owners at 7196 Saroni are responsible for, there appears to be no reason for us to have you to write a report. If that is the case, I would be willing to pay you for the preliminary site visit. In addition, I am asking that you keep confidential all information we have provided to you, just as you do for other clients you work with.

Sincerely,

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: <u>NVigilante@msn.com</u>

From: fanshen@clearwater-hydrology.com <fanshen@clearwater-hydrology.com> Sent: Tuesday, March 6, 2018 3:26 PM To: Nicholas Vigilante Cc: Leila Monscharsh Subject: RE: Creek Issues At 7196 Saroni

Hi Nicholas,

The cost for the site inspection and a short report noting site conditions and recommendations for further evaluation would be \$1,000. If that works for you and Ms. Park, I can get you a write up by the end of the work.

Leila, please note that in 2007 CH authored the City of Oakland Hydrology Report for Jansen Lum and his project at 7196 Saroni. If you think that presents a conflict of interest, chime in, please.

Bill

3/5

William Vandivere (Fanshen), M.S., P.E., Principal Clearwater Hydrology 2974 Adeline St. Berkeley, CA 94703 www.clearwater-hydrology.com (510) 841-1836 (phone) (510) 841-1610 (fax) email: fanshen@clearwater-hydrology.com

----- Original Message ------Subject: RE: Creek Issues At 7196 Saroni From: <<u>fanshen@clearwater-hydrology.com</u>> Date: Thu, March 01, 2018 2:36 pm To: "Nicholas Vigilante" <<u>NVigilante@msn.com</u>> Cc: "Leila Monscharsh" <101550@msn.com>

Hi Nicholas.

Yes, I received your message. We're a little backed- up at the moment. I should be able to get you something by Sunday at the latest.

Bill

William Vandivere (Fanshen), M.S., P.E., Principal Clearwater Hydrology 2974 Adeline St. Berkeley, CA 94703 www.clearwater-hydrology.com (510) 841-1836 (phone) (510) 841-1610 (fax) email: fanshen@clearwater-hydrology.com

----- Original Message ------Subject: Re: Creek Issues At 7196 Saroni From: Nicholas Vigilante <<u>NVigilante@msn.com</u>> Date: Thu, March 01, 2018 12:20 pm To: "fanshen@clearwater-hydrology.com" <fanshen@clearwater-hydrology.com> Cc: Leila Monscharsh <101550@msn.com>

Dear Bill,

We are following up to see if you received our message below.

We also want to let you know that the owners of 7196 Saroni Drive have just submitted plans to the City of Oakland to address the erosion behind their house at 7196 Saroni Drive. Although the owners have submitted plans, it is not clear whether the plans address a second area of erosion on that property next to the creek where a dead tree and wood debris obstruct the creek. Thus, I've asked Planning and Building Department officials to make sure that the plans address the second area of erosion. I have also asked the



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Mall - Nicholas Vigilante - Outlook

Oakland Public Works Agency Environmental Services Manager to examine that area for compliance with Watercourse regulations because it is my understanding that homeowners are required to keep a Watercourse free of debris that substantially blocks the flow of water and/or causes additional erosion.

Best regards,

Mr. Nicholas Vigilante Ms. Grete Park

From: Nicholas Vigilante Sent: Friday, February 23, 2018 3:10 PM To: <u>fanshen@clearwater-hydrology.com</u> Cc: Leila Monscharsh Subject: Creek Issues At 7196 Saroni

Dear Bill,

Thank you for traveling out here yesterday and taking a look at our creek issues.

Ms. Park and I would like to obtain your general observations in writing (at a glance) from your visit yesterday to determine what courses of direction and study we should take regarding these issues. Based on consultation with Leila M, we will then be able to select areas where we can have you conduct deeper examinations and reports. Along those lines, would you please provide a cost estimate for your site visit yesterday and report, as well as a general idea of your pricing for deeper examinations and reports.

Best regards,

Mr. Nicholas Vigilante Ms. Grete Park

Fw: Creek Issues At 7196 Saroni

Leila H. Moncharsh <101550@msn.com> Tue 3/6/2018, 3:30 PM To: Nicholas Vigilante <NVigilante@msn.com>

Now he tells us.

Do you have a copy of the report he is talking about?

Fortunately, I have another hydrologist, but she is out of the area. She comes into Oakland, but would not come right away, most likely.

Leila

From: fanshen@clearwater-hydrology.com <fanshen@clearwater-hydrology.com> Sent: Tuesday, March 6, 2018 3:26 PM To: Nicholas Vigilante Cc: Leila Monscharsh Subject: RE: Creek Issues At 7196 Saroni

Hi Nicholas,

The cost for the site inspection and a short report noting site conditions and recommendations for further evaluation would be \$1,000. If that works for you and Ms. Park, I can get you a write up by the end of the work.

Leila, please note that in 2007 CH authored the City of Oakland Hydrology Report for Jansen Lum and his project at 7196 Saroni. If you think that presents a conflict of interest, chime in, please.

Bill

William Vandivere (Fanshen), M.S.,P.E., Principal Clearwater Hydrology 2974 Adeline St. Berkeley, CA 94703 <u>www.clearwater-hydrology.com</u> (510) 841-1836 (phone) (510) 841-1610 (fax) email: <u>fanshen@clearwater-hydrology.com</u>

------ Original Message ------Subject: RE: Creek Issues At 7196 Saroni From: <<u>fanshen@clearwater-hydrology.com</u>> Date: Thu, March 01, 2018 2:36 pm To: "Nicholas Vigilante" <<u>NVigilante@msn.com</u>> Cc: "Leila Monscharsh" <<u>101550@msn.com</u>>

Hi Nicholas,

EXHIBIT K

ATTESTATION OF AUTHETICITY AND ORIGIN

This is a drawing of the dissipation systems which are part of the overall and large building plans and drawings packet that Jansen Lum submitted and which the City of Oakland approved for the construction of the home at 7196 Saroni Drive. I was allowed to view all of this on April 4, 2018. To preserve important and relevant evidence from being lost or destroyed in the future, I took a picture of the attached drawing with my cellular smart phone because I was not allowed to have a paper copy of it.

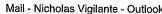
In contrast, earlier on March 12, 2018, I was given paper copies of the 2007 Clearwater Hydrology Report and a copy of the 2000 Langbehn geo tech engineering review which Jansen Lum submitted to the City of Oakland in 2007.

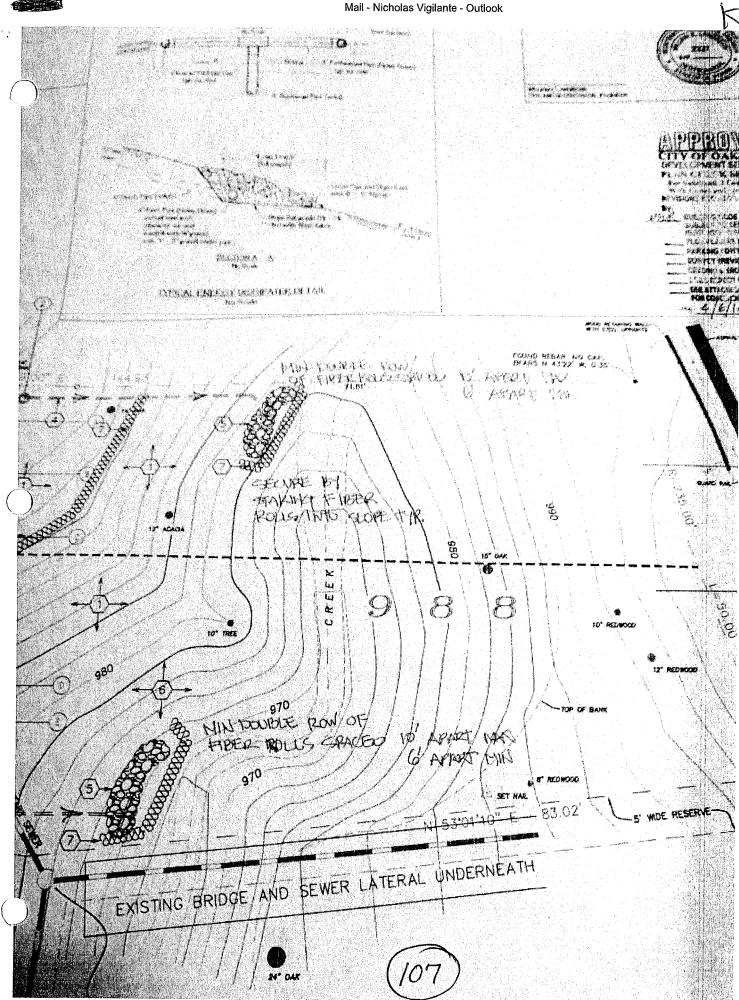
The information referenced above was obtained from David Guillory at the City of Oakland, 250 Frank Ogawa Plaza, Second Floor, Planning and Building Division.

Nicholas J. Vigilante

Nicholas J. Vigilante

106





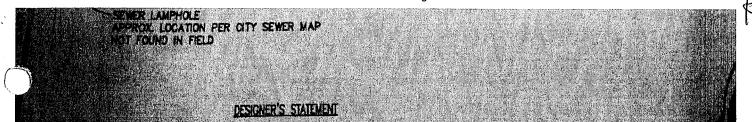




EXHIBIT L

ATTESTATION OF AUTHETICITY

These are pictures of the erosion directly behind the home at 7196 Saroni Drive as it was from 2017 to April 2018. During this time period, many pictures of this type were sent to Jennifer Wong, Caesar Quitevis, Tim Lowe, and William Gilchrist of the City of Oakland Planning and Building Division. The pictures and emails should be contained in email archives and pertinent files pertaining to the matters at issue. In April 2018, Jansen Lum properly covered the entire area of erosion behind the home and down to the creek with brown plastic tarp and adjusted the water distribution pipes from his home so that they did not discharge water on the neighbor's property at 7236 Saroni Drive.

It was not until November 2018 that Jansen Lum covered the second area of erosion adjacent to my property with plastic tarp.

The information above is based on my visual observations as Jansen Lum's neighbor, and will be substantially corroborated by staff and email communications with them.

ichelos J. Vigilante

Nicholas J. Vigilante







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CREEK PROTECTION PERMIT APPLICATIONS ON FILE June 15, 2018

CITY OF OAKLAND PLANNING & BUILDING DEPARTMENT Bureau of Planning & Zoning 250 Frank H. Ogawa Plaza, 2nd Floor Oakland, California 94612-2031

The City has received the following application for a Creek Protection Permit, **#CP18009** included in this notice for review and action.

You have received this notice because our records indicate that you own property and/or reside near one of the project locations listed below or you have indicated your interest in one of the applications.

You may view the project application and/or plan by visiting our offices. The case planner need not be present to see the project file. Your comments and/or questions regarding an application must be directed to the Planning & Building Department – Bureau of Planning & Zoning, to the attention of the designated case planner, and by the end of the 10-day public comment period:

June 25, 2018

In your comment letter please indicate the case number (which is identified on each notice) at the upper right hand corner of your letter so it will reach the case planner promptly.

A decision will be made on the application after this date. If you decide to appeal the Zoning Manager's decision or challenge the application in court, you will be limited to issues raised in written correspondence or email and delivered to the Zoning Division on, or prior to the end of the 10-day public comment period as indicated above. If you wish to be notified of the decision of any of these cases, please indicate the Case Number and submit a self-addressed stamped envelope for each case, to the Community and Economic Development Agency – Zoning Division, at the address indicated above.

Except where noted, once a decision is reached by the Zoning Manager on these cases, they are appealable to the Planning Commission. Such appeals must be filed within ten (10) calendar days of the date of decision by the Zoning Manager and by 4:00p.m. An appeal shall be on a form provided by the Bureau of Planning and Zoning, and submitted to the same at 250 Frank H. Ogawa Plaza, Suite 2114, to the attention of the Case Planner. The appeal shall state specifically wherein it is claimed there was error or abuse of discretion by the City of Oakland or wherein the decision is not supported by substantial evidence and must include payment in accordance with the City of Oakland Master Fee Schedule. Failure to file a timely appeal will preclude you from challenging the City's decision in court. The appeal itself must raise every issue that is contested along with all the arguments and evidence previously entered into the record during the previously mentioned ten (10) day public comment period. Failure to do so will preclude you from raising such issues during the appeal hearing and/or in court.

Please help up achieve wider notification by alerting your friends and neighbors if you believe they would be interested in any or the cases listed below. Please note that the descriptions of the applications found below are preliminary in nature and that the projects and/or such descriptions may change prior to a decision being made.

APPLICATIONS ON FILE Page 2 of 2

Notice of Creek Protection Permit (CP) Application

Project Name:	Retaining Wall with a Creek Protection Permit
Location:	7196 Saroni Drive, (APN: 048E733000301)
Proposal:	Construct a retaining wall to stabilize slope conditions and remediate erosion on a
	Creekside property associated with a prior approved project (DR07-327, CP06-159,
	RB0903864). Scope of work involves a Category IV Creek Protection Permit for
	construction within 20' of an existing creek
Applicant/Contact Number:	Jansen Lum / (510)882-0817
Case File Number:	
Planning Permits Required:	
	Protection Ordinance)
General Plan:	Hillside Residential
Zoning:	RH-4 /S-9
Environmental Determination:	Exempt Sections 15301(d), of the State CEQA Guidelines: Existing facilities –
	rehabilitation of deteriorated facilities to meet current standards of public health
	and safety Section 15183 Projects consistent with a Community Plan Concerd Plan or
	Section 15183, Projects consistent with a Community Plan, General Plan or Zoning
Historic Status:	Not a Potential Designated Historic Property
City Council District:	A
For further information:	Contact case planner Caesar Quitevis at (510) 238-6343 or by email
	cquitevis@oaklandnet.com

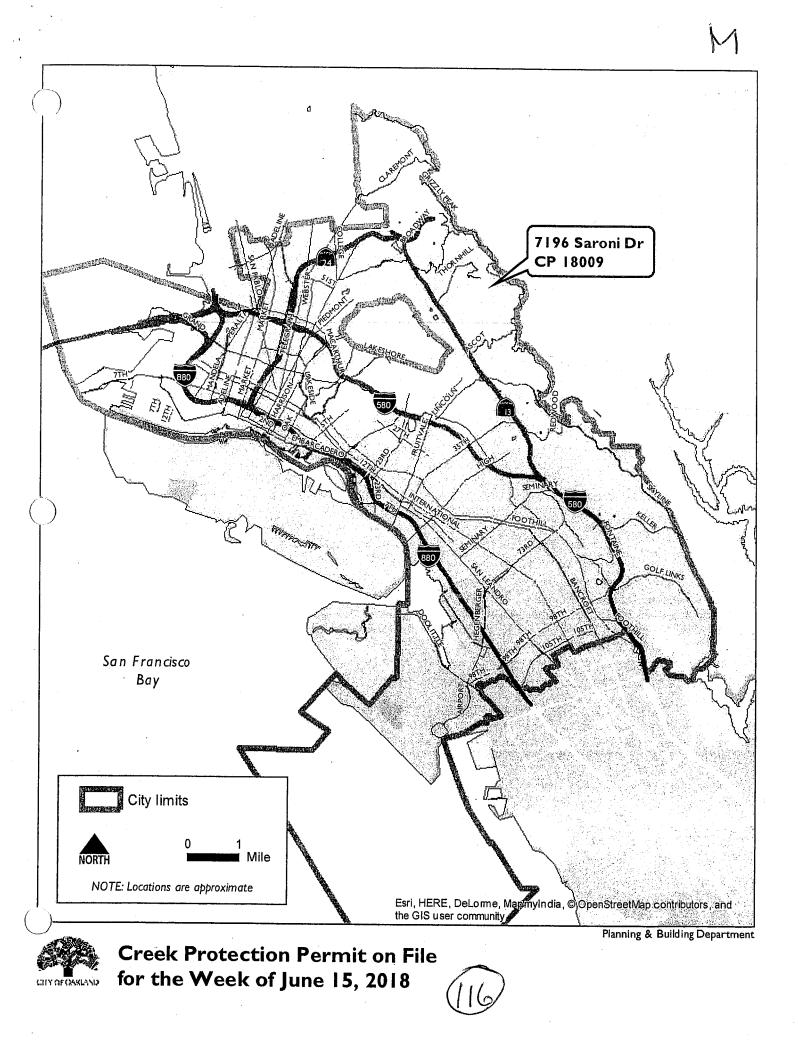
Your comments and questions, if any, should be directed to Caesar Quitevis, Planner II, Planning and Building Department, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612, by 4:00 p.m., June 25, 2018. You may also call (510) 238-6343 or e-mail at <u>cquitevis@oaklandnet.com</u>.

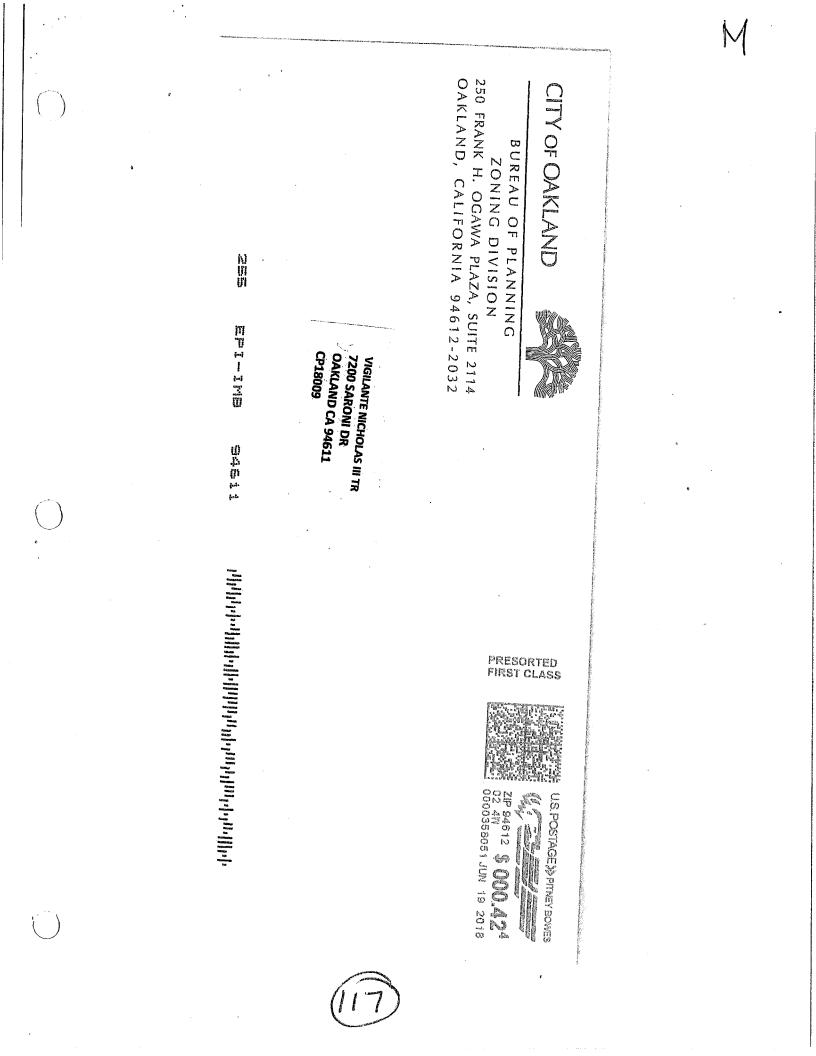
The Director's decision regarding creek protection will be made following the end of the above public comment period, and that decision will become final unless an appeal is made to the City Planning Commission within 10 days of said decision. If you wish to be notified of the City's decision on this case, please indicate the <u>application number and submit a self-addressed stamped envelope</u> to the above-mentioned individual at the Department of Planning and Building.

RÓBERT MERKAMP Acting Zoning Manager City of Oakland

IT IS UNLAWFUL TO ALTER OR REMOVE THIS NOTICE:

Such an act is punishable by a fine of not more than five hundred dollars, or by imprisonment in the City Jail for not more than six months, or by both fine and imprisonment. (Sec.3-8.03 O.M.C.)





6/23/2018

Mail - NVigilante@msn.com

Notice of Creek Protection Permit Application - CP 18009 (COMMENTS)

licholas Vigilante

Sat 6/23/2018 1:26 PM

To:Quitevis, Caesar <CQuitevis@oaklandnet.com>; Fielding, Rich <RFielding@oaklandnet.com>; Low, Tim <TLow@oaklandnet.com>; Wong, Jennifer <jjwong@oaklandnet.com>; Larks, Dennis <DLarks@oaklandnet.com>;

Cc:Campbell Washington, Annie <ACampbellWashington@oaklandnet.com>; Dunston, Daryel <DDunston@oaklandnet.com>; kenp911@sbcglobal.net <kenp911@sbcglobal.net>;

Dear Mr. Quitevis,

I am in receipt of a letter from your office postmarked June 19, 2018 regarding Case File Number CP 18009. The letter is dated June 15, 2018 and it describes the associated permit application as "Construct a retaining wall to stabilize slope conditions and remediate erosion on a Creekside property associated with a prior approved project (DR07-327, CP06-159, RB0903864)." The property in question is located at 7196 Saroni Drive, Oakland, CA 94611. The scope of work is described briefly as a Category IV Creek Protection Permit for construction within 20' of an existing creek. The letter further indicates there is a 10-day public comment period until June 25, 2018. In accordance with the above-cited letter, I am hererby providing the following information and comments - please acknowledge receipt of them:

<u> Andslide Behind Home At 7196 Saroni Drive</u>

The landslide occurred because the owners (Lum and Ham) never installed the dissipation systems which are clearly shown for in the City of Oakland approved 2007 plans for the construction of the home at 7196 Saroni Drive. I recently reviewed and photograhed important aspects of those construction plans. I do not so much blame the City of Oakland for the lapse in construction oversight on the installation of the dissipation systems because one of the owners, Mr. Jansen Lum, a registered Architect at that time, drew up his own plans for the construction of the home. With training and experience in engineering and archiecture, Mr. Lum should have known the vital importance of completing the dissipation aspects of the project more so than someone without engineering training and experience. Further, Mr. Lum was well aware of the erosion and creek conditions by way of assessment reports and strong recommendations he obtained from Bill Vandivere (Hydrologist) and Bill Langbehn (Geo Tech and Civil Engineering). I recently reviewed and have copies of those reports. Lastly, as you know, I weighed in with you and Darin Ranelletti about this construction project in 2007 and 2008 and voiced my concerns that erosion issues need to be handled very carefully due to the creek conditions. It is unfortunate that this aspect of the project inspection fell through a crack and then a landslide occurred as a result, but I am sympathetic to you and your office, formerly branded as CEDA, because you underwent a painful reorganization beginning in 2010 due to statewide circumstances and your department continues to suffer from the effects of it. When I confronted Mr. Lum with the above evidence regarding his failure to install the required dissipation systems, he showed no remorse for his inactions and stated words to the effect of, "well the City gave me a permit to build my home here." He was not forthright with me in prior communications about his failure to install the dissipation systems, and he deliberately misled me into believing the cause of the problem was due to the City of Oakland's lack of creek maintenance.

The proposed construction correction plans that I recently reviewed at City Hall call for an "L" shaped cantilever soldier beam retaining wall and the "rip rap" on both sides of the Watercourse. This looks acceptable to me on the face of it. However, could the proposed "rip rap" alter the flow and direction of the water and cause future erosion below the proposed "rip rap" site? There is currently no "rip rap" between the proposed "rip rap"



6/23/2018

Mail - NVigilante@msn.com

site and the wooden bridge below it on 7236 Saroni Drive (owner - Ms. Grete Park).

Erosion In And Next To Creek On 7196 Saroni Drive And Next To 7200 Saroni Drive

... é proposed construction plans that I recently reviewed at City Hall, as well as the approved 2007 dissipation systems plan, call for installation of rock revettment at the above location. The current proposal calls for more revettment at that location than the prior 2007 plan because additional erosion has occurred there due to failure to install the revettment called for in the 2007 plans. I am adamant that sufficient rock revettment is absolutely needed there. If this aspect of the project is not adddressed properly, eventually the erosion will spread to my property at 7200 Saroni Drive and jeopardize my cantilever retaining wall as well as the rock revettment that the City installed in 2002 along the easement at the opening of the storm drain culvert on my property. Therefore, I am asking you, or your office, to please affirm to me in writing that this work will be properly completed in connection with Case File Number CP 18009.

Blockage In Creek Behind 7196 Saroni Drive

The movement of storm drain water in the creek is currently being impeded because of a dead tree and tree debris in the creek. In accordance with the City of Oakland Creek Protection Ordinance, owners are required to maintain a Watercourse traversing their property and keep it free of debris which might impact water flow and/or erosion. In the winter of 2017, the Public Works Agency Drainage and Watershed offices (Messrs. Gerald Nervis and Greg Pon) advised the owners at 7196 Saroni Drive that they needed to clean out the creek for drainage purposes. The owners of 7196 Saroni Drive have not fully complied.

Potential Fire Hazard At 7196 Saroni Drive

ne of the trees and vegetation along the side of the home, and in the back of the home, are being properly maintained. The area next to the creek is overgrown and it full of dead tree and branch debris. In the fall of 2017, the Oakland Firesafe Council inspected the back of this property as part of its vegetation audit and noted vegetation deficiencies in the audit report. This year, a complaint was filed with the Oakland Fire Department, Vegetation Management Unit. Although no violation notice has yet been issued, the objective of any fire prevention effort is to attempt to reduce, or eliminate, excess fuel loads. Therefore, for fire safety purposes, a vegetation management plan and remediation is needed to address these issues as part of the creek protection permit process.

Damage On 7236 Saroni Drive Due To Failure To Install The Required Dissipation System

In regards to the avove cited June 15, 2018 letter, Ms. Park told me that as of today, she has not received this letter yet her property is directly in back of 7196 Saroni Drive and the creek. She would like some additional time



6/23/2018

Ŀ,

to review this letter, and she may provide comments through her son and special power of attorney, Kenneth Park. Therefore, I have cc:ed Mr. Park on this e-mail.

cerely,

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: NVigilante@msn.com





CREEK PROTECTION PERMIT APPLICATIONS ON FILE June 15, 2018

CITY OF OAKLAND PLANNING & BUILDING DEPARTMENT Bureau of Planning & Zoning 250 Frank H. Ogawa Plaza, 2nd Floor Oakland, California 94612-2031

The City has received the following application for a Creek Protection Permit, **#CP18009** included in this notice for review and action.

You have received this notice because our records indicate that you own property and/or reside near one of the project locations listed below or you have indicated your interest in one of the applications.

You may view the project application and/or plan by visiting our offices. The case planner need not be present to see the project file. Your comments and/or questions regarding an application must be directed to the Planning & Building Department – Bureau of Planning & Zoning, to the attention of the designated case planner, and by the end of the 10-day public comment period:

June 25, 2018

In your comment letter please indicate the case number (which is identified on each notice) at the upper right hand corner of your letter so it will reach the case planner promptly.

A decision will be made on the application after this date. If you decide to appeal the Zoning Manager's decision or challenge the application in court, you will be limited to issues raised in written correspondence or email and delivered to the Zoning Division on, or prior to the end of the 10-day public comment period as indicated above. If you wish to be notified of the decision of any of these cases, please indicate the Case Number and submit a self-addressed stamped envelope for each case, to the Community and Economic Development Agency – Zoning Division, at the address indicated above.

Except where noted, once a decision is reached by the Zoning Manager on these cases, they are appealable to the Planning Commission. Such appeals must be filed within ten (10) calendar days of the date of decision by the Zoning Manager and by 4:00p.m. An appeal shall be on a form provided by the Bureau of Planning and Zoning, and submitted to the same at 250 Frank H. Ogawa Plaza, Suite 2114, to the attention of the Case Planner. The appeal shall state specifically wherein it is claimed there was error or abuse of discretion by the City of Oakland or wherein the decision is not supported by substantial evidence and must include payment in accordance with the City of Oakland Master Fee Schedule. Failure to file a timely appeal will preclude you from challenging the City's decision in court. The appeal itself must raise every issue that is contested along with all the arguments and evidence previously entered into the record during the previously mentioned ten (10) day public comment period. Failure to do so will preclude you from raising such issues during the appeal hearing and/or in court.

Please help up achieve wider notification by alerting your friends and neighbors if you believe they would be interested in any or the cases listed below. Please note that the descriptions of the applications found below are preliminary in nature and that the projects and/or such descriptions may change prior to a decision being made.

APPLICATIONS ON FILE Page 2 of 2

Notice of Creek Protection Permit (CP) Application

Project Name:	Retaining Wall with a Creek Protection Permit
Location:	7196 Saroni Drive, (APN: 048E733000301)
Proposal:	Construct a retaining wall to stabilize slope conditions and remediate erosion on a
	Creekside property associated with a prior approved project (DR07-327, CP06-159,
	RB0903864). Scope of work involves a Category IV Creek Protection Permit for
	construction within 20' of an existing creek
Applicant/Contact Number:	Jansen Lum / (510)882-0817
Case File Number:	
Planning Permits Required:	
	Protection Ordinance)
General Plan:	Hillside Residential
Zoning:	RH-4 /S-9
Environmental Determination:	Exempt Sections 15301(d), of the State CEQA Guidelines: Existing facilities –
	rehabilitation of deteriorated facilities to meet current standards of public health
	and safety Section 15183 Projects consistent with a Community Plan Concerd Plan or
	Section 15183, Projects consistent with a Community Plan, General Plan or Zoning
Historic Status:	Not a Potential Designated Historic Property
City Council District:	A
For further information:	Contact case planner Caesar Quitevis at (510) 238-6343 or by email
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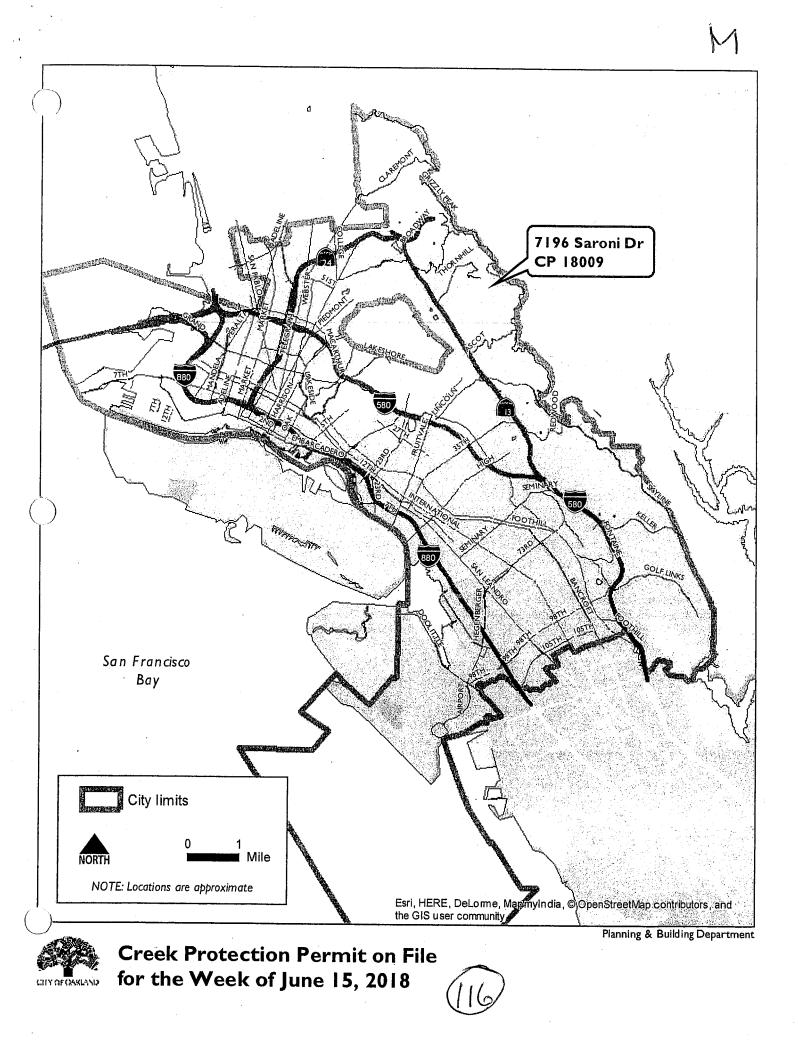
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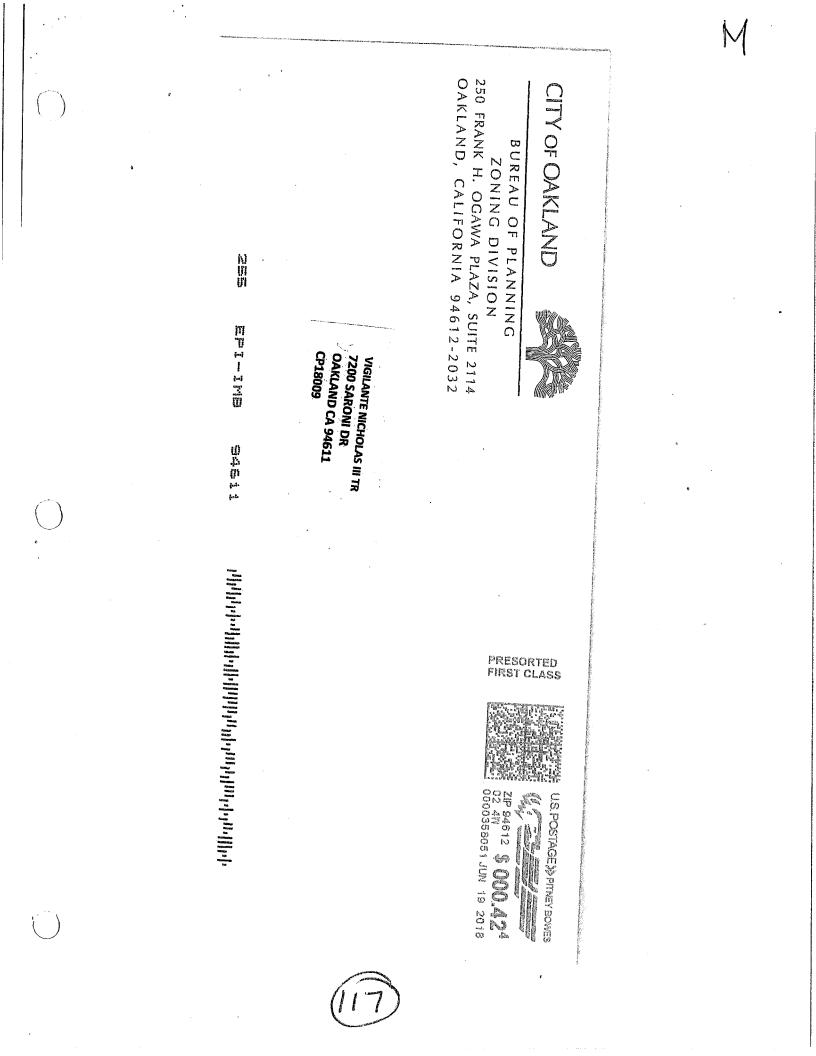
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RÓBERT MERKAMP Acting Zoning Manager City of Oakland

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6/23/2018

Mail - NVigilante@msn.com

Notice of Creek Protection Permit Application - CP 18009 (COMMENTS)

licholas Vigilante

Sat 6/23/2018 1:26 PM

To:Quitevis, Caesar <CQuitevis@oaklandnet.com>; Fielding, Rich <RFielding@oaklandnet.com>; Low, Tim <TLow@oaklandnet.com>; Wong, Jennifer <jjwong@oaklandnet.com>; Larks, Dennis <DLarks@oaklandnet.com>;

Cc:Campbell Washington, Annie <ACampbellWashington@oaklandnet.com>; Dunston, Daryel <DDunston@oaklandnet.com>; kenp911@sbcglobal.net <kenp911@sbcglobal.net>;

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6/23/2018

Mail - NVigilante@msn.com

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Potential Fire Hazard At 7196 Saroni Drive

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6/23/2018

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to review this letter, and she may provide comments through her son and special power of attorney, Kenneth Park. Therefore, I have cc:ed Mr. Park on this e-mail.

cerely,

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: NVigilante@msn.com





RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Quitevis, Caesar <CQuitevis@oaklandca.gov>

Thu 10/18/2018, 5:47 PM

To: Nicholas Vigilante <NVigilante@msn.com>; Lau, Danny <dlau@oaklandca.gov> Cc: Mitchell, Jason <JWMitchell@oaklandca.gov>

The creek protection permit decision is in draft form and will be reviewed by senior staff and the Zoning Manager before it can be issued. RWQCB Water Quality Certification and Clearwater Hydrology stabilization design is referenced in the decision.

Regards,

Caesar Quitevis, Planner II | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2316 | Oakland, CA 94612 | Phone: (510)238-6343 | Fax: (510) 238-4730 | Email: <u>cguitevis@oaklandnet.com</u> | Website: <u>www.oaklandnet.com/planning</u>

From: Nicholas Vigilante [mailto:NVigilante@msn.com]
Sent: Thursday, October 18, 2018 12:35 PM
To: Lau, Danny <dlau@oaklandca.gov>; Quitevis, Caesar <CQuitevis@oaklandca.gov>
Cc: Mitchell, Jason <JWMitchell@oaklandca.gov>
Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Mr. Lau - Thank you for your reply.

Mr. Quitevis - Please provide me an update. Thank you.

Nicholas Vigilante

From: Lau, Danny <<u>dlau@oaklandca.gov</u>> Sent: Thursday, October 18, 2018 10:20 AM To: Nicholas Vigilante Cc: Mitchell, Jason; Quitevis, Caesar Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Mr. Vigilante,

The handling and processing of CEQA documents is done through the City's Planning Department. My understanding is that Mr. Cesar Quitevis of Planning is handling the permit for this project and he is copied on this email.

Thank you,

Danny Lau, P.E.

Assistant Director Bureau of Design and Construction City of Oakland | Oakland Public Works Department | APWA Accredited Agency 250 Frank Ogawa Plaza, 4th Floor | Oakland, CA 94612 (510) 238-7211 | (510) 238-7238 Fax



<u>dlau@oaklandnet.com</u>

 Beport A Problem | Call OAK 311 | From outside Oakland: (510) 615-5566

 311.oaklandca.gov | OAK311@oaklandnet.com | Mobile app: Apple or Android

From: Nicholas Vigilante [mailto:NVigilante@msn.com] Sent: Wednesday, October 17, 2018 5:10 PM To: Mitchell, Jason <<u>JWMitchell@oaklandca.gov</u>>; Lau, Danny <<u>dlau@oaklandca.gov</u>> Subject: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Messrs. Mitchell and Lau,

I am attempting to obtain information about the status of the CEQA aspect of the above cited and pending CP. Can you please send me information on its status. Thank you.

Nicholas Vigilante

From: Grefsrud, Marcia@Wildlife <<u>Marcia.Grefsrud@wildlife.ca.gov</u>>

Sent: Tuesday, October 16, 2018 4:00 PM

To: Wines, Brian@Waterboards; Nicholas Vigilante; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>); Brown, Gregory G SPN; Hathaway, Kristin; <u>cpon@oaklandca.gov</u>

Cc: kenp911@sbcglobal.net

Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Likewise, CDFW is waiting for CEQA.

From: Wines, Brian@Waterboards <<u>Brian.Wines@waterboards.ca.gov</u>>

Sent: Tuesday, October 16, 2018 2:13 PM

To: Nicholas Vigilante <<u>NVigilante@msn.com</u>>; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar

<<u>CQuitevis@oaklandnet.com</u>>; Wong, Jennifer <jjwong@oaklandca.gov</p>

<<u>DLarks@oaklandca.gov</u>>; Grefsrud, Marcia@Wildlife <<u>Marcia.Grefsrud@wildlife.ca.gov</u>>; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>)

<<u>Katerina.Galacatos@usace.army.mil</u>>; Brown, Gregory G SPN <<u>Gregory.G.Brown@usace.army.mil</u>>; Hathaway, Kristin <<u>khathaway@oaklandca.gov</u>>; <u>cpon@oaklandca.gov</u>

Cc: <u>kenp911@sbcglobal.net</u>

Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Mr. Vigilante.

I think I shared the draft Certification (not a "certificate") with you.

I am waiting for the City of Oakland to finalize CEQA review. I can't have my Division Chief sign the Certification. Once my Division Chief signs the Certification, it is issued.

Brian Wines



Water Resource Control Engineer San Francisco Bay Regional Water Quality Control Board 510-622-5680

From: Nicholas Vigilante <<u>NVigilante@msn.com</u>> Sent: Tuesday, October 16, 2018 2:09 PM

To: Wines, Brian@Waterboards <<u>Brian.Wines@waterboards.ca.gov</u>>; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar <<u>CQuitevis@oaklandnet.com</u>>; Wong, Jennifer <<u>jjwong@oaklandca.gov</u>>; Larks, Dennis <<u>DLarks@oaklandca.gov</u>>; Grefsrud, Marcia@Wildlife <<u>Marcia.Grefsrud@wildlife.ca.gov</u>>; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>)

<<u>Katerina.Galacatos@usace.army.mil</u>>; Brown, Gregory G SPN <<u>Gregory.G.Brown@usace.army.mil</u>>; Hathaway, Kristin <<u>khathaway@oaklandca.gov</u>>; <u>cpon@oaklandca.gov</u>

Cc: <u>kenp911@sbcglobal.net</u>

Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Brian,

You mentioned you were finalizing a certificate? What is the status of it? After it's issued, where does it go? Who thereafter reviews it for approval?

If the certificate has been issued, what has happened since Mr. Wines issued it? What is the status of any pending City of Oakland, Wildlife, and USARM actions (the latter three questions are obviously for others on this e-mail to answer).

Thank you.

Nicholas Vigilante

From: Wines, Brian@Waterboards < Brian.Wines@waterboards.ca.gov>

Sent: Tuesday, October 16, 2018 2:01 PM

To: Nicholas Vigilante; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis; Grefsrud, Marcia@Wildlife; 'Galacatos, Katerina CIV USARMY CESPN (US)'

(<u>Katerina.Galacatos@usace.army.mil</u>); Brown, Gregory G SPN; Hathaway, Kristin; <u>cpon@oaklandca.gov</u> **Cc:** <u>kenp911@sbcglobal.net</u>

Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

I have no idea what you are asking about.

Brian Wines Water Resource Control Engineer San Francisco Bay Regional Water Quality Control Board 510-622-5680



From: Nicholas Vigilante <<u>NVigilante@msn.com</u>> Sent: Tuesday, October 16, 2018 1:59 PM

To: Wines, Brian@Waterboards <<u>Brian.Wines@waterboards.ca.gov</u>>; <u>wgilchrist@oaklandnet.com</u>;

Quitevis, Caesar <<u>CQuitevis@oaklandnet.com</u>>; Wong, Jennifer <<u>jjwong@oaklandca.gov</u>>; Larks, Dennis <<u>DLarks@oaklandca.gov</u>>; Grefsrud, Marcia@Wildlife <<u>Marcia.Grefsrud@wildlife.ca.gov</u>>; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>)

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Cc: kenp911@sbcglobal.net

Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Good Afternoon Everyone,

Could someone please provide me an update on the status of the above captioned matters? Thank you.

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: <u>NVigilante@msn.com</u>

From: Nicholas Vigilante
Sent: Tuesday, September 25, 2018 2:39 PM
To: Wines, Brian@Waterboards; wgilchrist@oaklandnet.com; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis; Grefsrud, Marcia@Wildlife; 'Galacatos, Katerina CIV USARMY CESPN (US)'
(Katerina.Galacatos@usace.army.mil); Brown, Gregory G SPN
Cc: kenp911@sbcglobal.net; Jansen Lum; fanshen clearwater-hydrology.com
Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Brian,

I have no objection to headcut armoring at the lower end of Mr. Lum's property before the beginning of the upcoming rain season. I understand the importance of "nipping it in the bud" as they say. However, none of us want the urgent necessity to address the headcut armoring at the lower end to divert attention and resources away from making sure the remediation work is also done properly at the upper end of Mr. Lum's property.

Nicholas Vigilante

From: Wines, Brian@Waterboards <<u>Brian.Wines@waterboards.ca.gov</u>> Sent: Tuesday, September 25, 2018 2:13 PM To: Nicholas Vigilante; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis; Grefsrud, Marcia@Wildlife; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>); Brown, Gregory G SPN Cc: <u>kenp911@sbcglobal.net</u>; Jansen Lum; fanshen clearwater-hydrology.com Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni -Lum/Ham) While I am usually a stickler for caution, the recent undermining of the roots of the tree at the downstream end of the Lum property has removed what appears to be the most significant barrier to the upstream migration of the headcut. Significant damage could be done if we have a wet winter and the headcut is not armored to prevent further progression upstream.

Brian Wines Water Resource Control Engineer San Francisco Bay Regional Water Quality Control Board 510-622-5680

From: Nicholas Vigilante [mailto:NVigilante@msn.com]

Sent: Tuesday, September 25, 2018 1:57 PM

To: Wines, Brian@Waterboards <<u>Brian.Wines@waterboards.ca.gov</u>>; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar <<u>CQuitevis@oaklandnet.com</u>>; Wong, Jennifer <<u>jjwong@oaklandca.gov</u>>; Larks, Dennis <<u>DLarks@oaklandca.gov</u>>; Grefsrud, Marcia@Wildlife <<u>Marcia.Grefsrud@wildlife.ca.gov</u>>; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>)

<<u>Katerina.Galacatos@usace.army.mil</u>>; Brown, Gregory G SPN <<u>Gregory.G.Brown@usace.army.mil</u>> **Cc:** <u>kenp911@sbcglobal.net</u>; Jansen Lum <<u>jansenlum@gmail.com</u>>

Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Brian,

Thank you for the additional information.

I appereciate your verification that the rock cascade has partially failed on Mr. Lum's property as claimed by CH. Regardless of the cause of the partial failure, I will be satisfied when Mr. Lum properly repairs the rock cascade and the erosion at the upper end of his property near my property. I recommend you add verifiable inspection requirements to the Certification you are preparing, as well as any future expectations of Mr. Lum (conveyable to future property owners) after all the current remediation work is performed. We all want to make sure and record that the work is completed and performed properly. None of us want a repeat of the prior inspection oversights and misunderstandings.

Although I would like all the work to be done before the start of the upcoming rain season, I recommend not sacrificing quality of work for speed in getting work done. None of us want to encounter a reoccurence of these problems at some future point. There are no absolute guarantees, but it is better to be safe than sorry.

Nicholas Vigilante

From: Wines, Brian@Waterboards <<u>Brian.Wines@waterboards.ca.gov</u>> Sent: Tuesday, September 25, 2018 11:10 AM To: Nicholas Vigilante; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis;



https://outlook.live.com/mail/id/AQMkADAwATIwMTAwAC0wMzBkLWQzZTEtMDACLTAwCgBGAAADjdyFnjuMfEG8v5IC%2BJJKIwcAM%2FiFMevcU... 5/11

Grefsrud, Marcia@Wildlife; 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>); Brown, Gregory G SPN **Cc:** <u>kenp911@sbcglobal.net</u>; Jansen Lum **Subject:** RE: Request For Documents: Complaint #1702523, RB1704591, and CB 18009 (71)

Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Mr. Vigilante,

See responses below in green.

Brian Wines Water Resource Control Engineer San Francisco Bay Regional Water Quality Control Board 510-622-5680

From: Nicholas Vigilante [mailto:NVigilante@msn.com]

Sent: Tuesday, September 25, 2018 10:22 AM

To: wgilchrist@oaklandnet.com; Quitevis, Caesar <<u>CQuitevis@oaklandnet.com</u>>; Wong, Jennifer
 <jjwong@oaklandca.gov>; Larks, Dennis <<u>DLarks@oaklandca.gov</u>>; Wines, Brian@Waterboards<<<<u>Brian.Wines@waterboards.ca.gov</u>>; Grefsrud, Marcia@Wildlife <<u>Marcia.Grefsrud@wildlife.ca.gov</u>>;
 'Galacatos, Katerina CIV USARMY CESPN (US)' (<u>Katerina.Galacatos@usace.army.mil</u>)
 <<u>Katerina.Galacatos@usace.army.mil</u>>; Brown, Gregory G SPN <<u>Gregory.G.Brown@usace.army.mil</u>>;
 Cc: kenp911@sbcglobal.net; Jansen Lum <<u>jansenlum@gmail.com</u>>
 Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni -

Subject: Re: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni Lum/Ham)

Group:

I am writing now to ask for a written response regarding how my comments of September 22, 2018 are being considered, and how they are being incorporated into the remediation processes.

Nicholas Vigilante

From: Nicholas Vigilante

Sent: Saturday, September 22, 2018 10:01 AM

To: <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis; Wines, Brian@Waterboards; Grefsrud, Marcia@Wildlife; 'Galacatos, Katerina CIV USARMY CESPN (US)'

(Katerina.Galacatos@usace.army.mil); Brown, Gregory G SPN

Cc: kenp911@sbcglobal.net; Jansen Lum

Subject: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Group:

Attached you should find a copy of the Clearwater Hydrology Report dated September 11, 2018 submitted in connection with the above-cited matters. Thank you Mr. Quitevis for fowarding a copy of it to me. Below you will find my comments to that Report.

Mr. Nicholas J. Vigilante

Comments On Clearwater Hydrology (CH) Report Dated 9/11/2018

1. On page 1, CH refers to Shepard Creek and Shepard Canyon Road in its report. The name Shepard is in error. The correct name and spelling is Shepherd.

Correction noted.

2. On page 2, CH theorizes that the erosion at the upper end of the Lum/Ham property is due to a partial failure of the rock cascade constructed by the City of Oakland in 2002. This theory is not worthy of credence.

During my site visit, I observed the flow path to the right of the rock cascade. The channel has avulsed to bypass the cascade between the rocks and the right bank, and there are clear indications that flow is impacting the right toe of bank. A fallen tree may have contributed to the diversion of flow around the cascade. But the cascade is clearly in need of repair to return flow to the cascade.

Public records show the area was subject to erosion before the City of Oakland installed the rock cascade in 2002 due to the steep slope and volume and force of the water traversing the watercourse. The installation of the rock cascade in 2002 eliminated most of the erosion which had plagued the area where the cascade was installed. There has been no rock cascade failure and no erosion above the Lum property (on the Vigilante property at 7200 Saroni) since 2002 despite its much closer proximity to the culvert opening and to a much greater volume and force of water emanating from it. Further, public records also show that there was already significant erosion on Mr. Lum's property at the upper end before he commenced the permit process for permission to construct his home at 7196 Saroni Drive. In 2007, Mr. Lum retained CH to prepare a required hydrology report prior to the construction of his home. The CH hydrology report dated April 4, 2007 and submitted to the City of Oakland does not identify any failure of the adjacent rock cascade. Mr. Lum's consulting Civil and Geo Engineer, Mr. William K. Langbehn, also did not identify any failure of the rock cascade prior to construction of the home. In the engineering drawings that the City of Oakland approved stipulating conditions for construction of the home, Mr. Lum agreed to install rock revetment at the upper end location to address the erosion shown on those drawings. Construction of the residence was completed in 2010. However, a period of at least 8 years went by without action on Mr. Lum's part to address this erosion. As an engineering professional, Mr. Lum should have known the vital importance of addressing this problem in a timely manner. It is absurd now in 2018 for CH to theorize that the erosion is due to a partial failure of the rock cascade because public records show that Mr. Lum failed to take any action to address this erosion problem over a period of at least eight years! Thus, if the City installed rock cascade is partially failing now, it is likely due to Mr. Lum's failure to timely address the erosion problem at the upper end of his property over a period of at least eight years.

In addition, I believe there is also another contributing factor to the erosion and any partial failure of the rock cascade. In February 2017, PWA observed debris from the Lum/Ham property in the creek. The debris had been there for at least several years. PWA advised Mr. Lum to clear the debris from the creek to improve the flow of water in the watercourse. Mr. Lum has presented no evidence that he did as instructed by City officials before and after he was instructed to do so. Thus, it can be theorized that Mr. Lum's failure to address the debris

11/20/2018

problem may have contributed to erosion and any partial failure of the rock cascade.

3. On page 2, CH states that one of the objectives is to repair the City installed rock cascade located on the Lum/Ham property. On page 4, CH states further that up to 2.0 foot diameter rock will be used to rebuild the City installed boulder cascade, with a specific restriction that the larger 2.0 foot diameter rock would only be employed if a small bucket excavator were able to negotiate the steep south slope. Otherwise, the largest rock installable by laborers will be used. The actual size of the latter rocks is not specified which constitutes a substantial deficiency in the CH report. How can erosion be reduced or stopped if boulders, or rocks, called for are not properly sized and placed at the site of the erosion? Therefore, the CH report requires more specificity regarding the nature and extent of the boulder, or rock, repair work to be performed at the upper end of the Lum/Ham property.

In contrast to the above, in 2002, Andes Construction installed the rock cascade for the City of Oakland via a truck crane and workers some of whom were deployed in the watercourse to help the crane safely lift and place each boulder exactly where needed. A Civil Engineer determined the specific boulder amount and sizes needed before the work commenced, as well as the placement of bedding materials and the boulders in the watercourse as the work was being performed.

To overcome the potential boulder size and placement challenges posited at page 4 of the CH report, I am willing to allow Mr. Lum's construction contractors access along the backside of my property. This area is easily accessible and there is ample space there for a small bucket excavator to maneuver and transport boulders very close to the location where they need to be installed to address the erosion problem on the upper end of the Lum/Ham property. Immediately after such work is done, I expect Mr. Lum to repair any and all damage to my property caused by the repair efforts, and return the area to the condition it was in before the repair work began.

Thank you for agreeing to allow construction crews to access your site in order to place larger rock along the cascade. I will memorialize your agreement in the Certification. CH should be able to direct the proper placement of appropriately sized rocks along the cascade. In order to allow work to occur before the start of the rainy season prohibits work in the channel, the final sizing will have to be done during construction. Requiring a revised design would delay construction till next summer. CH has experienced staff who should be able to perform appropriate field-fitting or rock.

4. On pages 2, 3 and 6, CH refers to the Kim family, and to a Mrs. Kim in its report. The name Kim is in error. The correct family name and spelling is Park. Ms. Grete W. Park of 7236 Saroni Drive, as well as her son and only child and heir, Mr. Kenneth W. Park.

Correction noted.

5. On page 6, CH recommends installing "blanket" over any disrupted hillslope (sic) zones if an excavator can be used to install the cascade rock. This recommendation should have been expanded to include work on all hillside slopes regardless of whether the work is performed by mechanized equipment (such as an excavator) or by hand labor.

The need for erosion control blankets will be assessed based on the extent of disturbance after construction is completed. Where vegetation is not disturbed by the work, erosion control blankets my impair the vegetation.



Mail - Nicholas Vigilante - Outlook

It is relevant to point out here that in prior correspondence with the City of Oakland, I noted that for several years the landslide directly behind the Lum/Ham residence was only partially covered with tarp and only at the upper end below the residence which did not properly abate additional soil movement and erosion into the creek. In April 2018, Mr. Lum finaly covered the entire area with tarp and stabilized the water discharge pipes from his residence so they no longer deposit water onto the property at 7236 Saroni which had also caused erosion and undermined an old Oak tree on that property. I recently asked that the City of Oakland to instruct Mr. Lum to properly cover the second area of erosion on the upper end of his property with tarp before the upcoming rain season to reduce continuing erosion, but he has not done so. I am concerned that continued erosion may impact the adjacent property at 7200 Saroni Drive (Vigilante property). Please request that Mr. Lum immediately and properly cover the second area of erosion on the upper end properly cover the second area of erosion and properly at 7200 Saroni Drive (Vigilante property). Please request that Mr. Lum immediately and properly cover the second area of erosion on the upper end properly cover the second area of erosion on the upper end properly cover the second area of erosion on the upper end properly cover the second area of erosion on the upper end his property with tarp until that area is permanently repaired.

I am hoping that City and State approvals can be obtained in time to perform work before the rain season starts.

6. I am not in a position to address substantive portions of the CH report pertaining to the property at 7236 Saroni Drive. I have forwarded the CH report to Mr. Park for review and comments which he and his mother, Ms. Park, may wish to provide.

Authored and Submitted by Nicholas J. Vigilante on September 22, 2018

From: Quitevis, Caesar <<u>CQuitevis@oaklandca.gov</u>>
Sent: Friday, September 21, 2018 4:13 PM
To: Nicholas Vigilante; Wong, Jennifer
Cc: Larks, Dennis
Subject: RE: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni Lum/Ham)

Please find the attached enclosure for the supplemental design for creek stabilization at the Saroni site. The report is dated 9/11/18 and is the latest study conducted for Mr. Lum.

Regards,

Caesar Quitevis, Planner II | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2316 | Oakland, CA 94612 | Phone: (510)238-6343 | Fax: (510) 238-4730 | Email: <u>cquitevis@oaklandnet.com</u> | Website: <u>www.oaklandnet.com/planning</u>

From: Nicholas Vigilante [mailto:NVigilante@msn.com] Sent: Wednesday, September 19, 2018 6:52 PM

To: Wong, Jennifer <jjwong@oaklandca.gov>; Quitevis, Caesar <<u>CQuitevis@oaklandca.gov</u>> Cc: Larks, Dennis <<u>DLarks@oaklandca.gov</u>>

Subject: Request For Documents: Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

Jennifer and Caesar,



I am requesting to review and obtain copies of any hydrology, geomorphology, and engineeering reports \mathcal{V}
and/or studies that Mr. Lum has submitted this year in connection with the above cited matters. If I
need to submit this request to Mr. Guillory of the P&B records department, please advise of the
request process. Thanks

Nicholas Vigilante

From: Nicholas Vigilante Sent: Sunday, August 26, 2018 3:57 PM

To: Daniel, Christine; <u>wgilchrist@oaklandnet.com</u>; Quitevis, Caesar; Wong, Jennifer; Larks, Dennis **Cc:** <u>kenp911@sbcglobal.net</u>

Subject: Additional Comments - Complaint #1702523, RB1704591, and CP 18009 (7196 Saroni - Lum/Ham)

I am replying to Mr. Larks e-mail of April 9, 2018 at this time to provide you with some facts you may not be aware of, and to make several requests in connection with the subject-matter above.

In April 2018, Mr. Lum told Mr. Larks that he changed the color of the tarp at the neighbors's request. However, there are several other things Mr. Lum did at the same time that he did not mention to Mr. Larks. Mr. Lum also covered the <u>entire</u> damaged slope area beneath his house, and he properly secured his three storm drainage pipes so they no longer pushed water onto the property at 7236 Saroni. From January 2017 to April 2018, Mr. Lum had only covered a <u>small</u> portion of the damaged slope area beneath his house with blue tarp. The rest of the damaged slope area going down to the creek was not covered with tarp and was completely exposed. Further, Lum's three unsecured storm drainage pipes deposited water on the property at 7236 Saroni. The Planning and Building Department is in possession of pictures Mr. Lark's took in June 2017 as part of pre-NOV issuance investigation along with the pictures I provided everyone in December 2017 which corroberate these facts.

- 1. Why did Lum not take steps to properly cover the entire damaged slope area with tarp and properly secure the storm drain pipes from his house from January 2017 to April 2018, even after he was issued a NOV in June 2017.
- 2. How much damage occurred during the period from January 2017 to April 2018 due to Mr. Lum's failure to properly cover the entire slope area and properly secure the storm drainage pipes from his home?

The above questions are rhetorical to get us to think about what happened, and why it happened.

In addition, during the period from January 2017 to today's date, Mr. Lum has not taken any steps at all to cover the second area of erosion on his property which is near my property at 7200 Saroni Drive. Given we are now two months away from the start of the rain season, I would appreciate it if your office would instruct Mr. Lum to properly cover that eroded area of his property with tarp to prevent further erosion during the upcoming rain season.

Lastly, I would also appreciate it if one of you would contact me when Mr. Lum has submitted the necessary technical and professional reports he is required to submit in connection with his CP application. I would like to review those reports, make copies of them if possible, have them peer reviewed by other professionals in the same fields, and provide additional comments in connection with his CP application.



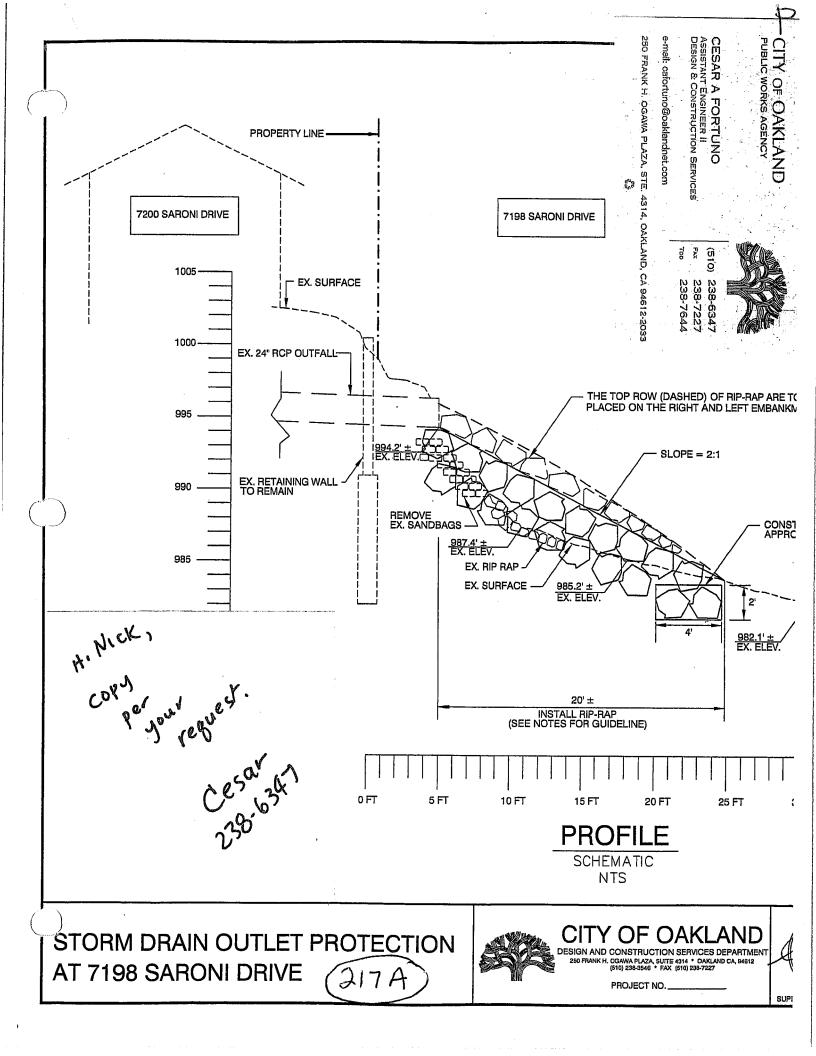
Nicholas Vigilante

From: Larks, Dennis <<u>DLarks@oaklandnet.com</u>>
Sent: Monday, April 9, 2018 12:53 PM
To: Nicholas Vigilante; Wong, Jennifer
Subject: RE: RB1704591 - Has Lum Been Given Permit Approvals Yet?

Nicholas

It appears Mr. Lum has only changed the color of the tarps protecting the eroded areas at the request of the neighbor, from a bright blue to a brown until the review process is over. His permits are still under review.





EXHIBH P

PEARL CONSTRUCTION COMPANY



GENERAL ENGINEERING . BUILDING

MARCH 16, 1998

- TO: ROGER BLAIR 4711 STAR RD FAIR OAKS CA 95628
- FROM: JAMES PEARL PEARL ENGINEERING AND CONSTRUCTION COMPANY CA.ENG.LIC.NO. C49556 CA.CONTR.LIC.NO. 591179
 - RE: SITE RETAINING WALL 7200 SARONI DRIVE OAKLAND CA 94611

DEAR ROGER

I PROVIDE THIS PROPOSAL TO INSTALL THE NEW CONCRETE PIER, STEEL AND WOOD SITE RETAINING WALL LOCATED AND DESCRIBED IN THE PLANS INCLUDED. WHAT FOLLOWS IS A DESCRIPTION OF THE WORK INCLUDED IN THIS PROPOSAL AND ASSOCIATED COST. IN ADDITION, I INCLUDE A PARTIAL LIST OF CLIENTS WHO ARE DIRECTLY AWARE OF MY ABILITIES TO DO WORK OF THIS TYPE.

1. ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM THE WORK DESCRIBED IN THE PLANS AND SPECIFICATIONS.

2. SPECIAL INSPECTION SERVICES OF PIER DRILLING AS REQUIRED IN PLANS AND ALL OR ANY SPECIAL INSPECTIONS REQUIRED BY CITY.

3. BASIC CITY PERMIT FEES. NOT INCLUDING SPECIAL CREEK STUDY/ PERMIT IF REQUIRED BY CITY.

ITEMS NOT INCLUDED: SOILS REPORT IF REQUIRED BY CITY.

TOTAL COST-----\$36,000.00

IF THERE ARE ANY QUESTIONS REGARDING THIS PROPOSAL OR ANY ASPECT OF THIS
PROJECT PLEASE FEEL FREE TO CALL!!
SINCERELY James Vlar
JAMES PEARL
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(196)

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	18 SHEARWALL / ROOF	36 SUBPANEL	44 WATER PIPING	54 DUCT (LOW PRESS.)	,	
	19 SHAFT / FIREWALL	37 SERVICE / MCC	45 CONDENSATE PIPING	55 DUCT (TYPE I HOOD)	
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	21 REPORT / CERT / FEE		47 WATER SERVICE	57 MANUF FIREPLACE		
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	23 WALLBRD / SHINGLE					
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GENERAL ENGINEERING . BUILDING

NOVEMBER 2, 1998

TO: ROGER BLAIR 7200 SARONI DRIVE OAKLAND CA 94611

FROM: JAMES R PEARL

& Received James Ugilanto III PEARL ENGINEERING AND CONSTRUCTION COMPANYate CA.ENG.LIC. C049556 CA.CONTRLIC.NO. 591179 # of Pages

RE: DRAINAGE SYSTEM 7200 SARONI DRIVE OAKLAND CA 94611

DEAR ROGER

I PROVIDE YOU THIS COST PROPOSAL TO INSTALL A NEW SUB-SURFACE DRAINAGE SYSTEM FOR THE HOME AT THE ABOVE REFERENCED ADDRESS. THE PURPOSE OF THIS DRAINAGE SYSTEM IS TO MITIGATE THE MOISTURE CONDITION IN THE CRAWL SPACE AREA OF THE HOME. AT THIS TIME THERE ARE TWO OF THREE AREAS OF THE CRAWL SPACE THAT THE SURFACE MOISTURE COULD BE CONSIDERED EXCESSIVE. WHAT FOLLOWS IS A DESCRIPTION OF A SUB-SURFACE AND SURFACE DRAINAGE SYSTEM THAT I BELIEVE WILL MITIGATE THE MOISTURE CONDITION TO A VERY ACCEPTABLE LEVEL. IT SHOULD BE NOTED THAT THE MOISTURE CONDITION IN THE CRAWL SPACE IS OF NO STRUCTURAL SIGNIFICANCE TO THE STABILITY OF THE HOUSE FOUNDATION SINCE IT IS DRILLED PIER AND GRADE BEAM.

NEW SUB-SURFACE DRAIN SYSTEM TO START NEAR THE EXISTING FIRE PLACE AND EXTEND AROUND THE HOUSE PERIMETER ADJACENT TO THE FOUNDATION IN A COUNTER CLOCKWISE DIRECTION. DRAIN TRENCH TO EXTEND BELOW THE LEVEL OF THE CRAWL SPACE APPROX. SIX INCHES AT THE FIRE PLACE AND SLOPE AT A RATE OF 1/8" PER FOOT MINIMUM AND CONNECT TO EXISTING WALL DRAIN PIPING AT NEW RETAINING WALL TO DRAIN INTO CREEK. AT BOTTOM OF TRENCH SHALL BE A THREE INCH DIAMETER PLASTIC PERFORATED DRAIN PIPE SURROUNDED WITH DRAIN ROCK WRAPPED IN FILTER FABRIC. DOWN HILL FACE AND BOTTOM OF TRENCH SHALL BE LINED WITH A WATER PROOF MEMBRANE. DRAIN MAT SHALL BE APPLIED OVER WATERPROOF MEMBRANE ON DOWN HILL FACE OF TRENCH. COMPACTED SOIL REMOVED SHALL FILL REMAINDER OF TRENCH. PATIO SLAB REMOVED TO INSTALL DRAIN SHALL BE REPLACED. ALL DOWN SPOUTS SHALL BE COLLECTED IN A SEPARATE CLOSED PIPE SYSTEM BURIED IN SAME TRENCH TO DRAIN INTO CREEK.

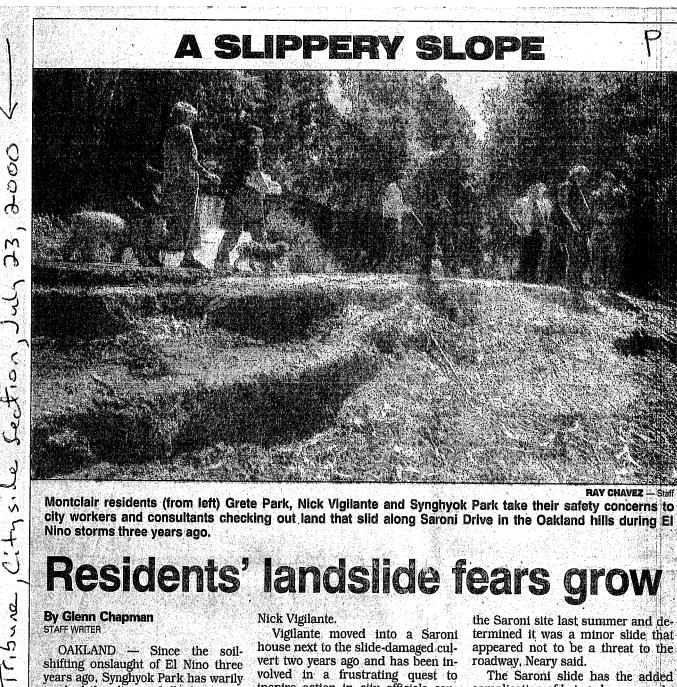
TOTAL COST OF NEW DRAINAGE SYSTEM -----\$\$\$00.00

IF THERE ARE ANY QUESTIONS REGARDING THIS PROPOSAL PLEASE FEEL FREE TO CALLI!!

SINCERELY	tamer	RVen
T	JAMES R PEARL	
· · ($\left(199\right)$

7062 SARONI DRIVE . OAKLAND, CA 94611 .

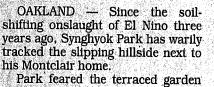
(415) 339-6655



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he crafted during decades of home ownership would drop, along with the adjoining land, into the culvert behind his house.

The worries of Park and neighbors who have watched dirt inexorably drop from beneath the pavement of Saroni Drive near Glencourt Drive have grown unabated because of what they feel is inaction by the city Department of Public Works.

A collapse of the hillside could take a portion of Saroni with it, rip property from neighboring lots and clog a creek that serves as a conduit for runoff in the community, says

Nick Vigilante,

Vigilante moved into a Saroni house next to the slide-damaged culvert two years ago and has been involved in a frustrating quest to inspire action in city officials contends have ignored him and the situation.

SLIPPERY SLOPE

"It is a crisis waiting to happen," Vigilante said. "When I bought this house, I just wanted to be a happy neighbor and make a comfortable home for myself here in the hills. I had no idea I would become Mr. Community Organizer."

City officials contend their resources have been devoted to portions of the hills that suffered more damage and were left in more precarious conditions than Saroni. Redwood Road and Snake Road have been priorities, said Mike Neary, engineering division manager with public works.

A geotechnical engineer examined

the Saroni site last summer and determined it was a minor slide that appeared not to be a threat to the roadway, Neary said.

RAY CHAVEZ

The Saroni slide has the added complication of being above a creek, which means local and state laws protecting waterways must be complied with while shoring up the hillside. A temporary fix designed to keep water off the slide area and stabilize the hill will be put in place before the next rainy season, Neary said.

We will definitely do something to make sure there is no new damage this winter," Neary said. "The permit process we need to go through to work over the creek leaves us no way to get in there, do the full repair properly, and be done before winter.

Neary expects the longterm fix to

Please see Slides, LOCAL-2





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Slides: City 'could have acted faster'

Continued from LOCAL-1

be done in the spring.

"I can certainly understand their frustration," Neary said of residents convinced a hazard is being neglected. "We've had to prioritize these slides in the hills. Now we are getting to this one.'

Cesar Fortuno of the public works design division and a set of consultants, including Drew Goetting of the Waterways Restoration Institute in Berkeley, made an impromptu visit to the Saroni slide Wednesday.

Goetting hiked through the dense foliage to peer at the creek, which he deemed healthy. An oak tree deeply rooted in the hillside below Saroni is anchoring the slope, Goetting said.

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⁴ "I think this can be dealt with in a simple manner," Goetting said of the damaged area. "This is a nice creek and a real asset "to the community."

The optimal solution might be to restore and landscape the hillside, perhaps using a technique in which bundles of willow branches are worked Into the soil, Neary said. The branches sprout roots that hold dirt in place.

1 Plans will include using boulders or other material to absorb the force of water that gushes from a mammoth drain pipe that opens into the culvert a few feet from Vigilante's property line, Neary said.

Vigilante, Park and Park's wife, Grete, have grown leery of promises by the city. Vigilante has tried to enlist the support of city officials as powerful as City Manager Robert Bob, Mayor Jerry Brown and Coun-climember Dick Spees to no avail.

"We have been ignored and lied to," said Park,

Vigilante, 45, believes that without the acumen honed at his job investigating equal opportunity employment com-plaints for the first

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"We have been ignored and ilied to," said Park.

Vigilante, 45, believes that without the acumen honed at his job investigating equal opportunity employment complaints for the federal Department of Treasury, he would have been worn down in his dealings with evasive city officials.

"I think most people around here would have lost their cool by now and simply given up," Vigilante said of his thwarted bid to get Saroni fixed quickly. "At this point, after being given promises unkept, there is such a high level of ambiguity I consider it an abuse of the public's trust."

Vigilante took his case to his neighbors, the Shepherd Canyon Homeowners Association, and has kept detailed records of communications with the city.

"I feel bad that they feel that way," Neary said of those on Saroni who feel snubbed. "In hindsight, it appears we could have responded faster. But, given the other problems we've had, we are doing the best we can and making sure it is taking care of as soon as possible."

CITY OF OAKLAND

PUBLIC WORKS AGENCY DESIGN AND CONSTRUCTION SERVICES DEPARTMENT ENGINEERING DESIGN PROJECT

Contract Documents (Plans and Specifications)

for Restoration of Saroni Drive

City Project No. C142810

September 2000



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CITY of OAKLAND Public Works Agency Design and Construction Services Department Engineering Design

Contract Documents (Plans and Specifications)

City Project No. C142810

Funded by

Measure "B" Funds

Robert C. Bobb City Manager

The work embraced herein shall be done in accordance with the "Standard Specifications for Public Works Construction 1997 Edition" (GREENBOOK) as modified by the "City of Oakland Modifications to the Standard Specifications for Public Works Construction 1997 Edition" adopted by the April 7, 1998 City Council Ordinance No. 12049 C.M.S., and the "Standard Details for Public Works Construction 1994 Edition," all referred to hereinafter as the "Standard Specifications," insofar as the same may apply, and in accordance with the Special Provisions.

For Claudette Ford

Director, Public Works Agency



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Typical Section

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ESTIMATE RESTORATION OF SARONI DRIVE (Project No. C142810)

The estimate of quantities in the following schedule is for the purpose of canvassing and determining bids. Bidders are to state unit prices for the separate items, which prices shall include full compensation, including all applicable taxes, for furnishing all labor, materials, water, tools, and equipment and for doing all the work involved in furnishing and installing the separate items in place as specified herein, to wit:

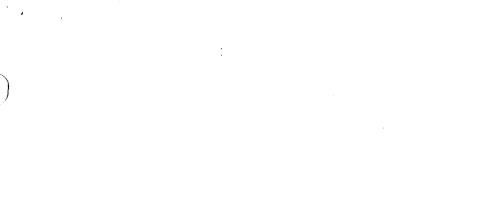
ITEM NO.	SPEC. SEC. NO.	APPRO X QTY.	UNIT OF MEAS.	ITEM	UNIT PRICE	TOTAL
1		1	LS	Mobilization	+	
2		1	LS	Clearing and Grubbing	· · · · · · · ·	
3		60	CY	Unclassified Excavation		
4		30	CY	Unclassified Back-fill	++	
5		126	LF	Drill and Construct Concrete Piers (30" Dia.)		
6		200	LF	Furnish and Install Structural Steel Piles		
7		288	SF	Furnish and Install Timber Lagging		
8		12	TN	6" Asphalt Concrete Pavement including 6" Class II Aggregate Base		
9		80	LF	Asphalt Concrete Berm		
10		42	LF	Flexible Metal Guard Rail		
11		1	LS	Traffic Control		
12		20	LF	Extension of Cast-In-Place Steel Soldier Piles		

TOTAL OF 12 ITEMS

BIDDER:

206

P



P

207



WILLIAM K. LANGBEHN CE GE

Geotechnical Engineer

1034 Richmond Street, El Cerrito, CA 94530 fax

fax (510) 558-8310

phone (510) 558-8028

"Licensed by the California Dept. of Consumer Affairs, Board for Professional Engineers and Land Surveyors"

January 29, 2002

Nick Vigilante 7200 Saroni Drive Oakland, CA 94611

> RE: Preliminary Geotechnical Evaluation Retaining Wall and Rear Slope 7200 Saroni Drive Oakland, California

Dear Mr. Vigilante:

At your request, the undersigned engineer recently completed a preliminary geotechnical evaluation at the subject property in order to render an opinion on the current condition of the existing retaining wall and slope at the rear of the site. It is my understanding that the existing retaining wall crosses over your rear property line such that the south part of the wall and the slope area below the wall are actually located on the adjacent lot.

Please be advised that this is a reconnaissance-level study based on surficial conditions visible and exposed at the site during my site visit on January 16, 2002. The scope of work performed for this study also included a review of relevant geologic, landslide and fault maps of the area and a review of the retaining wall plans. It should be noted that the preliminary opinions and conclusions presented in this letter could always be modified by more detailed studies at the site that might include: exploratory borings, laboratory testing, detailed examination of historic aerial photographs, review of building records, and site survey(s). However, the scope of work outlined above is considered adequate for this type of preliminary reconnaissance evaluation and any further studies that may be contemplated for this site are duly noted herein.

BACKGROUND AND SITE DESCRIPTION

The subject property is a relatively level lot located on an inside bend of Saroni Drive at the top of an incised stream channel near the center of a prominent valley. In the rear yard, a nearly level terrace is present near the home, supported by a large soldier pile retaining wall that crosses the rear property line as noted above. A small terrace is present on the adjacent lot below the wall, with a steep descending slope down to the creek channel. A City storm drain discharges into the creek channel on the adjacent lot below the north end of the wall. Based on our conversations, it is my understanding that the subject residence was threatened by a landslide in the rear yard in early 1998 following a period of record rainfall. The top of the slide apparently extended up to the garage area, exposing some of the rear foundation piers. The soldier pile and wood-lagging retaining wall was then constructed across the backyard in April and May of 1998 to stabilize the slope and protect the home from further sliding toward the creek.

FOUNDATIONS

RETAINING WALLS LANDSLIDE INVESTIGATION

DRAINAGE EVALUATION



According to a plan prepared by Pearl Engineering dated March 20, 1998, the wall consists of steel WF 10x39 I-beams placed in 24-inch diameter drilled holes approximately 8 feet on center with 4x12 pressure-treated wood lagging. The elevation diagram on the plan indicates that the wall varies in height up to a maximum of about 10 feet with some sections of the lagging buried at the edges. The plan also calls for the drilled piers to be extended to depths of over 29 feet with the pier depths verified by the engineer during drilling. In addition, the City permit approval requirements stamped on the jobsite copy of the plan included Special Inspections for drilled piers, excavation and backfill, and special drainage, along with an as-built geotechnical report.

A similar slide problem dating back to early 1998 was also recently stabilized by the City on the east side of the stream channel immediately downstream of the culvert area using a buried soldier pile wall. This work was apparently completed in November 2000. In addition, it is also my understanding that the City plans to install riprap on the creekbanks at the culvert outlet later this year as additional mitigation for this area.

You are reporting no seasonal movements and no major drainage or settlement problems with the home at this time, or in response to the current heavy rains this winter. However, you have noticed some ground cracking on the rear slope below the wall and have asked that I evaluate the current condition of this slope as well as the performance of the retaining wall since in 1998.

PUBLISHED DATA

1. <u>Topography</u>

As shown on Figure 1, the subject site is located within a prominent valley in an area of moderately steep hillside terrain. An incised stream channel is present along the valley floor in this area, beginning at the culvert outlet near the southeast corner of the lot. The existing wall is situated behind the home near the top of a steep slope that appears to be near the transition between the natural slopes along the stream channel and the edge of probable fill placed during the original house construction to create more level space in the building and yard areas around this portion of the site.

2. <u>Geology and Landslides</u>

The geologic map published for this area by the USGS indicates that the subject site and the hillside areas to the east are underlain by Tertiary-aged sedimentary bedrock labeled as the Sobrante Sandstone of the Monterey Group (Radbruch, 1969). The bedrock unit in this area is described by Radbruch as primarily consisting of siltstone and shale with some fine-grained sandstone. A transition to alluvial and colluvial soils is mapped along the stream channel about 200 feet below the site.

The preliminary landslide map published for this area by the USGS (Nilsen, 1975) indicates that the subject site is underlain by bedrock, located upstream of the transition to alluvial valley deposits along the stream channel as suggested on the Radbruch map. However, the southwest corner of the site is mapped at the toe of a possible landslide deposit that occupies the minor secondary drainage swale on the hillside to the west of the site. This feature is queried by Nilsen to indicate some uncertainty in the limits or positive identification of the mapped landslide deposit.

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It should be noted that the Nilsen slide maps are preliminary in nature and rely solely on the interpretation of aerial photographs, serving to "red-flag" those areas where more detailed site-specific studies may be appropriate. Aerial photographs reviewed for a recent study by the undersigned engineer on a nearby lot (7188 Saroni Drive) found no obvious indications of recent or historic landsliding visible on or near these sites as indicated on the Nilsen map although some hummocky terrain was visible up in the swale to the west.

3. Faulting and Seismicity

The site is not located within an Earthquake Fault Zone (Special Studies Zone) as established by the state for active faults (CDMG,1982). Therefore, the risk of fault rupture appears to be low at this site. Due to the clayey soils, the risk of soil liquefaction during strong seismic shaking is also generally low in this area. However, due to the proximity to known active faults such as the Hayward fault approximately 1 mile southwest of the site, the primary seismic hazard at this site is the moderate to strong ground shaking expected for all sites in the greater Bay Area during a major earthquake on one of the nearby faults in the region.

SUMMARY OF SITE OBSERVATIONS

1. Interior and Crawlspace

Since no problems are currently being reported with the home, the current evaluation was limited to the existing retaining wall and rear slope and did not include the condition of the existing residence in other areas of the site. Thus, no observations of the interior or crawlspace areas of the residence have been made.

2. Exterior, Site Wall and Yard Areas

No obvious indications of recent settlements or other ground movement problems were noted in the patio/landscaped area in the rear yard between the home and the wall. In addition, no obvious cracks were visible in the exposed sections of the house foundation and in the exterior stucco in this area. Surface drainage conditions above the wall and in the surrounding yard area appeared adequate except for some minor ponding around the catch basin near the wall.

The existing soldier pile wall appeared to be in generally good condition with no obvious indications of any recent movements or distress. Most of the I-beams had a slight outward tilt of about 1/8-inch per foot, a normal and typical amount of deflection to be expected for this type of cantilever wall system. However, one of the central piers had a much greater tilt of almost 1-inch per foot, possibly due to additional depth to firm bearing material at this location near the axis of the former creek channel and near the center of the 1998 slide. Although some minor bulging of the lagging was also noted at this pier, the fence/rail above the wall is still generally straight, suggesting that much of the observed tilt in the wall may be as-built, occurring in response to the initial backfill and first full loading under saturated conditions. Nonetheless, this central pier should be monitored for any further tilt that would indicate ongoing yielding of the wall in this critical area.

FOUNDATIONS I

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LANDSLIDE INVESTIGATION

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3. <u>Rear Slope</u>

The area below the wall consists of a gently sloping bench or terrace extending out about 8 feet or more from the toe of the wall and a steep descending slope down to the creek channel at the outer edge of the terrace. Most of the terrace area is covered by lawn while the steep slope area is covered by dense vegetation, primarily ivy, brush, and numerous trees. A large fallen bay tree is also present on the slope and most of the trees had a noticeable downslope lean. The stump of a large Monterey pine tree is located near the top of the steep slope area. Surface runoff to this area appears to be limited to sheetflow from the more level portions of the lot to the west and no adverse drainage conditions were observed.

Numerous distinct ground cracks were evident in the grass on the terrace below the wall, primarily along the southern part of the wall. Some of the cracks were at least an inch wide and some vertical displacement was noted at the topmost crack near the toe of the wall. These cracks appeared to be tension cracks forming at the top of the slope area below the wall, and generally located within the 1998 slide area as defined on the retaining wall plan by Pearl Engineering. In addition, some fresh hairline cracking was also noted in the bare soils around the tree stump at the top of the slope.

The bottom of the slope appears to bulge into the creek channel, forcing an outer bend in the stream at this location. The existing City storm drain discharge is located on the upstream side of this bend such that some erosion at the toe of the slope is likely occurring during peak flood events, contributing to potential slope instability. However, the loss of material at the toe is largely obscured by the dense vegetation and may also be slowly offset by ongoing encroachment of the slope from periodic creep movements during these peak events. This lower part of the slope along the creek should also be monitored for any sign of major erosion, sloughing or loss of material following major storms or sustained rainfall events.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this preliminary evaluation, it appears that the subject retaining wall has generally performed well since 1998, with the exception of the one pier at the center of the wall with excessive tilt as noted above. However, the slope below the wall appears to only marginally stable and is now experiencing some creep and related ground movements in response to the recent heavy rainfall in this area last November and December. Unfortunately, a more detailed evaluation of the existing wall is not possible without an as-built geotechnical report or the Special Inspection construction documentation apparently required by the City for permit approval. If such documentation was completed by Pearl Engineering at the time of the work, some additional insights could likely be provided on the actual wall construction and on the soil conditions encountered during the work.

At this time, the most significant geotechnical concerns include the potential instability of the rear slope, the possible impact of any major ground movements in this area on the future performance of the wall, and the need for appropriate remedial work, including short-term measures to be undertaken to protect the slope for the remainder of the current winter, and for long-term stabilization of the slope and culvert discharge area. These issues and related items are discussed below.

FOUNDATIONS RI

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1. <u>Slope Stability</u>

The marginally stable rear slope area includes the bench or terrace immediately below the wall along the top of the slope and the steep, heavily-vegetated slope along the creek. The bench area was apparently used as the primary construction access for the wall and only minor grading, mostly local backfill and re-compaction, appears to have been required on this portion of the slope during the wall construction. It is interesting to note that the recent ground cracking and disturbed vegetation pattern observed on and above the steepest part of the slope appear to lie within the portion of the "area of ground movement" as shown on the 1998 wall plan on the slope below the wall. This strongly suggests a partial re-activation of the lower part of the 1998 slide area during recent heavy rains.

Since the wall construction was not intended to stabilize the entire slide area (only the upper part of the slope near the home), some eventual creep, sliding or other ground movements within the lower part of the slide mass could be expected considering the steep slopes along the creek and the location of the culvert discharge at the toe of the slope. A complete slope stability analysis for this slope was beyond the scope of this evaluation and would need to be supported by more detailed engineering studies at the site that would include a topographic site survey of the affected area as well as exploratory borings, groundwater monitoring and a suitable laboratory testing program. However, based on the observations at the site and the available information from 1998, it appears that the rear slope is potentially unstable and vulnerable to additional movements in response to heavy rainfall, particularly within the lower part of the 1998 slide area.

2. <u>Retaining Wall Issues</u>

Fortunately, the recent ground movements appear to have been confined the slope area below the wall and the existing home does not appear to be affected at this time or threatened by future slope movements, *provided the existing retaining wall continues to function as intended*. It should be noted that additional de-stabilization or sliding of the rear slope could result in more serious ground movements, either rapidly or gradually undermining the existing wall piers.

This type of cantilever wall requires a wedge of stable slope materials below the wall for developing passive pressures at depth on the piers. Thus, any loss of ground or over-steepening of the slope below the wall due to slope instability could remove lateral support for the wall piers. Since this type of failure would most likely occur at a time when the wall is fully loaded under saturated conditions, substantial yielding of the wall may result that would be difficult or impossible to repair, with varying degrees of tilt and deflection that would likely be architecturally unacceptable. Any major distress to the wall could also potentially impact the nearby house foundations.

Although the wall construction generally appears to be reasonably conservative and appropriate based on the information on the 1998 plan, any further assessment of the vulnerability of the wall to potential future slope movements should be based on more detailed information on the actual wall construction, either from Special Inspection construction documentation or any as-built geotechnical report available from Pearl Engineering or the City of Oakland building records, as noted above.

FOUNDATIONS RE

RETAINING WALLS

LANDSLIDE INVESTIGATION

DRAINAGE EVALUATION

3. <u>Temporary Remedial Measures</u>

In order to reduce the risk of further slope movements below the wall this winter, the following temporary measures should be completed as soon as possible:

- The bench or terrace area below the wall should be covered with heavy plastic sheeting anchored with sandbags or roped tires to reduce infiltration of runoff into the slope by covering the area of observed ground cracking.
- A sandbag berm or haybale dike should be installed across the top of the slope starting on the west side to divert runoff from the affected area. A collection point can be constructed at the low end with a temporary flexible pipe to collect and discharge the flow to the creek below. In addition, local ponding around the upper catch basin should be eliminated by local backfill and minor re-grading.

As previously noted, the toe of the slope along the creek near the culvert discharge should be monitored for possible erosion or other problems during peak events and the excessive tilt at the center wall pier should also be closely watched for possible changes during the remainder of the rainy season.

4. Long-term Remedial Measures

To improve the long-term stability of the rear slope and minimize the impact of the adjacent storm drain culvert discharge, the following remedial work items are recommended for this slope:

- A buttress should be constructed at the toe of the slope consisting of a rock revetment along the stream channel using large boulders and riprap placed at an inclination no steeper than about 1:1. The rock should be placed on a small bench cut along the base of the slope near and should extend up to the culvert discharge. A similar riprap revetment is likely envisioned by the City for the culvert outlet and along the east side of the creek. Such a buttress adds weight to the base of the slope using a hard, free-draining material that provides erosion protection along the creek while remaining stable at the steep slope inclinations typically present in the stream channel.
- The existing slope above the rock revetment is over-steepened and should be graded to a flatter slope inclination by removing the tree stump at the top of the slope. This stump is located on a small knob that protrudes into the stream channel on the steepest part of the bank. Selected trees and brush should also be removed from this area only as required to re-grade the slope above the rock buttress to a smooth inclination no steeper than about 1.5:1 and preferably flatter where possible. However, the existing bench below the wall should be left in place and trimmed to no less than 10 feet wide. Surface materials should be compacted on the slope and bench by track-walking and wheel rolling with particular attention given to sealing the tension cracks visible on the slope and the disturbed areas should be covered with mulch and jute mesh for erosion control until permanent vegetation is re-established.

RETAINING WALLS

LANDSLIDE INVESTIGATION DRAINA

DRAINAGE EVALUATION

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The riprap placement, minor slope grading and erosion control measures outlined above are common improvements required along creekbanks in this area, particularly at and below major storm drain culvert outlets. In addition, these remedial work items represent the most practical way to improve the long-term slope stability in sensitive creek areas where major removal and recompaction grading techniques and large retaining wall construction are difficult, expensive and environmentally unsuitable.

5. <u>Project Responsibility</u>

As noted above, most of the retaining wall and the entire rear slope are located on the adjacent lot, which is not part of your property. The owner of this lot should be notified of the current problems and provided a copy of this report. The temporary measures described above should be considered a maintenance responsibility for this owner that requires prompt attention. We first discussed the need for these short-term measures following my site visit, and it is my understanding that you have contacted the owner of this lot with these recommendations, but no action has as yet been taken.

You may wish to also contact Pearl Engineering to evaluate the one central wall pier with excessive deflection and to backfill around the upper catch basin. In addition, a copy of any Special Inspection documentation or as-built geotechnical report prepared by Pearl should also be obtained, if available.

Finally, the 1998 landslide and the recent slope movements appear to be directly related to the presence of the storm drain culvert discharge. Thus, although this is a sensitive area with high groundwater and steep slopes, the observed slope stability problems local to this part of the creek channel cannot be separated from the concentration of runoff to this location from the storm drain. Consequently, the City bears the responsibility of providing a safe and stable discharge point for the storm drain culvert. Therefore, the placement of the rockbuttress described above should be considered part of the creek bank improvements required for this area because of the culvert discharge location and can easily be included with the work already planned for this area. The minor slope re-grading and erosion control measures will benefit all parties and best be accomplished through a cooperative arrangement between the City, yourself and the adjacent property owner.

LIMITATIONS AND CLOSURE

All people who own hillside and creekbank properties should realize that some future landslide or other detrimental soil movements are <u>always</u> a possibility, although generally the likelihood is very low that damaging soil movements will actually occur. The probability of damaging events is substantially reduced by the proper maintenance of surface and subsurface drainage measures at the site and by providing appropriate remedial measures when required. Therefore, the owners should recognize their responsibility for performing adequate maintenance.

The undersigned engineer has employed accepted geotechnical engineering procedures, and the professional opinions and conclusions are made in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

FOUNDATIONS R

RETAINING WALLS

LANDSLIDE INVESTIGATION

DRAINAGE EVALUATION



7200 Saroni Drive

I hope this letter is adequate for your needs at this time and I appreciate the opportunity to be of service to you. If you have any questions regarding this matter, or need additional consultations in the future, please feel free to call.

Very truly yours,

Will L

William K. Langbehn CE GE Consulting Geotechnical Engineer (510) 558-8028

WKL/bhs c:\....\reports\vigilnte.rep

Copies: Addressee (4)

PUBLISHED REFERENCES

CDMG, 1982, "Special Studies Zone Map, Oakland East Quadrangle."

Crane, 1995, "Preliminary Geologic Map of the Oakland East Quadrangle," portion of private map collection originally included with "Geology of the San Ramon Valley and Environs," AEG 1994.

Jennings, C.W., 1994, "Fault Activity Map of California with Locations and Ages of Recent Volcanic Eruptions," CDMG Geologic Data Map No. 6.

Nilsen, T.H., 1975, "Preliminary Photo-interpretation Map of Landslide and other Surficial Deposits of the Oakland East Quadrangle, Contra Costa and Alameda Counties, California, USGS Open-File Map 75-277-41.

Radbruch, D.H., 1969, "Areal and Engineering Geology of the Oakland East Quadrangle, California," USGS Map GQ-769.

USGS, 1959, "Topographic Map of the Oakland East 7.5' Quadrangle," Photo-revised 1980.

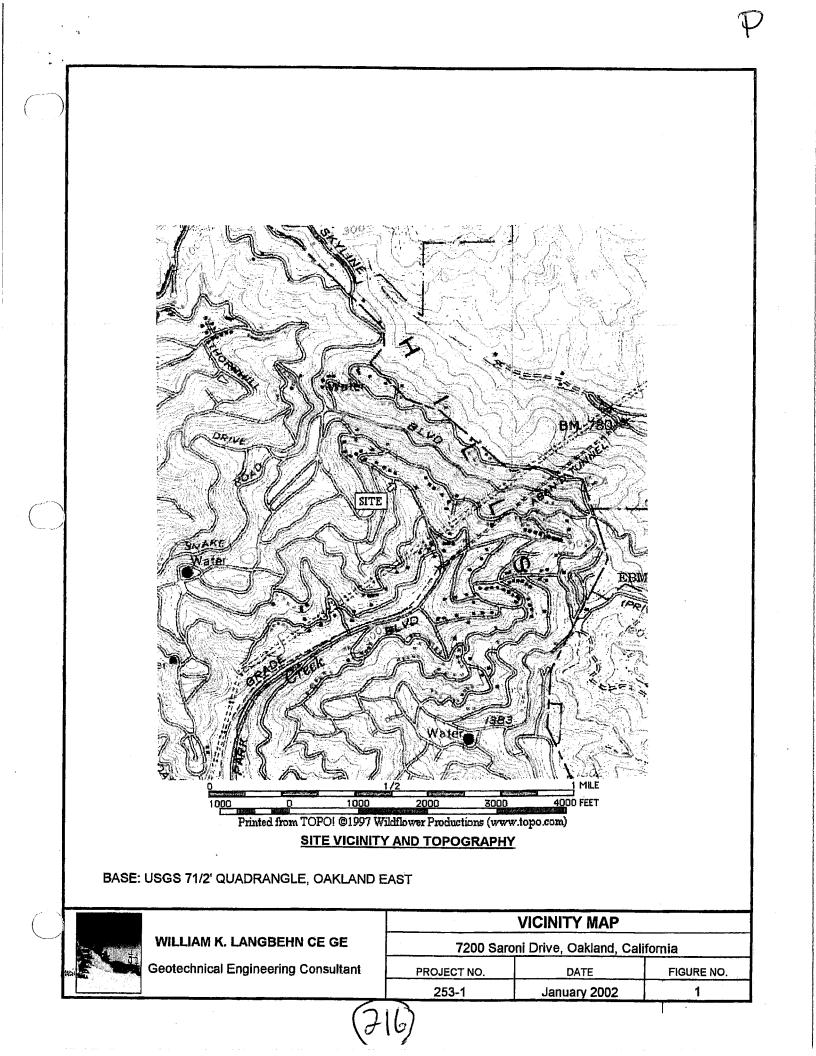
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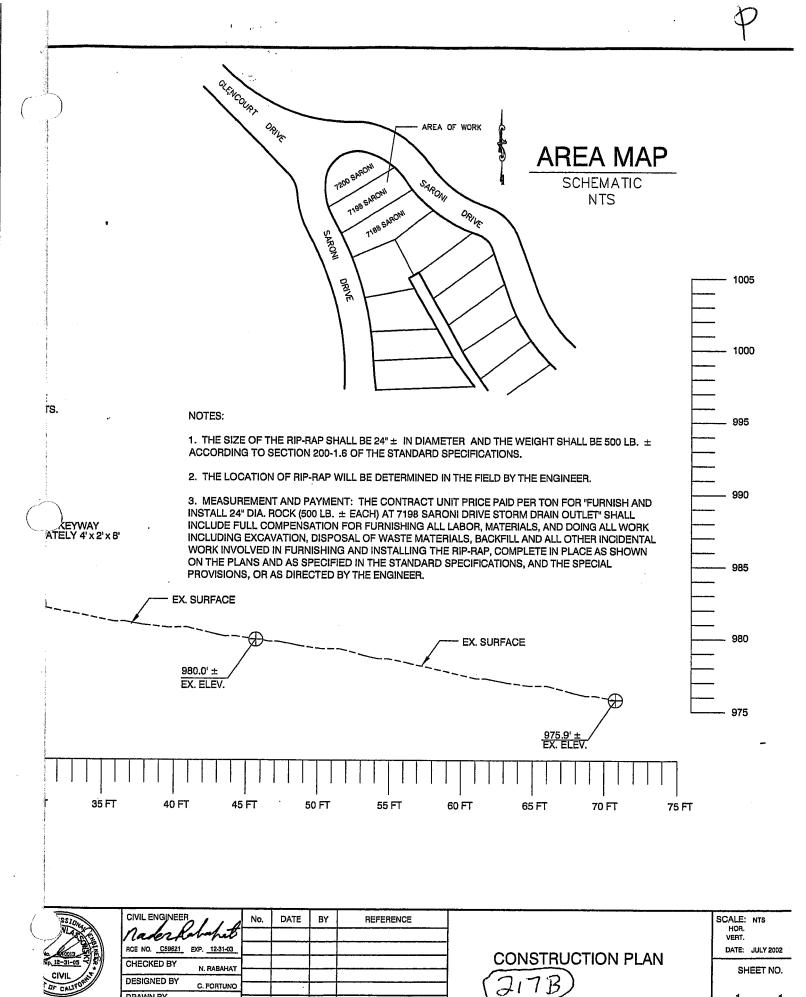
LANDSLIDE INVESTIGATION

DRAINAGE EVALUATION

FORENSIC STUDIES







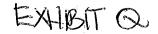
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C. FORTUNO



RE: Request For Response CP18009 - Approval Letter dtd January 23, 2019

Merkamp, Robert <RMerkamp@oaklandca.gov>

Wed 1/30/2019 2:45 PM

To: Nicholas Vigilante <nvigilante@msn.com>

Cc: Quitevis, Caesar <CQuitevis@oaklandca.gov>; Wong, Jennifer <jjwong@oaklandca.gov>; Pon, Craig <cpon@oaklandca.gov> Dear Mr. Vigilante,

I have received your request, however, my decision has been issued and there is nothing for me to hold in abeyance. Please coordinate with Caesar on the appeal procedures.

Respectfully,

Robert D. Merkamp, Zoning Manager | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2214 | Oakland, CA 94612 | Phone: (510) 238-6283 | Fax: (510) 238-4730 | Email: rmerkamp@oaklandca.gov| Website: www.oaklandca.gov/departments/planning-and-building

From: Nicholas Vigilante [mailto:nvigilante@msn.com]
Sent: Wednesday, January 30, 2019 12:42 PM
To: Merkamp, Robert <RMerkamp@oaklandca.gov>
Cc: Quitevis, Caesar <CQuitevis@oaklandca.gov>; Wong, Jennifer <jjwong@oaklandca.gov>; Pon, Craig
<cpon@oaklandca.gov>
Subject: Request For Response CP18009 - Approval Letter dtd January 23, 2019

Dear Mr. Merkamp,

Please acknowledge receipt and advise if the proposal below for temporary abeyance and outside peer review is acceptable to your office. If the proposal is not possible, please ask Caesar or Jennifer to send me the appeal forms and appeal procedures (as I requested earlier) by the end of this week to enable me to timely prepare and submit an appeal within the statutory time limit, should I choose to do so. Thank you.

Sincerely,

Nicholas Vigilante

From: Nicholas Vigilante <<u>nvigilante@msn.com</u>>
Sent: Tuesday, January 29, 2019 3:17 PM
To: Quitevis, Caesar; Wong, Jennifer; Merkamp, Robert; <u>gpon@oaklandca.gov</u>; Jansen Lum
Subject: Re: CP18009 - Geo Tech Review of Second Slide Area? Documentation?

Caesar,

Thanks for forwarding the geo tech engineering report dated December 5, 2017.

I wish I had been given a copy of this review much earlier because I would have requested the services of an outside geo tech engineer for a peer review. Given the importance of the matter, I would have been willing to pay all costs associated with the peer review. The information would have been useful to your office. I am willing to do this with dispatch, but I need Mr. Lum's permission for access to his property to have the peer review performed. Should Mr. Lum be willing to grant such permission, I would ask Mr.

R

Merkamp to hold the approval decision temporarily in abeyance to preserve my right, and the rights of others including Mr. Lum, to timely appeal the final decision.

There are obvious questions and concerns about the review. First, the report is based on conditions at the end of calendar year 2017. The eroded area has increased in size during the rains in calendar year 2018 and in 2019, therefore the review is no longer current and may no longer be accurate. Second, the review does not contain an actual soils report for the eroded area on lot 989. The geo tech engineer uses only the soils report he prepared in 2009 for lot 988 where the house was built and claims that the current eroded area on lot 989 is essentially the same area. It is not the same lot, it is not the same area, and the history of erosion and land movement on the two lots above lot 988 is different. Third, Attachment B, Section 20 of the approval letter requires the project applicant to submit a soils report prior to the approval of construction-related permit. The work to repair the second area of erosion is part of the permit review and approval process, but there is no current review and soils report as explained above for that planned work.

The December 2017 geo tech report mentions a black plastic pipe from my property allegedly discharging (the word "water" is missing from the sentence) on the Lum/Ham property. I have attached a signed and dated unsowrn affidavit to address that matter. Since the opening of the abandoned pipe was buried under about 1 foot of soil next to a tree stump on my property, I doubt anything more than typical natural ground water seepage would have eminated out at the end of the pipe next to the creek on the Lum/Ham property. Further, the end of the pipe is not located near the second area of erosion on the Lum/Ham property. Therefore, it is an inaccurate presentation on the part of the geo tech engineer and Mr. Lum as well which could lead a reader to falsely conclude that I am one of the causes of erosion on the Lum/Ham property.

Nicholas Vigilante

From: Quitevis, Caesar <<u>CQuitevis@oaklandca.gov</u>>
Sent: Tuesday, January 29, 2019 10:50 AM
To: Nicholas Vigilante; Wong, Jennifer; Merkamp, Robert
Cc: Pon, Craig
Subject: RE: CP18009 - Geo Tech Review of Second Slide Area? Documentation?

Here is the document I found on Langbehn's site observations.

Caesar Quitevis, Planner II | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2316 | Oakland, CA 94612 | Phone: (510)238-6343 | Fax: (510) 238-4730 | Email: <u>cquitevis@oaklandnet.com</u> | Website: <u>www.oaklandnet.com/planning</u>

From: Nicholas Vigilante [mailto:nvigilante@msn.com]

Sent: Tuesday, January 29, 2019 10:37 AM

To: Wong, Jennifer <jjwong@oaklandca.gov>; Merkamp, Robert <<u>RMerkamp@oaklandca.gov</u>>; Quitevis, Caesar <<u>CQuitevis@oaklandca.gov</u>>

Cc: Pon, Craig < cpon@oaklandca.gov>

Subject: Re: CP18009 - Geo Tech Review of Second Slide Area? Documentation?

Yes please send to me as soon as possible. Thank you Caesar.

Get Outlook for Android



From: Quitevis, Caesar <<u>CQuitevis@oaklandca.gov</u>> Sent: Tuesday, January 29, 2019 10:35:32 AM To: Nicholas Vigilante; Wong, Jennifer; Merkamp, Robert Cc: Pon, Craig Subject: RE: CP18009 - Geo Tech Review of Second Slide Area? Documentation?

I can send you the Langbehn memo which Lum referenced from December 2017 in which Langbehn assessed the condition of the retaining wall and the areas for rock revetment channel stabilization. Let me know.

Regards,

Caesar Quitevis, Planner II | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2316 | Oakland, CA 94612 | Phone: (510)238-6343 | Fax: (510) 238-4730 | Email: <u>cquitevis@oaklandnet.com</u> | Website: <u>www.oaklandnet.com/planning</u>

From: Nicholas Vigilante [mailto:nvigilante@msn.com] Sent: Monday, January 28, 2019 2:27 PM To: Quitevis, Caesar <<u>CQuitevis@oaklandca.gov</u>>; Wong, Jennifer <<u>jjwong@oaklandca.gov</u>>; Merkamp, Robert <<u>RMerkamp@oaklandca.gov</u>> Subject: CP18009 - Geo Tech Review of Second Slide Area? Documentation?

Group:

In an e-mail below from Jansen Lum dated March 22, 2018, Lum claims that he had a geo tech engineer review the second slide area and the work is already incorporated in his creek erosion plan. Lum also dismisses the idea of a retaining wall - see yellow highlight below.

I don't see Lum's claimed geo tech review in, or referenced in, the January 23, 2019 approval letter supporting the creek stabilization rock revetment plan for the slide area adjacent to my property. Is there a geo tech review in your files but not in the approval letter? If there is such a review, I would like to come down to City Hall and review it this week before pursuing an appeal of the approval decision. Please let me know if that is possible. Wednesday 11am would be good.

Please excuse the heavy language below between Lum and I. What bothered me most is that Ms. Grete Park is an 84 years old widow and Lum has taken advantage of a situation which has caused damage to her property, and given her unneeded stress at a point in life when she clearly has difficulty coping with it.

Nicholas Vigilante

From: Jansen Lum Sent: Thursday, March 22, 10:51 PM Subject: Re: Discharging 4" flex hose To: Nicholas Vigilante

The fact that I did not recognize Vandivere's name, is because the person I was dealing with was Nick Martin, I never met the principal of Clear Water when the initial report was made. Does that make sense?



LANGBEHN GEOTECHNICAL GROUP



FOUNDATIONS BUTADING WALLS

RETAINING WALLS LANDSLIDE INVESTIGATION

UP (510) 558-8028 ph (510) 558-8310 fax 1034 Richmond Street El Cerrito, CA 94530 DRAINAGE EVALUATION FORENSIC STUDIES

December 5, 2017

Jansen Lum 7196 Saroni Drive Oakland, CA 94611

RE:

E: Supplemental Recommendations Shallow Sloughing on Lot 989 7196 Saroni Drive Oakland, California

Dear Mr. Lum:

As requested by the City, the undersigned engineer is providing supplemental geotechnical recommendations to address a small area of erosion and shallow sloughing recently identified on the adjacent lot (Lot 989), the south half of which is now part of your property in Oakland, California. This feature has been referred to as "Landslide #2" in recent communications, which is a something of a misnomer as an actual landslide condition has not developed at this location, as discussed below. Landslide #1 refers to a slide near the southeast corner of your lot that was the subject of a recent investigation and wall design completed by our firm dated September 26, 2017. Both features appear to have occurred during the recent heavy rains of this past winter and spring.

BACKGROUND INFORMATION

The undersigned completed the original geotechnical investigation for your property (Lot 988) for a previous owner and issued a soil report dated December 5, 2000. This report was later updated for the new construction in a letter dated November 20, 2009. As noted in this soil report, no landslides were observed on Lot 988 during this study. However, an area of erosion and shallow sloughing was noted along the steep slopes along the creek near the southeast corner of the lot, as is common for the steep creekbanks in the area. No specific mitigation measures were competed for this area during construction other than diverting the collected drainage to a safer discharge area. This area is in the same general location as Landslide #1 and the subject of our recent study and wall design.

In 2002, the undersigned was retained by the adjacent property owner at 7200 Saroni Drive (Lot 990 – Vigilante) to evaluate a retaining wall recently constructed across the back of the lot, and on Lot 989, and submitted a report dated January 29, 2002. The wall was apparently required to address a more severe landslide than recent movements in the area, which occurred during the El Nino winter of '977'98 and threatened the Vigilante home and garage. At that time, the wall appeared to be successful in stabilizing the affected area on Lot 990, but the area below the wall, the lower part of the '98 slide, appeared marginally stable. Recommendations were provided in my 2002 report for improving the stability of this area. Since the slide appeared to be related to the storm drain culvert outfall, the City later completed some rock work along the creek in this area.

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Since Lot 989 was separately owned at the time, the mitigation measures outlined in the 2002 report were apparently never done except for the rock work completed by the City. Subsequently, Lot 989 was split into roughly two halves between yourself and Vigilante. Fortunately, no reactivation of the '98 slide has been observed below the wall, either in the wet winter of '05/'06 or in the recent near record rainfall of this past winter. The area below the wall appears to have largely "self-healed" and is now extensively revegetated. The area of the recently observed erosion and shallow sloughing on the south half of Lot 989 ("Slide #2") may be roughly near the toe of the '98 slide area, although this slide was never fully surveyed and this cannot be determined at this time.

SUMMARY OF RECENT FIELD OBSERVATIONS

The affected area on Lot 989 was recently evaluated by an engineer from our office, who identified a small area of shallow sloughing and toe erosion at the base of the slope along the creek channel. This area is about 6 feet wide at the top and perhaps 10 feet wide at the base, and roughly 10 feet in length. There is a small ground crack outlining this feature but no obvious translated slide mass. A small drain pipe was observed discharging along the creek near the toe. Similar areas of minor erosion and shallow sloughing are relatively common on the steep creek banks in the area and are expected following a severe winter. Appropriate mitigation measures are outlined below.

RECOMMENDATIONS

The small affected area on Lot 989 does not represent a major stability problem and in most cases these types of problems are just left alone without further issues. However, given the site history, the area does deserve some attention to prevent a more serious problem from developing on this slope. As discussed in my 2002 report, it should be noted that structural retaining wall solutions, or mass grading removal and recompaction techniques, do not appear to be warranted and would be too difficult to implement, considering the limited equipment access, and too environmentally disruptive. The following recommendations are considered appropriate for the limited size of the affected area, and largely follow the recommendations for this area from my 2002 report:

- 1. Drainage should be carefully controlled above and adjacent to the affected area and concentrated runoff should be diverted by using a straw wattle roll staked around the top of the affected area. It should be noted that any existing drain lines from the Vigilante property located on or near this slope should be diverted to suitable discharge locations on the Vigilante portion of Lot 989 and cannot legally be discharged onto the Lum portion of this lot unless a drainage easement or other suitable agreement is in place.
- 2. A small rock revetment should be placed on the toe of the affected area along the creek. This area is where the rock work installed by the City tapers out. The new rock should be placed by hand as a buttress across the toe and should be set at an inclination of about 1.25:1 using the largest rock that can be moved manually, expected to be about 8 to 12 inches in minimum size, with larger rock near the creek and smaller rock used above on the slope. About 1 to 2 ev of rock should be adequate for this purpose. Care should be exercised to minimize disturbance of existing vegetation on the slope. No rock is needed on the upper half of the affected area. Only a minimum of hand excavation should be used along the creek at the base of the slope to install this small buttress. To promote revegetation, no geotextile should be used under the rock.

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Finally, as with all projects of this nature, this office should observe the work during construction to verify that the above recommendations are suitably followed during the work.

The undersigned engineer has employed accepted geotechnical engineering procedures, and the professional opinions and conclusions have been made in accordance with generally accepted principles and practices at the time the work was performed. This warranty is in lieu of all other warranties, either expressed or implied.

I hope the above information is adequate for your needs at this time. If you have any questions or require additional geotechnical information, please feel free to call me at your earliest convenience.

Sincerely,

Wine

William K. Langbehn CE 44039 GE 2327 Civil and Geotechnical Engineer

WKL/blis c.\...\proposals\lum.lt4

Copies: Addressee (3, 1 by c-mail)



"Licensed by the California Dept. of Consumer Affairs, Board for Professional Engineers and Land Surveyors"

UNSWORN AFFIDAVIT

On February 21, 2018, I noticed a white stake had been placed near a tree stump next to the Watercourse and near the border of my property. Next to the white stake was a partially buried black plastic pipe which had been exposed during the placement of the white stake. This type of plastic pipe is commonly used to transport water. The entire segment of pipe had been there without movement since I purchased the property at 7200 Saroni Drive in December of 1998. I recall seeing portions of the pipe occasionally over the years. Most of the pipe had been covered up by soil and/or vegetation. The black plastic pipe commenced several inches below the tree stump about twenty (20) feet away from my retaining wall and culvert opening and traveled down the land slope parallel to the Watercourse and is not in or near the area of erosion on the upper end of the Lum/Ham property. About six (6) feet of this pipe was on my property, and I removed that portion of it on February 21, 2018 because it had become exposed litter. The remaining portion of plastic pipe is on the property at 7196 Saroni Drive. During my ownership of the property at 7200 Saroni Drive, no water from my drainage systems have been discharged in and/or near the Watercourse through the black plastic pipe in question. Four gutters along the two back sides of my home deposit rain water into a French drain system and that system is connected to my cantilever retaining wall drainage system. All the water is deposited into the Watercourse at a discharge point right next to the culvert opening. These drainage systems were permitted by the City of Oakland in 1998 prior to my ownership of the property at 7200 Saroni Drive. Record documentation to support my written statement is available for visual inspection upon request, along with a visual inspection of the discharge point right next to the culvert opening.

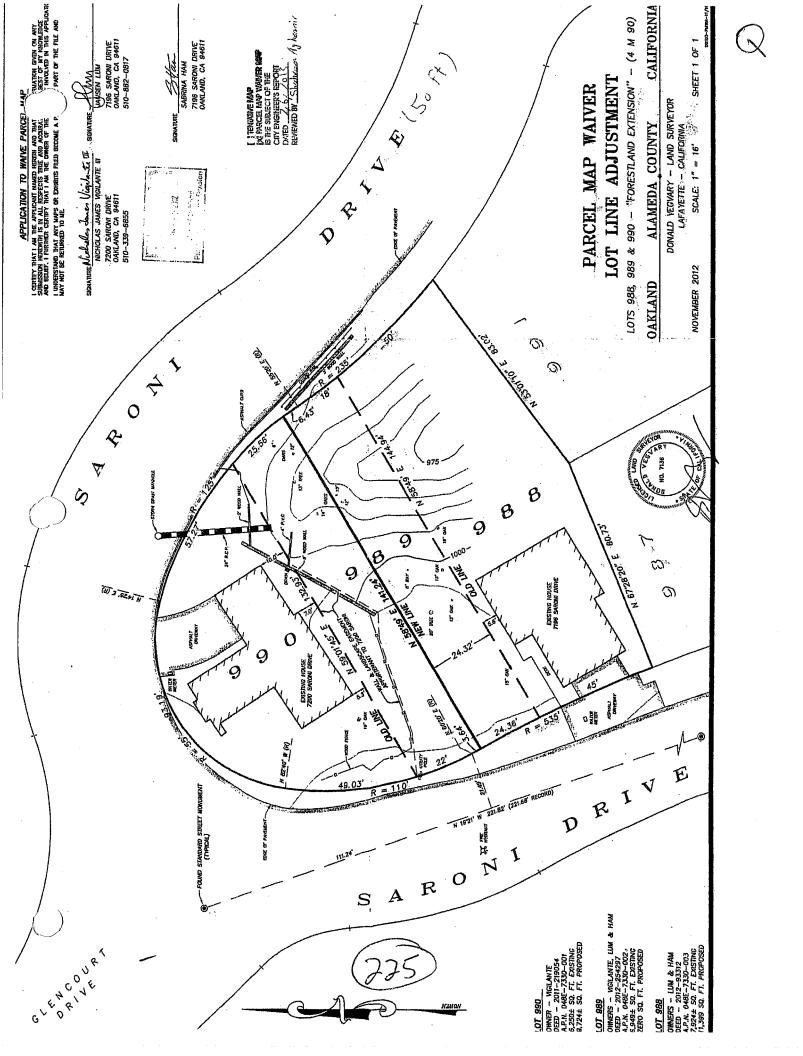
I declare under penalty of perjury that the foregoing is truthful and correct.

Nicholes J. Vigilante III

NICHOLAS JAMES VIGILANTE III

JANUARY 29, 2019 DATE OF AFFIDAVIT EXECUTION





Appeal of Case CP18009, 7196 Saroni Drive, APN: 048E-7330-003-00

Nicholas Vigilante

Fri 1/25/2019 7:35 PM

To: Quitevis, Caesar <CQuitevis@oaklandca.gov>; jjwong@oaklandca.gov <jjwong@oaklandca.gov>; Jansen Lum <jansenlum@gmail.com>

Cc: rmerkamp@oaklandnet.com <rmerkamp@oaklandnet.com>; Thao, Sheng <SThao@Oaklandca.gov> Caesar.

I am in receipt today of the January 23, 2019 approval letter which includes various attachments regarding the above-cited application.

I believe the approval may be defective because the approval letter and attachments contain no documentation that a geo tech engineer studied the hillside erosion adjacent to my property to determine if the hillside was still stable and the planned rock revetment sufficient to address all the causes of erosion on the hillside. I am in possession of a January 29, 2002 study that geo tech engineer William Langbehn perfomed for me which contains information and recommendations about the hillside and surrounding area not contained in the approval letter or otherwise referenced in Langbehn's two-page letter dated April 10, 2018. In an e-mail to City Assistant Engineer Jennifer Wong dated October 25, 2017, I forwarded a copy of the Langbehn 2002 study and discussed the issues raised in that study. Ms. Wong acknowledged receiving the e-mail, and we briefly discussed the study at a later meeting.

Simply put, the City of Oakland needs to make sure the Lum/Ham hillside adjacent to my property is still stable and the proposed rock revetment plan is sufficient to address all the causes of erosion on the hillside, not just erosion in and next to the creek.

Please e-mail me the appeal form and the appeal regulations.

Sincerely,

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: NVigilante@msn.com

Erosion In Creek Behind 7196 Saroni Drive

Nicholas Vigilante

Thu 2/14/2019 6:18 PM

To: PWA Call Center <opwcallcenter@oaklandnet.com>; Quitevis, Caesar <CQuitevis@oaklandca.gov>; cpon@oaklandca.gov <cpon@oaklandca.gov>; Jansen Lum <jansenlum@gmail.com>; 'Ken' <kenp911@sbcglobal.net> Dear Public Works Call Center,

I observed during the rain storm today a dark brown color of water in the creek behind the subject residence. The storm drain water is deposited into the creek from an underground culvert behind my residence at 7200 Saroni Drive. The water being deposited there is generally clean but after it traversed the creek on the subject residence, it became a dark brown color. This indicates to me that the force of the water is eroding soil from the above residence. Therefore, I am requesting that staff from the Public Works Agency, Watershed Unit investigate what is happening there.

Sincerely,

Mr. Nicholas J. Vigilante 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 home Reply To: NVigilante@msn.com





SR# 879626 - Received, Thank you for Reporting Storm Drains - Erosion Control at 7196

OAK311-DONOTREPLY@oaklandnet.com Tue 2/19/2019 12:48 PM

Please DO NOT REPLY to this email. This email is sent from a mailbox that is not

<u> 平等使用市政服務問卷調查 -- 請提供您寶貴的意見。語言服務乃指雙語服務,例如口譯或文件</u>

ENCUESTA DE ACCESO EQUITATIVO A LOS SERVICIOS MUNICIPALES --- Comparta su

experiencia. 'Servicio en Idiomas' se refiere a los servicios bilingües como interpretación o <u>documentos traducidos en su idioma.</u>

Please tell us your experience in using City services. 'Language assistance service' refers to bilingual service such as interpretation or translation.

City of Oakland

2/21/2019

OAK 311 - Oakland Call Center

Thank you for reporting an issue to the OAK 311 - Oakland Call Center.

Service Request:	879626
Issue:	Storm Drains - Erosion Control
Location:	7196 SARONI DR
Status:	Open
Date / Time Reported:	2/19/2019 12:47:53 PM
Date / Time Closed:	

OAK 311 - Oakland Call Center | (510) 615-5566

311.oaklandca.gov | OAK311@oaklandnet.com | Mobile app: SeeClickFix or OAK 311 for iPhone or Android

This courtesy notification is automatically sent when your service request is created (OPEN), referred to another agency (REFERRED), or fixed (CLOSED). 50

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117 NEW! Look up your scheduled trash, compost & recycling pickup day, print a calendar or set a reminder at www.OaklandRecycles.com. $[\uparrow\uparrow\uparrow]$ \mathbb{C} CØ.



SR# 879626 - Received, Thank you for Reporting Storm Drains - Erosion Control at 7196 SARONI DR

OAK311-DONOTREPLY@oaklandnet.com Tue 2/19/2019 12:48 PM

Please DO NOT REPLY to this email. This email is sent from a mailbox that is not monitored.

平等使用市政服務問卷調查 -- 請提供您寶貴的意見。語言服務乃指雙語服務,例如口譯或文件 翻譯服務。

ENCUESTA DE ACCESO EQUITATIVO A LOS SERVICIOS MUNICIPALES -- Comparta su experiencia. 'Servicio en Idiomas' se refiere a los servicios bilingües como interpretación o documentos traducidos en su idioma.

Please tell us your experience in using City services. 'Language assistance service' refers to bilingual service such as interpretation or translation.

City of Oakland **OAK 311 - Oakland Call Center**

Thank you for reporting an issue to the OAK 311 - Oakland Call Center.

Service Request:	879626	
Issue:	Storm Drains - Erosion Control	
Location:	7196 SARONI DR	
Status:	Open	
Date / Time Reported:	2/19/2019 12:47:53 PM	
Date / Time Closed:		

OAK 311 - Oakland Call Center | (510) 615-5566

311.oaklandca.gov | OAK311@oaklandnet.com | Mobile app: SeeClickFix or OAK 311 for iPhone or Android

This courtesy notification is automatically sent when your service request is created (OPEN), referred to another agency (REFERRED), or fixed (CLOSED). 5 m

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END OF APPEAL AND INVESTIGATIVE FILE

Original EXHIBIT R

RECEIVED

2019 FEB 25 PM 3: 11

NICHOLAS J. VIGILANTE 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 NVigilante@msn.com

February 21, 2019

Mr. William Gilchrist, Director Planning and Building Department City of Oakland 250 Frank Ogawa Plaza Oakland, CA 94612

<u>CERTIFIED MAIL – RETURN RECEIPT REQUESTED</u>

Dear Mr. Gilchrist:

This correspondence pertains to Appeal Number 19004 filed on February 4, 2019 in connection with CP 18009, RB 1704591, and Code Enforcement Complaint 1702523.

Attached you will find supplemental information in support of Appeal Number 19004. Please have a member of your staff insert the information in your office's copy of the Appeal and Investigative File (AIF) and update the AIF Table of Contents accordingly.

If you have questions, you or a member of your staff may contact me, see above contact information.

Sincerely,

Nicholas J. Vigilante

Nicholas J. Vigilante

Attachment: Exhibit R and Updated AIF Table of Contents

cc: Ron Lunski – Lunski and Stimpert, LLP Don Hillebrandt – Hillebrandt and Associates Exhibit N - Various Communications With City of Oakland Planner Caesar Quitevis and Brian Wines, Water Resource Control Engineer, California State Water Quality Control Board, and other officials.

Exhibit O - City of Oakland, Planning and Building Department Approval Decision handdated January 23, 2019 and postmarked that date, including attachments A through D.

Exhibit P - Landslide and erosion history excerpts on lots 989 and 900 and adjacent Saroni Drive roadway.

Exhibit Q - William Langbehn December 5, 2017 geo tech engineering review not provided to Nicholas Vigilante, and request of Nicholas Vigilante for temporary abeyance of January 23, 2019 approval decision until a peer geo tech engineering review is conducted of the second area of erosion at 7196 Saroni Drive, also included is a current parcel map.

Exhibit R - Service Request #879626 dated 2-19-2019 regarding muddy water in creek behind 7196 Saroni Drive.

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Admin Copy)

NICHOLAS J. VIGILANTE 7200 Saroni Drive Oakland, CA 94611 (510) 339-6855 NVigilante@msn.com

March 20, 2019

DECEIVED MAR 2 0 2019 City of Oakland Planning & Zoning Division

Mr. William Gilchrist, Director Planning and Building Department City of Oakland 250 Frank Ogawa Plaza Oakland, CA 94612

<u>CERTIFIED MAIL – RETURN RECEIPT REQUESTED</u>

Dear Mr. Gilchrist:

This correspondence pertains to Appeal Number 19004 filed on February 4, 2019 in connection with CP 18009, RB 1704591, and Code Enforcement Complaint 1702523.

Attached you will find a correspondence dated March 15, 2019 which presents geotechnical engineering opinions and recommendations in connection with the above cited matters. I am requesting that your Department review and require the applicants (Jansen Lum and Sabrina Ham) to address and incorporate all the recommendations contained in that correspondence as conditions for approval of remediation work at 7196 Saroni Drive. Please insert a copy of this letter along with the March 15, 2019 correspondence in the Appeal Investigative File (AIF) as Exhibit S. Copies of those items are attached for insertion in the AIF.

The AIF Table of Contents and Summary have also been updated to reflect the above. Please remove the outdated pages from your copy of the AIF and insert the revised pages accordingly.

If you have questions, you or a member of your staff may contact me, see above contact information.

Sincerely Nicholas J. Vigilante

Nicholas J. Vigilante

Attachments: Items Noted Above in March 20, 2019 Letter

cc: Ron Lunski – Lunski and Stimpert, LLP (w/attachments) Don Hillebrandt – Hillebrandt and Associates (w/attachments

Don Hillebrandt Associates - Geotechnical Consultants

6219 Clive Ave. • Oakland, CA 94611 • (510) 612-1105 • dhillassoc@aol.com

March 15, 2019 Project 5219-2

Lunski & Stimpert LLP Attn: Mr. Ron Lunski 201 Spear Street, Suite 1100 San Francisco, CA 94105

RE: Geotechnical Engineering Opinions

Potential for the Exterior Improvements / Dwelling on the Property at 7200 Saroni Drive being Damaged by Earth Movements on the Adjacent Downstream Property at 7196 Saroni Drive and the Studies / Remedial Work that Should be Performed to Mitigate the Potential for Damages Three Contiguous Properties Located at 7196, 7200 & 7236 Saroni Drive that Could be Potentially Impacted by the Earth Movements on the Property at 7196 Saroni Drive and / or by Earth Movements on Other Slopes at the Site
Oakland, California

Ladies and Gentlemen:

In accordance with your request, I have prepared this letter which presents my geotechnical engineering opinions regarding the (1) the potential for the exterior improvements and dwelling on the property at 7200 Saroni Drive being damaged by earth movements on the adjacent downstream property at 7196 Saroni Drive and (2) the studies / remedial work that should be performed to mitigate the potential for damages. There are three contiguous properties at 7196, 7200 and 7236 Saroni Drive that could be potentially be impacted by the earth movements on the Property at 7196 Saroni Drive and / or by earth movements on other slopes at the site.

SCOPE OF WORK

The scope of my work, which was discussed with Ron Lumski of your office, has included (1) a general site reconnaissance and overall inspections of the steep slopes below the three dwellings on February 12 and 26, 2019, (2) a detailed inspection of the slopes of the creek banks at the site on March 8, 2019, (3) a review of geotechnical reports prepared by Langbehn Geotechnical Group for 7196 & 7200 Saroni Drive, (4) a review of hydrologic reports and plans prepared by Clearwater Hydrology for 7196 Saroni Drive, (5) a review of soldier pile / wood-lagging retaining wall plans prepared by Pearl Construction Company for 7200 Saroni Drive, (6) a review of numerous correspondence prepared by various departments in the City of Oakland, (7) a review of numerous correspondence by Nicholas Vigilante and by others concerning creek bank stability / erosion problems at 7196 Saroni Drive, (8) a review of the June 16, 2017 "Notice of Violation" that the City of Oakland sent to the owners of 7196 Saroni Drive, (9) office analyses of the available data and (10) preparation of this letter which summarizes my geotechnical engineering opinions.



GEOTECHNICAL ENGINEERING OPINIONS-POTENTIAL FOR DAMAGES TO THE EXTERIOR IMPROVEMENTS / DWELLING ON THE PROPERTY AT 7200 SARONI DRIVE

Based on my field / office studies to date and my 55 years of experience as a geotechnical engineering consultant in the San Francisco Bay Area (that has included evaluations of numerous creek bank stability / erosion problems), I have developed the following geotechnical engineering opinions:

- 1. There are existing landslide / erosion problems on the creek-bank slopes below the dwellings located at 7196 and 7236 Saroni Drive. The construction of the dwelling at 7196 Saroni Drive was completed in 2010 and minor landslide / erosion problems reportedly began on the property at 7196 Saroni Drive shortly thereafter and became much more pronounced during the 2016-2017 rainy season. The problems have reportedly become progressively worse since the 2016-2017 rainy season and landslide / erosion problems have also occurred on the property across the creek at 7236 Saroni Drive. One of the reasons why the landslide / erosion problems have occurred is the documented fact that the owners of the property at 7196 Saroni Drive did not adhere to the City of Oakland's permit requirements. As clearly stated in the City of Oakland's June 9, 2017 e-mail, the owners of 7196 Saroni Drive did not install "the dissipater called for on the drawings". This is why the City of Oakland issued the June 16, 2017 "Notice of Violation" to the owners of the property at 7196 Saroni Drive.
- 2. The existing landslide / erosion problems on the creek-bank slopes below the dwellings at 7196 and 7236 Saroni Drive will become progressively worse with time, particularly during periods of heavy rainfall when (a) the soils comprising the slopes become saturated / lose strength and (b) the creek has high flow rates. The existing landslide / erosion problems will continue to become more pronounced and new landslides will probably occur with time until the existing landslides are repaired and appropriate drainage improvements are made to mitigate the problems.
- 3. There is a high potential that the enlargement of the existing landslides on the property at 7196 Saroni Drive and / or new landslides at the site could impact the property at 7200 Saroni Drive. Such landslides could result in movement of the soils that are providing lateral subjacent support for the existing roughly 10-foot high soldier pile / wood-lagging wall that is located south of the residence at 7200 Saroni Drive. Should this occur, the wall will begin to "tilt" downslope which will result in significant damages to the rear-yard improvements at 7200 Saroni Drive and possibly damages to the dwelling located just east of the wall / rear-yard improvements.
- 4. There is a high potential that the enlargement of the existing landslides on the property at 7196 Saroni Drive and / or new landslides at the site could also result in the "drop" of the existing ground surface along the bottom of the soldier pile wall on the property at 7200 Saroni Drive. As a result, the soil backfill behind the lowest pieces of the wood-lagging comprising this wall could move downslope. Should this occur, the ground surface along the top of the wall in the rear-yard area of 7200 Saroni Drive will "drop" which will result in significant damages to the rear-yard improvements and possibly damages to the dwelling located just east of the wall / rear-yard improvements.



Don Hillebrandt Associates

GEOTECHNICAL ENGINEERING OPINIONS – STUDIES / REMEDIAL WORK THAT SHOULD BE PERFORMED TO MITIGATE POTENTIAL FOR DAMAGES TO THE EXTERIOR IMPROVEMENTS / DWELLING ON THE PROPERTY AT 7200 SARONI DRIVE

Based on my field / office studies to date and my 55 years of experience as a geotechnical engineering consultant in the San Francisco Bay Area (that has included numerous geotechnical investigations to evaluate landslide / erosion problems), I have developed the following geotechnical engineering opinions:

- At the completion of the 2018-2019 rainy season (roughly late April / early May 2019), the owners
 of the property at 7196 should retain a licensed Land Surveyor to prepare a detailed topographic
 map of the creek bank areas and adjacent improvements on all three properties (i.e., more detailed
 topography than that depicted on the existing Clearwater Hydrology plans). The topographic
 survey map should be stamped / signed by the Land Surveyor. The topographic map should include
 (a) lines of equal contour and spot elevations at prominent features, (b) the locations of the existing
 landslides, (c) the locations of the three residences and the streets, (d) the locations of property lines.
- 2. In conjunction with the preparation of the topographic map, the owners of the property at 7196 Saroni Drive should also retain a licensed Geotechnical Engineer to perform a geotechnical investigation of the landslide / erosion problems. The geotechnical investigation should include exploratory borings in / adjacent to the various landslide areas and laboratory tests on soil samples recovered from the borings. The resulting geotechnical report should be stamped / signed by the Geotechnical Engineer. The report should thoroughly discuss measures for mitigating the landslide and erosion problems at the site and should provide detailed recommendations for grading operations, installation of drainage facilities and construction of the retaining structures that will probably be used in conjunction with the mitigation of the landslides.
- 3. After the completion of the topographic map and geotechnical report, the owners of the property at 7196 Saroni Drive should also retain a licensed Structural Engineer to design the retaining structures that will probably be recommended by the Geotechnical Engineer in conjunction with the mitigation of the landslides. The resulting plans for the retaining structures should be stamped / signed by the Structural Engineer. The plans should show the locations of the retaining structures and provide details on the foundations supporting the retaining structures and the heights / sizes / re-enforcement of the retaining structures.
- 4. After the completion of the topographic map, geotechnical report and structural plans, the owners of the property at 7196 Saroni Drive should retain a Civil Engineer specializing in hydrology to prepare updated hydrologic plans that utilize the expanded topographic data developed by the Land Surveyor and the geotechnical-related recommendations presented in the Geotechnical Engineer's report. The updated plans should be stamped / signed by the licensed Civil Engineer. The plans



should include the locations of new drainage facilities, the locations of the new retaining structures recommended by the Geotechnical Engineer and the locations of new erosion control features.

- 5. The topographic map, geotechnical report, structural plans and updated hydrological plans should be submitted to the City of Oakland and other Agencies for appropriate permits / approvals. To assure that the designs are appropriate and that the mitigation measures for the landslide / erosion / drainage problems at the site are completed as quickly as possible, it would probably be prudent for the City of Oakland to have an independent third-party review of the plans.
- 6. After the permit is issued, the owners of the property at 7196 Saroni Drive should hire a licensed Contractor to perform the remedial work. The licensed Contractor should be experienced in performing grading operations, constructing drainage improvements and constructing retaining structures in a creek-bank environment. The Contractor selected by the owners of 7196 Saroni Drive should get permission / sign agreements with the owners of the properties at 7200 and 7236 Saroni Drive to perform work on their properties.
- 7. During the construction work by the selected Contractor, appropriate inspections should be performed by the Geotechnical Engineer, Structural Engineer, Civil Engineer (hydrology) and various agencies to assure that the work is satisfactorily completed per the approved plans. At the successful completion of the construction work, the Geotechnical Engineer, Structural Engineer and Civil Engineer (hydrology) should submit final reports.

TIMING OF REMEDIAL WORK

It is imperative that the design and construction of the remedial work discussed above be completed prior to the 2019-2020 rainy season. The longer the work is delayed, the greater the risk for significant damages to all three of the properties.

<u>CLOSURE</u>

The geotechnical engineering opinions presented in this letter are based on (1) my field / office studies at this site as discussed above, (2) my detailed experience with landslides, rainfall quantities and drainage problems that have occurred in watershed areas in the Oakland Hills, as a result of having lived in close proximity to the subject site for over 52 years, (3) my educational background (B.S. in Civil Engineering / M.S. in Geotechnical Engineer from the University of California at Berkeley in 1961 and 1964, respectively), (4) my extensive experience as a geotechnical engineering consultant over the last 55 years (44 years with my own firm) that includes 4000+ new construction projects / 200+ landslide investigation projects where I have been the "Engineer of Record", (5) my evaluations of hundreds of residential properties in creek environments that have been negatively impacted by landslide and/or erosion problems and (6) my geotechnical engineering judgement that has evolved over the last 55 years as a result of working with numerous very experienced geotechnical engineers.



Don Hillebrandt Associates

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If you have any questions concerning my geotechnical engineering opinions, please call me.





Very truly yours.

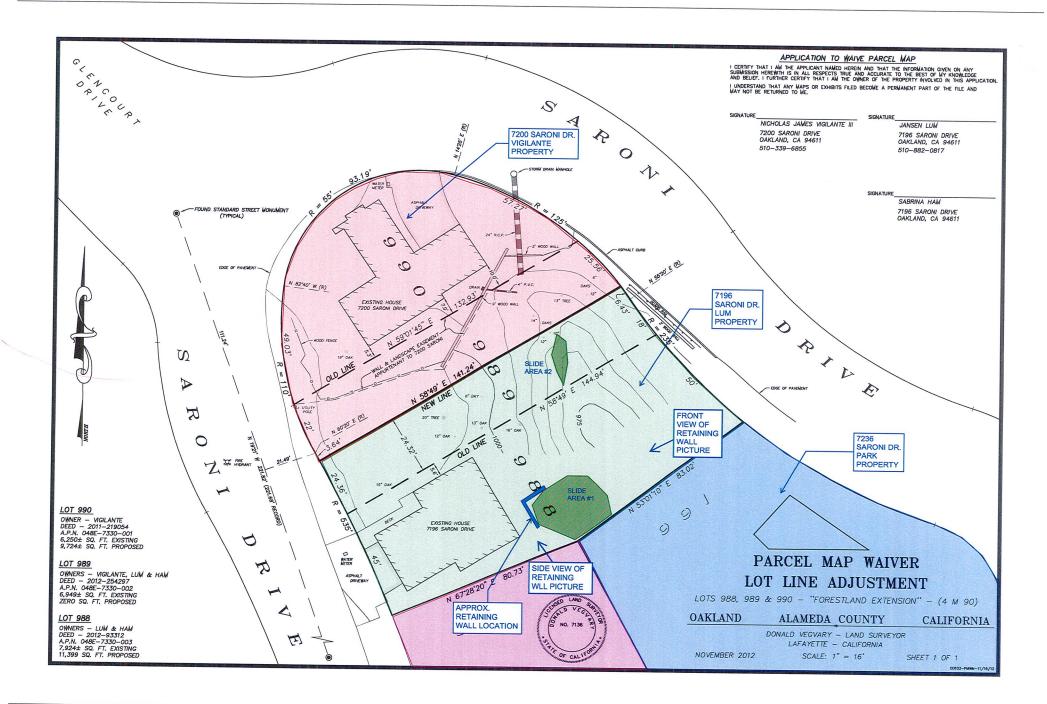
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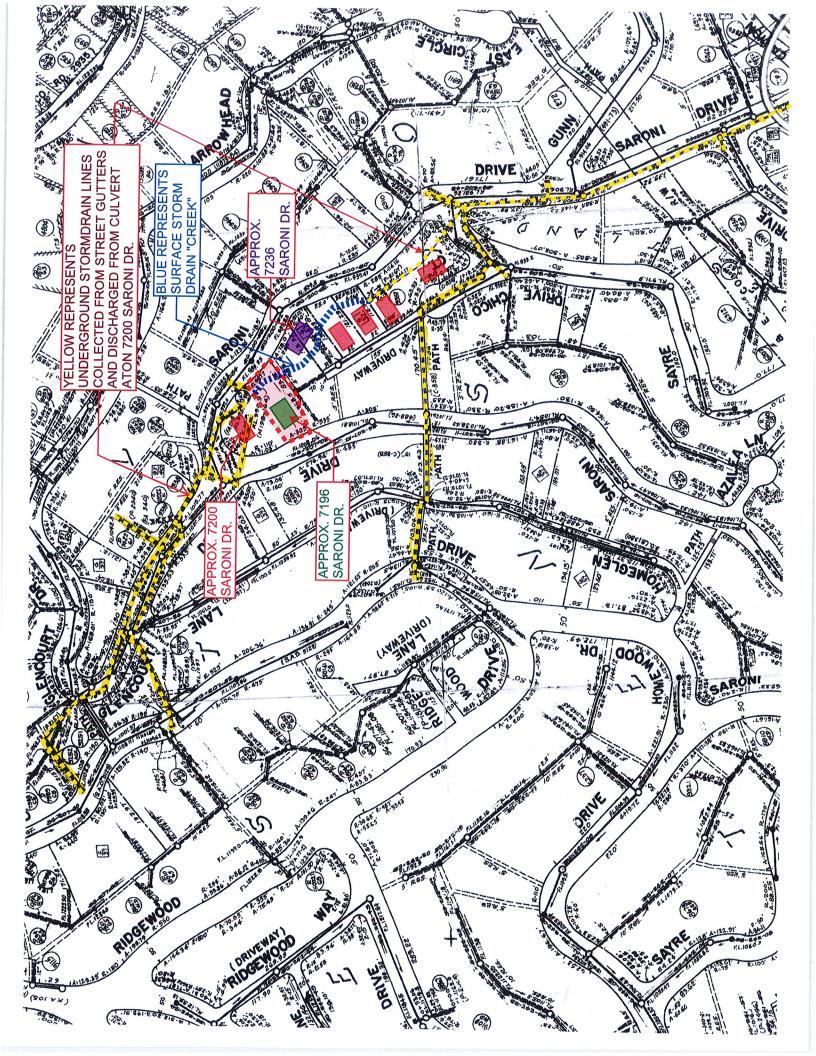
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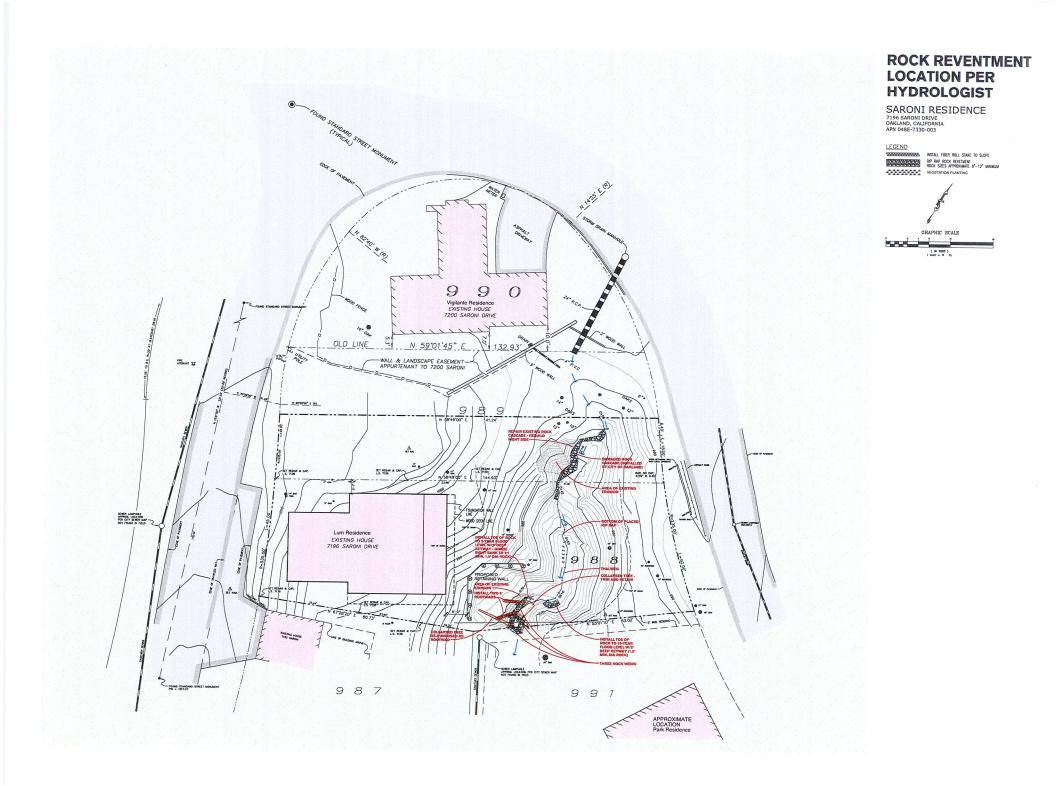
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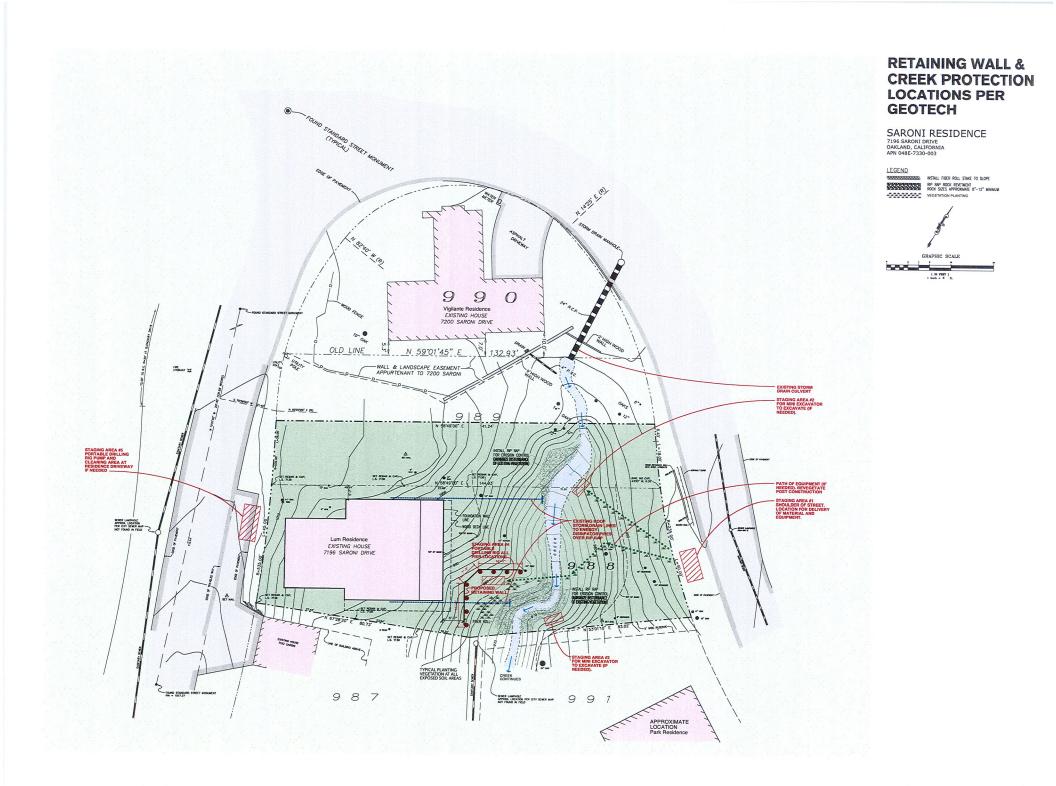


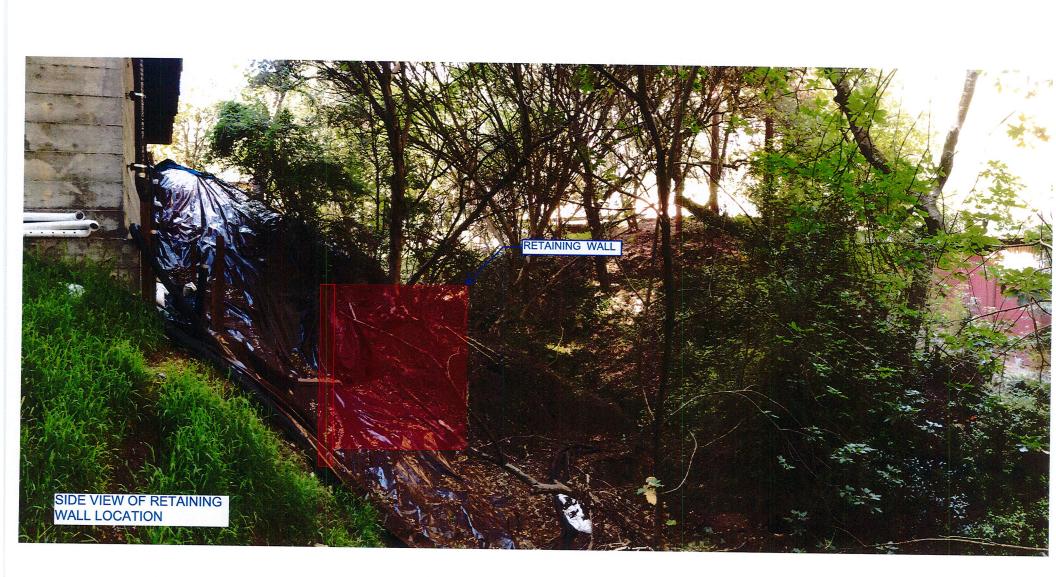
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ENERGY DISSIPATERS ARE CONNECTED TO 4" FLEX STORM DRAIN LINES. THEY ARE USED TO REDUCE THE FLOW OF THE STORM DRAIN WATER. A FLEX LINE IS CONNECTED TO THE END OF THE DISSIPATER AND WATER TRICKLES THROUGH THE HOLES IN THE PIPE DISPERSING THE WATER. THESE DISSIPATERS WILL BE LOCATED OVER THE RIP RAP INSTALLED. THESE ARE THE DISSIPATERS THAT WERE WASHED AWAY AND RECOVERED.

