



SAN FRANCISCO PLANNING DEPARTMENT

Memo to the Planning Commission

HEARING DATE: DECEMBER 1, 2011
Continued from the November 3, 2011 Hearing

Date: November 21, 2011
Case No.: 2010.0801D, 2010.0858D and 2010.0860D
Project Address: 183, 187 and 191 Brewster Street
Permit Application: 2006.09.25.3191, 3192 and 3193
Zoning: RH-1 (Residential House, One-Family)
Bernal Heights Special Use District
40-X Height and Bulk District
Block/Lot: 5577/009, 010 and 011
Project Sponsor: Jane Viltman for 183 Brewster Street
139 Casitas Avenue
San Francisco, CA 94127
AND
Alice Barkley for 187 and 191 Brewster Street
121 Spear Street, Suite 200
San Francisco, CA 94105
Staff Contact: Corey Teague – (415) 575-9081
corey.teague@sfgov.org
Recommendation: **Do not take DR and approve the projects as proposed.**

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

Reception:
415.558.6378

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Planning
Information:
415.558.6377

BACKGROUND

The Planning Commission continued this project on November 3rd at the joint request of the two Project Sponsors and several neighbors to allow time for additional discussion. The DR Requestor also agreed to the continuance. The public hearing was never opened and the Planning Commission did not hear any comments from the Project Sponsors, DR Requestors, or the public regarding the case.

CURRENT PROPOSAL

The proposal is to construct three single-family homes on vacant, down-sloping adjacent lots. Each building will be two stories at the street and step down the lot in the rear for a total of four stories at the rear. The homes range from 2,165 square feet to 2,231 square feet of usable floor area, and each home includes a single curb cut and two-car garage.

The Project Sponsors and neighbors continue to discuss the project. However, the proposal has not changed as of the date of this memo.

BASIS FOR RECOMMENDATION

- The proposed homes that are located in appropriate zoning districts and are consistent with the Planning Code, Residential Design Guidelines, and General Plan.
- The Bernal Heights SUD already restricts the mass and height of residential buildings beyond the typical Planning Code controls (i.e. 30-foot height limit and mass reduction requirement). The proposed buildings meet these height and massing requirements.
- Planning Staff consulted with other City departments to address concerns expressed by the DR Requestor.
- There are no exceptional or extraordinary circumstances associated with the projects.

RECOMMENDATION: Do not take DR and approve the projects as proposed.
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Attachments:

Original Case Packet from November 3rd, 2011 Hearing



SAN FRANCISCO PLANNING DEPARTMENT

Discretionary Review Full Analysis

HEARING DATE NOVEMBER 3, 2011

Date: October 27, 2011
Case No.: 2010.0801D, 2010.0858D and 2010.0860D
Project Address: 183, 187 and 191 Brewster Street
Permit Application: 2006.09.25.3191, 3192 and 3193
Zoning: RH-1 (Residential House, One-Family)
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PROJECT DESCRIPTION

The proposal is to construct three single-family homes on vacant, down-sloping adjacent lots. Each building will be two stories at the street and step down the lot in the rear for a total of four stories at the rear. The homes range from 2,165 square feet to 2,231 square feet of usable floor area, and each home includes a single curb cut and two-car garage.

SITE DESCRIPTION AND PRESENT USE

The project site consists of three vacant lots on the east side of Brewster Street. Lots 10 and 11 are 25 feet wide and 70 feet deep, resulting in an area of 1,750 square feet each. Lot 9 is of similar shape, except that the southeast corner is "clipped," which reduces the lot size to approximately 1,703 square feet. Each lot is down-sloping, with a front-to-rear elevation difference of 25 to 30 feet.

SURROUNDING PROPERTIES AND NEIGHBORHOOD

The surrounding neighborhood is strictly residential. The building heights in the area range from one to four stories on the west side of Brewster Street, and two stories on the east side of Brewster Street. Due to the steep grade, a staircase on Joy Street connects Holladay Avenue and Brewster Street, providing access

to homes with frontage on that block of Joy Street. Streets in the vicinity are generally narrow and winding.

BUILDING PERMIT APPLICATION NOTIFICATION

TYPE	REQUIRED PERIOD	NOTIFICATION DATES	DR FILE DATE	DR HEARING DATE	FILING TO HEARING TIME
311 Notice	30 days	August 1, 2010 – September 2, 2010	September 1, 2010	November 3, 2010	1 year, 63 days

HEARING NOTIFICATION

TYPE	REQUIRED PERIOD	REQUIRED NOTICE DATE	ACTUAL NOTICE DATE	ACTUAL PERIOD
Posted Notice	10 days	October 24, 2011	October 21, 2011	13 days
Mailed Notice	10 days	October 24, 2011	October 21, 2011	13 days

PUBLIC COMMENT

	SUPPORT	OPPOSED	NO POSITION
Adjacent neighbor(s)			
Other neighbors on the block or directly across the street			
Neighborhood groups		1 (DR Requestor)	

These projects initially began in 2006, and at various points garnered concern from various nearby residents and groups. However, the Department received no comments from residents, owners, or groups in the neighborhood specifically related to the requests for Discretionary Review.

DR REQUESTOR

Terry Milne, representing the Bernal Heights East Slope Design Review Board (BHESDRB). The BHESDRB is a recognized neighborhood organization.

DR REQUESTOR’S CONCERNS AND PROPOSED ALTERNATIVES

Issue #1: The development site is a unique location with steep slopes, narrow and winding streets, and insufficient infrastructure. The project has been reduced over time, but the full original project should be reviewed together for its cumulative impact and affordable housing requirements.

Issue #2: This project will remove on-street parking on the only side of Brewster Street in that area that permits parking that is needed and used by residents of the adjacent block of Joy Street, which does not have vehicular access.

Issue #3: There is concern about adequate access for emergency vehicles and the potential for soil movement.

Issue #4: The project should meet the design comments of the BHESDRB and the infrastructure requirements of the Interim Controls passed by the Board of Supervisors for this area, which have now lapsed.

Reference the *Discretionary Review Application* for additional information. While the DR Requestor filed three separate applications, they are each identical. The *Discretionary Review Application* is an attached document.

PROJECT SPONSOR'S RESPONSE

The Project Sponsors feel that issues regarding infrastructure and emergency access have been resolved through working with the appropriate public agencies. They also feel that the removal of on-street parking on Brewster Street has been minimized to the extent possible, and that the height and massing of the buildings are appropriate and reasonable.

There are two project sponsors representing the three lots. Alice Barkley represents Lot 009 (191 Brewster Street) and Lot 010 (187 Brewster Street). Jane Viltman represents Lot 011 (183 Brewster Street). Reference the two separate *Responses to Discretionary Review* for additional information. The *Responses to Discretionary Review* are attached documents.

PROJECT ANALYSIS

Responses to DR Requestor's Concerns:

Issue #1: The project site has adequate access to water and sewer lines. Pressure testing conducted as part of the environmental review shows that the site has adequate water pressure for fire protection. The geotechnical analysis conducted as part of the environmental review included lots 8, 12 and 13, which was beyond the boundaries of the project site (lots 9, 10 and 11). The analysis determined that the project site was suitable for development as long as specific design and construction recommendations were incorporated, and these recommendations will be used. Additionally, the Department of Building Inspection will provide additional recommendations and requirements related to the steepness of the lots as part of its review.

In March 2007, the Department of Public Works confirmed that there was adequate sewer capacity for the Brewster Street lots because a new 12 inch line had been installed in 1997.

While a portion of the environmental review actually looked at a larger area than the three-lot project site, it does not review development that is not proposed. Similarly, the affordable housing requirements of Planning Code Section 415 are triggered by developments that create five or more new dwelling units.

The proposal only creates three new dwelling units. However, the proposed development will be appropriately taken into consideration, in terms of environmental review and affordable housing, should the adjacent lots be proposed for development in the near future.

Issue #2: The Bernal Heights Special Use District requires at least two off-street parking spaces for each of the proposed homes. As such, a single curb cut is required to access each home's garage. The two on-street parking spaces created by the proposed curb cuts are approximately 15 feet and 18 feet, providing enough room for compact-to-standard cars, and minimizing the impact of the proposal. For reference, a 2012 Toyota Prius is 14 feet 8 inches in length, and a 2012 Subaru Outback is 15 feet 9 inches in length. The only alternatives to providing individual curb cuts to the new homes are to obtain a variance to provide no parking for the homes, or to not develop the property.

Issue #3: The Planning Department consulted with the Fire Department to ensure there was adequate access for fire trucks and other emergency vehicles. The Fire Department had no issue with the current access, and reserves the right to propose parking "red zones" within the curves of narrow streets to help ensure emergency access. The soil movement issue is covered by the geotechnical analysis previously referenced.

Issue #4: Each proposed home is only two stories and steps down as it gets further from the street to match the topography of the lot. The Residential Design Team (RDT) reviewed each home design with the knowledge of the BHESDRB's comments. The RDT made minor comments that the Project Sponsor addressed appropriately. As such, the current plans are consistent with the Residential Design Guidelines.

The most recent comments from the BHESDRB were issued on January 22, 2007. The following is a list of their concerns and associated Department responses:

1. New curb cuts will impact the limited on-street parking on Brewster Street. Parking spaces left between curb cuts should be at least 18 feet long and conform to Department of Public Works minimum standards.

See the response to Issue #2 above. Additionally, neither the Department of Public Works nor the Municipal Transportation Agency provides minimum requirements for non-metered on-street parking spaces. Metered spaces range from 18 feet to 22 feet because they need to serve a variety of vehicle lengths and they must have enough space for vehicles to maneuver in and out of the space when other vehicles occupy adjacent spaces. Non-metered street spaces between two curb cuts do not have the same maneuvering constraints because the curb cuts provide the needed maneuvering area at both ends of the space.

2. Adequate landscaping is needed in front of the homes to improve the pedestrian experience and better delineate the transition from public to private space.

The homes are each proposed to be built up to the front property line, leaving no front setback. However, each home includes appropriate planter boxes and a street tree.

3. The proposed firewalls (“fin” walls) should be reduced or eliminated to the extent possible to reduce the impacts on neighbors’ views.

Each home includes only the required fire walls required by the Building Code and/or Fire Code.

4. Ensure the masses of each building conform to the Bernal Heights mass reduction requirements.

Each home meets the height and mass limits of the Bernal Heights SUD.

5. Side yards of 4-to-5 feet should be included per the Bernal Heights East Slope Design Guidelines.

The Bernal Heights SUD already restricts the mass and height of residential buildings beyond the typical Planning Code controls (i.e. 30-foot height limit and mass reduction requirement). The project site is additionally constrained by steep slopes, resulting in more floor area being devoted to internal stairs. Adding side setbacks would create an additional constraint while providing only limited benefit because the majority of the building mass will not be seen from the street.

6. Lot 009 faces an undeveloped, substandard lot. Therefore, the façade materials and design should consider that the façade may be visible for many years. Additionally, materials and colors should be provided to aid the design review.

The proposed facades consist of cement plaster and wood siding bays. These materials are appropriate for the area, regardless of their visibility.

The Board of Supervisors passed interim controls for the area surrounding the project site that required Conditional Use Authorization with appropriate findings for any new construction. The interim controls became effective October 22, 2007 and expired on April 14, 2009. No new interim or permanent controls for this area have been enacted since. Additionally, many of the issues included in the interim controls (i.e. emergency access, water pressure, soil movement) have already been addressed.

ENVIRONMENTAL REVIEW

The Department has determined that the proposed project is exempt from environmental review, pursuant to CEQA Guideline Section 15303(a).

RESIDENTIAL DESIGN TEAM REVIEW

The Residential Design Team (RDT) had only minor comments for the projects at its initial review, which concerned fenestration, bays, and entryways. The Project Sponsor addressed all of the RDT comments at that time. RDT had no additional comments upon reviewing the projects after the DR was filed.

Under the Commission’s pending DR Reform Legislation, these projects would be referred to the Commission, as this project involves new construction on a vacant lot.

BASIS FOR RECOMMENDATION

- The proposed homes that are located in appropriate zoning districts and are consistent with the Planning Code, Residential Design Guidelines, and General Plan.
- The Bernal Heights SUD already restricts the mass and height of residential buildings beyond the typical Planning Code controls (i.e. 30-foot height limit and mass reduction requirement). The proposed buildings meet these height and massing requirements.
- Planning Staff consulted with other City departments to address concerns expressed by the DR Requestor.
- There are no exceptional or extraordinary circumstances associated with the projects.

RECOMMENDATION: Do not take DR and approve the project as proposed.

Attachments:

Block Book Map

Sanborn Map

Zoning Map

Aerial Photographs

Categorical Exemption from CEQA

Section 311 Notice

DR Application

Letter from BHESDRB

Response to DR Application from Jane Viltman dated October 24, 2011

Response to DR Application from Alice Barkley dated October 26, 2011

Reduced Plans

3-D Representations

Design Review Checklist

NEIGHBORHOOD CHARACTER (PAGES 7-10)

QUESTION	
The visual character is: (check one)	
Defined	X
Mixed	

Comments: Development on the west side of Brewster Street is consistently three stories, with some homes having fourth-story additions that are set back. The east side of Brewster Street, where the project site is located, is down-sloping and undeveloped. The nearby pedestrian-only block of Joy Street is consistently two to three stories.

SITE DESIGN (PAGES 11 - 21)

QUESTION	YES	NO	N/A
Topography (page 11)			
Does the building respect the topography of the site and the surrounding area?	X		
Is the building placed on its site so it responds to its position on the block and to the placement of surrounding buildings?	X		
Front Setback (pages 12 - 15)			
Does the front setback provide a pedestrian scale and enhance the street?	X		
In areas with varied front setbacks, is the building designed to act as transition between adjacent buildings and to unify the overall streetscape?			X
Does the building provide landscaping in the front setback?	X		
Side Spacing (page 15)			
Does the building respect the existing pattern of side spacing?			X
Rear Yard (pages 16 - 17)			
Is the building articulated to minimize impacts on light to adjacent properties?	X		
Is the building articulated to minimize impacts on privacy to adjacent properties?	X		
Views (page 18)			
Does the project protect major public views from public spaces?			X
Special Building Locations (pages 19 - 21)			
Is greater visual emphasis provided for corner buildings?			X
Is the building facade designed to enhance and complement adjacent public spaces?			X
Is the building articulated to minimize impacts on light to adjacent cottages?			X

Comments: The proposed homes are appropriately massed and step down with the sloping topography of the development site. There are no other buildings on the east side of Brewster Street on this block.

BUILDING SCALE AND FORM (PAGES 23 - 30)

QUESTION	YES	NO	N/A
Building Scale (pages 23 - 27)			
Is the building's height and depth compatible with the existing building scale at the street?	X		
Is the building's height and depth compatible with the existing building scale at the mid-block open space?	X		
Building Form (pages 28 - 30)			
Is the building's form compatible with that of surrounding buildings?	X		
Is the building's facade width compatible with those found on surrounding buildings?	X		
Are the building's proportions compatible with those found on surrounding buildings?	X		
Is the building's roofline compatible with those found on surrounding buildings?	X		

Comments: The proposed homes are only two stories at the street, and then step down to the rear to follow the down-sloping topography. The existing buildings across the street are consistently three stories or higher. There are no other buildings on the east side of Brewster Street on this block to provide additional reference.

ARCHITECTURAL FEATURES (PAGES 31 - 41)

QUESTION	YES	NO	N/A
Building Entrances (pages 31 - 33)			
Does the building entrance enhance the connection between the public realm of the street and sidewalk and the private realm of the building?	X		
Does the location of the building entrance respect the existing pattern of building entrances?	X		
Is the building's front porch compatible with existing porches of surrounding buildings?			X
Are utility panels located so they are not visible on the front building wall or on the sidewalk?	X		
Bay Windows (page 34)			
Are the length, height and type of bay windows compatible with those found on surrounding buildings?	X		
Garages (pages 34 - 37)			
Is the garage structure detailed to create a visually interesting street frontage?	X		
Are the design and placement of the garage entrance and door compatible with the building and the surrounding area?	X		
Is the width of the garage entrance minimized?	X		
Is the placement of the curb cut coordinated to maximize on-street parking?	X		
Rooftop Architectural Features (pages 38 - 41)			
Is the stair penthouse designed to minimize its visibility from the street?			X

Are the parapets compatible with the overall building proportions and other building elements?	X		
Are the dormers compatible with the architectural character of surrounding buildings?			X
Are the windscreens designed to minimize impacts on the building's design and on light to adjacent buildings?			X

Comments: The architectural features of the proposed homes enhance the appropriately modern design while being consistent with the general character of the street.

BUILDING DETAILS (PAGES 43 - 48)

QUESTION	YES	NO	N/A
Architectural Details (pages 43 - 44)			
Are the placement and scale of architectural details compatible with the building and the surrounding area?	X		
Windows (pages 44 - 46)			
Do the windows contribute to the architectural character of the building and the neighborhood?	X		
Are the proportion and size of the windows related to that of existing buildings in the neighborhood?	X		
Are the window features designed to be compatible with the building's architectural character, as well as other buildings in the neighborhood?	X		
Are the window materials compatible with those found on surrounding buildings, especially on facades visible from the street?	X		
Exterior Materials (pages 47 - 48)			
Are the type, finish and quality of the building's materials compatible with those used in the surrounding area?	X		
Are the building's exposed walls covered and finished with quality materials that are compatible with the front facade and adjacent buildings?	X		
Are the building's materials properly detailed and appropriately applied?	X		

Comments: The building details of the proposed homes enhance the appropriately modern design while being consistent with the general character of the street.

CT: G:\Documents\D\2010\183-191 Brewster St\Full Analysis.doc

Parcel Map

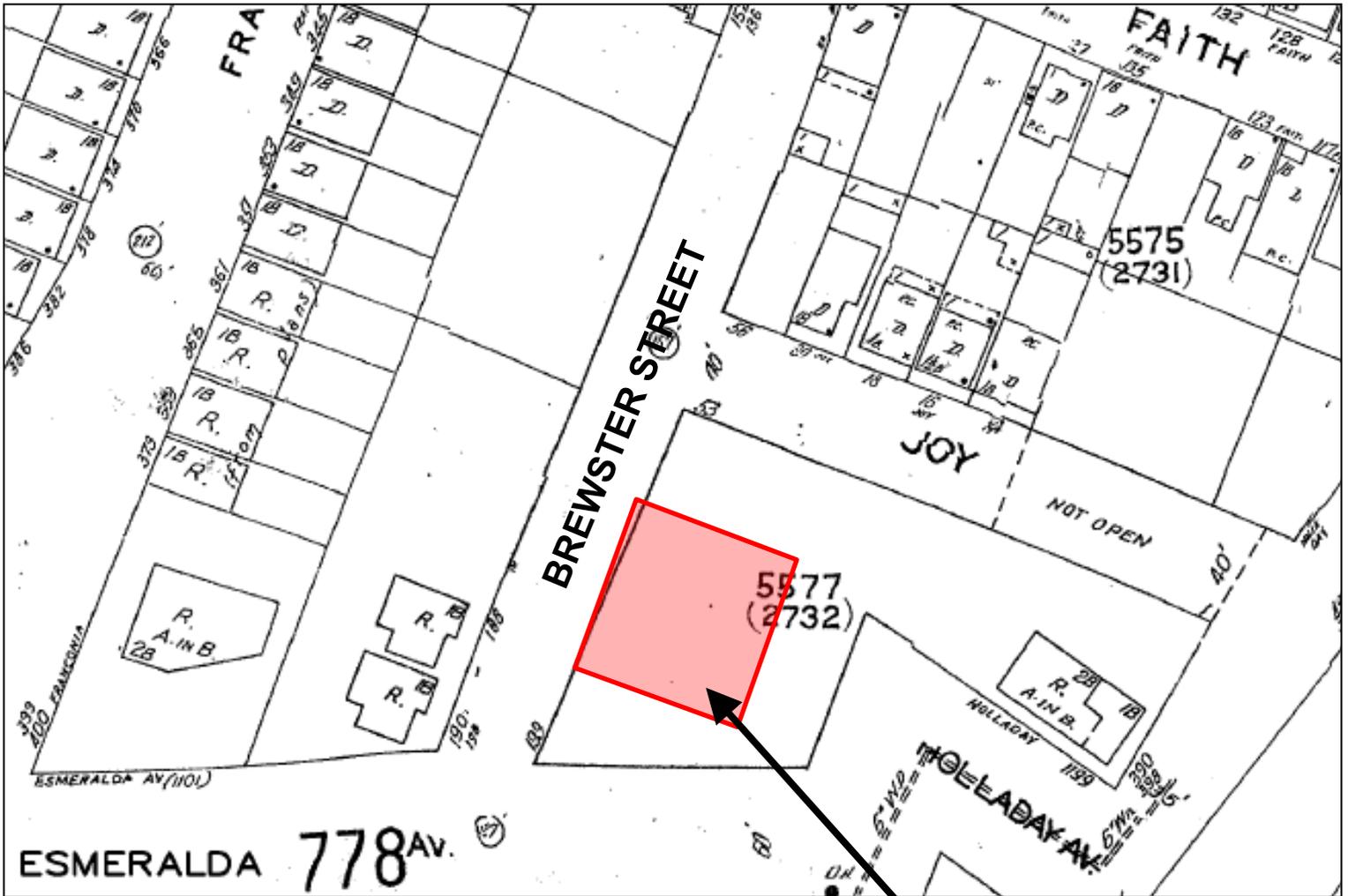


SUBJECT PROPERTY



Discretionary Review Hearing
Case Number 2010.0801D, 2010.0858D, and 2010.0860D
Three Single-Family Homes
183, 187 and 191 Brewster Street

Sanborn Map*



SUBJECT PROPERTY

*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.



Aerial Photo



SUBJECT PROPERTY



Discretionary Review Hearing
Case Number 2010.0801D, 2010.0858D, and 2010.0860D
Three Single-Family Homes
183, 187 and 191 Brewster Street

Aerial Photo



SUBJECT PROPERTY

Discretionary Review Hearing
Case Number 2010.0801D, 2010.0858D, and 2010.0860D
Three Single-Family Homes
183, 187 and 191 Brewster Street



Zoning Map



SUBJECT PROPERTY





SAN FRANCISCO PLANNING DEPARTMENT

Certificate of Determination EXEMPTION FROM ENVIRONMENTAL REVIEW

Case No.: 2011.0357E
 Project Title: 191, 193, and 195 Brewster Street
 Zoning: RH-1 (Residential, House Districts, One-Family) Use District
 40-X Height and Bulk District
 Block/Lot: 557/009, 010 & 011
 Lot Size: Each lot is approximately 1,750 square feet (sf) for a total
 of 5,250 sf
 Project Sponsor: Justin Allamano
 (916) 213-0615
 Staff Contact: Rachel Schuett – (415) 575-9030
 rachel.schuett@sfgov.org

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 CA 94103-2479

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PROJECT DESCRIPTION:

The project block (Block 5577) is bounded by Brewster Street, Joy Street, Holladay Street, and Esmeralda Avenue in the Bernal Heights neighborhood. The project site is located on the east side of Brewster Street between Esmeralda Avenue and Joy Street. The project site is vacant and has never been developed.

(Continued on next page)

EXEMPT STATUS:

Categorical Exemption Class 3 (State Guidelines, Section 15303(a)).

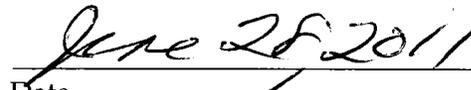
REMARKS:

Please see next page.

DETERMINATION:

I do hereby certify that the above determination has been made pursuant to State and Local requirements.


 BILL WYCKO
 Environmental Review Officer


 Date

cc: Justin Allamano, Project Sponsor
 R. Schuett, Planning Dept.
 C. Teague, SE Quadrant
 Supervisor David Campos, District 9

V. Byrd, Bulletin Board and Master Decision File
 Exemption/Exclusion File
 Sue Hestor

PROJECT DESCRIPTION (CONTINUED):

The proposed project is the development of three single-family homes, one on each lot. From the Brewster Street frontage, the three proposed single-family dwellings would be two stories with heights of 18 feet to approximately 22 feet. The houses would step down the hill with three additional below street level floors with decks at the rear of each unit. Each new single-family dwelling would be 2,166 to 2,231¹ square feet with a two car garage.

In addition, the existing guard rail and retaining wall along the western property line of Lots 9, 10 and 11 would be demolished to provide driveway access, and replaced with a concrete retaining wall that would provide back drainage.

REMARKS:

The project site lots are downward-sloping, with a difference in elevation from the front to the rear property line of 25 feet to over 30 feet. Lots 10 and 11 each measure 25 feet wide by 70 feet deep, or 1,750 square feet (sf).² Lot 9 is not a rectangular lot; its common property line (northern property line) with Lot 10 is 70 feet deep, and the western property line (street frontage) is 25 feet wide. The southern property line is 54.8 feet deep, then angles to intersect the rear property line (eastern property line), which is 18.86 feet wide.

The height of the buildings in the neighborhood range from one to four stories on the west side of Brewster Street and two stories on the east side of Brewster Street. Esmeralda Avenue between Brewster and Holladay Streets is an unimproved paper street, providing no access for pedestrians or vehicles. Due to the steep grade, a staircase on Joy Street connects Holladay Avenue and Brewster Street, providing access to the homes with frontage on Joy Street. Streets in the vicinity are generally narrow and winding.

Archeological Resources: The proposed dwellings would step down the hill on a series of slabs on grade, which would require grading and excavation; the buildings would be supported on a drilled pier and grade beam foundation. The slabs on grade would be supported by at least two feet of engineered fill. The piers would extend at least 22 feet below grade or at least 10 feet into approved bedrock material. The Department reviewed the project for impacts to archeological resources and determined that no CEQA significant archeological resources would be affected, specifically prehistoric and known archeological resources.³ Therefore, the proposed project may be found to be exempt from environmental review if other criteria are satisfied.

Geotechnical: The project site has an average slope of approximately 39 percent. The San Francisco *General Plan* Community Safety Element contains maps that show areas of the City subject to geologic

¹ The square footage is exclusive of garages.

² *Planning Code* Section 121(e)(2) states that in RH-1 zoning use districts the minimum lot area shall be 2,500 square feet, except that the minimum lot area for any lot having its street frontage entirely within 125 feet of the intersection of two streets that intersect at an angle of not more than 135 degrees shall be 1,750 square feet.

³ MEA Preliminary Archeological Review Checklist for 191-195 Brewster Street, May 3, 2011. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, 4th Floor, as part of Case File No. 2011.0357E.

hazards. This map indicates areas in which one or more geologic hazards exist. The project site is located in an area subject to slight to moderate ground shaking from earthquakes along the San Andreas (Map 2) and Northern Hayward (Map 3) Faults and other faults in the San Francisco Bay Area. The project site is not located in an area of liquefaction potential (Map 4). The project site is located in an area subject to potential landslide hazard (Map 5), a Seismic Hazards Study Zone (SHSZ) designated by the California Division of Mines and Geology.

The project sponsor has provided four geotechnical investigation reports prepared by California-licensed geotechnical engineers that are on file with the Planning Department and available for public review as part of the project file. The initial geotechnical investigation reports were prepared for Lots 9 and 11.^{4,5,6} The third geotechnical investigation was prepared for Lots 8 through 13, including the project site lots (9, 10 and 11).⁷ The fourth geotechnical investigation was a supplemental geotechnical engineering study to list and locate landslides mentioned in the prior three studies.⁸ For the remainder of the geology discussion, the term "site" refers to the overall site studied which includes Lots 8 through 13, except where noted otherwise.

The site slopes to the south at variable inclinations due to natural topography, and, to a lesser extent, to past earthwork. The site grade declines steeply to the south at 1.2:1 to 2.4:1 declinations (horizontal to vertical). No major landslides have been mapped on the site, although there is evidence of sloughing, erosion, and soil creep.

According to the San Francisco Seismic Safety Investigation Report (John A. Blume and Associates, May 1974) the site lies within a zone of potential landslide hazard. The United States Geological Survey (U.S.G.S.) has mapped several small to medium landslides in the vicinity. However, as mentioned previously, none have occurred on the site. During construction of the proposed project, hazards resulting from slope instability will be reduced through adherence to recommendations on earthwork operations, as incorporated into the project. Incorporation of modern engineered retaining walls into the project design is expected to virtually eliminate the potential for slope instability or landsliding due to project construction.⁹

⁴ Foundation Investigation Proposed Residence at 191 Brewster Street, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, June 29, 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁵ Foundation Investigation Proposed Residence at 183 Brewster Street, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, June 27, 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁶ It should be noted that 183 Brewster Street is Block 5577, Lot 11, also known as 195 Brewster Street.

⁷ Foundation Investigation for Six Proposed Residences on Brewster Street (Lots 8 through 13, Block 5577), San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, May 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁸ Foundation Investigation Proposed Residential Buildings on Brewster Street, Lots 9, 10 & 11 in Block 5577, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, November 17, 2010. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁹ Foundation Investigation for Six Proposed Residences on Brewster Street (Lots 8 through 13, Block 5577), San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, May 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

A supplemental report¹⁰ was prepared to list and locate the landslides discussed in the prior geotechnical investigations. As noted above, and in the prior geotechnical studies, the site lies in a zone of potential landslide hazard. Not only has the U.S.G.S. mapped several small to medium size landslides within the neighborhood, the City and County of San Francisco Department of Public Works, Bureau of Engineering has also mapped several small to medium sized landslides within this neighborhood. Some or all of these landslides may be attributed to the presence of non-engineered fill in the vicinity.

Ultimately, the site was found suitable for development with the incorporation of design and construction recommendations included in the report into the project design.

These recommendations include, but are not limited to: site preparation and grading; seismic design; appropriate foundation; retaining walls; slab-on-grade floors; site drainage; installation of surface drainage facilities; and maintenance. In addition, excavation and retaining wall construction should be performed during the dry months (May through October) to avoid problems that may occur during the wet season, particularly after periods of prolonged rainfall.¹¹

The project sponsor has incorporated the following recommendations into the final building plans: drilled, cast-in-place, reinforced concrete friction piers of at least 18 inches in diameter, tied together with grade beams which span between piers (in accordance with structural requirements), and extending at least 22 feet below the bottom of grade beams, or 10 feet into approved bedrock materials, whichever is deeper, to support proposed structures;¹² reinforcement of piers with at least four No. 4 bars over their entire length; removal of any groundwater encountered during pier shaft drilling; placement of a moisture barrier beneath any slabs-on-grade; the use of fully backdrained retaining walls, supported on pier foundations; installation of at least one concrete-lined surface drainage ditch (minimum 2-foot width and 1-foot depth) across the southern property line, sloped toward catch basins, with the collected water transported through closed pipes to suitable discharge facilities, possibly the street right-of-ways to the east and west corner of the site; planting of exposed slopes to minimize erosion and surface sloughing; temporary covering of disturbed slopes with jute mesh (or equivalent), and heavy planting with a variety of plants and a permanent variety of ground cover requiring minimal watering; provision of positive surface drainage adjacent to buildings to direct water away from foundations to suitable discharge facilities; and rainwater collected on roofs should be transported through gutters, downspouts, and closed pipes to approved discharge facilities.¹³

¹⁰ Foundation Investigation Proposed Residential Buildings on Brewster Street, Lots 9, 10 & 11 in Block 5577, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, November 17, 2010. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

¹¹ Foundation Investigation Proposed Residential Buildings on Brewster Street, Lots 9, 10 & 11 in Block 5577, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, November 17, 2010. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

¹² The actual lengths of the piers can be determined using an allowable skin friction value of 600 pounds per square foot for dead plus live loads with a one-third increase for all loads including wind or seismic. These values can be used starting at a depth of 10 feet below the grade beams. These values should be used to determine the required penetration into approved bedrock materials; field adjustments to final pier depths should be expected.

¹³ Foundation Investigation for Six Proposed Residences on Brewster Street (Lots 8 through 13, Block 5577), San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, May 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

The final building plans would also be reviewed by the Department of Building Inspection (DBI), prior to issuance of a building permit. In reviewing building plans, the DBI refers to a variety of information sources to determine existing hazards and verify appropriate building design. Sources reviewed include maps of Special Geologic Study Areas and known landslide areas in San Francisco as well as the building inspectors' working knowledge of areas of special geologic concern. The above-referenced geotechnical investigations would be available for use by the DBI during its review of building permits for the site. Also, DBI could require that additional site-specific soils report(s) be prepared in conjunction with permit applications, as needed. In light of the above, the project could not result in a significant environmental effect with respect to geotechnical matters.

Fire Protection: On August 17, 2009, the San Francisco Fire Department, Division of Fire Prevention and Investigation issued guidelines for fire clearance for new one and two unit residential buildings. The guidelines require a preliminary San Francisco Fire Department review to assure apparatus access and water supplies are sufficient per the 2007 California Fire Code. On December 1, 2010, the project sponsor requested, and on December 22, 2010, the San Francisco Fire Department provided flow data (based on a field flow test) for Lots 9, 10, and 11. The field flow test yielded a static and residual pressure of 81 and 54 pounds per square inch (psi), respectively, and a flow of 1,100 gallons per minute (gpm) from the 6 inch water main. These fire flow statistics were supplied to M.K. Engineering, Incorporated. On February 24, 2011, M.K. Engineering, Inc. provided fire flow calculations for Lots 9, 10, and 11. The calculations indicated that the minimum fire flow requirement (1,500 gpm), together with the estimated fire sprinkler demand (87 gpm), yields a water demand of 1,587 gpm during a fire-fighting situation. The available water flow at the site is 1,708 gpm, exceeding the 1,587 gpm requirement. As a result, the available water flow at the site is adequate for the proposed project. As such, the proposed project may be found to be exempt from environmental review if other criteria are satisfied.

Air Quality: The California Air Resources Board (CARB) established its statewide air toxics program in the early 1980s. CARB created California's program in response to the Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner 1983) to reduce exposure to air toxics. CARB identifies 244 substances as Toxic Air Contaminants (TACs) that are known or suspected to be emitted in California and have potential adverse health effects. Public health research consistently demonstrates that pollutant levels are significantly higher near freeways and busy roadways. Human health studies demonstrate that children living within 100 to 200 meters of freeways or busy roadways have poor lung function and more respiratory disease; both chronic and acute health effects may result from exposure to TACs. In 2005, CARB issued guidance on preventing roadway related air quality conflicts, suggesting localities "avoid siting new sensitive land uses within 500 feet of a freeway [or other] urban roads with volumes of more than 100,000 vehicles/day."¹⁴ However, there are no existing federal or state regulations to protect sensitive land uses from roadway air pollutants.

The San Francisco Department of Public Health (DPH) has issued guidance for the identification and assessment of potential air quality hazards and methods for assessing the associated health risks.¹⁵

¹⁴ California Air Resources Board, 2005 Air Quality and Land Use Handbook: A Community Health Perspective, <http://www.arb.ca.gov/ch/landuse.htm>, accessed September 8, 2008.

¹⁵ San Francisco Department of Public Health, Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review, May 6, 2008, http://www.sfdph.org/phes/publications/Mitigating_Roadway_AQLU_Conflicts.pdf, accessed September 8, 2009.

Consistent with CARB guidance, DPH has identified that a potential public health hazard for sensitive land uses exists when such uses are located within a 150-meter (approximately 500-foot) radius of any boundary of a project site that experiences 100,000 vehicles per day. To this end, San Francisco added Article 38 of the San Francisco Health Code, approved November 25, 2008, which requires that, for new residential projects of ten or more units located in proximity to high-traffic roadways, as mapped by DPH, an Air Quality Assessment be prepared to determine whether residents would be exposed to potentially unhealthful levels of PM_{2.5}. Through air quality modeling, an assessment is conducted to determine if the annual average concentration of PM_{2.5} from the roadway sources would exceed a concentration of 0.2 micrograms per cubic meter (annual average).¹⁶ If this standard is exceeded, the project sponsor must install a filtered air supply system, with high-efficiency filters, designed to remove at least 80 percent of ambient PM_{2.5} from habitable areas of residential units.

The project site, at 191-195 Brewster Street is located within the Potential Roadway Exposure Zone, as mapped by DPH. Pursuant to Article 38 of the San Francisco Health Code, the project sponsor requested an Air Quality Assessment from DPH to determine the potential level of exposure at the site.¹⁷ The Air Quality Assessment concluded that the PM_{2.5} concentration on the Brewster Street lots is less than 0.2 micrograms per cubic meter, and no filtration is indicated.¹⁸ The proposed project is in compliance with Article 38 of the San Francisco Health Code and therefore, the project would not result in a significant impact from exposure of sensitive receptors to high concentrations of roadway-related pollutants.

Exempt Status:

CEQA State Guidelines Section 15303(a), or Class 3, provides an exemption from environmental review for the construction of up to three single-family residences in an urbanized area. The proposed project includes construction of three new, single-family residences within an urbanized area of San Francisco. Therefore, the proposed construction of three new single-family residences is exempt from environmental review under Class 3.

¹⁶ According to DPH, this threshold, or action level, of 0.2 micrograms per cubic meter represents about 8 – 10 percent of the range of ambient PM_{2.5} concentrations in San Francisco based on monitoring data, and is based on epidemiological research that indicates that such a concentration can result in approximately 0.28 percent increase in non-injury mortality, or an increased mortality at a rate of approximately 20 “excess deaths” per year per one million population in San Francisco. “Excess deaths” (also referred to as premature mortality) refer to deaths that occur sooner than otherwise expected, absent the specific condition under evaluation; in this case, exposure to PM_{2.5}. (San Francisco Department of Public Health, Occupational and Environmental Health Section, Program on Health, Equity, and Sustainability, “Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review, May 6, 2008. Twenty excess deaths per million based on San Francisco’s non-injury, non-homicide, non-suicide mortality rate of approximately 714 per 100,000. Although San Francisco’s population is less than one million, the presentation of excess deaths is commonly given as a rate per million population.)

¹⁷ It should be noted that the Air Quality Assessment was requested for a prior application which included residential development on properties on Brewster Street, Joy Street, and Holladay Avenue.

¹⁸ Letter from Thomas H. Rivard, MS, REHS, Senior Environmental Health Specialist, San Francisco City and County, Department of Public Health, to Kelton Finney, P.E., Senior Project Manager, Santos & Urrutia Structural Engineers, Inc. September 26, 2009.

Conclusion:

CEQA State Guidelines Section 15300.2 states that a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances. There are no unusual circumstances surrounding the current proposal that would suggest a reasonable possibility of a significant effect. The proposed project would have no significant environmental effects. Under the above-cited classifications, the proposed project is appropriately exempt from environmental review.



SAN FRANCISCO PLANNING DEPARTMENT

1650 Mission Street Suite 400 San Francisco, CA 94103

NOTICE OF BUILDING PERMIT APPLICATION (SECTION 311)

On September 25, 2006, the Applicant named below filed Building Permit Application No. 2006.09.25.3191, 2006.09.25.3193, and 2006.09.25.3195 (New Construction of Three Buildings) with the City and County of San Francisco.

CONTACT INFORMATION		PROJECT SITE INFORMATION	
Applicant:	David Sternberg	Project Address:	191, 193, and 195 Brewster Street
Address:	1331 Harrison Street	Cross Streets:	Esmeralda Ave and Joy St
City, State:	San Francisco, CA 94103	Assessor's Block /Lot No.:	5577/009, 010, and 011
Telephone:	(415) 882-9783 ext. 11	Zoning Districts:	RH-1 / 40-X

Under San Francisco Planning Code Section 311, you, as a property owner or resident within 150 feet of this proposed project, are being notified of this Building Permit Application. You are not obligated to take any action. For more information regarding the proposed work, or to express concerns about the project, please contact the Applicant above or the Planner named below as soon as possible. If your concerns are unresolved, you can request the Planning Commission to use its discretionary powers to review this application at a public hearing. Applications requesting a Discretionary Review hearing must be filed during the 30-day review period, prior to the close of business on the Expiration Date shown below, or the next business day if that date is on a week-end or a legal holiday. If no Requests for Discretionary Review are filed, this project will be approved by the Planning Department after the Expiration Date.

PROJECT SCOPE		
<input type="checkbox"/> DEMOLITION	and/or	<input checked="" type="checkbox"/> NEW CONSTRUCTION or <input type="checkbox"/> ALTERATION
<input type="checkbox"/> VERTICAL EXTENSION		<input type="checkbox"/> CHANGE # OF DWELLING UNITS <input type="checkbox"/> FACADE ALTERATION(S)
<input type="checkbox"/> HORIZ. EXTENSION (FRONT)		<input type="checkbox"/> HORIZ. EXTENSION (SIDE) <input type="checkbox"/> HORIZ. EXTENSION (REAR)

PROJECT FEATURES (FOR EACH BLDG)	EXISTING CONDITION	PROPOSED CONDITION
FRONT SETBACK	Vacant	None
SIDE SETBACKS	Vacant	None
BUILDING DEPTH (Lowest Floor)	Vacant	+/- 45 feet 6 inches
REAR YARD	Vacant	+/- 24 feet 6 inches
HEIGHT OF BUILDINGS (from front curb)	Vacant	from +/- 16 feet to +/- 20 feet
NUMBER OF STORIES (front)	Vacant	2
NUMBER OF STORIES (rear)	Vacant	4
NUMBER OF OFF-STREET PARKING SPACES	Vacant	2
NUMBER OF DWELLING UNITS	Vacant	1 (each bldg)

PROJECT DESCRIPTION

The proposal is to construct three new single-family homes on down sloping adjacent lots. Each building will be two stories at the street and step down the lot in the rear for a total of four stories at the rear.

PLANNER'S NAME: Corey Teague
 PHONE NUMBER: (415) 575-9081
 EMAIL: corey.teague@sfgov.org

DATE OF THIS NOTICE: 8/2/10
 EXPIRATION DATE: 9/1/10

1583

APPLICATION REQUESTING DISCRETIONARY REVIEW ("D.R.")

This application is for projects where there are exceptional and extraordinary circumstances that justify further consideration, even though the project already meets requirements of the Planning Code, City General Plan and Priority Policies of the Planning Code.

See attach #1

Terry Milne, Chair Bernal Heights

D.R. Applicant's Name EAST Slope Design Review Comm Telephone No. (415) 285-8978

D.R. Applicant's Address 321 Rutledge Street
Number & Street (Apt. #)
San Francisco CA 94110
City Zip Code

D.R. Applicant's telephone number (for Planning Department to contact): (415) 285-8978
If you are acting as the agent for another person(s) in making this request please indicate the name and address of that person(s) (if applicable):

Name _____ Telephone No: _____

Address _____
Number & Street (Apt. #)
_____ City Zip Code

Address of the property that you are requesting the Commission consider under the Discretionary Review: 191 Brewster Street

Name and phone number of the property owner who is doing the project on which you are requesting D.R.: Jane Vitman c/o David Steinberg (415) 882-9783

Building Permit Application Number of the project for which you are requesting D.R.: 200609253193

Where is your property located in relation to the permit applicant's property?
We are a neighborhood group of effected residents and property owners to the side, behind and across from the site.

A. ACTIONS PRIOR TO A DISCRETIONARY REVIEW REQUEST
Citizens should make very effort to resolve disputes before requesting D.R. Listed below are a variety of ways and resources to help this happen.

- 1. Have you discussed this project with the permit applicant? YES NO G
- 2. Did you discuss the project with the Planning Department permit review planner? YES NO G
- 3. Did you participate in outside mediation on this case? Community Board G Other G NO G

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4. If you have discussed the project with the applicant, planning staff or gone through mediation, please summarize the results, including any changes that were made to the proposed project so far.

Developer brought us a much grander scale development proposal for 9 (nine) houses to be built on this block (5573) in 2006. In early 2007 she was informed that we were NOT in support of her proposal and had many serious concerns. In May 2010 Ms Vitman rediesed a meeting with a few neighbors to discuss a land swap proposal with the city and that she planned to move forward with development of lots 9, 10, 11 as originally proposed

B. DISCRETIONARY REVIEW REQUEST

1. What are the reasons for requesting Discretionary Review? The project meets the minimum standards of the Planning Code. What are the exceptional and extraordinary circumstances that justify Discretionary Review of the project? How does the project conflict with the City's General Plan or the Planning Code's Priority Policies?

Exceptional and extraordinary circumstances exist because of this blocks unique location on an extremely steep hill surrounded by very narrow and windy street with inefficient infrastructure. Whether developed all at once, as previously proposed or piecemeal as proposed now the cumulative impacts must be considered, as the final plan has stayed the same. This appears as an attempt to circumvent notice, C.E.Q.A and affordability requirements

2. If you believe your property, the property of others or the neighborhood would be adversely affected, please state who would be affected, and how:

most Joy Street residents will be impacted because, by law, parking is only allowed on one side of Brewster Street - The side where their development will take place. Joy Street is a walking street as are several other streets in the immediate area. Outstanding issues of emergency vehicle access, soil movement, greenspace and infrastructure will impact all residents

3. What alternatives or changes to the proposed project, beyond the changes (if any) already made would respond to the exceptional and extraordinary circumstances and reduce the adverse effects noted above (in question B1)?

The Bernal Heights East Slope Design Review Committee in January 2007 issued a detailed set of recommendations that have not been addressed. Also, all of the neighborhood infrastructure issues identified in the Board of Supervisors interim controls need to be resolved. The proposed development of this block must be examined in its totality with the appropriate due diligence of exceptional and extraordinary circumstances for its impact on the neighbors

ATTACHMENT #1

Additional applicants to receive notice:

Paul Boden
20 Joy Street
San Francisco, Ca. 94110

Sue Hestor
870 Market street #1128
San Francisco, Ca. 94102

10.0801D

OCT 26 2011

Bernal Heights

East Slope Design Review Board

Terry Milne, external secretary • 321 Rutledge • San Francisco 94110 • [285-8978]

October 21, 2011

Planning Commission
Dept. of City Planning
1650 Mission Street
San Francisco, Calif. 94103

Re: 2010.0810D
2010.0858D
2010.0860D
183, 187, 191 Brewster St
Block/lot: 5577-9+10+11

Dear Planning Commission:

The East Slope Design Review Board requested a Discretionary Review of this project for the following reasons:

[] Exceptional and extraordinary circumstances exist because of the unique location on an extremely steep hill with very narrow and winding street access and inadequate infrastructure.

[] An early proposal by one owner for the twelve vacant lots on the parcel was for nine houses. CEQA should be applied to a parcel this large, even if the project before you is now piece-mealed down to three houses.

[] The impact on neighborhood character by the bulk of the buildings which will be five stories high on the east side, towering over other houses on the block.

[] The removal of street parking on Brewster Street affects houses on the block which have no street for parking.

[] The insufficient infrastructure that makes emergency vehicle access a life-safety issue. And the proven insufficient hydrant water pressure that was apparently not upgraded when other street work was done several years ago. The City street construction project was restricted to only serving the existing houses, thus the narrow (21-foot wide) street.

Thank you for your consideration.

Cordially,



Jeff Saydah, Chair, Bernal Heights ESDRB

ALICE SUET YEE BARKLEY
121 Spear Street, Suite 200
San Francisco, CA 94105

VIA MESSENGER

October 26, 2011

Ms. Christina Olague
President, Planning Commission
1650 Mission Street, 4th Floor
San Francisco, CA 94103

Subject: Discretionary Review (Case Number 2010.0801D)
187 and 191 Brewster Street, San Francisco, CA

Dear Ms. Olague:

Our office represents Ronan Concanon ("Project Sponsor"), who purchased two vacant lots located at 187 and 191 Brewster Street, (Assessor's Block 5577, Lots 10 and 9 respectively, herein "Site") from Salvio Street LLC ("Salvio") with proposed plans prepared by Sternberg/Benjamin Architects. The proposed project is to construct a single family home on each lot ("Project"). The East Slope Design Review Committee (DR requestor) filed a request for discretionary review on September 1, 2010. On or about June 28, 2011, the Planning Department issued a Categorical Exemption for the Project.¹ For the reasons set forth below, the discretionary review request is without merit and should be denied.

PROJECT SITE

The Project block (Block 5577) is bounded by Brewster Street, Joy Street, Holladay Street and Esmeralda Avenue. The Site consisting of Lots 9 and 10 is located on the east side of Brewster Street between Esmeralda Avenue and Joy Street in a 40-X height and bulk District. The Site is vacant and has never been developed.

These down-sloping lots have a difference of between 27' to over 30' in elevation from the front to rear property line. Lot 10 measures 25' wide by 70' (or 1,750 sf). The 25' wide Lot 9 is not rectangular; the common property line between Lots 9 and 10 is 70' deep and the east

¹ The issued Categorical Exemption also included the adjacent lot (Lot 11).

property line of Lot 9 is 54.80' deep then angles to intersect the rear property line, which is 18.86' wide. See Site Plan Sheet A0.00, Lot 10 Sheet A2.04 and Lot 9 Sheet 2.04 attached to the case report for topographic survey.

The height of the buildings in the neighborhood range from one to four stories on the west side of Brewster Street and two stories on the east side of Brewster Street. Esmeralda Avenue between Brewster and Holladay Streets is unimproved. Due to the steep grade, a staircase on Joy Street connects Holladay Avenue and Brewster Street and provides pedestrian access to the homes on Joy Street. Brewster Street is a 40' wide right-of-way. See aerial photograph and Sheet P0.02 of the site plan showing all the proposed building by the project sponsor and a proposed building by Salvio in the Case Report. Additional site photographs are attached hereto as **Exhibit 1**.

Project Description

The Project is the development of two single-family homes, one on each of the lots identified above. From the Brewster Street frontage, the 2,213 sf to 2,231 usable sf (exclusive of garages) proposed homes will be two-stories in height varying from 18' to 19' from the Street. The homes step down the hill with three additional below street level floors with decks.

The street level, designated as third floor on the plans, contains the entrance lobby and a two-car garage. The level above, designated as fourth floor on the plans, is the master bedroom suite or a family room with a deck. The first below street level, designated as second floor on the plans, contains the kitchen, living/dining room, a half bath and a deck that serves as the main outdoor usable open space for the home. The second below grade level, designated as the first floor, has two bedrooms with a shared bath. The lowest below grade level, designated as basement on the plans, will be the family room/guest room or the master bedroom.

The decks will provide 170 sf and 238 of private usable open space for Lot 10 and lot 9 respectively in addition to the rear yard exceeding the Planning Code requirement. Both homes will have rear yards exceeding the Planning Code requirements. See proposed site plans, floor plans, elevations and sections of the proposed buildings attached to the case report.

As can be seen from the street elevations, the street façades of the homes on lots 9 and 10 are articulated with varying planes and materials. At street level, the garage door and entrance to the Lot 10 building are set back. The fourth floor incorporates a bay window and a deck at the rear. See Sheet A3.01 for Lot 10 in the case report. For Lot 9, the entrance to the building is set back from the garage plane, and the fourth floor has a bay window facing the street and a large deck in the rear. The rear facades of these buildings step up the hill and incorporate side set backs. A three-dimensional rendering looking up hill is at the end of the graphics attached to the case report. The rear facades of the buildings on Lots 9 and 10 are different to create interest from Holladay Street below.

BRIEF HISTORY OF PLANNING DEPARTMENT REVIEW PROCESS

Permit Applications

In 2006, Salvio, who then owned all ten vacant lots located on Block 5577 submitted a permit application to construct single family homes on lots 2, 9, 10, 11, and 13.² In late 2006, believing that Salvio would develop all ten vacant lots, the Brewster/Joy Neighborhood Committee of the Bernal Height East Slope published the “Bernal Heights East Slope Development Pressure Briefing Package (‘Briefing Package).”³ A copy of the Briefing Package is in the file of the Planning Department. In 2009, Salvio withdrew the applications for lots 2 and 13 and sold Lots 9 and 10 to the Project Sponsor with the proposed plans.

Environmental Review

Environmental review applications were submitted for each of proposed homes submitted in 2008 with incorrect information. The architect worked with the Planning Department to ensure that the massing reduction requirements for the Bernal Height projects are complied with. Brett Bollinger, the planner assigned to review the environment review applications informed the project sponsor that a new Environmental Exemption (EE) Application for the site and the adjacent lot 11 must be submitted. A new environmental review application was submitted on March 29, 2011 after obtaining updated geotechnical information, water pressure information and verification that there is sufficient water pressure to serve the fire sprinkler system of the three homes. A categorical exemption was issued on June 28, 2011. A copy of the issued categorical exemption is attached hereto as **Exhibit 2**.

Consultation With The Neighbors

On April 18, 2007, Rueben and Junius, who was Salvio’s attorney, responded to the concerns of the Joy Street neighbors and addressed the following issues:

- Size and character of the proposed homes
- Street environment
- On-Street Parking
- Fire Access and Firefighting Infrastructure
- Sewer Capacity
- Garbage and mailboxes

² Application numbers 200609253190S, 200609253192S, 200609253192S, 2006092531932S, 200609253193S, and 200609253194S

³ This belief is based partially on permit applications (application numbers 9211656S for Lot 1, 9211667S for lot 4, 9211658S for lot 5, and 9211660S for Lot 6) that were filed in 1993. However, the permit application for lot 1 was withdrawn on February, 2009 and the other applications were cancelled on September 29, 1997. No permit was ever submitted for Lot 8.

- Shadow and Wind
- Tree Removal
- Erosion
- Housing Demographics

The April 18, 2007 letter concluded that the neighbors' concerns were unwarranted especially since the homes had been redesigned. A copy of Mr. Junius response is in the files of the Planning Department.

ISSUES RAISED BY DR REQUESTORS

The DR requestor raised the following issues:

1. The Project Site is extremely steep and surrounded by narrow and windy streets with insufficient infrastructure;
2. The Joy Street residents will adversely affect
 - on-street parking;
 - emergency vehicle access;
 - soil movement;
 - green space; and
 - the existing infrastructure.
3. The issues raised in the Briefing Package have not been satisfactorily addressed and the impacts of development of all of the lots should be examined.

RESPONSES TO ISSUES RAISED

1. ***The Project site is served by adequate public services.***

The neighbors have questioned whether there are adequate public utilities in the area to support the Project, in particular, insufficient water pressure and sewer capacity.

Water Pressure, Fire Department and Fire Protection

The Project Sponsors requested Fire Clearance information from the San Francisco Fire Department (SFFD) for (1) fire flow calculations; (2) apparatus access, and (3) hydrant locations. A fire hydrant is located at 188 Brewster Street, directly across from the Site. The Fire Department's water flow information shows 81 psi static pressure, 54 psi residual pressure, and the water flow is 1,100 gpm. The water main is 6" in diameter.

Both of the single-family homes will have fire sprinkler and smoke alarm systems and will be constructed to meet current fire-safety Code requirements.

Using the water flow information provided by SFFD, the Project Sponsors retained M.K. Engineering Inc, mechanical engineers to perform a Fire Flow Calculation to ascertain if the available water flow is sufficient to support the fire sprinkler system for the proposed homes. MK Engineering determined that the available water flow is sufficient for the fire sprinkler systems for the proposed home. A copy of the request to and response from SFFD regarding water flow information, and the fire flow calculation are attached hereto as **Exhibit 3**. On January 16, 2008, SFFD's Fire Marshal confirms in writing that the fire hydrant water pressure in the Bernal Heights Neighborhood is in compliance with Code and is sufficient for fire suppression activities.

Security

Additionally, these homes will be pre-wired with a monitored security alarm system that can be connected by the future occupant(s).

Sewer

On March 21, 2007, the Hydraulic Engineering Division of the Department of Public Works ("DPW") informed the Planning Department in writing that a new 12" sewer line was installed in or about 1997 when Brewster Street was realigned and that the system has sufficient capacity to service the five homes proposed by Salvio. DPW also suggested that the developer may want to construct a new "private" sewer on the back of the lots that would flow to Holladay Avenue or to facilitate pumping fixtures built below the Brewster Street level. This letter further clarified that the problem at 18 Joy Street was due to root intrusion into the sewer line that had since been repaired by DPW in December 2005. Although the proposed homes will have no impact on the Brewster or Joy Street sewers, the proposed homes will be connected to the sewer lines in Holladay Avenue; this approach was confirmed in the March 21, 2007 letter. A copy of the March 21, 2007 DPW letter regarding sewer line and capacity is attached hereto as **Exhibit 4**. Based on the map in the Briefing Package prepared by the neighbors, no new homes have been constructed in the immediate project vicinity since 2007. A map showing new homes in the area developed since the 1980's from the Briefing Package is attached hereto as **Exhibit 5**.

2. ***The Project will not adversely affect the neighbors on Joy Street or Brewster Street***

On-street parking

The project sponsor acknowledges that on-street parking is available only on the east side of Brewster Street. The curb cuts to the two-car garages have been so located to preserve

two of the three off-street parking spaces. The elimination of one space in front of the two proposed homes will not significantly affect the availability of on-street parking.

Emergency vehicle access

Emergency vehicle access will be no different from the existing conditions. The proposed homes will have fire sprinkler system which will be much safer in the event of a fire than the older homes in the area.

Soil movement

Geotechnical Investigation Reports dated June, 2006 ("Reports") were prepared by Harold Lewis & Associates for lots 9 and 10. Seven (7) borings were drilled on the block with the boring depths for Lots 9 and 10 to 20'. Free groundwater was not encountered. The Site is not within a liquefaction potential zone and the underlying soil encountered in the boring is not subject to liquefaction. Similarly, there is a low risk for damage from seismically induced lateral spreading and no earth materials subject to seismic densification are on the Site. See page 5 of Reports which is attached hereto as **Exhibit 6.**⁴

The neighbors expressed concerns that the Project Site is located in a mapped landslide area. As part of new environmental review application submitted in 2010, the Project Sponsors requested and Harold Lewis & Associates prepare a supplemental geotechnical engineering studies to list and locate the areas with previous landslides mapped by the U.S.G.S. Six areas with previous landslides were discussed in the supplement studies. These slides occurred between 1941 and about 1961 and none of them are near the Site. A copy of the Supplement Geotechnical Investigation study is attached hereto as **Exhibit 7.** Therefore, the neighbors' claim about soil movement is unwarranted.

Green Space

The green space referred to by the DR requestor is either private property or the unimproved portion of the Elsmaralda Avenue off Holladay Street. The project site is extremely steep making it not viable as recreational open space. Currently the neighbors, especially those on Joy Street walk their dogs on the lots at the bottom of the hill where the slope is gentler. If the neighbors wish to preserve the remainder of the undeveloped lots as public open space, they should work with the Recreation and Park Department to purchase these lots with Proposition J funds. Finally, some neighbors expressed their desire to preserve the grove of Eucalyptus trees. The Project will not require the cutting of any of the Eucalyptus trees.

⁴ While Harold Lewis & Associates prepared one report for each lot to be submitted with each building permit application to the Department of Building Inspection, both report are identical.

Existing infrastructure

Based on the above discussion, the proposed project will have no adverse effect on nor will it overburden the existing infrastructure, including but not limited to emergency vehicle access, sewer and/or water pressure.

Since Brewster Street is narrow and the site is steep, the project sponsor proposes to stage the construction from Holladay Street and the unimproved portion of Esmeralda Avenue. Prior to start of construction, the project sponsor will meet with TASA to go over the construction staging plan.

THE PROJECT IS CONSISTENT WITH PLANNING CODE SECTION 101.1(B)

- 1) *That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses enhanced.*

Retail uses are not permitted in an RH-1 zoning district. Therefore, the Section 101.1(b)(1) policies are not applicable.

- 2) *That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods.*

The Project has been designed to be compatible with the neighborhood character as discussed above. The new homes will add to the cultural and economic diversity of the neighborhood by bringing new residents to the area. The Project, therefore, is consistent with the policies of Section 101.1(b)(2).

- 3) *That the City's supply of affordable housing be preserved and enhanced.*

The Site is vacant and the Project will add two 3 three-bedroom family size units to the City's housing stock. The Project, therefore, is consistent with the policies of Section 101.1(b)(7).

- 4) *That commuter traffic not impede Muni transit service or overburden our streets or neighborhood parking.*

The Project will generate about 5 daily person trips during the PM peak period, and will not detrimentally add to commute traffic, nor overburden City streets. There are no MUNI stops in front of the site. Vehicles entering or exiting the Site will not interfere with Muni Transit services. There will be 2 off-street parking spaces for each of the proposed homes meeting the Project demand and will not be overburden neighborhood on-street parking. The Project, therefore, is consistent with the policies of Section 101.1(b)(4).

5) *That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced.*

The Site is located in an RH-1 zoning district where industrial and service sector uses are not permitted. The Site is vacant and no existing uses will be displaced. Therefore, the policies of Section 101.1(b)(5) are not applicable.

6) *That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.*

The Project buildings will comply with current fire and seismic safety standards and will be consistent with the policies of Section 101.1(b)(6).

7) *That landmarks and historic buildings be preserved.*

This vacant site is not in a historic or conservation district. Development of the Site will have no effect on any designated landmarks or rated historic buildings. The Project, therefore, is consistent with the policies of Section 101.1(b)(7).

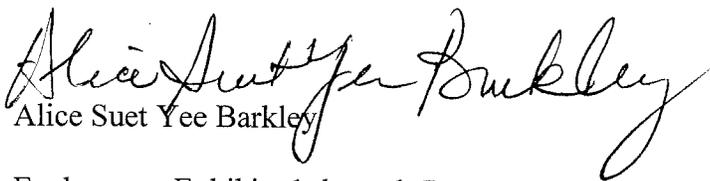
8) *That our parks and open space and their access to sunlight and vistas be protected from development.*

The Site is a down sloping site. There are no public parks or recreation centers down hill from the proposed homes. Therefore, the Project will not cast any new shadow on any parks under the jurisdiction of the Recreation and Park Department.

CONCLUSION

Based on the foregoing, all of the claims presented in the discretionary review request have been carefully investigated and proven to be without merit. Therefore, Project Sponsor respectfully submits that the Commission should deny the discretionary review request and approve the Project. Please contact me if you have any questions.

Very truly yours,


Alice Suet Yee Barkley

Enclosure: Exhibits 1 through 7

Commissioner Christina Olague

October 26, 2011

Page 9 of 10

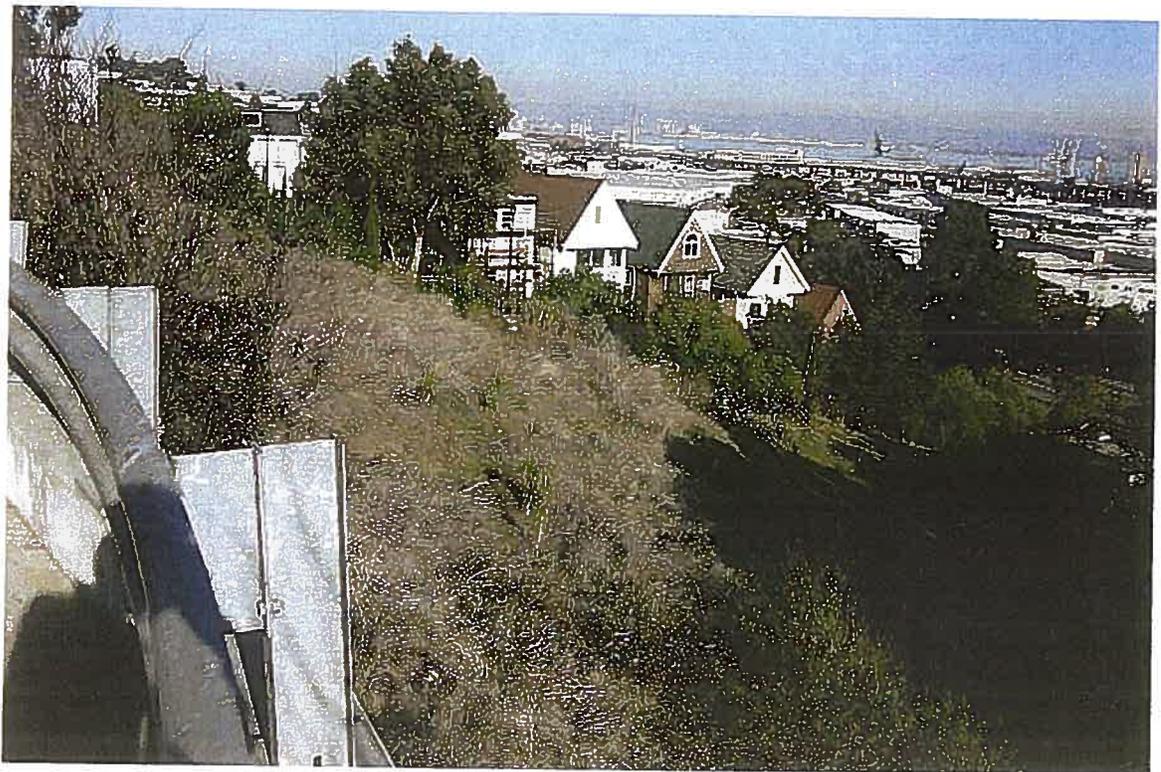
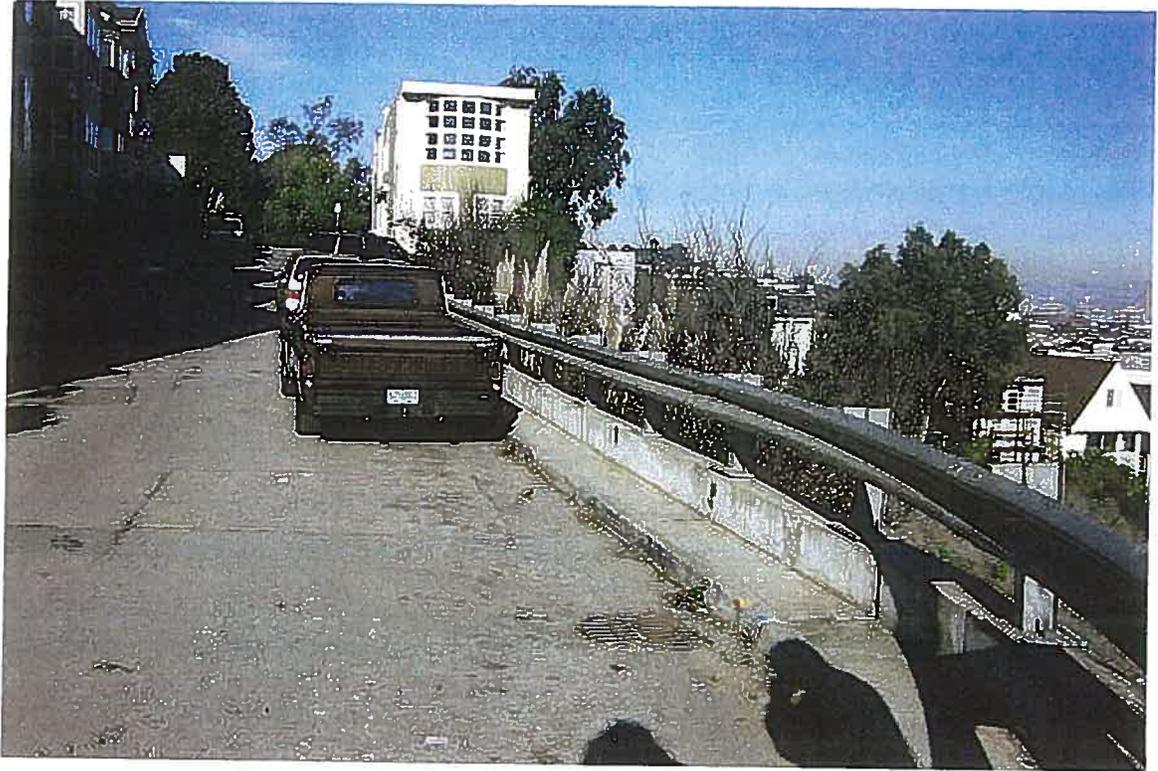
cc: Commissioner Michael Antonini
Commissioner Gwyneth Border
Commissioner Rodney Fong
Commissioner Ron Miguel
Commissioner Kathrin Moore
Commissioner Hisashi Sugaya
Scott Sanchez
Corey Teague
David Sternberg
Ronan Concanon
Terry Milne (321 Rutledge Street, SF CA 94110)

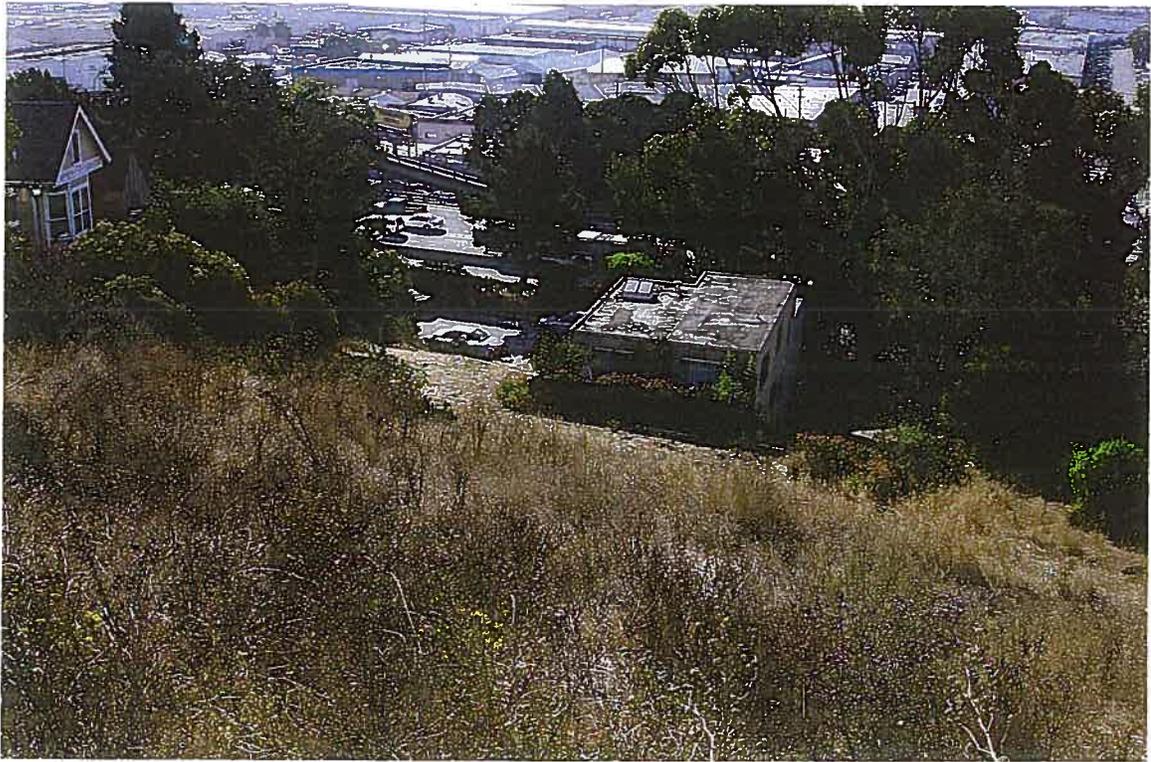
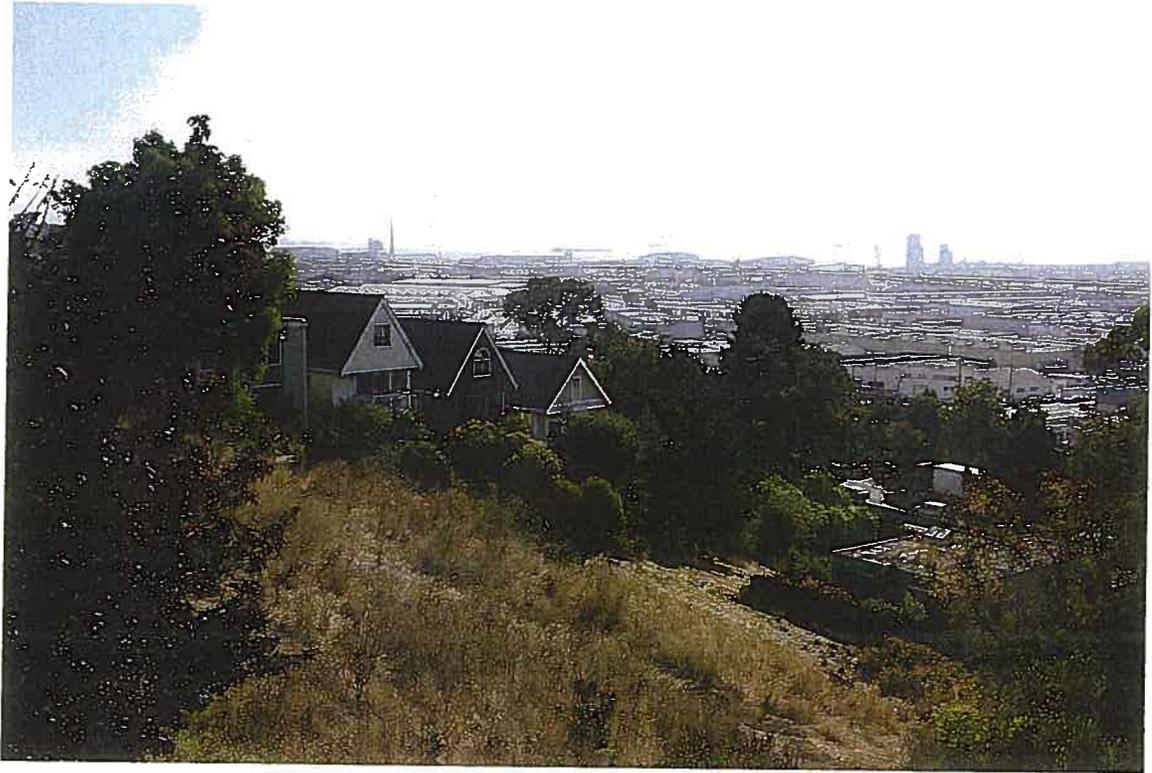
TABLE OF EXHIBITS

- Exhibit 1 Photographs of site and site vicinity.
- Exhibit 2 Categorical Exemption Issued For the Project
- Exhibit 3 Water flow information and the fire flow calculation
- Exhibit 4 March 21, 2007 Letter from DPW regarding sewer line and capacity
- Exhibit 5 Map showing new development in the area since the 1980's from the Briefing Package
- Exhibit 6 Geotechnical Investigation Reports dated June, 2006 ("Reports") prepared by Harold Lewis & Associates for lots 9 and 10.
- Exhibit 7 Supplement Geotechnical Investigation studies

Exhibit 1







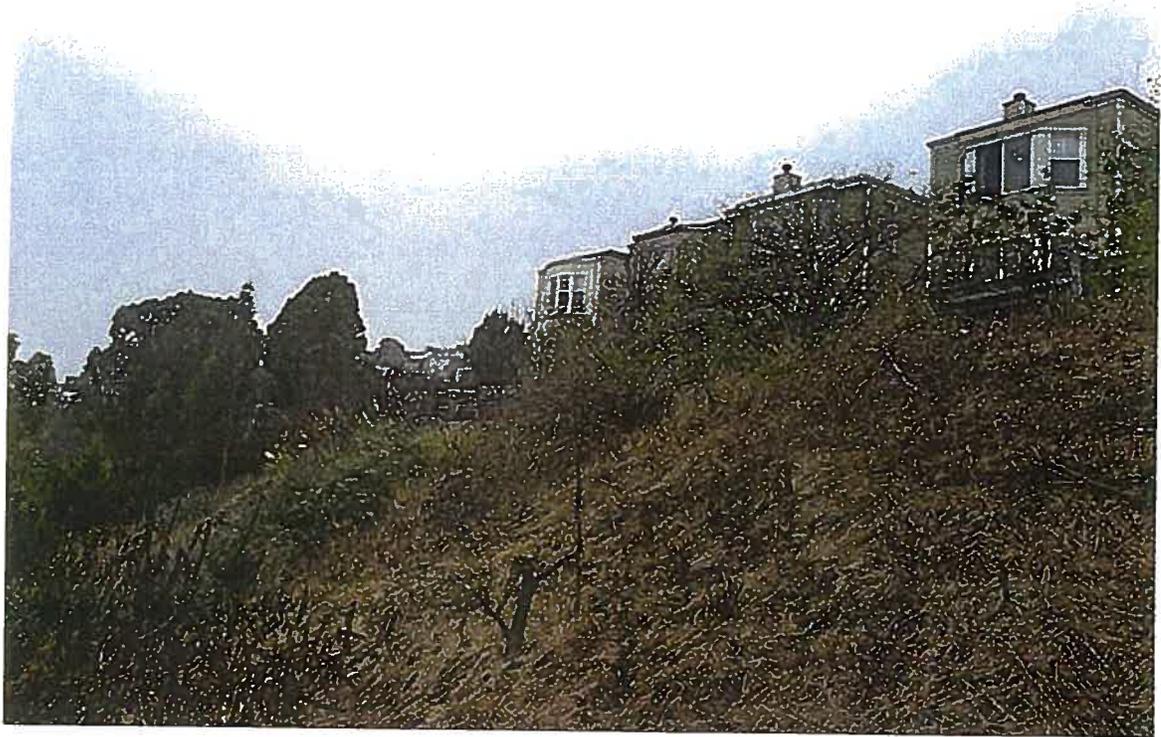


Exhibit 2



**SAN FRANCISCO
PLANNING DEPARTMENT**

**Certificate of Determination
EXEMPTION FROM ENVIRONMENTAL REVIEW**

Case No.: 2011.0357E
 Project Title: 191, 193, and 195 Brewster Street
 Zoning: RH-1 (Residential, House Districts, One-Family) Use District
 40-X Height and Bulk District
 Block/Lot: 557/009, 010 & 011
 Lot Size: Each lot is approximately 1,750 square feet (sf) for a total
 of 5,250 sf
 Project Sponsor: Justin Allamano
 (916) 213-0615
 Staff Contact: Rachel Schuett – (415) 575-9030
 rachel.schuett@sfgov.org

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

Reception:
 415.558.6378

Fax:
 415.558.6409

Planning
 Information:
 415.558.6377

PROJECT DESCRIPTION:

The project block (Block 5577) is bounded by Brewster Street, Joy Street, Holladay Street, and Esmeralda Avenue in the Bernal Heights neighborhood. The project site is located on the east side of Brewster Street between Esmeralda Avenue and Joy Street. The project site is vacant and has never been developed.

(Continued on next page)

EXEMPT STATUS:

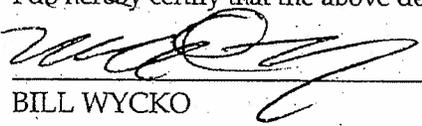
Categorical Exemption Class 3 (State Guidelines, Section 15303(a)).

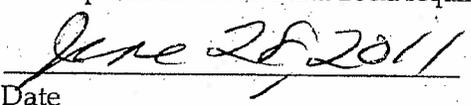
REMARKS:

Please see next page.

DETERMINATION:

I do hereby certify that the above determination has been made pursuant to State and Local requirements.


 BILL WYCKO
 Environmental Review Officer


 Date

cc: Justin Allamano, Project Sponsor
 R. Schuett, Planning Dept.
 C. Teague, SE Quadrant
 Supervisor David Campos, District 9

V. Byrd, Bulletin Board and Master Decision File
 Exemption/Exclusion File
 Sue Hestor

PROJECT DESCRIPTION (CONTINUED):

The proposed project is the development of three single-family homes, one on each lot. From the Brewster Street frontage, the three proposed single-family dwellings would be two stories with heights of 18 feet to approximately 22 feet. The houses would step down the hill with three additional below street level floors with decks at the rear of each unit. Each new single-family dwelling would be 2,166 to 2,231¹ square feet with a two car garage.

In addition, the existing guard rail and retaining wall along the western property line of Lots 9, 10 and 11 would be demolished to provide driveway access, and replaced with a concrete retaining wall that would provide back drainage.

REMARKS:

The project site lots are downward-sloping, with a difference in elevation from the front to the rear property line of 25 feet to over 30 feet. Lots 10 and 11 each measure 25 feet wide by 70 feet deep, or 1,750 square feet (sf).² Lot 9 is not a rectangular lot; its common property line (northern property line) with Lot 10 is 70 feet deep, and the western property line (street frontage) is 25 feet wide. The southern property line is 54.8 feet deep, then angles to intersect the rear property line (eastern property line), which is 18.86 feet wide.

The height of the buildings in the neighborhood range from one to four stories on the west side of Brewster Street and two stories on the east side of Brewster Street. Esmeralda Avenue between Brewster and Holladay Streets is an unimproved paper street, providing no access for pedestrians or vehicles. Due to the steep grade, a staircase on Joy Street connects Holladay Avenue and Brewster Street, providing access to the homes with frontage on Joy Street. Streets in the vicinity are generally narrow and winding.

Archeological Resources: The proposed dwellings would step down the hill on a series of slabs on grade, which would require grading and excavation; the buildings would be supported on a drilled pier and grade beam foundation. The slabs on grade would be supported by at least two feet of engineered fill. The piers would extend at least 22 feet below grade or at least 10 feet into approved bedrock material. The Department reviewed the project for impacts to archeological resources and determined that no CEQA significant archeological resources would be affected, specifically prehistoric and known archeological resources.³ Therefore, the proposed project may be found to be exempt from environmental review if other criteria are satisfied.

Geotechnical: The project site has an average slope of approximately 39 percent. The San Francisco *General Plan* Community Safety Element contains maps that show areas of the City subject to geologic

¹ The square footage is exclusive of garages.

² *Planning Code* Section 121(e)(2) states that in RH-1 zoning use districts the minimum lot area shall be 2,500 square feet, except that the minimum lot area for any lot having its street frontage entirely within 125 feet of the intersection of two streets that intersect at an angle of not more than 135 degrees shall be 1,750 square feet.

³ MEA Preliminary Archeological Review Checklist for 191-195 Brewster Street, May 3, 2011. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, 4th Floor, as part of Case File No. 2011.0357E.

hazards. This map indicates areas in which one or more geologic hazards exist. The project site is located in an area subject to slight to moderate ground shaking from earthquakes along the San Andreas (Map 2) and Northern Hayward (Map 3) Faults and other faults in the San Francisco Bay Area. The project site is not located in an area of liquefaction potential (Map 4). The project site is located in an area subject to potential landslide hazard (Map 5), a Seismic Hazards Study Zone (SHSZ) designated by the California Division of Mines and Geology.

The project sponsor has provided four geotechnical investigation reports prepared by California-licensed geotechnical engineers that are on file with the Planning Department and available for public review as part of the project file. The initial geotechnical investigation reports were prepared for Lots 9 and 11.^{4,5,6} The third geotechnical investigation was prepared for Lots 8 through 13, including the project site lots (9, 10 and 11).⁷ The fourth geotechnical investigation was a supplemental geotechnical engineering study to list and locate landslides mentioned in the prior three studies.⁸ For the remainder of the geology discussion, the term "site" refers to the overall site studied which includes Lots 8 through 13, except where noted otherwise.

The site slopes to the south at variable inclinations due to natural topography, and, to a lesser extent, to past earthwork. The site grade declines steeply to the south at 1.2:1 to 2.4:1 declinations (horizontal to vertical). No major landslides have been mapped on the site, although there is evidence of sloughing, erosion, and soil creep.

According to the San Francisco Seismic Safety Investigation Report (John A. Blume and Associates, May 1974) the site lies within a zone of potential landslide hazard. The United States Geological Survey (U.S.G.S.) has mapped several small to medium landslides in the vicinity. However, as mentioned previously, none have occurred on the site. During construction of the proposed project, hazards resulting from slope instability will be reduced through adherence to recommendations on earthwork operations, as incorporated into the project. Incorporation of modern engineered retaining walls into the project design is expected to virtually eliminate the potential for slope instability or landsliding due to project construction.⁹

⁴ Foundation Investigation Proposed Residence at 191 Brewster Street, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, June 29, 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁵ Foundation Investigation Proposed Residence at 183 Brewster Street, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, June 27, 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁶ It should be noted that 183 Brewster Street is Block 5577, Lot 11, also known as 195 Brewster Street.

⁷ Foundation Investigation for Six Proposed Residences on Brewster Street (Lots 8 through 13, Block 5577), San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, May 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁸ Foundation Investigation Proposed Residential Buildings on Brewster Street, Lots 9, 10 & 11 in Block 5577, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, November 17, 2010. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

⁹ Foundation Investigation for Six Proposed Residences on Brewster Street (Lots 8 through 13, Block 5577), San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, May 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

A supplemental report¹⁰ was prepared to list and locate the landslides discussed in the prior geotechnical investigations. As noted above, and in the prior geotechnical studies, the site lies in a zone of potential landslide hazard. Not only has the U.S.G.S. mapped several small to medium size landslides within the neighborhood, the City and County of San Francisco Department of Public Works, Bureau of Engineering has also mapped several small to medium sized landslides within this neighborhood. Some or all of these landslides may be attributed to the presence of non-engineered fill in the vicinity.

Ultimately, the site was found suitable for development with the incorporation of design and construction recommendations included in the report into the project design.

These recommendations include, but are not limited to: site preparation and grading; seismic design; appropriate foundation; retaining walls; slab-on-grade floors; site drainage; installation of surface drainage facilities; and maintenance. In addition, excavation and retaining wall construction should be performed during the dry months (May through October) to avoid problems that may occur during the wet season, particularly after periods of prolonged rainfall.¹¹

The project sponsor has incorporated the following recommendations into the final building plans: drilled, cast-in-place, reinforced concrete friction piers of at least 18 inches in diameter, tied together with grade beams which span between piers (in accordance with structural requirements), and extending at least 22 feet below the bottom of grade beams, or 10 feet into approved bedrock materials, whichever is deeper, to support proposed structures;¹² reinforcement of piers with at least four No. 4 bars over their entire length; removal of any groundwater encountered during pier shaft drilling; placement of a moisture barrier beneath any slabs-on-grade; the use of fully backdrained retaining walls, supported on pier foundations; installation of at least one concrete-lined surface drainage ditch (minimum 2-foot width and 1-foot depth) across the southern property line, sloped toward catch basins, with the collected water transported through closed pipes to suitable discharge facilities, possibly the street right-of-ways to the east and west corner of the site; planting of exposed slopes to minimize erosion and surface sloughing; temporary covering of disturbed slopes with jute mesh (or equivalent), and heavy planting with a variety of plants and a permanent variety of ground cover requiring minimal watering; provision of positive surface drainage adjacent to buildings to direct water away from foundations to suitable discharge facilities; and rainwater collected on roofs should be transported through gutters, downspouts, and closed pipes to approved discharge facilities.¹³

¹⁰ Foundation Investigation Proposed Residential Buildings on Brewster Street, Lots 9, 10 & 11 in Block 5577, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, November 17, 2010. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

¹¹ Foundation Investigation Proposed Residential Buildings on Brewster Street, Lots 9, 10 & 11 in Block 5577, San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, November 17, 2010. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

¹² The actual lengths of the piers can be determined using an allowable skin friction value of 600 pounds per square foot for dead plus live loads with a one-third increase for all loads including wind or seismic. These values can be used starting at a depth of 10 feet below the grade beams. These values should be used to determine the required penetration into approved bedrock materials; field adjustments to final pier depths should be expected.

¹³ Foundation Investigation for Six Proposed Residences on Brewster Street (Lots 8 through 13, Block 5577), San Francisco California, prepared by Harold Lewis & Associates Geotechnical Consultants, May 2006. A copy of this report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0357E.

The final building plans would also be reviewed by the Department of Building Inspection (DBI), prior to issuance of a building permit. In reviewing building plans, the DBI refers to a variety of information sources to determine existing hazards and verify appropriate building design. Sources reviewed include maps of Special Geologic Study Areas and known landslide areas in San Francisco as well as the building inspectors' working knowledge of areas of special geologic concern. The above-referenced geotechnical investigations would be available for use by the DBI during its review of building permits for the site. Also, DBI could require that additional site-specific soils report(s) be prepared in conjunction with permit applications, as needed. In light of the above, the project could not result in a significant environmental effect with respect to geotechnical matters.

Fire Protection: On August 17, 2009, the San Francisco Fire Department, Division of Fire Prevention and Investigation issued guidelines for fire clearance for new one and two unit residential buildings. The guidelines require a preliminary San Francisco Fire Department review to assure apparatus access and water supplies are sufficient per the 2007 California Fire Code. On December 1, 2010, the project sponsor requested, and on December 22, 2010, the San Francisco Fire Department provided flow data (based on a field flow test) for Lots 9, 10, and 11. The field flow test yielded a static and residual pressure of 81 and 54 pounds per square inch (psi), respectively, and a flow of 1,100 gallons per minute (gpm) from the 6 inch water main. These fire flow statistics were supplied to M.K. Engineering, Incorporated. On February 24, 2011, M.K. Engineering, Inc. provided fire flow calculations for Lots 9, 10, and 11. The calculations indicated that the minimum fire flow requirement (1,500 gpm), together with the estimated fire sprinkler demand (87 gpm), yields a water demand of 1,587 gpm during a fire-fighting situation. The available water flow at the site is 1,708 gpm, exceeding the 1,587 gpm requirement. As a result, the available water flow at the site is adequate for the proposed project. As such, the proposed project may be found to be exempt from environmental review if other criteria are satisfied.

Air Quality: The California Air Resources Board (CARB) established its statewide air toxics program in the early 1980s. CARB created California's program in response to the Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner 1983) to reduce exposure to air toxics. CARB identifies 244 substances as Toxic Air Contaminants (TACs) that are known or suspected to be emitted in California and have potential adverse health effects. Public health research consistently demonstrates that pollutant levels are significantly higher near freeways and busy roadways. Human health studies demonstrate that children living within 100 to 200 meters of freeways or busy roadways have poor lung function and more respiratory disease; both chronic and acute health effects may result from exposure to TACs. In 2005, CARB issued guidance on preventing roadway related air quality conflicts, suggesting localities "avoid siting new sensitive land uses within 500 feet of a freeway [or other] urban roads with volumes of more than 100,000 vehicles/day."¹⁴ However, there are no existing federal or state regulations to protect sensitive land uses from roadway air pollutants.

The San Francisco Department of Public Health (DPH) has issued guidance for the identification and assessment of potential air quality hazards and methods for assessing the associated health risks.¹⁵

¹⁴ California Air Resources Board, 2005 Air Quality and Land Use Handbook: A Community Health Perspective, <http://www.arb.ca.gov/ch/landuse.htm>, accessed September 8, 2008.

¹⁵ San Francisco Department of Public Health, Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review, May 6, 2008, http://www.sfdph.org/phes/publications/Mitigating_Roadway_AQLU_Conflicts.pdf, accessed September 8, 2009.

Consistent with CARB guidance, DPH has identified that a potential public health hazard for sensitive land uses exists when such uses are located within a 150-meter (approximately 500-foot) radius of any boundary of a project site that experiences 100,000 vehicles per day. To this end, San Francisco added Article 38 of the San Francisco Health Code, approved November 25, 2008, which requires that, for new residential projects of ten or more units located in proximity to high-traffic roadways, as mapped by DPH, an Air Quality Assessment be prepared to determine whether residents would be exposed to potentially unhealthy levels of PM_{2.5}. Through air quality modeling, an assessment is conducted to determine if the annual average concentration of PM_{2.5} from the roadway sources would exceed a concentration of 0.2 micrograms per cubic meter (annual average).¹⁶ If this standard is exceeded, the project sponsor must install a filtered air supply system, with high-efficiency filters, designed to remove at least 80 percent of ambient PM_{2.5} from habitable areas of residential units.

The project site, at 191-195 Brewster Street is located within the Potential Roadway Exposure Zone, as mapped by DPH. Pursuant to Article 38 of the San Francisco Health Code, the project sponsor requested an Air Quality Assessment from DPH to determine the potential level of exposure at the site.¹⁷ The Air Quality Assessment concluded that the PM_{2.5} concentration on the Brewster Street lots is less than 0.2 micrograms per cubic meter, and no filtration is indicated.¹⁸ The proposed project is in compliance with Article 38 of the San Francisco Health Code and therefore, the project would not result in a significant impact from exposure of sensitive receptors to high concentrations of roadway-related pollutants.

Exempt Status:

CEQA State Guidelines Section 15303(a), or Class 3, provides an exemption from environmental review for the construction of up to three single-family residences in an urbanized area. The proposed project includes construction of three new, single-family residences within an urbanized area of San Francisco. Therefore, the proposed construction of three new single-family residences is exempt from environmental review under Class 3.

¹⁶ According to DPH, this threshold, or action level, of 0.2 micrograms per cubic meter represents about 8 – 10 percent of the range of ambient PM_{2.5} concentrations in San Francisco based on monitoring data, and is based on epidemiological research that indicates that such a concentration can result in approximately 0.28 percent increase in non-injury mortality, or an increased mortality at a rate of approximately 20 “excess deaths” per year per one million population in San Francisco. “Excess deaths” (also referred to as premature mortality) refer to deaths that occur sooner than otherwise expected, absent the specific condition under evaluation; in this case, exposure to PM_{2.5}. (San Francisco Department of Public Health, Occupational and Environmental Health Section, Program on Health, Equity, and Sustainability, “Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review, May 6, 2008. Twenty excess deaths per million based on San Francisco’s non-injury, non-homicide, non-suicide mortality rate of approximately 714 per 100,000. Although San Francisco’s population is less than one million, the presentation of excess deaths is commonly given as a rate per million population.)

¹⁷ It should be noted that the Air Quality Assessment was requested for a prior application which included residential development on properties on Brewster Street, Joy Street, and Holladay Avenue.

¹⁸ Letter from Thomas H. Rivard, MS, REHS, Senior Environmental Health Specialist, San Francisco City and County, Department of Public Health, to Kelton Finney, P.E., Senior Project Manager, Santos & Urrutia Structural Engineers, Inc. September 26, 2009.

Conclusion:

CEQA State Guidelines Section 15300.2 states that a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances. There are no unusual circumstances surrounding the current proposal that would suggest a reasonable possibility of a significant effect. The proposed project would have no significant environmental effects. Under the above-cited classifications, the proposed project is appropriately exempt from environmental review.

Exhibit 3



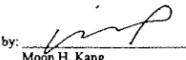
M. K. ENGINEERING INC.
Professional Mechanical/Engineering Consultants

FIRE FLOW CALCULATION

Date: March 1, 2011

1. Project: Brewster Street, Block #5577, Lot #10, San Francisco, CA
 2. Building Type: V
Occupancy: R-3, U
Number of Stories: 4 Stories
 3. Total Fire Area: 2,213.62 ft²
 4. Fire flow requirement:
 - a) Per 2010 CFC, Section B105.1
1,000 gpm x 0.5 (50%) = 500 gpm
 - b) Estimated fire sprinkler demand:
 - 1) Fire sprinkler:
0.1 gpm/ft² x 217.5 ft² x 4 heads = 87 gpm

Total demand of fire sprinkler: 87 gpm @ 20 psi
 - c) Required fire flow at hydrant: Sum of a & b
587 gpm @ 20 psi
 5. Available water flow at this site:
Static Pressure: 81 psi, Residual Pressure: 54 psi and Flow: 1,100 gpm
- Available $Q = 1,100 \left[\frac{81 - 20}{81 - 54} \right]^{1.85} = 1,708 \text{ gpm @ } 20 \text{ psi}$

Calculated by: 

Moon H. Kang

3450 3rd Street, Suite 4B - San Francisco, CA 94124 - Tel: (415) 282-3100 Fax: (415) 282-3101 - www.mkengrs.com

12/22/2010 15:54 1668 SFPD WATERFLOW PAGE 01/02



SAN FRANCISCO FIRE DEPARTMENT
BUREAU OF FIRE PREVENTION
PLAN CHECK DIVISION/WATER FLOW
1660 MISSION STREET, 4TH FLOOR
SAN FRANCISCO, CA 94103
FAX 9 415-628-6933

REQUEST FOR WATER FLOW INFORMATION

DATE: 12/1/10 REQUEST IS FOR: OVERFLOW
SPRINKLER DESIGN

CONTACT PERSON: Marie Mallard ADDRESS: 1835 Gth Ave
PHONE NO. (415) 640-1428 FAX NO. (415) 751-1716
OWNER'S NAME/PHONE: /

ADDRESS FOR WATER FLOW INFORMATION: PROVIDE SKETCH HERE:
Empty Lots across from 1835 Gth Ave
CROSS STREETS (WIDTH ARE REQUIRED):
Brewster 1 Way

SPECIFY STREET FOR POINT OF CONNECTION: Brewster Street

OCCUPANCY (CIRCLE ONE): R³ LIVE/WORK COMMERCIAL OTHER

HAZARD CLASSIFICATION: LIGHT ORD 1 ORD 2 EXT 1 EXT 2 OTHER

NUMBER OF STORIES: 4 HEIGHT OF BLDG. (F, S, D, FT):

- SUBMIT FORM WITH A \$100 CHECK MADE PAYABLE TO S.F.P.D.
- REQUESTS REQUIRING A FIELD FLOW TEST WILL BE NOTIFIED BY FAX AND AN ADDITIONAL FEE OF \$2500 WILL BE NECESSARY.
- WATER FLOW INFORMATION WILL BE RETURNED BY FAX OR MAIL.
- INCOMPLETE FORMS WILL NOT BE PROCESSED.
- PLEASE ALLOW 7-14 WORKING DAYS FOR PROCESSING.

Flow data provided by: Mike Jones Date Forwarded: 12-22-10

Flow data: YIELD FLOW TEST STATIC 81 PSI
RECORDS ANALYSIS RESIDUAL 54 PSI
Date Page: 158 FLOW 1100 GPM
MAIN 6 IN

IF YOU HAVE ANY QUESTIONS PLEASE CONTACT INSPECTOR JONES @ 415-538-6114

M.K. ENGINEERING INC.
PROFESSIONAL MECHANICAL
ENGINEERING CONSULTANTS
3450 3rd STREET,
BLDG 4, SUITE B,
SAN FRANCISCO, CA 94124
TEL: (415) 282-3100



ISSUED	DATE

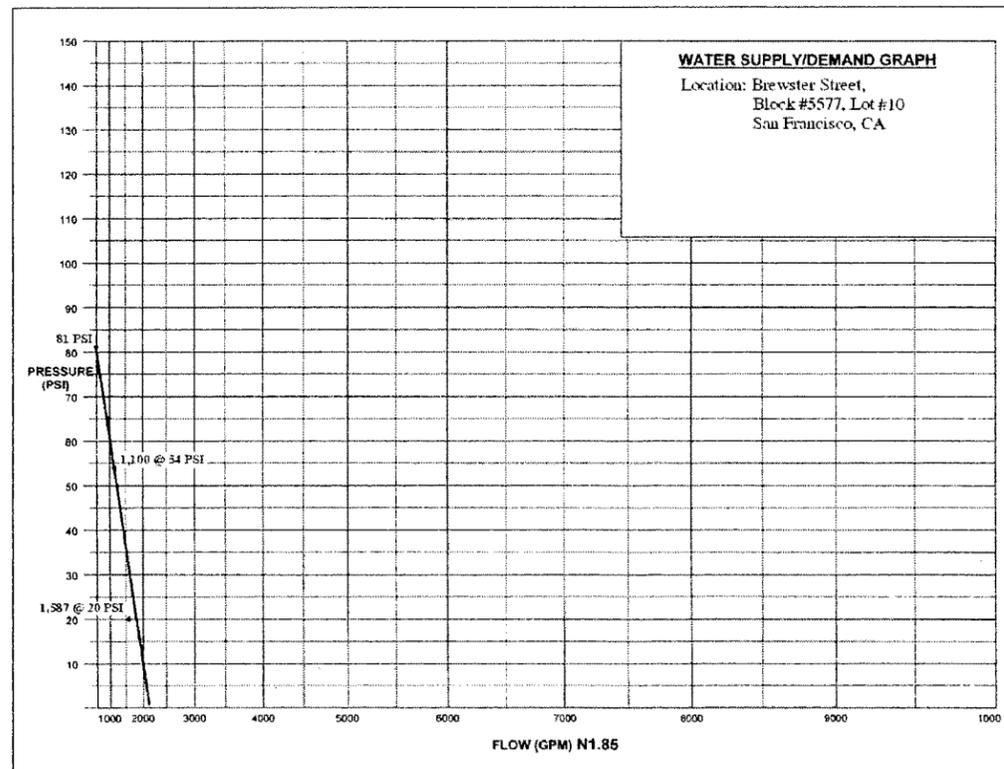
PROJECT TITLE
NEW SINGLE FAMILY HOUSE

Brewster Street,
Block #5577, Lot #10,
San Francisco, CA

FILE NO.
DRWN BY H. KIM
DATE: 02-24-11
CHK'D BY M.K.
DATE: 02-24-11
PROJ. NO. 11011

SHEET DESCRIPTION
**FIRE SPRINKLER SYSTEM-
WATER FLOW INFORMATION
FIRE FLOW CALCULATION
AND FLOW GRAPH**

SHEET NO.
FF -1.0



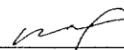
FIRE FLOW CALCULATION

Date: March 1, 2011

1. Project: Brewster Street, Block #5577, Lot #11, San Francisco, CA
 2. Building Type: V
Occupancy: R-3, U
Number of Stories: 4 Stories
 3. Total Fire Area: 2,165.50 ft²
 4. Fire flow requirement:
 - a) Per 2010 CFC, Section B105.1
1,000 gpm x 0.5 (50%) = 500 gpm
 - b) Estimated fire sprinkler demand:
 - 1) Fire sprinkler:
0.1 gpm/ft² x 217.5 ft² x 4 heads = 87 gpm

Total demand of fire sprinkler: 87 gpm @ 20 psi

 - c) Required fire flow at hydrant: Sum of a & b
587 gpm @ 20 psi
 5. Available water flow at this site:
Static Pressure: 81 psi, Residual Pressure: 54 psi and Flow: 1,100 gpm
- Available $Q = 1,100 \left[\frac{81 - 20}{81 - 54} \right]^{1.85} = 1,708 \text{ gpm @ 20 psi}$

Calculated by: 
Moon H. Kang



SAN FRANCISCO FIRE DEPARTMENT
BUREAU OF FIRE PREVENTION
PLAN CHECK DIVISION/WATER FLOW
1600 MINSION STREET, 4TH FLOOR
SAN FRANCISCO, CA 94133
FAX # 415-688-6933

REQUEST FOR WATER FLOW INFORMATION

DATE: 12/1/10 REQUEST IS FOR: FIRE FLOW & SPRINKLER DESIGN

CONTACT PERSON: Mario Roldan ADDRESS: 1355 6th Ave
PHONE NO. (415) 640-5488 FAX NO. (415) 753-1716
OWNER'S NAME/PHONE # 1

ADDRESS FOR WATER FLOW INFORMATION: PROVIDE SKETCH HERE:
Empty lots across from 1688 Brewster
CROSS STREETS (NOT NEEDED):
Brewster / Jay

SPECIFY STREET FOR POINT OF CONNECTION: Brewster Street

OCCUPANCY (CIRCLE ONE): R³ LIVE/WORK COMMERCIAL OTHER _____

HAZARD CLASSIFICATION: LIGHT ORD 1 ORD 2 EXT 1 EXT 2 OTHER _____

NUMBER OF STORIES: 4 HEIGHT OF BLDG: 13.0 FT.

- SUBMIT FORM WITH A FILING CHECK MADE PAYABLE TO THE CITY
- REQUESTS REQUIRING A FIELD FLOW TEST WILL BE NOTIFIED BY FAX AND AN ADDITIONAL FEE OF \$225.00 WILL BE NECESSARY.
- WATER FLOW INFORMATION WILL BE RETURNED BY FAX OR MAIL.
- INCOMPLETE FORMS WILL NOT BE PROCESSED.
- PLEASE ALLOW 7-14 WORKING DAYS FOR PROCESSING.

Flow data provided by: Mike Jones Date Forwarded: 12-22-10

Flow date: FIELD FLOW TEST STATIC 81 PSI
RECORDS ANALYSIS RESIDUAL 54 PSI
Date Fwd: 138 FLOW 1100 GPM
MAIN 6 PSI

IF YOU HAVE ANY QUESTIONS PLEASE CONTACT INSPECTOR JONES @ 415-578-6114



ISSUED	DATE

PROJECT TITLE
NEW SINGLE FAMILY HOUSE

Brewster Street,
Block #5577, Lot #11,
San Francisco, CA

FILE NO.	
DRWN BY	H. KIM
DATE	02-24-11
CHK'D BY	M.K.
DATE	02-24-11
PROJ. NO.	11011

SHEET DESCRIPTION
**FIRE SPRINKLER SYSTEM-
WATER FLOW INFORMATION
FIRE FLOW CALCULATION
AND FLOW GRAPH**

SHEET NO.
FF -1.0

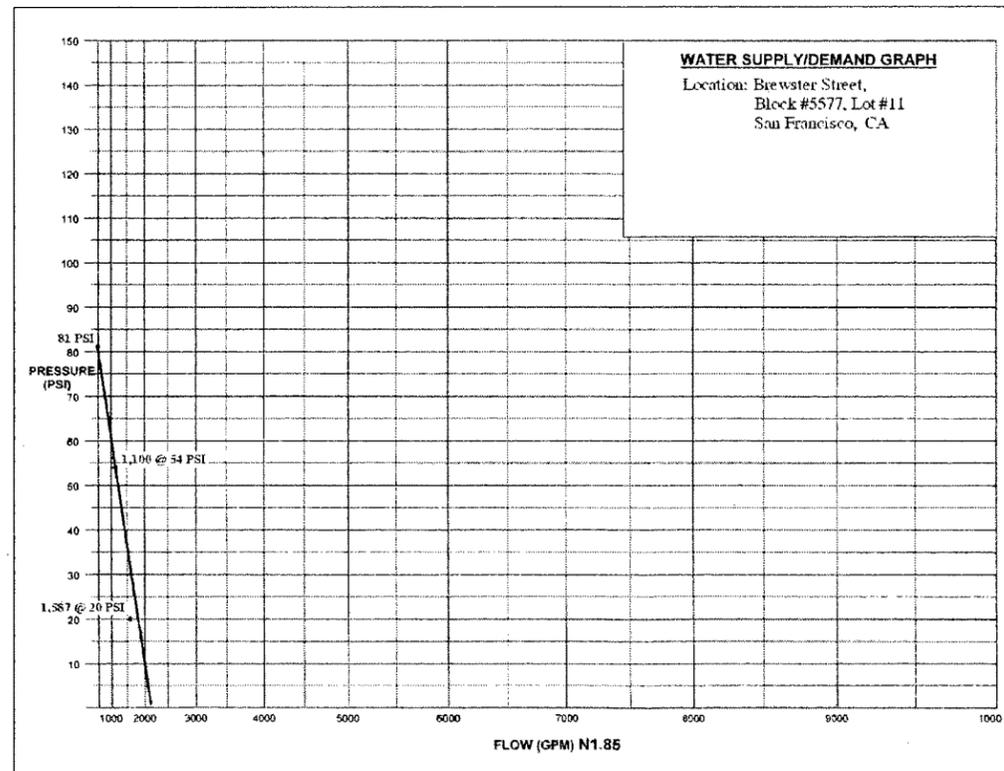


Exhibit 4

City and County of San Francisco



Gavin Newsom, Mayor
Fred Abadi, Director



(415) 554-8318
FAX (415) 554-3308
<http://www.sfdpw.com>

Hydraulic Engineering
1680 Mission Street, 2nd Floor
San Francisco, CA 94103

Ken Stn, Section Manager

No. 0471 P. 2

March 21, 2007

Bernal Height -
Brewster / Joy Streets
7.3.3B

Planning Dept.
1660 Mission Street, Suite 500
San Francisco, CA 94103-2424

Attention: Ms. Kimberly Durandet

Ladies and Gentlemen:

This is in addition to the letter dated February 9, 2007 (copy attached) regarding project area on Brewster Street between Joy Street and Esmeralda Avenue.

Subject developer has presented us with a plan showing the construction of a "Private" driveway and sewer system. Sewers from the back of these lots will flow into a proposed 12" diameter sewer and be connected to an existing manhole on the existing 18" diameter sewer running along Holladay Avenue.

This project will have no impact to the sewers on Brewster Street or to Joy Street since there is no side sewer connection to these sewers.

The problem at 18 Joy Street was due to root intrusion into the sewer line and was repaired by DPW-BSSR on December 2005.

As far as we are concerned, proposed sewage from this project will have no impact to the existing 18" diameter sewer on Holladay Avenue.

If there are any further questions, please write to the Department of Public Works, Bureau of Engineering, Hydraulic Section, 1680 Mission Street, 2nd Floor, San Francisco, CA 94103 or call (415) 554-8318.

Very truly yours,

Nathan Lee
Hydraulic Section

Mar. 21. 2007 7:28AM

Attachments: As Noted.

"IMPROVING THE QUALITY OF LIFE IN SAN FRANCISCO"

We are dedicated individuals committed to teamwork, customer service and continuous improvement in partnership with the community.
Customer Service Teamwork Continuous Improvement

City and County of San Francisco



Gavin Newsom, Mayor
Fred Abadi, Director



(415) 554-8318
FAX (415) 554-8308
http://www.sfdpw.com

Hydraulic Engineering
1680 Mission Street, 2nd Floor
San Francisco, CA 94103

Ken Sin, Section Manager

No. 0471 P. 3

February 9, 2007

7.3.3B

Planning Dept.
1660 Mission Street, Suite 500
San Francisco, CA 94103-2424

Attention: Ms. Kimberly Durandet

Ladies and Gentlemen:

This is in reply to your facsimile of February 6, 2007 regarding the project area on Brewster Street between Joy Street and Esmeralda Avenue.

The answers to your questions are as follows:

1. Brewster Street was realigned about 10 years ago and new sewers were installed at that time.
2. Hydraulic Section had not been informed of this proposal by the bureau of Street Use and Mapping yet.
3. This system can handle the development of the proposed project. Installations of fixtures below street grade will have to be pumped up to meet a gravity system.
4. The City does not have any plans for future improvements in this area.
5. For future conditions and capacity, the developer may want to construct a new sewer ("Private") on the back of the property to facilitate pumping fixtures built below street grades.

Enclosed, for your information, are as follows:

- a. General Area Sewer Map
- b. Plans 61395 and 61396

If there are any further questions, please write to the Department of Public Works, Bureau of Engineering, Hydraulic Section, 1680 Mission Street, 2nd Floor, San Francisco, CA 94103 or call (415) 554-8318.

Very truly yours,

Nathan Lee
Hydraulic Section

Attachments: As Noted.

Mar. 21. 2007 7:28AM

"IMPROVING THE QUALITY OF LIFE IN SAN FRANCISCO"

We are dedicated individuals committed to teamwork, customer service and continuous improvement in partnership with the community.

Customer Service

Teamwork

Continuous Improvement

Exhibit 5



Since 2000
1990's
1980's

Proposed development
additional lots owned by same company

Exhibit 6

**HAROLD LEWIS & ASSOCIATES
GEOTECHNICAL CONSULTANTS**

**FOUNDATION INVESTIGATION
PROPOSED RESIDENCE AT
191 BREWSTER STREET
SAN FRANCISCO, CALIFORNIA**

2418 Sixteenth Ave. * San Francisco, 94116 * 415\665-9678

HAROLD LEWIS & ASSOCIATES GEOTECHNICAL CONSULTANTS

HAROLD L. LEWIS C.E.

2418 Sixteenth Ave. * San Francisco, 94116 * 415\665-9678

June 29, 2006
Project SF-06-606-6

Salvio Street LLC.
139 Casitas Avenue
San Francisco, Ca. 94127

RE: Foundation Investigation
Proposed Residential Building
191 Brewster Street
San Francisco, California

Gentlemen:

In accordance with your request, we have performed a foundation investigation for the proposed residential building to be located at 191 Brewster Street, in San Francisco, California. The accompanying report presents the results of our investigation and engineering analyses, which were based on widely spaced exploratory borings. As a result, variations between the anticipated and actual soil conditions may be found in localized areas during construction.

Based on our studies, it is our opinion that the site is suitable for the proposed construction. The following discussions and recommendations satisfy the intent of California Building Code Section 1806.5.6. The conclusions and recommendations presented in this report are contingent upon our office being retained to review the final design plans and specifications, and to observe the earthwork and foundation aspect of the construction.

We refer you to the text of the report for a detailed discussion of our findings, conclusions and recommendations.



Very truly yours,


HAROLD L. LEWIS
C.E. 33799

**HAROLD LEWIS & ASSOCIATES
GEOTECHNICAL CONSULTANTS**

**FOUNDATION INVESTIGATION
PROPOSED RESIDENCE AT
191 BREWSTER STREET
SAN FRANCISCO, CALIFORNIA**

2418 Sixteenth Ave. * San Francisco, 94116 * 415\665-9678

FOUNDATION INVESTIGATION

FOR:

PROPOSED RESIDENCE AT
191 BREWSTER STREET
(LOT 09 IN BLOCK 5577)
SAN FRANCISCO, CALIFORNIA

TO:

SALVIO STREET LLC.
139 CASITAS AVENUE
SAN FRANCISCO, CA. 94127

JUNE, 2006

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**FOUNDATION INVESTIGATION
FOR
PROPOSED RESIDENTIAL BUILDING
191 BREWSTER STREET
SAN FRANCISCO, CALIFORNIA**

INTRODUCITON

In this report, we present the results of our foundation investigation for the proposed residential building to be located at 191 Brewster Street, (Lot 9 in Block 5577) approximately 22-feet north of the intersection with Esmeralda Avenue, in San Francisco, California, as shown on the attached Site Plan, Figure 2. The purpose of this investigation was to evaluate the subsurface materials at the site and to provide recommendations concerning the soil and foundation engineering aspects of the proposed residential development.

PROPOSED CONSTRUCTION

Although we have not seen the final plans, it is our understanding that the proposed building will be a two- to five-story wood-frame structure with a street level garage and entrance area. The upper level living areas, street level garage space and foyer area will be supported on structural wood floors. Slabs-on-grade may be employed in lower level living space. Building loads are expected to be typical for the proposed type of construction.

Since the building will be constructed over the downward sloping hillside, earthwork operations at the site will consist of minor excavations that will notch into the hillside for portions of the lower levels and limited grading to establish a building pad and to provide surface drainage gradients. Retaining walls may be required along the driveway and around the rear and sides of the dwelling. Due to relatively deep deposits of fill and natural soils that uncomfortably overlie a steeply sloping bedrock surface, excavations will also be

required for the drilled friction piers that we have recommended for foundation support of the proposed residence.

SCOPE

The scope of our work, which was outlined in our letter dated January 1, 2006, included a site reconnaissance by the undersigned, review of data from subsurface exploration and laboratory testing performed by our office on the lot and on nearby lots several years ago, engineering analyses of the field and laboratory data, and the preparation of this report which includes soil engineering recommendations for the proposed residence.

The scope of our services did not include an environmental assessment or investigation for the presence of hazardous or toxic materials in the soil, groundwater or air, on, below or around the site. In addition, our scope of work did not include an evaluation of nor investigation for the presence or absence of Wet Lands.

SITE INVESTIGATION

An initial site reconnaissance was performed by our office on August 26, 1985, our most recent site reconnaissance was performed on May 1, 2006. More detailed site reconnaissance and our subsurface exploration were performed by the undersigned engineer on August 30, 1985 and September 3, 1985. Two exploratory borings were drilled with a trailer-mounted continuous-flight auger rig near the front of the proposed dwelling at accessible locations on the adjacent lots to the north and south. Five additional exploratory borings were drilled at accessible locations on nearby lots with both trailer-mounted and portable-power continuous-flight auger rigs. The adjacent boring was drilled into weathered bedrock materials, extending to a depth of 20-feet. The nearby borings, which ranged from 9- to 20-feet in depth, also were drilled into weathered bedrock materials. The approximate locations of these exploratory borings are shown on the Site Plan, Figure 2. Logs of the adjacent boring and nearby borings along with details regarding our field and laboratory investigations are included in Appendix A.

A. SITE FEATURES

The undeveloped site would be rectangular in shape, with overall plan dimensions of approximately 25- by 70-feet, except for a 6- by 15-foot right triangle that has been removed from the southeastern corner of the plot (see Figure 2). The property is bounded on the north, south and east by vacant land. The lot fronts on Brewster Street, which parallels the western property line.

Topography of the general area and of the site slopes downward to the east at variable inclinations due to natural geologic evolution and, to a lesser degree, the past earthwork operations associated with the intermittent development of this older residential neighborhood. Generally, site grades decline steeply eastward at 1.2:1 to 2.4:1 declinations (horizontal to vertical) that continue to the eastern property line.

During our reconnaissance of the site, we did not observe any areas of major instability and no major slides have been mapped on the property. However, we did observed indications of sloughing, erosion and "creep" type downhill movement of the surface soils at random locations across the steep slopes. Similar "creep" type movement of the surface soils were also observed on the adjacent properties to the north, east and south.

Surface vegetation on the lot consisted of a moderate to very heavy growth of wild berry vines, weeds and thick brush. There were also light to moderate amounts of natural debris scattered over the property.

B. SUBSURFACE CONDITIONS

The U.S.G.S. "Geologic Map of the San Francisco South Quadrangle", indicates that the site is located in a complex geologic area. The property appears to be underlain by Greenstone bedrock materials near geologic contacts with Sandstone, Shale and Radiolarian Chert bedrock materials. These rock types belong to the Franciscan Formation. The Greenstone rock materials generally consist of greenish-gray aphanitic to medium grained altered volcanic rocks; predominantly basalt. When in contact with Chert, the Greenstone is commonly highly weathered and often altered with

clayey seams on the bedding plans. The mapped bedrock materials were observed on massive outcropping/cut slopes to the west of the site along Brewster Street.

Exploratory Borings 1 and 2, which were drilled on adjacent lots to the south and north at an accessible locations near the front portion of the proposed building, encountered roughly 5½- and 8-feet of fill, respectively. The fill, which consisted of stiff gravelly sandy clay, was underlain by hard and stiff sandy silty clay with variable amounts of rock fragments that extended to depths of about 8½ and 13-feet. These clayey slope debris type materials were followed by very weathered, fractured and decomposed Greenstone bedrock materials that extended to the maximum depth explored, 20-feet

Exploratory Boring 3, which were drilled on nearby Lot 13 located to the north, encountered roughly 7.5-feet of fill. The fill, which consisted of medium dense gravelly clayey sand, was underlain by hard sandy silty clay with variable amounts of rock fragments that extended to a depth of about 8.5-feet. These clayey slope debris type materials were followed by very weathered, fractured and decomposed Greenstone and Shale bedrock materials that extended to the maximum depth explored, 20-feet.

Exploratory Boring 4 through 7, which was drilled at accessible locations on adjacent and nearby lots further down-slope to the northeast of the property, encountered approximately 3- to 8-feet of stiff to hard sandy and silty clay with variable amounts of rock fragments. This layer of surface overburden soil were directly underlain by weathered and fractured Greenstone bedrock materials that extended to the depths explored, 9- to 12-feet.

Please note that the drilling resistance encountered in the borings indicated that the bedrock materials graded less weathered and more competent with depth.

Free groundwater was not observed in our borings and probably exists at depths somewhat greater than those explored. However, based on the hillside location of the property and our experience in the general area of the site, it is our opinion that groundwater seepage may be encountered at the site, in the required excavations and behind retaining walls, particularly after prolonged rains in the wet season.

We wish to point out that the exploration at the subject site was extended to the maximum depth possible (practical refusal) with the trailer-mounted continuous-flight auger-rig used. In our opinion the information obtained from our adjacent exploratory borings combined with subsurface information from the nearby exploratory borings and additional data in our files from investigations we have performed in the nearby lots within the neighborhood to the north along Joy Street and to the west along Brewster Street and from geologic maps is of sufficient detail and extent to provide soil and foundation engineering design recommendations for the proposed structure. Therefore, deeper and more extensive exploration at the site was not warranted.

GEOLOGIC HAZARDS

Geologic hazards that are not a problem at this site include but not limited to; (1) liquefaction and surface subsidence, (2) expansive and shirking soils, (3) inundation due to reservoir failure, (4) submersion from tsunami wave, (5) volcanic eruption and (6) flooding. Seismicity, landsliding, soil erosion and earthquake hazards are discussed below.

According to the San Francisco Seismic Safety Investigation Report (John A. Blume and Associates, May, 1974) the site, as well as other buildings in the area, lie in a zone of potential landslide hazard. Although, over the years, the U.S.G.S. has mapped several small to medium size landslides within the neighborhood, none have occurred on the site.

During construction, any hazard resulting from slope instability will be mitigated by close adherence to our recommendations on earthwork operations. Since modern engineered retaining walls will support all changes in grade resulting from the construction, our analyses indicates that a potential for slope instability or landsliding due to the proposed construction should not exist.

All exposed soil slopes are subject to varying degrees of erosion from wind scour and surface water runoff, the slopes at the site are not an exception. The quantity of soil subject to eroded is difficult to predict because of a number of variables, which include the declination of the hillside, composition of the surface soils, direction and velocity of

the wind, the quantity and concentration of the surface water runoff, the past history of the slope and human activity. We wish to note that the quantity of soil eroded from a gentle to moderate slope will normally decrease over time, as the easily transported soil particles are moved early in the life of the slope, to generally achieve a steady-state condition where erosion is limited to soil particles freshly migrated onto the slope from other areas and soil particles derived from weathering and decomposition of on-site materials. For steep slopes the initial stages of erosion are rapid and extensive and are usually accompanied by sloughing and even sliding, which eventually result over time in a less steep slope and a decrease in the rate of earth contouring.

We estimate that the slopes at the site are over 50-years old (possible much older) and as such have been subject to several seasons of greater than normal rainfall; most recently the two back-to-back "once in a hundred years" rain storms of 1981 and 1982 then again in the near record breaking rains of 2005-2006. Ergo the slopes at the site have reached or are approaching a steady-state of erosion with regard to direct normal precipitation.

However, construction activities at the site are expected to disturb the surface soils at the site increasing the potential for greater than normal erosion. Standard methods of soil erosion control should be employed at the site during and for a couple of years after the construction of the building; this should include, but should not be limited to, appropriately located silt-fencing and hay bales, temporary rainwater diversion ditches with collection and settling basins, planting of both suitable short and long term vegetation and on steep slopes permanent surface water runoff control facilities. We discuss recommended surface water runoff control facilities and vegetation below in Item A, "Site Preparation, Earthwork Operations and Surface Drainage"

SEISMICITY

As with the rest of the San Francisco Bay Area, the site is As with the rest of the San Francisco Bay Area, the site is considered to be in one of the most seismically active regions of the United States. The nearest active faults are the northwest-trending San Andreas and Hayward Faults, which are

mapped approximately 7 miles southwest and 11.5 miles northeast of the site, respectively. Other faults in the general vicinity of lesser or unknown activity are the northwest-trending City College and San Bruno Faults, which are mapped about 2.3 and 5 miles southwest of the site, respectively.

Although research on earthquake prediction has greatly increased in recent years, seismologists have not yet reached the point where they can accurately predict when and where an earthquake will occur. Nevertheless, on the basis of current technology, it is reasonable to assume that the proposed building will be subjected to at least one moderate to severe earthquake.

Furthermore, a magnitude 6.7 or larger earthquake with an epicenter much closer to San Francisco than that of the 1989 Loma Prieta earthquake is presently predicted, by the U.S.G.S., to have a 62 percent probability of occurrence by the year 2032. During such an earthquake, the danger from fault offset through the site is remote; however, strong shaking of the site with an intensity greater than that of the Loma Prieta earthquake and for a longer duration is likely to occur.

NEAR-SOURCE SEISMIC COEFFICIENTS

The 1997 Uniform Building Code incorporates a near-source factor for calculation of the design base shear and response spectra within UBC Seismic Zone 4. This factor accounts for the high ground motion and structural damage that have been observed within a few kilometers of historical earthquake ruptures.

We have determined the following parameters to assist the Structural Engineer in their analyses. The subject site is located within 6.2-kilometers of the San Andreas Fault.

NEAR-SOURCE SEISMIC COEFFICIENTS

SEISMIC ZONE TYPE	SEISMIC SOURCE TYPE	SOIL PROFILE ROCK*	NEAR-SOURCE FACTOR N_a	NEAR-SOURCE FACTOR N_v
4	A	S _B	1.15	1.50

* Average soil properties for the top 100-feet of soil profile.

CONCLUSIONS AND RECOMMENDATIONS

Based on our field and office studies, it is our opinion that from a soil and foundation engineering standpoint, the site is suitable for the proposed construction, provided that the recommendations presented in this report are incorporated into the design and construction of the proposed residence. The following recommendations and discussions presented above and below satisfy the intent of California Building Code Section 1806-5-6.

Since the site is located in steeply sloping terrain that is blanketed by variable depths of both fill materials and natural clayey soils, we recommend that the proposed building be supported on drilled, cast-in-place friction piers that are extended through these overburden soils into the underlying weathered bedrock materials. The piers must be reinforced with extra steel to resist potential downward "creep" type movement of the surface materials and should be tied together with grade beams

Our analyses also indicate that in order to provide adequate support for any slabs-on-grade, the upper 2-feet of the supporting subgrade must be over-excavated and recompacted.

Since the site is located on a steep hillside, within a natural drainage basin, heavy surface rain water runoff should be expected and planed for. In addition, erosion of the surface soils at the site must be carefully controlled, as discussed above. Concentrated water should not be allowed to flow across any slopes as erosion or weakening of surface soils could

occur. We recommend that all areas of the site that are disturbed by the construction be heavily planted with appropriate ground cover. You should consult with a landscape architect regarding the replanting of the property.

Detailed soil and foundation engineering recommendations are presented in the subsequent sections of this report. All conclusions and recommendations presented in this report are contingent upon **Harold Lewis and Associates** being retained to; (1) review the final grading and foundation plans prior to construction, (2) observe and test the over-excavated and recompacted of surface soils under the slabs-on-grade, (3) observe the installation of the pier foundations, (4) observe the installation of drains behind the retaining walls and (5) observe the installation of recommended surface drainage facilities.

A. SITE PREPARATION, EARTHWORK OPERATIONS AND SURFACE DRAINAGE

The area of the proposed building should be cleared of all obstructions including all existing natural debris. In conjunction with the clearing operations, the area of the proposed improvements should be stripped of all surface vegetation. All the cleared and stripped materials should be removed from the site. Any holes resulting from the removal of underground obstructions that extend below finished grades should be backfilled with approved materials that are compacted to the requirements presented below.

After the site is properly cleared, the excavation operations can be performed, any required fill may be placed and the foundation can be installed. We recommend that all slabs-on-grade be supported on at least 2-feet of engineered fill materials, select existing on-site materials that are over-excavated and recompacted or imported fill materials.

The exposed subgrade at the bottom of all required excavations should be inspected by a representative of our office. Any detrimental materials exposed at the subgrade level (such as soils containing rubble or appreciable organics) should be removed to depths specified by our field representative and replaced with fill compacted to the requirements given below.

The exposed subgrade in areas to receive fill should be scarified, moisture-conditioned, and compacted to the requirements given below. All on-site soils having an organic content of less than 3 percent by volume are suitable for use as fill. Any imported fill material used at the site should be a non-expansive material with a plasticity index of 12 or less. All structural fill materials 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 2½-inches.

All structural fill placed at the site should be compacted with light equipment to at least 90 percent relative compaction by mechanical means only, as determined by ASTM Test Designation D1337-70. The upper 6-inches of subgrade soil under slabs-on-grade should, however, be compacted to at least 95 percent relative compaction. The fill materials should be placed in lifts not exceeding 8-inches in uncompacted thickness.

During the excavations operations, temporary slopes should have a maximum vertical face of 4-feet with temporary cut slopes above the vertical face having a maximum inclination of 1:1 (horizontal to vertical) in approved clayey materials. If poor quality materials or seepage are encountered in the excavations the temporary slopes will have to be appropriately flattened. Conversely, if very competent materials are exposed during the excavation operations the inclination of the temporary slopes may be increased. The materials exposed in the excavations should be evaluated by a representative from our office during the initial stages of the excavation operations.

We recommend that any new cut and fill slopes at the site have a maximum inclination of 2:1. Where any cut and fill slopes are exposed and where existing slopes are left at their present inclinations, minor erosion and surface sloughing could occur, thus requiring periodic maintenance of the slopes.

We recommend that all unsupported fill place on the site be keyed and benched into competent materials; such fill should be thoroughly compacted to the face of the slopes by continually track-rolling the slopes as fill is being placed or by overfilling the slopes by 1- to 2-feet and then cutting back the slopes after the filling operations are completed.

Concentrated water should not be allowed to flow across any slopes as erosion or weakening of surface soils could occur. Control of surface water runoff on the rear slope to the east of the proposed building will require the construction of a concrete lined surface ditch near the eastern boundary to intercept rainwater runoff during periods of heavy precipitation.

We recommend that at least one concrete lined surface drainage ditch be constructed across the natural slope near the eastern property line. This surface drainage ditches will control the quantity and velocity of surface water runoff and prevent inundation of the adjacent down-slope lots. The exact location of this drainage facility should be determined in the field by a representative from our office at the time of construction. Please note, that natural colored concrete, such as tan or brown, will eliminate or minimize the visual impact of the recommended ditch on the hillside.

The surface drainage ditch should be constructed of reinforced concrete and have a minimum width of 2-feet and a minimum depth of 1-foot. We recommend that the concrete be at least 3-inches in thickness and be reinforced with at least three #3 bars; one bar along each edge and one bar along the bottom of the ditch. The ditch should be sloped to drain toward catch basins and the collected water should be transported through closed pipes to suitable discharge facilities; possible the street right-of-way to the north of the site. The ditch and catch basins will require periodic cleaning and maintenance to function properly.

We recommend that all exposed slopes be appropriately planted to minimize the potential for erosion and surface sloughing. We recommend that all new cut and/or fill slopes and any existing slopes that are disturbed during the construction operations be covered with jute mesh (or the equivalent) and heavily planted with both a fast growing variety of plant and with a permanent variety of ground cover. The slopes should be planted as soon as possible after the installation of foundations to minimize the potential for erosion and surface sloughing. Site irrigation should not be done in an uncontrolled or unreasonable fashion, but only as required for plant survival. It would be desirable to utilize native plant varieties requiring minimal watering. You should consult with a landscape architect.

Positive surface drainage should be provided adjacent to the building to direct surface water runoff away from foundations to suitable discharge facilities. We recommend that rainwater collected on the roof of the building be transported through gutters, down spouts and closed pipes to approved discharge facilities. Specific surface and subsurface drainage requirements for retaining walls are presented below under Item D, "Retaining Walls".

B. PIER FOUNDATIONS

We recommend that the proposed building be supported on drilled, cast-in-place, straight-shaft piers that are designed to develop their load-carrying capacity through friction between the sides of the piers and the surrounding subsurface bedrock materials. **Friction piers should have a minimum diameter of 18 inches.** The spacing of the piers should be determined by the Designer, but in no case shall the center-to-center spacing of the piers be closer than three diameters. All piers should extend to a **minimum depth of 22-feet** below the bottom of grade beams or at least **10-feet into approved bedrock materials**, which ever is deeper. The actual lengths of the piers can be determined using an allowable skin friction value of **600 pounds per square foot for dead plus live loads** with a one-third increase for all loads including wind or seismic. These values can be used starting at a depth of **10-feet** below the grade beams. These values should be used to determine the required penetration into approved bedrock materials; field adjustment to final pier depths should be expected.

All drilled piers must be designed to account for potential "creep" type movement of the overburden soils (both fill and natural) and the weathered upper portion of the bedrock materials that will underlie the building, we recommend that the piers be designed to resist an uniform lateral pressure of **400 pounds per square foot** acting against twice the projected diameter of the piers to a depth of **10-feet** below the grade beams.

Lateral loads on the piers may be resisted by passive pressures acting against the sides of the piers. We recommend a passive pressure equal to an equivalent fluid weighing **400 pounds per square foot** per foot of depth to a maximum value of 3000 pounds

per square foot. This value can be assumed to be acting against $1\frac{1}{2}$ times the diameter of the individual pier shafts starting at a depth of **10-feet** below the grade beams.

We wish to emphasize that fill materials overlie the competent natural soils that the piers will be extended into. Therefore, as a result of these surface conditions, caving of loose/soft soils should be anticipated during the drilling of the piers; this may require the use of temporary steel casing during the installation of the piers.

Concrete should be pumped into each hole as soon as practical after the drilling of the hole is completed. The concreting operations in each pier should be carefully performed so that the concrete fills all of the excavated hole. Where caving soils are present, the casing should be slowly withdrawn so that the concrete never loses contact with the inside of the casing. If the casing is withdrawn ahead of the concrete, the loose soils could flow into the hole creating a discontinuity in the completed pier; such discontinuities would most likely result in detrimental post-construction settlements.

Even though the piers will be designed to develop their capacity through friction, their bottoms should be dry and reasonably free of loose cuttings and fall-in prior to installing reinforcing steel and placing concrete. Any water encountered on the pier excavations must be pumped from the holes prior to placing steel and concrete; alternatively, concrete could be placed underwater using tremie methods.

We recommend that all piers be reinforced with at least four No. 4 bars over their entire length. In addition, we recommend that the piers be tied together with grade beams that extend between the piers. The grade beams should be designed to span between the piers in accordance with structural requirements. The steel from the piers should extend sufficient distance into the grade beams to develop its full strength in bond.

Since all foundations will be extended into competent bedrock materials and will be tied together, post-construction differential settlements across the residence should be negligible.

C. SLABS-ON-GRADE

We recommend that any slabs-on-grade be supported on at least 2-feet of engineered fill (over-excavated and recompacted existing fill and/or compacted new fill) as discussed above under Item A, "Site Preparation, Earthwork Operations and Surface Drainage". Slab reinforcing should be provided in accordance with the anticipated use and loading of the slabs. Prior to final construction of the slabs, the supporting surface should be compacted to provide a smooth, firm surface for slab support.

In any slab area where minor floor wetness would be undesirable, 6-inches of free-draining gravel should be placed beneath the floor slabs to serve as a capillary break 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. The recommended sand and gravel should not be considered as part of the required 2-feet of engineered fill required beneath the slabs-on-grade.

D. RETAINING WALLS

All retaining walls constructed at the site must be designed to resist lateral earth pressures and any additional lateral pressures that may be caused by surcharge loads applied at the ground surface behind the walls.

We recommend that unrestrained walls with a level surface or with a sloping surface flatter than **4:1** be designed to resist an equivalent fluid pressure of **45 pounds** per cubic foot. Where the sloping surface is at an inclination of **1.8:1** (average existing grade) the unrestrained walls should be designed to resist an equivalent fluid pressure of **75 pounds** per cubic foot. For walls with a sloping surface at an inclination between 4:1 and 1.8:1, a straight line interpolation between the 45 and 75 pounds per cubic foot may be used.

We recommend that restrained walls be designed to resist the equivalent pressures given above plus an additional uniform lateral pressure of **8H** pounds per square foot where H = height of backfill above the top of the wall footing in feet. If the

designer determines that there are surcharge loads on any of the walls, they should be designed for an additional uniform lateral pressure equal to one-third or one-half of the anticipated surcharge load depending on whether the wall is unrestrained or restrained.

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 either permeable material and weep holes spaced at a maximum of 4-foot on centers or 4-inch diameter perforated pipes bedded in permeable material. The permeable material should consist of either, a well-graded mixture of sand and gravel, which is approved by our office, or clean gravel that is wrapped with a synthetic filter fabric. For either system, the permeable material placed behind the walls should be at least 1-foot in width and should extend to within 2-feet of finished grade. The upper 2-feet of backfill should consist of compacted on-site materials. Weep holes should drain to suitable inlets and subdrain pipes should be connected to a system of closed pipes that lead to the city storm drainage facilities. Any building walls should be appropriately waterproofed, preferably by Bituthan Panels, or an approved foundation waterproofing system (such as one of the many bentonite clay products) may be used.

Lined surface ditches should be provided behind any retaining walls that will have exposed sloping surfaces draining toward 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 to at least 1-foot above the ditch.

The retaining walls should be supported on pier foundations designed in accordance with the recommendations presented previously under Item **B**, "**Pier Foundations**".

LIMITATIONS

Our services consist of professional opinions, conclusions and recommendations made in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.

The design parameters presented in this report are based on the described project and are intended only for the purpose, site location and development indicated. Significant changes in the proposed development, site conditions and/or subsurface conditions should be brought to the attention of our office; updated and/or supplemental recommendations will be prepared as required. Unanticipated soils and geologic conditions are commonly encountered during earthwork, which cannot be fully determined by limited subsurface investigations. Such conditions may require supplemental studies. In addition, our office can not be responsible for the interpretations made by others regarding the recommendations in this report.

If you have any questions regarding this report, please call us. We would appreciate at least 48 hours notice for our required observations during construction.

Very truly yours,

HAROLD LEWIS & ASSOCIATES



Harold L. Lewis
C.E. 33799

HLL/Pen IV

Enclosures:

Figure 1 - Site Plan

Appendix A - Field and Laboratory Investigations

Figure A-1 - Key to Exploratory Boring Logs

Exploratory Boring Logs 1 through 7

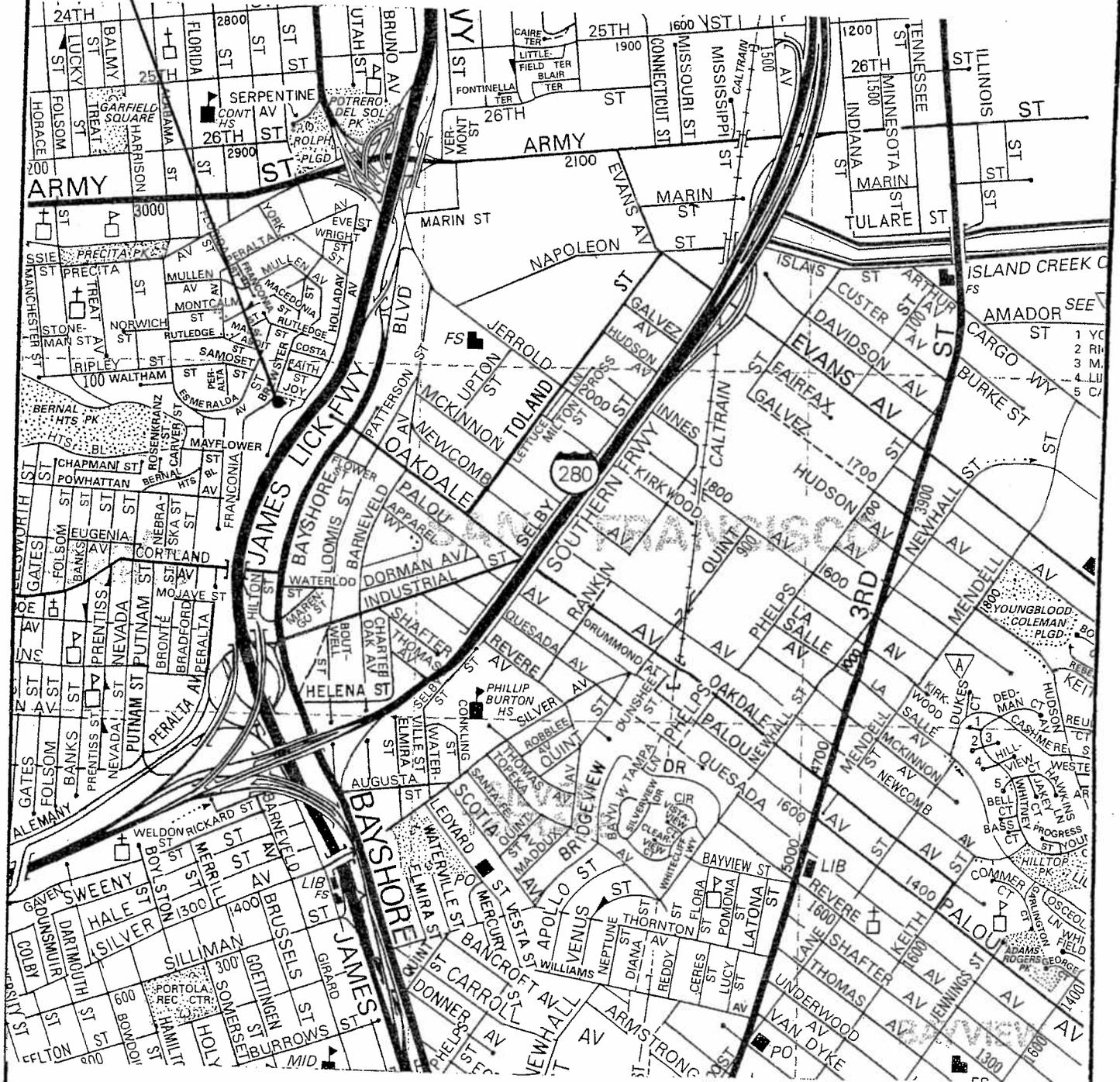
Copies:

Addressee (4)

Santos & Urrutia, Inc. - Structural Engineers (1)

HAROLD LEWIS & ASSOCIATES

S I T E



BASE: THOMAS BORTHERS MAPS

SCALE OF MAP

1-INCH TO 0.25 MILE

**Harold Lewis & Associates
Geotechnical Consultants**

VICINITY MAP

Proposed Residence at 191 Brewster Street
San Francisco, California

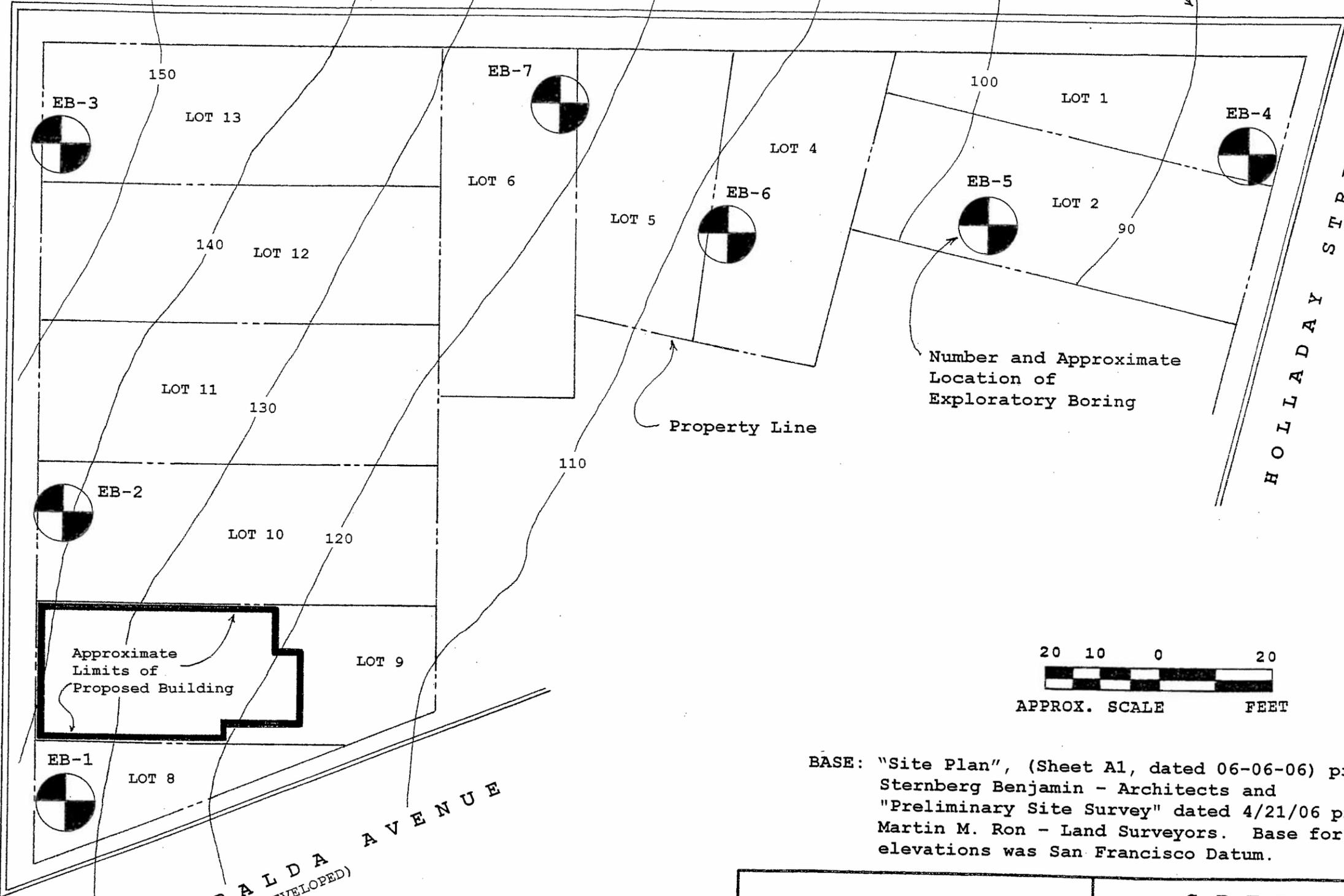
PROJECT NO.	DATE	FIGURE: 1
SF-06-606-6	June, 2006	



BREWSTER STREET

JOY STREET
(UNDEVELOPED)

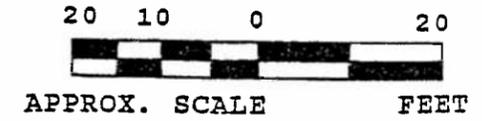
Contour Elevation Lines in Feet
(San Francisco City Datum)



Number and Approximate Location of Exploratory Boring

Property Line

Approximate Limits of Proposed Building



BASE: "Site Plan", (Sheet A1, dated 06-06-06) prepared by Sternberg Benjamin - Architects and "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.

SKETCH FOR ILLUSTRATION PURPOSES ONLY

Harold Lewis & Associates Geotechnical Consultants			S I T E P L A N	
			Proposed Residences on Brewster Street San Francisco, California	
PROJECT NO.	DATE	FIGURE: 2		
SF-06-606-3	June, 2006			

APPENDIX A - FIELD AND LABORATORY INVESTIGATIONSFIELD INVESTIGATION

Our field investigation consisted of detailed site reconnaissance and subsurface exploration performed by the undersigned on August 30, 1985 and September 3, 1985. Two exploratory borings were drilled with a trailer-mounted continuous-flight auger rig near the western boundary of the proposed dwelling at accessible locations on adjacent lots to the south and north. Five additional exploratory borings were drilled at accessible locations on nearby lots with both trailer-mounted and portable-power continuous-flight auger rigs. The adjacent boring was drilled into weathered bedrock materials and extended to a depth of 20-feet. The nearby borings, which ranged from 9- to 20-feet in depth, also were drilled into weathered bedrock materials. The approximate locations of these exploratory borings are shown on the Site Plan, Figure 2.

The materials encountered in our borings were continuously logged in the field by the undersigned. Logs of the borings, as well as a key to the classification of the soils encountered in the borings (Figure A-1) are included as part of this appendix.

Representative disturbed and undisturbed soil samples were obtained from the exploratory borings at selected depths appropriate to the soil investigation. The disturbed samples were obtained using a split spoon sampler. The undisturbed samples were obtained with a Modified California Sampler. The type of sample shown on the boring logs is designated as follows:

 Split Spoon Sample
(2-Inch O.D.)

 Modified California Sample
(2-Inch I.D.)

The Standard Penetration Resistance blow counts were obtained with the split spoon sampler by dropping a 140-pound hammer

through a 30-inch free fall. This hammer was also used to obtain samples with the Modified California Sampler. The samplers were driven 18-inches and the number of blows were 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 sampler the last 12-inches or the number of inches indicated where the sampler did not penetrate the full 18-inches.

The ground surface elevation at the boring locations were estimated from a "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.

The boring logs show our interpretations of the subsurface conditions on the dates and at the locations indicated and it is not warranted that they are representative of the subsurface conditions at other locations and times. Also, the transitions between the material types and their consistencies represents the approximate boundaries; the actual transitions are gradual.

LABORATORY INVESTIGATION

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

The natural water content was determined on 22 samples of the material recovered from the borings; these water contents are recorded on the boring log at the appropriate sample depths.

Dry density determinations were made on 8 samples of the materials recovered from the borings; the results of these tests are presented on the logs of the borings at the appropriate sample depths.

The shear strength was evaluated on 2 samples of the subsurface materials underlying the site utilizing hand-operated penetrometer and torvane shear devices. The results of these tests are shown on the boring logs at the appropriate sample depths and are designated (P) and (T) for penetrometer and torvane, respectively.

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
			GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines.
		SANDS WITH FINES	SP	Poorly graded sands or gravelly sands, little or no fines.
			SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50%	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.	
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	
		OL	Organic silts and organic silty clays of low plasticity.	
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	
		CH	Inorganic clays of high plasticity, fat clays.	
		OH	Organic clays of medium to high plasticity organic silts.	
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils

DEFINITION OF TERMS

SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		
	200	40	10	4	3/4"	3"	12"

U.S. STANDARD SERIES SIEVE CLEAR SQUARE SIEVE OPENINGS

GRAIN SIZES

SANDS AND GRAVELS	BLOWS/FOOT †
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

SILTS AND CLAYS	STRENGTH ‡	BLOWS/FOOT †
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

RELATIVE DENSITY

† 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, torvane, or visual observation

CONSISTENCY

**HAROLD LEWIS & ASSOCIATES
GEOTECHNICAL CONSULTANTS**

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

Proposed Residence at 191 Brewster Street
San Francisco, California

PROJECT NO	DATE
SF-06-606-6	June, 2006

Figure **A-1**

DRILL RIG Continuous Flight Auger		SURFACE ELEVATION See Note 1		LOGGED BY H.L.							
DEPTH TO GROUNDWATER See Note 2		BORING DIAMETER 6-Inches		DATE DRILLED 9-3-85							
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)		
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE								
Silty Sandy Gravel (FILL)	Brown	Medium Dense	GP								
Sandy Silty Clay with Gravel and Rock Fragments	Brown	Stiff	CL								
(FILL) ↑				5							
Sandy Silty Clay with minor Rock Fragments	Tan Brown	Hard	CL								
						90 9"	11	129			
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-	10							
NOTES: (1) Topographic data was not available. (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater). (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.											
				15		60 9"	11	130			
				20		56	13				

BOTTOM OF BORING = 20 FEET

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residence at 191 Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-6	June, 2006	1

DRILL RIG Continuous Flight Auger		SURFACE ELEVATION See Note 1		LOGGED BY H.L.					
DEPTH TO GROUNDWATER See Note 2		BORING DIAMETER 6-Inches		DATE DRILLED 9-3-85					
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Gravelly Sandy Clay	Red Brown	Stiff	CL	5		14	14		
(FILL) ↑									
Sandy Silty Clay with Rock Fragments	Dark Brown	Stiff	CL-	10		15	18	106	2.0 (P)
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-	15		84 12"	12	132	
NOTES: (1) Topographic data was not available. (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater). (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.				20		87	12		

BOTTOM OF BORING = 20 FEET

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residence at 191 Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-6	June, 2006	2

DRILL RIG Continuous Flight Auger	SURFACE ELEVATION See Note 1	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6-Inches	DATE DRILLED 9-3-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Gravelly Clayey Sand with Rock Fragments	Red Brown	Medium Dense	CL	5		25	12		
(FILL)									
Sandy Silty Clay with Rock Fragments	Tan Brown	Hard	CL	10		58	13	111	
Weathered and Fractured Shale Bedrock Materials	Tan	---	-	15		76 12"	11		
				20		80	11		

NOTES:

(1) Topographic data was not available.

(2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).

(3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

BOTTOM OF BORING = 20 FEET

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residence at 191 Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-6	June, 2006	3

DRILL RIG <u>Continuous Flight Auger</u>	SURFACE ELEVATION <u>See Note 1</u>	LOGGED BY <u>H.L.</u>
DEPTH TO GROUNDWATER <u>See Note 2</u>	BORING DIAMETER <u>6-Inches</u>	DATE DRILLED <u>9-3-85</u>

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Light Brown	Stiff	CL	5	[Diagram showing sampler penetration]	49	10		
		Hard							
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-			$\frac{60}{6''}$	11		

BOTTOM OF BORING = 9 FEET

NOTES:

- (1) Topographic data was not available at the time of our field work.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residence at 191 Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-6	June, 2006	NO. 4

DRILL RIG Portable Power Auger	SURFACE ELEVATION See Note 1	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 3-Inches	DATE DRILLED 8-30-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Brown	Stiff	CL	0-5					
	Red Brown	Very Stiff		5-10		44	13	110	2.5 (T) 4.5 (P)
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	--	10-11					
				11-12		58 12"	11		

BOTTOM OF BORING = 12 FEET

NOTES:

- (1) Topographic data was not available at the time of our field work.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residence at 191 Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-6	June, 2006	5

DRILL RIG Portable Power Auger	SURFACE ELEVATION See Note 1	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 3-Inches	DATE DRILLED 8-30-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Light Brown	Stiff Hard	CL	5		59	13	112	
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	----	-	10		48 12"	11		
						32	14		

BOTTOM OF BORING = 10½ FEET

NOTES:

- (1) Topographic data was not available at the time of our field work.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residence at 191 Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-6	June, 2006	6

DRILL RIG Continuous Flight Auger	SURFACE ELEVATION See Note 1	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6-Inches	DATE DRILLED 9-3-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Light Brown	Stiff	CL	0-5		39	13		
Very Weathered and Fractured Greenstone bedrock Materials	Light Brown	----	-	5-10		64	12		

BOTTOM OF BORING = 10½ FEET

NOTES:

- (1) Topographic data was not available at the time of our field work.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

**Harold Lewis & Associates
Geotechnical Consultants**

EXPLORATORY BORING LOG

Proposed Residence at 191 Brewster Street
San Francisco, California

PROJECT NO.

DATE

BORING NO. 7

SF-06-606-6

June, 2006

HAROLD LEWIS & ASSOCIATES
GEOTECHNICAL CONSULTANTS

FOUNDATION INVESTIGATION
SIX PROPOSED RESIDENCES ON
BREWSTER STREET
SAN FRANCISCO, CALIFORNIA

HAROLD LEWIS & ASSOCIATES GEOTECHNICAL CONSULTANTS

HAROLD L. LEWIS C.E.

2418 Sixteenth Ave. * San Francisco, 94116 * 415\665-9678

May 16, 2006
Project SF-06-606-3

T. N. Financial Corporation
401 Taraval Street - 1st.Floor
San Francisco, Ca. 94116

Attn: Ms. Jane Viltman

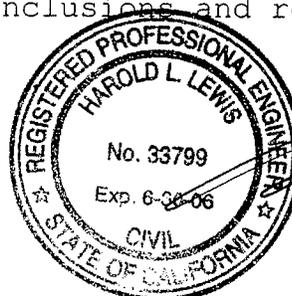
RE: Foundation Investigation
Six Proposed Residential
Buildings on **Brewster Street**
San Francisco, California

Dear Ms. Viltman:

In accordance with your request, we have performed a foundation investigation for the six proposed residences to be located on Brewster Street, in San Francisco, California. The accompanying report presents the results of our investigation and engineering analyses, which were based on widely spaced exploratory borings. As a result, variations between the anticipated and actual soil conditions may be found in localized areas during construction.

Based on our studies, it is our opinion that the site is suitable for the proposed construction. The conclusions and recommendations presented in this report are contingent upon our office being retained to review the final design plans and specifications, and to observe the earthwork and foundation aspect of the construction.

We refer you to the text of the report for a detailed discussion of our findings, conclusions and recommendations.



Very truly yours,


HAROLD L. LEWIS
C.E. 33799

HAROLD LEWIS & ASSOCIATES
GEOTECHNICAL CONSULTANTS

FOUNDATION INVESTIGATION
SIX PROPOSED RESIDENCES ON
BREWSTER STREET
SAN FRANCISCO, CALIFORNIA

2418 Sixteenth Ave. * San Francisco, 94116 * 415\665-9678

FOUNDATION INVESTIGATION

FOR:

SIX PROPOSED RESIDENCES ON
BREWSTER STREET
(LOTS 8 THROUGH 13, BLOCK 5577)
SAN FRANCISCO, CALIFORNIA

TO:

T. N. FINANCIAL CORPORATION
401 TARAVAL STREET - 1ST. FLOOR
SAN FRANCISCO, CA. 94116

ATTN: MS. JANE VILTMAN

MAY, 2006

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FOUNDATION INVESTIGATION
FOR
SIX PROPOSED RESIDENTIAL BUILDING
ON BREWSTER STREET
SAN FRANCISCO, CALIFORNIA

INTRODUCITON

In this report, we present the results of our foundation investigation for the six proposed residential buildings to be located on the eastern side of Brewster Street, (Lots 8 through 13 in Block 5577) situated between the intersections with Esmeralda Avenue and Joy Street, in San Francisco, California, as shown on the attached Site Plan, Figure 2. The purpose of this investigation was to evaluate the subsurface materials at the site and to provide recommendations concerning the soil and foundation engineering aspects of the proposed residential development.

PROPOSED CONSTRUCTION

Although we have not seen the final plans, it is our understanding that the proposed buildings will be two- to three-story wood-frame structures with street level garages and entrance areas. The upper and lower level living areas, street level garage space and foyer areas will be supported on structural wood floors. Building loads are expected to be typical for the proposed type of construction.

Since the buildings will be constructed over the downward sloping hillside, earthwork operations at the site will consist of limited grading to establish building pads and to provide surface drainage gradients. Low retaining walls may be required along the driveway and garage areas and around the front of the dwellings. Due to relatively deep deposits of fill and natural soils that uncomfortably overlie a steeply sloping bedrock surface, excavations will also be required for the drilled friction piers that we have recommended for foundation support of the proposed residences.

SCOPE

The scope of our work, which was outlined in our letter dated January 1, 2006, included a site reconnaissance by the undersigned, review of data from subsurface exploration and laboratory testing performed by our office on these lots several years ago, engineering analyses of the field and laboratory data, and the preparation of this report which includes soil engineering recommendations for the six proposed residences.

The scope of our services did not include an environmental assessment or investigation for the presence of hazardous or toxic materials in the soil, groundwater or air, on, below or around the site. In addition, our scope of work did not include an evaluation of nor investigation for the presence or absence of Wet Lands.

SITE INVESTIGATION

An initial site reconnaissance was performed by our office on August 26, 1985, our most recent site reconnaissance was performed on May 1, 2006. More detailed site reconnaissance and our subsurface exploration were performed by the undersigned engineer on August 30, 1985 and September 3, 1985. Seven exploratory borings were drilled with both trailer-mounted and portable-power continuous-flight auger rigs at accessible locations near the front and rear of the proposed dwellings. The borings were drilled into weathered bedrock materials at depths ranging from 9- to 20-feet at the approximate locations shown on the Site Plan. Logs of our borings and details regarding our field and laboratory investigations are included in Appendix A.

A. SITE FEATURES

The undeveloped site, which consists of six contiguous lots, is irregular in shape with overall plan dimensions of approximately 147 by 70 by 118 by 59 feet (see Figure 2). The property is bounded on the west and east by undeveloped portions of Esmeralda Avenue and Joy Street, respectively. The site is defined on the south by vacant land. The lots

front on Brewster Street, which parallels the northern property line.

Topography of the general area and of the site slopes downward to the south at variable inclinations due to natural geologic evolution and, to a lesser degree, the past earthwork operations associated with the intermittent development of this older residential neighborhood. Generally, site grades decline steeply southward at 1.2:1 to 2.4:1 declinations (horizontal to vertical) that continue to the southern property line.

During our reconnaissance of the site, we did not observe any areas of major instability and no major slides have been mapped on the property. However, we did observed indications of sloughing, erosion and "creep" type downhill movement of the surface soils at random locations across the steep slopes. Similar "creep" type movement of the surface soils were also observed on the adjacent properties to the east and west.

Surface vegetation on the lots consisted of a moderate to very heavy growth of wild berry vines, weeds and thick brush. There were also light to moderate amounts of natural debris scattered over the property.

B. SUBSURFACE CONDITIONS

The U.S.G.S. "Geologic Map of the San Francisco South Quadrangle", indicates that the site is located in a complex geologic area. The property appears to be underlain by Greenstone bedrock materials near geologic contacts with Sandstone, Shale and Radiolarian Chert bedrock materials. These rock types belong to the Franciscan Formation. The Greenstone rock materials generally consist of greenish-gray aphanitic to medium grained altered volcanic rocks; predominantly basalt. When in contact with Chert, the Greenstone is commonly highly weathered and often altered with clayey seams on the bedding plans. The mapped bedrock materials were observed on massive outcropping/cut slopes to the north of the site.

Exploratory Borings 1, 2 and 3, which were drilled on Lots 8, 10 and 13 at accessible locations near the front portions of the proposed buildings, encountered roughly 5.5-, 8- and 7.5-feet of fill, respectively. The fill, which consisted of

stiff gravely sandy clay and medium dense clayey sands, was underlain by hard sandy silty clay with variable amounts of rock fragments that extended to depths of about 8.5-, 13- and 11.5-feet, respectively. These clayey slope debris type materials were followed by very weathered, fractured and decomposed Greenstone and Shale bedrock materials that extended to the maximum depth explored, 20-feet in each boring.

Exploratory Boring 4 through 7, which was drilled at accessible locations on adjacent and nearby lots further down-slope to the south of the property, encountered approximately 3- to 8-feet of stiff to hard sandy and silty clay with variable amounts of rock fragments. This layer of surface overburden soil were directly underlain by weathered and fractured Greenstone bedrock materials that extended to the depths explored, 9- to 12-feet.

Please note that the drilling resistance encountered in the borings indicated that the bedrock materials graded less weathered and more competent with depth.

Free groundwater was not observed in our borings and probably exists at depths somewhat greater than those explored. However, based on the hillside location of the lots and our experience in the general area of the site, it is our opinion that groundwater seepage may be encountered at the site, in the required excavations and behind retaining walls, particularly after prolonged rains in the wet season.

We wish to point out that the exploration at the subject site was extended to the maximum depth possible (practical refusal) with the trailer-mounted continuous-flight auger rig and the portable power-auger equipment used. In our opinion the information obtained from our exploratory borings combined with subsurface information; in our files from investigations we have performed in the neighborhood, on nearby lots to the north and east and geologic maps is of sufficient detail and extent to provide soil and foundation engineering design recommendations for the proposed structures. Therefore, deeper and more extensive exploration at the site was not warranted.

GEOLOGIC HAZARDS

Geologic hazards that are not a problem at this site include but not limited to; (1) liquefaction and surface subsidence, (2) expansive and shirking soils, (3) inundation due to reservoir failure, (4) submersion from tsunami wave, (5) volcanic eruption and (6) flooding. Seismicity, landsliding and earthquake hazards are discussed below.

According to the San Francisco Seismic Safety Investigation Report (John A. Blume and Associates, May, 1974) the site, as well as other buildings in the area, lie in a zone of potential landslide hazard. Although, over the years, the U.S.G.S. has mapped several small to medium size landslides within the neighborhood, none have occurred on the site.

During construction, any hazard resulting from slope instability will be mitigated by close adherence to our recommendations on earthwork operations. Since modern engineered retaining walls will support all changes in grade resulting from the construction, our analyses indicates that a potential for slope instability or landsliding due to the proposed construction should not exist.

SEISMICITY

As with the rest of the San Francisco Bay Area, the site is As with the rest of the San Francisco Bay Area, the site is considered to be in one of the most seismically active regions of the United States. The nearest active faults are the northwest-trending San Andreas and Hayward Faults, which are mapped approximately 7 miles southwest and 11.5 miles northeast of the site, respectively. Other faults in the general vicinity of lesser or unknown activity are the northwest-trending City College and San Bruno Faults, which are mapped about 2.3 and 5 miles southwest of the site, respectively.

Although research on earthquake prediction has greatly increased in recent years, seismologists have not yet reached the point where they can accurately predict when and where an earthquake will occur. Nevertheless, on the basis of current technology, it is reasonable to assume that the proposed

buildings will be subjected to at least one moderate to severe earthquake.

Furthermore, a magnitude 6.7 or larger earthquake with an epicenter much closer to San Francisco than that of the 1989 Loma Prieta earthquake is presently predicted, by the U.S.G.S., to have a 62 percent probability of occurrence by the year 2032. During such an earthquake, the danger from fault offset through the site is remote; however, strong shaking of the site with an intensity greater than that of the Loma Prieta earthquake and for a longer duration is likely to occur.

NEAR-SOURCE SEISMIC COEFFICIENTS

The 1997 Uniform Building Code incorporates a near-source factor for calculation of the design base shear and response spectra within UBC Seismic Zone 4. This factor accounts for the high ground motion and structural damage that have been observed within a few kilometers of historical earthquake ruptures.

We have determined the following parameters to assist the Structural Engineer in their analyses. The subject site is located within 6.2-kilometers of the San Andreas Fault.

NEAR-SOURCE SEISMIC COEFFICIENTS

SEISMIC ZONE TYPE	SEISMIC SOURCE TYPE	SOIL PROFILE ROCK*	NEAR-SOURCE FACTOR N_a	NEAR-SOURCE FACTOR N_v
4	A	S_B	1.15	1.50

* Average soil properties for the top 100-feet of soil profile.

CONCLUSIONS AND RECOMMENDATIONS

Based on our field and office studies, it is our opinion that from a soil and foundation engineering standpoint, the site is suitable for the proposed construction, provided that the recommendations presented in this report are incorporated into the design and construction of the six proposed residences.

Since the site is located in steeply sloping terrain that is blanketed by variable depths of both fill materials and natural clayey soils, we recommend that the proposed buildings be supported on drilled, cast-in-place friction piers that are extended through these overburden soils into the underlying weathered bedrock materials. The piers must be reinforced with extra steel to resist potential downward "creep" type movement of the surface materials and should be tied together with grade beams

Our analyses also indicate that in order to provide adequate support for any slabs-on-grade, the upper 2 feet of the supporting subgrade must be over-excavated and recompacted.

Since the site is located on a steep hillside, within a natural drainage basin, heavy surface rain water runoff should be expected and planed for. In addition, erosion of the surface soils at the site must be carefully controlled. Concentrated water should not be allowed to flow across any slopes as erosion or weakening of surface soils could occur. We recommend that all areas of the site that are disturbed by the construction be heavily planted with appropriate ground cover. You should consult with a landscape architect regarding the replanting of the property.

Detailed soil and foundation engineering recommendations are presented in the subsequent sections of this report. All conclusions and recommendations presented in this report are contingent upon **Harold Lewis and Associates** being retained to; (1) review the final grading and foundation plans prior to construction, (2) observe and test the over-excavated and recompacted of surface soils under the slabs-on-grade, (3) observe the installation of the pier foundations and (4) observe the installation of drains behind the retaining walls.

A. SITE PREPARATION, EARTHWORK OPERATIONS AND SURFACE DRAINAGE

The area of the proposed buildings should be cleared of all obstructions including all existing natural debris. In conjunction with the clearing operations, the area of the proposed improvements should be stripped of all surface vegetation. All the cleared and stripped materials should be removed from the site. Any holes resulting from the removal of underground obstructions that extend below finished grades should be backfilled with approved materials that are compacted to the requirements presented below.

After the site is properly cleared, the excavation operations can be performed, any required fill may be placed and the foundation can be installed. We recommend that any slabs-on-grade be supported on at least 2 feet of engineered fill materials, existing on-site materials that are over-excavated and recompacted or imported fill materials.

The exposed subgrade at the bottom of all required excavations should be inspected by a representative of our office. Any detrimental materials exposed at the subgrade level (such as soils containing rubble or appreciable organics) should be removed to depths specified by our field representative and replaced with fill compacted to the requirements given below.

The exposed subgrade in areas to receive fill should be scarified, moisture-conditioned, and compacted to the requirements given below. All on-site soils having an organic content of less than 3 percent by volume are suitable for use as fill. Any imported fill material used at the site should be a non-expansive material with a plasticity index of 12 or less. All structural fill materials 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.

All structural fill placed at the site should be compacted with light equipment to at least 90 percent relative compaction by mechanical means only, as determined by ASTM Test Designation D1337-70. The upper 6-inches of subgrade soil under slabs-on-grade should, however, be compacted to at least 95 percent relative compaction. The fill materials should be placed in lifts not exceeding 8-inches in uncompacted thickness.

During the excavations operations, temporary slopes should have a maximum vertical face of 4-feet with temporary cut slopes above the vertical face having a maximum inclination of 1:1 (horizontal to vertical) in approved clayey materials. If poor quality materials or seepage are encountered in the excavations the temporary slopes will have to be appropriately flattened. Conversely, if very competent materials are exposed during the excavation operations the inclination of the temporary slopes may be increased. The materials exposed in the excavations should be evaluated by a representative from our office during the initial stages of the excavation operations.

We recommend that any new cut and fill slopes at the site have a maximum inclination of 2:1. Where any cut and fill slopes are exposed and where existing slopes are left at their present inclinations, minor erosion and surface sloughing could occur, thus requiring periodic maintenance of the slopes.

We recommend that all unsupported fill place on the site be keyed and benched into competent materials; such fill should be thoroughly compacted to the face of the slopes by continually track-rolling the slopes as fill is being placed or by overfilling the slopes by 1 to 2 feet and then cutting back the slopes after the filling operations are completed.

Concentrated water should not be allowed to flow across any slopes as erosion or weakening of surface soils could occur. Control of surface water runoff on the rear slope to the south of the proposed buildings will require the construction of a lined surface ditch near the southern boundary to intercept rainwater runoff during periods of heavy precipitation.

We recommend that at least one concrete lined surface drainage ditch be constructed across the natural slope near the southern property line. This surface drainage ditches will control the quantity and velocity of surface water runoff and prevent inundation of the adjacent down-slope lots. The exact location of this drainage facility should be determined in the field by a representative from our office at the time of construction. Please note, that natural colored concrete, such as tan or brown, will eliminate or minimize the visual impact of the recommended ditch on the hillside.

The surface drainage ditch should be constructed of reinforced concrete and have a minimum width of 2-feet and a minimum depth of 1-foot. We recommend that the concrete be at least 3-inches in thickness and be reinforced with at least three #3 bars; one bar along each edge and one bar along the bottom of the ditch. The ditch should be sloped to drain toward catch basins and the collected water should be transported through closed pipes to suitable discharge facilities; possible the street right-of-ways to the east and west corner of the site.

We recommend that all exposed slopes be appropriately planted to minimize the potential for erosion and surface sloughing. We recommend that all new cut and/or fill slopes and any existing slopes that are disturbed during the construction operations be covered with jute mesh (or the equivalent) and heavily planted with both a fast growing variety of plant and with a permanent variety of ground cover. The slopes should be planted as soon as possible after the installation of foundations to minimize the potential for erosion and surface sloughing. Site irrigation should not be done in an uncontrolled or unreasonable fashion, but only as required for plant survival. It would be desirable to utilize native plant varieties requiring minimal watering. You should consult with a landscape architect.

Positive surface drainage should be provided adjacent to the buildings to direct surface water runoff away from foundations to suitable discharge facilities. We recommend that rainwater collected on the roofs of the buildings be transported through gutters, down spouts and closed pipes to approved discharge facilities. Specific surface and subsurface drainage requirements for retaining walls are presented below under Item D, "Retaining Walls".

B. PIER FOUNDATIONS

We recommend that the proposed buildings be supported on drilled, cast-in-place, straight-shaft piers that are designed to develop their load-carrying capacity through friction between the sides of the piers and the surrounding subsurface bedrock materials. **Friction piers should have a minimum diameter of 18 inches.** The spacing of the piers should be determined by the Designer, but in no case shall the center-to-center spacing of the piers be closer than three diameters.

All piers should extend to a **minimum depth of 22 feet** below the bottom of grade beams or at least **10 feet into approved bedrock materials**, whichever is deeper. The actual lengths of the piers can be determined using an allowable skin friction value of **600 pounds per square foot for dead plus live loads** with a one-third increase for all loads including wind or seismic. These values can be used starting at a depth of **10 feet** below the grade beams. These values should be used to determine the required penetration into approved bedrock materials; field adjustment to final pier depths should be expected.

All drilled piers must be designed to account for potential "creep" type movement of the overburden soils (both fill and natural) and the weathered upper portion of the bedrock materials that will underlie the buildings, we recommend that the piers be designed to resist a uniform lateral pressure of **400 pounds per square foot** acting against twice the projected diameter of the piers to a depth of **10 feet** below the grade beams.

Lateral loads on the piers may be resisted by passive pressures acting against the sides of the piers. We recommend a passive pressure equal to an equivalent fluid weighing **400 pounds per square foot** per foot of depth to a maximum value of 3000 pounds per square foot. This value can be assumed to be acting against $1\frac{1}{2}$ times the diameter of the individual pier shafts starting at a depth of **10 feet** below the grade beams.

We wish to emphasize that fill materials overlie the competent natural soils that the piers will be extended into. Therefore, as a result of these surface conditions, caving of soft soils should be anticipated during the drilling of the piers; this may require the use of temporary steel casing during the installation of the piers.

Concrete should be pumped into each hole as soon as practical after the drilling of the hole is completed. The concreting operations in each pier should be carefully performed so that the concrete fills all of the excavated hole. Where caving soils are present, the casing should be slowly withdrawn so that the concrete never loses contact with the inside of the casing. If the casing is withdrawn ahead of the concrete, the loose soils could flow into the hole creating a discontinuity

in the completed pier; such discontinuities would most likely result in detrimental post-construction settlements.

Even though the piers will be designed to develop their capacity through friction, their bottoms should be dry and reasonably free of loose cuttings and fall-in prior to installing reinforcing steel and placing concrete. Any water encountered on the pier excavations must be pumped from the holes prior to placing steel and concrete; alternatively, concrete could be placed underwater using tremie methods.

We recommend that all piers be reinforced with at least four No. 4 bars over their entire length. In addition, we recommend that the piers be tied together with grade beams that extend between the piers. The grade beams should be designed to span between the piers in accordance with structural requirements. The steel from the piers should extend sufficient distance into the grade beams to develop its full strength in bond.

Since all foundations will be extended into competent bedrock materials and will be tied together, post-construction differential settlements across the residences should be negligible.

C. SLABS-ON-GRADE

We recommend that any slabs-on-grade be supported on at least 2 feet of engineered fill (over-excavated and recompacted existing fill and/or compacted new fill) as discussed above under Item A, "Site Preparation, Earthwork Operations and Surface Drainage". Slab reinforcing should be provided in accordance with the anticipated use and loading of the slabs. Prior to final construction of the slabs, the supporting surface should be compacted to provide a smooth, firm surface for slab support.

In any slab area where minor floor wetness would be undesirable, 6 inches of free-draining gravel should be placed beneath the floor slabs to serve as a capillary break 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. The recommended sand and gravel should not be

considered as part of the required 2 feet of engineered fill required beneath the slabs-on-grade.

D. RETAINING WALLS

All retaining walls constructed at the site must be designed to resist lateral earth pressures and any additional lateral pressures that may be caused by surcharge loads applied at the ground surface behind the walls.

We recommend that unrestrained walls with a level surface or with a sloping surface flatter than **4:1** be designed to resist an equivalent fluid pressure of **45 pounds** per cubic foot. Where the sloping surface is at an inclination of **1.8:1** (average existing grade) the unrestrained walls should be designed to resist an equivalent fluid pressure of **75 pounds** per cubic foot. For walls with a sloping surface at an inclination between 4:1 and 1.8:1, a straight line interpolation between the 45 and 75 pounds per cubic foot may be used.

We recommend that restrained walls be designed to resist the equivalent pressures given above plus an additional uniform lateral pressure of **8H** pounds per square foot where H = height of backfill above the top of the wall footing in feet. If the designer determines that there are surcharge loads on any of the walls, they should be designed for an additional uniform lateral pressure equal to one-third or one-half of the anticipated surcharge load depending on whether the wall is unrestrained or restrained.

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 either permeable material and weep holes spaced at a maximum of 4-foot on centers or 4-inch diameter perforated pipes bedded in permeable material. The permeable material should consist of either, a well-graded mixture of sand and gravel, which is approved by our office, or clean gravel that is wrapped with a synthetic filter fabric. For either system, the permeable material placed behind the walls should be at least 1-foot in width and should extend to within 2-feet of finished grade. The upper 2-feet of backfill should consist of compacted on-site materials. Weep holes should

drain to suitable inlets and subdrain pipes should be connected to a system of closed pipes that lead to the city storm drainage facilities. Any building walls should be appropriately waterproofed, preferably by Bituthan Panels, or an approved foundation waterproofing system (such as one of the many bentonite clay products) may be used.

Lined surface ditches should be provided behind any retaining walls that will have exposed sloping surfaces draining toward 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 to at least 1-foot above the ditch.

The retaining walls should be supported on pier foundations designed in accordance with the recommendations presented previously under Item B, "**Pier Foundations**".

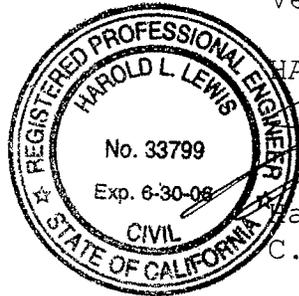
LIMITATIONS

Our services consist of professional opinions, conclusions and recommendations made in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.

The design parameters presented in this report are based on the described project and are intended only for the purpose, site location and development indicated. Significant changes in the proposed development, site conditions and/or subsurface conditions should be brought to the attention of our office; updated and/or supplemental recommendations will be prepared as required. Unanticipated soils and geologic conditions are commonly encountered during earthwork, which cannot be fully determined by limited subsurface investigations. Such conditions may require supplemental studies. In addition, our office can not be responsible for the interpretations made by others regarding the recommendations in this report.

If you have any questions regarding this report, please call us. We would appreciate at least 48 hours notice for our required observations during construction.

Very truly yours,



HAROLD LEWIS & ASSOCIATES

Harold L. Lewis
C.E. 33799

HLL/Pen IV

Enclosures:

Figure 1 - Site Plan

Appendix A - Field and Laboratory Investigations

Figure A-1 - Key to Exploratory Boring Logs

Exploratory Boring Logs 1 through 7

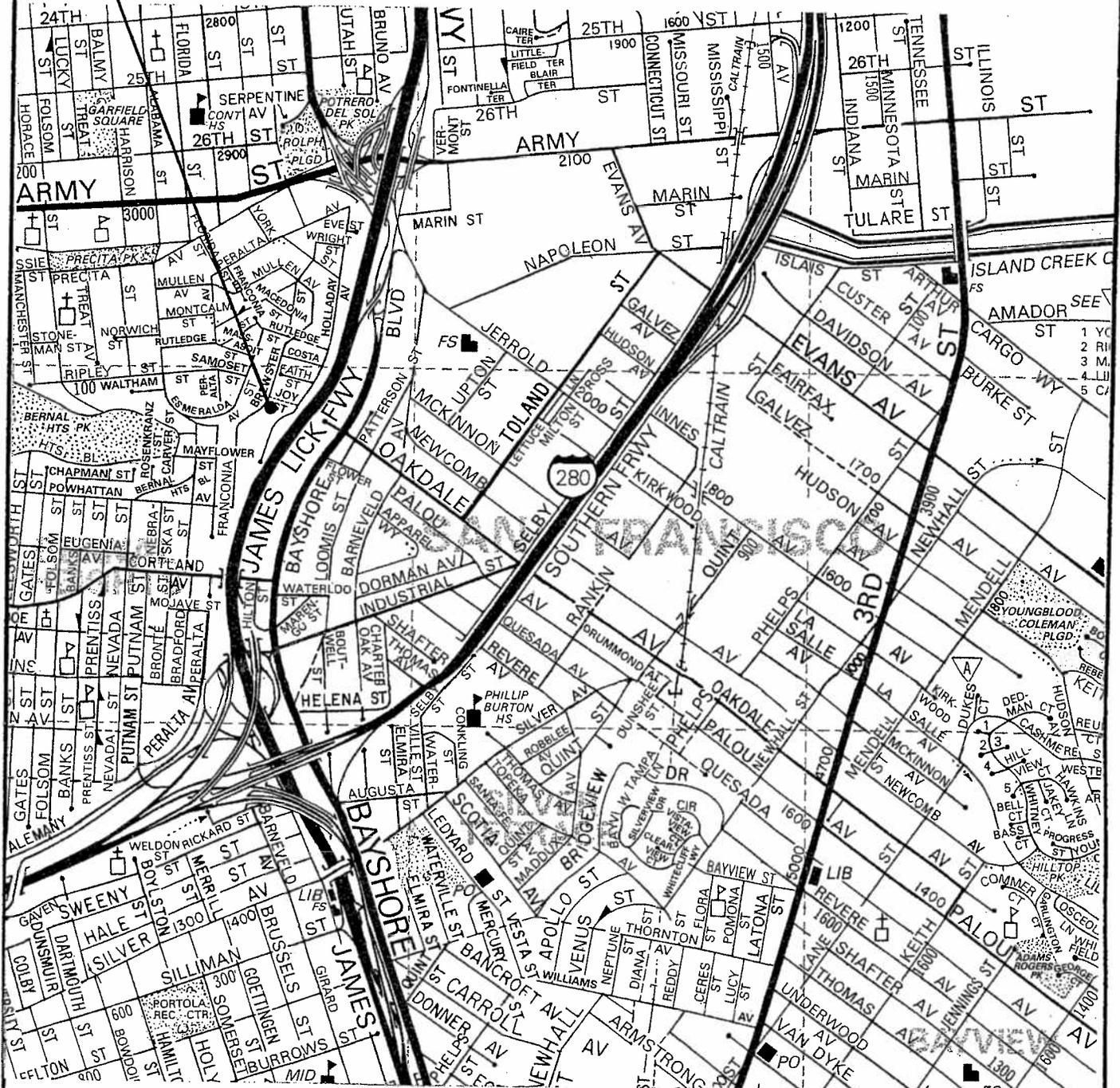
Copies:

Addressee (4)

Santos & Urrutia, Inc. - Structural Engineers (1)

HAROLD LEWIS & ASSOCIATES

S I T E



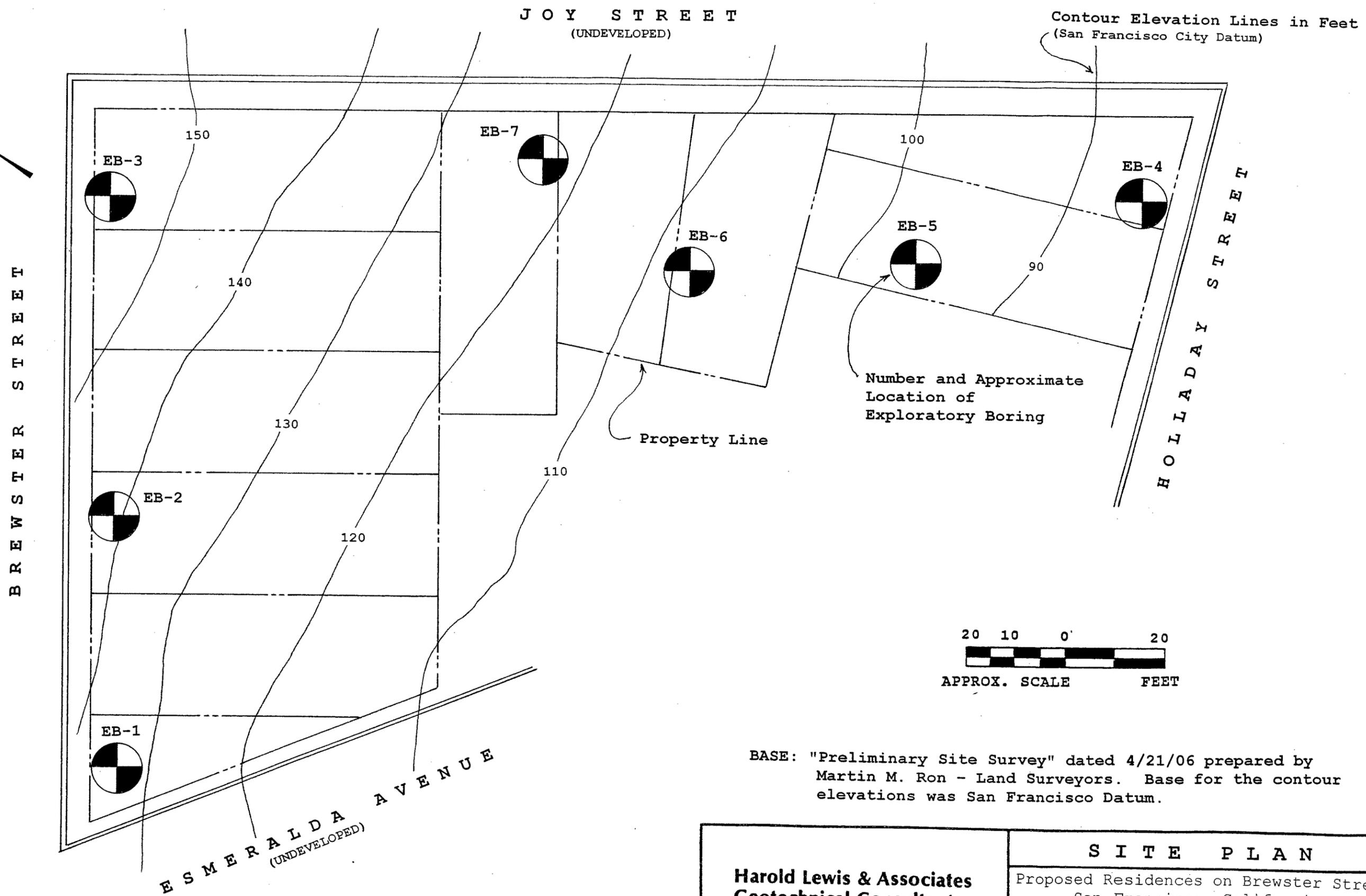
BASE: THOMAS BORTHERS MAPS
 SCALE OF MAP
 1-INCH TO 0.25 MILE

**Harold Lewis & Associates
 Geotechnical Consultants**

VICINITY MAP

Proposed Residences on Brewster Street
 San Francisco, California

PROJECT NO.	DATE	FIGURE: 1
SF-06-606-3	May, 2006	



BASE: "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.

SKETCH FOR ILLUSTRATION PURPOSES ONLY

Harold Lewis & Associates Geotechnical Consultants			S I T E P L A N	
			Proposed Residences on Brewster Street San Francisco, California	
PROJECT NO.	DATE	FIGURE: 2		
SF-06-606-3	May, 2006			

APPENDIX A - FIELD AND LABORATORY INVESTIGATIONS

FIELD INVESTIGATION

Our field investigation consisted of detailed site reconnaissance and subsurface exploration performed by the undersigned on August 30, 1985 and September 3, 1985. Seven exploratory borings were drilled with both trailer-mounted and portable-power continuous-flight auger rigs at an accessible locations near the front and rear of the proposed residences. The borings were drilled to depths ranging from 9- to 20-feet at the approximate locations shown on the Site Plan, Figure 2.

The materials encountered in our borings were continuously logged in the field by the undersigned. Logs of the borings, as well as a key to the classification of the soils encountered in the borings (Figure A-1) are included as part of this appendix.

Representative disturbed and undisturbed soil samples were obtained from the exploratory borings at selected depths appropriate to the soil investigation. The disturbed samples were obtained using a split spoon sampler. The undisturbed samples were obtained with a Modified California Sampler. The type of sample shown on the boring logs is designated as follows:



Split Spoon Sample
(2-Inch O.D.)



Modified California Sample
(2-Inch I.D.)

The Standard Penetration Resistance blow counts were obtained with the split spoon sampler by dropping a 140-pound hammer through a 30-inch free fall. This hammer was also used to obtain samples with the Modified California Sampler. The samplers were driven 18-inches and the number of blows were 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 sampler the last 12-inches or the number of inches indicated where the sampler did not penetrate the full 18-inches.

inches or the number of inches indicated where the sampler did not penetrate the full 18-inches.

The ground surface elevation at the boring locations were estimated from a "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.

The boring logs show our interpretations of the subsurface conditions on the date and at the locations indicated and it is not warranted that they are representative of the subsurface conditions at other locations and times. Also, the transitions between the material types and their consistencies represents the approximate boundaries; the actual transitions are gradual.

LABORATORY INVESTIGATION

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

The natural water content was determined on 22 samples of the material recovered from the borings; these water contents are recorded on the boring log at the appropriate sample depths.

Dry density determinations were made on 8 samples of the materials recovered from the borings; the results of these tests are presented on the logs of the borings at the appropriate sample depths.

The shear strength was evaluated on 2 samples of the subsurface materials underlying the site utilizing hand-operated penetrometer and torvane shear devices. The results of these tests are shown on the boring logs at the appropriate sample depths and are designated (P) and (T) for penetrometer and torvane, respectively.

DRILL RIG Continuous Flight Auger	SURFACE ELEVATION 135 Feet	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6-Inches	DATE DRILLED 9-3-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Silty Sandy Gravel (FILL)	Brown	Medium Dense	GP						
Sandy Silty Clay with Gravel and Rock Fragments	Brown	Stiff	CL						
(FILL) ↑				5		21	15	108	
Sandy Silty Clay with minor Rock Fragments	Tan Brown	Hard	CL						
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-			90 9"	11	129	
				10					
						60 9"	11	130	
				15					
						56	13		
				20					

NOTES:

- (1) See Figure 1 for elevation datum.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

BOTTOM OF BORING = 20 FEET

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residences on Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-3	May, 2006	1

DRILL RIG	Continuous Flight Auger	SURFACE ELEVATION	141 Feet	LOGGED BY	H.L.
DEPTH TO GROUNDWATER	See Note 2	BORING DIAMETER	6-Inches	DATE DRILLED	9-3-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (PSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Gravelly Sandy Clay	Red Brown	Stiff	CL	5		14	14		
(FILL) ↑									
Sandy Silty Clay with Rock Fragments	Dark Brown	Stiff	CL-	10		15	18	106	2.0 (P)
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-	15		84 12"	12	132	
NOTES: (1) See Figure 1 for elevation datum. (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater). (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.						87	12		
				20					

BOTTOM OF BORING = 20 FEET

**Harold Lewis & Associates
Geotechnical Consultants**

EXPLORATORY BORING LOG

Proposed Residences on Brewster Street
San Francisco, California

PROJECT NO.	DATE	BORING NO.
SF-06-606-3	May, 2006	2

DRILL RIG Continuous Flight Auger	SURFACE ELEVATION 156 Feet	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6-Inches	DATE DRILLED 9-3-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Gravelly Clayey Sand with Rock Fragments	Red Brown	Medium Dense	CL	0-5		25	12		
(FILL)				5-10					
Sandy Silty Clay with Rock Fragments	Tan Brown	Hard	CL	10-15		58	13	111	
Weathered and Fractured Shale Bedrock Materials	Tan	---	-	15-20		76 12"	11		
				20-25		80	11		

NOTES:

(1) See Figure 1 for elevation datum.

(2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).

(3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.

BOTTOM OF BORING = 20 FEET

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG	
	Proposed Residences on Brewster Street San Francisco, California	
	PROJECT NO. SF-06-606-3	DATE May, 2006

BORING NO. 3

DRILL RIG <u>Continuous Flight Auger</u>		SURFACE ELEVATION <u>85 Feet</u>		LOGGED BY <u>H.L.</u>					
DEPTH TO GROUNDWATER <u>See Note 2</u>		BORING DIAMETER <u>6-Inches</u>		DATE DRILLED <u>9-3-85</u>					
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Light Brown	Stiff	CL	5		49	10		
		Hard							
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-	5		60 6"	11		

BOTTOM OF BORING = 9 FEET

NOTES:

- (1) The ground surface elevation at the boring location were estimated from contour elevation lines shown on a "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.
- (4) The boring was terminated at shallow depth since practical refusal was encountered in bedrock materials with the portable power-auger equipment used.

**Harold Lewis & Associates
Geotechnical Consultants**

EXPLORATORY BORING LOG

Proposed Residences on Brewster Street
San Francisco, California

PROJECT NO.

DATE

BORING

SF-06-606-3

May, 2006

NO. 4

DRILL RIG Portable Power Auger	SURFACE ELEVATION 98 Feet	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 3-Inches	DATE DRILLED 8-30-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Brown	Stiff	CL						
	Red Brown	Very Stiff		5		44	13	110	2.5 (T) 4.5 (P)
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-			52	12		
						58 12"	11		

BOTTOM OF BORING = 12 FEET

NOTES:

- (1) The ground surface elevation at the boring location were estimated from contour elevation lines shown on a "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.
- (4) The boring was terminated at shallow depth since practical refusal was encountered in bedrock materials with the portable power-auger equipment used.

**Harold Lewis & Associates
Geotechnical Consultants**

EXPLORATORY BORING LOG

Proposed Residences on Brewster Street
San Francisco, California

PROJECT NO.	DATE	BORING NO.
SF-06-606-3	May, 2006	5

DRILL RIG Portable Power Auger		SURFACE ELEVATION 109 Feet		LOGGED BY H.L.					
DEPTH TO GROUNDWATER See Note 2		BORING DIAMETER 3-Inches		DATE DRILLED 8-30-85					
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Light Brown	Stiff	CL	5	[Solid black bar]	59	13	112	
		Hard							
Very Weathered and Fractured Greenstone Bedrock Materials	Light Brown	---	-	10	[Hatched bar]	48 12"	11		
						32	14		

BOTTOM OF BORING = 10½ FEET

NOTES:

- (1) The ground surface elevation at the boring location were estimated from contour elevation lines shown on a "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.
- (4) The boring was terminated at shallow depth since practical refusal was encountered in bedrock materials with the portable power-auger equipment used.

**Harold Lewis & Associates
Geotechnical Consultants**

EXPLORATORY BORING LOG

Proposed Residences on Brewster Street
San Francisco, California

PROJECT NO.

DATE

BORING NO.

6

SF-06-606-3

May, 2006

DRILL RIG Continuous Flight Auger	SURFACE ELEVATION 123 Feet	LOGGED BY H.L.
DEPTH TO GROUNDWATER See Note 2	BORING DIAMETER 6-Inches	DATE DRILLED 9-3-85

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT.)	WATER CONTENT (%)	DRY DENSITY (PCF)	SHEAR STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
Sandy Silty Clay with Rock Fragments	Light Brown	Stiff	CL	0-5		39	13		
Very Weathered and Fractured Greenstone bedrock Materials	Light Brown	----	-	5-10		64	12		
				10-10 1/2					

BOTTOM OF BORING = 10 1/2 FEET

NOTES:

- (1) The ground surface elevation at the boring location were estimated from contour elevation lines shown on a "Preliminary Site Survey" dated 4/21/06 prepared by Martin M. Ron - Land Surveyors. Base for the contour elevations was San Francisco Datum.
- (2) The boring was dry at the time of drilling and was backfilled immediately (see text of report for discussion of groundwater).
- (3) The stratification lines represent the approximate boundaries between the material types; actual transitions are gradual.
- (4) The boring was terminated at shallow depth since practical refusal was encountered in bedrock materials with the portable power-auger equipment used.

Harold Lewis & Associates Geotechnical Consultants	EXPLORATORY BORING LOG		
	Proposed Residences on Brewster Street San Francisco, California		
	PROJECT NO.	DATE	BORING NO.
	SF-06-606-3	May, 2006	7

Exhibit 7

HAROLD LEWIS & ASSOCIATES GEOTECHNICAL CONSULTANTS

HAROLD L. LEWIS C.E.

2418 Sixteenth Ave. * San Francisco, 94116 * 415\665-9678

November 17, 2010
Project SF-06-606-X

T. N. Financial Corporation
830 Taraval Street - Suite 200
San Francisco, Ca. 94116

Attn: Ms. Jane Viltman

RE: Foundation Investigation
Proposed Residential
Buildings on **Brewster Street**
Lots 9, 10 & 11 in Block 5577.
San Francisco, California

Dear Ms. Viltman:

In accordance with your request, we have performed supplemental geotechnical engineering studies to list and locate the landslides discussed in our Foundation Investigation Reports, which were prepared for the development of the subject sites on Brewster Street, Lots 9, 10, and 11, in Block 5577.

Our office performed detailed foundation investigations for the subject sites and the results of our work were presented in our June 27, June 28 and June 29, 2006 Foundation Investigation Reports.

GEOLOGIC HAZARDS

In the section of our reports titled "Geologic Hazards", we noted that "According to the San Francisco Seismic Safety Investigation Report (John A. Blume and Associates, May, 1974) the site, as well as other buildings in the area, lie in a zone of potential landslide hazard. Although, over the years, the U.S.G.S. has mapped several small to medium size landslides within the neighborhood, none have occurred on the site". Not only has the U.S.G.S. has mapped several small to

medium size landslides within the neighborhood, the City and County of San Francisco, Department of Public Works, Bureau of Engineering has also mapped several small to medium size landslides within this neighborhood. However, as stated above none have occurred on (or near) the site.

Below, we date, describe the locations and attempt to discern the possible causes of these landslides and credit the sources of our data.

- 1) 1941, June. The largest nearby landslide, which was small for a landslide, is located roughly 850-feet south of the subject site and occurred on Powhattan Avenue at the intersection with Holladay Avenue just below the present day intersection with Franconia Street. This section of Holladay Avenue exists on paper only. The slide, which had dimensions of about 80-feet wide and 70-feet long with a depth of about 15-feet, appears to have been caused by a large unshored excavation on the steep slope below Holladay Avenue above Bayshore Boulevard. Source A & B
- 2) 1941, March. Two larger but farther away slides occurred on the steep slope below Holladay Avenue and above Bayshore Boulevard. They were located approximately 1,250 feet northeast of the site, which is about 200 feet south of the intersection of Holladay Avenue and York Street. The upper slide had dimensions of about 140-feet wide and 80-feet in length, the depth was not stated but the head scarp (top of the slide) extend into the Holladay Avenue sidewalk area. The second landslide, which occurred on the slope directly below the first slide, was located above Bayshore Boulevard and had a width of about 240-feet and a length of 50-feet. A sketch of this slide had the appearance of two smaller side-by side slides. This slide occurred on a section of the slope that had been over-steepened by past excavations into the toe of the slope to developed building sites off of Bayshore Boulevard. The winter of 1940-1941 must have been a very wet rainy season because a great many landslides occurred within San Francisco that winter and on into the summer. We wish to note that very heavy rains will destabilize marginal slopes that will stand during dryer years. Source B
- 3) A very small undated slide occurred on the southeast flank of Bernal Heights Park approximately 1,100-feet southwest of the site. Source A
- 4) 1955, August. A small landslide on Mullen Avenue between Alabama Street and Peralta Street approximately 1250 feet

northwest of the site. We have not been able to uncover any details on this slide. Source B

5) 1961, January. A small slide occurred on the old steep buff (very steep cut slope) above #1 Prospect Avenue, about 3,000 feet to the west. This slide, which happened during the rainy season, occurred in weathered and fractured Greenstone bedrock materials that were excavated in the late 19th Century. Based on our experience with this type of bedrock material, it is our opinion that the slide was probably more like a moderate size rock fall/debris flow of limited depth.

6) The largest landslide in this neighborhood is located a little over a mile away, 6,200-feet to the southwest. The slide occurred on the old fill slopes west of Benton Avenue and extended about 600-feet into Saint Mary's park and had a width of roughly 175-feet. Again details on this slide have been hard to find, but borings drilled by the undersign engineer thirty years ago at the top of the slope below Benton Avenue found about 25-feet of debris laden loosely dumped fill; at the toe of the slope the fill was still about 9-feet deep. It is our opinion that the slide occurred in similar deep non-engineered deposits of fill materials and probably during a very wet rainy season. This slide is not shown on our "Landslides in the Neighborhood" plan, Figure 2, due to the scale of the plan. Source A.

Source A - "Preliminary Geologic Map of the San Francisco South Quadrangle" by M. G. Bonilla, 1971.

Source B - City and Country of San Francisco, Department of Public Works - Bureau of Engineering, Numerical and Alphabetical Index", of Landslide Maps, earliest map dated 1941. And "Map of the City and Country of San Francisco, Department of Public Works - Bureau of Engineering", dated 1978.

CONCLUSIONS

As stated above, none of the landslides listed have occurred on or near the site, but have occurred within the neighborhood. Please note that most of the landslides that have occurred in this neighborhood (1) happened during the rainy season and (2) resulted from excavation operations that did not have proper engineering oversight. The City of San Francisco will require Special Inspection during the general

excavation operations at the site. The observations listed on page 9 of our reports should be performed by an engineer from our office in order to write the letter covering the Soil Engineering aspects of the new construction, as required by the San Francisco Building Code, Special Inspections Code Rulings 75-15 and 1701.

As discussed on page 5 of our reports, "during construction, any hazard resulting from slope instability will be mitigated by close adherence to our recommendations on the earthwork operations". We recommend that the excavation and retaining wall construction be performed during the dry months of the year (May through October) to avoid potential problems that can occur during the wet season, particularly after periods of prolonged rainfall.

It is our opinion that construction of buildings on the slope below Brewster Avenue will increase the overall stability of the slope by installing retaining walls and concrete piers that will provide physical support for these unretained slopes. Slope stability will also be increased by removal and control of rain water, subsurface and surface water flow on the lots.

Although we have not seen the final plans, the building will be constructed over the downward sloping hillside and it is probable that the earthwork operations at the site will consist of minor excavations, which may notch into the slope for portions of the lower levels of the buildings. These excavation and by extension the slopes above the cuts will be supported by engineered retaining walls; drilled reinforced concrete pier foundations will support the walls. The piers will be reinforced with extra steel to resist potential downward "creep" type movement of the surface soil on the slope and will be tied together with grade beams

Since modern engineered retaining walls will support all changes in grade resulting from the construction, our analyses indicates that a potential for slope instability or landsliding due to the proposed construction should not exist.

LIMITATIONS

Our supplemental services consist of professional opinions, conclusions and recommendations made in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.

If you have any questions regarding this letter, please call us.

Very truly yours,



HAROLD LEWIS & ASSOCIATES

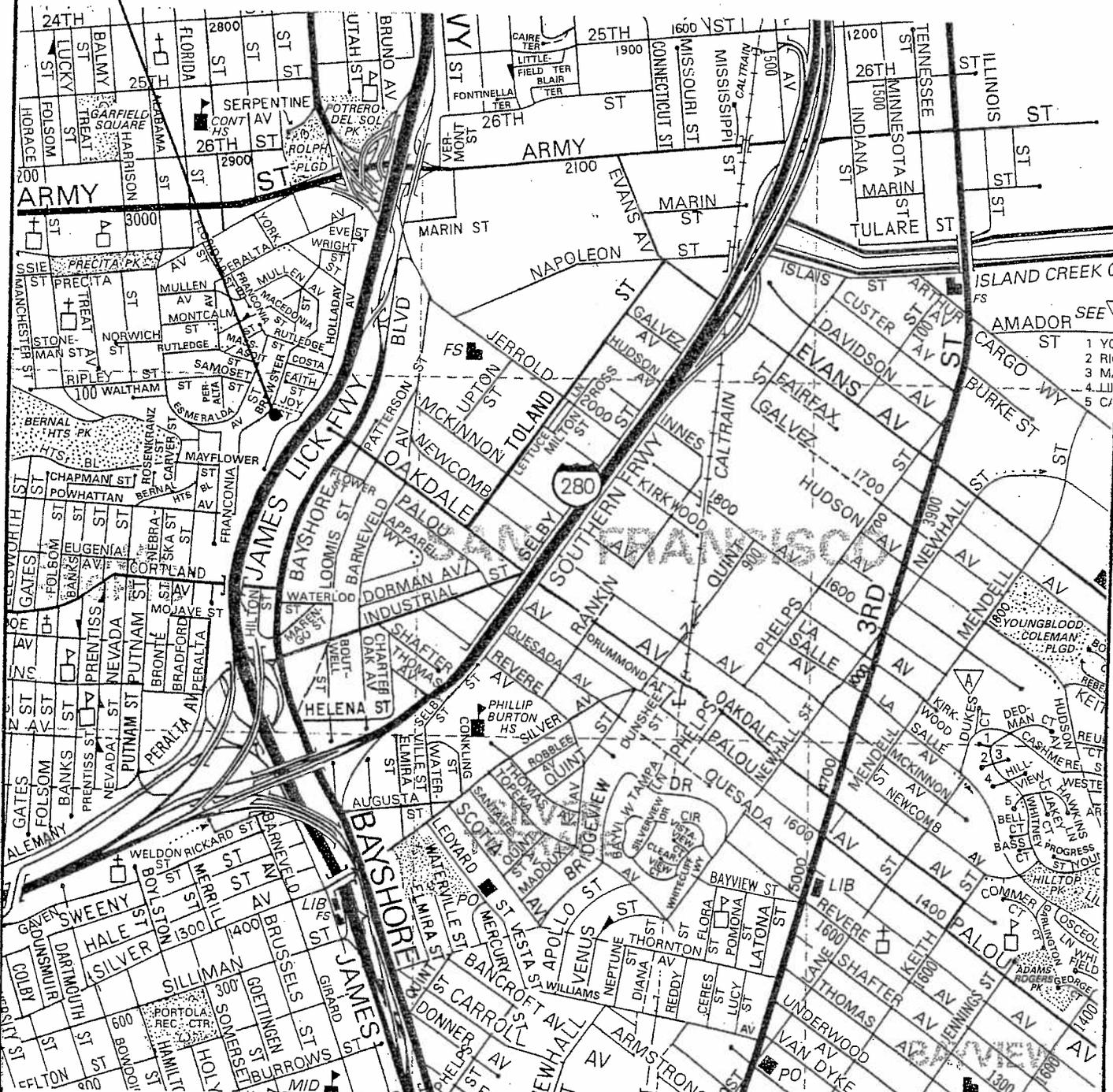
Harold L. Lewis
C.E. 33799

Enclosures:

Figure 1 - Site Plan

Figure 2 - Landslides in the Neighborhood

S I T E

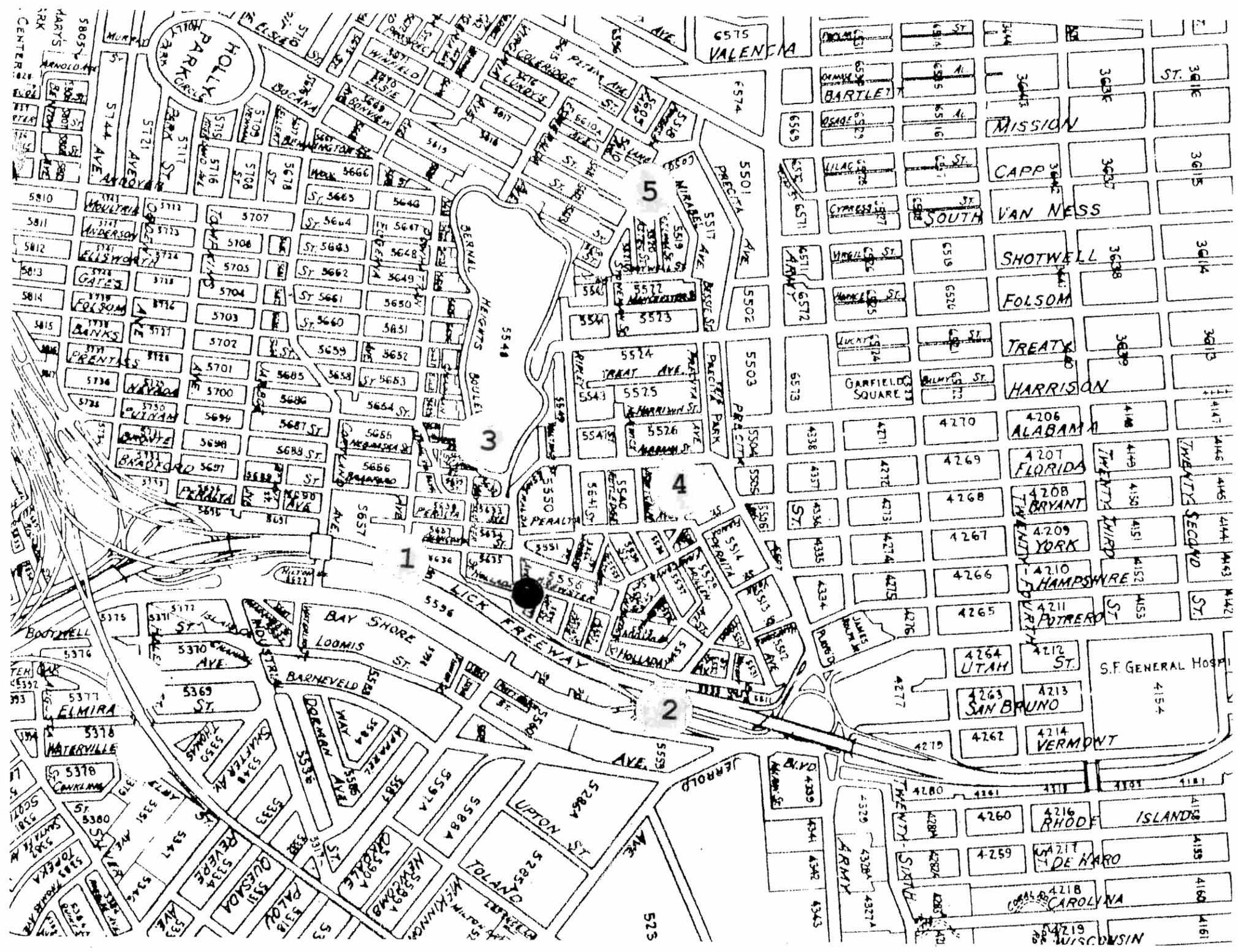


**Harold Lewis & Associates
 Geotechnical Consultants**

VICINITY MAP

Proposed Buildings on Brewster Avenue
 San Francisco, California

PROJECT NO.	DATE	FIGURE: 1
SF-06-606-X	Nov., 2010	

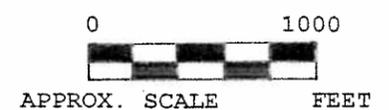


LENGEND

1 NUMBER AND APPROXIMATE LOCATION OF LANDSLIDE

● APPROXIMATE LOCATION OF SITE

SKETCH FOR ILLUSTRATION PURPOSES ONLY



BASE: "Preliminary Geologic Map of the San Francisco South Quadrangle" by M. G. Bonilla, 1971. And City and Country of San Francisco, Department of Public Works - Bureau of Engineering, Numerical and Alphabetical Index", of Landslide Maps, earliest map dated 1941. And "Map of the City and Country of San Francisco, Department of Public Works - Bureau of Engineering", dated 1978.

Harold Lewis & Associates Geotechnical Consultants			LANDSLIDES IN THE NEIGHBORHOOD		
Proposed Buildings on Brewster Avenue San Francisco, California					
PROJECT NO.		DATE		FIGURE: 2	
SF-06-606-X		Nov., 2010			

Responses to D.R.

Property at: 191 Brewster Street, 187 Brewster Street, 183 Brewster Street.
Application No: 2006.09.25.3191; 2006.09.25.3193 & 2006.09.25.3195

The following is the response of Salvio Street LLC, to the Bernal Heights East Slope Design Review Committee's Request for Discretionary review. The application for Discretionary Review was prepared by Terry Milne.

The instructions in San Francisco's Discretionary Review Application require that the applicant be as "specific as possible in describing issues of concern." It has been difficult to prepare responses to the application because Mr. Milne has ignored these instructions. He makes broad statements about the existence of "exceptional and extraordinary circumstances," "infrastructure issues," and "impact to the neighbors" without identifying any specific issues or problems.

As a preliminary matter, it should be pointed out that Mr. Milne makes a false statement in paragraph a (4).

Mr. Milne states: "Developer brought us a much grander scale development proposal for 9 (nine) house to be built on this block (5575) in 2006."

This statement is completely untrue. The original permit application submitted to the City Planning Department on September 26, 2006 was for the construction of 5 single family homes on lots 2, 9, 10, 11 and 13, respectively. The current application is for 3 homes on lots 9, 10 and 11. There was no proposal, application or any discussion with BHESDRB about construction of 9 homes. The subject lots were purchased at the beginning of 2006. Due to the fact that the lots were not properly subdivided or legally surveyed at the time of purchase they could only be sold and bought as one parcel. The existence of additional vacant lots allowed Mr. Milne to make up numbers that are not supported by any documentation.

Response to Paragraph B (1):

Mr. Milne states that "Exceptional and extraordinary circumstances exist," and further states that there exists "insufficient infrastructure." What are the exceptional and extraordinary circumstances that he is referring to? What are the infrastructure issues? It is impossible to properly respond to this request as it is completely lacking in any specifics.

Mr. Milne goes on to state that the proposed project "appears to be an attempt to circumvent notice, C.E.Q.A and affordability requirements. The developer has complied with all notice requirements to date, and intends to comply with all future notice

requirements. As for affordability requirements they were addressed during the permit application and review process. If Mr. Milne has any specific examples of violations or attempts to circumvent the law, he should state what they are.

Response to Paragraph B (2):

Mr. Milne states that, “outstanding issues of emergency vehicle access, soil movement, green space and infrastructure will impact all residents.”

With respect to emergency vehicle access, Mr. Milne intentionally ignores a very critical fact: this project will actually provide a benefit to the neighborhood. The three homes when built will widen Brewster Street by 11 feet and 6 inches. Thus, giving emergency vehicles a wider street from which to access the neighborhood. (Exhibit1).

With respect to claims of alleged soils movement: there are soils reports, explanations and professional comments from Geotechnical Consultants Harold Lewis Associates. Those reports conclude that the site is suitable for the proposed project. It also concludes that the new construction will actually help stabilize the area. The developer is not aware of any technical reports that contradict the conclusions of Harold Lewis Associates. The Bernal Heights East Slope Design Review Committee has submitted no reports of their own, and no one among them has the knowledge or expertise to give any opinions on the soil conditions in the neighborhood.

Response to Paragraph B (3):

Once again, Mr. Milne makes broad statements about “neighborhood infrastructure issues” and “exception and extraordinary circumstances” without providing any specifics.

If Mr. Milne’s concerns regarding infrastructure are in connection with neighborhood sewer capacity; this issue was raised and addressed back in 2007. According to the San Francisco Department of Public Works, the sewer system in this neighborhood went through a complete upgrade in 1997. (February 9, 2007 letter from Nathan Lee of Hydraulic Section of DPW). Also an additional letter dated march 21, 2007 from the Department of Public Works, specifically addressing the proposed construction and stated that the project would have “no impact to the sewers on Brewster or Joy Street.” (Exhibit2).

As for the detailed recommendations from BHESDRB, (**January 22/2007 letter**), once again, Mr. Milne ignores critical facts. Project sponsor had answered and addressed multiple letters and recommendations from BHESDRB. The facts are as follows:

August 7, 2006

Project sponsor and David Sternberg of Sternberg Benjamin Architects first met with BHESDRB to discuss the project. A set of drawings was left with the board for review and comments.

August 28, 2006

A second meeting with the neighbors and BHESDRB board to discuss the project took place. In response to the neighbors' request Dave Sternberg sent additional maps and drawings to the board. (Exhibit 3)

October 08, 2006

On this date, BHESDRB sends a letter of recommendations to Sternberg Benjamin Architects (Exhibit 4)

November 20, 2006

A third meeting with Board and neighbors. Dave Sternberg makes another presentation With revised drawings and responses incorporating the changes requested by BHESDRB's October 8, letter. More recommendations and requests for more changes are made by the board at this meeting.

December 11, 2006

Project Architect prepares yet another set of revised plans and responses, Incorporating comments and recommendations made by BHESDRB from the November 20, 2006 meeting. (Exhibit 5)

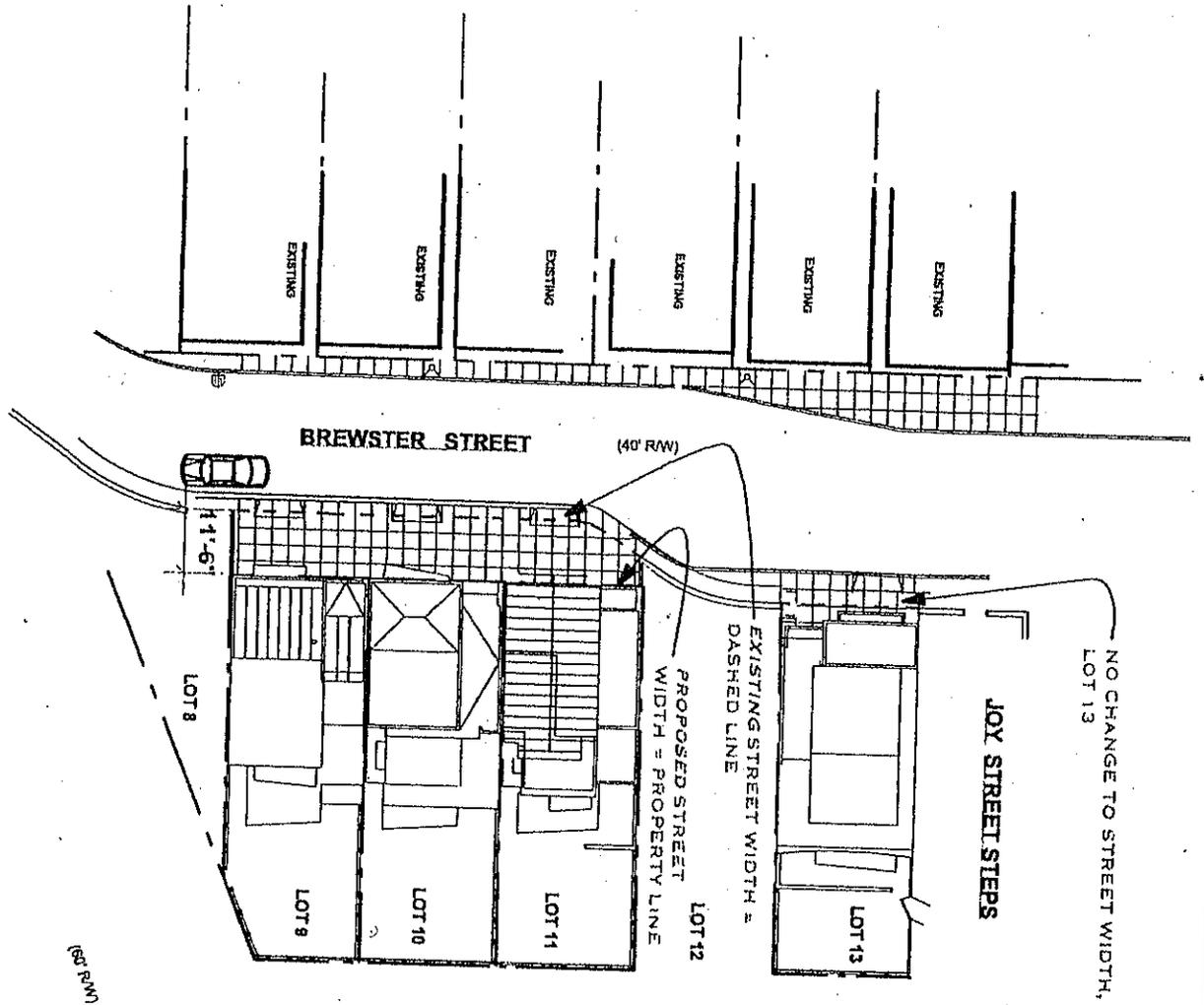
January 22, 2007

Once again BHESDRB sends another letter of recommendations, opinions and request For more changes. (Exhibit 6).

Soon after their January 22, 2007 letter, BHESDRB reversed course entirely and issued a statement saying they would not support the project.

Salvio Street LLC by Jane Viltman.

EXHIBIT 1



Date: 08.23.07
 Scale: NTS
 Drawn: AM
 Sheet:

A-1

BREWSTER STREET
 WIDTH CHANGE
 DIAGRAM

STERNBERG BENJAMIN
 1001 - AARSON ST
 SAN FRANCISCO CA 94109
 TEL 415 387 0283 FAX 415 387 0284
 www.sternbergbenjamin.com

City and County of San Francisco



Gayle Newman, Mayor
Fred Abadi, Director



(415) 554-8318
FAX (415) 554-8308
<http://www.sfdpw.com>

Hydraulic Engineering
1680 Mission Street, 2nd Floor
San Francisco, CA 94103

Ken Sfn, Section Manager

March 21, 2007

Bernal Height -
Brewster / Joy Streets
7.3.3B

No. 0471 P. 2

Planning Dept.
1660 Mission Street, Suite 500
San Francisco, CA 94103-2424

Attention: Ms. Kimberly Durandet

Ladies and Gentlemen:

This is in addition to the letter dated February 9, 2007 (copy attached) regarding project area on Brewster Street between Joy Street and Esmeralda Avenue.

Subject developer has presented us with a plan showing the construction of a "Private" driveway and sewer system. Sewers from the back of these lots will flow into a proposed 12" diameter sewer and be connected to an existing manhole on the existing 18" diameter sewer running along Holladay Avenue.

This project will have no impact to the sewers on Brewster Street or to Joy Street since there is no side sewer connection to these sewers.

The problem at 18 Joy Street was due to root intrusion into the sewer line and was repaired by DPW-BSSR on December 2005.

As far as we are concerned, proposed sewage from this project will have no impact to the existing 18" diameter sewer on Holladay Avenue.

If there are any further questions, please write to the Department of Public Works, Bureau of Engineering, Hydraulic Section, 1680 Mission Street, 2nd Floor, San Francisco, CA 94103 or call (415) 554-8318.

Very truly yours,

Nathan Lee
Hydraulic Section

Mar 21 2007 7:28AM

Attachments: As Noted

IMPROVING THE QUALITY OF LIFE IN SAN FRANCISCO

We are dedicated to providing excellent customer service and continuous improvement in partnership with the community.
Customer Service Progress Continuous Improvement

City and County of San Francisco



Gavin Newsom, Mayor
Fred Abadi, Director



EXHIBIT 2

(415) 554-8318
FAX (415) 554-8308
<http://www.sfdpw.com>

Hydraulic Engineering
1680 Mission Street, 2nd Floor
San Francisco, CA 94103

Ken Sin, Section Manager

February 9, 2007

7.3.3B

Planning Dept.
1660 Mission Street, Suite 500
San Francisco, CA 94103-2424.

Attention: Ms. Kimberly Durand

Ladies and Gentlemen:

This is in reply to your facsimile of February 6, 2007 regarding the project area on Brewster Street between Joy Street and Esmeralda Avenue.

The answers to your questions are as follows:

1. Brewster Street was realigned about 10 years ago and new sewers were installed at that time.
2. Hydraulic Section had not been informed of this proposal by the bureau of Street Use and Mapping yet.
3. This system can handle the development of the proposed project. Installations of fixtures below street grade will have to be pumped up to meet a gravity system.
4. The City does not have any plans for future improvements in this area.
5. For future conditions and capacity, the developer may want to construct a new sewer ("Private") on the back of the property to facilitate pumping fixtures built below street grades.

Enclosed, for your information, are as follows:

- a. General Area Sewer Map
- b. Plans 61395 and 61396

If there are any further questions, please write to the Department of Public Works, Bureau of Engineering, Hydraulic Section, 1680 Mission Street, 2nd Floor, San Francisco, CA 94103 or call (415) 554-8318.

Very truly yours,

Nathan Lee
Hydraulic Section

Attachments: As Noted.



STERNBERG
BENJAMIN
ARCHITECTS

TRANSMITTAL

DATE: August 29th, 2006
TO: Terry Milne
COMPANY:
ADDRESS: 321 Rutledge Street
San Francisco, CA 94110
FROM: Andrew Meagher
PROJECT: Bernal Houses

CERTIFIED MAIL CONFIDENTIAL VIA OVERNIGHT MAIL
U.S. MAIL HAND CARRIED VIA FACSIMILE

CONTENTS / COMMENTS:

Enclosed please find:

One, 8 ½" x 11" Lot map (previous)

One 8 ½" x 11 Lot map (current)

Previously sent (via hand delivery at 08/28/06 Community mtg): 24" x 36" Site Permit Drawings for Lot #2, 9, 10, 11 and 13.



Bernal Heights

East Slope Design Review Board

Terry Milne, external secretary • 321 Rutledge • San Francisco 94110 • [285-8978]

October 8, 2006

Sternberg Benjamin Architects
1331 Harrison Street
San Francisco, California 94103

Re: Brewster/Joy
Block: 5577/Lot: 2, 9, 10, 11 & 13

Dear Applicant,

The Bernal Heights East Slope Design Review Board held two neighborhood meetings, one on Monday August 7, 2006 and a second on Monday August 28, 2006, to review the proposed plans for five new houses on five previously undeveloped lots along Brewster, Joy and Holladay Streets.

During the meetings, the neighbors strongly expressed concerns regarding the impact the proposed homes will have upon: the already maximized infrastructure including water, sewer and fire water lines; the limited vehicular and fire truck access; the established environment of plants, trees, wildlife, and erosion; and the limited street parking. The neighbors requested that the proposed design preserve the architectural variety and character of the neighborhood with special consideration and sensitivity for the Joy Street stairway. In addition, the neighbors raised questions regarding the contractor's experience and references, and the impact that the construction timeline and sequencing (e.g. staging, equipment, parking) will have on the neighborhood.

Upon the Board's further review of the drawings, we noted several internal inconsistencies between plans, elevations and sections that made the review process time consuming and challenging. Additionally, the calculations for area and mass reduction are questionable and in some cases unclear. For subsequent review(s), the Board requests that the applicant provide coordinated drawings and clear calculations.

After careful review of the proposal, the Board regrets to inform you that we cannot recommend that the Department of City Planning approve this project in its current configuration. The Board requests that further refinements be made to the design to address the following comments:

- **Curb Cuts and Parking:** Street parking is valuable and limited in the immediate neighborhood, since several adjacent homes do not have on-site parking. The proposed development of five vacant lots will decrease the current street parking. The Board requests that the applicant reduce curb cuts to 9'-0" wide in order to comply with the design guidelines. This allows greater opportunity for street parking. In addition, consider ganging

curb cuts of adjacent lots (e.g. Lots 9, 10 and 11) along Brewster Street to increase the opportunity for street parking. The Board realizes that ganging curb cuts may require flip-flopping the garages and entry elements of some of the homes along Brewster Street.

- **Landscaping:** In general, the Board recommends that the space between the street and the face of the home be designed with landscape opportunities and pedestrian traffic in mind. Indicate street trees and sidewalks at each lot, while considering the pedestrian connections to the neighborhood such as the Joy Street stairway. In addition, the Board offers the following specific design suggestions:
 - Lot 2: Minimize the expanse of concrete. It is unclear to the Board why retaining walls are shown on both sides of the lot. Perhaps indicating the adjacent existing home on Lot 3 and the adjacent topography on vacant Lot 1 in plan and elevation will provide clarity.
 - Lots 9, 10, 11, 13: The proposed elevated entry bridge concept for entering these homes offers little to no opportunity for landscaping. Consider filling-in the entire width of the lot to a height equivalent to the proposed entry bridges. Now this area can be utilized with a combination of sidewalks, entry walkways, driveways, and landscaping. This also alleviates the potential for trash and debris collecting in the proposed "moats." In addition, indicate street trees along Joy Street at Lot 13.
- **Entry Treatment:** The Board appreciates the subtle variations at each entry, but there is still too much similarity between the five designs. Consider variety, while creating better transitions between the street and the front door. For example, recess entry doors at varying depths in the façade. In addition, the fin walls in all five designs seem to have no design or functional value, but perhaps the Board could not properly evaluate the fin walls since there were several inconsistencies between the plans and elevations. Coordinated drawings would be helpful. In addition, the Board offers the following design suggestions:
 - Lot 2: Add an exterior entry stair since the sloped site allows for this design element.
 - Lot 9, 10, 11: Basically, all three share the same hole-in-the-wall entry design. The awning, at Lot 10, is appreciated. Continue adding variety by recessing doorways at different depths. Vary materials, colors, and door and side light designs.
 - Lot 13: The opening to Joy Street takes advantage of the site condition. However, make something special of the entry on Brewster Street.
- **Building Bulk and Massing:** Please provide clear calculations including front, rear and side yard setbacks for the Board's evaluation. Specific comments include:
 - Lot 2: Appears to be 130 sq. ft. over the allowable area for a home with a two-car garage (2,250 sq. ft. maximum).
 - Lot 13: Since this is a highly visible corner lot along Brewster and Joy Streets, the building bulk and massing are extremely important. The current design proposes three stories along Brewster Street. Consider reducing the height, bulk and mass by moving the fourth floor (third floor along Brewster Street) to the lowest level of this five story home. Consequently, this will reduce the presence of the dominant, mostly blank Joy Street elevation. In addition, it appears the calculations are not correct due to inconsistencies in the drawings.

- **Side Yards:** The design guidelines indicate a completely open side yard zone measuring 4'-0" wide and extending a minimum of 5'-0" back from the street façade, which is not addressed in the proposed designs. The Board suggests adding side yards at Lots 9, 10 and 11 to break up the solid-wall effect along Brewster Street, while providing additional architectural articulation. Refer to page 19 of the Bernal Heights East Slope Design Guidelines for additional information.
- **Roof Treatment:** The Board feels flat roofs are used in an appropriate manner for homes on such a steep hillside, but consider the appearance of the roof at Lot 2 which is highly visible from the uphill lots. Additionally, the roof configuration of Lot 13 is unclear. Clarify the configuration by providing additional roof information.
- **Façade Elements:** Decks appear throughout the five houses. In some cases the decks do not meet the design guideline of at least 6'-0" deep and a minimum of 36 sq. ft, which make such decks usable. The Board agrees some of the non-compliant decks are valuable design elements that break up the massing. Evaluate the deck designs and use decks that do not meet the guidelines sparingly.
 - Lot 13: Since this is a corner lot, study the continuity between the Brewster and Joy Street façades. Additionally, consider further refinement of the architectural elements such as windows, decks, and materials on the Joy Street elevation to avoid an uninteresting exterior that does not relate well to the surrounding homes.
 - Most of the proposed homes have façades that face vacant lots. When designing these façades, keep in mind that the vacant lots may or may not be developed in the future. In particular, note Lots 2 and 9 face substandard lots, which may prolong the time frame for any future development. The Board recommends further studies of these façades.
- **Colors and Materials:** The proposed materials of plaster, wood siding with clear coat finish, and aluminum seem appropriate. However, the metal panels proposed at Lot 13 have an industrial appearance, which is not contextual with the neighborhood. Consider a more suitable material. In addition, the Board is concerned with the appearance of the metal standing seam roof indicated at Lot 13. Perhaps additional information, as suggested above, will alleviate the concern. For further review, the Board requests colors and material boards.

The Board wishes to thank the project sponsor for presenting the plans to the neighborhood. Since the Board is not a City agency, it does not have the power to either approve or disapprove the permit application.

Cordially,

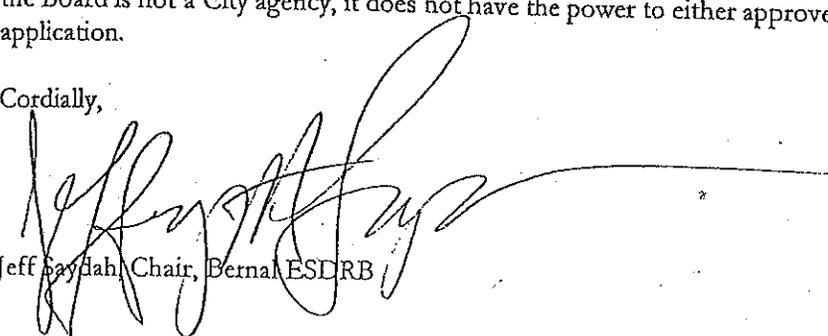

Jeff Baydiah, Chair, Bernal ESDRB



EXHIBIT 5

TRANSMITTAL

DATE: DECEMBER 11TH, 2006
TO: TERRY MILNE
COMPANY:
ADDRESS: 321 RUTLEDGE
FROM: ANDREW MEAGHER
PROJECT: BERNAL HOUSES LOT 2,9,10,11, AND 13

CERTIFIED MAIL CONFIDENTIAL VIA OVERNIGHT MAIL
U.S. MAIL HAND CARRIED VIA FACSIMILE

CONTENTS / COMMENTS:

Enclosed please find:

- 1) Letter response to ESDRB letter dated October 8th, 2006
- 2) Revised Site plan
- 3) Revised North Elevation Lot 13, depicting fence.
- 4) Interim letter response to comments provided at November 20th presentation.

December 11th, 2006

East Slope Design Review Board
Attention Jeff Saydah, Bernal ESDRB
321 Rutledge
San Francisco, CA 94110

RE: Response to ESDRB letter dated October 8th, 2006 for proposed project on Lot:
2,9,10,11 &13.

Dear Mr. Saydah, and ESDRB members:

Thank you very much for your input and comments regarding the proposed single family dwellings on Lot: 2,9,10,11 &13. as outlined in your letter dated October 8th 2006. This letter is a supplement to the presentation by David Sternberg to the Board, on Monday November 20th.

We understand there were concerns related not only to the design of the proposed projects but also the impact the construction process will have on the day to day functioning of the neighborhood, and the impact on the infrastructure, upon the buildings completion. Though a contractor has not been retained, the Project Sponsor is committed to a quality development with experienced trades people, and minimizing any negative impact on the neighborhood due to the construction process. The Project Sponsor will review the option of staging from one of the available lots. Furthermore once the Owner brings on board a civil, mechanical, electrical and plumbing consultant, the issues related to infrastructure of water, sewer, fire and erosion will also be addressed.

The proposed revisions addressed the issue of preserving the architectural variety and character of the neighborhood with special consideration to the Joy Street steps.

As the proposed design for each home has been modified to address the Boards comments, the calculations have also been revised. If there is a question or clarification needed, or an inconsistency noted by the Board, please do not hesitate to contact Andrew Meagher or myself from our office and we will provide whatever information is required.

Per your request we have modified the proposed project in an effort to satisfy your concerns:

- **Curbs and parking:**

1. The curb cut width has been decreased at all five lots, to 9'-0". (Site Plan sheet A0.02)
2. The curb cuts for lot 9, 10,11 and 13 have been repositioned relative to each other in order to maximize the opportunity for parking in between them. (Site Plan sheet A0.02)

- **Landscaping:**

1. New street trees, raised planter beds, and new 6'-0" sidewalk areas are indicated (Site Plan sheet A0.02)
2. Lot #2 retaining wall at north side of lot has been reduced to allow for a 6'-0" wide sidewalk, and eliminated at the south side. (Site Plan sheet A0.02)
3. The bridge concept at the driveway for lot 9,10,11,and 13 has been eliminated and in filled, as per your request, to allow for landscaping, street trees and a wider sidewalk. (Site Plan sheet A0.02) Each home now has one or more 3'-0" wide by 4'-7" deep raised planter bed.
4. Street trees are preliminarily indicated for lot 13 along Joy Street (Site Plan sheet A0.02). Please note exact location pending further analysis of site conditions such as existing irrigation lines and existing landscaping and neighborhood considerations if proposed.

- **Entry Treatment:**

1. We reviewed the feasibility of providing external entry stairs in lieu of the proposed interior stair. However given the location of the stair and the slope of the site it is our opinion that an external stair would not be visible and therefore not significantly contribute to the street experience.
2. Per your request we have revised and refined the design of the entry and overall facade treatment for Lot 9,10,11 and 13 to improve variety. Specifically each home now has it's own:
 - Color scheme at cement plaster areas
 - Setback at entry
 - Setback at garage door
 - Front door design and side light
 - Window treatment in bay window
 - Garage door design
 - Roofline.

In addition lot 10 has a balcony at the second floor, and its bay window has a slight angle in plan. Please note Lot 10 has it's garage door is setback a full 4'-0". Lot 9 and 11, now has the awning treatment that the board noted as a preferred design element to be retained. Each is treated slightly differently to maintain variety. Each home will also have a different exterior lighting treatment. In particular Lot 11 will have a chandelier light fixture suspended from the canopy.

3. Please see Sheet A3.01 of Lot 13 architectural set for revised elevation, and additional comments below.

- **Building Bulk and Massing:**

1. Lot 2 area of home complies with 2,250 sq.ft. maximum. See Sheet A0.00 of Lot 2 architectural drawings for areas. Please note however that Lot 2 has been redesigned to address concerns stated under "**Roof Treatment**" and "**Facade Elements**".
2. Lot 13 has been significantly redesigned to address concerns regarding height, bulk and massing. Specifically the proposed design follows the Boards recommendation and relocates the 4th floor to the lowest level. In addition the current top floor is set back on the north, south and significantly from the east side to minimize it's presence from the view up Joy Street.

Lot 13 area of home complies with 2,250 sq.ft. maximum, allowing two parking spaces. See Sheet A0.00 of Lot 13 architectural drawings for areas.

- **Side Yards:**

1. Please see individual Unit plans for proposed setbacks.

- **Roof Treatment:**

1. Per the Boards comment, the roof treatment for Lot 9, and 11 continue to be flat for the majority of the roof area, as previously proposed. However Lot 10 has been revised to be a vault, to improve the desire for variety along Brewster, as requested by the Board, under section "**Entry Treatment**". In addition this allows for a clerestory to be introduced further breaking up the bulk and massing.
2. The roof of Lot 2 has been completely redesigned. The proposed design follows the Boards recommendation and eliminates any conventional flat roof treatment in favor of a continuous vault over the main body of the building, with a shed roof / clerestory treatment at the north portion of the site.
3. Lot 13 now has a "saw tooth" roof design. The previous proposal has been completely eliminated.

Please note that in each case the revised roof design is either at the previous height or lower.

Facade Elements:

1. Lot 9,10, and 11 have been redesigned to minimize any deck that does not meet the 6'-0", 36 sq.ft. area rule. However each unit does have one deck that is 3'-6" deep by 10'-4" wide, with an area of 28 sq.ft. These decks are provided at the garage level, and though do not comply with the Guidelines, should be a useful amenity to the occupant, serve to break up the massing, and add visual interest with their wood finish. We respectfully request that the Board consider these proposed decks.
2. The continuity between the Brewster Street and Joy Street facade has been increased, thru the articulation of the bulk and massing of the exterior walls that define the kitchen, which serve to create a strong corner element. As well, the plan has been "flipped", moving the stairs to the south side of the site, allowing for a more articulated facade treatment of windows and setbacks, along Joy Street (Sheet A 3.02).

Brewster/ Joy Lot 2,9,10,11, &13.

December 11th, 2006

Page 4 of 4 pages

3. The south elevation of Lot 2 has been redesigned, as well as the north elevation of Lot 9, keeping in mind, with the Boards concern, that it may be sometime before the adjacent vacant lots are developed. Lot 2 utilizes contrasting colors and a variety of setbacks; with clean simple placement for the cement plaster control joints. See color elevations. Lot 9 proposes a detail; introducing a vertical control joint that allows the facade color to "wrap" the corner. In addition the profile of the buildings edge is considered, and the cement plaster control joints are coordinated with the buildings transitions.

Color and Materials:

1. Per the boards recommendation the metal panel proposed for the bay window and the "butterfly" roof wrapped in standing seam metal, of Lot 13 has been eliminated.
2. A material board is being developed. However color elevations and a perspective are provided to give further indication of the design intent to provide homes which are responsive to the boards desire for variety and appropriateness for the neighborhood.

We thank the Board and the neighborhood for its diligent review and astute comments to help produce a better quality project.

Regards,

David Sternberg



December 11th, 2006

East Slope Design Review Board
Attention Jeff Saydah, Bernal ESDRB
321 Rutledge
San Francisco, CA 94110

RE: Interim response to community meeting on November 20th, 2006 for proposed project on Lot: 2,9,10,11 &13.

Dear Mr. Saydah, and ESDRB members:

At our presentation to the Board and the community on November 20th, several new issues were raised during the meeting. Though we understand these comments may or may not be identified in your formal response to our revised proposal, we did wish to address them now to help facilitate your continued review. Specifically:

1. **Treatment of fences.** Please see attached Sheet A3.02, (11" x 17" color) North Elevation of Lot 13 for typical proposed design. See also, Sheet A 0.02 for proposed locations.
2. **Retaining wall at north side of Lot 2 at sidewalk area.** We have revised the retaining wall to provide a 6'-0" min clearance at the sidewalk. In addition it will be detailed to be easily removed should the adjacent lot or sidewalk area be developed. See Sheet A 0.02.
3. **Landscaping in rear yards.** Though a Landscape Consultant has not yet been retained, the Project Sponsor is sensitive to concerns regarding erosion, and the overall visual impact landscaping can have on the environment, and will work to ensure that the landscaping is in harmony with the neighborhood, and is environmentally appropriate.
4. **Street parking space at corner of Joy and Brewster Street.** Our revised drawing A0.02 has removed the implied stall previously shown at that corner.

We look forward to our continued dialogue as the design is developed. If you have any questions please feel free to contact either Andrew Meagher or myself.

Regards,

David Sternberg



Bernal Heights

East Slope Design Review Board

Terry Milne, external secretary • 321 Rutledge • San Francisco 94110 • [285-8978]

January 22, 2007

Sternberg Benjamin Architects
1331 Harrison Street
San Francisco, California 94103

Re: Brewster/Joy
Block: 5577/Lot: 2, 9, 10, 11 & 13

Dear Applicant,

The Bernal Heights East Slope Design Review Board held a neighborhood meeting on Monday, November 20, 2006 to review the revised, proposed plans for five new houses on five previously undeveloped lots along Brewster, Joy and Holladay Streets.

During the meeting and through a separate neighborhood response letter dated December 10, 2006, the neighbors strongly expressed concerns regarding the impact the proposed homes will have upon: the infrastructure including mail delivery, refuse receptacle locations, and refuse removal; the established environment of plants, trees, wildlife, and erosion, which may warrant an Environmental Impact Report and an arborist's review; and the limited street parking. The neighbors requested that the proposed design preserve the architectural variety and character of the neighborhood with special consideration and sensitivity for the Joy Street stairway. The neighbors specifically pointed to the inappropriately large scale of the massing and floor area for the proposed homes in relation to the neighboring context. Providing story poles for the neighbors' evaluation would help visualize the proposed massing of the homes. In addition, the neighbors prefer a construction schedule where one house be built at a time, rather than all five houses built at one time, in order to reduce the disturbance to the neighborhood.

Upon the Board's further review of the revised drawings and response letter from Sternberg Benjamin Architects dated December 11, 2006, we noted again several internal inconsistencies between the letter, plans, elevations and sections that made the review process time consuming and challenging. Additionally, some calculations for area and mass reduction are again questionable and in some cases unclear. For subsequent review(s), the Board requests that the applicant provide coordinated drawings and clear calculations.

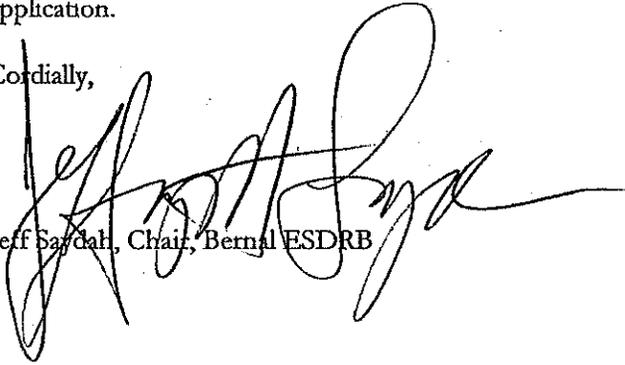
After careful review of the revised proposal, the Board and the neighbors appreciate the improved, revised design that addresses many of the neighborhood design guidelines and the neighbors' comments; however, we regret to inform you that we cannot recommend that the Department of City Planning approve this project in its current configuration. The Board requests that further refinements be made to the design to address the following comments:

- **Curb Cuts and Parking:** Street parking is valuable and limited in the immediate neighborhood, since several adjacent homes do not have on-site parking. The proposed development of five vacant lots will decrease the current street parking. Consider either ganging curb cuts of adjacent lots (e.g. Lots 9, 10 and 11) along Brewster Street to increase the opportunity for street parking or providing 18'-0" between driveways to allow for street parking. The Board realizes that ganging curb cuts may require flip-flopping the garages and entry elements of some of the homes along Brewster Street. The parking space indicated between the driveways of Lots 9 and 10 is only 14'-0" long, which is too small to park a standard car. Sizes of parking spaces provided should conform to Department of Public Works minimum standards.
- **Landscaping:** In general, the Board recommends that the space between the street and the face of the home be designed with landscape opportunities and pedestrian traffic in mind. Indicate street trees and sidewalks at each lot, while considering the pedestrian connections to the neighborhood such as the Joy Street stairway. In addition, the Board offers the following specific design suggestions:
 - Lot 2: Minimize the expanse of concrete and increase the amount of planting area. It is unclear to the Board why a retaining wall is shown on the north side of the lot. Perhaps indicating the adjacent topography on vacant Lot 1 in plan and elevation will provide clarity. Alternatively, consider minor regrading at Lot 1 (also owned by Project Sponsor) if this could result in elimination of retaining wall.
 - Lots 9, 10, 11, 13: Reduce expanse of concrete by extending planting areas to face of building and establish pedestrian zone near sidewalk. Consequently, a better delineation will be created between public and private zones along Brewster Street.
- **Entry Treatment:** The Board appreciates the subtle variations at each entry. Consider this variety when creating better transitions between the street and the front door. In addition, the fin walls at Lots 2, 9, 10 and 11 seem to have no design or functional value, while adversely and unnecessarily impacting the view of neighbors when these fin walls extend above roof level. Perhaps the Board could not properly evaluate the fin walls since there were several inconsistencies between the plans and elevations. Clarify for the Board the purpose for the fin walls (e.g. property separation wall) or eliminate from the design. In addition, the Board offers the following design suggestions:
 - Lot 2: As indicated in the last review comments, add an exterior entry stair to celebrate the unique entry to an upslope site.
- **Building Bulk and Massing:** The Board is still having trouble verifying the architect's calculations of building area, and requests that the architect provides clear calculations and diagrams including front, rear and side yard setbacks for the Board's evaluation. Please note that areas within the non-buildable area can not be used for mass reduction. Specific comments include:
 - Lot 9: Area appears to be about 200 sq. ft. over the allowable area.
 - Lot 10: Area appears to be about 200 sq. ft. over the allowable area.
 - Lot 11: Area appears to be about 300 sq. ft. over the allowable area. As noted above, non-buildable area can not be used for mass reduction.

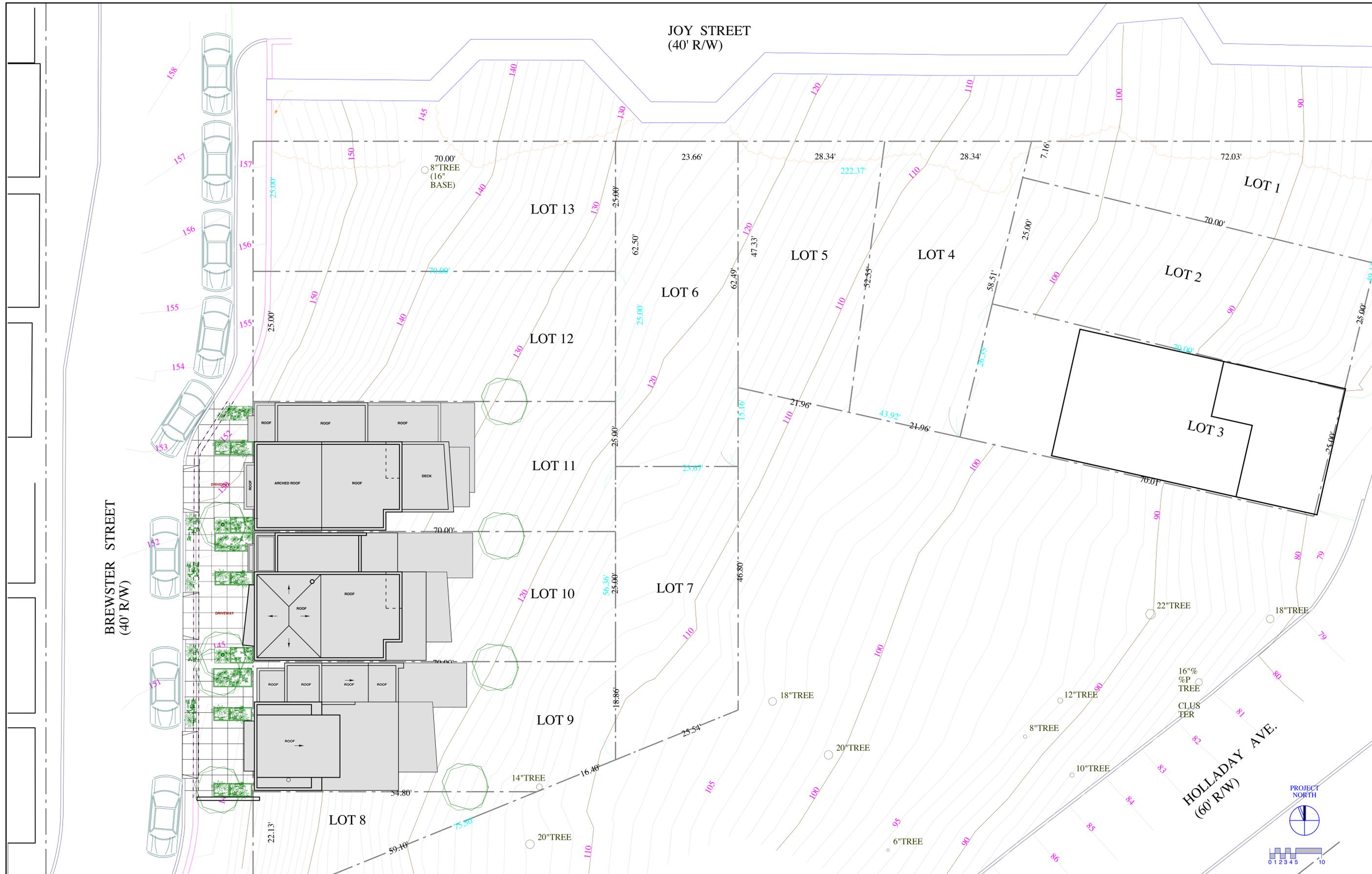
- Lot 13: Area appears to be about 220 sq. ft. over the allowable area. Mass reduction appears to be about 220 sq. ft. less than the required area. Clarify with the Department of City Planning if it is allowable to use the required front yard setback for mass reduction as indicated on sheet A4.01.
- **Side Yards:** The design guidelines require a completely open side yard zone measuring 4'-0" wide, extending a minimum of 5'-0" back from the street façade and open for the full height of the building. Refer to page 19 of the Bernal Heights East Slope Design Guidelines for additional information.
 - Lot 9: For Entry to be counted as Zone 1 side yard, continue the side yard the full height of the building, which means eliminating Bath #3 and the roof over it.
 - Lot 11: Zone 1 is acceptable, but two of the four additional zones are not left open.
 - Lot 13: For Entry to be counted as Zone 1 side yard, continue the side yard the full height of the building, which means eliminating Powder Room on the third floor. In addition, two of the four additional zones are not left open in the current design.
- **Roof Treatment:** The Board feels flat roofs are used in an appropriate manner for homes on such a steep hillside. The Board offers the following design suggestions:
 - Lot 2: Simplify the two roof elements and related building massing so the building height along the north property line is reduced.
 - Lot 13: Over the garage element, provide a flat roof at the midpoint of the proposed pitched roof. The flat roof will provide a lower roof height and create continuity between the Brewster and Joy Street elevations.
- **Façade Elements:** The intent of the guidelines is to maximize the possibilities for diversity while striving for harmony between dissimilar pieces on neighboring buildings so that they fit into a satisfying whole. The Board requests further refinement of the following:
 - Lot 13: Since this is a corner lot, study the continuity between the Brewster and Joy Street façades. Additionally, consider further refinement of the overly busy architectural elements on the Joy Street elevation so it relates to the surrounding homes. Simplify the Joy Street architectural language to be compatible with the attractive Brewster Street elevation. The Board asks that particular attention be paid to solid/void relationships on this façade. Also, the balcony extending over the property line at the Joy Street steps seems unnecessarily assertive in a zone already of great concern to the Joy Street neighbors. The Board recommends that the project remains within the lot.
 - Most of the proposed homes have façades that face vacant lots. When designing these façades, keep in mind that the vacant lots may or may not be developed in the future. In particular, note Lots 2 and 9 face substandard lots, which may prolong the time frame for any future development. The Board recommends further studies of these façades and selection of materials for these facades with the understanding that they may be visible for many years.
- **Colors and Materials:** The Board again requests a colors and materials board.

The Board wishes to thank the project sponsor for presenting the plans to the neighborhood. Since the Board is not a City agency, it does not have the power to either approve or disapprove the permit application.

Cordially,

A handwritten signature in black ink, appearing to read "Jeff Saydah", written over the typed name below.

Jeff Saydah, Chair, Bernal ESDRB



NEW SINGLE FAMILY HOUSES
LOT 9, 10 & 11
 BLOCK 5577
 BREWSTER STREET
 SAN FRANCISCO CA

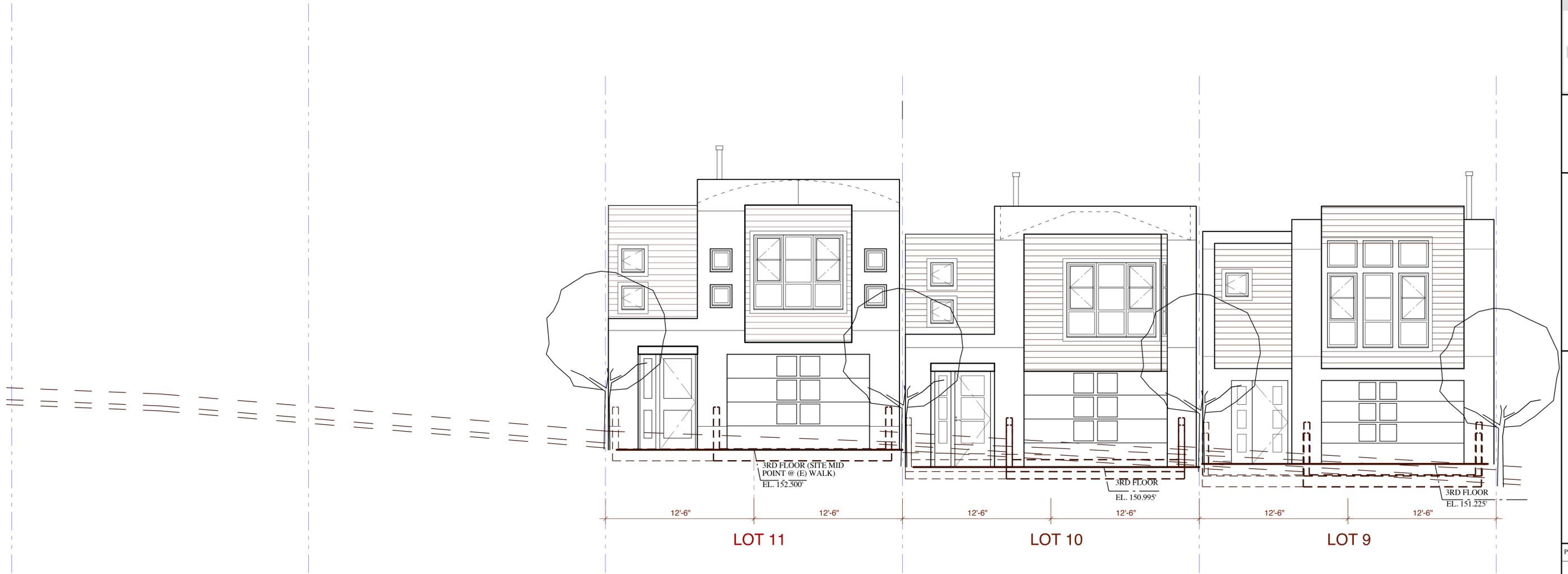
SITE PLAN

PLNG. DR 10/17/11

Rev./Issue. Date

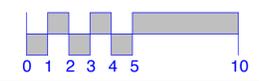
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Sheet: **A0.00**



WEST (STREET) ELEVATION

1





LOT 9

LOT 10

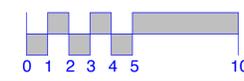
LOT 11

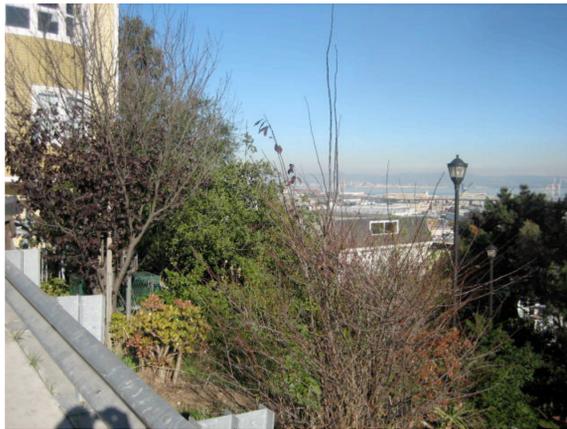
LOT 12

LOT 13

EAST (REAR) ELEVATION

1





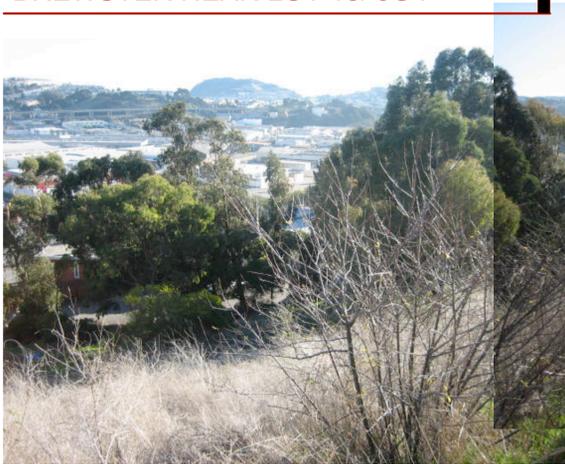
VIEW NORTH- EAST

2



VIEW NORTH ACROSS
BREWSTER NEAR LOT 13/ JOY

4



SOUTH-EAST (DOWN BREWSTER)

3



VIEW WEST/ NORTH (UP BREWSTER)

1

Rev/Issue Date

Date: 06/06/06

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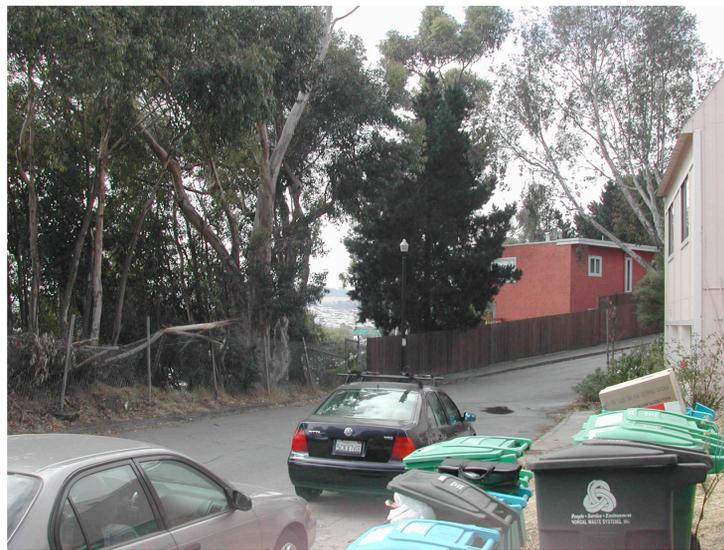
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VIEW NORTH **4**



VIEW NORTH- EAST **2**

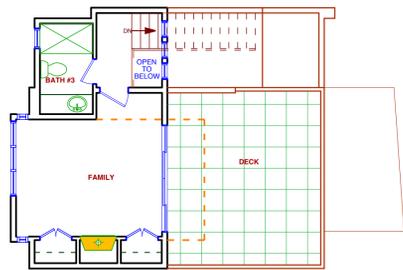


SOUTH-EAST **3**

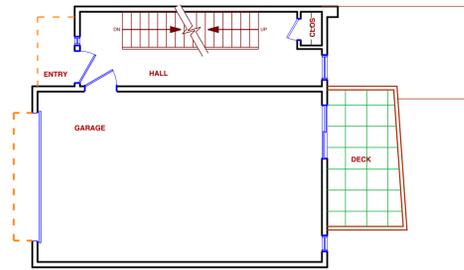


VIEW WEST **1**

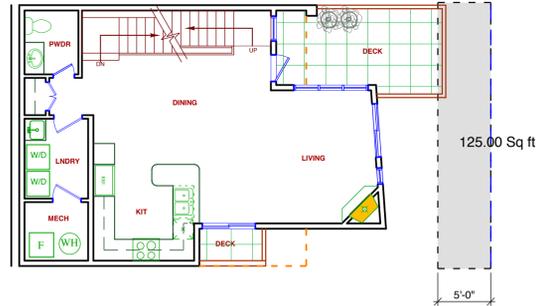




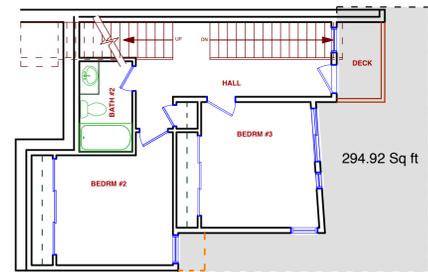
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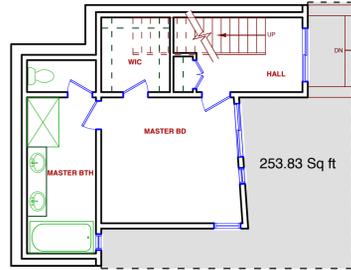
THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT FLOOR PLAN

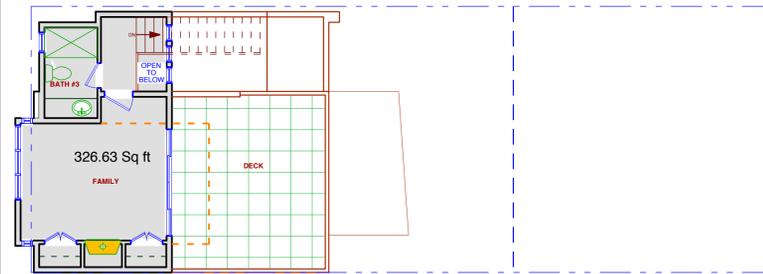
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TOTAL 125.00 Sq ft

294.92 Sq ft
TOTAL = 294.92 Sq ft

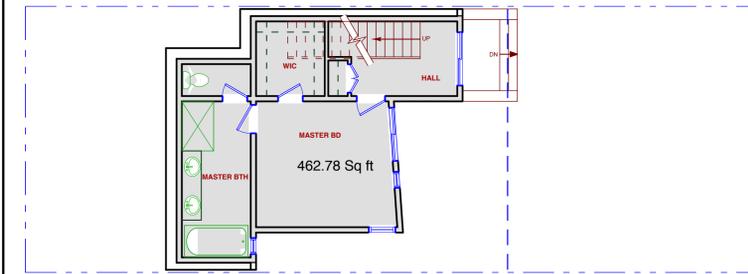
253.83 Sq ft
TOTAL = 253.83 Sq ft

125.00 Sq ft
294.92 Sq ft
253.83 Sq ft
TOTAL MASS REDUCTION AREA **673.75 Sq ft**

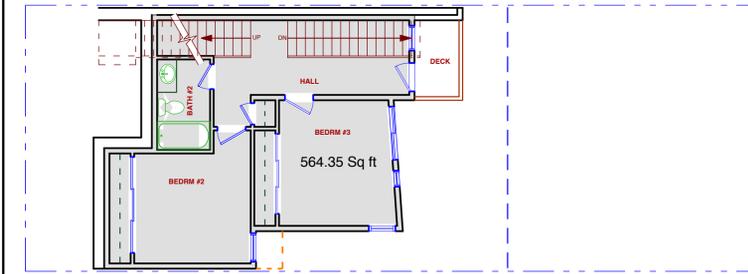




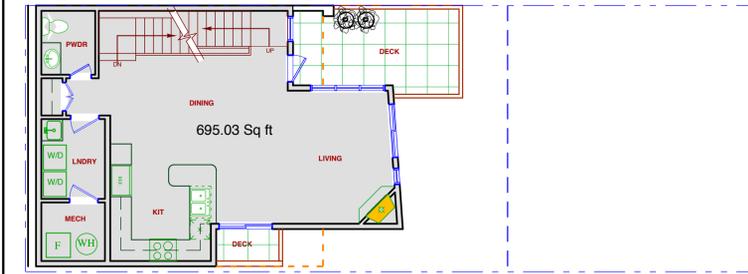
FOURTH FLOOR PLAN



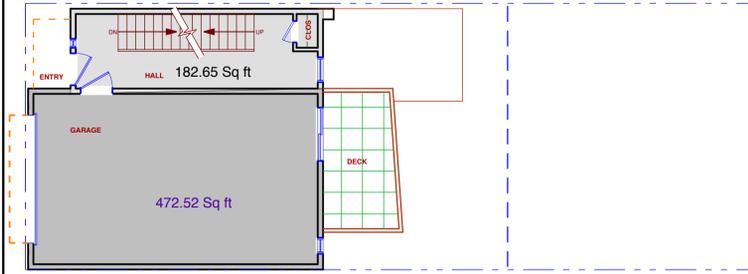
BASEMENT FLOOR PLAN



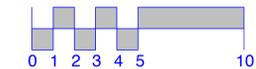
FIRST FLOOR PLAN



THIRD FLOOR PLAN



	326.63 Sq ft
	182.65 Sq ft
	695.03 Sq ft
	564.35 Sq ft
	462.78 Sq ft
TOTAL USABLE AREA	2,231.44 Sq ft
GARAGE AREA	472.52 Sq ft
TOTAL GROSS AREA	2,703.96 Sq ft



PERMIT APPLICATION # 2006.09.25.3191

03/22/11	REV.
03/08/10	PLNG. REV. 2
02/08/10	PLNG. REV.
12/26/07	PLNG
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue.	Date

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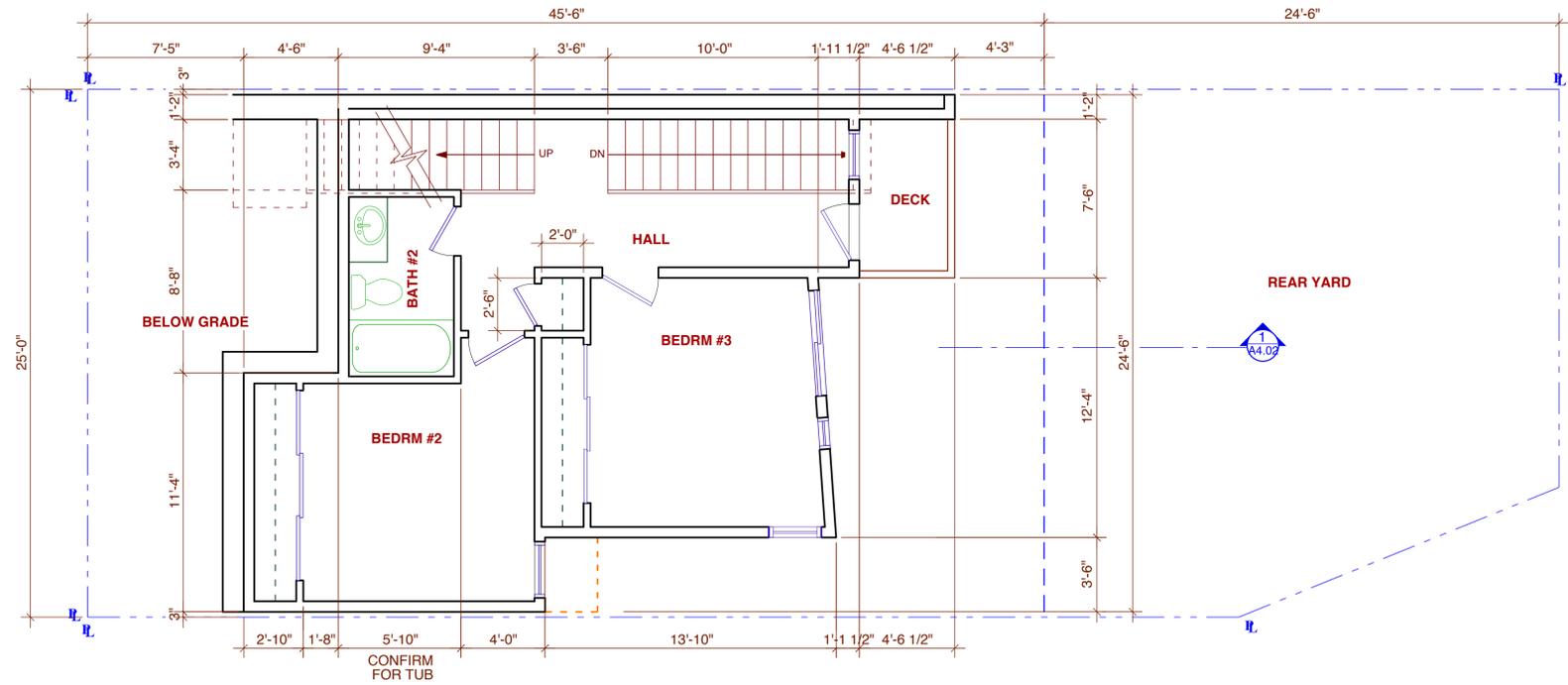
A0.05

NEW SINGLE FAMILY HOUSE
LOT 9
BLOCK 5577
BREWSTER STREET
SAN FRANCISCO CA

AREA DIAGRAMS

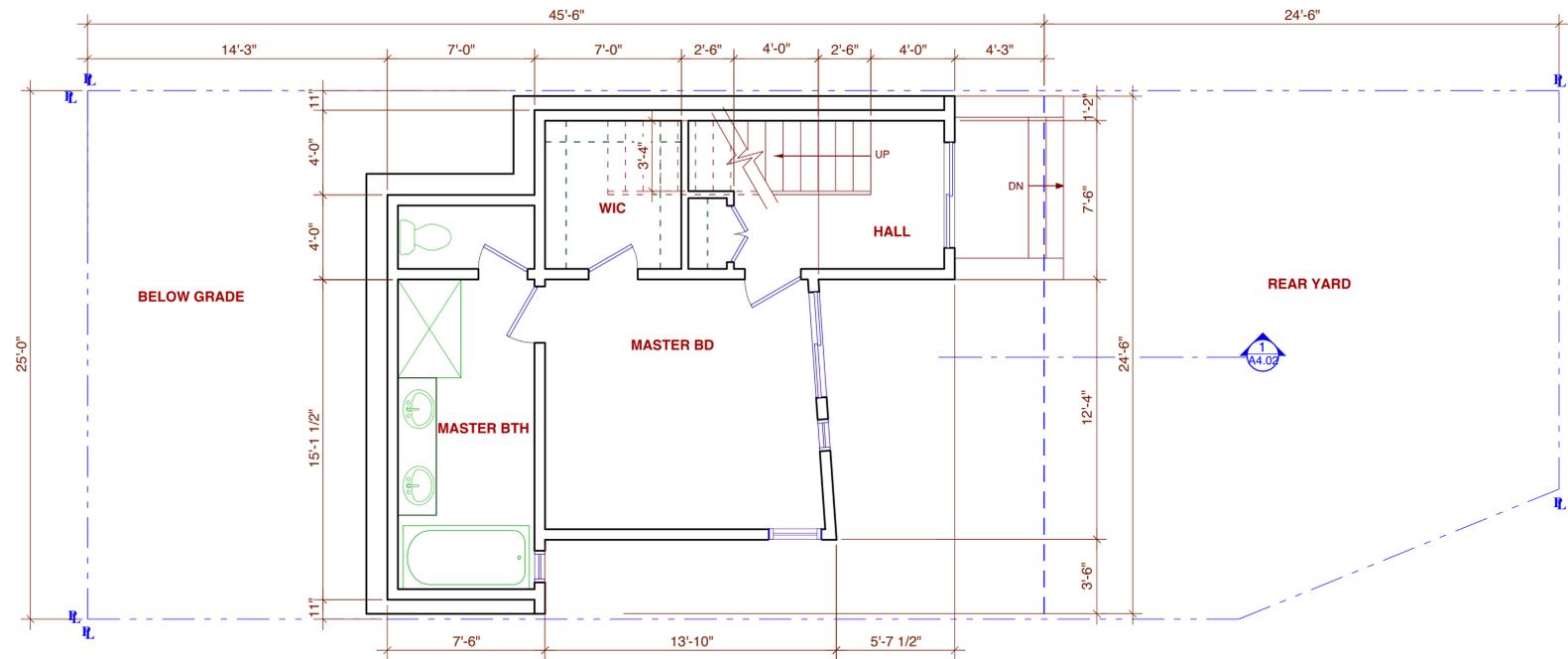
STERNBERG
BENJAMIN
ARCHITECTS

1331 HARRISON STREET
SAN FRANCISCO CA 94103
TEL 415.882.9787 FAX 415.882.9796
www.sternbergbenjamin.com



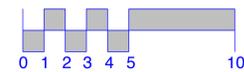
FIRST FLOOR PLAN

2



BASEMENT FLOOR PLAN

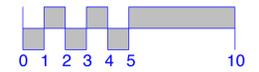
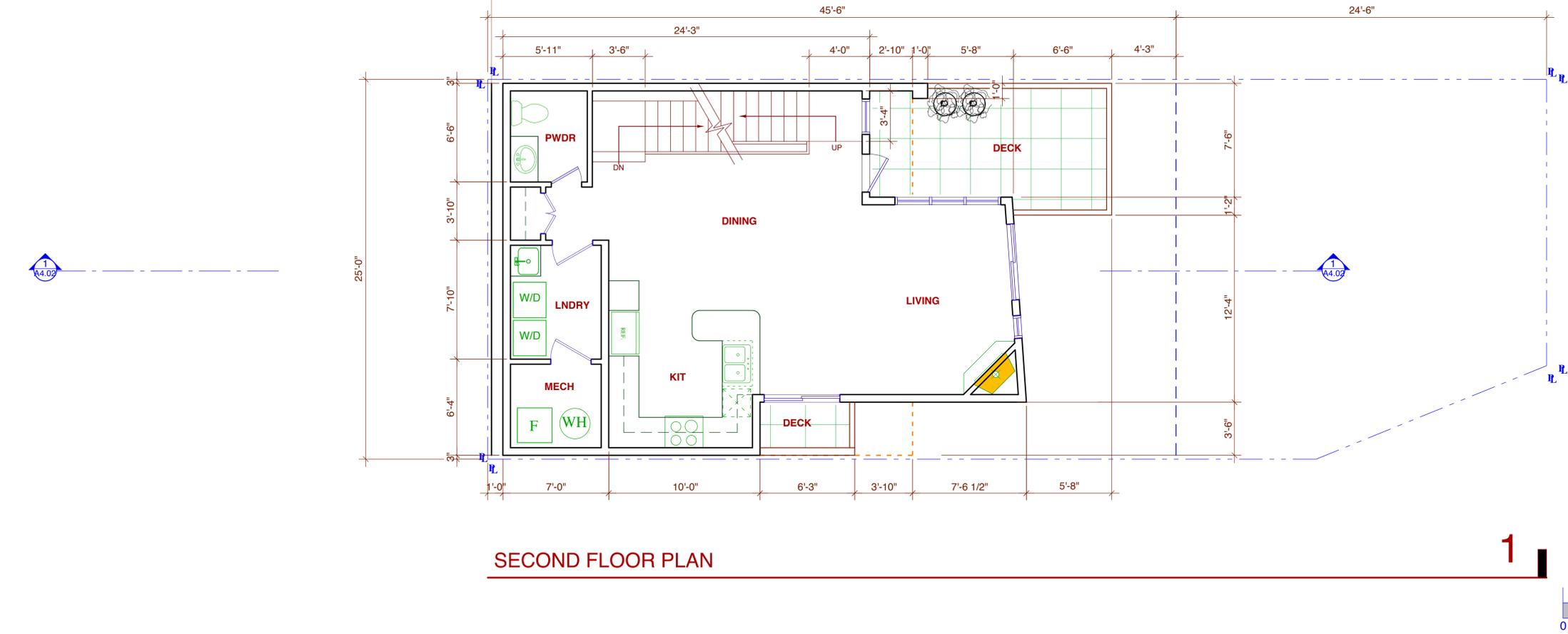
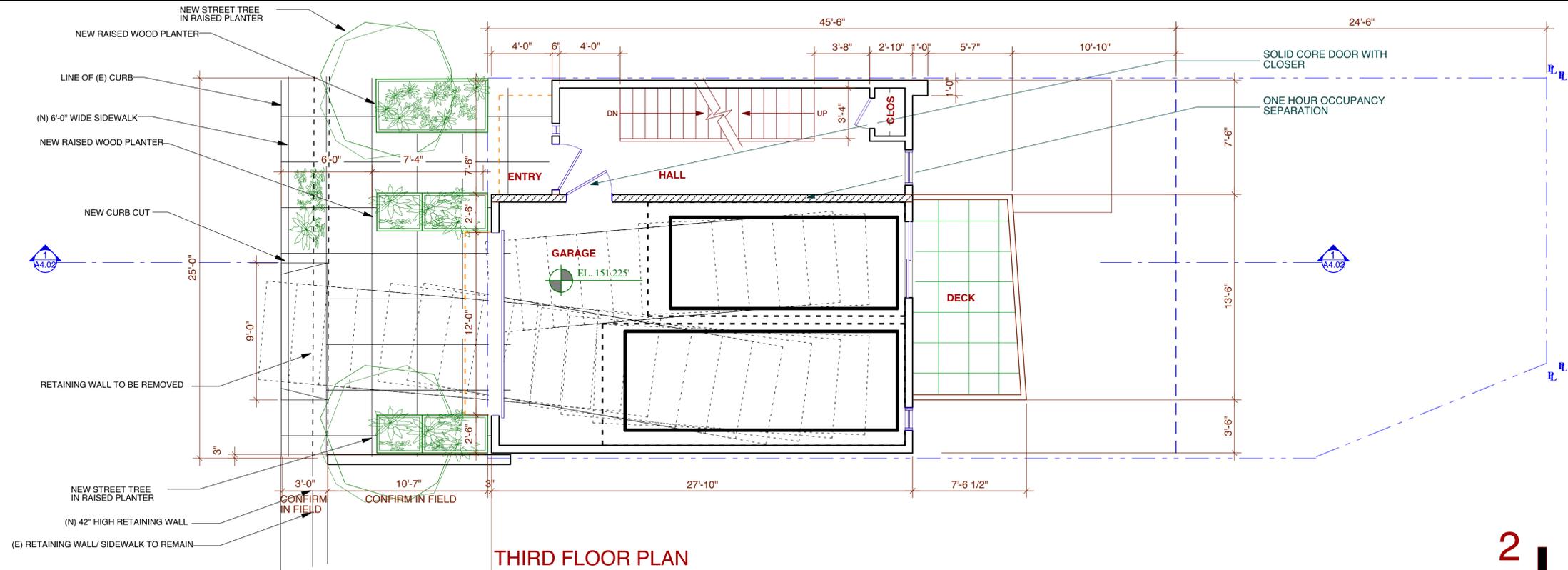
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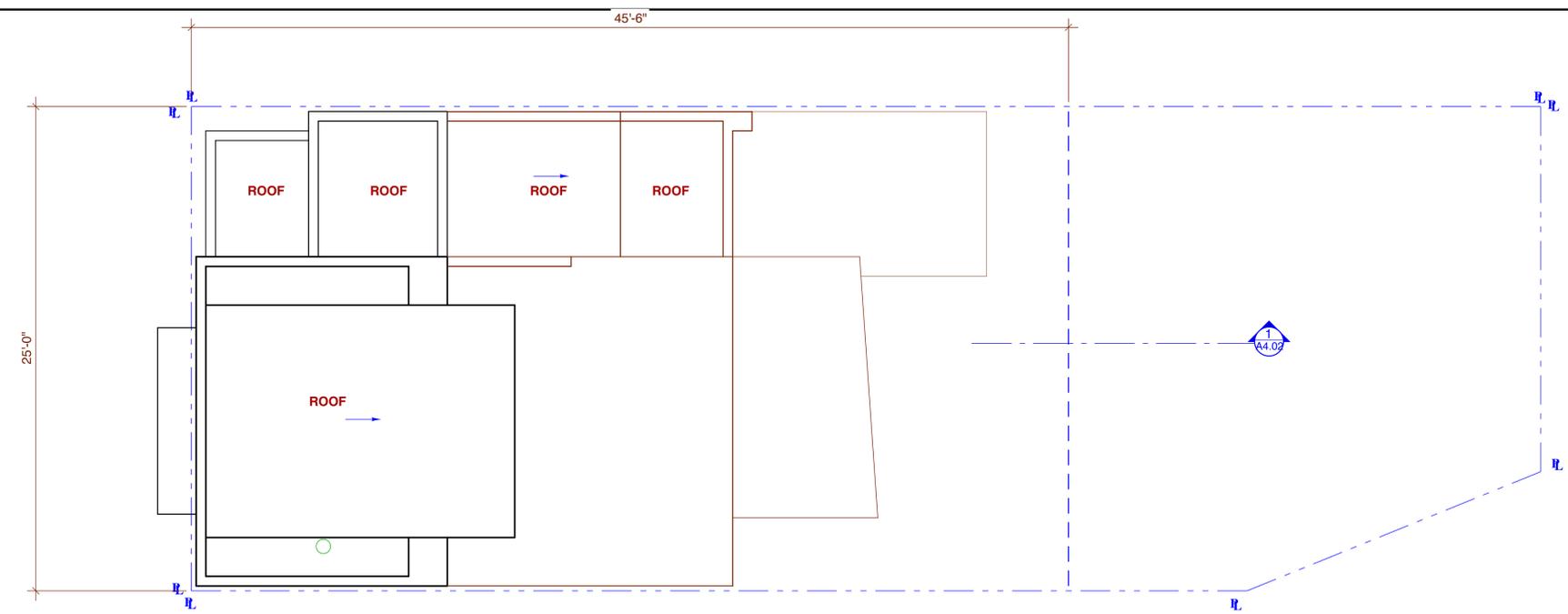


Rev./Issue	Date
03/08/10	PLNG. REV. 2
02/08/10	PLNG. REV.
12/26/07	PLNG.
08/07/06	East Slope Bernal

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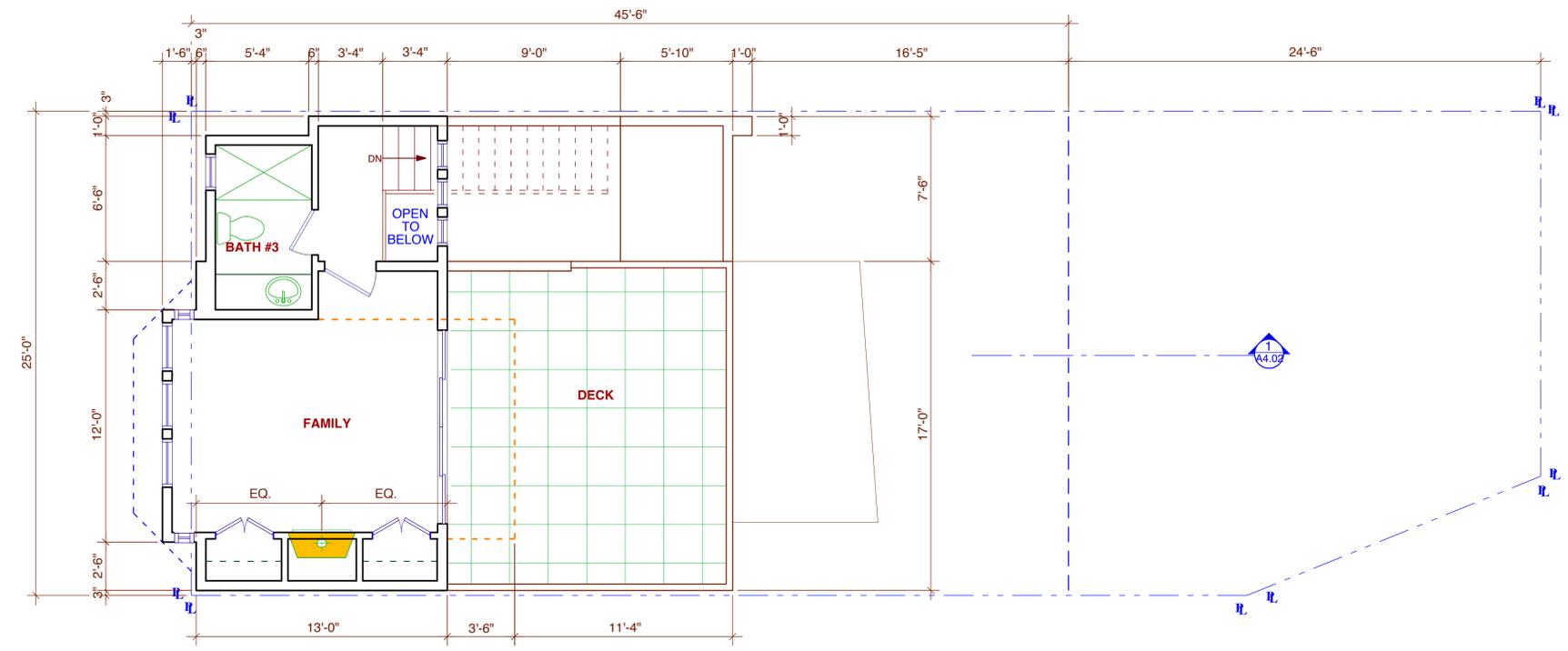
BREWSTER STREET





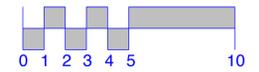
ROOF PLAN

2



FOURTH FLOOR PLAN

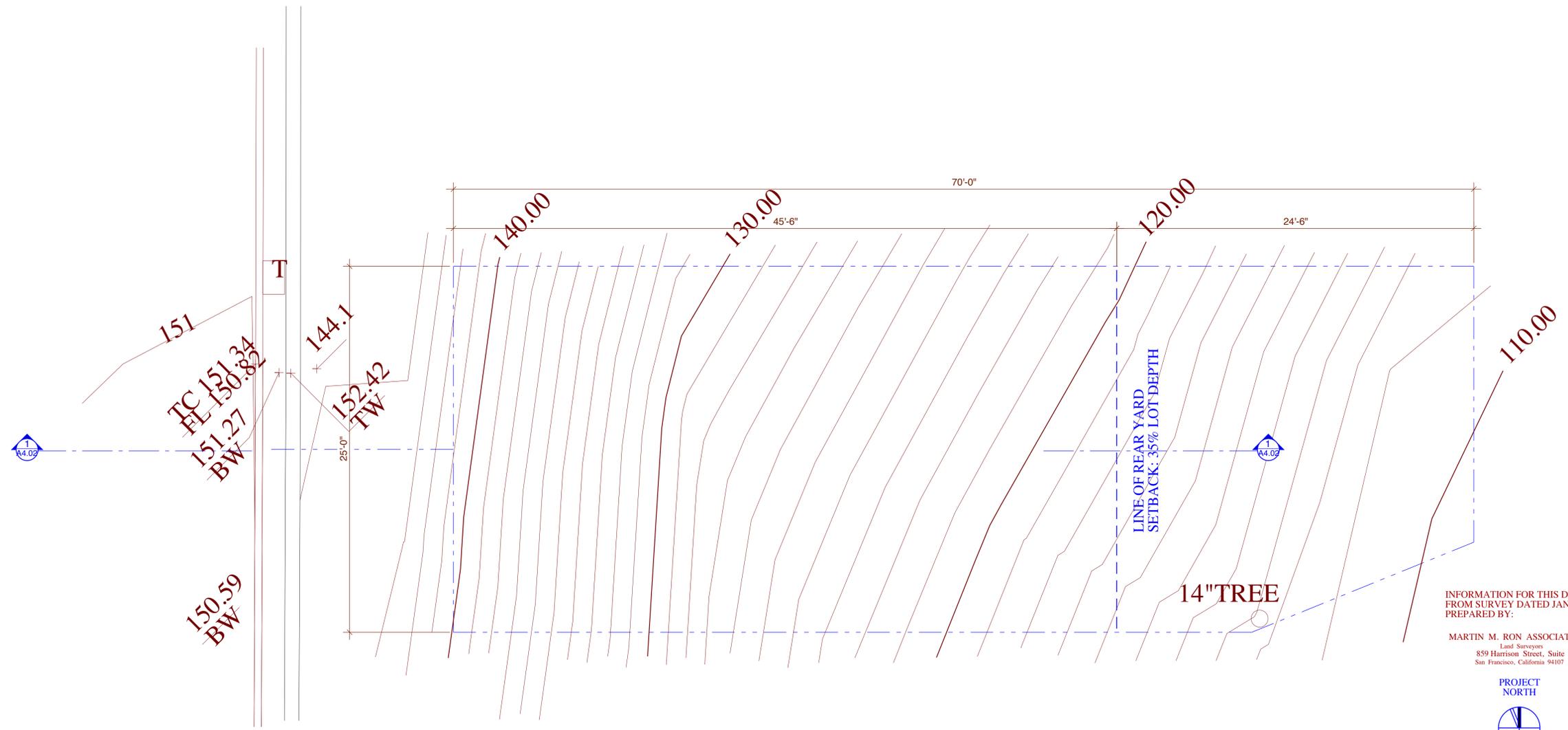
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Date: 06/06/06
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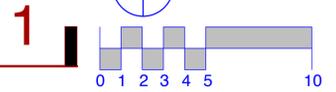
A2.03



SITE PLAN

INFORMATION FOR THIS DRAWING TAKEN FROM SURVEY DATED JANUARY 2006, PREPARED BY:
MARTIN M. RON ASSOCIATES, INC.
 Land Surveyors
 859 Harrison Street, Suite 200
 San Francisco, California 94107

PROJECT NORTH

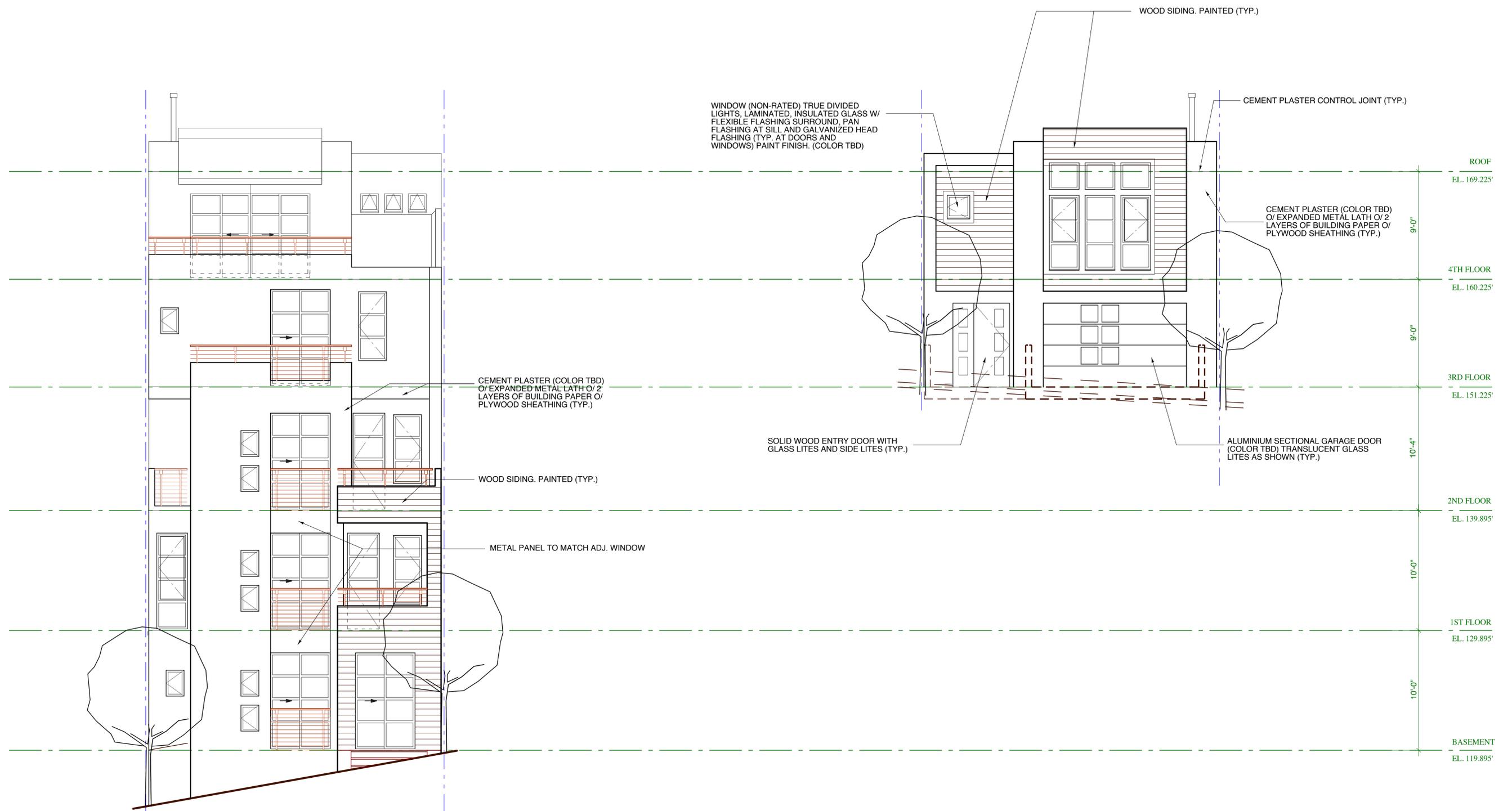


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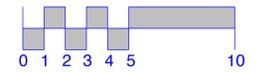
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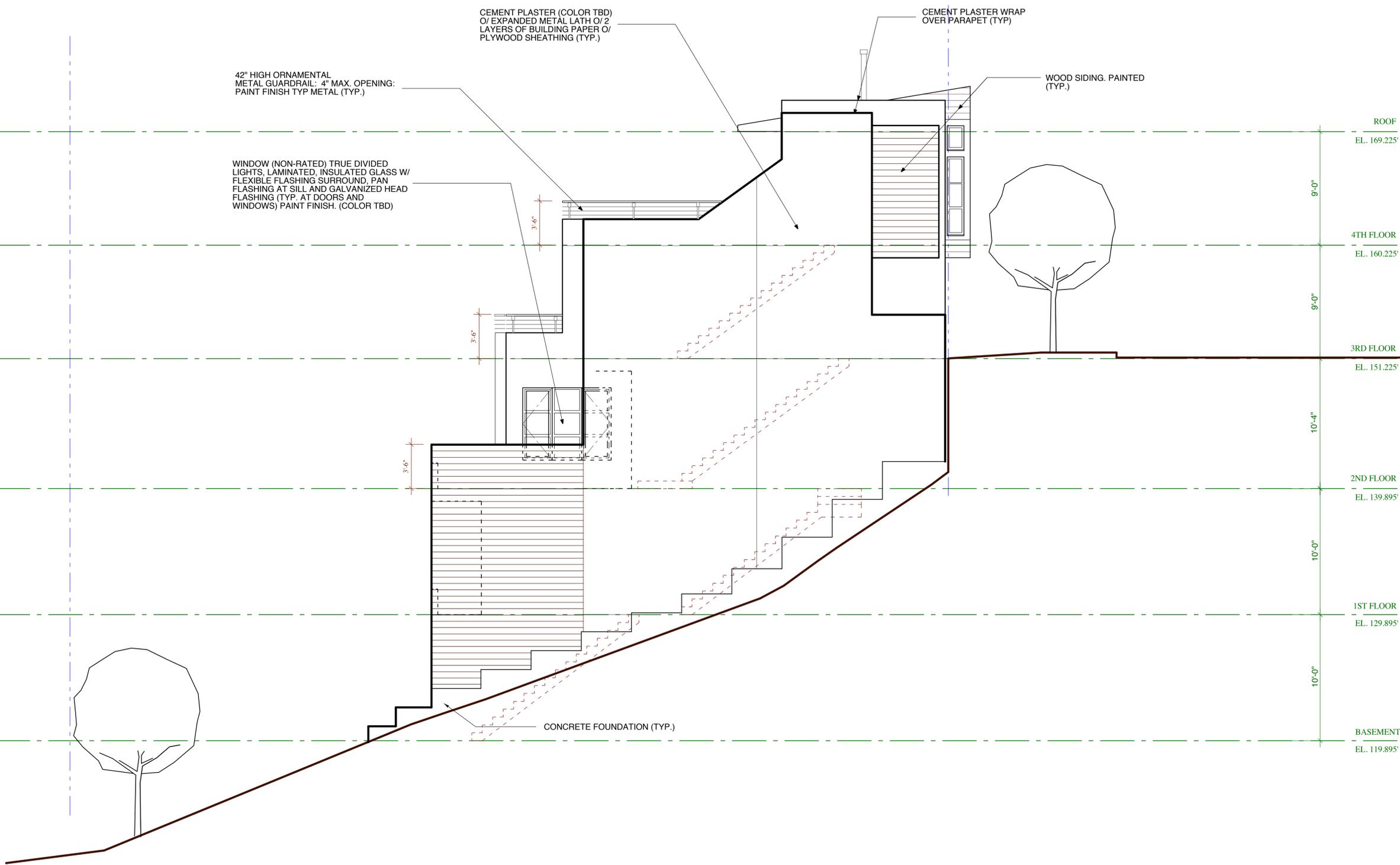
PERMIT APPLICATION # 2006.09.25.3191



EAST (REAR) ELEVATION **2**

WEST (STREET) ELEVATION **1**





42" HIGH ORNAMENTAL METAL GUARDRAIL: 4" MAX. OPENING: PAINT FINISH TYP METAL (TYP.)

WINDOW (NON-RATED) TRUE DIVIDED LIGHTS, LAMINATED, INSULATED GLASS W/ FLEXIBLE FLASHING SURROUND, PAN FLASHING AT SILL AND GALVANIZED HEAD FLASHING (TYP. AT DOORS AND WINDOWS) PAINT FINISH. (COLOR TBD)

CEMENT PLASTER (COLOR TBD) O/ EXPANDED METAL LATH O/ 2 LAYERS OF BUILDING PAPER O/ PLYWOOD SHEATHING (TYP.)

CEMENT PLASTER WRAP OVER PARAPET (TYP.)

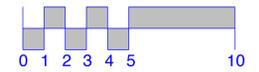
WOOD SIDING. PAINTED (TYP.)

CONCRETE FOUNDATION (TYP.)

ROOF
EL. 169.225'
9'-0"
4TH FLOOR
EL. 160.225'
9'-0"
3RD FLOOR
EL. 151.225'
10'-4"
2ND FLOOR
EL. 139.895'
10'-0"
1ST FLOOR
EL. 129.895'
10'-0"
BASEMENT
EL. 119.895'

NORTH ELEVATION

1

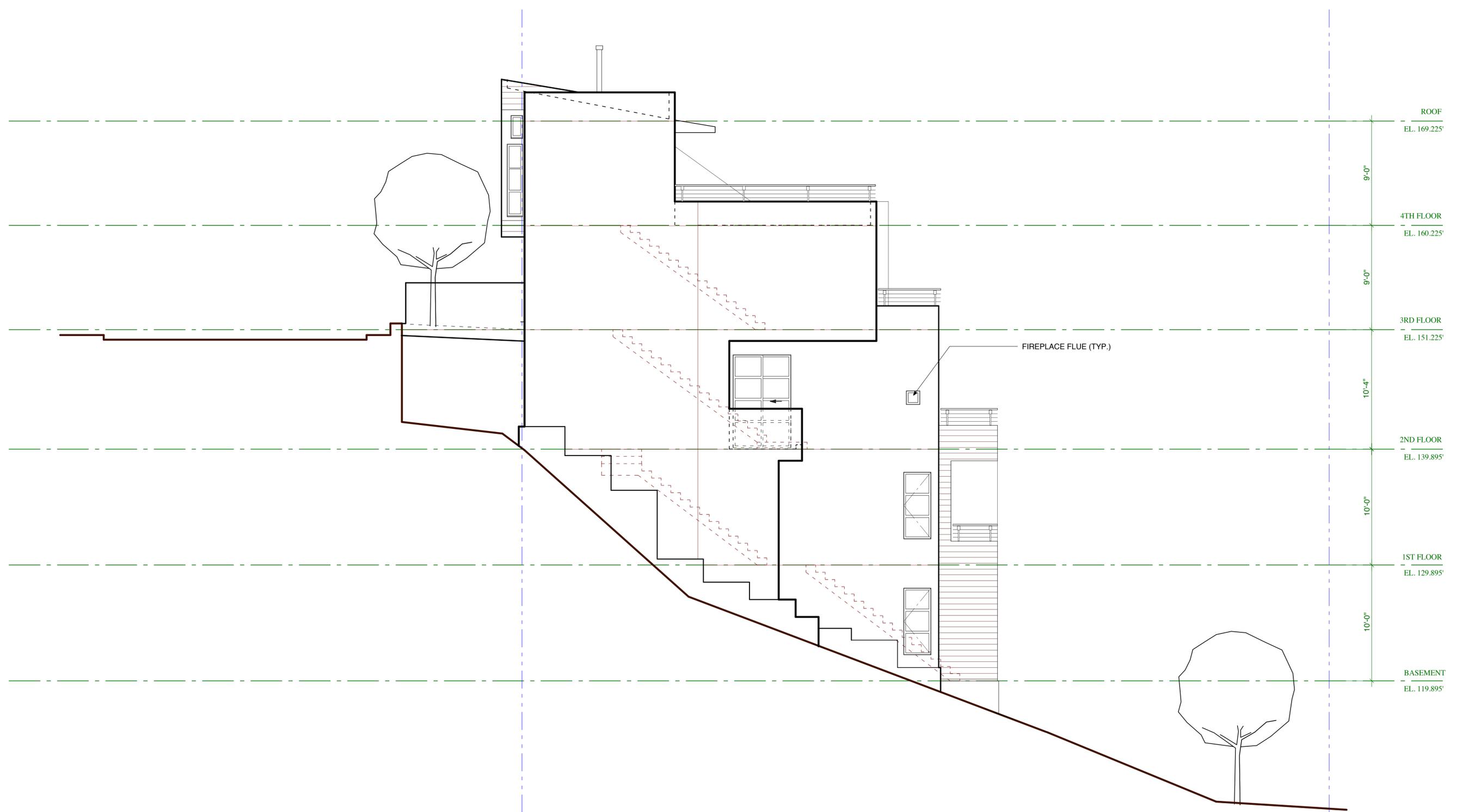


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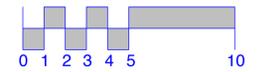
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PERMIT APPLICATION # 2006.09.25.3191



SOUTH ELEVATION

1



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MAX HEIGHT LIMIT LINE.
PER SEC 242 (e)(1)(A).
SF PLANNING CODE

HEIGHT LIMIT (AVERAGEING)
LINE. PER SEC 242 (e)(1)(A).
SF PLANNING CODE

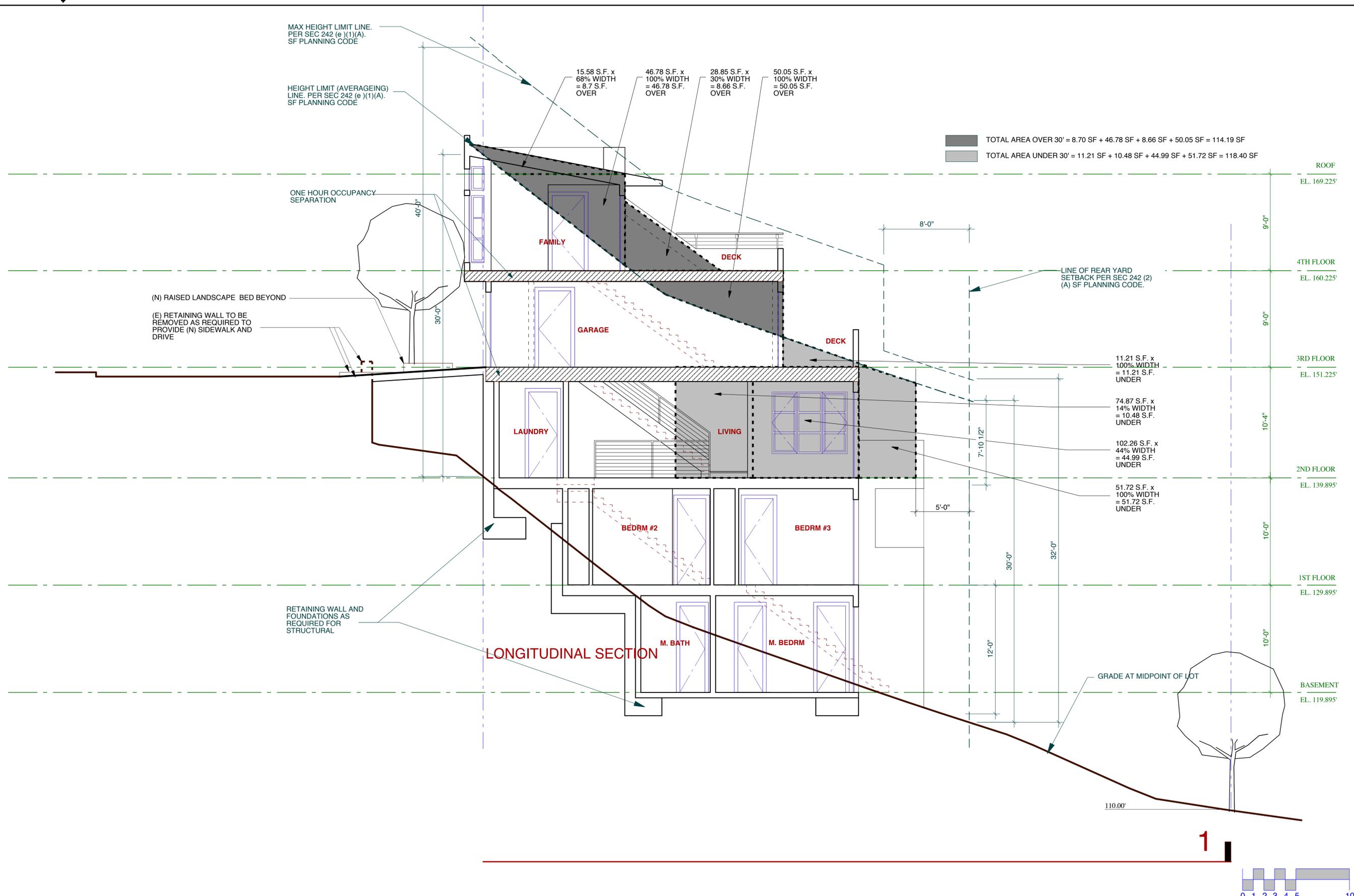
15.58 S.F. x
68% WIDTH
= 8.7 S.F.
OVER

46.78 S.F. x
100% WIDTH
= 46.78 S.F.
OVER

28.85 S.F. x
30% WIDTH
= 8.66 S.F.
OVER

50.05 S.F. x
100% WIDTH
= 50.05 S.F.
OVER

TOTAL AREA OVER 30' = 8.70 SF + 46.78 SF + 8.66 SF + 50.05 SF = 114.19 SF
TOTAL AREA UNDER 30' = 11.21 SF + 10.48 SF + 44.99 SF + 51.72 SF = 118.40 SF



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Date: 06/06/06
Scale: 1/4"=1'-0"
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GENERAL CONDITIONS

CONTRACTORS RESPONSIBILITIES:

- CONTRACTOR TO PROVIDE ALL WORK AND MATERIALS IN ACCORDANCE WITH THE 2001 UBC AS AMENDED BY ALL STATE AND LOCAL CODES, AND CALIFORNIA ADMINISTRATIVE CODE, TITLE 24, DISABLED ACCESS COMPLIANCE REGULATIONS.
- CONTRACTOR SHALL MAKE SITE INSPECTIONS AND BE RESPONSIBLE FOR ALL NEW AND DEMOLITION WORK, WHETHER DETAILED BY THE SPECIFICATIONS AND DRAWINGS, OR IMPLIED BY EXISTING CONDITIONS.
- ANY DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS, AS CONFLICTS WITH ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL PROVIDE ALL TEMPORARY SHORING & UNDERPINNING AS NECESSARY; WORK TO BE PERFORMED UNDER SEPARATE PERMIT.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ALL NECESSARY TEMPORARY UTILITY HOOK-UPS FOR ALL EQUIPMENT DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION / CAPPING OFF OF ALL EXISTING UTILITIES AND RE-CONNECTION WHERE RE-USE IS POSSIBLE.
- CONFIRM ALL WINDOW SIZES WITH ACTUAL /EXISTING ROUGH OPENING DIMENSIONS PRIOR TO ORDERING WINDOWS.
- SLOPE ALL FLOORS / ROOFS TO DRAIN A MINIMUM OF 1/4" PER 1'-0", UNLESS SPECIFICALLY NOTED OTHERWISE.
- CONTRACTOR IS RESPONSIBLE TO PROCURE **STATE INDUSTRIAL SAFEY PERMIT** FOR ANY WORK OVER 36 IN HEIGHT, INVOLVING EXCAVATION OVER 5' & AS OTHERWISE REQUIRED.

DRAWINGS:

- DO NOT SCALE DRAWINGS!** ALL WRITTEN DIMENSIONS SUPERSEDE SCALED DIMENSIONS.
- ALL DIMENSIONS ARE TO "FACE OF STUD" UNLESS SPECIFICALLY NOTED OTHERWISE. EXISTING DIMENSIONS DENOTED BY "(E)" ARE TO "FACE OF EXISTING FINISH" UNLESS SPECIFICALLY NOTED OTHERWISE. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO PROCEEDING WITH THE WORK.
- LARGE SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS. WRITTEN SPECIFICATIONS TAKE PRECEDENCE OVER ALL DRAWINGS.
- REFER TO EXTERIOR ELEVATIONS FOR INDICATIONS OF WINDOW OPERATION AND HANDING.

ASSEMBLIES:

(SEE COVER SHEET LEGEND FOR RATED WALL DESIGNATIONS AND OTHER WALL TYPES)

- PROVIDE MINIMUM 1-HOUR WALL AND FLOOR / CEILING ASSEMBLY BETWEEN ALL RESIDENTIAL UNITS. SEE PLANS AND BUILDING SECTIONS FOR DESIGNATIONS; AND STANDARD DETAILS FOR COMPLETE ASSEMBLY DESCRIPTIONS.
- PROVIDE MINIMUM 50 STC AND IIC REQUIREMENT AT ALL UNITS AT FLOORS, CEILINGS, AND WALLS. SEE PLANS AND BUILDING SECTIONS FOR DESIGNATIONS; AND STANDARD DETAILS FOR ASSEMBLY DESCRIPTIONS.
- INSULATE ALL ASSEMBLIES BETWEEN HEATED AND UNHEATED AREAS. R-30 AT ROOFS, R-13 AT WALLS, R-19 AT FLOORS; MINIMUM, UNLESS SPECIFICALLY NOTED OTHERWISE. SEE TITLE 24, ENERGY COMPLIANCE STATEMENT MANDATORY MEASURES CHECKLIST FOR SPECIFIC REQUIREMENTS.
- PROVIDE VENTILATION OF ALL JOIST, STUD AND RAFTER SPACES ENCLOSED BY BUILDING ASSEMBLIES BETWEEN HEATED AND UNHEATED AREAS INCLUDING: ATTICS, BASEMENTS, ROOFS, SOFFITS, PARAPET AND RAILING WALLS, ETC.
- ALL DOORS BETWEEN HEATED AND UNHEATED AREAS SHALL BE PROVIDED WITH WEATHER STRIPPING AND THRESHOLDS.
- ALL PROPERTY LINE WINDOWS (INDICATED ON DRAWINGS BY " ") SHALL BE STEEL SASH WITH FIXED WIRE GLASS, WITH SPRINKLER HEAD PROTECTION PER S.F. BUILDING CODE SECTION 503.5.
- PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD (MR GWB) ON ALL BATHROOM WALLS. DO NOT USE A CONTINUOUS VAPOR BARRIER BEHIND MR GWB. PROVIDE 30 POUND ROOFING FELT BEHIND FINISH SURFACE OF ALL TUB / SHOWER SURROUNDS. LAPPING ALL SEAMS. DO NOT USE MR GWB ON BATHROOM CEILINGS; USE 5/8" TYPE "X" GWB.

MECHANICAL AND ELECTRICAL:

- MECHANICAL AND ELECTRICAL WORK SHOWN ON DRAWINGS IS SCHEMATIC IN NATURE; CONTRACTOR TO CONFIRM FINAL LAYOUT WITH ARCHITECT, PRIOR TO PROCEEDING WITH THE WORK.
- ALL WORK TO BE PERFORMED UNDER **SEPARATE PERMIT**.
- PARKING GARAGE(S), CORRIDORS AND STAIRS SHALL BE VENTILATED AS REQUIRED PER CODE.
- PROVIDE EMERGENCY / EXIT LIGHTING AT ALL EXIT PATHS OF TRAVEL AS REQUIRED PER CODE.
- ALL INTERIOR COMMON AREA LIGHT FIXTURES, ETC. SHALL BE PROVIDED WITH SWITCHING VIA CENTRAL PHOTO-ELECTRIC SENSOR WITH TIMER CLOCK SWITCH OVERRIDE, UNLESS OTHERWISE SPECIFIED.
- PARKING GARAGE(S) AND ALL OTHER COMMON AREAS, NOT SERVED BY DAY LIGHTING WINDOWS, SHALL BE PROVIDED WITH ELECTRIC LIGHTING 24 HOURS PER DAY, UNLESS SPECIFICALLY NOTED OTHERWISE.
- STAGGER ALL ELECTRICAL AND MECHANICAL ITEMS IN ALL DEMISING WALLS AND FLOORS BETWEEN UNITS TO MAINTAIN ASSEMBLY'S ACOUSTICAL RATINGS. SEE SPECIFICATIONS AND DETAILS FOR SPECIFIC REQUIREMENTS.
- ALL ELECTRICAL RECEPTACLES IN DAMP LOCATIONS TO BE GROUND FAUL INTERRUPTER (GFI) AS REQUIRED PER CODE.

WATERPROOFING:

- ALL SHEET METAL WORK TO BE IN ACCORDANCE WITH CURRENT EDITION OF S.M.A.C.N.A. STANDARDS.
- PROVIDE GALVANIZED SHEET METAL FLASHING AT ALL WINDOW AND DOOR HEADS: INSTALL UNDER EXTERIOR SIDING OR CEMENT PLASTER AND BUILDING PAPER, AND OVER HEAD FRAME OF ALL NEW DOORS AND WINDOWS. PROVIDE ADDITIONAL FLASHING MEMBRANE PER STANDARD WINDOW FLASHING DETAIL (SEE DETAIL SHEETS) AROUND ALL WINDOW AND DOOR OPENINGS.
- PROVIDE GALVANIZED SHEET METAL FLASHING AT ALL ROOF CONDITIONS INCLUDING BUT NOT LIMITED TO: PERIMETER EDGES, VALLEYS, PARAPET CAPS, WALL / ROOF INTERSECTIONS, ROOF PENETRATIONS, ETC. SEE DETAIL SHEETS FOR SPECIFIC REQUIREMENTS.
- ALL NEW EXTERIOR FINISHES TO BE INSTALLED OVER A MINIMUM MOISTURE BARRIER OF TWO LAYERS OF 15 POUND (GRADE D) BUILDING PAPER.

SCOPE OF WORK

The proposed Project is a new Single Family residence of 2,213.62 sf. Four floors over a basement.

PLANNING DEPARTMENT NOTES

PROJECT LOCATION: Brewster Street, San Francisco, CA. Assessor's Block 5577, Lot #10. Lot Size: 25'-0" x 70'-0" = 1750 s.f.

ZONING DISTRICT: RH-1, One Family District. Also Bernal Heights Special Use District, Section 242 of the San Francisco Planning Code (SFPCC) and conditions of the Bernal Heights East Slope Building Guidelines.

PROPOSED BUILDING USE: Single Family Residential building.

BUILDING HEIGHT LIMIT: 40'-X. Modified to 30'-0" with down hill and uphill stipulations, as stated in Section 242 of the SFPCC. Site is a "downhill" configuration.

SET-BACKS: Rear Yard Setback: Per Section 242: 35% of lot Depth. (24'-6")
Front Setback: None
Side Setback not required in RH-1 zone.

OUTDOOR OPEN SPACE: 300 sq. ft. private outdoor open space per unit required. 654 sq. ft. provided.

FLOOR AREA RATIO (F.A.R.): Not required for residential in RH-1 zone.6

PARKING REQUIRED: Per Section 242 (4) Two parking spaces required for 1301 to 2250 sq. ft. Useable Floor Area. Two spaces provided (one standard size, one compact size)

BUILDING AREA CALCULATIONS:

Basement:	332.52 sq.ft.
1st Floor:	560.35 sq.ft.
2nd Floor:	619.94 sq.ft.
Third Floor(Excluding Garage):	181.69 sq.ft.
Fourth Floor:	519.12 sq.ft.

TOTAL USABLE AREA : **2,213.62 sq.ft.**

Garage: 495.83 sq.ft

TOTAL GROSS AREA : **2,709.45 sq.ft.**

BUILDING DEPARTMENT NOTES

2007 California Building Code with 2007 San Francisco Amendments; 2007 California Mechanical, Electrical and Plumbing Codes; 2007 San Francisco Fire Code & NFPA-13 (1999 Edition); 1999 Edition NFPA 72; Title 24 Energy Code 2007 Edition; San Francisco Housing Code 2007 Edition.

Four story building over basement.

CONSTRUCTION TYPE: TYPE V, one-hour wood frame construction .

OCCUPANCY CLASSIFICATION: Group R 3, Single family dwelling with Group U, Garage.

OCCUPANT LOAD:
One exit required for U Parking Garage use:
Maximum (For U garage) 3000 sq. ft. / 200 sq. ft. per occupant = 15 > 30 occupants. One exit provided from Garage. (Actual garage = 495.83 sq. ft.)

ALLOWABLE AREA:
R-3: Basic allowable floor area: Unlimited.

U: Maximum area allowed: 3,000 sq. ft. Garage area provided: 495.83 sq.ft.

ACCESSIBILITY:
The building is **exempt** from disabled access requirements.

FIRE SPRINKLERS:
Automatic Fire Sprinkler System under separate permit.

MISCELLANEOUS:
All water heaters shall be strapped to adjacent wall for lateral force prevention.

All heating units shall be U L listed.

All soffits shall be vented.

All new roofing shall be Class A.

DPW STREET IMPROVEMENT NOTES

DPW / BSM SITE MEETING REQUIRED; CALL 554-7149 TO ARRANGE APPOINTMENT WITH INSPECTOR.

OFFICIAL SIDEWALK SLOPE IS 1/5" PER FOOT RISE FROM CURB GRADE TO PROPERTY LINE. ALL ENTRANCES, BOTH PEDESTRIAN AND VEHICULAR, SHALL MEET SIDEWALK GRADE. ALL RAMPING SHALL BE INSIDE OF PROPERTY LINE. DRIVEWAYS AND SIDEWALKS MUST CONFORM TO CITY REQUIREMENTS. FOR FURTHER INFORMATION CALL BUREAU OF STREET USE & MAPPING @ 554-6060.

ALL ENCROACHMENTS INTO OFFICIAL STREET OR SIDEWALK AREAS MUST BE GRANTED IN WRITING BY THE DIRECTOR OF PUBLIC WORKS OR BY RESOLUTION OF THE BOARD OF SUPERVISORS. ALL RAMPING TO BE INSIDE PROPERTY LINE.

SEPARATE PERMIT REQUIRED FROM BUREAU OF STREET USE & MAPPING FOR POTTED PLANTS & STREET TREES IN SIDEWALK AREAS. FOR FURTHER INFORMATION CALL 554-6700.

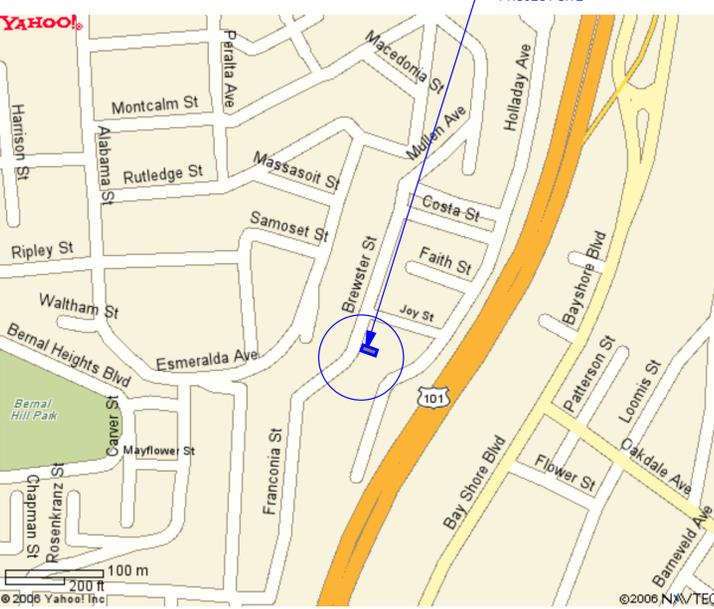
DPW / BSM SIGN-OFF REQUIRED ON JOB CARD PRIOR TO DBI FINAL.

ALL WORK IS SUBJECT TO THE CONDITIONS NOTED ON PENDING **DPW STREET IMPROVEMENT PERMIT** (WHERE APPLICABLE).

LEGEND

	NEW 1-HOUR WALL		SURFACE-MOUNTED INCANDESCENT LIGHT FIXTURE AT WALL. PC=PULL CHAIN, LV=LOW VOLTAGE		THERMOSTAT
	EXIST. WALL TO REMAIN		SURFACE-MOUNTED INCANDESCENT LIGHT FIXTURE AT CEILING. PC=PULL CHAIN, LV=LOW VOLTAGE		DOOR BELL
	EXIST. WALL TO BE REMOVED		SURFACE-MOUNTED COMPACT FLUORESCENT LIGHT FIXTURE AT WALL. LV=LOW VOLTAGE		LIGHTED EXIT SIGN W/ BATTERY BACK-UP
	ONE-WAY SWITCH		SURFACE-MOUNTED COMPACT FLUORESCENT LIGHT FIXTURE AT CEILING. LV=LOW VOLTAGE		SECURITY ALARM
	TWO-WAY SWITCH		RECESSED INCANDESCENT LIGHT FIXTURE AT CEILING. (H: HEAT LAMP LV: LOW VOLT.)		SECURITY ALARM PANEL BOX
	DIMMER SWITCH		RECESSED COMPACT FLUORESCENT LIGHT FIXTURE AT CEILING.		IN-SINK TRASH DISPOSAL
	24 HOUR TIMERSWITCH		UNDER CABINET FLUOR. LIGHT STRIP		EXHAUST FAN
	DUPLEX RECEPTACLE		FLUORESCENT LIGHT FIXTURE		GAS METER
	240: 220/240 VOLT W/ WATERPROOF CA: ABOVE COUNTER		INCANDESCENT TRACK LIGHT FIXTURE		ELECTRIC METER
	FLOOR DUPLEX RECEPT. W/ REMOVABLE FLUSH COVER		HALOGEN TRACK LIGHT FIXTURE		WATER CONNECTION AS REQUIRED
	FOURPLEX RECEPT.		T.V. OUTLET; VIACOM COMPATIBLE CABLE		HOSE BIB
	DIRECT CONNECTION RECEPTACLE		INTERCOM		GAS HOOK-UP
	RECEPTACLE STRIP (OUTLETS @ 6" O.C.)		SMOKE DETECTOR (AC POWERED W/ BATTERY BACK-UP U.O.N.)		FLOOR SUPPLY
	RECESS MOUNTED ELEC. PANEL BOX				FLOOR RETURN
	TELEPHONE RECEPT. (W: WALL MTD.)				CEILING SUPPLY
	CEILING HEATER				CEILING RETURN
					WALL/TOE SPACE SUPPLY
					WALL/TOE SPACE RETURN
					ELECTRIC WALL HEATER
					FLOOR DRAIN

LOCATION PLAN



DIRECTORY:

OWNER
Ronan Concanon

ARCHITECT
David Sternberg
Sternberg Benjamin Architects
1331 Harrison Street
San Francisco, CA 94103

STRUCTURAL ENGINEER
Rodrigo Santos
Santos and Urrutia
2451 Harrison Street
San Francisco, CA 94110

CIVIL
Martin M. Ron Associates, Inc.
Land Surveyors
859 Harrison Street, Suite 200
San Francisco, California 94107

DRAWING INDEX

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T-24	TITLE 24

GEOTECHNICAL NOTES

The information below is taken from "Foundation Investigation Proposed Residence at 191 Brewster Street, S.F., CA." Prepared by Harold Lewis & Associates Geotechnical Consultants, Project SF-06-606-6, Dated June 29, 2006.

Recommendations for site preparation and grading; seismic design; appropriate foundation; retaining walls; slab-on-grade floors; site drainage; installation of surface drainage facilities; and maintenance.

Excavation and retaining wall construction should be performed during the dry months (May through October) to avoid problems that may occur during the wet season, particularly after periods of prolonged rainfall.

Drilled, cast-in-place, reinforced concrete friction piers of at least 18 inches in diameter, tied together with grade beams which span between piers (in accordance with structural requirements), and extending at least 22 feet below the bottom of grade beams, or 10 feet into approved bedrock materials, whichever is deeper, to support proposed structures. The actual lengths of the piers can be determined using an allowable skin friction value of 600 pounds per square foot for dead plus live loads with a one-third increase for all loads including wind or seismic. These values can be used starting at a depth of 10 feet below the grade beams. These values should be used to determine the required penetration into approved bedrock materials; field adjustments to final pier depths should be expected. reinforcement of piers with at least four No. 4 bars over their entire length; removal of any groundwater encountered during pier shaft drilling; placement of a moisture barrier beneath any slabs-on-grade; the use of fully backdrained retaining walls, supported on pier foundations; installation of at least one concrete-lined surface drainage ditch (minimum 2-foot width and 1-foot depth) across the southern property line, sloped toward catch basins, with the collected water transported through closed pipes to suitable discharge facilities, possibly the street right-of-ways to the east and west corner of the site;

Planting of exposed slopes to minimize erosion and surface sloughing; temporary covering of disturbed slopes with jute mesh (or equivalent), and heavy planting with a variety of plants and a permanent variety of ground cover requiring minimal watering.

Provision of positive surface drainage adjacent to buildings to direct water away from foundations to suitable discharge facilities; and rainwater collected on roofs should be transported through gutters, downspouts, and closed pipes to approved discharge facilities.

PERMIT APPLICATION # 2006.09.25-3192

1331 HARRISON STREET
SAN FRANCISCO CA 94103
TEL: 415.862.9787 FAX: 415.862.9796

STERNBERG
BENJAMIN
ARCHITECTS

NEW SINGLE FAMILY HOUSE
LOT 10
BLOCK 5577
BREWSTER STREET
SAN FRANCISCO CA

COVER SHEET

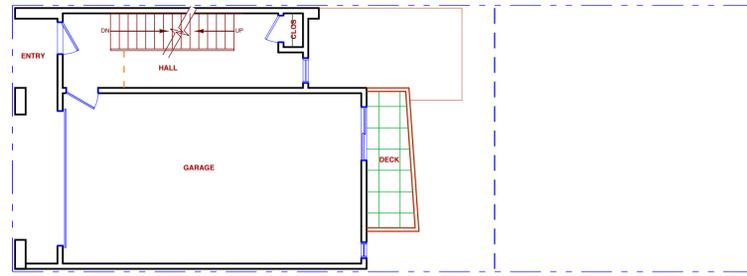
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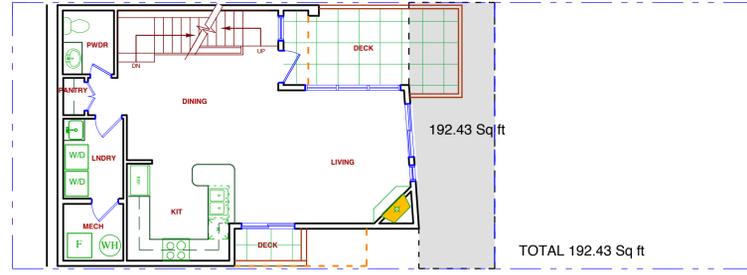
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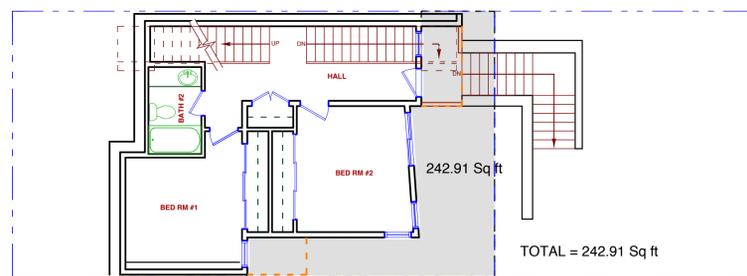
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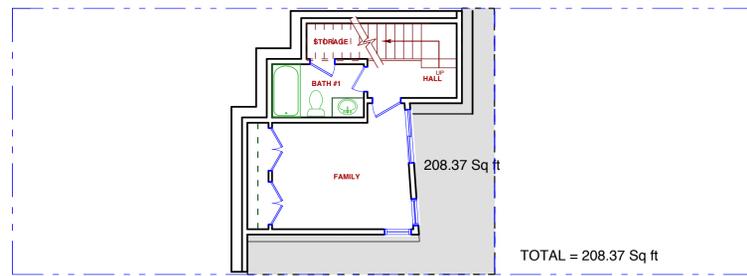
THIRD FLOOR PLAN



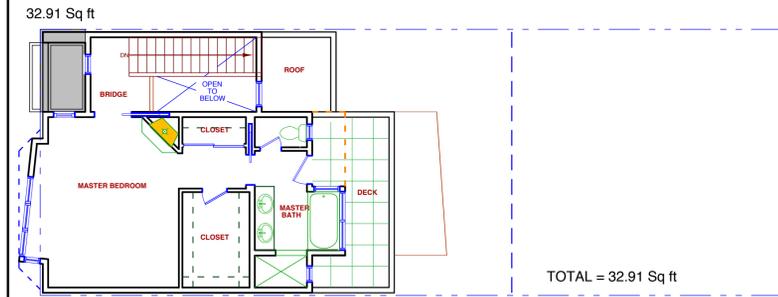
SECOND FLOOR PLAN



FIRST FLOOR PLAN



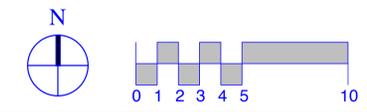
BASEMENT FLOOR PLAN

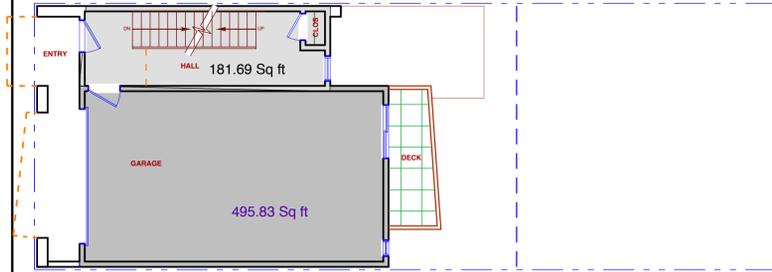
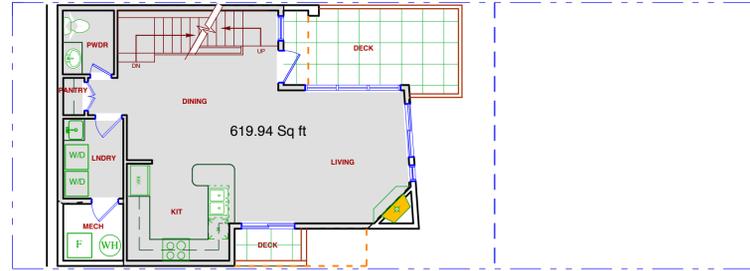
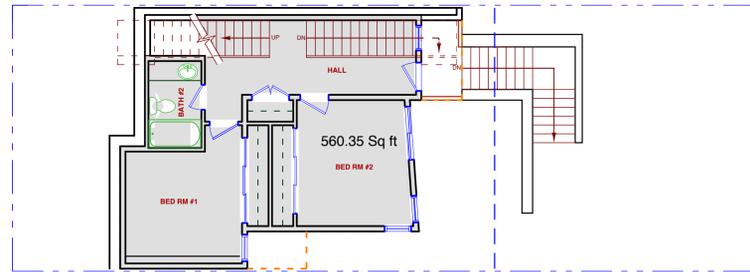
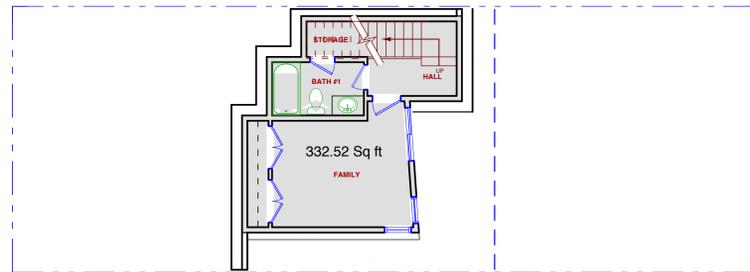
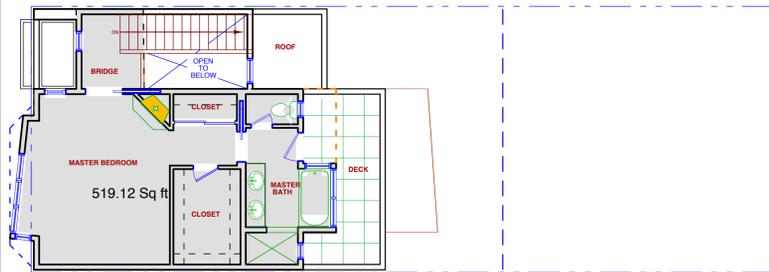


FOURTH FLOOR PLAN

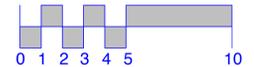
32.91 Sq ft
 192.43 Sq ft
 242.91 Sq ft
 208.37 Sq ft

TOTAL MASS REDUCTION AREA 676.62 Sq ft





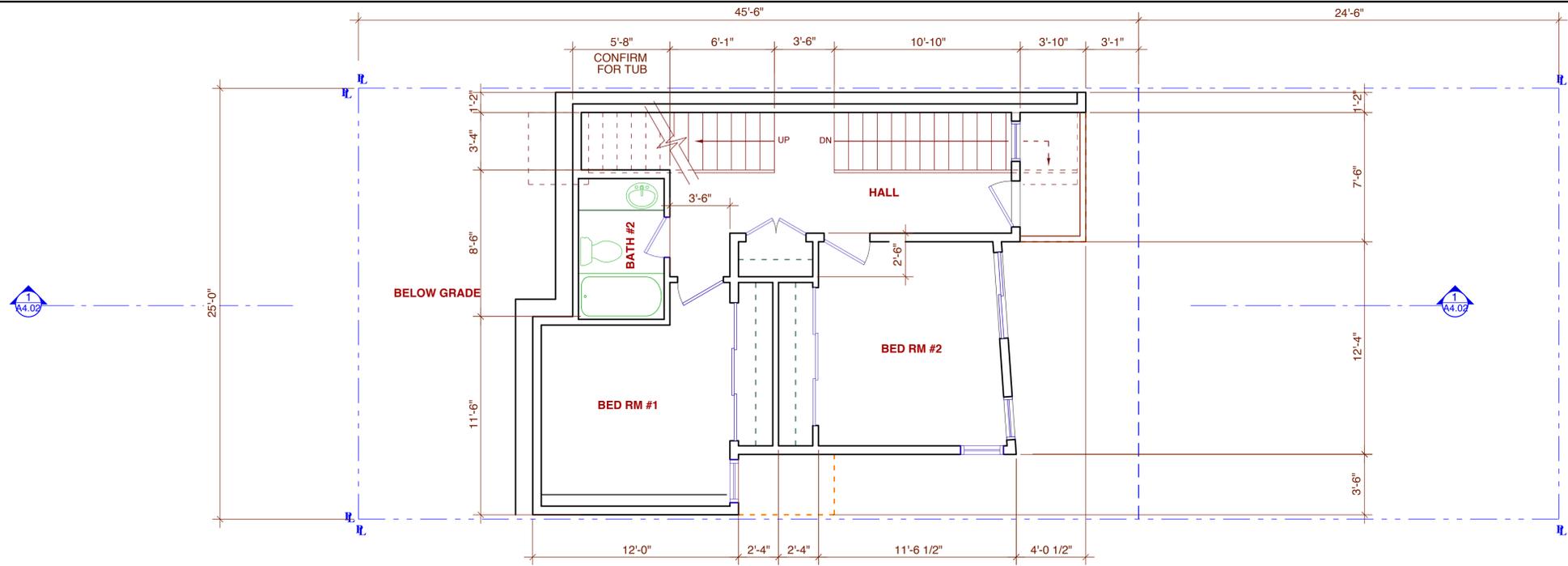
	332.52 Sq ft
	560.35 Sq ft
	619.94 Sq ft
	181.69 Sq ft
	519.12 Sq ft
TOTAL USABLE AREA	2,213.62 Sq ft
GARAGE AREA	495.83 Sq ft
TOTAL GROSS AREA	2,709.45 Sq ft



BASEMENT FLOOR PLAN

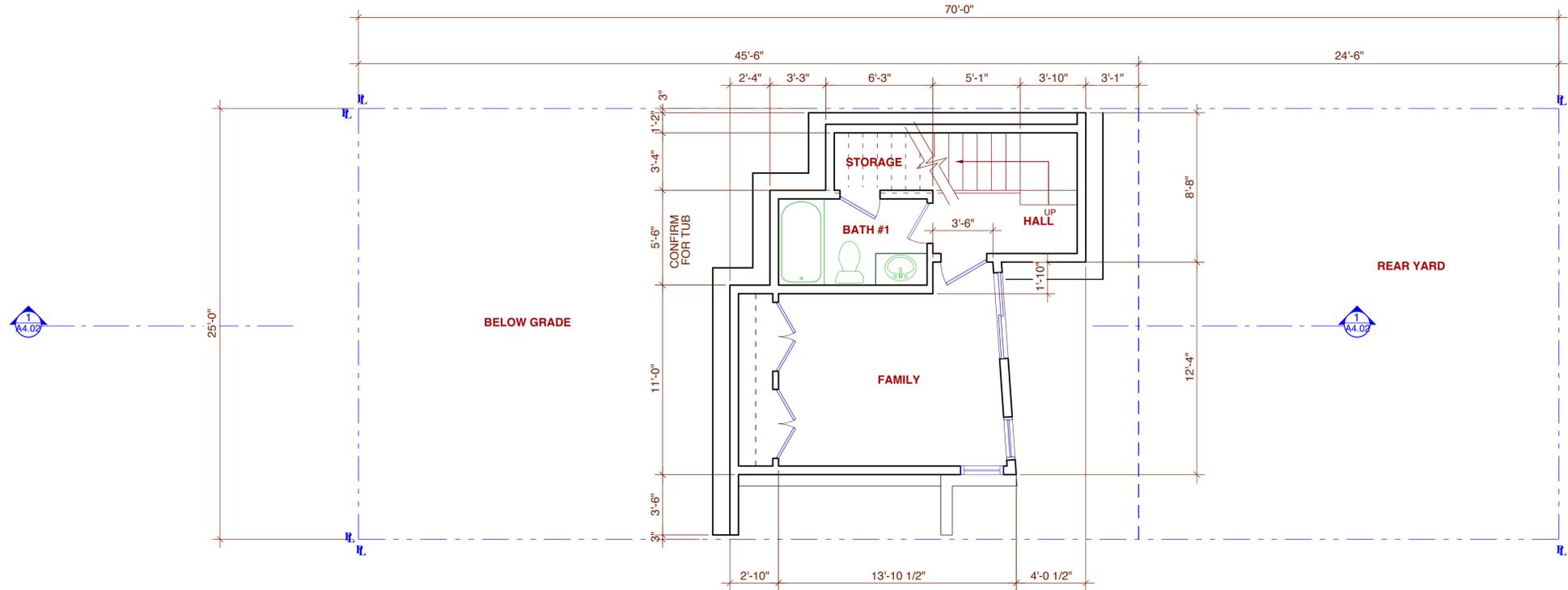
03/22/11	REV.
03/09/10	PLNG. REV. 2
02/09/10	PLNG. REV.
12/26/07	PLNG.
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue.	Date

Date:	
Scale:	1/8"=1'-0"
Drawn:	DS
Sheet:	



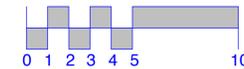
FIRST FLOOR PLAN

2



BASEMENT FLOOR PLAN

1



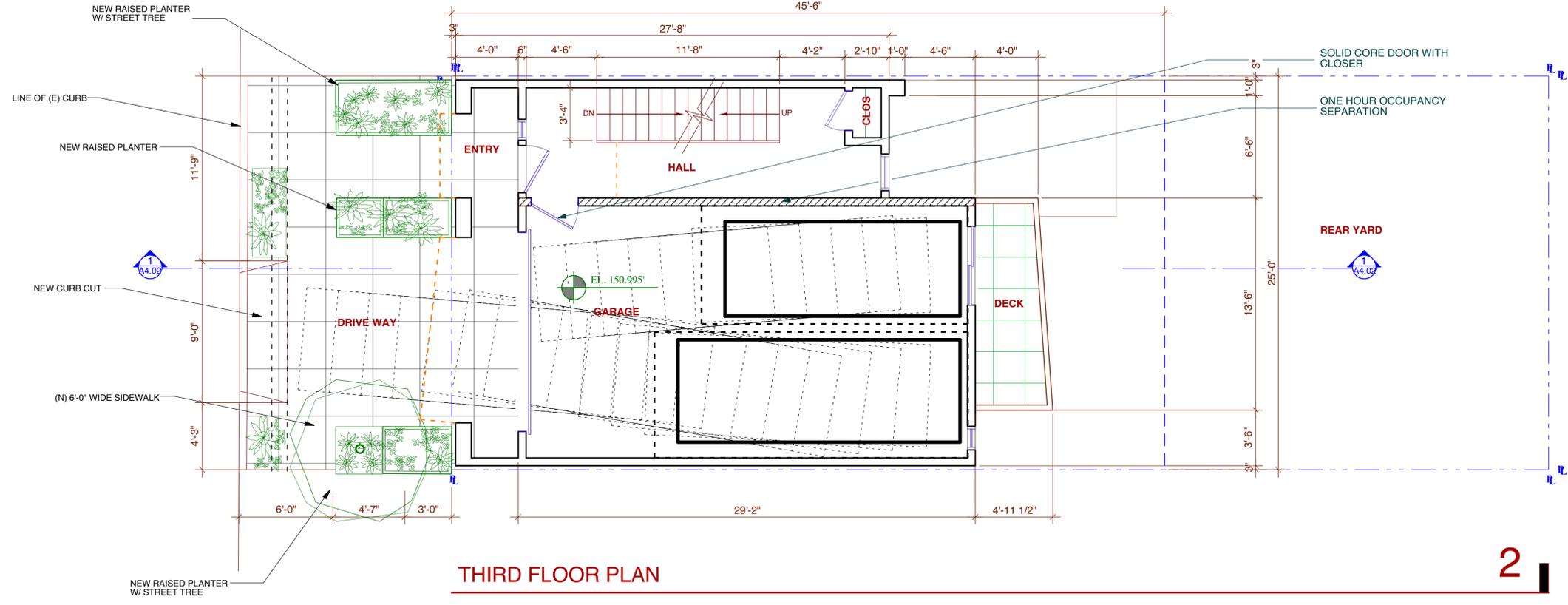
10/24/11	PLNG. REV.4
03/09/10	PLNG. REV.2
02/09/10	PLNG. REV.
12/26/07	PLNG.
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue	Date

Date: 06/06/06
Scale: 1/4"=1'-0"
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Sheet:

A2.01

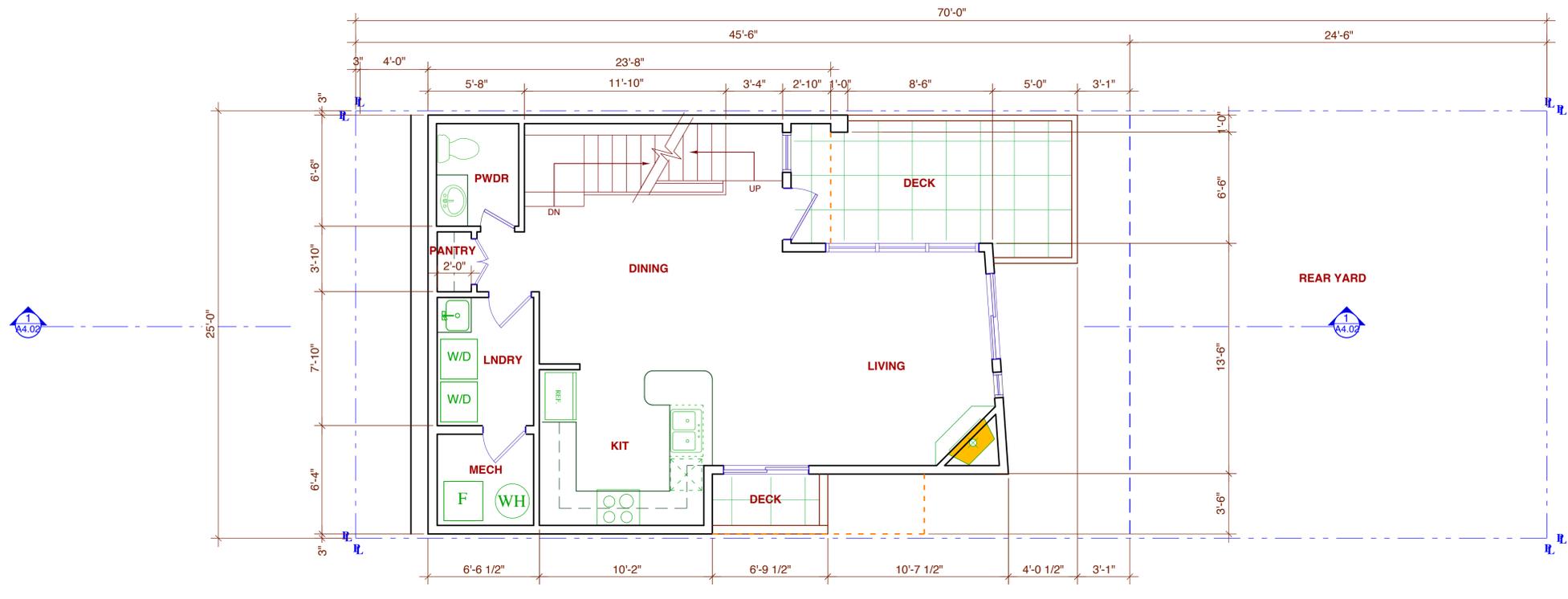
PERMIT APPLICATION # 2006.09.25.3192

BREWSTER STREET



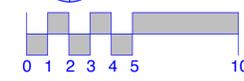
THIRD FLOOR PLAN

2



SECOND FLOOR PLAN

1



1331 HARRISON STREET
 SAN FRANCISCO CA 94103
 TEL 415.882.9783 FAX 415.882.9796

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 ARCHITECTS

www.sternbergbenjamin.com

NEW SINGLE FAMILY HOUSE
LOT 10
 BLOCK 5577
 BREWSTER STREET
 SAN FRANCISCO CA

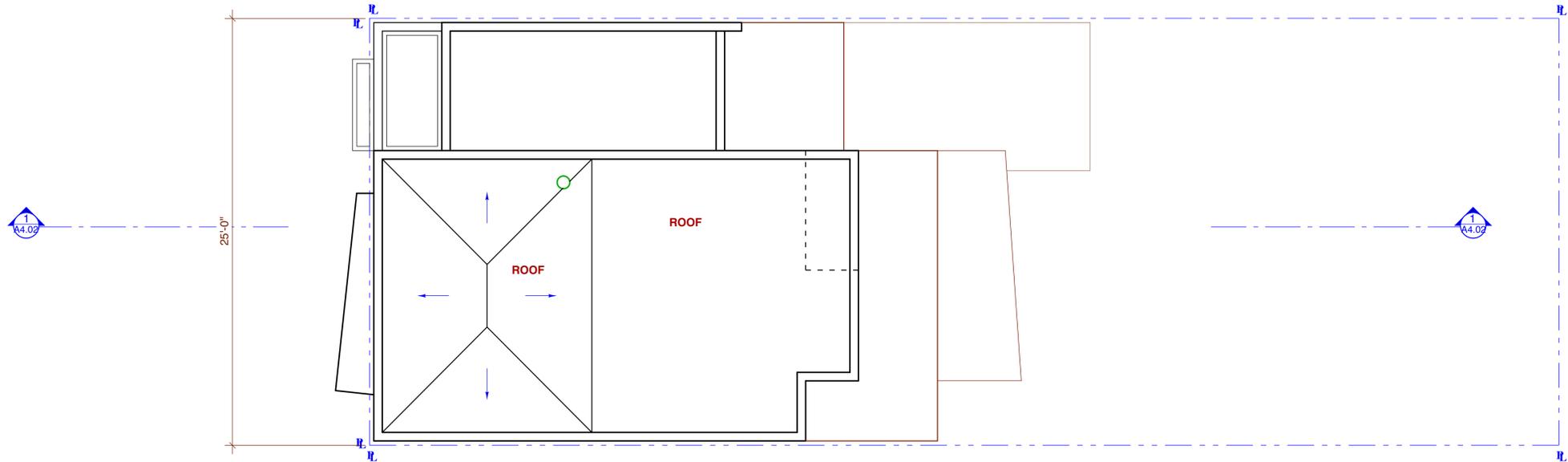
SECOND FLOOR PLAN
 THIRD FLOOR PLAN

04/26/10	PLNG. REV. 3
03/09/10	PLNG. REV. 2
02/09/10	PLNG. REV. 1
12/26/07	PLNG.
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue.	Date

PERMIT APPLICATION # 2006.09.25.3192

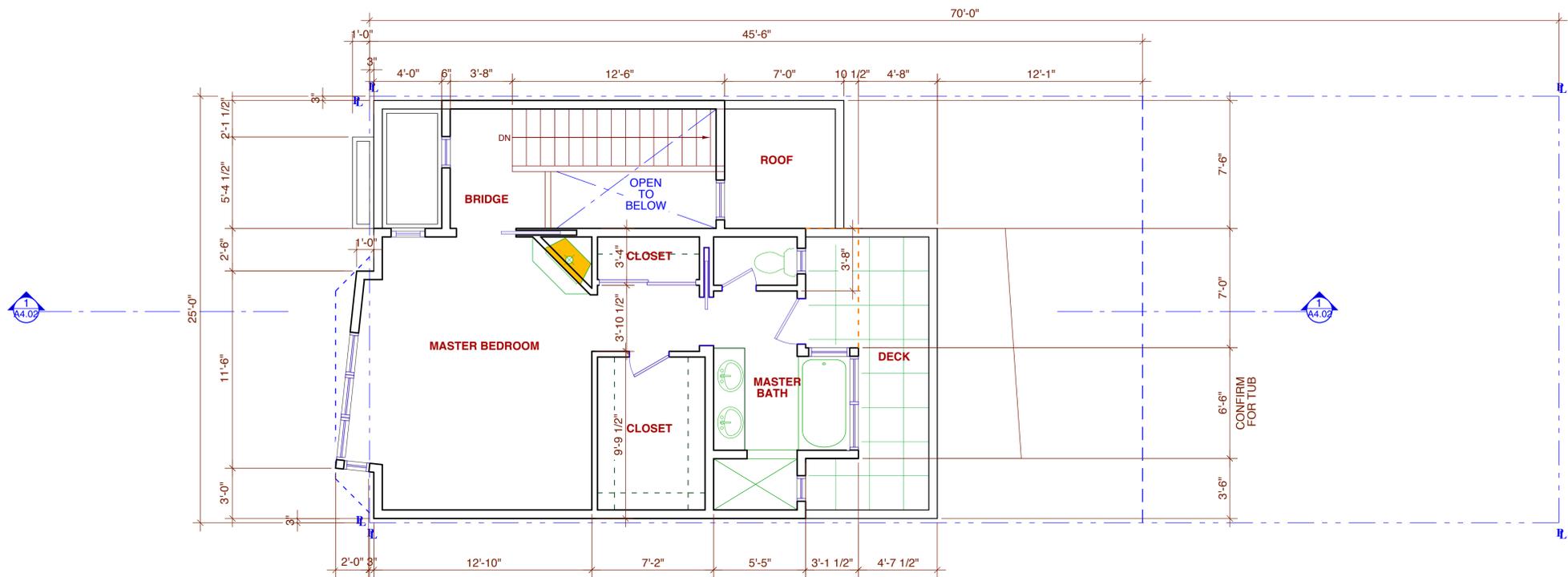
Date: 06/06/06
 Scale: 1/4"=1'-0"
 Drawn: DS
 Sheet:

A2.02



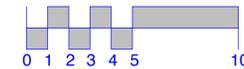
ROOF PLAN

2



FOURTH FLOOR PLAN

1

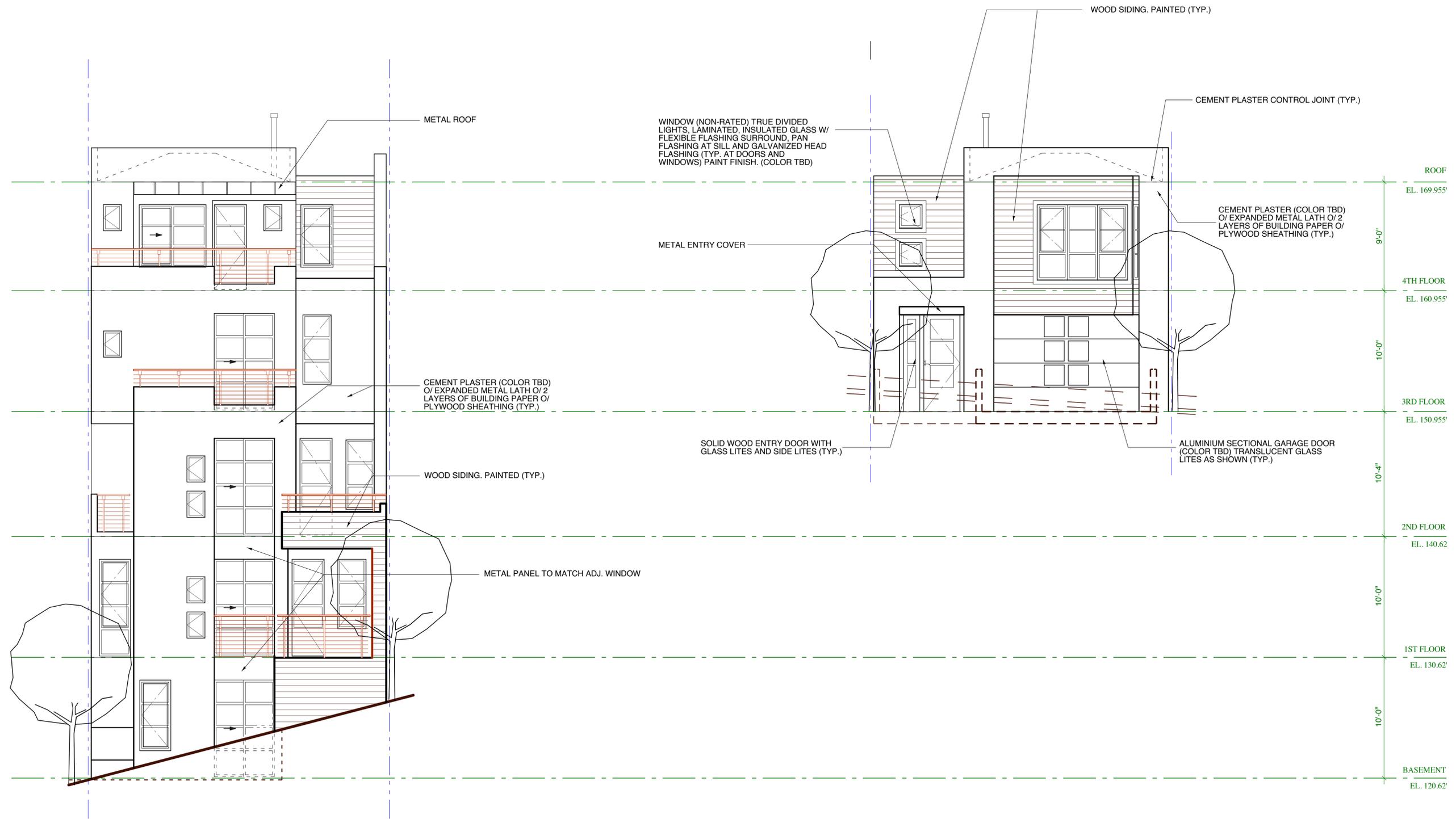


04/26/10	PLNG. REV. 3
03/09/10	PLNG. REV. 2
02/09/10	PLNG. REV. 1
12/26/07	PLNG.
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue	Date

Date: 06/06/06
Scale: 1/4"=1'-0"
Drawn: DS
Sheet:

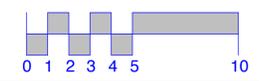
PERMIT APPLICATION # 2006.09.25.3192

A2.03



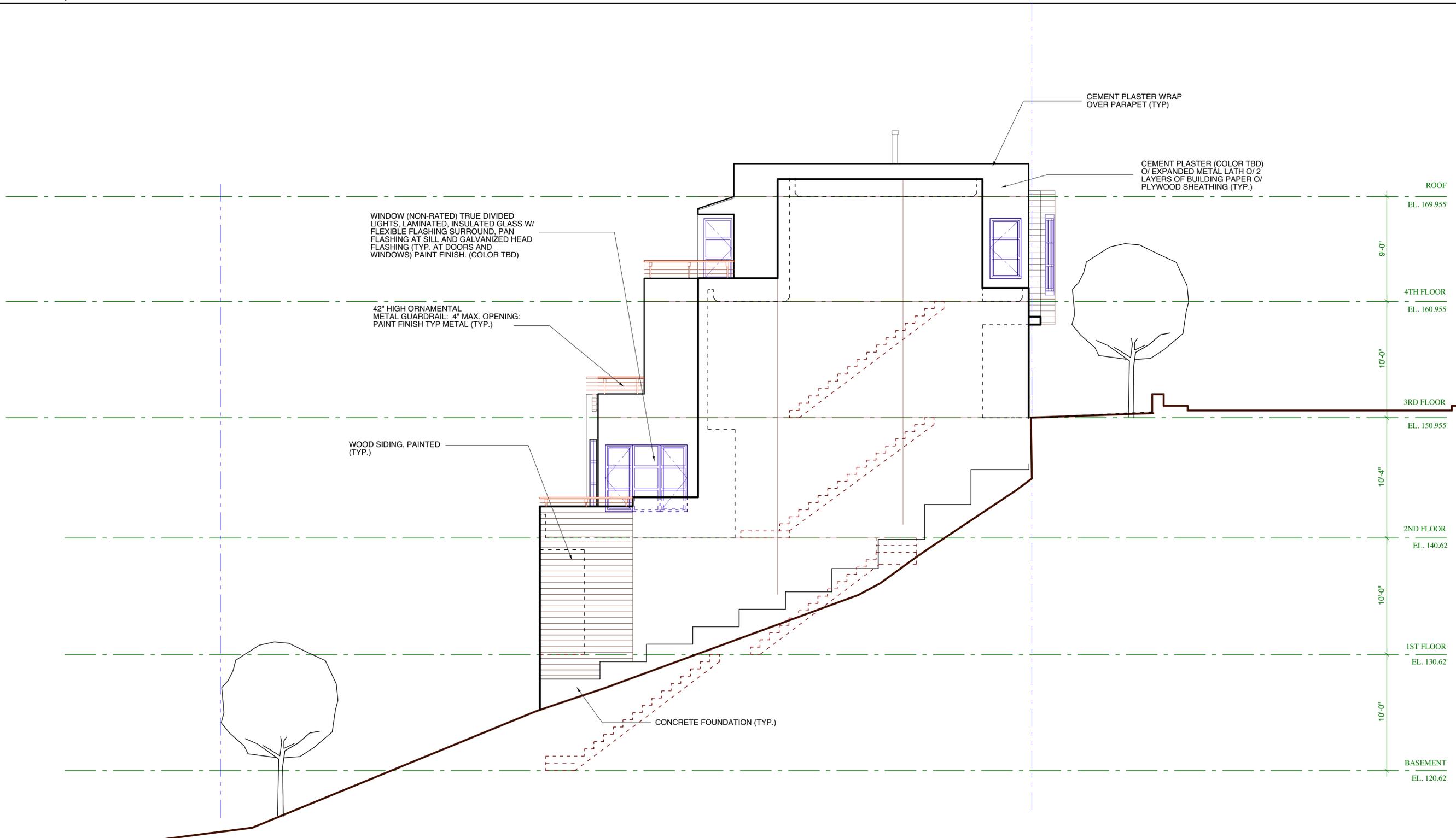
EAST (REAR) ELEVATION 2

WEST (STREET) ELEVATION 1



10/24/11	PLNG. REV.4
04/26/10	PLNG. REV.3
03/09/10	PLNG. REV.2
02/09/10	PLNG. REV.

Rev./Issue	Date
Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	



WINDOW (NON-RATED) TRUE DIVIDED LIGHTS, LAMINATED, INSULATED GLASS W/ FLEXIBLE FLASHING SURROUND, PAN FLASHING (TYP. AT SILL AND GALVANIZED HEAD FLASHING (TYP. AT DOORS AND WINDOWS) PAINT FINISH. (COLOR TBD)

42" HIGH ORNAMENTAL METAL GUARDRAIL: 4" MAX. OPENING: PAINT FINISH TYP METAL (TYP.)

WOOD SIDING, PAINTED (TYP.)

CONCRETE FOUNDATION (TYP.)

CEMENT PLASTER WRAP OVER PARAPET (TYP)

CEMENT PLASTER (COLOR TBD) O/ EXPANDED METAL LATH O/ 2 LAYERS OF BUILDING PAPER O/ PLYWOOD SHEATHING (TYP.)

ROOF
EL. 169.955'
9'-0"
4TH FLOOR
EL. 160.955'
10'-0"
3RD FLOOR
EL. 150.955'
10'-4"
2ND FLOOR
EL. 140.62'
10'-0"
1ST FLOOR
EL. 130.62'
10'-0"
BASEMENT
EL. 120.62'

NORTH ELEVATION

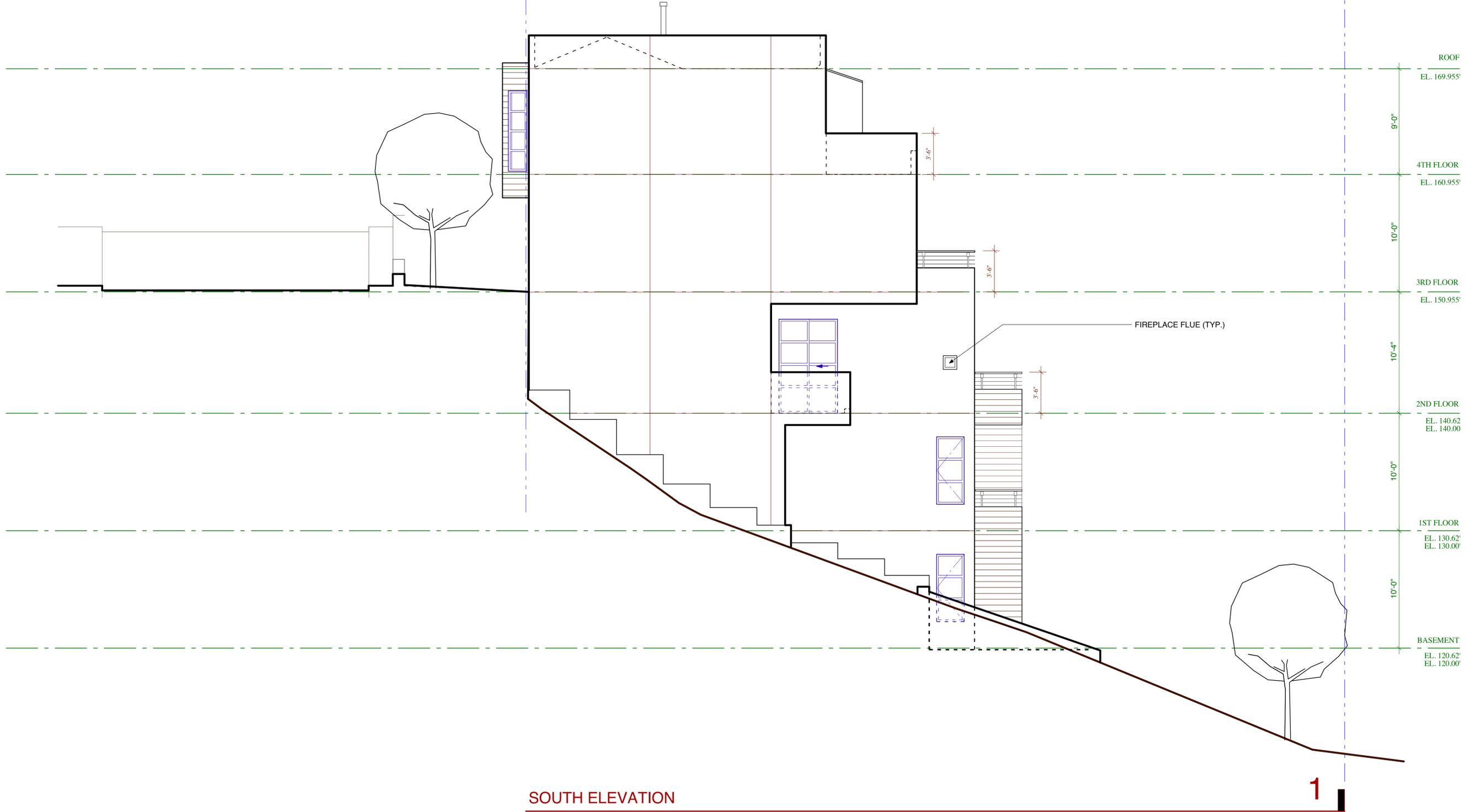
1

10/24/11	PLNG, REV.4
04/26/10	PLNG, REV.3
03/09/10	PLNG, REV.2
02/09/10	PLNG, REV.1
12/26/07	PLNG
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue	Date

Date: 06/06/06
Scale: 1/4"=1'-0"
Drawn: DS
Sheet:

A3.02

PERMIT APPLICATION # 2006.09.25.3192

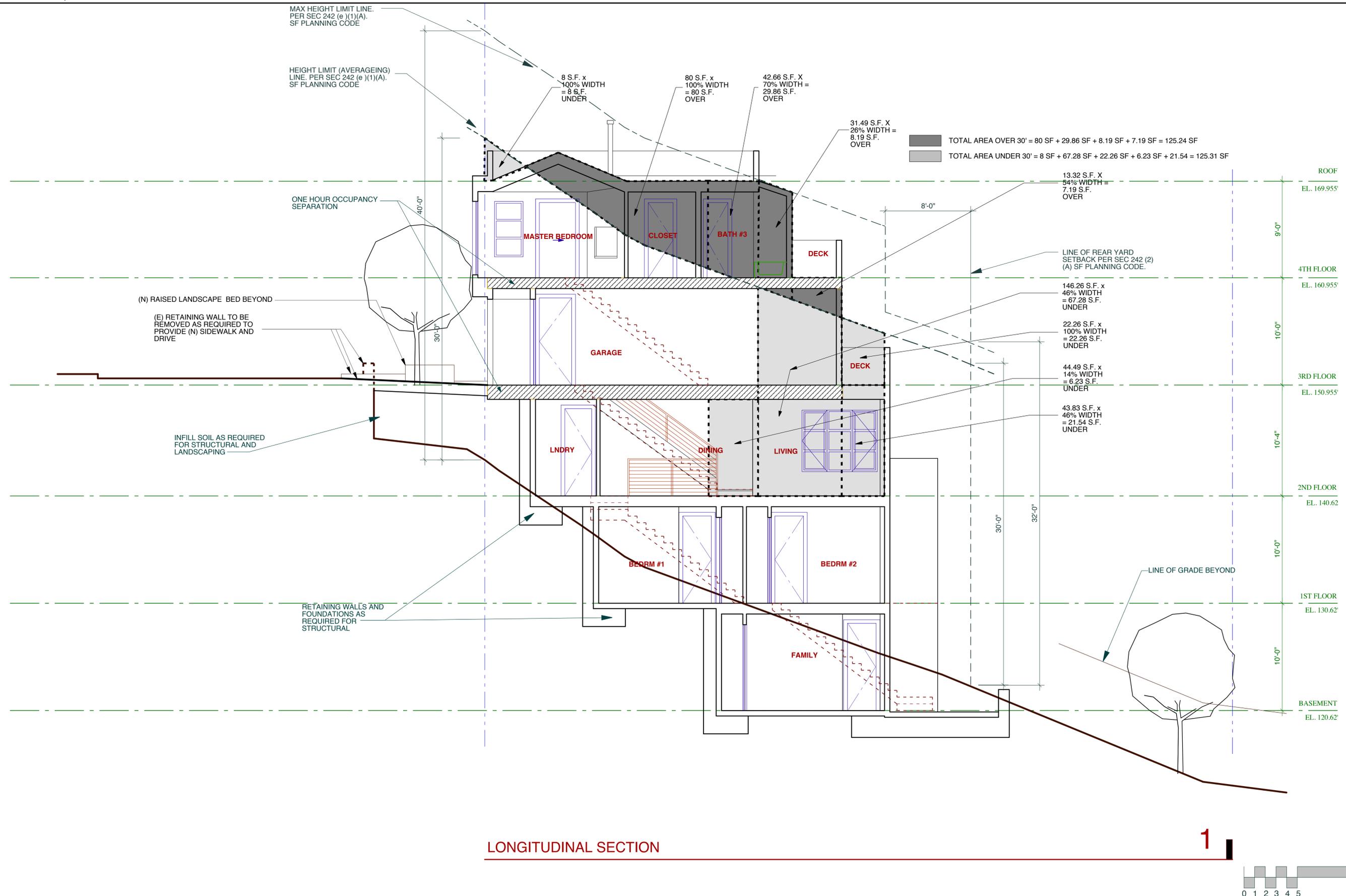


SOUTH ELEVATION

1

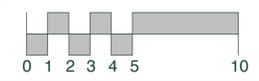
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03/09/10	PLNG. REV.2
02/09/10	PLNG. REV.
12/26/07	PLNG
02/05/07	PRE-APP.
08/07/06	East Slope Bermal

Rev./Issue	Date
Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	



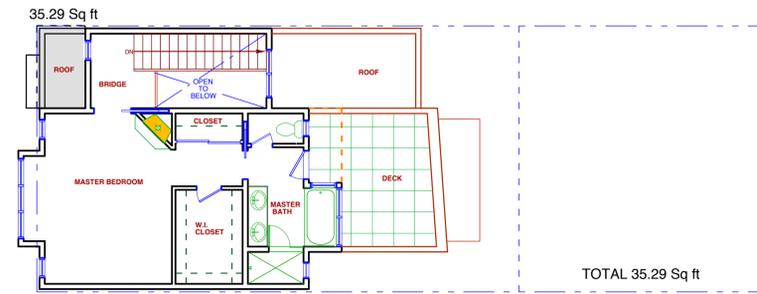
LONGITUDINAL SECTION

1

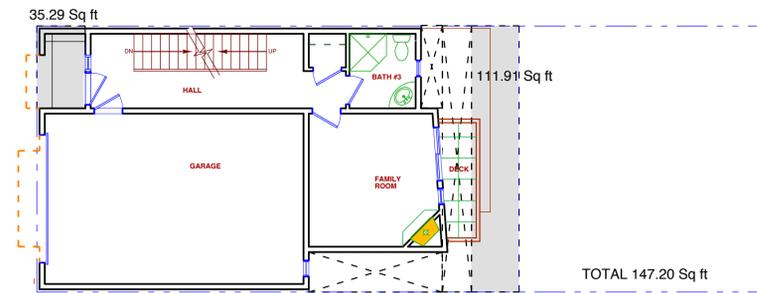


10/24/11	PLNG. REV.4
03/09/10	PLNG. REV.2
02/09/10	PLNG. REV.
12/26/07	PLNG.
02/05/07	PRE-APP.
08/07/06	East Slope Bernal
Rev./Issue	Date

Date: 06/06/06
Scale: 1/4"=1'-0"
Drawn: DS
Sheet:



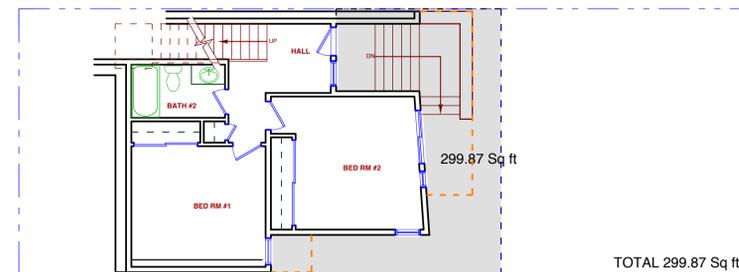
FOURTH FLOOR PLAN



THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

35.29 Sq ft
 147.20 Sq ft
 217.77 Sq ft
 299.87 Sq ft

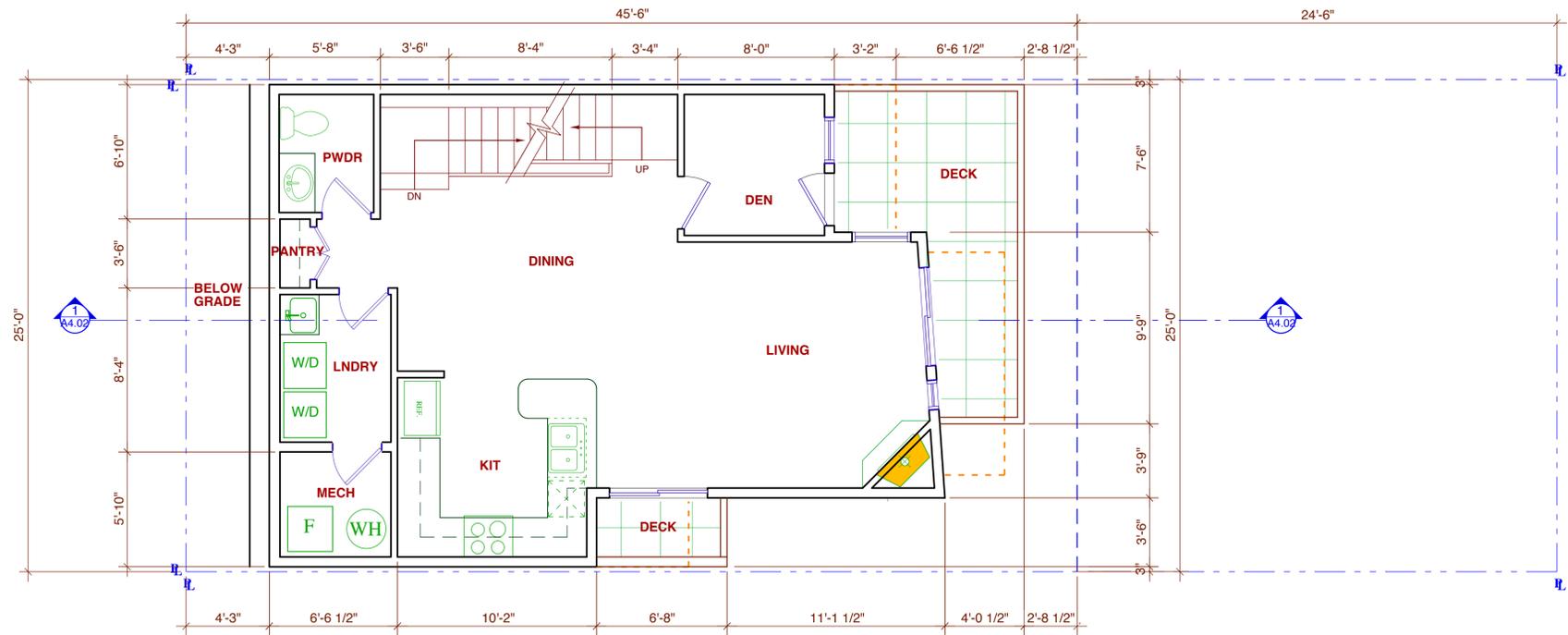
TOTAL MASS REDUCTION AREA **700.13 Sq ft**



03/12/10	PLNG. REV. 2
02/10/10	PLNG. REV.
12/26/07	PLNG
08/07/06	East Slope Bernal
Rev./Issue	Date

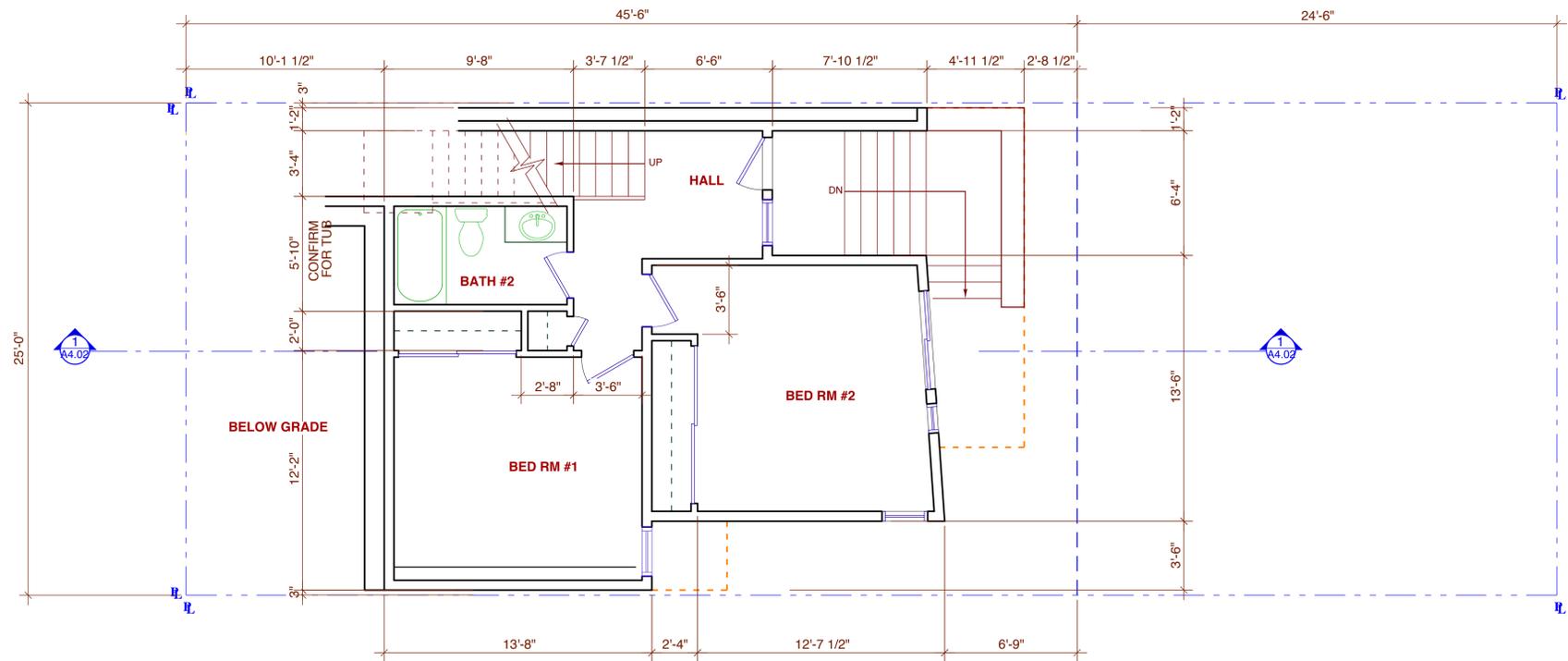
Date:
 Scale: 1/8"=1'-0"
 Drawn: DS
 Sheet:

PERMIT APPLICATION # 2006.09.25.3193



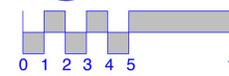
SECOND FLOOR PLAN

2



FIRST FLOOR PLAN

1



1551 HARRISON STREET
SAN FRANCISCO, CA 94103
TEL 415.882.9783 FAX 415.882.9786

STERNBERG BENJAMIN
OF RECORD ARCHITECTS

WWW.STERNBERGBENJAMIN.COM

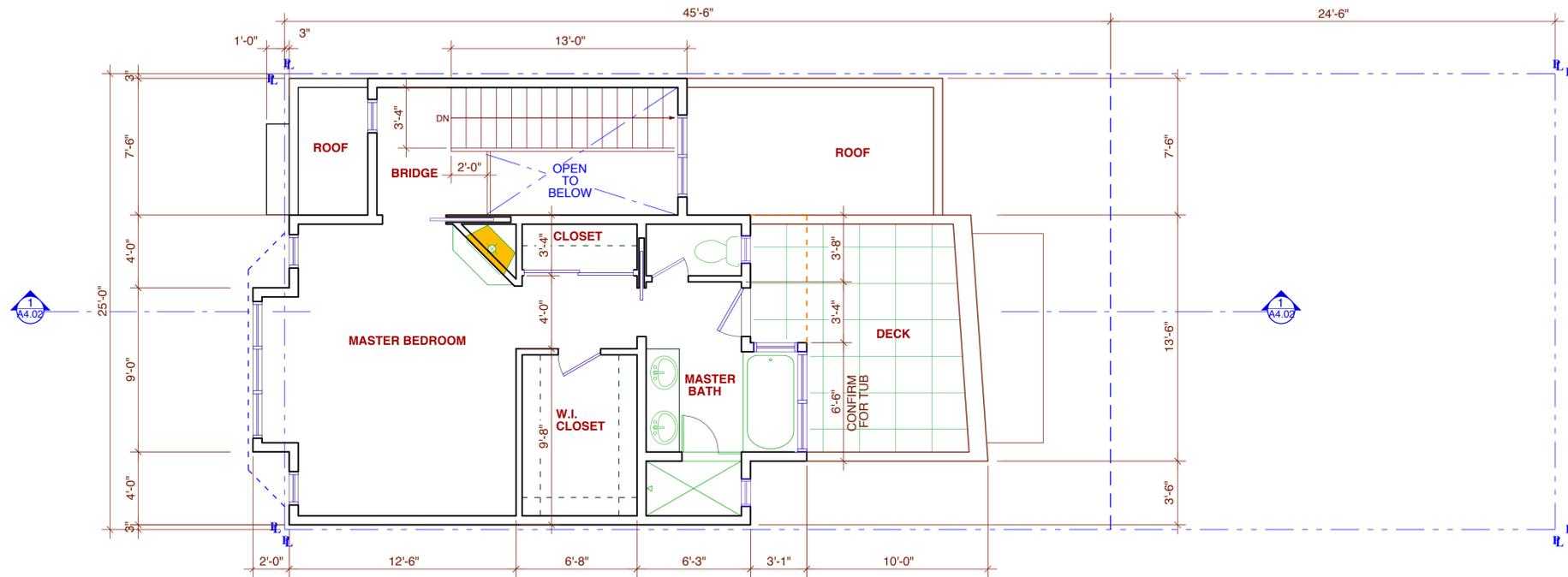
NEW SINGLE FAMILY HOUSE
LOT 11
BLOCK 5577
BREWSTER STREET
SAN FRANCISCO CA

FIRST FLOOR PLAN
SECOND FLOOR PLAN

03/12/10	PLNG. REV. 2
02/10/10	PLNG. REV.
12/26/07	PLNG
08/07/06	East Slope Bernal
Rev./Issue	Date

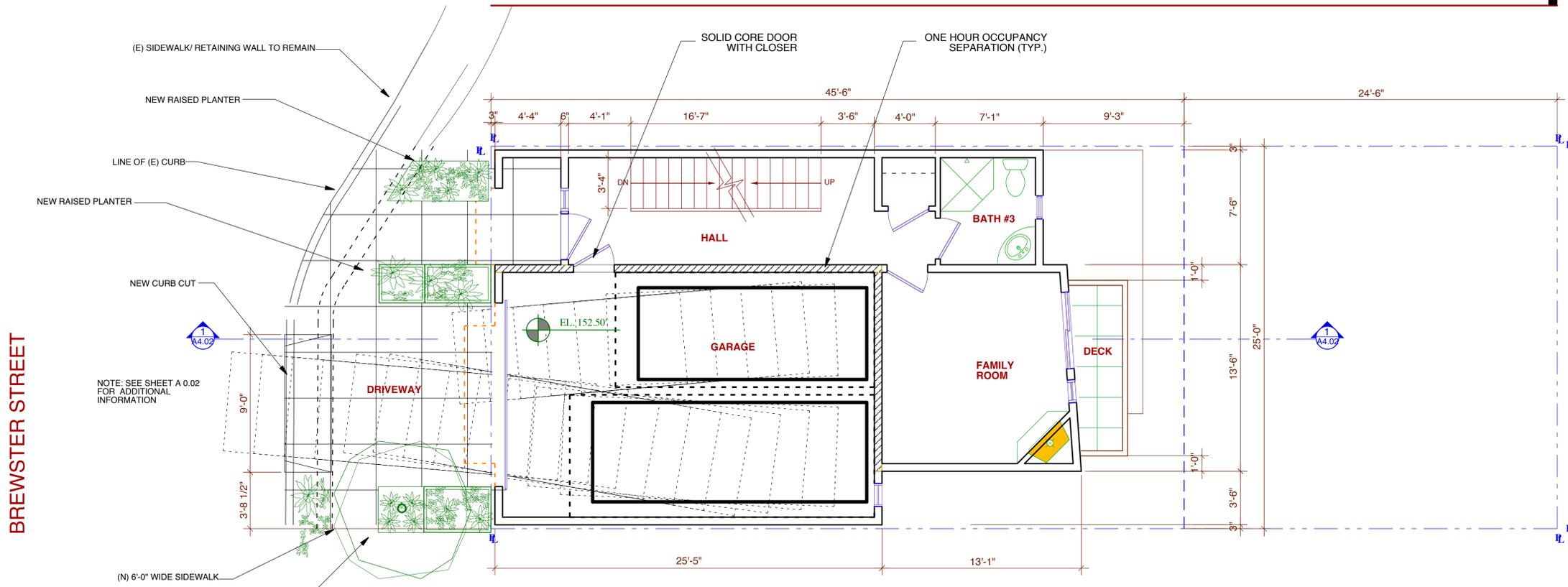
PERMIT APPLICATION # 2006.09.25.3193

Date:	06/06/06
Scale:	1/4"=1'-0"
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Sheet:	A2.01



FOURTH FLOOR PLAN

2



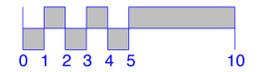
THIRD FLOOR PLAN- GARAGE

1



BREWSTER STREET

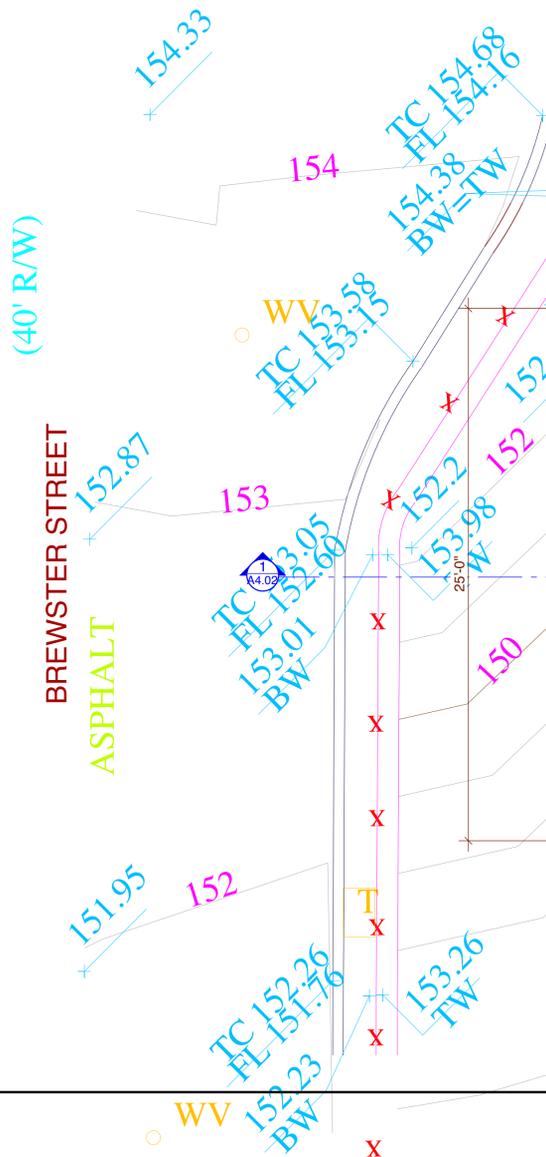
NOTE: SEE SHEET A 0.02 FOR ADDITIONAL INFORMATION



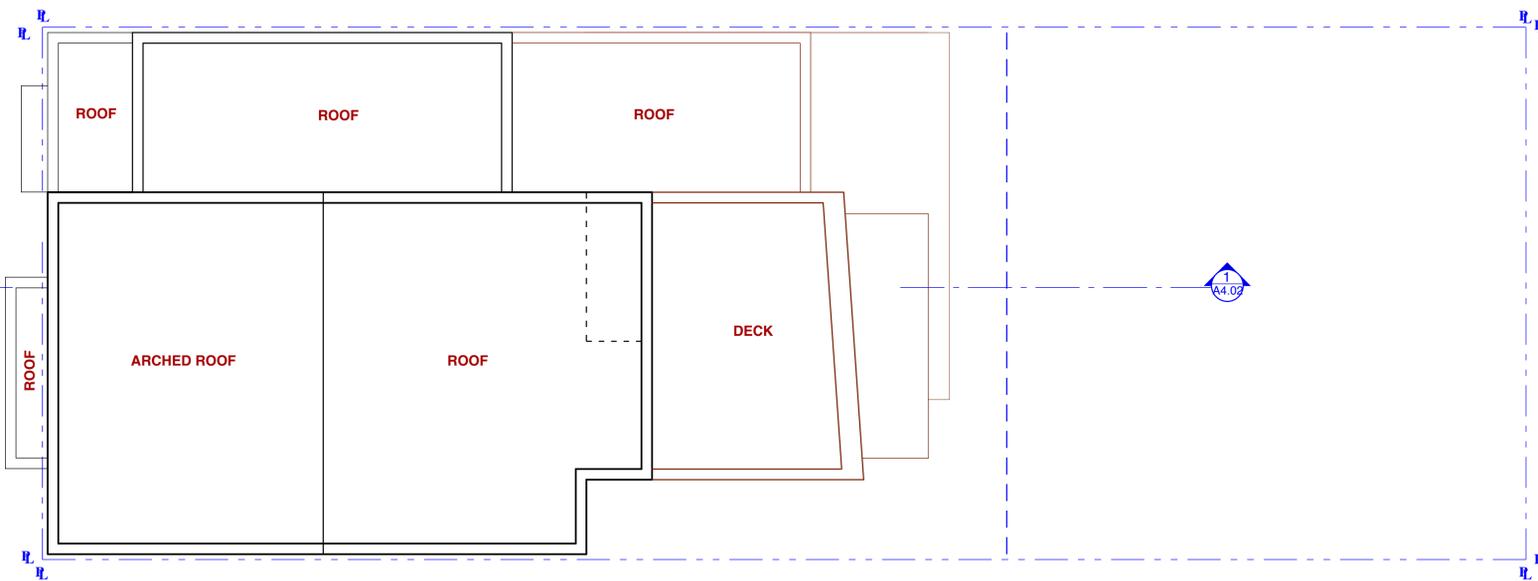
03/12/10	PLNG. REV. 2
02/10/10	PLNG. REV.
12/26/07	PLNG.
08/07/06	East Slope Bernal
Rev./Issue	Date

Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	

(DRIVEWAYS NOT SHOWN)



ROOF PLAN



SITE SURVEY / SITE PLAN

2



1



INFORMATION FOR THIS DRAWING TAKEN FROM SURVEY DATED JANUARY 2006, PREPARED BY:

MARTIN M. RON ASSOCIATES, INC. Land Surveyors 859 Harrison Street, Suite 200 San Francisco, California 94107

PERMIT APPLICATION # 2006.09.25.3193

Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	A2.03

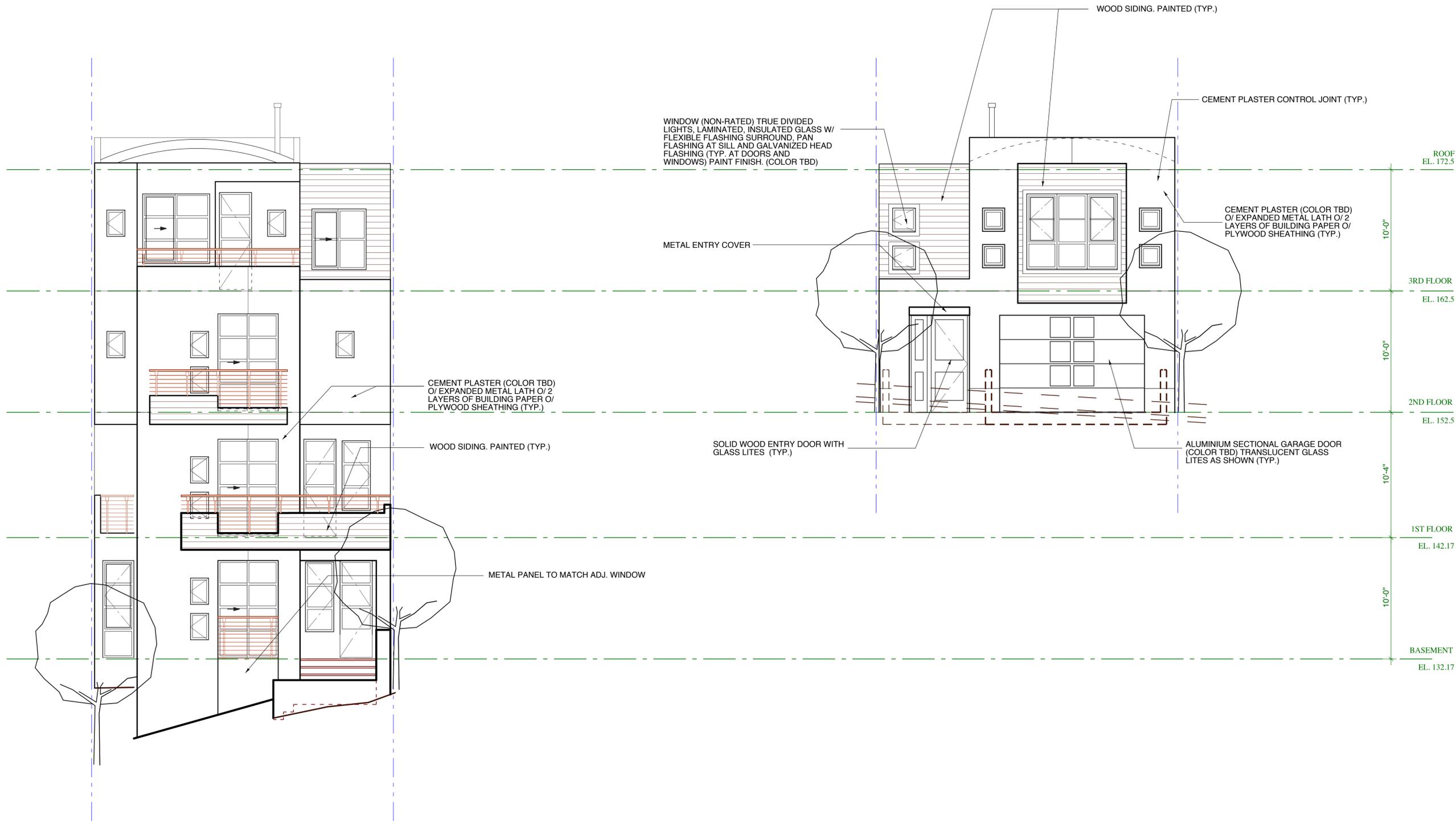
SITE SURVEY / SITE PLAN AND ROOF PLAN

NEW SINGLE FAMILY HOUSE LOT 11 BLOCK 577 BREWSTER STREET SAN FRANCISCO CA

1551 HARRISON STREET
SAN FRANCISCO, CA 94103
TEL 415.882.9783 FAX 415.882.9786

STERNBERG BENJAMIN
OF REGISTERED PROFESSIONALS

www.sternbergbenjamin.com

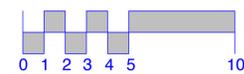


EAST (REAR) ELEVATION

2

WEST (STREET) ELEVATION

1



1031 HARRISON STREET
SAN FRANCISCO, CA 94103
TEL 415.882.9783 FAX 415.882.9786

STERNBERG
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OF THE ARCHITECTS

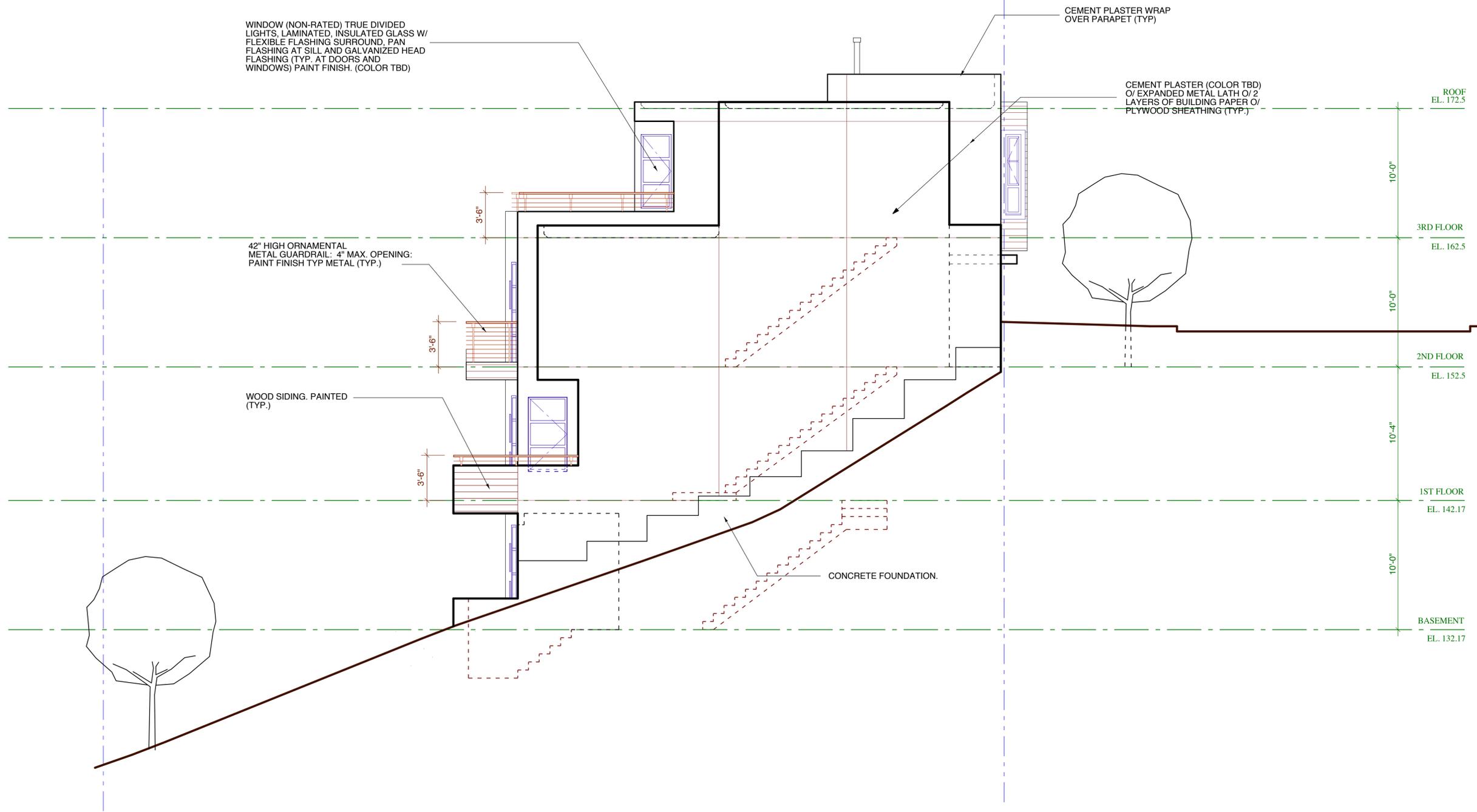
WWW.STERNBERGBENJAMIN.COM

NEW SINGLE FAMILY HOUSE
LOT 11
BLOCK 4577
BREWSTER STREET
SAN FRANCISCO CA

EAST AND WEST
ELEVATIONS

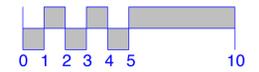
04/26/10	PLNG, REV. 3
03/12/10	PLNG, REV. 2
02/10/10	PLNG, REV.
12/26/07	PLNG
08/07/06	East Slope Bernal
Rev./Issue	Date
Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	A3.01

PERMIT APPLICATION # 2006.09.25.3193



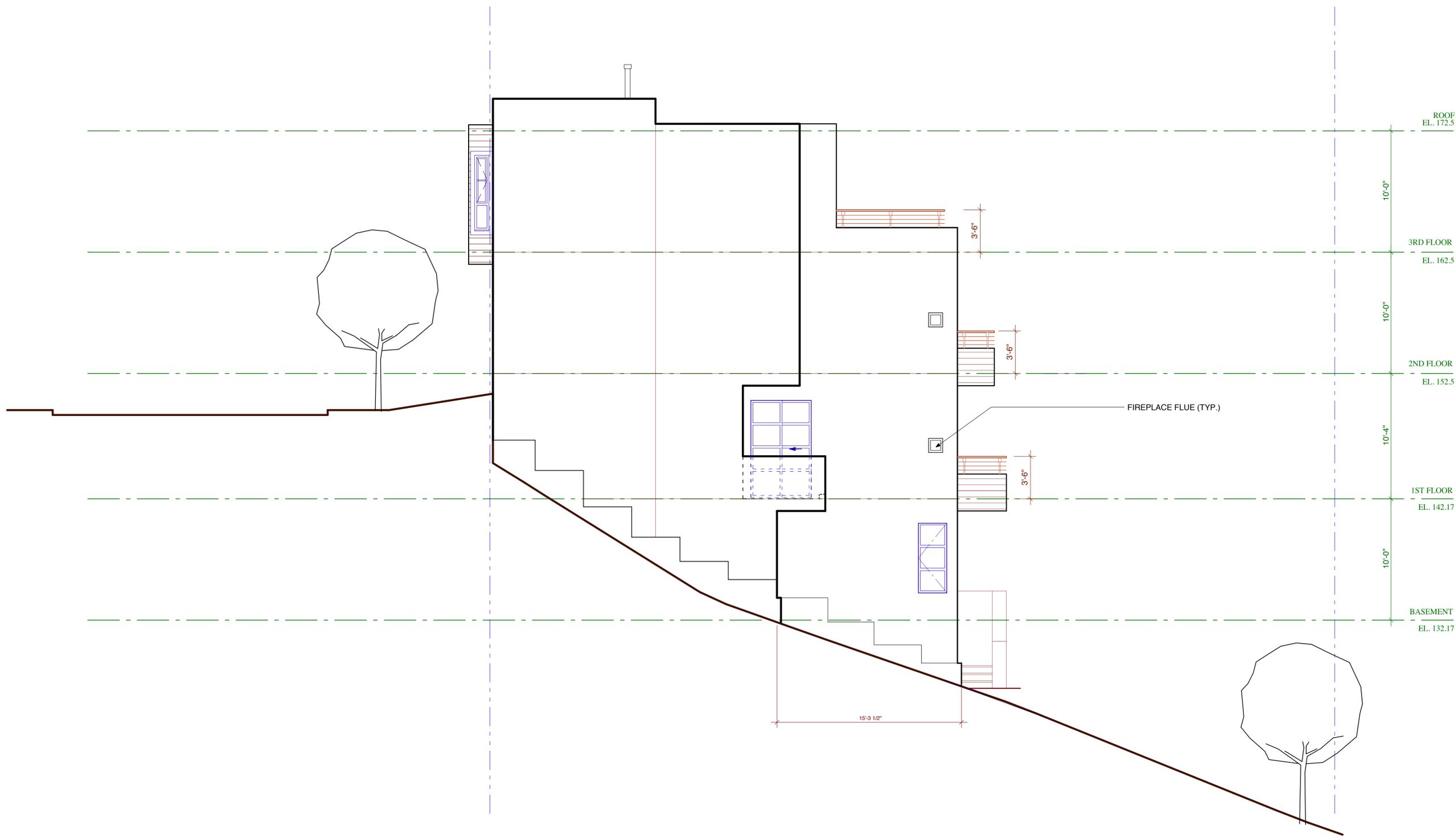
NORTH ELEVATION

1



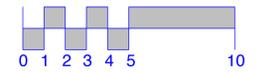
03/12/10	PLNG. REV. 2
02/10/10	PLNG. REV.
12/26/07	PLNG
08/07/06	East Slope Bernal

Rev./Issue	Date
Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	



SOUTH ELEVATION

1



03/12/10	PLNG. REV. 2
02/10/10	PLNG. REV.
12/26/07	PLNG.
08/07/06	East Slope Bernal
Rev./Issue	Date

Date:	06/06/06
Scale:	1/4"=1'-0"
Drawn:	DS
Sheet:	

MAX HEIGHT LIMIT LINE.
PER SEC 242 (e)(1)(A).
SF PLANNING CODE

HEIGHT LIMIT (AVERAGEING)
LINE. PER SEC 242 (e)(1)(A).
SF PLANNING CODE

TOTAL AREA OVER = 10.35 SF + 40.25 SF + 16.56 SF + 6.76 SF + 3.17 SF = 77.09 SF

TOTAL AREA UNDER = 3.89 SF + 2.35 SF + 14.35 SF + 7.61 SF + 49.11 SF = 77.31 SF

11.14 S.F. X
100% WIDTH
= 11.14 S.F.
UNDER

15 S.F. x
69% WIDTH
= 10.35 S.F.
OVER

40.25 S.F. x
100% WIDTH
= 40.25 S.F.
OVER

24 S.F. x
69% WIDTH
= 16.56 S.F.
OVER

26 S.F. x
26% WIDTH
= 6.76 S.F.
OVER

5.26 S.F. X
74% WIDTH
= 3.89 S.F.
UNDER

2.35 S.F. X
100% WIDTH
= 2.35 S.F.
UNDER

8'-0"

3'-6"

3'-6"

3'-6"

2'-9"

5.87 S.F. X 54%
WIDTH = 3.17 S.F.
OVER

102.48 S.F. X 14%
WIDTH = 14.35 S.F.
UNDER

16.90 S.F. X 44%
WIDTH = 7.61 S.F.
UNDER

49.11 S.F. X 100%
WIDTH = 49.11 S.F.
UNDER

30'-0"

32'-0"

GRADE AT MIDPOINT OF LOT

120.00

ROOF
EL. 172.5

3RD FLOOR
EL. 162.5

2ND FLOOR
EL. 152.5

1ST FLOOR
EL. 142.17

BASEMENT
EL. 132.17

(N) RAISED LANDSCAPE BED
BEYOND
(E) RETAINING WALL TO BE
REMOVED AS REQUIRED TO
PROVIDE (N) SIDEWALK AND
DRIVE

INFILL SOIL AS REQUIRED
FOR STRUCTURAL AND
LANDSCAPING

ONE HOUR OCCUPANCY
SEPARATION (TYP.)

MASTER BEDROOM

CLOSET

MASTER BATH

DECK

GARAGE

FAMILY

DECK

LAUNDRY

DINING
KIT.

LIVING

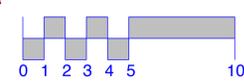
DECK

BEDRM #1

BEDRM #2

LONGITUDINAL SECTION

1



03/12/10	PLNG. REV. 2
02/10/10	PLNG. REV.
12/26/07	PLNG
08/07/06	East Slope Bernal
Rev./Issue	Date

Date: 06/06/06
Scale: 1/4"=1'-0"
Drawn: DS
Sheet:

A4.01

PERMIT APPLICATION # 2006.09.25.3193



LOOKING FROM HOLLADAY AVENUE



LOOKING FROM THE JOY STREET STEPS

PLNG. DR	10/17/11
PLNG. DR	10/24/11

Rev./Issue. Date

Date:
 Scale: 1/4"=1'-0"
 Drawn: DS

Sheet:
A0.03