



**COUNTY OF HUMBOLDT**  
**PLANNING AND BUILDING DEPARTMENT**

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3015 H Street Eureka CA 95501  
Phone: (707)445-7541 Fax: (707) 268-3792  
<http://www.co.humboldt.ca.us/planning/>

Hearing Date: December 13, 2018

To: Humboldt County Planning Commission

From: John H. Ford, Director of Planning and Building Department

Subject: **Bruce Brady** Parcel Map Subdivision  
Application Number 14052  
Case Number PMS-18-004  
Assessor Parcel Number 508-341-048  
1805 Caroline Avenue, McKinleyville area

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Please contact Trevor Estlow at (707) 268-3740, or by email at [testlow@co.humboldt.ca.us](mailto:testlow@co.humboldt.ca.us), if you have any questions about the scheduled public hearing item.

## AGENDA ITEM TRANSMITTAL

Meeting Date	Subject	Contact
December 13, 2018	Parcel Map Subdivision	Trevor Estlow

**Project Description:** A Minor Subdivision of an approximately 21,415 square foot parcel into two parcels of approximately 7,167 square feet and 11,673 square feet. The parcel is currently developed with a single family residence with an attached accessory dwelling unit that will remain on proposed Parcel 1. Proposed Parcel 2 will be vacant and suitable for residential development. The subdivision will utilize a flag lot design and be accessed via a 20-foot wide access way. The parcel is and will be served with community water and sewer provided by the McKinleyville Community Services District.

**Project Location:** The project site is located in the McKinleyville area, on the east side of Caroline Avenue, approximately 100 feet south of the intersection of Boss Road and Caroline Avenue, on the property known as 1805 Caroline Avenue.

**Present Plan Land Use Designation:** Residential, Low Density (RL). Humboldt County General Plan, McKinleyville Community Plan (MCCP). Density: 1 – 8 units per acre. Slope Stability: Relatively Stable.

**Present Zoning:** Residential One-Family (R-1).

**Application Number:** 14052

**Case Number:** PMS-18-004

**Assessor Parcel Number:** 508-341-048

**Applicant**

Bruce Brady  
10721 SE 144<sup>th</sup> Loop  
Happy Valley, CA 97086

**Owner**

same as applicant

**Agent**

Deborah Ben-Iesau  
1745 Kensington Place  
McKinleyville, CA 95519

**Environmental Review:** Project requires environmental review.

**Major Issues:** Alquist-Priolo Fault Zone

**State Appeal Status:** Project is not appealable to the California Coastal Commission.

**BRADY PARCEL MAP SUBDIVISION**  
Case Number PMS-18-004  
Assessor Parcel Number 508-341-048

**Recommended Planning Commission Action**

1. Describe the application as part of the Consent Agenda.
2. Survey the audience for any person who would like to discuss the application.
3. If no one requests discussion, make the following motion to approve the application as a part of the consent agenda:

*Adopt the Mitigated Negative Declaration and to make all of the required findings for approval of the Parcel Map Subdivision, based on evidence in the staff report and public testimony, and adopt the Resolution approving the Brady project subject to the recommended conditions.*

**Executive Summary:** The applicant is proposing a subdivision of an approximately 21,415 square foot parcel into two parcels of approximately 7,167 square feet and 11,673 square feet. The parcel is currently developed with a single family residence with an attached accessory dwelling unit that will remain on proposed Parcel 1. Proposed Parcel 2 will be vacant and suitable for residential development. The subdivision will utilize a flag lot design and be accessed via a 20-foot wide access way. All parcels will be served with water and sewer by the McKinleyville Community Services District.

The parcel was created by a Parcel Map Subdivision and is identified as Parcel 4, as shown on Parcel Map No. 2274 as per Map recorded in Book 20 of Parcel Maps, Page 32, Humboldt County Records.

A preliminary drainage report was prepared and reviewed by Public Works and they recommended as a condition of approval that the applicant submit a complete hydraulic report and drainage plan for their approval. The applicant has proposed stormwater detention to address additional runoff created by the future development. This is required in order to comply with Section 3310.5 of the McKinleyville Community Plan which states: "Development shall only be allowed in such a manner that the downstream peak flows will not be increased." Additionally, the applicant has demonstrated compliance with the "MS4 Permit" which applies to stormwater discharges from small municipal separate storm sewer systems (MS4s) and can require Low Impact Development (LID) techniques. Public Works has reviewed the proposal and will incorporate the design in the improvement plans.

The project site is within the Alquist-Priolo Fault Hazard Zone which requires the preparation of a Fault Evaluation Report. This report was prepared by Busch Geotechnical Consultants (Attachment 3) and reviewed by the County's consulting geologist, Mike Malone who was with Giblin and Associates at the time the report was done. Mr. Malone prepared a letter dated March 25, 2004 (Attachment 5) in response to the report and recommended approval provided Busch address the comments in the letter. Busch provided a response to the comments in a letter dated September 3, 2004 (Attachment 3). The study was limited to the area of proposed Parcel 2 and did not review the area of existing development located on proposed Parcel 2. Therefore, a conveyance and agreement will be required for any additional development on proposed Parcel 1.

The site is in a developed part of McKinleyville surrounded by single family homes and located west of McKinleyville Avenue. The site is relatively flat, with a less than one percent slope towards the west. The geologic hazards map for this area shows the soils to be relatively stable. There

are no flood hazards on the property, no mapped archaeological resources, and no mapped biological resources.

Based upon the on-site inspection, a review of Planning Division reference sources, and comments from all involved referral agencies, Planning staff has found that the project will not result in a significant impact on the environment as proposed, and that the applicant has submitted evidence in support of making all of the required findings for approving the proposed subdivision per the Recommended Commission Action.

**Alternative:** The Planning Commission could elect not to approve the project. This alternative should be implemented if your Commission is unable to make all of the required findings. Planning Division staff has found that the required findings can be made. Consequently, planning staff does not recommend further consideration of this alternative.

**RESOLUTION OF THE PLANNING COMMISSION  
OF THE COUNTY OF HUMBOLDT  
Resolution Number 18-**

**Case Number PMS-18-004; Assessor Parcel Number 508-341-048**

**Makes the required findings for certifying compliance with the California Environmental Quality Act and conditionally approves the Bruce Brady Parcel Map Subdivision.**

**WHEREAS**, Deborah Ben-lesau, on behalf of the owner, submitted an application and evidence in support of approving the Parcel Map Subdivision; and

**WHEREAS**, the County Planning Division has reviewed the submitted application and evidence and has referred the application and evidence to involved reviewing agencies for site inspections, comments and recommendations; and

**WHEREAS**, the Planning Division, the Lead Department pursuant to Section 202 of Resolution No. 77-29, has prepared a draft Mitigated Negative Declaration for the subject proposal in accordance with the California Environmental Quality Act (CEQA); and

**WHEREAS**, Attachment 2 in the Planning Division staff report includes evidence in support of making all of the required findings for approving the proposed Parcel Map Subdivision (Case No. PMS-18-004); and

**WHEREAS**, a public hearing was held on the matter before the Humboldt County Planning Commission on December 13, 2018.

**NOW, THEREFORE**, be it resolved, determined, and ordered by the Planning Commission that:

1. The Planning Commission adopts the proposed Mitigated Negative Declaration in Attachment 4, as required by Section 15074 (b) of the CEQA Guidelines, and finds that there is no substantial evidence that the proposed project will have a significant effect on the environment; and
2. The Planning Commission makes the findings in Attachment 2 of the Planning Division staff report for Case No. PMS-18-004 based on the submitted evidence; and
3. The Planning Commission approves the proposed project applied for as recommended and conditioned in Attachment 1 for Case No. PMS-18-004, as modified by the Commission to reflect the exception requests, if granted.

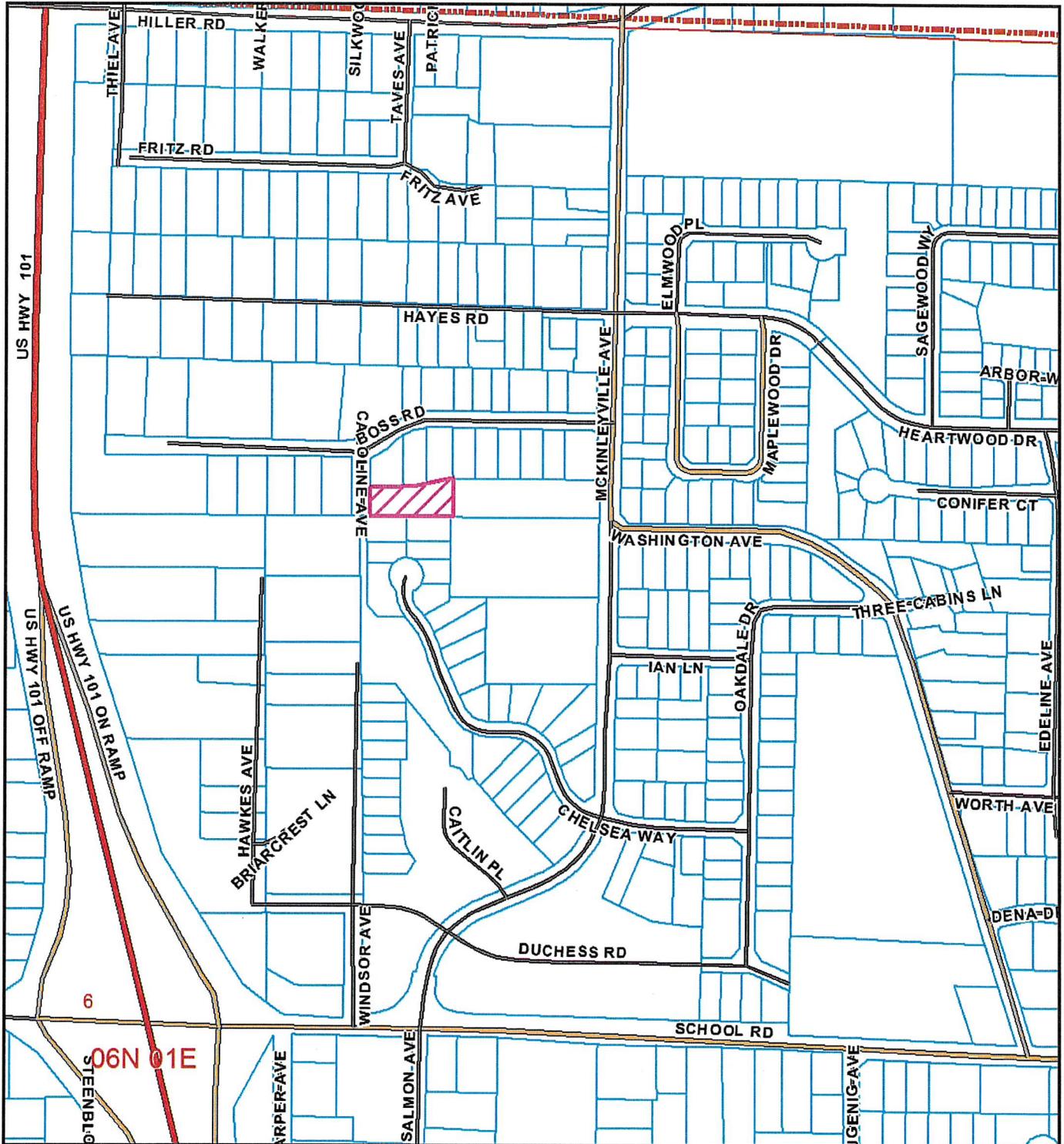
Adopted after review and consideration of all the evidence on December 13, 2018.

The motion was made by Commissioner \_\_\_\_ and seconded by Commissioner \_\_\_\_.

AYES:           Commissioners:  
NOES:           Commissioners:  
ABSTAIN:       Commissioners:  
ABSENT:        Commissioners:  
DECISION:

I, John Ford, Secretary to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

\_\_\_\_\_  
John H. Ford  
Director, Planning and Building Department



**LOCATION MAP**

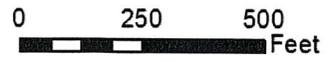
**PROPOSED BRADY  
PARCEL MAP SUBDIVISION  
MCKINLEYVILLE AREA  
PMS-18-004**

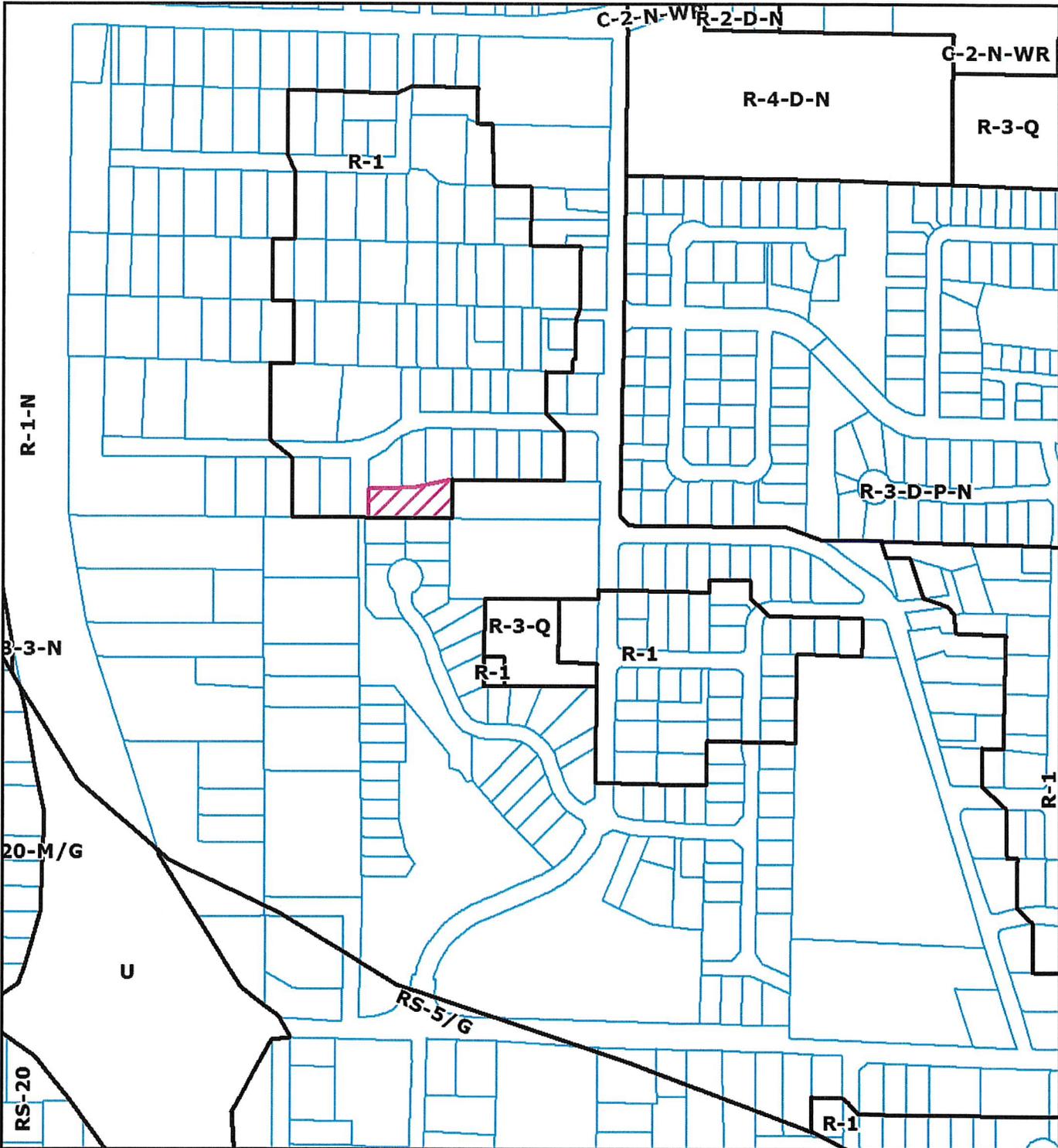
**APN: 508-341-048**

**T06N R01E S06 HB&M (Arcata North)**

Project Area = 

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.





**ZONING MAP**

**PROPOSED BRADY  
PARCEL MAP SUBDIVISION  
MCKINLEYVILLE AREA  
PMS-18-004**

**APN: 508-341-048**

**T06N R01E S06 HB&M (Arcata North)**



**Project Area =** 

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Assessor's Map Bk. 508, Pg. 34  
County of Humboldt, CA.

PTN NW1/4 SEC 6, T6N R1E, HB& M

508-34

NOTE - Assessor's Block Numbers Shown in Ellipses  
Assessor's Parcel Numbers Shown in Small Circles



**ASSESSOR'S PARCEL MAP**  
1. THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSES ONLY.  
2. AN INSTRUMENT OF ASSURANCE FOR  
THE ACCURACY OF THE DATA SHOWN  
HEREON SHALL BE FILED WITH THE  
COUNTY CLERK'S OFFICE.  
3. THIS MAP IS NOT TO BE USED FOR  
CONVEYANCE OF REAL PROPERTY.

- RS Bk 16 of Surveys, Pg 49
- RC Bk 49 of Surveys, Pg 10
- PM656, Bk 5 of Parcel Maps, Pg 149
- PM136R, Bk 12 of Parcel Maps, Pg 29
- PM159B, Bk 14 of Parcel Maps, Pg 14
- PM184B, Bk 16 of Parcel Maps, Pg 49
- PM227A, Bk 20 of Parcel Maps, Pg 32
- PM227B, Bk 20 of Parcel Maps, Pg 37
- PM2311, Bk 20 of Parcel Maps, Pg 83
- PM24C1, Bk 22 of Parcel Maps, Pg 58
- PM2612, Bk 23 of Parcel Maps, Pg 101
- PM267B, Bk 24 of Parcel Maps, Pg 52
- PM2730, Bk 24 of Parcel Maps, Pg 125
- PM2920, Bk 26 of Parcel Maps, Pgs 121-122
- PM355B, Bk 32 of Parcel Maps, Pgs 129-130
- PM35E4, Bk 36 of Parcel Maps, Pgs 5-6

**ASSESSOR PARCEL MAP**

**PROPOSED BRADY  
PARCEL MAP SUBDIVISION  
MCKINLEYVILLE AREA**

**PMS-18-004**

**APN: 508-341-048**

**T06N R01E S06 HB&M (Arcata North)**

Project Area =

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N  
  
**MAP NOT TO SCALE**



**AERIAL MAP**

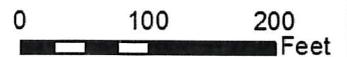
**PROPOSED BRADY  
PARCEL MAP SUBDIVISION  
MCKINLEYVILLE AREA  
PMS-18-004**

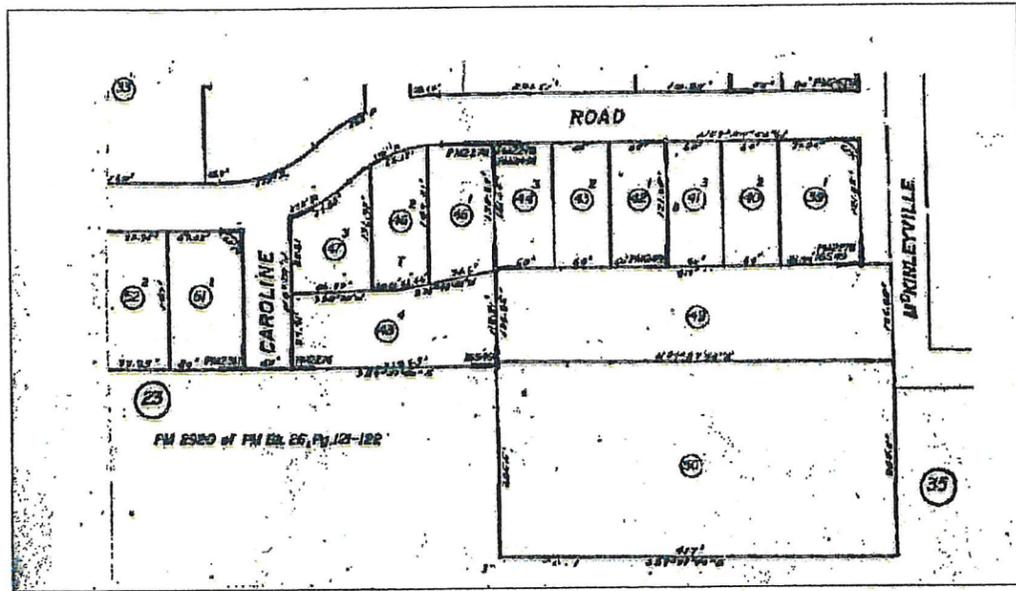
**APN: 508-341-048**

**T06N R01E S06 HB&M (Arcata North)**

**Project Area =** 

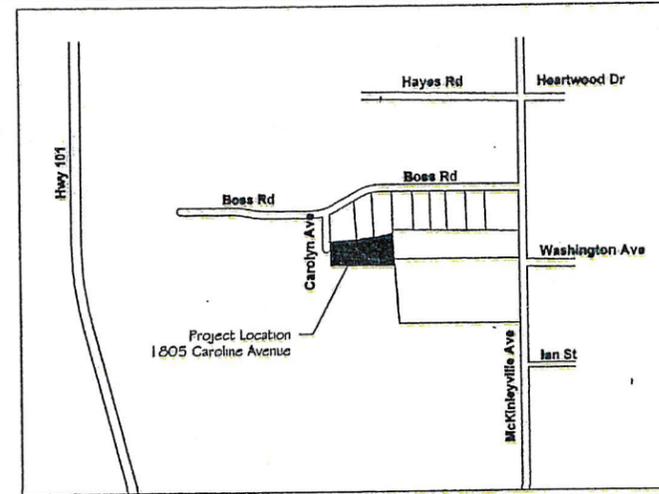
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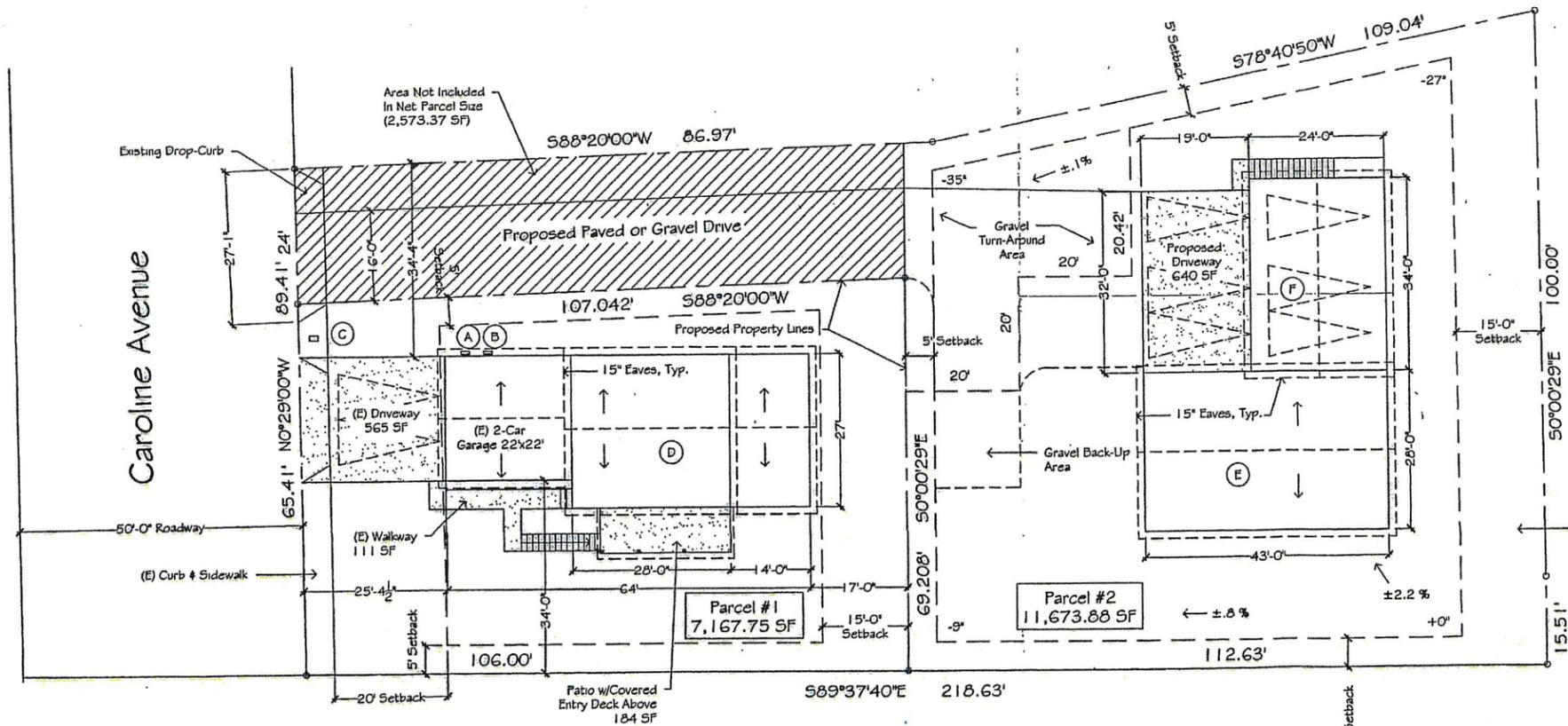


Adjacent Parcels:

- (45) 508-341-45
- (51) 508-341-51
- (46) 508-341-46
- (23) 508-232-03
- (47) 508-341-47
- (50) 508-341-50
- (49) 508-341-49



VICINITY MAP



Tentative Parcel Map  
Scale: 1/16"=1'-0"

Project Information:

Existing Parcel SF: 21,415 SF

- (A) Parcel 1 Existing Gas Meters
- (B) Parcel 1 Existing Electrical Panels
- (C) Parcel 1 Existing Water Meter
- (D) Existing Duplex: 1st Flr 1,114 SF 3 Bed/2 Bath  
2nd Flr 756 SF 2 Bed/1 Bath
  - Existing 2-Car Garage: 556 SF
  - Building Footprint: 1,618 SF
  - Walkways & Driveway: 860 SF
  - Parcel 1 Utilities As Noted On Plan
  - Parcel 2 Utilities Located At the Street
- (E) Proposed Residence:  
5-Story 1,190 SF (Estimated) 3 Bed/2 Bath
- (F) Proposed MIL: 816 SF (Estimated)  
2 Bed/1 Bath Over 3-Car Garage  
Proposed 3-Car Garage: 816 SF (Estimated)

(E) Stand of Eucalyptus Trees Along East Edge Of Parcel To Remain. Remove Smaller Trees As Needed To Meet LID Requirements



Caroline Avenue Lot Split  
APN 508-341-48

Project Address: 1805 Caroline Ave., McKinleyville, CA 95519	Scale: Date: 2/28/18 Drawn by: DMB
Owner: Bruce Brady, 707-845-5665 10721 SE 144th Loop, Happy Valley, OR 97086	Revisions:
Contractor: Ben Construction 1745 Kensington Pl., McKinleyville, CA 95519 Office: 707-840-0410 Cell: 707-407-8588	Sheet 1 of 1

## ATTACHMENT 1

### CONDITIONS OF APPROVAL

Approval of the tentative map is conditioned on the following terms and requirements which must be satisfied before the parcel map may be recorded.

1. All taxes to which the property is subject shall be paid in full if payable, or secured if not yet payable, to the satisfaction of the County Tax Collector's Office, and all special assessments on the property must be paid or reapportioned to the satisfaction of the affected assessment district. Please contact the Tax Collector's Office approximately three to four weeks prior to filing the parcel or final map to satisfy this condition. This requirement will be administered by the Department of Public Works.
2. The conditions in the Department of Public Works referral dated May 2, 2018, included herein as Exhibit A of Attachment 1, shall be completed or secured to the satisfaction of that department. Prior to performing any work on the improvements, contact the Land Use Division of the Department of Public Works.
3. The Planning Department requires that two (2) copies of the Parcel Map be submitted for review and approval. Gross and net lot areas, as confirmed by survey, shall be shown for each parcel.
4. Prior to recordation of the Parcel Map, the Applicant shall make payment for all outstanding Humboldt County Planning Department fees. Cost report will be made available at the Humboldt County Planning Department.
5. A map revision fee as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors (currently \$110.00 per parcel) as required by the County Assessor's Office shall be paid to the Humboldt County Planning Department, 3015 H Street, Eureka. The check shall be made payable to the "County of Humboldt". The fee is required to cover the Assessor's cost in updating the parcel boundaries.
6. The applicant shall submit at least three (3) copies of a Development Plan for all parcels to the Planning Division for review and approval. The map shall be drawn to scale and give detailed specifications as to the development and improvement of the site, and shall include the following site development details:
  - A. Mapping:
    - (1) Topography of the land in 1-foot contours.
    - (2) Development standards including: setbacks, maximum lot coverage, maximum height, and parking requirements.
    - (3) Proposed improvements including streets, sidewalks, driveways, drainage and storm water detention facilities, community services facilities, access easements, and emergency access and vehicle turn-around, as applicable, including areas designated as treatment areas for Low Impact Development techniques demonstrating compliance with the MS4 program.

B. Notes to be placed on the Development Plan:

- (1) The project site is not located within an area where known cultural resources have been located. However, as there exists the possibility that undiscovered cultural resources may be encountered during construction activities, the following mitigation measures are required under state and federal law:

If cultural resources are encountered during construction activities, the contractor on site shall cease all work in the immediate area and within a 50 foot buffer of the discovery location. A qualified archaeologist as well as the appropriate Tribal Historic Preservation Officer(s) is to be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided.

The Native American Heritage Commission (NAHC) can provide information regarding the appropriate Tribal point(s) of contact for a specific area; the NAHC can be reached at 916-653-4082. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials. If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be Native American, the NAHC will then be contacted by the Coroner to determine appropriate treatment of the remains pursuant to PRC 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99.

- (2) "Hours of construction for on- and off-site improvements shall be restricted to Monday thru Friday from 7:00 am to 6:00 pm, Saturday from 9:00 am to 5:00 pm, with no construction activity on Sunday." All proposed uses must comply with the noise standards identified in Table 13-C of the General Plan.
- (3) "Utilities associated with the subdivision shall be placed underground, where feasible."
- (4) (if applicable) "Development rights for secondary dwelling units have been conveyed by the subdivider to the County of Humboldt. The terms and conditions of the Conveyance and Agreement must be satisfied in order for the County to accept an application for a secondary dwelling unit on any of the involved parcels. Please refer to the recorded Conveyance and Agreement for the specific requirements. Questions regarding this note should be directed to the Humboldt County Planning Division."
- (5) "The subdivision is considered a Regulated Project under the State Water Board's Phase II Small Municipal Separate Storm Sewer System (MS4) Program. Areas identified as treatment areas shall be maintained for the life of the project. Development of low impact development techniques other than those included on the improvement plans shall require a site-specific analysis to demonstrate conformance with this standard."
- (6) "Notice is given pursuant to Government Code Section 66411.1 that the driveway apron and sidewalk on Parcel 1 shall be retrofitted for ADA compliance (Item 2.4 in Exhibit A to Attachment 1) to the satisfaction of the Department of Public Works

within twenty-four (24) months from the date that the subdivision map is filed with the County Recorder."

(This Note shall appear on the Development Plan unless a Subdivision Agreement is voluntarily entered into between the subdivider and the County prior to filing of the Parcel Map.)

(7) "Please note that the information and requirements described and/or depicted on this Development Plan are current at the time of preparation but may be superceded or modified by changes to the laws and regulations governing development activities. Before commencing a development project, please contact the Planning Division to verify if any standards or requirements have changed."

7. The applicant shall cause to be recorded a "Notice of Development Plan" on forms provided by the Humboldt County Planning Department. Document review fees, plus applicable recordation fees, as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors will be required (currently \$406.00 plus applicable recording fees). The Development Plan shall also be noticed on the Parcel Map.
8. **Within five (5) days of the effective date of the approval of this permit** the applicant shall submit a check to the Planning Division payable to the Humboldt County Recorder in the amount of \$2,330.75. Pursuant to Section 711.4 of the Fish and Game Code, the amount includes the Department of Fish and Wildlife (DFW) fee plus a \$50 document handling fee. This fee is effective through December 31, 2018 at such time the fee will be adjusted pursuant to Section 713 of the Fish and Game Code. Alternatively, the applicant may contact DFW by phone at (916) 651-0603 or through the DFW website at [www.wildlife.ca.gov](http://www.wildlife.ca.gov) for a determination stating the project will have *no effect* on fish and wildlife. If DFW concurs, a form will be provided exempting the project from the \$2,280.75 fee payment requirement. In this instance, only a copy of the DFW form and the \$50.00 handling fee is required.

Note: If a required filing fee is not paid for the project, the project will not be operative, vested or final and any local permits issued for the project will be invalid (Section 711.4(c)(3) of the State Fish and Game Code).

9. Parkland dedication fees of **\$3,067.92** shall be paid to the Humboldt County Planning Division, 3015 H Street, Eureka, CA. Alternately, a parkland dedication fee of **\$2,300.94** may be paid, provided the applicant enters into a Conveyance and Agreement of development rights with the County of Humboldt for an accessory dwelling unit on Parcel 2 (Parcel 1 is already developed with an accessory dwelling unit) and further residential development of Parcel 1. Release from the Conveyance and Agreement may be pursued upon payment of the **\$766.98** parkland dedication fee balance. A copy of the Conveyance and Agreement form with *pro-rata* updated dedication payments amounts for each lot calculated will be provided by the Planning Division upon the election of this option by the applicant once the Parcel Map is prepared and approved for recordation. These fees may be paid for by individual lot owners on a *pro-rata* basis at the time individual lot owners apply for a permit to construct an accessory dwelling unit. Should the applicant elect to enter into a Conveyance and Agreement, legal document review fees as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors (currently \$406.00) will be required.

10. The owner shall execute and cause to be recorded a "Deed Restriction and Hold Harmless Agreement" as required per Section 336-5(i) of the Humboldt County Code on forms



**ATTACHMENT 1 – EXHIBIT A**  
**PUBLIC WORKS SUBDIVISION REQUIREMENTS**

EXHIBIT A



DEPARTMENT OF PUBLIC WORKS  
**COUNTY OF HUMBOLDT**

MAILING ADDRESS: 1106 SECOND STREET, EUREKA, CA 95501-0579  
AREA CODE 707

ARCATA-EUREKA AIRPORT TERMINAL  
McKINLEYVILLE  
FAX 839-3596

PUBLIC WORKS BUILDING  
SECOND & L ST., EUREKA  
FAX 445-7409

CLARK COMPLEX  
HARRIS & H ST., EUREKA  
FAX 445-7388

AVIATION 839-5401

ADMINISTRATION 445-7491  
BUSINESS 445-7652  
ENGINEERING 445-7377  
FACILITY MAINTENANCE 445-7493

NATURAL RESOURCES 445-7741  
NATURAL RESOURCES PLANNING 267-9540  
PARKS 445-7651  
ROADS & EQUIPMENT MAINTENANCE 445-7421

LAND USE 445-7205

**LAND USE DIVISION INTEROFFICE MEMORANDUM**

**TO: Trevor Estlow, Senior Planner**

**FROM: Robert W. Bronkall, Deputy Director** *RB*

**RE: SUBDIVISION REQUIREMENTS - IN THE MATTER OF THE APPLICATION OF BRADY, APPLICATION # 14052, APN 508-341-048, PMS 18-004, APPS# 14052 FOR APPROVAL OF A TENTATIVE MAP, CONSISTING OF 0.49 ACRES INTO 2 PARCELS**

**DATE: 05/02/2018**

*The following requirements and standards are applicable to this project and must be completed to the specifications and satisfaction of the Department of Public Works (Department) before the subdivision map may be filed with the County Recorder. If there has been a substantial change in the project since the last date shown above, an amended report must be obtained and used in lieu of this report. Prior to commencing the improvements indicated below, please contact the Subdivision Inspector at 445-7205 to schedule a pre-construction conference.*

**These recommendations are based on the tentative map prepared by Deborah Ben-Iesau dated 2/28/2018, and dated as received by the Humboldt County Planning Division on March 05, 2018.**

NOTE: All correspondence (letters, memos, faxes, construction drawings, reports, studies, etc.) with this Department must include the Assessor Parcel Number (APN) shown above.

**READ THE ENTIRE REPORT BEFORE COMMENCING WORK ON THE PROJECT**

**1.0 MAPPING**

**1.1 EXPIRATION OF TENTATIVE MAP:** Applicant is advised to contact the Planning & Building Department to determine the expiration date of the tentative map and what time extension(s), if any, are applicable to the project. Applicant is responsible for the timely filing of time extension requests to the Planning & Building Department.

Applicant is responsible for completing all of the subdivision requirements prior to expiration of the tentative map. Applicant is advised to promptly address all of the subdivision requirements in order to avoid the tentative map expiring prior to completion of the subdivision requirements. Applicants are encouraged to contact a land development professional for advice on developing a realistic schedule for the processing of the project.

- 1.2 MAP TYPE:** Applicant must cause to be filed a subdivision map showing monumentation of all property corners to the satisfaction of this Department in compliance with Humboldt County Code Section 326-15. Subdivision map checking fees shall be paid in full at the time the subdivision map is submitted for checking. County Recorder fees shall be paid prior to submittal of the map to the County Recorder for filing. The subdivision map must be prepared by a Land Surveyor licensed by the State of California -or- by a Civil Engineer registered by the State of California who is authorized to practice land surveying.

All Department charges associated with this project must be paid in full prior to the subdivision map being submitted to the County Recorder for filing.

Applicant shall submit to this Department four (4) full-size copies of the subdivision map as filed by the County Recorder.

Prior to submitting the subdivision map to the County Surveyor for map check, applicant shall submit the subdivision map to the utility providers to provide input on necessary public utility easements. Copies of the responses from the utility providers shall be included with the first submittal of the subdivision map to the County Surveyor.

- 1.3 DEPOSIT:** Applicant shall be required to place a security deposit with this Department for inspection and administration fees as per Humboldt County Code Section 326-13 prior to review of the improvement plans, review of the subdivision map, or the construction of improvements, whichever occurs first.
- 1.4 EASEMENTS:** All easements that encumber or are appurtenant to the subdivision shall be shown graphically on the subdivision map. Those easements that do not have a metes and bounds description shall be noted on the subdivision map and shown as to their approximate location.
- 1.5 PRIVATE ROADS:** Pursuant to County Code Section 323-2(c)(3), the subdivision map shall show the lanes clearly labeled "Non-County Maintained Lane" or "Non-County Maintained Road". Pursuant to County Code Section 323-2(c)(5), the following note shall appear on the map or instrument of waiver, which shall read substantially as follows:

"If the private lane or lanes shown on this plan of subdivision, or any part thereof, are to be accepted by the County for the benefit of the lot owners on such lane rather than the benefits of the County generally, such private lane or lanes or parts thereof shall first be improved at the sole cost of the affected lot owner or owners, so as to comply with the specification as contained in the then applicable subdivision regulations relating to public streets."

[County Code Section 323-2 appears after Section 324-1 in County Code]

- 1.6 DEDICATIONS:** The following shall be dedicated on the subdivision map, or other document as approved by this Department:

**(a) CAROLINE AVE (NOT COUNTY MAINTAINED):**

Access: Applicant shall cause to be dedicated on the subdivision map a non-exclusive easement for ingress, egress, and public utilities for the benefit of the parcels within the subdivision in a manner approved by this Department. The easement shall be 50 feet in width.

PUE: Applicant shall cause to be dedicated to the County of Humboldt on the subdivision map a 10 foot wide public utility easement (PUE) adjacent to the right of way for the road or as otherwise approved by this Department. Additional PUEs shall be dedicated in a manner, width, and location approved by this Department.

The applicant shall cause to be dedicated to the County of Humboldt a PUE over the entire area of the access easement for the road.

Sidewalks: Applicant shall cause to be dedicated on the subdivision map a non-exclusive 10 foot wide easement for sidewalk purposes lying adjacent to the right of way of the access roads within the subdivision. Said easement shall be for the benefit of the parcels/lots within the subdivision and shall be dedicated in manner, width, and location as approved by this Department. This easement may overlap a public utility easement.

Irrevocable dedication: Applicant shall cause to be irrevocably dedicated on the subdivision map to the County of Humboldt any access, PUE, sidewalk, and/or slope easements created on the subdivision map. The dedication shall be made in a manner approved by this Department. The County will most likely reject this offer of dedication at this time.

- (b) NEIGHBORHOOD BOX UNIT (NBU) MAILBOXES:** Prior to submittal of the subdivision map, provide a sign-off from the Post Office on the location of the neighborhood box unit. Applicant shall cause to be dedicated on the subdivision map additional sidewalk easements as necessary to accommodate the NBU.

Note: The Post Office may not require a NBU for this project.

- 1.7 LINES OF OCCUPATION:** Any fences that do not coincide with the property lines shown on the subdivision map need to be adjusted to agree with the subdivision map, or a boundary correction or lot line adjustment must be completed to resolve the discrepancy prior to the map being approved by the County Surveyor.

## **2.0 IMPROVEMENTS**

The existing and proposed residential driveways shall be surfaced to County standards. The driveway shall be paved for a minimum length of 25 feet. Both driveways shall be ADA compliant.

- 2.1 ADA FACILITIES:** All pedestrian facilities shall be ADA compliant. This includes, but is not limited to, providing curb ramps at intersections and sidewalks behind driveway aprons (or ADA compliant driveway aprons).

Fire hydrants, neighborhood box units for mail, utility poles (including down guys), street lights, or other obstructions will not be allowed in sidewalks unless approved by this Department.

Applicant shall replace/retrofit to meet current standards any non-ADA compliant pedestrian improvements within the public right of way (or access easements that the subject property has a legal right to use) contiguous to the project.

- 2.2 NEIGHBORHOOD BOX UNIT (NBU) MAILBOXES.** When clustered mailboxes (neighborhood box units) are required by the Post Office, applicant shall obtain approval for the location of the mailbox unit from the Post Master. The pad for the mailbox unit shall be constructed as part of the subdivision and shall be encompassed by a sidewalk easement or other easement, as approved by this Department.

Note: The Post Office may not require an NBU for this project.

- 2.3 COMPLETION OF SIDEWALK IMPROVEMENTS:** Sidewalk improvements may be deferred until such time as a building permit is pulled. Each building permit pulled will require that an ADA accessible sidewalk be constructed to connect the subject lot to the existing pedestrian network outside of the subdivision. Depending on the lot being built upon, this may include constructing sidewalk in front of numerous vacant lots within the subdivision. Sidewalk improvements must be completed prior to the "final" of the building permit. Any sidewalk damaged during construction will need to be replaced prior to the "final" of the building permit.

- 2.4 COMPLETION OF IMPROVEMENTS ON PARCEL MAP SUBDIVISION:** Pursuant to Government Code section 66411.1 improvement timing. Fulfillment of reasonable on- and off-site construction requirements may be imposed prior to Parcel Map filing with the County Recorder if found necessary for the public health or safety or orderly development of the area. The following improvements shall be completed within twenty-four (24) months from the filing date of the parcel map:

The driveway apron and sidewalk on Parcel 1 shall be retrofitted for ADA compliance.

- 2.5 PARCEL MAP SUBDIVISION AGREEMENT:** When a parcel map is to be filed with the County Recorder and the construction of improvements will be deferred to a later date, the following shall apply:

- (a) For parcel map subdivisions projects with a subdivision agreement, include the following note on the development plan: "This subdivision was approved with requirements to construct improvements. At the time the parcel map was filed, the improvements were not completed. The developer has entered into a subdivision agreement with the County to defer construction of these improvements. **Subdivision improvements must be completed within the timelines specified in the subdivision agreement. In general, building permits cannot be obtained until the required improvements are constructed to the satisfaction of the County.** The improvements required in the subdivision agreement are shown on the improvement plans prepared by \_\_\_\_\_, dated \_\_\_\_\_, and are signed as approved by the County on \_\_\_\_\_. Contact the Land Use Division of the Department of Public Works for details."

- (b) For parcel map subdivisions without a subdivision agreement and improvements have not been constructed prior to the filing of the map, include the following note on the development plan: "This subdivision was approved with requirements to construct improvements. At the time the parcel map was filed, the improvements were not completed. The developer has elected to not enter into a subdivision agreement with the County that would specify the timing of when the deferred improvements must be constructed. **Building permits cannot be obtained until the required improvements are constructed to the satisfaction of the County.** The improvements required in the subdivision are shown on the improvement plans prepared by \_\_\_\_\_, dated \_\_\_\_\_, and are signed as approved by the County on \_\_\_\_\_. Contact the Land Use Division of the Department of Public Works for details."
- (c) The Department shall cause to be recorded at the time of filing of the parcel map with the County Recorder a *Notice of Construction Requirements*.

### 3.0 DRAINAGE

- 3.1 **DRAINAGE ISSUES:** Applicant shall be responsible to correct any involved drainage problems associated with the subdivision to the satisfaction of this Department.
- 3.2 **DRAINAGE REPORT:** Applicant must submit a complete hydraulic report and drainage plan regarding the subdivision for review and approval by this Department. This may require the construction of drainage facilities on-site and/or off-site in a manner and location approved by this Department. In the preparation of drainage plans, applicant shall comply with the Community of McKinleyville County Storm Water Management Program.
- 3.3 **STORM WATER QUALITY:** Applicant shall include within the project site the implementation of Best Management Practices (BMPs) to prevent storm water pollution. BMPs include, but are not limited to, stenciling drainage inlets.
- 3.4 **DETENTION FACILITIES:** Pursuant to McKinleyville Community Plan Policy 3310 (5), this project is required to construct detention facilities in a manner and location approved by this Department. In general, storm flows from the 100-year ( $Q_{100}$ ) storm shall be detained so as to release water from the site at a rate no greater than the predevelopment 2-year ( $Q_2$ ) storm flows. Contact this Department regarding any questions.

If the site conditions do not allow for detention, then infiltration may be considered by the Department as an alternative.

- 3.5 **DRAINAGE FEES:** Applicant must conform to Humboldt County Code Section 328.1-16 regarding McKinleyville Drainage Area Fees.
- 3.6 **LOW IMPACT DEVELOPMENT (LID):** The subdivision is required to comply with County Code Section 337-13. The applicant shall submit a Storm Water Information Sheet for review and approval by the County.

The following note shall be placed on the development plan: "**LOW IMPACT DEVELOPMENT (LID) NOTE:** This subdivision is approved as a small project and is required to comply with County Code Section 337-13. Each lot within the subdivision is considered a small project. At the time of issuance of a building permit, the applicant shall demonstrate compliance with County Code Section 337-13."

#### 4.0 GRADING

<NONE>

#### 5.0 MAINTENANCE

**5.1 MAINTENANCE OF IMPROVEMENTS:** The improvements to be constructed as part of this subdivision will not be maintained by the County. Pursuant to Humboldt County Code Section 323-2\* (b) regarding Private Lanes, the Applicant must provide a permanent maintenance plan acceptable to this Department for all improvements including, but not limited to, the following: roads, drainage systems (pipes, drainage inlets, detention basins), pedestrian facilities, and landscape areas. An engineer's estimate for the cost of yearly maintenance must be approved by this Department. Maintenance shall be provided by a maintenance association, district, or other means as approved by this Department. More than one maintenance plan may be required. [\*Section 323-2 is listed in County Code after Section 324-1]

Based upon the tentative map, it appears that the following will need to be maintained by a maintenance plan:

- A maintenance plan for all facilities within the proposed subdivision.
- A maintenance plan for the non-county maintained road known as Caroline Avenue.
- A maintenance plan for the non-county maintained road known as Boss Road.

If a maintenance association currently exists for the access road, applicant shall attempt to the satisfaction of this Department to annex the subdivision into the existing road maintenance association. That portion of this condition regarding road maintenance may be waived if the applicant provides evidence satisfactory to this Department that the subject property already belongs to a maintenance association for the access road(s).

A maintenance plan is not required for driveways; as driveways serve only one parcel. A maintenance plan is *optional* for roads that serve only two parcels. A maintenance plan is required for roads serving three or more parcels.

A maintenance plan for projects that contain detention facilities shall include, but is not limited to, the following:

- (a) A schedule for the periodic monitoring of the detention facilities. At a minimum, the detention facilities shall be monitored at least once each year between April 15 and October 15.
- (b) A system to monitor the basins in a timely manner after significant rain fall events.
- (c) Monitoring shall be done by a qualified professional as approved by this Department.
- (d) Monitoring shall include an annual written report identifying (1) the condition of the facilities; (2) the recommended maintenance needed for the facilities to function as originally constructed or as required by subsequent regulation; and (3) certification that the maintenance was completed to the satisfaction of a qualified professional. The report shall be submitted no later than October 31 of each year to this Department.

- (e) A financially secured procedure that will ensure that maintenance is identified and subsequently performed in a timely manner.
- (f) For infiltration basins, wet weather testing of the percolation rate of the basin consistent with Department of Environmental Health standards for determining the percolation rates for septic systems. Percolation rate testing shall be done every five (5) years.

**5.2 MAINTENANCE AGREEMENTS:** Any agreements regarding the maintenance of the detention facilities between the applicant and a public entity or Homeowners Association may be required to be approved by County Counsel and the County Risk Manager.

**6.0 DEVELOPMENT PLAN**

<NONE>

**7.0 LANDSCAPING**

<NONE>

// END //

## ATTACHMENT 2

### STAFF ANALYSIS OF THE EVIDENCE SUPPORTING THE REQUIRED FINDINGS

**Required Findings:** To approve this project, the Planning Commission must determine that the applicant has submitted evidence in support of making **all** of the following required findings.

**A. Subdivision Findings:** Section 66474 of the State Subdivision Map Act and Title III Division 2 of the Humboldt County Code (HCC) specify the findings that must be made to approve tentative subdivision maps. Basically, the Hearing Officer may approve a tentative map if the applicants have submitted evidence which supports making all of the following findings:

1. That the proposed subdivision together with the provisions for its design and improvement is consistent with the County's General Plan.
2. That the tentative subdivision map conforms to the requirements and standards of the County's subdivision regulations.
3. That the proposed subdivision conforms to all requirements of the County's zoning regulations.
4. The proposed subdivision is not likely to cause substantial environmental damage.
5. The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law, unless the following written findings are made supported by substantial evidence: 1) the reduction is consistent with the adopted general plan including the housing element; 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized.
6. In addition, the California Environmental Quality Act (CEQA) states that one of the following findings must be made prior to approval of any development which is subject to the regulations of CEQA:
  - a. The project is either categorically or statutorily exempt; or
  - b. There is no substantial evidence that the project will have a significant effect on the environment or any potential impacts have been mitigated to a level of insignificance and a negative declaration has been prepared pursuant to Section 15070 of the CEQA Guidelines; or
  - c. An environmental impact report (EIR) has been prepared and all significant environmental effects have been eliminated or mitigated to a level of insignificance, or the required findings in Section 15091 of the CEQA Guidelines are made.

**1. General Plan Consistency.** The following table identifies the evidence which supports finding that the proposed subdivision is in conformance with all applicable policies and standards in the Humboldt County General Plan and the McKinleyville Community Plan (MCCP).

Plan Section(s)	Summary of Applicable Goal, Policy, or Standard	Evidence Which Supports Making the General Plan Conformance Finding
Land Use Chapter 4  Land Use Designations Section 4.8	Residential Low Density (RL) Primary and compatible uses include single family residential use. Density Range – 1 - 8 dwelling units per acre.	The existing parcel is currently developed with a primary residence with an attached accessory dwelling unit. Both parcels will be suitable for residential development.
Urban Limits: §2600 (MCCP)	New development shall be located within existing developed areas or in areas with adequate public services.	All proposed parcels are within the Urban Limit line and are served by public water and sewer. The parcels will be served by Caroline Avenue, a public road with a 50 foot right of way.
Housing: §2400 (MCCP)	Housing shall be developed in conformity with the goals, policies and standards of the Humboldt County Housing Element.	The proposal results in two parcels, one vacant and suitable for residential development. The site was not utilized by the Department of Housing and Community Development, therefore, the additional parcel created by this subdivision is in addition to those identified in the 2014 Housing Element.

<p>Hazards: §3200 (MCCP)</p>	<p>New development shall minimize risk to life and property in areas of high geologic, flood and fire hazards. Geologic Fire Flood Hazards</p>	<p>The area of the proposed building site is within Geologic Hazard Rating 0 - "Relatively Stable" and is within the Alquist-Priolo (A-P) Fault Hazard Area. A Fault Evaluation Report (FER) was prepared by Busch Geotechnical Consultants and reviewed by Giblin Associates, the County's reviewing geologist at the time. Giblin Associates found that the report provided for an adequate building site on proposed Parcel 2. The FER did not cover Parcel 1 containing the existing residence and SDU. An existing residential dwelling may trigger preparation of a FER if improvements exceed 50% of the value of the structure. For this reason, a Conveyance and Agreement will be required to prohibit any non-exempt development on proposed Parcel 1 until a FER or FER waiver is prepared. Pursuant to the County Geologic Hazards Ordinance, an indemnification and hold harmless agreement is required for development in the Alquist-Priolo Fault Hazard Area. Located at approximately 140 feet in elevation, the parcel does not have any flood hazards. The parcel slopes gently to the southwest at less than 1%.</p>
<p>Sensitive and Critical Habitats: §3420 (MCCP)</p>	<p>To protect designated sensitive and critical resource habitats.</p>	<p>The parcel does not have any mapped constraints as shown on the biological resource map. It is located within a developed residential area which is not known to possess wetlands, natural drainages or other types of sensitive or critical habitats.</p>
<p>Cultural Resource Protection: §3500 (FP)</p>	<p>New development shall protect cultural, archeological and paleontological resources.</p>	<p>The Northwest Information Center recommended that a cultural resource study be conducted. However, further consultation with the local Tribal Historic Preservation Officers (THPOs) concluded that the site does not warrant a study provided the standard condition regarding inadvertent discovery is included. This has been made a condition of approval.</p>

Parkland: §4420 (MCCP)	To establish recreational facilities to meet the needs of Eureka residents.	Parkland dedication in-lieu fees were calculated by the Assessor's Office to be \$100,000/acre or: $2(2(130 \times 2.45/43,560)) \times \$100,000 = \$3,067.92$ without the conveyance of secondary dwelling unit rights; or \$2,300.94 with the conveyance of secondary dwelling unit rights on Parcel 2 (Parcel 1 is already developed with a SDU).
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Parkland Dedication Fee Calculations

	130.00	McKinleyville Community Plan requires 130 square feet of parkland dedication per person for new subdivisions
X	<u>2.57</u>	Persons per average McKinleyville household (Source: 2000 U.S. Census)
	334.10	Parkland dedication per average household in square feet
/	<u>43,560</u>	Square feet per acre
	0.007	Parkland dedication per average household in acres
X	2	Number of parcels being created by the subdivision,
X	2	Number of dwellings per legal parcel or lot, including potential second units
X	100%	Percentage of these parcels within the McKinleyville Community Planning Area
X	<u>\$100,000</u>	Value of one acre of land in the vicinity of the subdivision project
	\$3,067.92	<b>Parkland Dedication In-lieu Fee for the Brady Subdivision</b>

**2. Subdivision Regulations.** The following table identifies the evidence which supports finding that the proposed subdivision is in conformance with all applicable policies and standards in Section 66474 of the State Subdivision Map Act and Title III Division 2 of the Humboldt County Code (H.C.C.).

Section(s)	Applicable Subdivision Requirements	Evidence Supporting Subdivision Requirement Finding
Lot Suitability 322-3	All lots shall be suitable for their intended uses.	The project will result in two parcels – one vacant and suitable for residential development. Evidence submitted by the applicant, staff site inspections and referral agency comments indicate that the lots will be suitable for residential development.
Access and Drainage 324-1	Improvements shall be required for the safe and orderly movement of people and vehicles.	The parcels will be served by Caroline Avenue, a public road with a 50-foot right-of-way. Proposed Parcel 2 will be a "flag lot" and accessed via a 20-foot wide flag "pole". The project has been conditioned to adhere to all road improvement and drainage requirements as recommended by the Land Use Division of the Department of Public Works (LUD) per their Subdivision Requirements dated May 2, 2018.
Sewer & Water 324-1 (d)	Sewer and water systems shall be constructed to appropriate standards.	Resultant parcels are served by community water and sewer provided by the McKinleyville Community Services District (MCSD). MCSD has stated that they have the capacity to serve the subdivision
<p>322-3.1 Housing Element Densities The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law, except where: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized.</p>		The proposal results in two parcels suitable for residential development. The site was not utilized by the Department of Housing and Community Development, therefore, the additional parcel created by this subdivision is in addition to those identified in the 2014 Housing Element.

<p>Government Code § 66411.1 Improvement Timing</p>	<p>Unless the subdivider voluntarily enters into an agreement with the County establishing the timing of the work, fulfillment of reasonable on- and off-site construction requirements are deferred until issuance of a permit or other grant for development of the created lot, except where found to be necessary for the public health and safety or for orderly development of the surrounding area. If not completed prior to parcel map recordation or under agreement with the County, a Notice of deferred construction of subdivision improvements shall be filed concurrently with the parcel map.</p>	<p>Because one of the resultant parcels being created by this division is currently developed with an occupied residential structure, and the subdivider has not indicated that it is their intent to enter into a Subdivision Agreement, the Public Works Department is recommending that the construction of the frontage improvements to Parcel 1 set forth in Attachment 1, Exhibit A be completed within 24 months of the filing of the parcel map for orderly development of the area. (Refer to DPW memo in Attachment 5)</p>
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**3. Zoning Compliance and Development Standards.** The following table identifies the evidence which supports finding that the proposed development is in conformance with all applicable policies and standards in the Humboldt County Zoning Regulations.

Zoning Section	Summary of Applicable Requirement	Evidence that Supports the Zoning Finding
Residential Single Family (R-1)	One family dwellings and secondary dwelling units are principally permitted.	As shown on the Tentative Map, the applicant is proposing to divide the parcel into two parcels – one to remain developed and one to be vacant and suitable for residential development.
Minimum Parcel Size	5,000 square feet	Parcel 1: 7,167 square feet Parcel 2: 11,673 square feet
Minimum Yard Setbacks per Zoning:	Front: 20 feet Side: 5 feet Rear: 10 feet	Parcel 1: complies Parcel 2: vacant
Minimum Lot Width	50 feet	Parcel 1: 65 feet Parcel 2: 102 feet
Maximum Lot Depth	3 time lot width	Parcel 1: 106 feet Parcel 2: 112 feet
Maximum Ground Coverage	35%	Parcel 1: 24% Parcel 2: vacant
Maximum Structure Height	35 feet	Parcel 1: 26 feet Parcel 2: vacant
313-109.1 Parking	One (1) space for each dwelling unit containing one (1) bedroom and two (2) parking spaces for each dwelling unit containing two or more bedrooms. Pursuant to SB 1069, no parking is required for Accessory Dwelling Units (ADUs) when it is within a half mile from public transit.	Two (2) spaces are depicted in the garage on proposed Parcel 1 and proposed Parcel 2 has sufficient area for the required parking. A bus stop is located at McKinleyville Ave. and Railroad Dr., therefore, no additional parking is required for the existing ADU on proposed Parcel 1.

**4. Public Health, Safety and Welfare.**

<b>The project will not be detrimental to the public health, safety and welfare nor will it be materially injurious to properties or improvements in the area because:</b>	<b>Evidence supporting the finding</b>
All reviewing referral agencies have approved or conditionally approved the proposed project design.	See Attachment 4, Referral agency recommendations.
The proposed project is consistent with the general plan.	See previous discussion.
The proposed project is consistent with the zoning.	See previous discussion.
The proposed project will not cause environmental damage.	See following discussion.

**5. Impact on Residential Density Target.** See discussion under Section 2 above

**6. Environmental Impact.** Please see the attached draft Negative Declaration.

As required by the California Environmental Quality Act, the initial study conducted by the Planning and Building Department (Attachment 4) evaluated the project for any adverse effects on the environment. Based on a site inspection, information in the application, and a review of relevant references in the Department, staff has determined that there is no evidence before the Department that the project will have any potential adverse effect, either individually or cumulatively, on the environment. The environmental document on file in the Department includes a detailed discussion of all relevant environmental issues.

**Because the project was found subject to CEQA and a Mitigated Negative Declaration was prepared, the provisions of Section 711.4 of the California Fish and Wildlife Code apply to this project.** The applicant shall submit a check to the Planning Division payable to the Humboldt County Recorder in the amount of \$2,330.75. [Note: In order to comply with the time limits for filing the Notice of Determination per CEQA, this payment will be requested from the applicant prior to hearing and will be held by the Planning Division pending a decision on the permit.] Pursuant to Section 711.4 of the Fish and Wildlife Code, the amount includes the Department of Fish and Wildlife (DFW) fee plus the \$50 document handling fee. This fee is effective through December 31, 2018 at such time the fee will be adjusted pursuant to Section 713 of the Fish and Wildlife Code. Alternatively, the applicant may contact DFW by phone at (916) 651-0603 or through the DFW website at [www.wildlife.ca.gov](http://www.wildlife.ca.gov) for a determination stating the project will have *no effect* on fish and wildlife. If DFW concurs, a form will be provided exempting the project from the \$2,280.75 fee payment requirement. In this instance, only a copy of the DFW form and the \$50.00 handling fee is required. This requirement appears as Condition #10 of Attachment 1.

**ATTACHMENT 3**

**APPLICANT'S EVIDENCE IN SUPPORT OF THE REQUIRED FINDINGS**

<b>Document</b>	<b>Location</b>
Tentative Subdivision Map	Attached in Maps Section
Application Form	On file with Planning
Preliminary Title Report	On file with Planning
Preliminary Drainage Report	On file with Planning
Fault Evaluation Report and Addendum	Attached



December 2, 2003

## **BUSCH** GEOTECHNICAL CONSULTANTS

Bruce and Vishami Brady  
3805 Foster Avenue  
Arcata, CA 95521

Mike Malone, C.E.G.  
**Giblin and Associates**  
P. O. Box 6172  
Santa Rosa, CA 95406

### **Results of Alquist-Priolo Fault Investigation of the Brady Property (APN 508-341-48), Mad River Fault, McKinleyville, Humboldt County, California**

#### **EXECUTIVE SUMMARY**

The Brady property lies within the easternmost portion of an Alquist-Priolo Special Studies Zone (A-PSSZ) placed around the eastern branch of the Mad River fault in McKinleyville, Humboldt County, California. The property owners plan to split a developed lot in two and construct a new home on the new lot. The lot is on the upper plate of the fault about 285 feet northeast of the trace of the fault.

To evaluate the risk of fault rupture at the proposed new lot, we excavated three in-line trenches, each trending N50E, which is roughly perpendicular to the trace of the fault in this vicinity. All of the trench walls exposed mappable stratigraphic units, but none of the units contained a fault, fracture, or fold. By correlating the deeper, primary sedimentary units from trench to trench across the lot, we determined that there has been no offset nor significant folding across the site. However, the ground surface tilts negligibly to the northeast.

Based on our observations of the trench walls, our inspection of aerial photographs, and our review of past trench-based studies done nearby, we conclude that the Mad River fault does not cross the site. Consequently, the level of risk of fault-rupture at the site is NEGLIGIBLE. It is unnecessary to establish a "zone of building exclusion" for the proposed development.

P.O. BOX 222 • ARCATA, CA 95518-0222 • 707-822-7300 • FAX 707-822-9011



## INTRODUCTION

The Brady property is a quasi-rectangular parcel located at 1805 Caroline in McKinleyville, Humboldt County, California (APN 508-341-48). This area is near the center of the north half of section 6, T6N, R1E, HBM, of the USGS Arcata North 7.5 minute quadrangle (see Figure 1). The parcel is ~90 ft by ~220 ft (N-S by E-W). There is a home on the western half of the lot. The property owners propose to split the lot in two, then build a new home on the new lot.

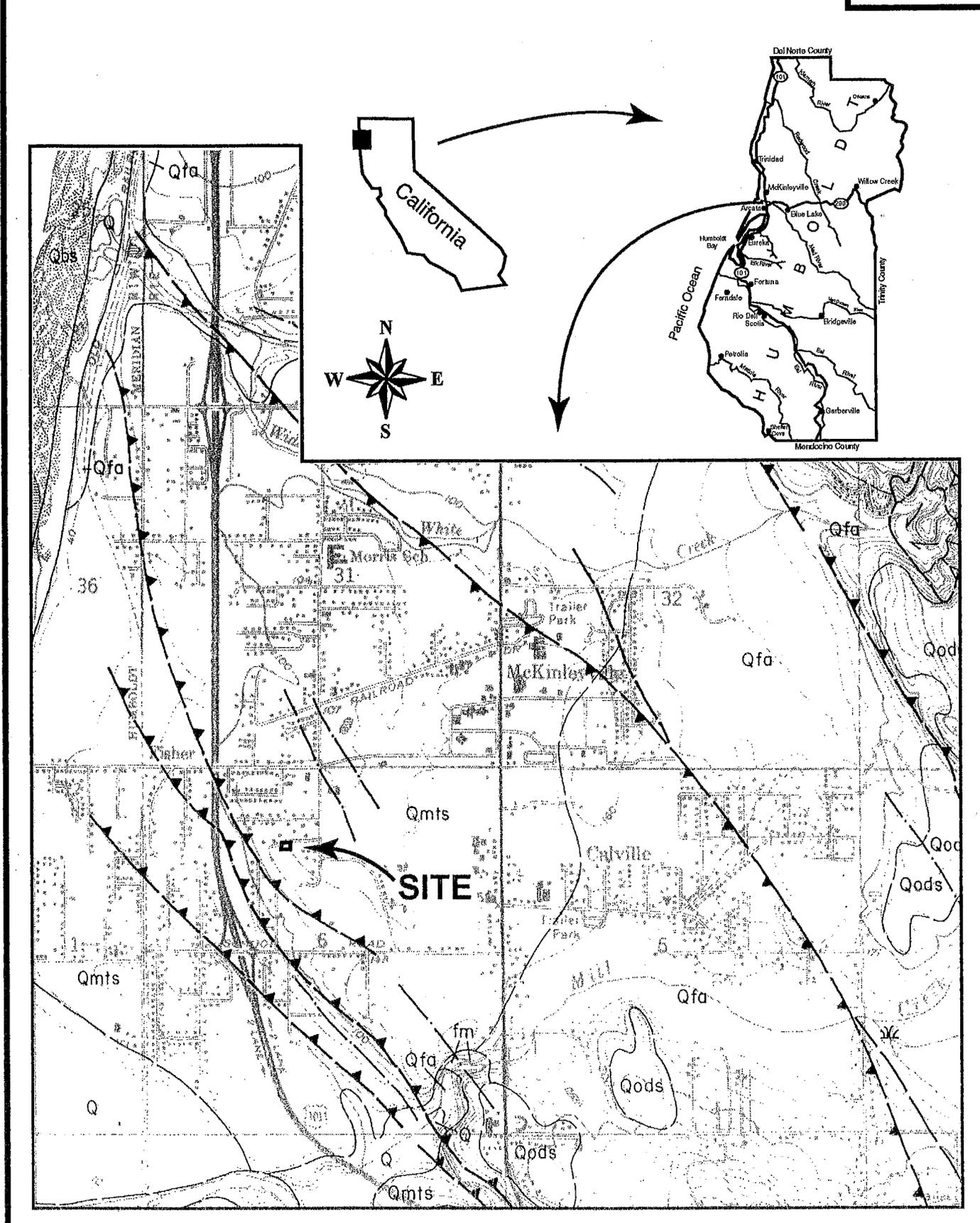
The property lies within the eastern portion of an Alquist-Priolo Special Study Zone (A-P SSZ) drawn around the eastern branch of the Mad River fault (CDMG, 1983). The Mad River fault is an active northwest-trending fault within the Mad River fault zone (Carver et al., 1982, 1985; Peterson et al., 1996). At its closest, the CDMG-mapped trace of the fault is ~500 ft west of the site (Figure 1). However, based on previous trench-based studies of the fault, the identified trace of the fault is ~300 ft southwest of the site (Figure 2).

### Purpose and Scope of the Investigation

We are providing this report under the terms of BGC contract #03-068 dated September 12, 2003. The purpose of the report is to provide a limited-scope geologic investigation as mandated by the Alquist-Priolo Special Studies Zone Act of 1972, as detailed by Hart (1999). In short, the purpose of our study is to assess the potential for surface rupture at the site and to make appropriate recommendations to the client regarding mitigation of associated levels of risk. Because the proposed development is confined to the eastern half of the parcel, our field work and conclusions regarding the fault-rupture hazard are confined to that area.

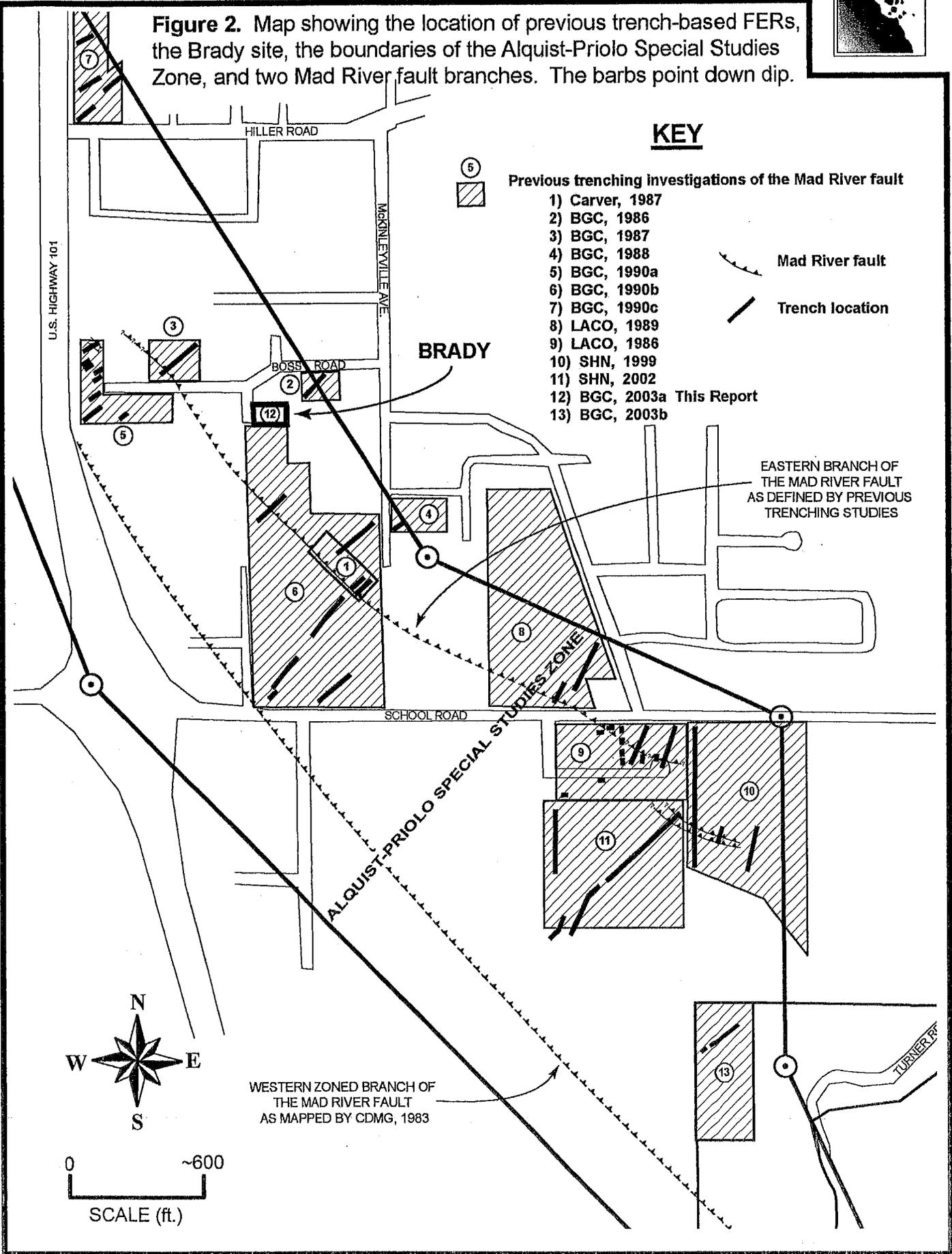


Figure 1. Nested maps of the site showing its location in Humboldt County. Base map is a portion of Kelley (1984). Various scales.





**Figure 2.** Map showing the location of previous trench-based FERs, the Brady site, the boundaries of the Alquist-Priolo Special Studies Zone, and two Mad River fault branches. The barbs point down dip.





## Scope of Work and Methods

Our scope of work for the project included:

- Providing information about the geology of the site to, and then discussing our proposed scope of work with, the Humboldt County Reviewing Geologist (Mike Malone, C.E.G., Giblin & Associates) before proceeding;
- Reviewing pertinent professional literature, consultant's reports, aerial photographs, and maps;
- Inspecting the proposed development area and vicinity;
- Using a backhoe to dig exploratory trenches to expose the stratigraphy within the proposed building area;
- Cleaning and logging (mapping) the trench walls;
- Interpreting the trench data to complete a fault hazard and risk evaluation of the site;
- Making a survey-controlled topographic base map to document our trench locations; and
- Writing this report to provide descriptive information, our data base, and recommendations.

We use accepted practices and professional standards of care for all aspects of our work on all jobs. To explore the Brady site we used a subcontracted backhoe to dig three trenches within the proposed new lot (Trenches 1, 2, and 3 of Figures 3 and 4 in the report pocket). Each trench was ~16 ft long and ~13 ft deep. We shored each trench to CAL OSHA standards using rented 7-ft-long hydraulic aluminum shores. We logged the trenches using exploratory fault trench techniques described by McCalpin, (1996). For this job we manually logged the stratigraphic units identified in the trench walls, drawing them on mylar sheets at a scale of 1"=2'. We photographed sections of the walls, collected bulk samples of each main soil unit, and described the soils using the conventions of the Unified Soil Classification System (USCS, ASTM D 2488; see Appendix IB), standard Munsell colors (1975), and some of the soils terminology of Birkeland (1999). We use a Nikon NPL-352 total station with an internal data recorder to produce all of our survey-controlled topographic geohazards maps (see Figures 3 and 4). In the office we complete CADD work and print the maps and other over-sized figures on an HP linear plotter. We have retained the site photographs on file.



On June 12, 2003, BGC Staff Engineering Geologist Bryan Dussell made a reconnaissance-level inspection of the site. Because we had worked at several nearby locations, he also hand-augured three shallow boreholes to confirm the presence of a near-surface gravel unit we expected to be present at the site. After returning to the office, Bryan discussed his findings with BGC principal, Bob Busch, C.E.G. Together, the two reviewed pertinent literature, maps, and previous reports to determine if it was reasonable to propose a waiver for this site. Bob concluded that the existing available information indicated that the fault rupture hazard at the site probably was NEGLIGIBLE, and that it was reasonable to request a waiver. We then contacted the County Reviewing Geologist, Mike Malone of Giblin & Associates, and supplied him with a letter and supporting figures (BGC, 2003c) asking if he would support a waiver at this site. Mike was unwilling to support our request for a waiver, but he agreed that a limited-scope investigation would be acceptable. Specifically, Mike and Bob agreed to investigate the site by excavating three short trenches (instead of one long, unbroken one) to confirm the lateral continuity of the subsoil stratigraphy.

Bryan returned to the site with Bob and BGC Staff Geologist Beau Whitney on October 20 and 21 to excavate and log the three trenches. As agreed in advance, Reviewing Geologist Malone did not inspect the onsite work.

## GEOLOGIC SETTING

### Site Topography and Geology

The inspected portion of the Brady parcel is a low-gradient grass-covered pasture that slopes gently (<3%) to the northeast. The USGS Arcata North 7.5' topographic map indicates that the elevation of the site is ~120 ft MSL. (NOTE: Our topographic map [Figure 3] uses an arbitrary elevation that is not tied to sea level).

Based on mapping by Carver and Burke (1992), the Brady site is located on a remnant of the Savage Creek marine terrace, an uplifted Late Pleistocene terrace estimated to be ~83,000 years old. Correlation of marine terraces in the region is based on similarities in soil development and mineral grain etching, and on map continuity (Carver et al, 1986a,b; Carver and Burke, *ibid.*).



In the site vicinity, the poorly consolidated (loose to medium dense) terrace deposits were laid down on an unconformity cut into early to middle Pleistocene shallow marine, estuarine, and fluvial deposits of the Falor Formation. The Falor Formation in turn unconformably overlies a low-relief surface cut into the regional bedrock, here the late Cretaceous to early Tertiary Franciscan Melange (unit cm2 of McLaughlin et al., 2000). The melange is composed of erosion-resistant rocks such as greywacke sandstone, chert, and greenstone in a sheared argillaceous matrix. To the south of the Brady site, in the scarp of the western zoned branch of the Mad River fault, large blocks of resistant Franciscan lithologies—ancient seastacks—protrude from the terrace sediments. In many areas the Falor Formation is absent and the terrace sands rest directly on Franciscan bedrock.

### **Regional Tectonic Setting**

Deformation near the site and throughout the region north of the Mendocino Triple Junction (near Cape Mendocino) is driven by the convergent plate motions between the Gorda Plate, the Pacific Plate, and the North American Plate (see open arrows on Figure 5). As a result of the northward drift of the Pacific Plate, and the subduction of the Gorda plate beneath the North American plate, the American plate north of Cape Mendocino has buckled under the compression caused by the impingement (Nilsen and Clarke, 1987).

The compression associated with this plate interaction has made the north coast of California one of the most seismically active regions in the United States (Dengler et al., 1992). About 25% of California's annual release of seismic energy comes from the north coast. Since 1980, the area has been shaken by six earthquakes greater than 6.5 M (CGS, 2003). The principal sources of seismicity are: 1) internal faults within the Gorda plate; 2) the Mendocino fault (the boundary between the southern edge of the Gorda plate and the Pacific plate); 3) the Cascadia subduction zone (Csz); and 4) thrust faults within the accretionary margin of North America (the coastal region and adjacent offshore).

Work by geoscientists has demonstrated that great ( $M_w$  8.0 to 9.0) earthquakes have occurred in the coastal Pacific Northwest in the recent past, and that the potential for similar earthquakes to occur is HIGH in the foreseeable future (within the next 200 years). These earthquakes occur along the dipping interface between the oceanic Gorda



plate and the continental North America plate. Plate tectonic processes are causing the Gorda plate to subduct (dive down) beneath the North America plate, so it underlies North America, beginning at the base of the continental slope, which is offshore. This tectonic interface, which is called the Cascadia subduction zone or Csz, last ruptured on January 26, 1700 (Satake et al., 1996). The two most recent applicable works respectively suggest that the recurrence interval of great Csz earthquakes is 480-535 yrs and 570-590 yrs (Kelsey et al., 2002; Witter et al., 2003). Previously it was cited as ~300 to 500+ years (Clarke and Carver, 1992). A Csz event would cause a regional catastrophe in the Pacific Northwest. In 1995, the probability of a Csz event was cited as ~10% to 20% within the next 50 years (Geomatrix, 1995). Considering the recurrence data generated since then, the probability is likely to be on the low end of this range.

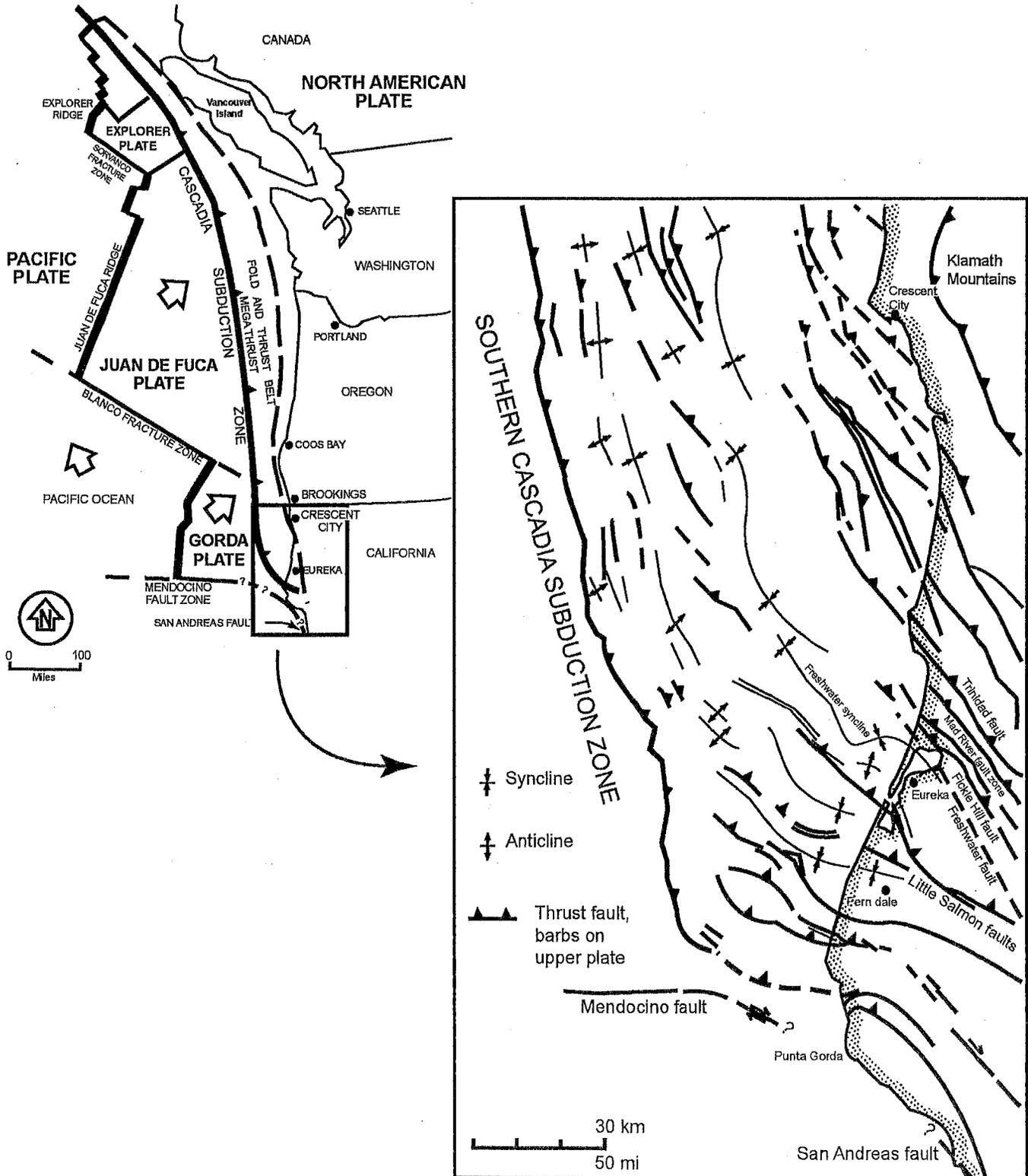
Mapping by the U.S. Geologic Survey (USGS, 2002) indicates that each year the probability is 1 in 475 (10% in 50 years) that a peak horizontal ground acceleration of 0.6 to 0.8 g will occur in the site vicinity. The earthquake that could produce this acceleration is the design basis earthquake, or DBE. For the McKinleyville area, the DBE is a  $M_w$  7.0 (Peterson et al., 1996). The spectral acceleration (5% damped) for the 0.2 sec and 0.3 sec period of the DBE is likely to approach 2 g (estimates, 1.72 and 1.67 g, respectively), and for a 1.0-second period, 0.68 g (based on a Zip Code of 95521; USGS, 2003).

There are two main fault systems located in the Humboldt County coastal area, the Mad River fault zone (MRfz) to the north and the Little Salmon fault system (LSfs) to the south (see Figure 6) (Carver, 1985; Carver et al., 1982, 1983, 1985a; McLaughlin et al., 2002). The Brady site is located within the MRfz. This zone consists of five northwest-trending, northeast-dipping imbricate thrust faults that all show late Quaternary activity (Clarke, 1992). Individual faults with the MRfz often have sinuous surface expressions so vary considerably in strike. The dip of the faults ranges from 10° to 55°, although is usually 20° to 30°. Fault plane striations suggest that displacements have been predominately dip-slip (Carver, 1987, Carver and Burke, 1992).

The Brady site is located slightly east of the easternmost trace of the Mad River fault (Figure 1). The Mad River fault is in the southern part of the MRfz and is bounded on the north by the McKinleyville fault and on the south by the Fickle Hill fault. All three of these faults are considered "active" by the State (CDMG, 1983) (evidence suggests that they have ruptured within the last 10,000 years). The Mad River fault is the "target" fault for this study.

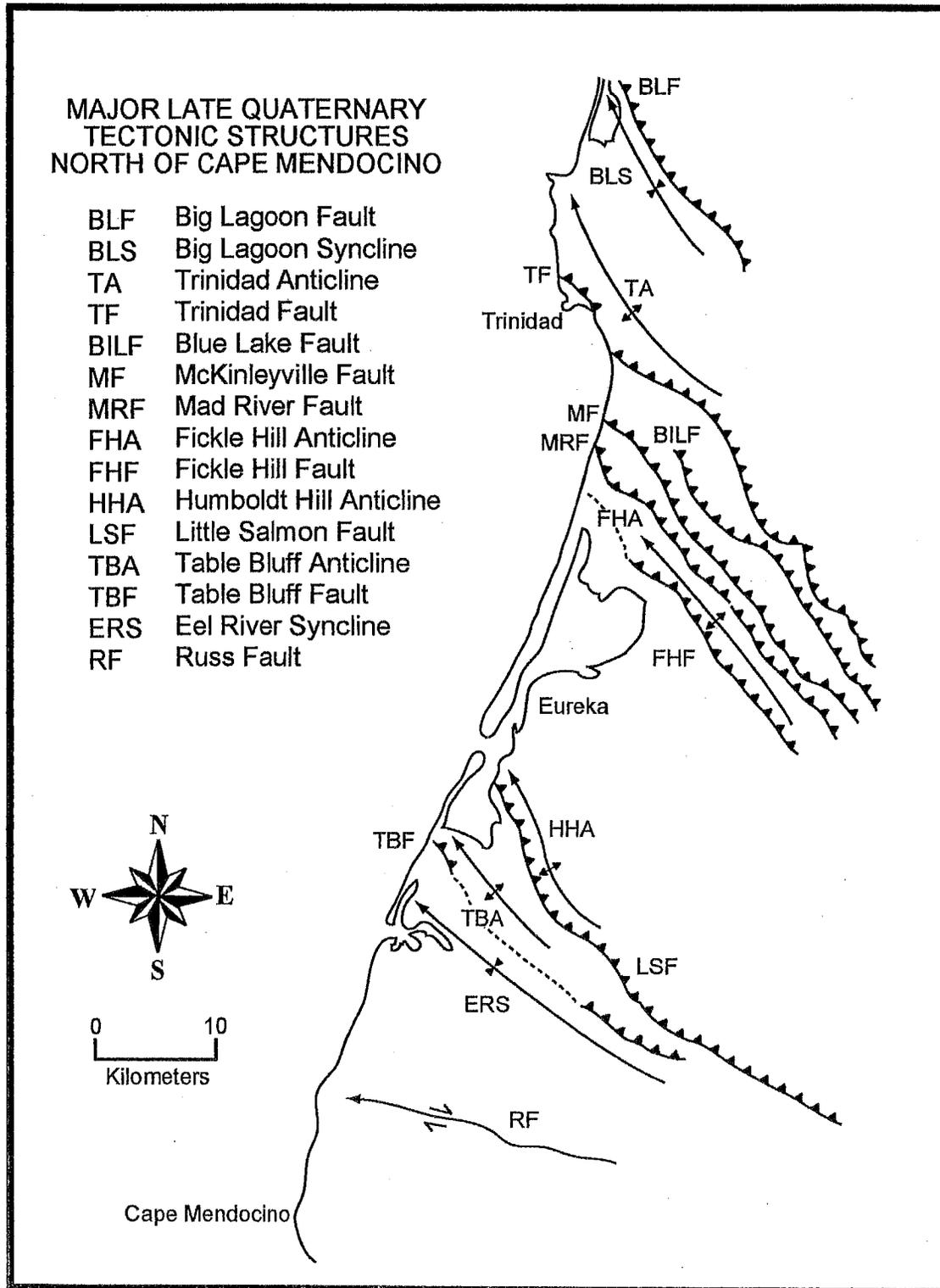


**Figure 5.** Regional tectonic framework for the northwestern United States and northwestern California showing plate geometry and regionally significant Quaternary faults (modified from Clarke, 1992; McLaughlin et al., 2002; Personius et al., 2003). Hollow arrows indicate plate motion relative to a fixed North American plate.





**Figure 6.** Principle tectonic structures in coastal Humboldt County between Big Lagoon and Cape Mendocino (Carver, 1987). All of the faults and folds north of Humboldt Bay are in the Mad River fault zone of Carver et al. (1985b).





## The Mad River Fault

As mapped by Carver et al. (1985b), the Mad River fault is composed of four distinct northwest-trending, northeast-dipping, discontinuous imbricate thrust faults in a zone of deformation ~1 km wide. These faults and their associated folds have deformed the ~83,000-yr-old (83 ka) Savage Creek terrace of Carver and Burke (1992) (see Figure 1). The zone includes well-defined thrust faults and /or fault-propagation folds separating relatively undeformed, broadly folded, back-tilted segments of the terraces. The deformation is most visible near School Road (~1000 ft south of the site). Here, the 83 ka abrasion platform is offset by ~6 m (~20 ft), and there is ~35 feet of relief between the top and bottom of the scarp, not including the relief in drainage features (BGC, 1990b). Radiocarbon dates of charcoal samples from this site indicate that this branch of the fault has ruptured at least three times during the Holocene (Carver and Burke, 1992). The overall slip rate of the fault is estimated to be ~0.7 (+/- 0.6) mm/yr (Peterson et al., 1996). Only two of the four branches mapped by Carver et al. (1985) were zoned by the CDMG, and not all of the branches have been studied in trenches. In terms of its seismic potential, the Mad River fault is a Type B fault per the definition in CDMG (1997) and the 1997 Uniform Building Code (ICB0, 1997).

### Previous Nearby Investigations of this Mad River Fault

For nearly 20 years, subsurface investigations of this fault have produced a wealth of information (see Figure 2 for study sites). The Brady site is bordered to the northeast, northwest, southwest, and southeast by four previous trench-based investigations. Respectively, they are Site 2 (BGC, 1986), Site 3 (BGC, 1987), Site 6 (BGC, 1990b), and Site 4 (BGC, 1988). At its closest, the Brady site is ~100 ft southwest of the trench excavated on Site 2; ~400 ft southeast of the trench excavated on Site 3; ~300 ft north of a trench excavated on Site 6; and ~700 ft northwest of the trench excavated on Site 4. The trench on Site 3, one on Site 6, and two on Site 1 (which is within Site 6) exposed the trace of the fault, so its position is well known.

West of the Brady site, a prominent break-in-slope defines the top of a relatively flat-faced fault scarp formed by folded and faulted terrace sediments. This scarp is a dramatic geomorphic feature that is easily discernable on vertical and oblique air photos, on topographic maps, and in the field. The scarp flattens and



lowers to the north before passing by Site 7 (BGC, 1990c), and it turns eastward and flattens by before reaching Site 8 (LACO, 1989). Recent studies of sites cut by the southern part of this branch have identified the southern terminus of the fault (SHN, 1999) and clarified mapping errors previously made by others (SHN, 2002, clarifying mapping of the trace by LACO, 1986).

The Brady property is on the over-thrust plate of the target fault about 285 ft northeast of its trace as projected between Sites 3 (BGC, 1987) and 6 (BGC, 1990b). Based on our explorations at those sites, there is a drag fold on the upper plate. At Site 3, the bedding is horizontal about 125 ft northeast of the trace, is folded gently between there and the trace (average dip,  $\sim 13^\circ$ ), and dips maximally about  $26^\circ$  at and within about 3 ft of the trace (BGC, 1987). On Site 6 the length and steepness of the limb of the fold is similar, but it is Franciscan sandstone bedrock that is folded, not terrace sediments (BGC, 1990b). The bedding is subhorizontal on Site 2 (BGC, 1986).

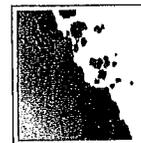
With the exception of a study on a lower-plate site just beyond the western end of Boss Road (Site 5; BGC, 1990a), no study along this portion of this branch of the fault found evidence of surface rupture on either side of the main trace. Our study there identified a small (3-m-wide) fault-bounded graben in the northeasternmost corner of the property. The graben has a subtle but recognizable surface expression.

Near the fault, sediments on the lower plate are primarily poorly graded nearshore marine sands and gravelly sands, and sediments on the upper plate are similar sands plus well-rounded massive gravel units. Gravels typically occur in close proximity to blocks of Franciscan Complex sandstone bedrock that have been faulted up and over lower plate sediments. For example, massive gravels are present at Site 1, and interbedded massive gravels and sands are present in portions of Sites 2, 3, 4, and 6, plus the Brady site (see Figure 3).

## RESULTS OF TRENCH-BASED INVESTIGATION

### Observations

At its closest, the studied portion of the Brady lot is  $\sim 160$  ft northeast of the top of the scarp and  $\sim 285$  ft east of the trace of the eastern branch of the Mad River fault. The lot is planar, has negligible relief ( $< 3$  ft), and slopes slightly to the northeast. Minor grading has occurred at the western edge of the lot, near the existing home.



There is a well-defined stratigraphy at the site. The uppermost ~5 to 6 ft of soil are bioturbated pedogenic units: a dark topsoil with a diffuse basal contact (USCS, ML, Unit 1) overlies a yellowish, clayey, silty, fine-grained sand (SM, Unit 2, a Bt soil). The silty sand overlies ~1.5 ft of well-graded sand (SW, Unit 3) that in turn overlies a massive, well-graded gravel (GW) (Unit 5). Only in Trench 1 does a few-inch-thick lens of poorly graded sand (SP, Unit 4) underlie Unit 3. The top of the SW (Unit 3) is irregular due to bioturbation, so is not a perfect stratigraphic control surface. However, the top of the GW (Unit 5) is ~7 ft below ground in each trench, and underlying the gravel is a locally cross-bedded, silty fine sand (SM, Unit 6). Except for localized Unit 4, each of the identified stratigraphic units is subhorizontal, occurs at the same depth range below ground across the site, and is correlative from trench to trench.

Unit 6, the deepest unit, a fine sand, has the greatest potential to show evidence of faulting and fracturing. There are no such structural features, nor folds, in this unit.

### Conclusions

The Brady site is on the over-thrust plate of the western branch of the Mad River fault. There is no geomorphic evidence for faulting or folding on the site, and there is no geomorphic feature nearby offsite that suggests that fractures or faults might project into the Brady site.

Below pedogenic soils, the uplifted shallow marine sediments are primarily horizontal to slightly northeast-dipping massive gravels and silty sands. The stratigraphy is similar to that of other nearby sites on the upper plate (Sites 1, 2, and 4 of Figure 2). Three primary sedimentary units are directly correlative across the site.

There is no evidence of faulting or fault-related deformation (i.e., folding or fracturing) visible in the trench walls.

Our confidence in our mapping of the trace of the fault west of this site approaches certainty, as does our understanding of the nature of the faulting in the area. In light of the onsite trench data, we therefore conclude that the risk of fault-rupture is NEGLIGIBLE at the Brady site, and that the mitigation of this level of risk is unnecessary. This level of risk is locally typical (except where older homes were built on a trace) and is routinely assumed by area residents.



## TRENCH SETTLEMENT

### Discussion and Recommendation

Although we oversaw the placement of the native soils back into the trenches, the hoe applied minimum compactive effort. **The trench backfill will settle. Consequently, at present there is a HIGH risk of structural damage to any foundation built on top of trench backfill.** As time passes, the risk of significant damage will decrease.

**To reduce the risk of structural damage due to settlements, do the following.** Identify the location of each trench (see Figure 3, pocket), excavate out the top 3 to 4 feet of the backfill, and compact it back into place using a manual "jumping jack" or "wacker," or an appropriate backhoe-mounted compaction device. Place the soils in lifts of 18" or less. If compaction testing is done, achieve 90% or greater of the maximum dry density of the soil (see below). If, at excavation, the soils being removed are wet, replace them with a free-draining engineered fill compacted to specifications per the following paragraph.

As we use the term, an "engineered fill" is a well-graded nonplastic or low plasticity granular material compacted to specifications. If it will have a free face, it should have about 35% binder (silt + clay) by volume. Otherwise, it can be free-draining. It should contain no organics, no trash, and no clasts over 3" in diameter. The liquid limit of the binder should be <35, its plasticity index, <16, as determined by plasticity testing (ASTM D 4318). An engineered fill should be placed in lifts of 18" or less, compacted to 90% or greater of its maximum dry density (MDD) as determined by a "modified proctor curve" test (ASTM D 1557) and verified by field compaction testing (ASTM D 1556 or D 2922). Suitable engineered fills include "river run" sand and gravel, crushed aggregate baserock, and "washed pea gravel." Pea gravel pours to 90% so needs no compaction.

In addition to treating the backfill, adhere to the following foundation recommendations. First, do not place a perimeter or linear interior foundation element directly on top of a trench, trending with the trench. Second, do not place an isolated interior element on a trench. Third, strengthen a perimeter or interior linear foundation where it crosses a trench, plus three feet in each direction, by designing that section as a grade beam. Consult the project engineer or architect for design specifics.



## CLOSURE and AUTHENTICATION

The conclusions and recommendations presented herein are the result of a study of limited scope. The sole specific purpose of this study was to provide an assessment of the level of risk of fault-rupture in the undeveloped portion of the lot. Excluded from our scope of work was evaluating the risk of rupture of the developed portion of the lot, evaluating the liquefaction potential of the lot, providing foundation soils recommendations for the proposed new home, and providing an erosion-control plan. Some of these types of information might be required by the County before it will issue a building permit. Although we believe that the risk of fault rupture at the site is NEGLIGIBLE, it is possible that the propagating tip of a new branch of the Mad River fault with no present geomorphic expression could cut through the site during a future seismic event. Also, it is important to understand that a future characteristic slip event on the target fault or on the other regionally significant faults will produce intense ground shaking that is likely to damage structures on the property.

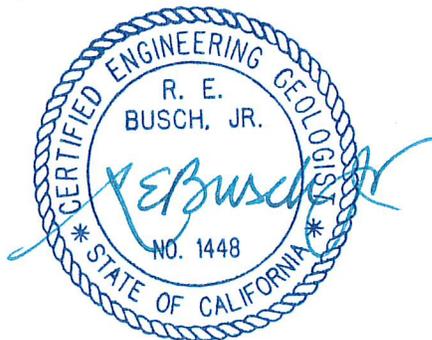
We are available to provide any other geologic or geotechnical information you need. Thank you for hiring us.

Respectfully submitted,

### **Busch Geotechnical Consultants**

Bryan Dussell  
Project Geologist

R. E. Busch, Jr., Ph.D.  
C.E.G. #1448



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Attached:

#### **REFERENCES CITED**

**Appendix 1B. Unified Soils Classification System**

**Appendix IV. Risk Terminology**

**Reduced Figure 3** (see Pocket for Full Scale Figure)

**Reduced Figure 4** (see Pocket for Full Scale Figure)



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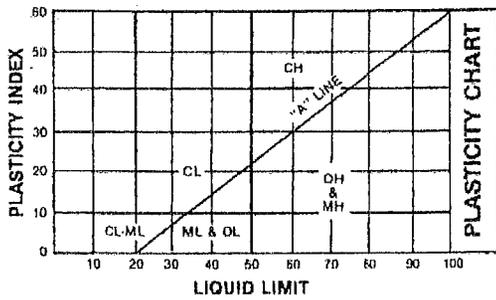


## APPENDIX IB

### UNIFIED SOILS CLASSIFICATION SYSTEM

MAJOR DIVISIONS	SYMBOLS	TYPICAL NAMES	
<b>GRAVELS</b> <small>(More than 1/2 of coarse fraction &gt; no. 4 sieve size)</small>	<b>GW</b>	Well graded gravels or gravel-sand mixtures, little or no fines.	
	<b>GP</b>	Poorly graded gravels or gravel-sand mixtures, little or no fines.	
	<b>GM</b>	Silty gravels, gravel-sand-silt mixtures.	
	<b>GC</b>	Clayey gravels, gravel-sand-clay mixtures.	
	<b>SANDS</b> <small>(More than 1/2 of coarse fraction &lt; no. 4 sieve size)</small>	<b>SW</b>	Well graded sands or gravelly sands, little or no fines.
		<b>SP</b>	Poorly graded sands or gravelly sands, little or no fines.
		<b>SM</b>	Silty sands, sand-silt mixtures.
		<b>SC</b>	Clayey sands, sand-clay mixtures.
<b>SILTS &amp; CLAYS</b> <small>(Liquid limit less than 50)</small>	<b>ML</b>	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.	
	<b>CL</b>	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	
	<b>OL</b>	Organic silts and organic silty clays of low plasticity.	
	<b>SILTS &amp; CLAYS</b> <small>(Liquid limit greater than 50)</small>	<b>MH</b>	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		<b>CH</b>	Inorganic clays of high plasticity, fat clays.
		<b>OH</b>	Organic clays of medium to high plasticity, organic silty clays, organic silts.
<b>HIGHLY ORGANIC SOILS</b>	<b>PT</b>	Peat and other highly organic soils.	

CLASSIFICATION	U.S. STANDARD SIEVE SIZE	GRAIN SIZE CHART
<b>BOULDERS</b>	Above 12"	
<b>COBBLES</b>	12" to 3"	
<b>GRAVEL</b> <small>Coarse Fine</small>	3" to No. 4 sieve 3" to 1/4" 1/4" to No. 4	
<b>SAND</b> <small>Coarse Medium Fine</small>	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	
<b>SILT &amp; CLAY</b>	Below No. 200 sieve	



**MOISTURE CONTENT (VISUAL CLASSIFICATION)**

Dry – Damp – Moist – Wet

CONSISTENCY OF FINE GRAINED SOILS		DENSITY OF COARSE GRAINED SOILS		DENSITY-CONSISTENCY
CLASSIFICATION	COHESION (PSF)	CLASSIFICATION	STANDARD PENETRATION (BLOW COUNT)	
Very Soft	0-250	Very Loose	0-4	
Soft	250-500	Loose	4-10	
Medium Stiff	500-1000	Medium	10-30	
Stiff	1000-2000	Dense	30-50	
Very Stiff	2000-4000	Very Dense	50 +	
Hard	4000 +			



## APPENDIX IV

### EXPLANATION OF RISK ZONES

(Paraphrased from Moore & Taber, 1978; standardized with BGC's slope-stability classification)

The level of risk associated with a geologic hazard that potentially could cause a loss is described in terms of risk classes ranked in the following ascending scale:

NONE, NEGLIGIBLE, LOW, MODERATE, HIGH, VERY HIGH

The risk or probability of loss due to an action of a recognized geologic hazard is directly related to the level of risk associated with the hazard and to the nature of the potentially affected facility. A "reasonable risk" is defined as a probability of significant loss that is low enough to be acceptable to a prudent person (owner) of average economic means.

The nature, cost, and projected economic lifespan of an improvement, the economic means of the owner, the type and level of site maintenance, the feasibility of making potentially necessary repairs, public policy, etc., are factors that collectively established an acceptable (a "reasonable") level of risk. The definition of "reasonable risk" for a present owner/user must be compatible with "reasonable risk" for projectable successor owners and/or users.

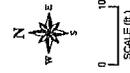
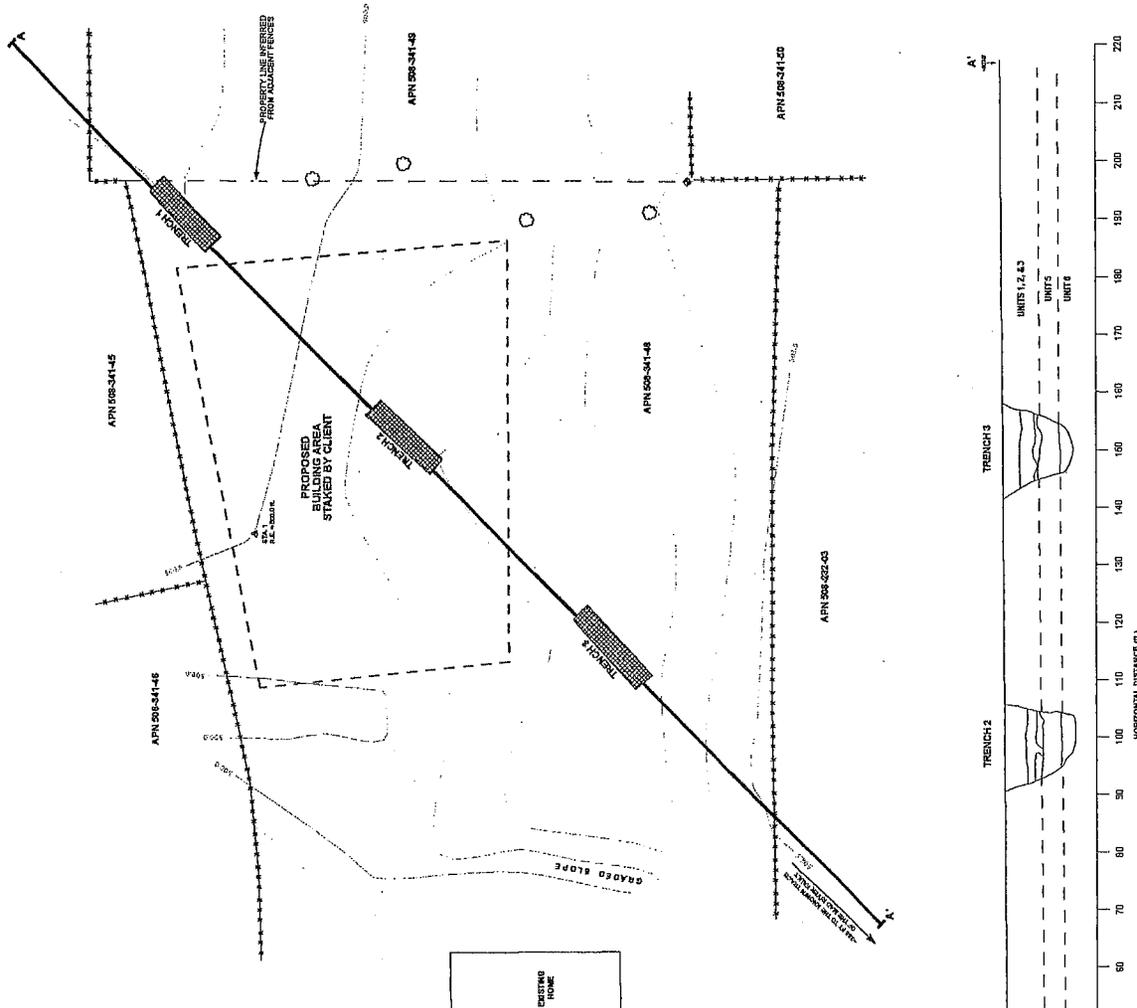
For fixed improvements susceptible to permanent damaging effects of ground movement—such as a typical single family residence, a "reasonable level of risk" for a prudent person of average economic means generally is considered to be NEGLIGIBLE or LOW. For similar improvements, a MODERATE risk level generally is a level of risk that exceeds "a reasonable level of risk" with respect to loss of property, not of life. However, this level of risk sometimes may be acceptable to a prudent person of above-average economic means. HIGH and VERY HIGH levels of risk almost always pose a level of risk that exceeds a "reasonable risk" and would be unacceptable to any prudent person for such improvements.

For improvements of low cost that are readily amenable to repair or are not susceptible to the damaging affects of ground movement, or for land uses that might not be affected seriously by ground movement (i.e., some roads, picnic areas, or campgrounds, etc.), a MODERATE or HIGH level of risk may be considered to be a "reasonable risk."

JOB # 03-068  
FIGURE 3

# REDUCED VERSION

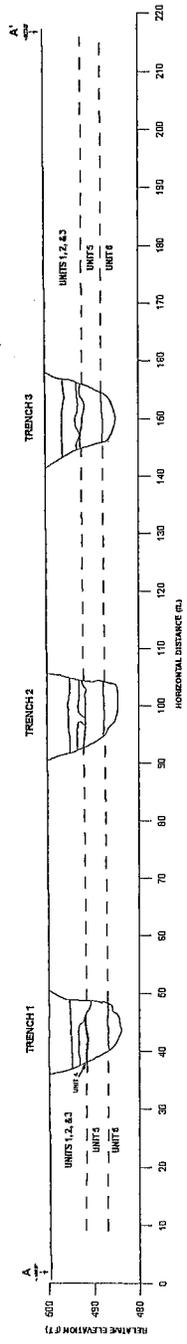
## SEE REPORT POCKET FOR ORIGINAL



VERIFY SCALE: In this case, not measure 1 inch, then draw with reduced through reproduction.

**KEY TO SYMBOLS**

- BENCHMARK CONTROL POINT (ELEVATION 1446.00, UTM EASING C.E.G. 1446)
- BENCHMARK CONTROL POINT (ELEVATION 1446.00, UTM EASING C.E.G. 1446)
- FOUND IRON PILE SET BY OTHERS (OVERERRED PROPERTY CORNER)
- EUCALYPTUS TREES
- FENCE
- BACKDITCH TRENCH
- PROFILE LINE (WITH 10' VERTICAL SLOPE)



**BUSCH GEOTECHNICAL CONSULTANTS**  
 P.O. BOX 222 ARCATA, CA 95518 (707) 822-7300 FAX (707) 822-9011  
 Geotechnical and Geological Studies for Land Development and Resource Management

SCALE: 1 inch = 10 feet  
 CONTOUR INTERVAL = 0.5 foot  
 PRODUCTION DATE: 02 DECEMBER 2003  
 SURVEYED BY: BEB and BBV on 10/26/03 and 10/27/03  
 1. ELEVATION DATUM IS ARBITRARY.  
 2. THIS MAP WAS PRODUCED BY GEOLOGISTS WORKING UNDER THE DIRECTION OF A CERTIFIED ENGINEERING GEOLOGIST.  
 3. THIS MAP WAS PRODUCED UNDER CONTRACT WITH A DECLARATION OF -4.5 DEGREES EAST.



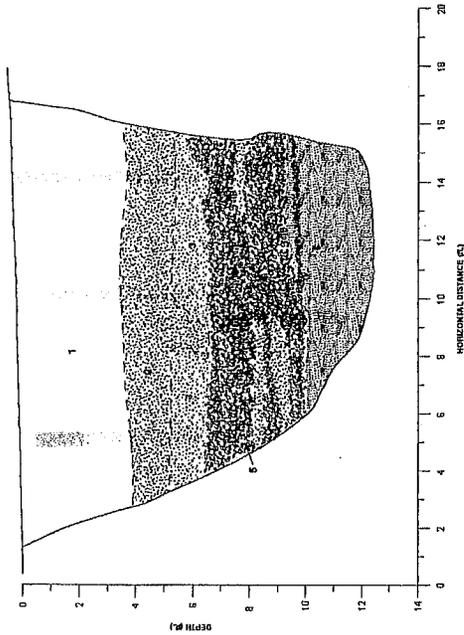
**BRUCE AND VISHAMI BRADY**  
 TOPOGRAPHIC MAP SHOWING FAULT INVESTIGATION TRENCH LOCATIONS  
 EAST HALF OF APN 068-341-48  
 1805 CAROLINE  
 MCKINLEYVILLE, CA

# REDUCED VERSION

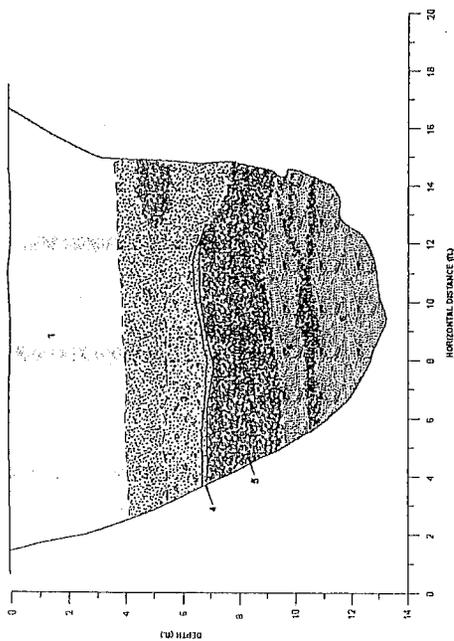
## SEE REPORT POCKET FOR ORIGINAL

**JOB # 03-068**  
**FIGURE 4**

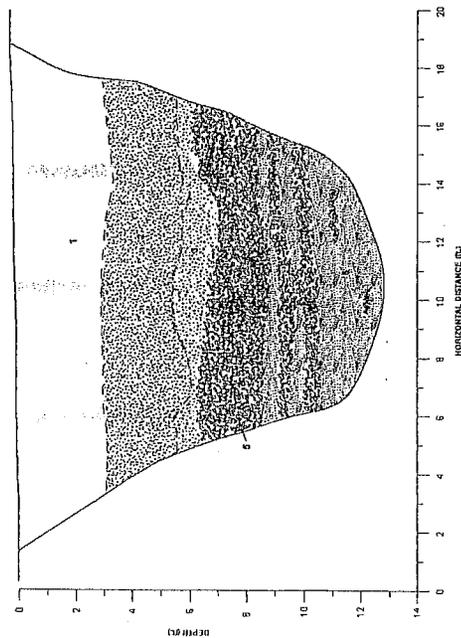
**TRENCH 2 (N50E)**  
**SOUTHEAST WALL**



**TRENCH 1 (N50E)**  
**SOUTHEAST WALL**



**TRENCH 3 (N50E)**  
**SOUTHEAST WALL**



- 1** TOPSOIL (Mbh): SL, sat, silty to damp, dark yellowish brown to very dark brown (10 YR 4/4 to 2/2), ML. Contains fine gravel and coarse, subrounded. Roots are abundant near the surface and become common at depth. Contact with underlying unit is abrupt.
- 6** SILTY CLAY (brownish with black) med. dense, damp, brownish yellow (10 YR 6/6) SL. Contains fine and coarse gravel (medium to arg.) contact with underlying unit is clayey.
- Sand (well graded), gravely (fine, -40% estimated), medium dense, damp, yellow brown, SW. Contact with underlying unit is abrupt to clayey.
- Sand (finely graded), medium dense, damp, yellow brown, SP. Contact with underlying unit is abrupt.
- Gravel (well graded), dense, damp, reddish yellow (7.5 YR 6/6) GWL. Matrix is a silty fine sand. Contact with underlying unit is clayey.
- Sand (fine), silty, medium dense to dense, damp, brownish yellow to orange brown (10 YR 6/6 to 7.5 YR 6/6) SL. Locally cross-bedded. Contains subhorizontal manganese oxide laminae (up to ~2 cm thick). The upper surface of the unit contains local clasts, boulders, and areas of scour.



**BUSCH GEOTECHNICAL CONSULTANTS**  
P.O. BOX 222 ARCATO, CA 95518 (707) 822-7300 FAX (707) 822-9011  
Geotechnical and Geological Studies for Land Development and Resource Management

SCALE: 1 inch = 5 feet  
PRODUCTION DATE: 01/20/03  
LOGGED BY: BEB and BBA on 10/20/03 REVISED BY: BEB on 1/20/03  
NOTES:  
1. ELEVATION DATUM IS ARCATO MUNICIPAL GEOLOGISTS WORKING UNDER THE DIRECTION OF A CERTIFIED ENGINEERING GEOLOGIST.  
2. SEE FIGURE # FOR TRENCH LOCATION.

**BRUCE BRADY**  
LOG OF TRENCH 1, TRENCH 2, AND TRENCH 3  
EAST HALF OF APN 508-341-48  
1805 CAROLINE  
MCKINLEYVILLE, CA



September 3, 2004

## **BUSCH** GEOTECHNICAL CONSULTANTS

Bruce and Vishami Brady  
3805 Foster Avenue  
Arcata, CA 95521

Mike Malone, C.E.G.  
**Giblin Associates**  
P. O. Box 6172  
Santa Rosa, CA 95406

### **Addendum to: Results of Alquist-Priolo Fault Investigation of the Brady Property (APN 508-341-48), Mad River Fault, McKinleyville, Humboldt County, California**

Dear Bruce and Vishami:

#### **Background**

We are delivering this response to the Humboldt County Reviewing Geologist's comments under the terms of our original contract, as modified by Change Work Order #1, as further amended by a verbal agreement.

**The purpose of this letter-report is to provide responses to specific comments in the review of BGC's fault investigation report (BGC, 2003) for your proposed development at 1805 Caroline Avenue.** The review (GA, 2004) was prepared by the Humboldt County Reviewing Geologist for your project, Certified Engineering Geologist Mike Malone of Giblin Associates. Our responses are in the same order as Mr. Malone's comments.



## Reviewer Comments and BGC Responses

(The number in bold is the number of the specific comment in the Giblin Associates review. General comments 1-4 did not require a response.)

**5)** Mr. Malone requests (p. 3, para. 2) that we identify the new parcel boundary and show the area we consider to be cleared for structures for human occupancy.

Accordingly, we present Figure 3 Revised (pocket) to show the limits of the proposed new parcel (less its driveway portion) and the portion that we consider to be “cleared” for structures for human occupancy. The new property corners are not monumented yet, so the figure is not survey-controlled.

**6)** As part of the preceding request, Mr. Malone requests (p. 3) that the boundary of the “new lot” be identified on Figure 3.

The attached Figure 3 Revised shows the limits of the new lot.

**7)** In response to Mr. Malone’s request (p. 3), we have attached Figure 1 (Revised) to this letter. The caption of this figure now contains a key to the geologic symbols and abbreviations used on the original figure. The figure itself has not been changed. We inadvertently omitted the key from the original Figure 1 in our report.

**8)** In describing our work history on the site, we noted that we hand-augered three shallow holes on the site to confirm the presence of near-surface gravels. Mr. Malone comments (p. 3) that knowledge of the hole locations would provide useful data for correlating the stratigraphy of the site.

We purposefully located our hand-auger boreholes at expected trench sites. The data and precise location of those holes became insignificant when we excavated our trenches. Therefore, we do not show their location on our report figures.

**9)** We acknowledge that the trenching plan was solely the responsibility of Busch Geotechnical Consultants.



10) Mr. Malone comments (p. 4) that because our report does not clearly define the boundary of the “Brady site,” there is some uncertainty with regard to specific risk statements we make. He further states that our conclusion regarding the presence or absence of faulting southwest of our Trench 3 is unsupported by the work that we performed onsite.

With regard to the boundary of the Brady parcel, we defined it in the first paragraph of the “Introduction” section of our report (para. 1, p.2). In addition to that text, we provided two figures (Figures 1 and 2) that identified rectangular areas that we either labeled “site” or “Brady.” Although we believe that these items sufficiently define the site as APN 508-341-48, herein we include additional information (on Figure 3 Revised) that redefines “the site” in terms of that portion of the Brady property we studied and “cleared,” and that portion we did not.

Mr. Malone further comments that our conclusion regarding the risk of fault rupture at the “Brady site” is confusing and potentially misleading due to the absence of subsurface data southwest of Trench 3.

To clarify our opinion, the stratigraphy exposed in our three trenches in the eastern part of the site confirms that there has been no rupture or folding in that portion of the proposed new parcel. Therefore, in our opinion, the risk is demonstrably NEGLIGIBLE and this portion of the site can be “cleared.”

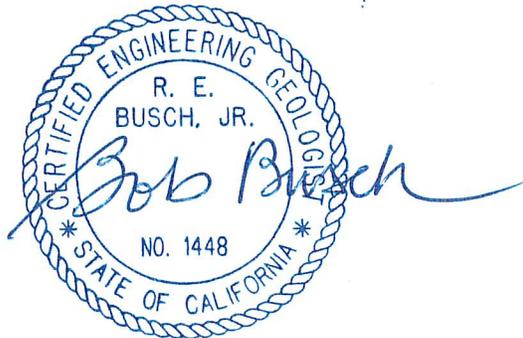
We acknowledge that we did no onsite work southwest of the Trench 3 (or northeast of Trench 1), so we cannot be absolutely certain that there is no fault in the western, unstudied portion of the property (or offsite to the northeast). However, based on the geomorphology of the area southwest of the proposed new lot, and on our understanding of the Mad River fault in the immediate vicinity, as revealed in nearby trenches that crossed the fault plane (see Figure 2, BGC, 2003), we stand by our qualitative assessment that the Brady property as a whole is exposed to a NEGLIGIBLE level of risk. That is, we believe that enough is known about the site vicinity to allow us to predict with a high degree of confidence that the risk of fault rupture also is NEGLIGIBLE in the untrenched, western portion of the existing Brady parcel. We accept that Mr. Malone, as a practitioner of engineering geology, and as the project reviewer, is entitled to a different opinion. We suggest that this difference of opinion (if, in fact, there is one) is a moot point unless in the future a proposal is



Sincerely,

**Busch Geotechnical Consultants**

Bryan Dussell  
Project Geologist / Staff Engineering Geologist



R. E. Busch, Jr.  
C.E.G. #1448

Brady.APZ.add.doc

Attachments: **Figure 1 (Revised)**  
**Figure 2 (Revised)**  
**Reduced Figure 3 (Revised)**  
**Figure 3 (Revised) in pocket**

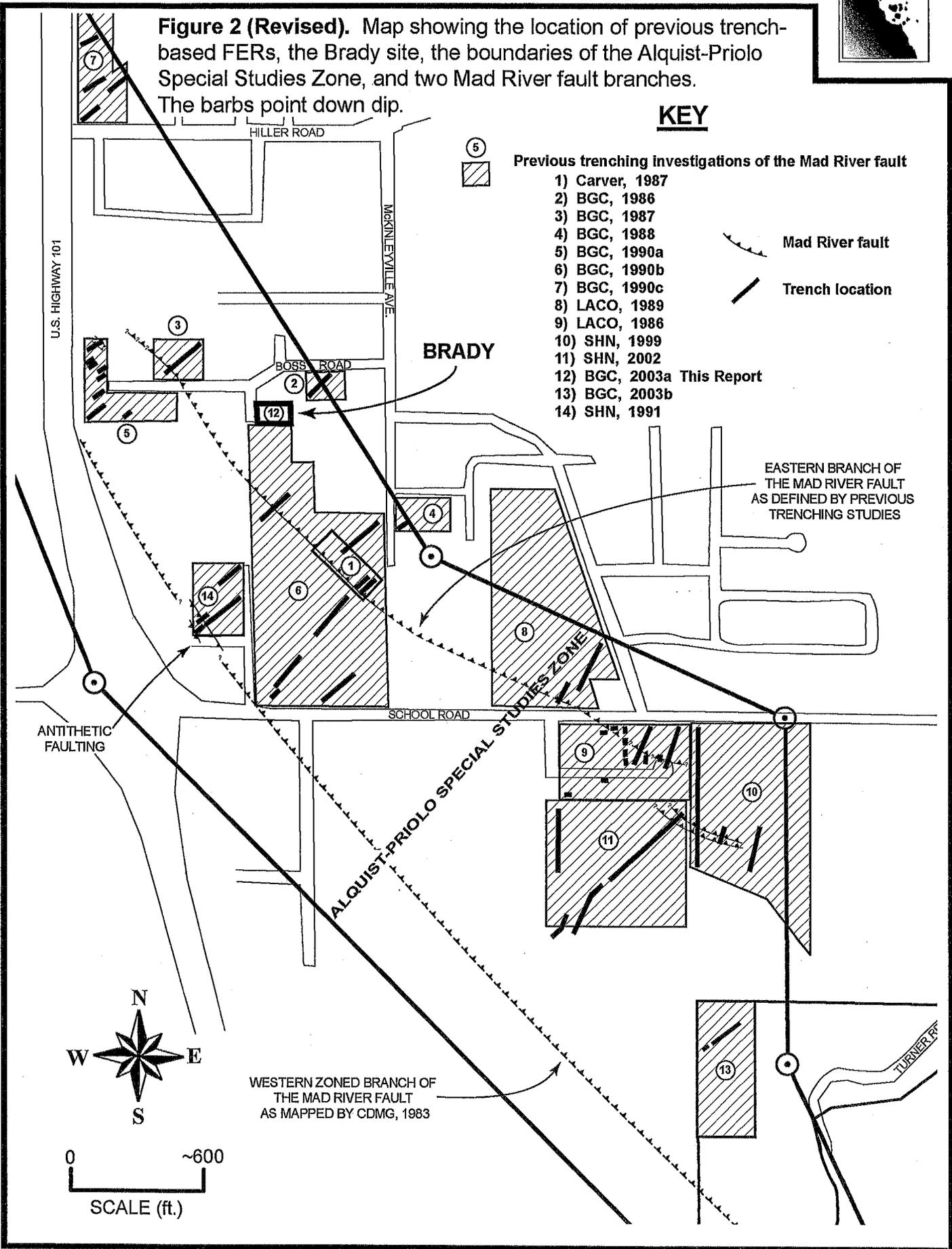
**References Cited**

- BGC [Busch Geotechnical Consultants]. 2003. Results of Alquist-Priolo fault investigation of the Brady property (APN 508-341-48), Mad River fault, McKinleyville, Humboldt County, California. Unpubl. rept. for clients dated Dec. 7. 19 pp. + appends. + over-sized docs.
- GA [Giblin Associates]. 2004. Review of Alquist-Priolo fault investigation of the Brady property (APN 503-341-48) [sic. 508-341-48], Mad River fault, McKinleyville, California. Letter to client [County of Humboldt] dated March 25. 4 pp.
- HBC [Hakin Ben-Iesau Construction]. 2004. Lot split plot plan, 1805 Caroline Avenue, McKinleyville, Ca, 95519 APN# 508-341-48. Sht. 1 Of 1, scale, 1/16" = 1'0". No date.
- Kelley, F. R. 1984. Geology and geomorphic features related to landsliding, Arcata North 7.5' quadrangle, Humboldt Count, California. DMG, Sacramento. OFR 84-39 SF. Scale, 1:24,000.
- SHN. 1991. Special studies zone fault evaluation report, proposed Windsor Avenue extension subdivision, AP# 506-232-20, McKinleyville, Humboldt County, California. 10 pp. plus figs.





**Figure 2 (Revised).** Map showing the location of previous trench-based FERs, the Brady site, the boundaries of the Alquist-Priolo Special Studies Zone, and two Mad River fault branches. The barbs point down dip.





**ATTACHMENT 4**

**INITIAL STUDY AND DRAFT MITIGATED NEGATIVE DECLARATION**

## **Project Information**

**Project Title:** Brady Minor Subdivision

### **Lead Agency**

Humboldt County Planning and Building Department – Planning Division  
3015 H Street  
Eureka, CA 95501  
(707) 445-7541

### **Property Owner**

Bruce Brady  
10721 SE 144<sup>th</sup> Loop  
Happy Valley, CA 97086

### **Project Applicant**

Same as owner

### **Project Location**

The project site is located in the McKinleyville area, on the east side of Caroline Avenue, approximately 100 feet south of the intersection of Boss Road and Caroline Avenue, on the property known as 1805 Caroline Avenue.

### **General Plan Designation**

Residential Low Density (RL); Humboldt County General Plan, McKinleyville Community Plan (MCCP); density one to eight dwelling units per acre.

### **Zoning**

Residential One-Family (R-1).

### **Project Description**

A Minor Subdivision of an approximately 21,415 square foot parcel into two parcels of approximately 7,167 square feet and 11,673 square feet. The parcel is currently developed with a single family residence with an attached accessory dwelling unit that will remain on proposed Parcel 1. Proposed Parcel 2 will be vacant and suitable for residential development. The subdivision will utilize a flag lot design and be accessed via a 20-foot wide access way. The parcel is and will be served with community water and sewer provided by the McKinleyville Community Services District.

### **Baseline Conditions: Surrounding Land Uses and Setting**

The project site is located along Caroline Avenue, approximately two miles south of the California Redwood Coast – Humboldt County Airport. It is in a developed neighborhood and surrounded by other similarly sized residential parcels.

**Other Public Agencies Whose Approval Is or May Be Required** (permits, financing approval, or participation agreement): Humboldt County Public Works Department, Division of Environmental Health, Building Division.

**Environmental Factors Potentially Affected:** The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality               |
| <input type="checkbox"/> Biological Resources     | <input checked="" type="checkbox"/> Cultural Resources       | <input checked="" type="checkbox"/> Geology/Soils  |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials         | <input type="checkbox"/> Hydrology/Water Quality   |
| <input type="checkbox"/> Land Use/Planning        | <input type="checkbox"/> Mineral Resources                   | <input type="checkbox"/> Public Services           |
| <input type="checkbox"/> Noise                    | <input type="checkbox"/> Population/Housing                  | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Recreation               | <input type="checkbox"/> Transportation/Traffic              |  |
| <input type="checkbox"/> Utilities/Service        | <input type="checkbox"/> Mandatory Findings of Significance  |  |

**Determination:** On the basis of this initial evaluation:

- I find that the proposed project **could not** have a significant effect on the environment, and a **Negative Declaration** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.
- I find that the proposed project **may** have a significant effect on the environment, and an **Environmental Impact Report (EIR)** is required.
- I find that the proposed project **may** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only those effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **Negative Declaration** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **Negative Declaration**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
 \_\_\_\_\_  
 Signature

11-1-18  
 \_\_\_\_\_  
 Date

Trevor Estlow, Senior Planner  
 Printed Name

Humboldt County Planning  
 and Building Department  
 For

## Evaluation of Environmental Impacts

- (1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- (2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- (3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- (4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- (5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. (California Code of Regulations, title 14 Section 15063(c) (3) (D)). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review. **N/A**
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. **N/A**
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project. **N/A**

## Environmental Checklist

**Checklist and Evaluation of Environmental Impacts:** An explanation for all checklist responses is included, and all answers take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. The explanation of each issue identifies (a) the significance criteria or threshold, if any, used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance. In the **Checklist**, the following definitions are used:

**"Potentially Significant Impact"** means there is substantial evidence that an effect may be significant.

**"Potentially Significant Unless Mitigation Incorporated"** means the incorporation of one or more mitigation measures can reduce the effect from potentially significant to a less than significant level.

**"Less Than Significant Impact"** means that the effect is less than significant and no mitigation is necessary to reduce the impact to a lesser level.

**"No Impact"** means that the effect does not apply to the proposed project, or clearly will not impact nor be impacted by the project.

I. <b>Aesthetics.</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

### Discussion:

**(a-d) Less Than Significant Impact:** The project site is not within an area mapped or designated with scenic vistas or resources nor is it in the Coastal Zone where specified areas of scenic values are mapped and certified by the state. The proposed subdivision infills an established development pattern, and is consistent with the planned build-out of the area. The parcels will be served by Caroline Avenue, a public road. The Department finds no evidence that the creation of two parcels within an area characterized as urban residential will have a substantial adverse aesthetic impact. There is no indication that the future development likely to occur on the site will significantly increase light or glare or effect nighttime views in the vicinity.

II. <b>Agriculture and Forestry Resources.</b> In determining whether impacts to agricultural resources are significant:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

<p>environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>		Incorporated		
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>				X
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>				X
<p>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>				X
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>				X
<p>e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</p>				X

**Discussion:**

**(a-e) No Impact:** Neither the subject property nor adjacent lands are within a Williamson Act contract. Although the site is mapped as agricultural soils, the lands were converted to residential uses with prior General Plans decades ago. The site does not contain unique farmland and is not used for agricultural purposes. The neighborhood is characterized by urban residential development with services provided by the McKinleyville Community Services District. The proposed subdivision infills an established development pattern. One-family residential is a primary and compatible use within the RL designation and is principally permitted in the R-1 zoning district. General agriculture is not a use allowed in the R-1 zone, nor are there any intensive agricultural uses in the immediate vicinity. The Department finds no evidence that the project will result in a significant adverse impact on agricultural resources.

III. <b>Air Quality.</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

**Discussion:**

**(a-e) Less than Significant:** The proposed project divides one parcel into two parcels – one developed and one vacant and suitable for residential development. According to recent studies by the North Coast Unified Air Quality Management District (NCUAQMD), the most significant contributors to PM-10 are residential wood burning stoves. Also, according to the NCUAQMD, all of Humboldt County is in non-attainment of the State’s PM-10 (particulate matter of 10 microns in size) standard, but complies with all other State and Federal air quality standards. The area is characterized as urban residential with similar sized lots in the surrounding areas. The Department finds no evidence that the project that is consistent with the planned build-out of the area will have a significant adverse impact on air quality.

IV. <b>Biological Resources.</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

**Discussion:**

**(a-e) Less Than Significant:** Per County resource maps, there are no sensitive biological resources on, or in the vicinity of, the project site. There are no wetlands or wetland habitat present on the site. The project does not involve any development within a streamside management area. The project site is not within an adopted or proposed habitat conservation plan. The project was referred to the Eureka office of the California Department of Fish and Wildlife which did not respond with concerns. The area is developed to urban residential levels. The Department finds no evidence that the project will result in a significant adverse impact on biological resources.

V. <b>Cultural Resources</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

**Discussion:**

**(a) No Impact:** No historical resources have been documented on site. The site is currently developed with a single family residence and an accessory dwelling unit (ADU) built in 1992, therefore, the project will have no impact on historical resources defined in California Environmental Quality Act (CEQA) §15064.5.

**(b) Less Than Significant with Mitigation Incorporated:** The project was referred to the Northwest Information Center (NWIC), the Blue Lake Rancheria, the Bear River Band of the Rohnerville Rancheria and the Wiyot Tribe. Although the response from the NWIC recommended a study, further consultation with the Blue Lake Rancheria and the Wiyot Tribe recommended approval with no further study provided a note regarding inadvertent discovery is included in the project. If archaeological resources are encountered during construction activities, the contractor will execute Mitigation Measure No. 1. by halting construction and coordinating with a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines and appropriate tribes so resources can be evaluated so that there is not a substantial adverse change in the significance of an archaeological resource.

**(c) No Impact:** No paleontological, geologic, or physical features are known to exist on the proposed project site; therefore, the project will not directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature.

**(d) Less Than Significant with Mitigation Incorporated:** The project is not expected to disturb any human remains, including those interred outside of formal cemeteries. However, implementation of Mitigation Measure No. 2 has been included in the event that human remains are accidentally discovered during construction.

**Mitigation Measure No. 1.** If cultural resources, such as chipped or ground stone, or bone are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, as required by CEQA (January 1999 Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendations for further action.

**Mitigation Measure No. 2.** If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner will be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the North American Heritage Commission (NAHC) (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify a descendant or the descendant failed to make a recommendation.

VI. <b>Geology and Soils.</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		X		
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		X		
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

**Discussion:**

**(a, c) Less Than Significant impact with Mitigation Incorporated:** The project site is located within an Alquist-Priolo Earthquake Fault Zone. The applicant retained Busch Geotechnical Consultants to prepare a Fault Evaluation Report for the proposed subdivision. The report was reviewed by Giblin Associates, the County's reviewing geologist at the time and found the report to be adequate and that the vacant parcel (proposed Parcel 2) can support residential development. The report did not address the existing development located on proposed Parcel 1, therefore, a Conveyance and Agreement (Mitigation Measure #3) will be required that prohibits additional residential development on that parcel until such time a Fault Evaluation Report is completed. In addition, a Development Plan will be recorded identifying the buildable areas suitable for development. Development associated with the subdivision will not expose people or structures to potential substantial adverse effects from rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction. The project is not within an area subject to landslides; therefore

the project will not expose people or structures to risk of lost, injury, or death involving landslides.

**(b) Less Than Significant Impact:** Any future home construction or road improvements will utilize appropriate Best Management Practices (BMPs) which will prevent soil erosion and loss of topsoil.

**(d) No Impact:** The project site is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994); therefore, the project will not create substantial risks to life or property.

**(e) No Impact:** The project will connect to community sewer provided by the McKinleyville Community Services District.

**Mitigation Measure No. 3.** A Conveyance and Agreement shall be recorded that conveys any additional residential development on proposed Parcel 1 until such time a Fault Evaluation Report is completed that clears additional area for development. This shall also be noted on the Development Plan.

VII. Greenhouse Gas Emissions. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

**Discussion:**

**(a-b) Less Than Significant Impact:** The eventual residential construction on the vacant lot would contribute temporary, short-term increases in air pollution from equipment usage.

Because of the temporary nature of the greenhouse gas contributions, coupled with the modest quantity of emission, the proposed project would not have a significant impact on the environment, nor conflict with applicable plan, policy, or regulation for the purposes of reducing greenhouse gas emissions.

VIII. Hazards and Hazardous Materials. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			X	
g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized area or where residences are intermixed with wildlands?			X	

**Discussion:**

**(a-h) Less Than Significant impact:** The project site is not included on a list of hazardous material sites, nor does the proposed subdivision involve routine transport, use or disposal of hazardous materials. The project site is approximately two miles from the nearest airport, California Redwood Coast – Humboldt County Airport. There are no private airstrips within the vicinity of the project site. The site is outside the area of concern related to the County’s adopted Airport land use plan and will not result in unanticipated risk to the occupants of the site. The Department finds no evidence that the project will create, or expose people or property to, hazardous materials, or impair implementation of, or physically interfere with, an adopted emergency response plan. The site is within the Arcata Fire Protection District. Future development of the site will require compliance with the Uniform Fire Code and UBC. According to the Fire Hazard map, the parcel is located in a low fire hazard area. Arcata Fire Protection District approved the proposed project. For these reasons, the Planning Division expects that the minor subdivision will not result in significant impacts in terms of hazardous materials.

<b>IX. Hydrology and Water Quality:</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary of Flood Insurance Rate Map or other flood hazard delineation map?			X	
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?			X	
i) Expose people or structures to a significant risk or loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j) Result in inundation by seiche, tsunami, or mudflow?			X	

**(a-j) Less than significant:** The proposed subdivision infills an established development pattern, and is consistent with the planned build-out of the area, in terms of both the County's Housing Element, the McKinleyville Community Plan (MCCP) adopted in 2002 and the recently adopted Humboldt County General Plan 2017. The project site is an area served by community water and sewer. The McKinleyville Community Services District (MCSD) has indicated that it is able to provide water and sewer service to the proposed subdivision upon the payment of the appropriate fees. MCSD has not identified any concerns with regard to the project interfering with groundwater recharge. The Department finds no evidence indicating that the subdivision will violate any water quality or waste discharge standards, or otherwise substantially degrade water quality. According to the Flood Insurance Rate Map, the project site is located in Flood Zone C, which is defined as "areas of minimal flooding", and is outside the 100- and 500-year floodplains. The project site is not within a mapped

dam or levee inundation area, and is outside the areas subject to tsunami run-up. The site is at an elevation of approximately 140 feet.

A preliminary drainage report was prepared and reviewed by Public Works and they recommended as a condition of approval that the applicant submit a complete hydraulic report and drainage plan for their approval. The applicant has proposed Low Impact Development techniques to comply with the State Water Board's Phase II Small Municipal Separate Storm Sewer System (MS4) Program. In addition, the project will comply with Section 3310.5 of the McKinleyville Community Plan which states: "Development shall only be allowed in such a manner that the downstream peak flows will not be increased." No streams, creeks or other waterways will be altered as a result of this subdivision. The Department finds no evidence that the proposed project will result in significant hydrologic or water quality impacts.

X. <b>Land Use and Planning.</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

**Discussion:**

**(a-c) No Impact:** The project site is designated Residential Low Density (RL) by the Humboldt County General Plan 2017, and is zoned Residential One-Family with a 5,000 square foot minimum parcel size. One-family residential is a primary and compatible use within the RL designation and is principally permitted in the R-1 zoning district. The neighborhood is characterized as urban residential. The creation of two parcels for residential development is consistent with the zoning and land use density (one to eight dwelling units per acre). The proposed subdivision infills an established development pattern, is consistent with the planned build-out of the area, and is consistent with the policies and regulations specified in the McKinleyville Community Plan and Humboldt County General Plan. There are no habitat conservation or natural community conservation plans proposed or adopted for this area. The Department finds there is no evidence that the project will result in significant adverse impact with regard to land use and planning.

XI. <b>Mineral Resources.</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

**Discussion:**

**(a and b) No Impact:** On-site soils and geologic resources are not suitable as commodity materials that would be of value to the region or the state. The site is not designated as an important mineral resource recovery site by a local general plan, specific plan, or other land use plan.

XII. Noise. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Expose persons to or generate excessive ground borne vibration or ground borne noise levels?				X
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			X	

**Discussion:**

**(a-d) No Impact:** Noises generated by the proposed project will result in a temporary increase during construction because the proposed project may require the use of heavy equipment (excavator, grader, loader and backhoe). The construction does not include equipment that would result in groundborne vibration. These activities are consistent with the current uses at the site and no permanent change in noise from the existing conditions would result from this project.

**(e and f) Less Than Significant Impact:** The project area is approximately two miles from the California

Redwood Coast – Humboldt County Airport, and is not subject to the airport land use compatibility plan. The noise impacts associated with the airport are not anticipated to be excessive. Therefore, noise impacts will remain less than significant.

<b>XIII. Population and Housing</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and/or businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

**Discussion:**

**(a-c) No** The proposed project divides a parcel into two parcels, one developed and one suitable for residential development. One-family residential uses are primary and compatible uses within the plan designation and zoning district. The subdivision is consistent with the planned density of the area, one to eight units per acre. The Department finds no evidence that the project will result in a significant adverse impact on population and housing.

<b>XIV. Public Services</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

**Discussion:**

**(a-e) No Impact:** The parcels will be accessed via Caroline Avenue, a public road. The Department of Public Works has recommended improvements to the access road to meet current standards. The Arcata Fire Protection District did not identify any fire protection issues. The Department finds no

evidence that the project will result in a significant adverse impact on public services.

XV. Recreation. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

**Discussion:**

**(a-b) Less Than Significant Impact:** The project does not include recreational facilities. The project has been conditioned upon payment of parkland dedication fees in lieu of creating a neighborhood park on the site. The Department finds no evidence that the project will require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

XVI. Tribal Cultural Resources. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k), or			X	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?			X	

**Discussion:**

**(a-b) Less Than Significant Impact:** The project was referred to the Northwest Information Center at Sonoma State University, the Blue Lake Rancheria, the Wiyot Tribe and the Bear River Band of the Rohnerville Rancheria. Although the response from the NWIC recommended a study, further

consultation with the Blue Lake Rancheria and the Wiyot Tribe recommended approval with no further study provided a note regarding inadvertent discovery is included in the project. The standard condition of inadvertent discovery has been included as Mitigation Measure No. 1.

XVII. Transportation/Traffic. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

**Discussion:**

**(a-f) Less Than Significant Impact:** The property is accessed by Caroline Avenue, a public road. The Land Use Division of Public Works has recommended standard conditions of approval including the improvement of the encroachment and improvement of the access road. The Department finds there is no evidence that the project will exceed the level of service standard, will result in a change in air traffic patterns, will result in inadequate emergency access, inadequate access to nearby uses or inadequate parking capacity; or will conflict with adopted policies supporting transportation. The project site is approximately two miles south of the California Redwood Coast – Humboldt County Airport, the closest airport.

XVIII. Utilities and Service Systems. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have insufficient water supplies available to serve the project from existing entitlements and resources (i.e., new or expanded entitlements are needed)?			X	
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Violate any federal, state, and local statutes and regulations related to solid waste?			X	

**Discussion:**

**(a-g) Less than significant:** The Department finds there is no evidence that the project will be inconsistent with the planned build-out of the area or will result in a significant adverse to utilities and service systems. The parcel is not zoned for commercial or industrial uses. The lots will be served by community water and sewer provided by the McKinleyville Community Services District. The Department of Environmental Health has recommended approval of the project. The parcel currently drains southwesterly towards Caroline Avenue. Stormwater detention as well as Low Impact Development (LID) techniques will be utilized as part of the improvement plans submitted to Public Works in order to comply with the McKinleyville Community Plan requirement of no increase in downstream flows and the Regional Water Board's MS4 program. The Division of Public Works reviewed the project and did not identify any drainage issues. The applicant will be required to provide a complete hydraulic report and drainage plan. The Department finds the project impact to be less than significant.

<b>XIV. Mandatory Findings of Significance</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).				X
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				X
<p><b>Discussion:</b></p> <p><b>(a through c) No Impact:</b> The proposed project divides one parcel into two – one developed and one vacant and suitable for residential development. Staff finds no evidence that the proposed project will significantly degrade the quality of the environment, nor will it have impacts that are individually limited but cumulatively considerable. Based on the project as described in the administrative record, comments from reviewing agencies, a review of the applicable regulations, and discussed herein, the Department finds there is no significant evidence to indicate the proposed project as mitigated will have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.</p>				

## Proposed Mitigation Measures, Monitoring, and Reporting Program

### Cultural Resources

**Mitigation Measure No. 1.** If a cultural resource, such as chipped or ground stone or bone is discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, as required by CEQA (January 1999 Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological find shall not resume until a professional archaeologist who meets the Secretary of the Interior's Standards and Guidelines has evaluated the materials and offered recommendations for further action.

*Timing for Implementation/Compliance:* Throughout project construction

*Person/Agency Responsible for Monitoring:* Applicant and successors

*Monitoring Frequency:* Throughout construction

*Evidence of Compliance:* Visible evidence

**Mitigation Measure No. 2.** If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner will be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the North American Heritage Commission (NAHC) (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify a descendant or the descendant failed to make a recommendation.

*Timing for Implementation/Compliance:* Throughout project construction

*Person/Agency Responsible for Monitoring:* Applicant and successors

*Monitoring Frequency:* Throughout construction

*Evidence of Compliance:* Visible evidence

### Geology and Soils

**Mitigation Measure No. 3.** A Conveyance and Agreement shall be recorded that conveys any additional residential development on proposed Parcel 1 until such time a Fault Evaluation Report is completed that clears additional area for development. This shall also be noted on the Development Plan.

*Timing for Implementation/Compliance:* Prior to recording Parcel Map

*Person/Agency Responsible for Monitoring:* Applicant and successors

*Monitoring Frequency:* Prior to recording Parcel Map

*Evidence of Compliance:* Prior to recording Parcel Map

**ATTACHMENT 5**

**REFERRAL AGENCY COMMENTS AND RECOMMENDATIONS**

<b>Referral Agency</b>	<b>Recommendation</b>	<b>Location</b>
Building Inspection Division	Approval	On file with Planning
Land Use Division	Conditional Approval	Memorandum dated May 2, 2018 Attached  Subdivision Requirements - Attached as Exhibit A, Attachment 1
Division Environmental Health	Approval	On file with Planning
California Department of Fish and Wildlife	No Response	
Arcata Fire Protection District	Approval	On file with Planning
McKinleyville Community Services District	Approval	On file with Planning
Northwest Information Center	Conditional Approval	On file with Planning
Wiyot Tribe	Conditional Approval	On file with Planning
Bear River Band of the Rohnerville Rancheria	No Response	On file with Planning
Blue Lake Rancheria	Conditional Approval	On file with Planning
Giblin Associates	Conditional Approval	Attached
PG&E	Approval	On file with Planning



DEPARTMENT OF PUBLIC WORKS  
**C O U N T Y O F H U M B O L D T**

MAILING ADDRESS: 1106 SECOND STREET, EUREKA, CA 95501-0579  
AREA CODE 707

ARCATA-EUREKA AIRPORT TERMINAL  
McKINLEYVILLE  
FAX 839-3596

PUBLIC WORKS BUILDING  
SECOND & L ST., EUREKA  
FAX 445-7409

CLARK COMPLEX  
HARRIS & H ST., EUREKA  
FAX 445-7388

AVIATION 839-5401

ADMINISTRATION 445-7491  
BUSINESS 445-7652  
ENGINEERING 445-7377  
FACILITY MAINTENANCE 445-7493

NATURAL RESOURCES 445-7741  
NATURAL RESOURCES PLANNING 267-9540  
PARKS 445-7651  
ROADS & EQUIPMENT MAINTENANCE 445-7421

LAND USE 445-7205

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**LAND USE DIVISION INTEROFFICE MEMORANDUM**

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TO: Trevor Estlow, Senior Planner, Planning and Building Department

FROM: Robert W. Bronkall, Deputy Director 

DATE: 05/02/2018

RE: **BRADY, APN 508-341-048, PMS18-004, APPS# 14052**

**PRELIMINARY SUBDIVISION REPORT:** A *preliminary report* was submitted in lieu of a *preliminary subdivision report* as specified in County Code Section 323-6(c).

**PARCEL MAP IMPROVEMENT NOTE:** Frontage improvements to Parcel 1 (an existing developed parcel) must be constructed per the Department's subdivision requirements. Pursuant to Government Code Section 66411.1 (b), the Department recommends that the frontage improvements on Parcel 1 be completed within twenty-four (24) months from the date that the subdivision map is filed with the County Recorder; or prior to issuance of a development permit (or building permit) for Parcels 1 or 2, whichever occurs first. This is based upon the need for orderly development of the surrounding area.

The construction of the subdivision improvements for Parcel 2 may be deferred to the time that a development permit (or building permit) is issued.

**NON-COUNTY MAINTAINED ROAD NOTE:** The project will be taking access from an existing non-county maintained road. If a road maintenance association currently exists, this Department recommends that the applicant secure an agreement for annexation prior to the project being presented to the Planning Commission. If an agreement for annexation cannot be reached, then the issue of road maintenance should be discussed/addressed at the Planning Commission meeting.

**EXISTING DRIVEWAY:** The existing driveway serving the property does not meet accessibility standards and shall be retrofitted for ADA compliance.

**COMPLETION OF IMPROVEMENTS ON PARCEL MAP SUBDIVISION:** Pursuant to Government Code section 66411.1 improvement timing. Fulfillment of reasonable on- and off-site construction requirements may be imposed prior to Parcel Map filing with the County Recorder if found necessary for the public health or safety or orderly development of the area. The Department is requesting that the following improvements be completed within twenty-four (24) months from the filing date of the parcel map:

The driveway apron and sidewalk on Parcel 1 shall be retrofitted for ADA compliance.

// END //

# GIBLIN ASSOCIATES

POST OFFICE BOX 6172 SANTA ROSA, CA 95406  
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CONSULTING  
GEOTECHNICAL  
ENGINEERS

March 25, 2004

Job No. 1306.14.3

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MAR 29 2004

HUMBOLDT COUNTY

County of Humboldt  
Community Development Services  
Planning Division  
3015 H Street  
Eureka, CA 95501  
Attention: Alyson Hunter

**Review of Alquist-Priolo Fault  
Investigation of the Brady Property  
(APN 503-341-48)  
Mad River Fault  
McKinleyville, California**

This letter provides our review of the Fault Investigation performed for a proposed subdivision of APN 503-341-48. We are performing the review under contract with the County of Humboldt. It is our understanding that the property owners (Bruce and Vishami Brady) plan to split an existing parcel into two separate parcels and build a new home on the eastern half. An existing residence is to remain on the western half of the original parcel.

We understand the subdivision of the existing parcel qualifies the proposal as a "project" as defined by the County, and because the project is within the Special Studies Zone for Earthquake Faults an investigation to identify active faults is required. A fault investigation was performed by Busch Geotechnical Consultants (BGC) and their findings, conclusions and recommendations were provided in a report dated December 2, 2003.

This review was performed in accordance with the California Geological Survey guidelines (formerly Division of Mines and Geology) as provided in Appendices C and D of Special Publication 42. The review is limited to assessing the adequacy of the report with regard to fault hazards and does not include a review of geotechnical engineering and trench backfilling recommendations provided in the same report.

Our Engineering Geologist, Mr. Mike Malone, discussed the investigative approach with Mr. Bob Busch on October 13, 2003 prior to commencement of the field work. BGC proposed waiving the on-site subsurface investigation and provided their arguments in a letter

County of Humboldt  
March 25, 2004  
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dated September 26, 2003. A waiver was not considered appropriate from a geologic standpoint primarily because the project was located well within the Special Studies Zone boundary and previously excavated off-site trenches were a significant distance from the project site.

In subsequent discussions it was agreed that a site visit by Mr. Malone to view the trench was not warranted, and the building envelop could potentially be "cleared" by excavating isolated test pits or short trenches ONLY IF the site's stratigraphy was sufficiently uniform to allow projection of the stratigraphic units from one pit to another with a high level of confidence.

Based on our review of the report we have the following comments:

**General Comments:**

1. The report provides an adequate discussion of the overall site setting with regard to geology, seismicity, and faulting. Further, the report provides an adequate discussion of the work performed for this investigation as well as a summary of previous fault investigations performed on relevant neighboring properties. This background information provides a valuable context with which to interpret the site conditions.
2. The site's topography is adequately described with regard to its implications for recency of faulting.
3. The exploratory trenches (test pits) provide the primary basis for assessing the site-specific potential for fault hazards, and the trenching program performed by BGC is considered adequate to conclude that the fault hazard affecting specific portions of the property is very low. It is our understanding that these areas are defined by the limits of the short trench as discussed in the subsequent comments.
4. The discussion of site stratigraphy, particularly with regard to the nature of the contacts between sedimentary units within the Pleistocene-age terrace deposits, is considered adequate. The trench logs support the conclusion on page 13, paragraph 4: "Three primary sedimentary units are directly correlative across the site" with the qualification that the "site" is defined by the extent of trenching.

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**Specific Comments:**

5. Pg 1, para. 3, line 4 states: "... it is unnecessary to establish a zone of building exclusion for the proposed development."

Figure 3 does not define the new parcel boundary. The project property line should be clearly identified to avoid misinterpreting the statement above to mean that the entire Brady parcel is cleared of fault hazards. It is the opinion of this reviewer that Trenches 1 and 3 approximately define the area that has been cleared for structures for human occupancy. Property areas located beyond the northwest-southeast projection (parallel to the nearby major fault trace) from the ends of Trenches 1 and 3 are considered effectively uncleared. The uncleared area includes the west parcel with the existing house. BGC should clearly identify the area considered cleared by their investigation.

6. Pg. 2, para. 1, line 5: " The property owners propose to split the lot in two, then build a home on the new lot."

As previously mentioned, the boundary of the "new lot" should be indicated on Figure 3.

7. Figure 1.

An Explanation describing the geologic units and symbols should be provided.

8. Pg. 6, para 1, line 3: "...he also hand-augered three shallow boreholes to confirm the presence of a near-surface gravel unit we expected to be present at the site." Posting of the borehole locations and depth to gravel on Figure 3 could provide data useful in correlating the stratigraphy.
9. Pg. 6, para. 1, lines 13 - 15: "Specifically, Mike and Bob agreed to investigate the site by excavating three short trenches (instead of one long, unbroken one) to confirm the lateral continuity of the subsoil stratigraphy."

As reviewer, Mr. Malone did discuss with Mr. Busch the possibility of excavating discreet trenches sufficient to establish lateral continuity of the site stratigraphy. However, it should be noted that the scope of work including the method and number of trenches necessary to accomplish that purpose was performed at the discretion of the consultant (BGC).

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March 25, 2004  
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10. BGC concludes that their confidence in their mapping of the fault trace west of the Brady site "approaches certainty" (pg. 13, para. 6). Unfortunately, the boundary of the "Brady site" is not defined in the report leaving some uncertainty regarding the meaning of the statement. Further, the absence of on-site subsurface data southwest of Trench 3 leaves the conclusion that "the risk of fault-rupture is NEGLIGIBLE at the Brady site" confusing and potentially misleading. It is the opinion of this reviewer that beyond the northeast limit of Trench 1 and the southwest limit of Trench 3, a conclusion regarding the presence or absence of faulting is unsupported by the work performed.

11. Figure 4.

A description of the angularity, size and composition of the sands and gravels could have provided additional data in support of BGC's stratigraphic correlations.

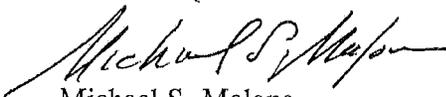
## Conclusions

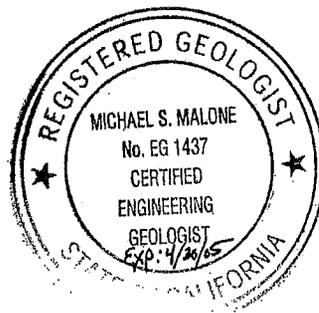
It is our professional opinion that this fault evaluation is generally adequate and was performed to the Standards of engineering geologic practice. We recommend that the report be accepted by the County of Humboldt conditional on BGC addressing our comments in a supplemental letter to the report. We would appreciate the opportunity to review the letter to verify conformance with the intent of our comments.

If you have any questions or if we can be of any additional service, please do not hesitate to contact us.

Yours very truly,

GIBLIN ASSOCIATES

  
Michael S. Malone  
Engineering Geologist No. 1437



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