

Ryan Geological Consulting

Providing Logical Geological Solutions

16 Southwood Drive

Orinda, Ca 94563

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Ryan Geological Consulting

STATEMENT OF QUALIFICATIONS

2010

Ryan Geological Consulting is a locally owned multifaceted geological engineering services firm. The company conducts engineering geology consultation and prides itself on its client focused approach. The Orinda, California based firm is a *Certified Small Business* by the State of California and is led by its founder and principal engineering geologist, Mr. Kevin Ryan, P.G., C.E.G.

The firm's mission is to provide the highest quality geological engineering solutions to the client. The client-focused approach is based on addressing key issues and developing logical solutions to mitigate geologic hazards that impact land use and land use planning.

Ryan Geological differentiates itself from its competitors by developing customized client-focused solutions with a hands-on approach. Our diverse experience enables us to accurately assess the specific needs of each project site. The company provides its clients with specialized expertise and delivers our clients with technically sound and cost-effective results.

Mr. Kevin Ryan, P.G., C.E.G. has well over a decade of dedicated and hands-on field work in geology, engineering geology and geotechnical engineering across California, Nevada, Oregon and is specialized in the San Francisco Bay Area. He is a licensed Professional Geologist and Certified Engineering Geologist in the State of California.

Mr. Ryan is an industry expert in landslide evaluation, geologic hazard assessment, and hillside residential development. He has a strong track record of successful site assessments and project execution. Mr. Ryan's project portfolio and resume is attached for reference. For more information about Ryan Geological's capabilities, please visit our web site at:

www.ryangeologicalconsulting.com

Respectfully,

Kevin Ryan, PG, CEG
Principal Engineering Geologist
Ryan Geological Consulting

Major Capabilities

Ryan Geological Consulting specializes in geologic hazard identification and mitigation, landslide studies and repair, Alquist-Priolo earthquake fault investigations, geologic site characterization and geotechnical studies (soil engineering). We provide professional consultation services in the areas of geologic hazards evaluation (landslides, earthquakes, slope stability, and flooding), Geologic Hazard Abatement District formation and maintenance, Open-space management, engineering geology, geotechnical engineering, soil engineering, land development, land modification, quarry resource evaluations and quarry reclamation projects. Our objectives are to maintain high professional standards while providing cost-effective consultation services. Ryan Geological's professional consulting services encompass a wide variety of subjects and disciplines related to earth sciences and its implications on land use and land planning.

Our major capabilities include:

Geologic hazard evaluation	Groundwater and seepage studies
Geologic site characterization	Earthquake Fault investigation (Alquist-Priolo studies)
Landslide identification, evaluation and remediation	Liquefaction evaluation and remediation
Geologic Hazard Abatement District formation and maintenance	Monitoring and analysis of geotechnical instrumentation,
Open-space management	Construction excavation inspection
Slope stability evaluation	Remedial grading design
Geotechnical site investigations	Third-party peer review
Erosion studies and erosion control	

Qualifications

LANDSLIDE INVESTIGATIONS

Mr. Ryan has investigated, monitored and participated in providing engineering geology and geotechnical consulting services involving landslides on over one hundred projects in the San Francisco Bay Area, California. Mr. Ryan is an industry expert in the field of landslide investigation and remediation. Mentionable landslide investigation and repair projects included:

- Identification, investigation and repair of over 30 landslides, including 4 ancient bedrock landslides at the Vista Del Mar development in Pittsburg, California.
- Identification, investigation and repair of over 40 landslides, including 2 ancient bedrock landslides at the Nelson Ranch development in Antioch, California.

- Identification and investigation of over 40 landslides at the Wallis Ranch project in Dublin, California.
- Identification and investigation of over 200 landslides, including 2-dozen ancient bedrock landslides at the Oak Grove project in Pleasanton, California.
- Investigation and characterization of two ancient bedrock landslides totaling 25 million cubic yards on the Elworthy West property, Danville, California
- Investigation and analysis of a 140-foot-deep ancient bedrock landslide and its dissection by the Calaveras fault on Pleasanton Ridge in Pleasanton, California.
- Landslide remedial grading excavation inspection and direction of two ancient bedrock landslides located at both abutments of the Fallon Road Bridge in Dublin, California
- Regional landslide mapping and geomorphic characterization of the Noyo River and Albion River basins, Mendocino County, California.
- Mapping and evaluation of several hundred soil slip-debris flow deposits and 50 source areas in the Fairfield-Vacaville areas of northern California.
- Debris flow potential quantification for sediment diversion structures and catchment basins for the proposed Lagoon Valley development in Vacaville, California.
- Third-party peer review of subsurface investigation and technical evaluation of re-activated ancient bedrock landslide in Cordelia, California.
- Geologic expert on potential neighborhood-wide landslide movements, Saratoga, California.
- Subsurface investigation of surface deformation resulting from suspected deep-seated bedrock landslide movements in Clayton, California.

PLAN AND PEER REVIEW

Ryan Geological conducts technical plan review for grading and landslide repair plans. Previously, as the Senior Engineering Geologist for a reputable local geotechnical engineering firm, Mr. Ryan reviewed the engineering geology aspects over 50 site grading plans, dozens of remedial grading plans, hundreds of landslide repair plans, and dozens of geotechnical engineering reports. This experience aids us make accurate and logical plan reviews.

Similarly, the vast experience of Ryan Geological's principal, we are experienced on both sides of the Third-party peer review table. We are logical in our approach and conduct our reviews in a professional manner with all parties' interests in mind. This can be translated to our desire not to draw a line in the sand, but simply provide our logical input to help technically sound projects move forward.

EARTHQUAKE FAULT STUDIES

Ryan Geological has extensive experience in Alquist-Priolo earthquake fault investigations, regulations, and third-party peer reviews. Previously, as the Senior Engineering Geologist and primary field geologist of a reputable local geotechnical engineering firm, Mr. Ryan has completed over twenty-five fault investigations in the San Francisco Bay Area. Mr. Ryan's fault investigation experience is unparalleled and has taken him across the majority of Northern California fault traces.

Mr. Ryan has logged over 20,000 lineal feet of exploratory fault trench and has successfully identified and recommended set backs from active traces of the following A-P zoned faults:

Hayward fault at 12 site locations
Greenville fault at 4 site locations
San Andreas fault at 3 site locations

Calaveras fault at 2 site locations
West Napa fault at 2 site locations
Verona, Cordelia, and Concord faults

All Alquist-Priolo fault studies were successfully reviewed without dispute by City/County designated third-party peer reviewers. Mr. Ryan has interacted on both sides of the A-P study peer review process.

GEOLOGY AND ENGINEERING GEOLOGY

Ryan Geological has expertise in all levels of geologic, geomorphic and engineering geologic site investigations. We conduct feasibility studies, soils investigations, geologic hazard evaluation and mitigation studies, landslide evaluations, fault investigations, liquefaction studies, EIR planning studies, planning-level engineering geologic investigations, and design-level geotechnical investigations. Our areas of geology and engineering geology experience are varied and encompass the following topics:

Site and regional geologic mapping
Geologic site characterization
Earthquake fault investigations
Landslide mapping and investigation
Landslide repair design
Landslide repair monitoring
Geologic hazards evaluation

Monitoring and analyzing geotechnical instrumentation
Exploratory trench logging
Drilling logging-- diamond core, soil samples, large diameter in-hole
Erosion studies and remediation
Site history studies using aerial photography and satellite imagery

GEOTECHNICAL ENGINEERING STUDIES

Mr. Ryan has provided engineering geology services for geotechnical aspects of over one hundred major subdivisions, commercial property developments and civil engineering projects throughout northern and central California.

Some of the geotechnical services Ryan Geological can provide include site subsurface geological characterization, geotechnical constraints mapping, directing and conducting site field investigations, engineering geology evaluation of large cuts, engineering geology evaluation of landslides and landslide repair plans, consultation with clients and other project consultants, developing remedial grading plans and quantifications.

GEOLOGIC HAZARD ABATEMENT DISTRICTS (GHAD)

Ryan Geological has extensive experience in GHAD formation and open-space management duties. Mr. Ryan was the principal author of the Plan of Control for the "Old Ranch Summit portion of the West Branch GHAD" in San Ramon, California and the "Fallon Crossing GHAD" in Dublin, California (draft pending agency approval). Working with GHAD managers and/or law firms, we can prepare the Plan of Control, perform annual field observation reports, review technical plans, evaluate areas of pavement distress or slope deformation, install and monitor subsurface geotechnical instrumentation, prepare and implement corrective earthwork plans, or perform general consultation services.

CONSTRUCTION EXCAVATION INSPECTION

Construction excavation inspections are essential elements of evaluating the long-term success of a grading project. Proper observations during site grading and excavation can identify adverse subsurface conditions that were not detected in the evaluation from the ground surface and can assure that earthwork is performed in compliance with technical recommendations. Identifying and mitigating these issues during site improvement helps minimize future problems. We conduct earthwork excavation inspections by a State of California licensed *Certified Engineering Geologist* (CEG).

The principal at Ryan Geological has performed engineering geologic inspections at dozens of residential construction sites around the San Francisco Bay Area. Mr. Ryan's role was in creating as-built geologic maps of the exposures, approving keyway excavations for compliance with geotechnical recommendations, and providing technical recommendations for treatment of adverse (unsuitable or unstable) geologic conditions exposed during site grading. The expertise possessed by Ryan Geological allows us to rapidly identify adverse geologic conditions and to make logical decisions in the field that work within the site parameters and project goals while keeping the project moving forward. Some of the larger residential development projects Mr. Ryan performed these services at include:

Alamo Crest, Alamo, Ca
Fallon Road Bridge, Dublin, Ca
The Colony at Paradise Valley, Fairfield, Ca
The Sanctuary, Fairfield, Ca
Rancho Solano Phase 3, Fairfield, Ca
Old Ranch Summit, San Ramon, Ca

La Vista Quarry, Hayward, Ca
Vista Del Mar, Pittsburgh, Ca
Eastridge Hills, Cordelia, Ca
Nelson Ranch, Antioch, Ca
Dublin Ranch, Dublin, Ca
Majestic Oaks, Vacaville, Ca

KEVIN RYAN, P.G., C.E.G.

Principal Engineering Geologist

EDUCATION

Humboldt State University,
Arcata, California, 1998
Bachelor of Science, Geology

LICENSURE

Certified Engineering Geologist
No. 2404
Professional Geologist
No. 7796

PROFESSIONAL AFFILIATIONS

- Association of Engineering Geologists
- American Geophysical Union
- Geological Society of America
- Northern California Geological Society

PROFESSIONAL HISTORY

Ryan Geological Consulting
Orinda, California
Principal Engineering Geologist
2010- Present

Berlogar Geotechnical Consultants,
Pleasanton, California
Senior Engineering Geologist
1999 – 2009

Mendocino Redwood Company
Calpella, California
Geologist Intern
1998 – 1999

REPRESENTATIVE EXPERIENCE

Mr. Ryan has over 12 years of experience as an engineering geologist focusing on geologic hazard assessment and mitigation, slope stability evaluation, landslides, Alquist–Priolo fault investigations, expansive soil mitigation, creek bank stability, drainage improvements and quarry mining and reclamation. Additionally, Mr. Ryan has provided geologic expert services for litigation cases, performed post-development forensic investigations of suspected ground movement and performed peer review services for government and private agencies. As our primary geologist, his responsibilities include engineering geologic evaluation of sites, geotechnical inspection of excavations performed during site grading, project management and directing field operations. His background is in geologic/geomorphic mapping, structural geology, Quaternary geomorphology and neotectonics. Mr. Ryan has vast experience in California geology and has performed hundreds of site evaluations in varied geologic conditions, specifically in the San Francisco Bay Area and surrounding counties.

KEVIN RYAN, P.G., C.E.G.
Principal Engineering Geologist

SELECTED PROJECT EXPERIENCE

GEOTECHNICAL PROJECTS

Nelson Ranch, Antioch, California
Dublin Ranch, Dublin, California
Oak Grove, Pleasanton, California
Fallon Road Bridge, Dublin, California
Tassajara Creek Bridges, Dublin, California
Old Ranch Summit, San Ramon, California
UOP Property, Petaluma, California
Mission Peak Property, Alameda County, California
Majestic Oaks, Vacaville, California
Rancho Solano - Phase 3, Fairfield, California
The Sanctuary, Fairfield, California
Paradise Valley, Fairfield, California
Blue Rock Springs Golf Course, Vallejo, California

ALQUIST-PRIOLO FAULT STUDIES

North Livermore Properties, Livermore, California
Frick Property, Livermore, California
Farber Property, Livermore, California
RGW property, Livermore, California
La Vista Quarry, Hayward, California
Marcotte Property, Hayward, California
McKenzie Property, Hayward, California
Smith Ranch, American Canyon, California
Daly City Fault Study, California

LANDSLIDE INVESTIGATIONS

Vista Del Mar, Pittsburg, California
Garin Vista, Hayward, California
Wallis Ranch, Dublin, California
Austin Property, Pleasanton, California
Nelson Ranch, Antioch, California
Jacuzzi Property, Antioch, California
Paradise Valley Area I, Fairfield, California
Paradise Valley Area L, Fairfield, California
Lagoon Valley, Vacaville, California
Rancho Solano Phase 3, Fairfield, California
Sengo Property, Solano County, California

**GEOLOGIC HAZARD ABATEMENT
DISTRICTS AND HOME OWNERS
ASSOCIATIONS**

Old Ranch Summit portion of the West
Branch GHAD, San Ramon, California
Fallon Crossing, Dublin, California
Oakhurst GHAD, Clayton, California
Refugio Valley MHOA Open-Space, Pinole
and Hercules, California

**CONSTRUCTION EXCAVATION
OBSERVATIONS**

Alamo Crest, Alamo, Ca
Fallon Road Bridge, Dublin, Ca
The Colony at Paradise Valley, Fairfield,
Ca
The Sanctuary, Fairfield, Ca
Rancho Solano Phase 3, Fairfield, Ca
Old Ranch Summit, San Ramon, Ca
La Vista Quarry Reclamation, Hayward,
Ca
Vista Del Mar, Pittsburgh, Ca
Eastridge Hills, Cordelia, Ca
Nelson Ranch, Antioch, Ca
Dublin Ranch, Dublin, Ca
Majestic Oaks, Vacaville, Ca

QUARRY STUDIES

Hard Rock/Gravel Quarry, Ione, California
La Vista Quarry, Hayward, California
Dumbarton Quarry, Fremont, California
Calaveras Gravel Quarry, Sunol,
California
Curtner Quarry, Santa Clara
County, California
Parks Bar Quarry, Yuba City, California