



**Frank J. Rollo, PE, GE**

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**Professional Experience**

2008 – Current  
Rollo & Ridley, Inc.  
1991-2008  
Treadwell & Rollo, Inc.  
1988-1991  
Dames & Moore

**Education**

M.S., Civil Engineering, University of  
California, Berkeley, 1988

B.S., Civil Engineering, Purdue University,  
West Lafayette, Indiana, 1987

**Professional Registrations**

Civil Engineer in California, 1992  
CE 049643

Geotechnical Engineer in California, 1997  
GE 2370

**Affiliations/Honors**

American Society of Civil Engineers,  
1986-2008

Chi Epsilon, 1986

Structural Engineers Association of Northern  
California,  
1993-present

Mr. Rollo performs geotechnical and environmental investigations, litigation consultation, and construction oversight for multimillion-dollar projects. His experience includes project management and supervision during investigations for commercial, retail, and residential developments and offshore structures, as well as emergency response for public agencies. Mr. Rollo has managed the seismic upgrades of mid- and low-rise buildings, hotel structures, hospital rebuilds and expansions, and educational facilities, and numerous residential remodels and rebuilds across the San Francisco & Marin Counties. His experience includes:

**250 4th Street Hotel**

Principal-in-Charge (QA/QC) during the geotechnical investigation, design development and construction phases. The site was developed to include an 11 story building with one level of below grade space. The recently completed structure houses 10 stories of hotel space over ground floor commercial space. The design included a partial roof-top deck which is at the front of the structure on Fourth Street and faces Moscone Center to the east. The proposed basement will be used for services related to the hotel. Geotechnical issues for the project were: 1) the selection of an appropriate foundation system to support the proposed 11-story hotel with a single basement level, 2) the proximity of the site to the adjacent planned San Francisco Municipal Transportation (MUNI) central subway and station, which was currently under construction on Fourth Street during the time of our study, and 3) the proximity of the site to adjacent buildings founded on shallow foundations and the need for shoring & underpinning to protect those buildings during excavation and construction. On the basis of detailed engineering analysis, the Rollo & Ridley team concluded the hotel should be supported on either a pile foundation gaining support in the dense to very dense Colma Formation and Marine sands underlying the site.

**University of San Francisco (USF)**

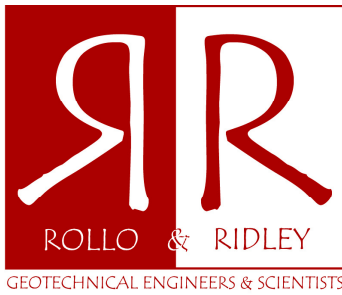
Principal-in-Charge during the geotechnical investigation, design development and construction phases for the recently completed Science Center, Lone Mountain Housing & Dining and Master Plan upgrades across the campus. Mr. Rollo has had over 20 year's experiences USF and other schools in San Francisco.

**555 4<sup>th</sup> Street, San Francisco, California**

Principal-in-Charge of the geotechnical investigation and construction observation services for this 9-story, 480,000-square-foot, poured-in-place concrete, 300-unit condominium project. The structure is supported by a relatively new pile type called Torque-Down piles, which are closed-end steel pipe piles drilled to depth. Consulted on the pile load testing program consisted of 7 pile load tests to determine tension and compression capacities and pile lengths. The end result saved the project approximately 40 percent in pile costs as compared with conventional pile types. A total of 789 piles were installed for this project with each having an allowable compression capacity of 400 kips. The project was completed in 2006.

**1075 Market Street**

Principal-in-Charge during the geotechnical investigation, design development and construction phases for the recently completed 8-story structure over one basement level residential structure. The primary geotechnical issues for the site were: 1) the selection of an appropriate foundation system to support the proposed building, 2) the proximity of the site to the adjacent Bay Area Rapid Transit (BART) tunnel (beneath Market Street), and 3) the proximity of the site to adjacent buildings likely founded on shallow foundations. To accommodate this BART requirement and to ensure the structure is not



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adversely affected by the potentially liquefiable soils underlying the site, the new building was supported on a pile foundation system gaining support in the dense to very dense Dune sand and Colma Formation sand and clayey sands underlying the site.

#### **S.F. & Marin Residential Projects**

Principal-in-Charge during the geotechnical investigation, design development and construction phases of 100s of residential projects across S.F. and Marin Counties. Mr. Rollo has had successful relationships with owners, architects, structural engineers, civil engineers and contractors providing cutting edge insight to complex remodels and new construction projects. Many projects include vertical and horizontal additions and deep excavations below existing structures with tight property line constraints.

#### **The Olympic Club, Sutter Street Facility and Post Street Clubhouse Renovation**

Principal-in-Charge during the geotechnical investigation, design development and construction phases. The project included the demolition and removal of the existing two-story parking structure (Olympic Garage) and the construction of a new seven story, steel-framed building above four below-grade concrete levels. The building was interconnected with the rear of the existing Post Street Clubhouse. An excavation of approximately 61 feet below street level grade was required to construct the basements. Shoring and underpinning were required to maintain lateral and vertical support of adjacent structures and improvements. The shoring system included approximately 100 hand-mined underpinning piers, slant-drilled underpinning piles, soldier beams, and several levels of tiebacks.

#### **Santa Cruz Area Seismic Design**

Reviewed and aided in the design for the rebuilding of approximately 100 homes destroyed during the 1989 Loma Prieta earthquake in California. Responsibilities included the review of proposed foundations and retaining structures (designed by other geotechnical engineers) for the City and County of Santa Cruz.

#### **San Francisco General Hospital (SFGH)**

Mr. Rollo was the project manager for the design of a new acute-care hospital on the campus of the SFGH. The proposed hospital will have an approximate plan area of 90,000 square feet at basement level; above grade, the building will be approximately 70,000 square feet in area and about 90 feet high. Plans call for a 6-story building plus a penthouse and two basement levels.

The hospital will incorporate a base isolation system at the foundation level. A tunnel will connect an existing basement to the upper basement level of new structure. T&R recommended the building be supported on a mat foundation, which will support the static structural loads, provide a platform for the base isolation system that will be designed to reduce seismically-induced forces in the building, and reduce the uplift pressures associated with the differential groundwater levels.

#### **Pier 43**

Project manager and senior engineer for the emergency repair of the bulkhead structure that sustained damage in a June 1998 fire. Pier 43 is west of Pier 39 and is composed of two interconnected structures: the Archouse & apron, and the pier. We installed new piles bayward of the Archouse that allowed the contractor to transfer load from the bulkhead building to the pier deck; once the piles were driven, repairs to the Archouse and apron were made. He reviewed available subsurface information, reviewed the as-built drawings for Pier 43, and developed preliminary compression capacity for new timber piles.