



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Planning Commission

SUBJECT: SEE BELOW

DATE: June 3, 2020

COUNCIL DISTRICT: 3

SUBJECT: H19-016, SITE DEVELOPMENT PERMIT, SUBJECT TO CONDITIONS, TO ALLOW THE DEMOLITION OF THE NINE (9) EXISTING ON-SITE BUILDINGS (INCLUDING CANDIDATE CITY LANDMARKS), THE REMOVAL OF FOURTEEN (14) ORDINANCE SIZE TREES, AND THE CONSTRUCTION OF AN APPROXIMATELY 3.79 MILLION SQUARE FEET DEVELOPMENT COMPRISED OF 24,000 SQUARE FEET OF GROUND FLOOR RETAIL AND 3,640,033 SQUARE FEET OF OFFICE SPACE AND INCLUDING A REQUEST FOR 24-HOUR CONSTRUCTION AND DOWNTOWN DESIGN GUIDELINES EXCEPTIONS ON AN APPROXIMATELY 8.1-GROSS ACRE SITE LOCATED AT THE NORTHEAST CORNER OF SOUTH ALMADEN BOULEVARD AND PARK AVENUE.

RECOMMENDATION

The Planning Commission voted 6-0-0 to recommend that the City Council take all of the following actions with the additional recommendation that the City Council evaluate the parking for the project and that the developer should work with City staff regarding any potential further parking reduction:

1. Adopt a resolution certifying the Environmental Impact Report (SCH#2018022032) and making certain findings concerning significant impacts, mitigation measures, alternatives, and adopting a Statement of Overriding Considerations and a related Mitigation Monitoring and Reporting Program, all in accordance with the California Environmental Quality Act (CEQA); and
2. Adopt a resolution approving a Site Development Permit, subject to conditions, to allow the demolition of the nine (9) existing on-site buildings (including candidate City Landmarks), the removal of fourteen (14) ordinance size trees, and the construction of an approximately 3.79 million square feet development comprised of 24,000 square feet of ground floor retail and 3,640,033 square feet of office space and including a request for 24-hour construction and Downtown Design Guidelines exceptions on an approximately 8.1-gross acre site located at the northeast corner of South Almaden Boulevard and Park Avenue; and
3. Direct Staff to file a Notice of Determination pursuant to Section 15094 of the State CEQA Guidelines.

OUTCOME

If the City Council approves all the actions listed above, the applicant can move forward with the building permit process for the project, including:

- Demolition of all on-site buildings, including the candidate City Landmark Buildings;
- Removal of 14 ordinance size trees, on-site; and
- The 24-hour construction of an approximately 3.79 million-square-foot development comprised of 24,000 square feet of ground floor retail and 3,640,033 square feet of office space.

If the City Council denies all the actions listed above, the project site will remain as is.

EXECUTIVE SUMMARY

On May 27, 2020, the Planning Commission considered the Supplemental Environmental Impact Report (SEIR) with a Statement of Overriding Considerations and the Site Development Permit to facilitate a 3.79 million square foot development located on the majority of the Downtown block bounded by Park Avenue, South Almaden Boulevard, West San Fernando Street, and South Market Street.

During the public hearing, 16 members of the public provided comments on the project. Seven speakers addressed concerns with the project and planning process including: the demolition of the historic buildings on-site, excess parking for the project, the consideration and approval of a non-essential commercial project during the COVID-19 crisis, and concerns regarding public access through the site. A written request by the Preservation Action Council of San José (PAC*SJ) was submitted to defer the project in advance of the Planning Commission meeting and reiterated during public testimony. Nine speakers voiced support for the project noting the benefits that the increased commercial office space would bring to the City and Downtown, the project's pedestrian and bicycle circulation improvements, the developer's commitment to union labor, and the attractiveness of the development to office tenant needs.

The Planning Commission discussed the merits of the development's design and activation of Downtown as well as concerns with the parking and impacts to the bicycle lanes on West San Fernando Street. The Planning Commission voted 6-0-0 to recommend adoption of the environmental resolution and approval of the project to the City Council. The Planning Commission further recommended the City Council evaluate the parking for the project and that the developer work with City staff regarding any potential further parking reduction.

BACKGROUND

On May 27, 2020, the Planning Commission held a Public Hearing to consider and make a recommendation to City Council on the adequacy of the Supplemental Environmental Impact Report (SEIR) and Site Development Permit. The Planning Commission elected to consider the Staff analysis and public testimony for the project rather than defer the item immediately.

Staff Presentation

Staff provided an overview of the project and its conformance with the General Plan designation, Zoning Ordinance, and City policies. Staff corrected a statement in the staff report and Site Development Permit resolution analysis. The analysis incorrectly stated the project had received a Determination of No Hazard with the Federal Aviation Administration (FAA). The following text corrections were made to page 24 of the staff report and page 37 of the Site Development Permit:

“The project applicant has applied for ~~and received~~ a Determination of No Hazard with the Federal Aviation Administration (FAA). ~~-, indicating that the project does not pose a hazard to air navigation.~~”

Staff noted the project site previously received FAA determination for a different project with a height of 264 feet above grade. The FAA voided this determination with the submittal of the proposed project (with a height of 293 feet) to the FAA, which is still under review. The error does not impact the analysis of the project since the Site Development Permit Resolution (Conditions 32 through 35) require the project to secure FAA and aviation easement clearances for the building's height prior to vertical construction in conformance with the Municipal Code's height limitations.

Additionally, since the posting of the staff report for Planning Commission, several public comments were submitted. These comments included letters in support of the project and the investment in Downtown, additional documentation from the applicant in response to concerns raised by PAC*SJ, and comments that expressed concerns about the project including:

- Concerns about the demolition of historic structures, including the Cesar Pelli designed Bank of California/Sumitomo Bank Building, including a petition signed by approximately 140 individuals recommending reuse and rehabilitation.
- Issues regarding the adequacy of the alternatives analysis in the SEIR with regard to preservation of the Bank of California/Sumitomo Bank Building.
- Concerns that the staff report and draft resolution's analysis of the rejected alternatives were not supported in the SEIR.
- A request for deferral by PAC*SJ to allow more time to review project documentation, alleging that responses to previous comments in the First Amendment were not provided until the day prior to the Planning Commission hearing.

In response to these concerns, staff noted an email was sent to all SEIR commenters including PAC*SJ on Monday, May 18, 2020, which was ten days prior to the Planning Commission

meeting. The email included a link to the First Amendment to the SEIR (the response to public comments) on the City's website.

Additionally, pursuant to CEQA Guidelines Section 15124(b), staff's analysis in the Staff Report and Environmental Resolution appropriately used the project objectives identified in the SEIR for the Statement of Overriding Considerations and selection of alternatives for SEIR analysis and approval. Staff cited CEQA Guidelines Section 15126.6(c), which further provides that "[t]he range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project" while lessening one or more significant effects. One of the factors that may be used to eliminate alternatives from detailed consideration in an EIR is the failure to meet most of the project's objectives.

Regarding the level of detail in the alternatives analysis of the SEIR, staff noted a cited case law that refers to the amount of detail required within an alternatives analysis, in that it is not subject to any precise formula.

Staff stated that the project alternatives considered in the SEIR appropriately correspond to the type of project being considered and achieve the level of specificity required. All the public comments received leading up to Planning Commission are included as part of the project's record.

Public Hearing

Janette D'Elia, representing the owner, Jay Paul Company, introduced the project and highlighted that the 3.79 million square foot project would bring at least 15,965 permanent jobs and 16,416 indirect jobs to the area. Additionally, she thanked staff and the City for their continued hard work during the COVID-19 crisis. Finally, she referred to their submission of subject matter expert letters (submittal dated May 26, 2020) in response to public comments for consideration by the Planning Commission and informed the Commission that those experts were available to respond to the Commission's questions.

Ben Tranel, the Gensler Principal Architect for the project, shared his enthusiasm for the transformative project that would integrate well into the surrounding Downtown context. He highlighted project features including the warm-toned terra cotta, open spaces along Market Street and Park Avenue, and the project's retail space. He stated the applicant team met with the Historic Landmarks Commission and initiated meetings with PAC*SJ to discuss the historic buildings on-site.

John Pastier, a biographer of Cesar Pelli, noted the project would dwarf Downtown and would not fit into the urban Downtown environment. He expressed wishes to save the Bank of California/Sumitomo Bank Building.

Ben Leech, the executive Director of PAC*SJ spoke to the deferral request, noting PAC*SJ has long advocated for the preservation of the Bank of California/Sumitomo Bank Building. He stated PAC*SJ provided extensive materials on the SEIR and comments leading up to the Planning Commission meeting including the "Save the Sphinx" petition. He noted that the

architecture of the Bank of California/Sumitomo Bank building is significant and popular as indicated in the petition. Finally, he expressed concerns with the timing of the public hearing given the over 230 additional pages of responses provided in public comments, including the applicant, leading up to the hearing.

Michael Sodergren, a member of PAC*SJ, noted the organization met with the applicant to discuss commemoration ideas. He expressed the best commemoration would be preservation of the historic building. He stated 3D models would be helpful to review the project and noted concerns that pedestrian security gates would block public access to the site. He also noted PAC*SJ's disagreement with the City's review of commercial projects during the COVID-19 crisis, especially given the crisis could impact market demands.

Linn Stevenson reiterated the concerns identified in the PAC*SJ letter submitted to the City in April (attached to this memorandum) noting concerns with the online public hearing forum and making long-lasting decisions during the COVID-19 crisis.

Andre Luthard, president of PAC*SJ, stated the project's five levels of underground parking are unnecessary and reduction of parking could result in a reduction of costs which could allow for the preservation of the Bank of California/Sumitomo Bank Building. He stated that the project site is well-located to support reduced parking and promote alternate modes of transportation in accordance with General Plan policies.

Peter Bennett stated the proposed parking is excessive and not needed for a Downtown project. He urged the decision makers to consider a reduced parking option given the site's great access to public transportation.

Nate LeBlanc, Business Development Manager for the San José Downtown Association, noted support for the project including the demolition of the Bank of California/Sumitomo Bank Building. He also noted the Downtown Association wanted to preserve public pedestrian access through the site.

Kelly Snider shared her support of the project which would bring private development into Downtown and would greatly enhance bicycle and pedestrian connectivity. She also stated that the Bank of California/Sumitomo Bank building is not attractive and the only reason to maintain it is for architectural historians.

Union representatives including, Dylan Bolt (Local 43), Jean Cohen (Union 393), Will Smith (Union 332), Dominic Torrealano (Union 104), and George Pineda (Apprenticeship Graduate of Union 332) expressed their strong support of the project. They noted how the developer's support of union members and their families would bring value to the local community, ensure a skilled and trained workforce would be used during construction, would pay a sustainable wage and provide health benefits, and would provide the local community an alternative education option through union construction apprenticeships.

Kurt Chacon stated the project will bring vibrancy to the growing Downtown and noted that although the Bank of California/Sumitomo Bank Building has historic significance, it also may serve some community members as a bitter reminder of its past as the Santa Clara Family Courts Building.

Gayle (no last name provided) stated she strongly opposes this project because it would demolish buildings of historic significance, especially the Bank of California/Sumitomo Bank Building.

Phil Mahoney, a broker who has worked for Jay Paul Company and has represented large Bay Area tenants, noted in the post-COVID-19 world, people may not be interested in public transit and that large tenants would need and use the proposed parking. Additionally, he noted the development and design are exactly what the current market demands, and that this project would attract many tenants.

Janette D'Elia, representing the applicant, concluded the public hearing stating now is the time to invest and they are actively discussing the project with prospective tenants which makes moving the project forward crucial. She reiterated their outreach on the alternatives with PAC*SJ and noted the project/project site has been discussed at least five times by the City's Historic Landmarks Commission (HLC) since 2018. Ben Tranel, the project architect, highlighted the project's public spaces and use of green building techniques, including naturally ventilated spaces.

Staff Response

Staff stated the applicant would be utilizing a 20% parking reduction and that the number of parking spaces on-site is achieved through an alternative parking arrangement which helped limit the below grade parking to five levels. Additional parking reductions could be permitted in Downtown; however, the applicant did not request any further reductions and the Zoning Ordinance does not have maximum parking limits, so parking was not limited further.

Staff also clarified that the Site Development Permit Resolution includes a condition of approval which would permit a security fence only along the east-west paseo, and the project would be required to maintain public access between the hours of 7:00 a.m. and 11:00 p.m.

Planning Commission Discussion and Staff Response

Commissioner Yesney noted her enthusiasm with the project design and asked the architect what efforts were made to enhance the roofline. The project architect noted the team first considered how the project design could be broken down and formed into masses that respond to lighting. Next, the design team cut away (chamfered) the ends of the development's towers. This helped shape the development so that when you look at the three towers along Park Avenue or West San Fernando Street, they are all distinctly shaped and appear to have different heights even though they have the same height. Another method the design team used to enhance the skyline is that the connecting pedestrian bridges between the project towers do not extend to the top of the building, so the roofline height changes with the pedestrian bridges.

Commissioner Allen asked why only one community meeting was held for the project. Staff noted, the community outreach was conducted in accordance with the City Council Outreach Policy 6-30 and only one meeting was required with notification to properties within 1,000 feet of the project site. Staff noted, the majority of concerns raised during the meeting pertained to historic resources and that the project was presented twice to HLC for public comments and Commissioners' comments. Commissioner Allen agreed the City Council Outreach Policy 6-30 is limited and that a project of this magnitude merits more community outreach. He also commended the requirement for 50% of the construction barrier to include public art and urged the applicant to consider 100% public art on the construction barrier.

Commissioner Oliverio noted he attended the project's community/scoping meeting and that he appreciates community meetings held with City staff. Commissioner Oliverio then asked staff to identify if any of the concerns raised in the public hearing, comment letters, or SEIR raised any concerns for proceeding forward. Staff noted that eight comment letters were received during the SEIR circulation and were responded to in the First Amendment to the SEIR. No comments were raised that changed the analysis of the project or provided new information that would result in a new significant impact or mitigation measures different from those analyzed and disclosed in the SEIR. Commissioner Oliverio stated he did not support deferral of the project.

Chair Ballard stated Downtown needs to be a leader in transportation and that this project includes a very large amount of parking. She indicated that she is concerned with the conflict of the project's two driveways and associated traffic lights along West San Fernando Street with bicyclists, given that it is a Better Bikeways Street. Planning and Public Works staff noted the site access points were limited due to constraints on other project frontages, including the pedestrian focus of the redesigned Park Avenue and the one-direction of South Market Street. The new traffic lights on West San Fernando Street would align with streets that currently end at the project site. Staff stated that given existing car volumes on South Almaden Boulevard, the applicant and staff coordinated on the best path forward to reduce the number of project curb cuts while preventing congestion on the surrounding streets. The project referred to the Better Bikeways Plan and conducted a Local Transportation Analysis which informed design of the project. Staff noted the traffic lights on West San Fernando Street were also necessary to support the project's loading areas along West San Fernando Street. Public Works staff added that even with the reduction of parking spaces on the project site, the West San Fernando Street traffic lights would be warranted for the safe operations in this Downtown area.

Commissioner Ballard asked if any preservation alternatives were considered in the SEIR which included construction above the Bank of California/Sumitomo Bank Building, similar to what is done in some European cities. She also asked if the applicant would be coordinating the bicycle parking details with a bicycle consultant. The project's architect, Ben Tranel, stated the design team evaluated several preservation options with PAC*SJ, including construction over the building; however, this option has significant challenges including the need to use columns to support the new structure which could negatively impact the historic structure. He also indicated that the bicycle room details are still being developed, but the goal would be to provide a first-

class experience with the on-grade, well-connected bicycle rooms. He also identified the project would be constructing permanent Class 4 bicycle lanes along West San Fernando Street.

Commissioner Yesney made a motion to approve staff's recommendation for the Planning Commission to recommend that the Council adopt a resolution certifying the SEIR, adopt a resolution approving the Site Development Permit for the project, and that the Council evaluate the parking for the project and the developer should work with City staff regarding any potential further parking reduction. Commissioner Oliverio seconded the motion.

Commissioner Yesney stated, in recognition of Chair Ballard's concerns, that the Planning Commission would recommend that the City Council evaluate the necessary parking for the site but did not want to recommend any specific parking limitations. She noted although the number of parking spaces is large, the project in its entirety would revitalize a portion of Downtown and that changing the parking or driveways could significantly and negatively impact the project. She further shared that in her experience, the design of the existing site has been problematic which is why this redevelopment project, like many other redevelopment projects in the state, is currently being enhanced and redeveloped. She stated that if Environmental Impact Reports analyzed all possible alternatives, there would never be an end to the analysis. Finally, she stated that her biggest concern with the preservation of the Bank of California/Sumitomo Bank Building on the site is that Brutalist Architecture, as the name suggests, is not appropriate for preservation in the City.

Commissioner Oliverio commented that the demolition of the Main Library in San José for the Convention Center is similar to this project where the demolished historic building would be replaced with a new project that would bring value to Downtown and the City as a whole through the addition of jobs.

Commissioner Bonilla stated after spending time in this part of the City, it is clear this part of Downtown needs revitalization. He shared his decision is based on the totality of the project to move the City forward and not just one aspect. He reiterated that in its entirety, the project will bring many benefits to the City.

Commissioner Allen noted his support of Commissioner Yesney's sentiments on Brutalist architecture and support of the project. He stated his concerns with the parking and impact to bicycle lanes while understanding the need for transit safety. While he would prefer less parking, he noted that this is a project review rather than a policy review and that work is needed at the policy level to make parking reduction changes.

Chair Ballard concluded that tough decisions must be made to stop accommodating cars and stated her hope that the City Council will continue to work with the applicant to reduce parking. She highlighted the great strides taken by City Council already to resource a City Bicycle and Transportation team.

The motion to recommend that the Council adopt a resolution certifying the SEIR, adopt a resolution approving the Site Development Permit for the project, and that the Council evaluate the parking for the project and the developer should work with City staff regarding any potential further parking reduction for the project was approved unanimously (6-0-0).

ANALYSIS

Analysis of the proposed CEQA clearance and Site Development Permit, including conformance with the General Plan, and City Council policies are contained in the attached staff report.

Letters Received

The public comments received leading up to the Planning Commission hearing do not identify inadequacies in the Draft SEIR or present new previously unidentified significant impacts that require recirculation.

Letters of support were submitted by Chuck Reed, Rod Diridon, and Tom McEnery, stating the benefits the development would bring to the City and Downtown. These letters also stated the lack of historic value of the Bank of California/Sumitomo Bank Building.

Letters in support of the preservation of the Bank of California/Sumitomo Bank Building that were submitted include letters from PAC*SJ (described below) and a letter from Michael Hirsch representing the Society for Commercial Archeology.

The May 20, 2020, PAC*SJ letter and attachments stated that the Draft SEIR and response to comments in the First Amendment lacked detailed analysis on the feasibility of preservation alternatives. Additionally, the PAC*SJ deferral request, dated May 27, 2020, stated that the SEIR made assertions that were not supported with sufficient data. Staff notes that CEQA case law refers to the level of detail necessary for alternatives analysis. In the court case, *Al Larsen Boat Shop, Inc. v. Board of Harbor Commissioners*, the court explained the governing rule as follows:

“No ironclad rules can be imposed regarding the level of detail required in the consideration of alternatives. EIR requirements must be “sufficiently flexible to encompass vastly different projects with varying levels of specificity”. The degree of specificity required in an EIR “will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.” Thus, “... an EIR for the adoption of a general plan... must focus on secondary effects of adoption, but need not be as precise as an EIR on the specific projects which might follow.”

Staff finds the level of detail provided in the Draft SEIR and First Amendment is appropriate for the type of project being considered and achieves the level of specificity required.

The PAC*SJ letter, dated May 27, 2020, identified concerns with the rejection of the SEIR Reduced Development Alternative 2 and the Preservation Alternative 6. Pursuant to CEQA Guidelines Section 15124 (b), staff used the SEIR project objectives in the analysis for the

Statement of Overriding Considerations findings in the staff report and resolution. Furthermore, consistent with CEQA Guidelines Section 15126.6(c), in consideration of the project alternatives, staff considered if the SEIR alternatives to the proposed project could feasibly accomplish most of the basic objectives of the project while lessening one or more significant effects. One of the factors that may be used to eliminate alternatives from detailed consideration in a SEIR is the failure to meet most of the project's objectives.

On May 26, 2020, the applicant submitted a packet of materials from subject matter experts including:

- Historic Consultant's Page and Turnbull Memorandum, dated May 22, 2020
- Response to Additional Proposed Alternatives prepared by the architect, Gensler and Associates.
- Development Alternatives for 170 Park Center Plaza prepared by Structural Engineers, Magnusson Klemencic Associates.
- City View Project #H19-016 – 170 Park Center Plaza Development Alternatives prepared by the architect, Gensler and Associates.
- City View Project #H19-016 – 170 Park Center Plaza Development Alternatives prepared by Commercial Real Estate Brokers Newmark Knight Frank.
- 170 Park Cost Studies prepared by the General Contractor, Level 10 Construction.
- Letter titled: 170 Park Ave, Site Survey of Existing Building prepared by Level 10 Construction with sub-contractor reports including:
 - Hazardous Materials Inspection Report, 170 Park Avenue prepared by Van Brunt Associates, Inc.
 - Memorandum Regarding Existing HVAC Systems prepared by Crutchfield Mechanical, Inc.
 - 170 Park Electrical / F.A. Survey prepared by Redwood Electrical Group.
 - Review of Existing Plumbing Systems prepared by ACCO Engineered Systems.
 - Temporary Excavation Shoring Issues Associated with Existing Building at 170 Park Avenue prepared by underground shoring subcontractor, Briereley and Associates Corporation

Additionally, on May 27, 2020, the applicant submitted two additional comment letters from subject matter experts to respond to PAC*SJ's May 26, 2020 letter including:

- Response to PAC*SJ's May 26, 2020 comment letter by Architect Gensler and Associates, dated May 27, 2020.
- Response to PAC*SJ's May 26, 2020 comment letter by Structural Engineers, Magnusson Klemencic Associates, dated May 27, 2020.

The provided information responded to PAC*SJ's concerns and further explained the viability of Sumitomo Bank Building preservation alternative to the project. This additional information is added to the project's public and administrative record. Staff notes, since the Planning Commission, the Environmental Resolution alternatives findings were augmented with the additional support materials provided by technical consultants for the applicant. This additional

information is not new significant information which would require recirculation of the Draft SEIR.

CONCLUSION

The Planning Commission voted 6-0-0 to recommend that the City Council adopt a resolution certifying the SEIR, adopt a resolution approving the Site Development Permit for the project, and that the Council evaluate the parking for the project and the developer should work with City staff regarding any potential further parking reduction.

EVALUATION AND FOLLOW-UP

Should the City Council certify the SEIR, adopt the associated MMRP and approve the Site Development Permit, the applicant will be able to move forward with the building permit process for the project including the demolition of all on-site buildings, including the candidate City Landmark Buildings, the removal of 14 ordinance size trees and the 24-hour construction of an approximately 3.79 million-square-foot development comprised of 24,000 square feet of ground floor retail and 3,640,033 square feet of office space.

CLIMATE SMART SAN JOSE

The recommendation in this memorandum aligns with one or more Climate Smart San José energy, water, or mobility goals. The project would increase the intensity (jobs/acre) of the site and would implement design features for a high-performing, energy-efficient development. The project facilitates job creation within City limits and due to its accessible location, facilitates mobility choices other than single-occupancy, gas-powered vehicles.

PUBLIC OUTREACH

Staff followed Council Policy 6-30: Public Outreach Policy, whereby, the project is considered a large development proposal. Following City Council Policy 6-30, the applicant posted the on-site signs on each project frontage to inform the neighborhood of the proposed project. One community/scoping meeting was held to discuss the project on August 19, 2019. Comments received during the community meeting and project review are further discussed in the attached Planning Commission Staff Report. The community meeting was coordinated with Council District Office 3.

Staff's contact information has also been available on the community meeting notices and on the project webpage. The staff report is also posted on the City's website. Staff has been available to respond to questions from the public.

COORDINATION

Preparation of this memorandum has been coordinated with the City Attorney's Office.

CEQA

A Supplemental Environmental Impact Report (SEIR) (Sate Clearinghouse Number 2018022032) to the Downtown Strategy 2040 Environmental Impact Report (Resolution No. 78942), was prepared by the Director of Planning, Building and Code Enforcement for the CityView Office Project (H19-016), in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study prepared for this project concluded that implementation of the project would result in significant impacts to air quality, biological resources, hazards and hazardous materials, land use, noise, and cultural resources; therefore, an SEIR was prepared for the project.

The Draft SEIR determined that the project would result in significant unavoidable impacts which could not be mitigated to the following resources:

- **Air Quality Impact AIR-1:** Construction activities associated with the project would result in nitrogen oxide (NOX) emissions in excess of Bay Area Air Quality Management District (BAAQMD) thresholds.
- **Air Quality Impact AIR-2:** Construction activities associated with the proposed project would expose infants near the project site to Toxic Air Contaminants (TAC) emissions in excess of BAAQMD thresholds. In addition, construction activities on-site would expose sensitive receptors to particulate matter of 2.5 microns or less (PM2.5) emissions in excess of acceptable thresholds.
- **Cultural Resources Impact CUL-1:** Implementation of the project would result in the demolition of the historic Park Center Plaza, including four buildings which are individually historic and contributors to the historic significance of the Park Center Plaza.
- **Land Use and Planning LND-1:** The project would have a significant unavoidable shade and shadow impact on Plaza de César Chávez creating a 10% increase in shadows on the public park.
- **Noise Impact NOI-1a:** Implementation of the project would result in a permanent traffic noise level increase in the project vicinity.
- **Noise Impact NOI-1b:** Project construction would last for a period of more than 12 months and nighttime construction would exceed steady noise levels of approximately 35 decibels (dBA) and fluctuating noise levels of approximately 45 dBA which would impact hotel guests, interim housing residents, and future residents.

Mitigation measures were developed to lessen the following impacts to less than significant levels: Biological Resources—bird strikes on the development’s bridges; Hazards and Hazardous Materials; exposure of construction workers and nearby land uses to hazardous materials. Standard Permit Conditions, which include best management practices, related to air quality, compliance with the Santa Clara Valley Habitat Plan, Building Code for seismic safety of the building, erosion control during construction activities, protection of unknown subsurface resources, protection of construction workers from hazards related to asbestos containing materials and lead-based paint, water quality impacts during construction, and impacts to public facilities were incorporated into the project conditions.

An SEIR Scoping meeting was held on August 19, 2019, during the circulation of the project’s Notice of Preparation. The Draft Supplemental Environmental Impact Report (Draft SEIR) was circulated for public review and comment from March 11, 2020 through April 24, 2020. Eight comment letters were received during circulation. A First Amendment to the Draft SEIR was prepared to provide responses to public comments submitted during the public circulation period and revisions to the text of the Draft SEIR. The First Amendment, taken together with the Draft SEIR, constitutes the Final SEIR. The Draft SEIR and First Amendment to the Draft SEIR are available for review on the project page on the City’s Active EIRs website at: www.sanjoseca.gov/ActiveEIRs.

SEIR Recirculation Unnecessary

The public circulation comments, and comments received leading up to the Planning Commission hearing, in addition to testimony during the hearing, do not identify inadequacies in the Draft SEIR or present new previously unidentified significant impacts that require recirculation. The recirculation of a SEIR is required when significant new information is added to the SEIR after public notice is given of the availability of the Draft SEIR for public review but before certification. “Information” can include changes in the project or environmental setting as well as additional data or other information. New information added to a Draft SEIR is not “significant” unless the Draft SEIR is changed in a way that deprives the public of meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (CEQA Guidelines Section 15088.5).

HONORABLE MAYOR AND CITY COUNCIL

June 3, 2020

Subject: File No. H19-016

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No new significant information has been added to the SEIR since publication of the Draft SEIR; therefore, it does not need to be recirculated.

/s/

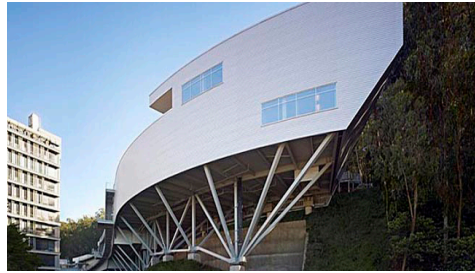
Rosalynn Hughey, Secretary
Planning Commission

For questions, please contact Planning Official, Robert Manford, at (408) 535-7900.

Attachments: [Planning Commission Packet including:](#)

- [The comment letters and subject matter expert letters received leading up to the hearing.](#)
- [PAC*SJ April 2020 letter, requested to be added to the public record at the Planning Commission Meeting.](#)
- [Roofline Slide, presented at Planning Commission Meeting](#)

CV's and relevant experience supplementing the applicant's 170 Park Historic Preservation Infeasibility Report



Rob McKenzie

Sr. Project Manager

Years of Experience - 13

Years with ACCO - 13

EDUCATION

California State University
Chico, CA

Degree: Business

UCSF - IRM

San Francisco,, CA

LEED Gold-75,000 sf new construction located on UCSF's Parnassus Campus comprised of offices and laboratories. Designed with four independent pods allowing the building elevation to change with the surrounding landscape. Each pod is connected to other campus buildings via an open air bridge. BIM was extensively used.

Stanford Neuroscience Health Center

Palo Alto, CA

Stanford's newest 94,605 sf, 5-story Medical Office Building ACCO was the Design Builder of this OSHPD 3 MOB, and included many specialty rooms for exams, blood draw, PET imaging and CAT scans. Medical gases throughout included, Vacuum, Medical Air and O2.

Taube-Koret Campus for Jewish Life

Palo Alto, CA

Design Build of new construction of 193 living units, multiple classrooms, pools, gym, 3 kitchens, offices, meeting rooms, a culture center and conference rooms. The center is 12 separate buildings situated over a large parking garage, with two boilers servicing all of the buildings over the 12.5 acre campus.

Genentech Building 34

South San Francisco, CA

New ground up 70,000 sf building dedicated to employee wellness. Included a greywater system that collected water from showers located within the gym and processed the water for a reclaim system feeding toilets, urinals and irrigation. The design process was a big room approach with all designers, builders and owner being highly collaborative through the process.

Merck

South San Francisco, CA

Design Build 280,000 sf, 9-story pharmaceutical laboratory. The lab is supported by pre-clinical animal rooms and general office space. Also included is a large auditorium, server facility and cafe with dining. Plumbing and Process scope included (6) different lab gases, CDA, Vacuum, Lab & Domestic waters, DI water, lab & sanitary waste, LN2, LCO2 and animal drink water. We were able to work directly with Ownership and the General Contractor to meet a demanding design/coordination schedule and a 12 month rough in schedule.

ERIC S. LINDQUIST, PhD, PE

PRINCIPAL/DIRECTOR OF ENGINEERING

Dr. Lindquist is the Director of Engineering for Brierley Associates' nationwide practice and has 26 years of experience in the design of heavy construction facilities for owners, engineers, and contractors, with an emphasis on geotechnical engineering and the design of underground structures. Prior to joining Brierley Associates in 2011, he was a founding partner and president of Berti-Lindquist Consulting Engineers, a California-based consulting firm providing engineering for heavy civil construction projects. In addition, he has four years of experience performing research in geotechnical engineering and rock mechanics.

His design experience includes temporary and permanent support of excavation and earth retaining structures, underpinning, slope repairs, tunnels, shafts, trestles, retaining walls, cofferdams, shallow and deep foundations, and pipelines. He has designed a variety of primary supports for tunnels and shafts, including steel ribs, liner plates, jet grout, rock bolts, and shotcrete. Additionally, he has been involved in the design of permanent tunnel liners using cast-in-place concrete, shotcrete, steel pipe, and concrete pipe. He has also analyzed and designed structural rehabilitation systems for pipelines. His excavation support design experience includes tied-back and internally-braced systems using sheet piles, deep-soil-mix walls, concrete secant piles, slurry diaphragm walls, soldier piles and lagging, tremie concrete seals, and dewatering systems. He has also designed artificial ground freezing, soil-nailed, and rock-bolted systems for excavation support. His deep foundation design experience includes drilled piers, driven concrete and steel piles, augercast piles, drilled displacement piles, and micropiles. His above-ground design experience includes temporary railroad bridges, heavy equipment support decking/trestles, falsework for new concrete placement and temporary supports for existing structures.

He has provided forensic and expert witness consulting associated with earth retaining structures, tunnels, deep foundations, and bridge retrofit projects.

Dr. Lindquist completed his Ph.D. dissertation on the strength and deformation properties of melange (complex rock bodies made up of stronger blocks embedded in a weaker matrix material). Through his research, he gained detailed knowledge of geotechnical testing and rock characterization techniques. Dr. Lindquist's dissertation was nominated for the Rocha Medal, the annual award presented to the top dissertation in the field of rock mechanics in the world. He was awarded the 1991 Harry Bolton Seed Award as the top graduate student in the U.C. Berkeley Geotechnical Engineering Department. In 1990 he was one of only six U.C. Berkeley undergraduates awarded a Certificate of Distinction for his academic work. In 1995 and 1996 he returned to U.C. Berkeley as a visiting lecturer, teaching a course in geological engineering and rock mechanics.

While working for PBQ&D, Dr. Lindquist was a part of the Yucca Mountain High-Level Nuclear Waste Repository design team. His responsibilities included thermal analyses of the rock mass to study the effects of various nuclear waste emplacement schemes (in conjunction with scientists at Sandia National Laboratory) and excavation stability studies.



Years of Experience: 26

Years with Brierley: 8

Education

PhD, Geotechnical Engineering,
University of California, Berkeley,
1994

MS, Geotechnical Engineering
University of California, Berkeley,
1991

BS, Civil Engineering, University
of California, Berkeley, 1990

Professional Registration

Professional Engineer
CA (56713)

Professional Structural Engineer
UT (6524331-2203)

Professional Societies

M.ASCE

Deep Foundations Institute

ACI

AISC

RELEVANT PROJECTS

EXCAVATION SUPPORT AND UNDERPINNING

181 Fremont Street Tower, San Francisco, CA

Role: Principal-in-Charge & Project Manager

2018 Deep Foundation Institute Outstanding Project Award

Designed temporary shoring system of 60-foot deep basement excavation for a new highrise building in downtown San Francisco. The support of excavation systems consists of cutter soil mix (CSM) shoring/cut-off walls and four levels of preloaded internal bracing. The excavation is immediately adjacent to the massive Transbay Transit Center (TTC) shored excavation. Brierley also designed two temporary trestles and the tower crane foundation for the project.

Silicon Valley Clean Water Front of Plant Project

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Brierley is the design engineer for the combined Receiving Lift Station (RLS) and Surge and Flow Splitter (SFS) shaft structures for the Shea-Parsons JV design-build team. The SFS will also be used as the receiving shaft for the adjacent Gravity Pipeline project tunnel. The shaft structure is two interconnected circular slurry diaphragm walls with a cast-in-place reinforced concrete liner and reinforced concrete base slabs. The slab of the larger and deeper RFS shaft is held down by deep barrettes. The RFS and SFs have excavated depths of 92 feet and 88 feet and finished inside diameters of 66 feet and 34 feet. The site soil conditions include a thick layer of soft Bay Mud and the design groundwater level is at the ground surface. The shaft design considers all stages of construction and was prepared to California Building Code and ACI 350 requirements. Detailed static and seismic soil structure interaction was performed to demonstrate the sufficiency of the shaft structure.

California Pacific Medical Center, Pedestrian Tunnel at Van Ness Avenue, San Francisco, CA.

Role: Principal-in-Charge, Project Manager and Engineer-of-Record.

The new California Medical Center in San Francisco includes a pedestrian tunnel linking the new hospital and medical office buildings that are located on opposite sides of Van Ness Avenue (Caltrans Highway 101). Brierley teamed up with Malcolm Drilling Company in a design-build arrangement to deliver the pedestrian tunnel for the project. Eric managed the design and was engineer-of-record for the new concrete box pedestrian tunnel as well as the temporary support of excavation, temporary precast concrete street decking system, and temporary utility supports that allowed the cut-and-cover tunnel to be constructed with minimal disruption to traffic (limited weekend closures). Both the temporary and permanent structures designs were prepared to Caltrans' design standards and were subjected to the thorough Caltrans' review and approval process.

Mormon Island Auxiliary Dam Key Block Project, Folsom, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

ENR California Best Project Award - 2013

The MIAD Key Block is a 55-foot wide, 900-foot long area at the toe of the existing 110-foot high earthfill dam from which the soils are being excavated and replaced with lean concrete and select fill in order to improve the safety of the dam during a major seismic event. Designed cross-lot braced secant pile shoring system for the 80-foot maximum deep Key Block excavation. Shoring was designed to provide ground support and groundwater cut-off through highly permeable, saturated dredged alluvium (poorly graded to silty sand with cobbles and occasional boulders) and toe penetration into variably weathered amphibolite schist bedrock.

Texas Capitol Complex Phase 1 Expansion, Austin, TX

Role: Principal-in-Charge

The Phase 1 Expansion includes an addition of two new State office buildings and five levels of underground parking to the existing Complex. Within an urban setting, significant coordination with adjacent major structures and utilities is necessary, which Brierley is using Revit modeling to accomplish. Brierley is providing design of the phased retention system for the approximately 40-to 65-ft deep, 500,000 CY excavation through overburden and limestone bedrock to construct the below-grade structures. The retention system is a combination of soil nails, soldier piling with tiebacks and rock anchors with a shotcrete facing. Due to the substantial scope of excavation, a significant number of utilities are temporarily located on a 150-ft span structure over the excavation. Brierley provided the structural design for this utility support, requiring extensive coordination with the excavation support and existing utilities located underneath the foundations. The underground excavation was located directly adjacent to several large vertical structures complicating the design and required additional support elements to ensure impact to these structures is avoided.

Transbay Block 9, San Francisco, California

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed 69-foot deep excavation support system utilizing a cutter soil mix (CSM) shoring/cutoff wall restrained by 4 levels of tiebacks and one lower level of internal bracing. Excavation was in close proximity to existing structures and utilities.

New Irvington Tunnel & Vargas Shaft, San Francisco Bay, Fremont, CA

Role: Principal-in-Charge and Project Manager

Designed temporary secant pile support for the 41-foot diameter by 115-foot deep shaft from which two tunnel headings are being advanced. Secant piles were designed to act as a compression ring through fill, colluvium and weak, fractured bedrock. Believed to be the deepest application of a stand-alone secant pile compression ring ever constructed.

Bertha TBM Access Shaft – Alaskan Way SR99, Seattle, WA

Role: Principal-in-Charge

Project Manager for the design of an 80-ft inside diameter unreinforced secant pile shaft. Design analysis included finite element modeling using RISA 3D and Midas Geotechnical Tunnel System for structural and hydraulic analyses, Scope also included the TBM cradle design, dewatering design, gantry crane foundation analyses, instrumentation, settlement analyses and claims support. Unanticipated subsurface conditions were encountered near the base of the shaft and beneath the secant pile tips. Instead of a hard cohesive material, a cohesionless silt deposit was encountered during drilling for dewatering wells. As a result, an extensive dewatering and de-pressurization system was required to control base stability as the excavation advanced to 115-ft depth. The rescue shaft was comprised of overlapping secant piles that ranged in diameter from 3-to 10-ft. Settlement Mitigation Piles (SESMP's) had been installed along each side of the TBM alignment to control tunneling-induced ground deformation. It was, therefore, necessary to interweave the rescue shaft secant piles and the SESMP's and grout the interstitial spaces to create a continuous wall.

350 Mission, San Francisco, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

The new highrise at 350 Mission includes a three level basement. Designed the internally-braced cutter soil mix (CSM) shoring/cut-off wall for the 50-foot deep excavation. Brierley also design two temporary trestles and the tower crane foundation for the project.

Trinity Phase III – Temporary Support Excavation, San Francisco, CA

Role: Principal-in-Charge and Project Manager

2018 AGC California Constructor Award

Designed temporary shoring system for a large basement excavation in close proximity to existing buildings and city streets. The 63-foot maximum deep excavation was shored using a cutter soil mix (CSM) shoring/cut-off wall with four levels support (a combination of tiebacks and internal bracing). The CSM wall penetrated into the Old Bay Clay to effectively cut off of groundwater inflow into the excavation.

VTA Berryessa BART Extension, Fremont and Milpitas, CA

Role: Principal-in-Charge

Principal-in-Charge for the design of temporary sheet pile support systems for thousands of feet of internally-braced shored trench and a below grade station structure. Design scope also includes the temporary support of excavation systems and temporary deep foundations for multiple roadway bridges constructed using top-down construction techniques. Additionally, during the design-build proposal preparation process, consulted with another design-build team regarding the design of the permanent trench structures, including means of resisting hydrostatic uplift, in accordance with the contractually-specified design criteria.

Third Street Light Rail Program Phase 2 – Central Subway Tunnels Contract, San Francisco, CA (Launch Box)

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

The Launch Box for this project is located on Fourth Street underneath the I-80 aerial structural in San Francisco. Designed cross-lot bracing to restrain the contractually-specified diaphragm walls. Provided peer review for the contractor-proposed alternate (SPTC) diaphragm wall design. Also designed temporary street decking system consisting of transverse steel beams and precast concrete deck panels.

Alta Bates Parking Garage Retaining Wall, Oakland, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Engineer of record for the permanent tied-back soldier pile retaining wall with shotcrete facing that allowed the new parking garage to be constructed into an existing hillside. The new 40-foot maximum tall retaining wall was constructed just downslope of an existing three story parking garage that had to be protected in place.

UCSF Institute of Regeneration Medicine, San Francisco, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed 900 feet of permanent soil nail retaining walls up to 35-foot tall that permitted development of a new high tech facility on a difficult hillside site. Issues to be addressed included complex geology, high seismic demands on the final structure, and lack of access for construction.

BART Warm Springs Extension - Central Park Subway, Fremont, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

California Transportation Foundation Project of the Year for 2017

Designed cross-lot braced cement deep soil mix (CDSM) and sheet pile support of excavation system required to construct the BART extension through Fremont Central Park. Project included a roadway temporary bridge crossing at Stevenson Avenue, a temporary cofferdam that permitted construction of the subway through Lake Elizabeth, and shoring adjacent to an active Union Pacific Railroad line.

Newport Trunk Sewer and Force Mains, Newport Beach, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed a 30-foot diameter, 55-foot deep jacking shaft and a 20-foot diameter, 46-foot deep receiving shaft for a microtunnel crossing under Santa Ana River. The geotechnical conditions at the shaft locations were permeable coarse grained soils with groundwater less than 5 feet below the ground surface. Support of excavation system consisted of a cutter soil mixing (CSM) soil-cement panels acting in ring compression. Unreinforced tremie concrete slabs with tiedown anchors were utilized as the bottom seals for both shafts. Also designed the structural elements required at the microtunnel break-out and break-in locations and the thrust blocks to resist the MTBM jacking forces.

Dumbarton Bridge Ravenswood Pier 1 Removal, Menlo Park, CA

Role: Lead Designer and Engineer of Record for Cofferdam

Designed an internally-braced sheet pile cofferdam with a tremie concrete base slab in San Francisco Bay to allow the removal the original Dumbarton Bridge's Pier 1. The 24-foot wide by 46-foot long cofferdam allowed the removal of the bridge pier to 5 feet below mudline, which is about 39 feet below water level at high tide. The cofferdam utilized two levels of internal bracing (with the upper level utilized as a driving template), excavation in the wet to full depth, and a 5-foot thick tremie concrete plug cast around the lowest portion of the pier that was to be left in place.

RD108 Combined Pumping Plant/Fish Screen Project, Grimes, CA

Role: Project Engineer

Designed a 39-foot wide by 98-foot long internally braced sheet pile cofferdam extending into the Sacramento River to allow the construction of a new pump plant and fish screen. The pin pile-supported bracing level was utilized as a driving template for the sheet piles. The cofferdam was designed with a single level of internal bracing to retain up to 42-feet of water head.

Contra Costa Water District Alternative Intake Project – Victoria Canal Conveyance Pipeline, Discovery Bay, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed a 30-foot diameter, 95-foot deep jacking shaft and a 20-foot diameter, 70-foot deep receiving shaft for a microtunnel crossing under Old River. Support of excavation was provided by cutter soil mixing (CSM) soil-cement panels acting in ring compression supplemented by a shotcrete lining installed as the excavation was advanced. Also designed the structural elements required at the microtunnel break-out and break-in locations and the thrust block to resist the MTBM jacking forces.

Metro Eastside LRT Project – Tunnel and Station Excavations, Los Angeles, CA (Shafts)

Role: Project Manager

Designed cross-lot braced and tied-back soldier pile and lagging excavation shoring systems supporting temporary street decking for excavations up to 60 feet deep in a crowded urban environment for two new subway stations and tunnel portal structures.

Kalaheo Avenue Reconstructed Sewer - Phase 1, Kailua, Oahu, HI

Role: Project Manager

Designed over 20 jet grouted microtunnel launching and retrieving shafts. Geotechnical conditions were highly permeable clean sands overlying coralline limestone with groundwater within a few feet of the existing grade. Dewatering was infeasible due to high inflow rates. Overlapping jet grouted columns were used to create a compression ring to support ground and water loads in the circular shafts and to provide a low permeability bottom seal.

Perris Valley Pipeline - North Reach, San Bernadino, CA (Shafts)

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed the ground support for a 55-foot deep tunnel launch shaft excavated through residual soil overlying variably weathered granite. The upper portion of the excavation is a shotcreted sloped cut and the lower vertical cut is being supported using rock bolts with shotcrete or chain link fabric surface protection.

LNWI New Natomas and South River Pump Stations, Sacramento, CA

Role: Project Manager

At New Natomas designed tied-back sheet pile shoring for a 55-foot deep excavation for a new pump station structure. At South River designed tied-back deep-soil-mix shoring for a 45-foot deep excavation for a new pump station structure. Project challenges included a high groundwater table.

Santa Clara Station Platform and Pedestrian Underpass Project, Santa Clara, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Retained by the general engineering consultant (Parson Brinckerhoff) to prepare contract plans and technical specifications for the excavation shoring systems that will be required to construct a new pedestrian underpass at Caltrain's Santa Clara Station. Project challenges include shoring active commuter rail lines and the presence of a high groundwater table.

South CTX – Lawrence Station Pedestrian Underpass, Sunnyvale, CA

Role: Project Manager and Engineer-of-Record

Retained by the excavation shoring sub-contractor to provide value engineering for the contract-specified deep soil mix (DSM) excavation shoring system that was required for the construction of a pedestrian underpass at Caltrain's new Lawrence Station. Worked with the shoring sub-contractor and the general contractor to make the shoring system lighter and more constructible. The revised design reduced the weight of the shoring wall steel by about 300,000 pounds (approximately 25%) and reduced the number of bracing levels from a maximum of four to a maximum of two. Also, performed structural analysis and designed temporary foundations for an existing pedestrian overpass that was relocated to serve the temporary station platforms during construction.

Diridon Station – Ramp, Platform and Track Improvements, San Jose, CA

Role: Project Manager and Engineer-of-Record

Prepared contract plans and technical specifications (contract documents) for temporary excavation shoring required to reconstruct the existing platform access ramps at the main San Jose Caltrain station for ADA compliance. Shoring consists of cantilever and braced soldier piles and lagging and braced tangent piles. Project complexities include limited overhead clearance (less than 18 feet) for shoring installation, the requirement that a portion of the existing ramp structure be temporarily underpinned and retained, and the close proximity of the closest active railroad track to the shored excavation (approximately 11 feet from centerline of track). Also, prepared technical specification for temporary support of the existing platform canopy as required for the demolition and replacement of the existing canopy foundations.

San Francisco Municipal Railway – Third Street Light Rail Transit – Donner Ave to Hester Ave, San Francisco, CA

Role: Project Manager and Engineer-of-Record

Prepared an excavation shoring design employing cross-lot braced and cantilevered soldier piles and lagging for a grade separated light rail line along Third Street in a congested urban environment. Designed temporary rock bolting for near vertical cuts up to 20 feet high in highly fractured Franciscan Formation sandstone and shale, including an excavation less than 5 feet from a restaurant that remained open during construction. Designed shoring for miscellaneous bridge and retaining wall foundation excavations. Performed stability analysis for staged soil nail wall construction

PCJPB Engineering Standards for Excavation Support Systems

Role: Principal-in-Charge and Project Manager

Authored the manual entitled “Engineering Standards for Excavation Support Systems” on behalf of the Peninsula Corridor Joint Powers Board (PCJPB). Document presents the design and construction monitoring requirements for all shored excavations to be constructed within the PCJPB’s Zone of Influence.

Vasona Light Rail – Diridon Tunnels, San Jose, CA

Role: Project Manager and Engineer-of-Record

This complex project involves the construction of a cut-and-cover light rail tunnel and a pedestrian tunnel extension beneath the existing rail yard (12 tracks) at the main San Jose train station. Prepared detailed designs for the excavation shoring systems and a temporary rail bridge required for the construction of the cut-and-cover tunnels. These designs were included in the project’s contract documents. Cross-lot braced, deep-soil-mix walls were used to shore and cut-off groundwater inflows into the 30-foot deep cut-and-cover tunnel excavations.

Uptown Development, Oakland, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed over 8000 square feet of cantilevered soldier pile and lagging excavation shoring for the shoring subcontractor. The depth of excavation was up to 14 feet. Wide flange soldier piles were installed using the deep soil mixing method.

Emery Station East, Emeryville, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed over 15,000 square feet of cantilevered soldier pile and lagging excavation shoring for the shoring subcontractor. The depth of excavation ranged from 15 and 18 feet. Wide flange soldier piles were installed using the deep soil mixing method.

The Sequoias Health Services Facility, Portola Valley, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed tied-back hand dug piers and slant drilled piles to underpin the existing Lodge Building at The Sequoias Health Services Facility. Also designed tied-back and cantilevered temporary soldier pile and lagging excavation shoring. The shoring and underpinning was required to construct the basement level of the new Health Services Building adjacent to the Lodge Building. The design was performed for the shoring and underpinning contractor.

Cannery Row Hotel - Monterey, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed temporary soil nail shoring to support excavations for the new hotel basement. Challenges included protecting a historic building immediately adjacent to the planned excavation and the need to accommodate extremely heavy surcharge loads from a large crane.

BART-to-SFO Line Contract, Millbrae & San Bruno, CA

Role: Project Engineer and Project Manager

Reviewed all excavation shoring designs for the BART extension to the San Francisco Airport project that were within the influence of the main line Caltrain railroad tracks on behalf of the Peninsula Corridor Joint Powers Board (PCJPB). Excavation shoring types reviewed included cross-lot braced sheet pile and deep soil-mix wall cofferdams below the water table and adjacent to the live railroad tracks. Excavations were up to 45 feet deep.

Caltrans' Seventh Street Seal Slab, Oakland, CA

Role: Project Engineer

Supervised the design of over 7500 lineal feet of cantilever and tiedback deep-soil-mix wall for the soil-mix subcontractor. The shoring walls provided support for excavations up to 28 feet deep, some of which were very close to existing spread footings supporting the elevated BART rail line in West Oakland. Provided analysis and design improvements for a shaft support system used to install 8-foot diameter, 50-foot deep caissons within 8 feet of the existing BART footings, and designed a 40-foot deep cross-lot braced cofferdam for the construction of the seal slab pump station. This project received the ASCE Golden Gate Chapter Project of the Year Award.

Jefferson Avenue Underpass, Redwood City, CA

Role: Project Manager

This project involved the construction of a grade separation along the main line JPB tracks at Jefferson Avenue. Designed tied-back and cross-lot braced excavation shoring, foundations for a temporary prestressed concrete railroad trestle, and falsework for a new railroad bridge for the general contractor. Deep-soil-mix, sheet pile, and soldier pile and lagging shoring walls were used for temporary support. Shoring for excavations up to 27-feet deep was required to be installed as close as one foot from existing structures, including a 4-story masonry apartment building.

Mallard Slough Pump Station, Baypoint, CA

Role: Project Manager and Engineer-of-Record

Designed a sheet pile cofferdam in very weak Bay Mud for the construction of a new pump station for the general contractor. The need to support very weak clay and peat soils, significant unbalanced cofferdam loading, and the need to support very large construction surcharges were the key design issues. Support for the cofferdam sheet pile walls was provided by the combination of a sheet pile deadman wall and cross-lot bracing.

Clean Water Islais Creek Contract "B" and "E", San Francisco, CA

Role: Project Engineer

Responsible for contractor submittal review and provided engineering inspection and redesign during construction for this portion of the transport/storage system for the City of San Francisco Clean Water Program. Engineering challenges on these sewer jobs included deep cuts in very poor soils below the groundwater table, tunneling underneath a commuter rail line through soils that had been pre-treated by jet grouting, and the replacement of an existing railroad bridge during two weekend single track outages.

Fries Avenue Force Main, Port of Los Angeles, CA

Role: Project Engineer

The Fries Avenue Force Main Project involved the construction of the new pipeline between Terminal and Mormon Islands at the Port of Los Angeles. Microtunnelling was utilized to install the pipe. Retained after the 85-foot deep driving shaft, supported using frozen ground, failed during excavation. Provided an analysis of the failure and worked on the design of the remedial ground support scheme that was utilized to successfully excavate both the driving and receiving shafts.

Aerojet Cast Bell Project, Folsom, CA

Role: Project Manager and Engineer-of-Record

Designed liner plate and steel rib support for two 15-foot diameter, 35-foot deep shafts within an existing building at the Aerojet facility for the general contractor. The shafts were required for the installation of pre-fabricated steel "bells" that will be utilized in missile fabrication.

Horse Creek Lift Station, Vacaville, CA

Role: Project Manager and Engineer-of-Record

Designed a 30-foot diameter, 32-foot deep shaft supported using liner plates and steel ribs for the construction of this new lift station for the general contractor. Excavation was performed successfully in sandy soils below the groundwater table.

TUNNELS

Northeast Boundary Tunnel (NEBT), District of Columbia

Role: Senior Review Panel Lead

Senior Review Panel Lead for this Design/Build project with Salini-Impregilo-Healy JV. NEBT is a 23-ft (7m) inside diameter tunnel that is approximately 27,000-ft (8.2km) long and ranges in depth from about 60- to 140-feet (18.2m to 42.6m). The alignment passes beneath a portion of the RFK Stadium parking lot, Langston Golf Course, National Arboretum, Mount Olivet Cemetery, New York Avenue, Amtrak Rail Yard, and a large section of Rhode Island Avenue. The project includes seven shafts ranging in depth from 77-ft (23.5m) to 155-ft (47.2m) with diameters varying from about 19.5 to 56-ft (5.9m to 17m). Associated with each shaft are near surface diversion and conveyance structures. The tunnel envelope will be within the Potomac Group soils consisting of clays, sandy soils and possibly mixed face conditions, such as a layer or layers of impermeable materials in combination with a layer or layers of water-bearing clean sands and gravels under pressurized conditions. Given the ground conditions, a Herrenknecht EPB-TBM has been selected to mine the tunnel.

EBMUD Claremont Tunnel Seismic Upgrade Project, Berkeley, CA

Role: Project Manager and Engineer-of-Record

Designed steel rib and lagging and shotcrete initial ground support systems for the tunneling contractor (Atkinson Contractors). Difficult ground conditions related to the highly sheared bedrock of the Franciscan Melange had to be addressed by the initial support of this water supply tunnel.

Inland Feeder Arrowhead East and West Tunnels, San Bernadino, CA

Role: Project Engineer

Dr. Lindquist was a member of the tunnel design team on this major water supply tunnel project. He assisted in developing the methodologies used to design the plain and stiffened steel tunnel liner alternates for this project. The tunnel lining was required to resist up very high external pressures (up to 1100 feet of hydrostatic head). Dr. Lindquist also assisted with the seismic analysis and design of the steel and concrete pipe lining alternates.

Contract I-10A, 66-inch Ellis Avenue Trunk Sewer, Fountain Valley, CA

Role: Project Manager

Dr. Lindquist was retained by the contractor to design the initial support for this TBM driven tunnel. Initial support consisted of steel ribs and wood lagging in better ground or a fabricated steel tunnel liner in poor ground conditions. Also designed hold-downs to prevent pipe flotation during backfill grouting.

Magenta Drain Access Tunnel, Empire Mine State Park, Grass Valley, CA

Role: Project Manager

The Magenta Drain Access Tunnel, located near the Empire Mine State Park in Grass Valley, California, collapsed during the heavy rains in January 1997. Developed the repair scheme, consisting of a combination of open-cut work for corrugated metal pipe installation, and re-mining of the collapsed tunnel. Directed production of the contract drawings and specifications for the repair work for competitive bidding, and managed the inspection of the work during construction.

Pipeline 5 Extension, San Diego County, CA

Role: Project Manager and Engineer-of-Record

Designed the primary support for three tunnels in an urban setting that cross under roadways, numerous utilities, and a creek with minimal cover for the tunneling contractor. Final tunnel support consists of 9-foot diameter steel pipe backfilled with cellular concrete. The project included a 600-foot long hard rock tunnel and a 70-foot long weak rock tunnel excavated by the drill-and-blast technique, as well as a 450-foot long soft ground (soil) tunnel excavated with a digger shield. Initial support types included rock bolts and steel ribs. Additionally, provided pipe flotation and ovaling analysis for the contractor's cellular concrete pipe backfill operations.

Pipeline 2A, San Diego County, CA

Role: Project Manager and Engineer-of-Record

Project manager for the design of initial support for a 650-foot long hard rock tunnel crossing beneath Interstate-15 north of Escondido, California, into which a 5.5-foot diameter pipe was installed. The original design called for steel rib support; however, refinements of the design were made as drill-and-blast excavation exposed ground conditions capable of being supported using Split Set friction stabilizers. Also designed a 60-foot deep shaft and analyzed pipe flotation and ovaling for backfill concreting operations.

Yerba Buena Island – Utility Tunnel, San Francisco, CA

Role: Project Manager and Engineer-of-Record

Designed temporary steel rib supports for a hand-mined tunnel under the I-80 freeway where the eastern span of the San Francisco-Oakland Bay Bridge meets Yerba Buena Island. The tunnels were excavated to install utility lines under the freeway. The project was completed with no disruption to traffic.

Bradshaw Interceptor Section 6B, Sacramento, CA

Role: Project Manager

Provided technical support for Mitchell Engineering's value engineering (VE) proposal to change the tunneling method at the roadway and creek pipeline crossings from a closed-face earth pressure balance machine to an open face tunnel shield with ground improvement (grouting) in advance of tunneling. The owner accepted the contractor's VE proposal and the tunnel crossings were uneventfully completed.

The Rio Piedras Contract of Tren Urbano, San Juan, PR

Role: Project Engineer

The Rio Piedras Station portion of this project is one of the largest soil tunnels ever constructed. Dr. Lindquist developed the specific soil-structure interaction concepts that were utilized in a beam-spring finite element model used to design the station tunnel support, which consisted of 15 concrete-filled drifts forming a compression arch. Dr. Lindquist also worked on the foundation design for the arch.

Lake Mead Intake Project, Lake Mead, NV

Role: Project Engineer

Designed primary tunnel support for the 2600-foot long, 13-foot diameter, horseshoe-shaped East Tunnel for the general contractor. Ground support types included steel ribs and rock bolts with wire mesh. Also designed temporary pipe supports and blocking for a 109-inch inside diameter steel pipe that was installed in the excavated tunnel.

Wine Caves, Napa, Sonoma, Santa Barbara, San Luis Obispo & Los Angeles Counties, CA

Has provided tunnel consulting services to wine cave contractors and winery owners on over 20 wine cave projects throughout the state. Consulting assignments have included feasibility evaluations, initial and permanent ground support designs (e.g., steel ribs, plain fiber- and wire mesh reinforced shotcrete, lattice girders and rock bolts), and a blast vibration study.

DEEP FOUNDATIONS/MICROPILES/TIE-DOWN ANCHORS

Oxnard Headworks Project, Oxnard, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Designed permanent ground anchors to resist hydrostatic uplift on a large, buried concrete structure for the ground anchor subcontractor. Also responsible for structural observation during ground anchor installation and field verification of ground anchor testing.

Various Micropile Design Projects: Prepared working drawings and design calculations for micropile foundations on the following projects:

- ConocoPhillips San Francisco Refinery ULSD/SR – U200 Coking Cooler/Exchanger Structure Foundation, Rodeo, CA.
- University of San Francisco Lone Mountain Auditorium, San Francisco, CA.
- 555 Market Street Seismic Retrofit, San Francisco, CA.
- Oakland International Airport In-Line Explosive Detection System, Oakland, CA.
- Olympic Club Expansion and Alterations, San Francisco, CA.
- Marvel Semiconductor Buildings 1 and 2, Sunnyvale, CA.
- 2850 Telegraph Avenue Seismic Improvements, Berkeley, CA.
- 722 Montgomery – Belli Building Renovation, San Francisco, CA.
- San Francisco International Airport Airtrain and Pedestrian Bridge, San Francisco, CA.
- Ghiradelli Square Renovation – Seismic Upgrade, San Francisco, CA.
- 450 Sansome Street, San Francisco, CA.
- Metropolitan Club – 640 Sutter Street, San Francisco, CA.
- 1 Kearny-710 Market Street Alterations and Addition – San Francisco, CA.
- UCSF Institute for Regeneration Medicine – San Francisco, CA.
- St. Mary's Cancer Center – 2250 Hayes Street, San Francisco, CA.
- University Mound Reservoir Upgrades – San Francisco, CA.

North CTX – Aqueduct UC Extension MP 26.77, Redwood City, CA

Role: Principal-in-Charge, Project Manager and Engineer-of-Record

Retained by the foundation contractor to re-design the contract-specified foundation for the extension of the Hetch Hetchy water pipeline undercrossing at the Caltrain tracks. Designed an auger pressure grouted (APG) pile alternate for the contract-designed cast-in-drilled hole (CIDH) piles. The re-design allowed the permanent foundation piles to be utilized as the temporary excavation shoring wall adjacent to the active Caltrain tracks.

Cypress Semiconductor Seismic Retrofit, Philippines

Role: Project Engineer

Designed 36-inch drilled piers capable of resisting 150 kips of lateral load each. The piers are designed to support buttresses being installed as a part of the seismic retrofit for this critical semiconductor production facility.

Hilton Garden Hotel, Oakland, CA

Role: Project Engineer

Due to the proximity of this new hotel to the existing underground 12th Street BART Station in downtown Oakland, special design details were required for the hotel's drilled pier foundations. BART required that the drilled piers be designed and detailed in a manner that would assure that no significant additional loading would be imparted on their existing station structure, which is located only a few feet clear of the closest drilled piers. Developed special cased pier details capable of satisfying BART's design requirements. Also designed micropiles to retrofit the foundations of an existing building that is incorporated into the new hotel structure.

Valero Day Tank Retrofit, Rodeo, CA

Role: Project Engineer

The foundations of six existing day tanks at the Valero refinery needed to be upgraded to resist overturning in a seismic event. The new foundations required high-capacity rock anchors. Designed and prepared the contract documents for the rock anchors.

Jefferson Avenue Underpass, Redwood City, CA

Role: Project Manager

APWA Project of the Year Award for Excellence

Designed the driven pipe pile foundations for temporary rail bridges on this grade separation project. Also prepared an analysis of alternate driven precast concrete piles that were utilized to support the project's retaining walls in lieu of the contract-specified CIDH piles.

199 Fremont, San Francisco, CA

Role: Project Engineer

A temporary work trestle was required as a part of this high-rise building project. The trestle was designed to support a Manitowoc 4000W crane over a 40-foot deep excavation. Designed the drilled pier foundation for the trestle.

MISCELLANEOUS

Oroville Dam Emergency Recovery - Spillways, Oroville, CA

Role: Peer Review

Oroville Dam's main concrete spillway breached in early 2017 resulting in the uncontrolled release of water outside the lower half of the spillway chute. Provided peer review geologic and geotechnical data associated with the severely oversteepened slope that was caused by the significant erosion that followed the spillway breach. Also peer reviewed the slope stability analyses and stabilization design that were developed as part of the overall spillway rehabilitation design. Prepared peer review memoranda with comments and recommendations for use by the design team.

Chabot Dam Seismic Rehabilitation San Leandro CA

Role: Principal-in-Charge

Provided design and consulting engineering services for the contractor performing the seismic rehabilitation of Chabot Dam. Engineering services included: (1) design of the stiffened steel plate cofferdam that was used to unwater the intake tower to allow it to be retrofitted, (2) design of a temporary bridge to allow construction equipment to cross the dam spillway, (3) stability evaluation of an existing masonry-lined tunnel for worker safety, (4) preparation of the demolition plan for the existing intake

structure, (4) temporary dewatering system design and independent review of the temporary shoring system for the deep seepage trench excavated into the downstream face of the dam.

Avalon Canyon Slope Repair, Daly City, CA

Role: Project Manager

Avalon Canyon was severely damaged during the 1997-1998 winter rains. Severe erosion from a broken storm drain outlet pipe caused major slope failures that threatened numerous homes. Managed the fast-track design of this multifaceted repair project. The repair design included massive regrading (400,000 cubic yards of fill) to stabilize the existing canyon slopes, a new high-density polyethylene (HDPE) storm drain outlet pipe with appurtenances, surface and subsurface canyon drainage systems consisting of geotextile and shotcrete lined ditches and corrugated aluminum pipe, erosion control and revegetation, and cured-in-place pipe rehabilitation of existing reinforced concrete pipes. The bid-ready contract package was prepared in less than 3 months. Also supervised complete construction management and inspection during construction.

Peninsula Corridor Joint Powers Board (PCJPB) Independent Design Review, CA

Role: Project Manager

Provided independent review of structures to be constructed within the PCJPB (previously Southern Pacific) zone of influence. Reviewed excavation shoring, concrete falsework plans or permanent structure designs for conformance with PCJPB requirements on the following projects:

Various Miscellaneous Projects:

- Caltrans I-280 earthquake retrofit at Galvez Avenue in San Francisco for Dillingham Construction.
- Arch Culvert Extension in San Mateo for the City of San Mateo.
- Caltrans I-280 earthquake retrofit at China Basin for STV Inc.
- Santa Clara Junction Overhead for William P. Young Construction.
- East Mountain View Overhead for California Engineering Contractors.

I-80/980/24 Seismic Retrofit, Oakland, CA

Role: Project Manager

Designed spread footing supported, temporary structures to support an existing elevated freeway viaduct for the general contractor. The temporary bents were required to support the open freeway during the retrofit of the existing viaduct supporting structure. The temporary support needed to be designed for both the live and dead loads as well as seismic loading. Specific lateral stiffness requirements also had to be met to satisfy seismic design requirements. Detailed structural computer analysis of the support structure was performed to justify the proposed design.

FORENSICS AND CLAIMS/EXPERT WITNESS

Fries Avenue Force Main, Port of Los Angeles, CA – Frozen Shaft Failure

Retained as expert witness by legal counsel for general contractor following the failure of a micro-tunnel launch shaft shored by frozen earth. Also provided remedial shaft support design after the ground freezing subcontractor walked away from the project. Case settled in favor of general contractor.

I-80 Retrofit, San Francisco, CA – Trench Shoring Claim

Retained as expert witness for designer of trench shield excavation shoring system. Contractor employee was injured in trench as shield was being removed from excavation. Deposed by plaintiff's attorney. Case settled prior to trial.

Golden Gate Bridge North Approach Seismic Retrofit, Marin County, CA – Design Errors and Omissions

Retained as expert witness by legal counsel representing the Golden Gate Bridge District in claim against District's consultant designer. Claim involved errors and omissions in retrofit design and contract documents prepared by consultant. Participated in mediation session. Case settled during mediation.

Wine Cave, Sonoma County, CA – Construction Defects Claim

Retained as expert witness by legal counsel representing wine cave contractor. Owner claimed construction defects in completed cave. Deposed by plaintiff's attorney. Case settled prior to trial.

300 Spear Street, San Francisco, CA – Excavation Shoring Failure

Case involved the near failure of a temporary soil nail shoring system for a high rise basement excavation. Retained as an expert witness by legal counsel for the project geotechnical engineer. Participated in mediation sessions and meetings with co-defendants. Case settled prior to trial.

Lake Merritt Boathouse, Oakland, CA – Micropile Claim

Retained by legal counsel for City of Oakland as an expert witness in a claim by foundation subcontractor regarding micropile foundation retrofit at existing boathouse. Subject to two depositions by contractor attorneys. General contractor dropped claim against City prior to trial. Foundation subcontractor proceeded with claim against general contractor. Called to testify at trial by general contractor. Case settled during trial in favor of the general contractor.

Transbay Transit Center, San Francisco, CA – Secant Pile Buttress at 301 Mission DSC

Retained by secant pile subcontractor to evaluate differing site conditions claim associated with soil/rock conditions encountered during secant pile construction. Participated in mediation session. Claim not yet settled.

Transbay Transit Center, San Francisco, CA – DSM Shoring Wall Leakage

Retained by shoring wall subcontractor to evaluate causation of leakage of deep soil mix (DSM) shoring wall on the Transbay Transit Center project. Court case pending.

45 Lansing, San Francisco, CA – Hard Rock Excavation Claim

Retained by developer to evaluate claim by the project's excavation contractor that rock at high rise basement excavation was harder/more competent than anticipated. Claim not yet settled.

PUBLICATIONS

- "181 Fremont – Very Deep Foundations at a Dense Urban Site," with K. Ellison and P. Faust, Deep Foundations Magazine, September/October 2018.
- "Subsurface Component Design and Construction for a High-Rise in a Dense Urban Environment: A Case History of the 181 Fremont Tower," with S. McLandrich, N. Minorsky and K. Ellison, Deep Foundation Institute, 40th Annual Conference on Deep Foundations, Oakland, California, October 2015.
- "Shoring of Long Beach Main Pump Station Utilizing Ground Improvement Techniques," with G. Carvajal and S. Nannapaneni, Deep Foundation Institute, 40th Annual Conference on Deep Foundations, Oakland, California, October 2015.
- "Deep Soil Mixing Foundation for the U.S. Federal Courthouse in Downtown Los Angeles, California," with D. Iwasa, R. Lopez and J. Bussiere, 2015 DFI Deep Mixing Conference.
- "Secant Pile Shaft Construction," with R. Jameson, Tunnel Business Magazine, April 2014.
- "A Collaborative Success – Construction of the Mormon Island Auxiliary Dam Key-Block for Seismic Rehabilitation," with M.J. Harris, R. Jameson and T. Porter, Association of State Dam Safety Officials, Dam Safety 2013, Providence, Rhode Island, September 2013.
- "Secant Pile Shoring – Developments in Design and Construction," with R. Jameson, Deep Foundations Institute, 36th Annual Conference on Deep Foundations, Boston, Massachusetts, October 2011.
- "Advanced Design and Construction of Secant Pile Projects," presented at the ADSC's Anchored Earth Retention Seminar, Oakland, California, June 2011.
- "Construction of Two Microtunnel Access Shafts Using the Cutter Soil Mix (CSM) Method in the San Joaquin Delta, California," with F.W. Gerressen, R.A. Lopez, and J. Morgan, Deep Foundations Institute, 35th Annual Conference on Deep Foundations, October 2010.
- "Evaluation of Shear Strength of Melange Foundation at Calaveras Dam", with J.W. Roadifer and M.P. Forrest, United States Society on Dams, 2009 Annual Conference and Meeting, April 2009.
- "Effect of High In-Situ Stress on Braced Excavations", with W. Roth, B. Su, and J. Vanbaarsel, presented at the 6th International Conference on Case Histories in Geotechnical Engineering, August 2008.
- "Deep Freeze", with D.J. Berti and L. Roesner, Civil Engineering Magazine, February 2002.
- "The Foundation of PG&E's Scott Dam: Introduction and Overview", with R.E. Goodman and C. Ahlgren, Waterpower 1999.
- "Cementing the Future", with D.J. Berti and D.C. Koutsoftas, Civil Engineering Magazine, December 1998.
- "Buckling of Steel Tunnel Liner Under External Pressure", with D.J. Berti, R. Stutzman and M. Eshghipour, ASCE Journal of Energy Engineering, December 1998.
- "The Engineering Significance of the Scale-independence of some Franciscan Melanges in California, USA", with E. Medley, Rock Mechanics, Proceedings of the 35th U.S. Symposium, June 1995.
- "Strength and Deformation Properties of Melange", Ph.D. dissertation, University of California at Berkeley, 1994.
- "The Mechanical Properties of a Physical Model Melange", Proceedings of the 7th Congress of the International Association of Engineering Geologists, 1994.
- "The Strength and Deformation Properties of a Physical Model Melange", with R.E. Goodman, Proceedings of the First North American Rock Mechanics Symposium, 1994.
- "The Engineering Characterization of Some Franciscan and Physical Model Melange", with E. Medley and R.E. Goodman, abstract, 36th Annual Meeting of the Association of Engineering Geologists, 1993.
- "Strength of Materials and the Weibull Distribution", Probabilistic Engineering Mechanics, 1993.



STEVE GUSTAFSON, P.E., LEED™ AP VICE PRESIDENT, PRINCIPAL-IN-CHARGE, EOR

ROLE

As Principal-In-Charge, Steve Gustafson has management oversight responsibility and serves as CMI's advocate for contract, schedule and budget compliance from notice to proceed to project completion. Mr. Gustafson will work closely with the project team to proactively identify potential issues before they have an opportunity to grow less manageable. He will meet as needed with the General Contractor to review outstanding issues, review compliance with contractual requirements, and identify additional resources required by the team as the project proceeds.

EXPERIENCE

CMI, 1982 – Present

EDUCATION

BS, Mechanical Engineering,
University of California,
Los Angeles

PROFESSIONAL AFFILIATIONS

Registered Professional
Engineer

- California #M023694
- Maryland #28755

ASHRAE, Member

LEED Accredited Professional

RELEVANT EXPERIENCE	SIZE	TYPE
200 Park San Jose, CA	875,000 SF	DB High Rise Office Tower
CityView San Jose, CA	3.8M GSF	DB High Rise Office Towers
Apple R&D Campus Cupertino, CA	850,000	High Tech Office Campus
Brocade Offices at First San Jose, CA	550,000 SF	DB High Tech Office Campus
Central & Wolfe Sunnyvale, CA	777,000 SF	DB Core & Shell Office Campus
Fremont Hospital Fremont, CA	25,000 SF	OSHPD Level 1
Kaiser Permanente, Santa Clara Medical Center, CA	950,000 SF	Hospital & MOB
Moffett Towers II Sunnyvale, CA	1.8 M SF	DB Office Campus
Moffett Place Sunnyvale, CA	1.8 M SF	DB Office Campus
Moffett Towers Sunnyvale, CA	2 M SF	DB Office Campus
Oracle World Headquarters Redwood Shores, CA	2.2 M SF	High Rise High Tech Office Campus
Transbay Block 8 San Francisco, CA	55 Stories	DB High Rise Residential Mixed Use
UOP Dugoni School of Dentistry San Francisco, CA	350,000 SF	DB Laboratory & Educational Facility
Vantage Data Centers Santa Clara, CA	75,000 SF	DB 9MW Data Center provisioned for 18MW



Benedict Tranel, AIA, LEED AP
Principal

Ben Tranel is an architect focused on the transformational power of design—how the built environment communicates values and shapes our experience, every day.

His creative process is centered around listening and a relentless pursuit of excellence. Over his 14 years in Gensler's San Francisco office, Ben has grown the firm's practice, refined its working methods, and strengthened its relationships, both locally and abroad. His portfolio spans mixed use, residential, office, hospitality, civic, and cultural projects. Highlights include the 632-meter Shanghai Tower, the Tower at PNC Plaza in Pittsburgh, multiple developments in the Bay Area, and the recently completed headquarters building for Alexandria Real Estate in Pasadena, CA.

Ben is sought out for his ability to connect divergent viewpoints and align to competing agendas—be they aesthetic, commercial, societal, or financial. He's an effective, empathetic leader and a master of his craft. He's an expert at helping clients address needs they may not have even articulated on their own. The ninth of ten children in a big Montana ranch family, Ben understands, deeply, the power of hard work and the mechanics of consensus. Twice Ben has been granted "40 Under 40" awards, and he's led his teams to many design honors, granted by organizations including the American Institute of Architects, Architect Magazine, Council on Tall Buildings and Urban Habit, World Architecture News, and Engineering News Record.

20 Years of Experience

Joined Gensler 2006

Background

Master of Architecture, Columbia University, New York, NY
Bachelor of Arts, Architecture, Washington University, St. Louis, MO
Architecture Studio, Florence, Italy, Syracuse University, Syracuse, NY
Rotary Club Blue Badge, San Jose, CA
BuildSF, San Francisco, CA
The Fisher Center for Real Estate & Urban Economics Policy Advisory Board
SPUR, Member
Urban Land Institute (ULI), Member

Selected Project Experience

	Size (sq ft)
CityView, San Jose, CA	3,800,000
200 Park, San Jose, CA	875,000
100 Stockton, San Francisco, CA	246,000
Hunters Point Shipyard, San Francisco, CA	900,000
Burlingame Point, Burlingame, CA	767,000
Diridon Mixed-Use Development, San Jose, CA	1,000,000
LinkedIn Tower, San Francisco, CA	525,000
Related, Santa Clara, CA	10,454,400
The Tower at PNC Plaza, Pittsburgh, PA	800,000
ZEISS Innovation Center, Dublin, CA	208,200
Westfield Galleria Expansion & Renovation, Roseville, CA	350,000
Potrero Center Conceptual Study, San Francisco, CA	350,000
Shanghai Tower, Shanghai, China	6,200,000

Awards

2016, ENR Mid-Atlantic Best Projects Office/Retail Mixed-Use,
The Tower at PNC Plaza
2016, Architect R+D Award, The Tower at PNC Plaza
CTBUH Award, Best Tall Building Asia & Australasia - Shanghai Tower
2016, Sustainable Design, Boston Society of Architects,
The Tower at PNC Plaza

Speaking Engagements

"Smart Buildings and Shanghai Tower," Keynote, BAU Conference, Munich, Germany, January 2019
"Innovation in Corporate Real Estate," Presenter, Realcomm CIO & Property Technology Forum, San Francisco, CA, November 2018
WAN Jury 2017 for Best Façade
WAN Jury 2017 for Best Commercial Project

Publications

"How Should Office Buildings Change in a Post-Pandemic World?" Dialogue Blog, Gensler, April 23, 2020
"How Workplace is Shaping the Future of Cities," Dialogue 34, Gensler, July 15, 2019
"Designing a Data-Driven, Humanistic High-Rise," The Tower at PNC Plaza Case Study, CTBUH Journal, 2016 Issue II
"Spec for Tech: Designing for the creative class," bdcnetwork.com and GenslerOn.com, January 11, 2016



Andrew Gaylor

Chief Estimator

As Chief Estimator, Andrew manages the preconstruction services team in the preparation of milestone estimates and cost updates, and subcontractor procurement/buyout on negotiated and competitively bid projects.

INDUSTRY EXPERIENCE

19 years

EDUCATION

Kansas State University

Bachelor of Science,
Construction Science and
Management

PROFESSIONAL DESIGNATIONS/TRAINING

DBIA Associate
LEED AP BD+C
CPR/First Aid

REFERENCES

Cumming Corporation

Sean McDermott
Associate Director
(415) 748-3089
smcdermott@ccorpusa.com

Jay Paul Company

Janette D'Elia
Chief Operating Officer
(415) 263-7400
jdelia@jaypaul.com
ckraining@jaypaul.com

RELEVANT EXPERIENCE

CityView Plaza, San Jose | 3.6 million SF campus

Stanford Block E Dev't, Redwood City | 411,696 MOB + 200,000 SF parking

200 Park Avenue, San Jose | 885,000 SF office + 399,000 SF parking

YouTube SBO Ph. 1, San Bruno | 400,000 SF campus

445 & 455 N. Mary Avenue, Sunnyvale | 288,522 SF office + 246,245 SF parking

Museum of Contemporary Art San Diego, La Jolla Expansion | 55,400 SF

Google Moffett Place Building 6 TI, Sunnyvale | 285,600 SF

Stanford CAM 1 Building, Stanford | 168,730 SF

Moffett Towers II, Sunnyvale | 1.8 million SF campus

Facebook 181 Fremont TI Ph. II, SF | 341,500 SF

Confidential Client Central & Wolfe TI, Sunnyvale | 882,857 SF

181 Fremont, San Francisco | 683,868 SF

Facebook MPK 21, Menlo Park | 524,000 SF

Central & Wolfe, Sunnyvale | 882,857 SF office + 964,049 SF parking

Moffett Gateway Campus, Sunnyvale | 529,112 SF office + 249,005 SF parking



Ty Jensen

Preconstruction Executive

As Preconstruction Executive, Ty strategically plans, directs and coordinates preconstruction activities. This includes creating preliminary budgets, tracking and communicating cost changes, providing VE feedback, and developing cost exercises to promote better owner understanding of building assemblies.

INDUSTRY EXPERIENCE

15 years

EDUCATION

Louisiana State University

Bachelor of Science,
Construction Management

PROFESSIONAL DESIGNATIONS/TRAINING

LEED GA

REFERENCES

McWhinney

Jill West
Director of Design &
Construction
(720) 360-4700
jwest@mcwhinney.com

UCSF

Stuart Eckblad
VP Major Capital
Construction
(415) 885-7257
stuart.eckblad@ucsf.edu

Stantec Architects

Ian Lawlor
Project Director
(415) 882-9523
ian.lawlor@stantec.com

RELEVANT EXPERIENCE

CityView Plaza, San Jose | 3.6 million SF campus

Catalyst Ph. II, Sunnyvale | 162,000 SF office + 308,742 SF parking

Catalyst Ph. 1, Sunnyvale | 175,000 SF office + 200,000 SF parking

UCSF Mission Bay Medical Center Ph. 1 Parking Structure, SF* | 223,000 SF

UCSF Precision Cancer Medicine Building, SF* | 169,000 SF

Morris Hyman Critical Care Pavilion, Fremont* | 240,000 SF

Broadway Plaza Retail Dev't, Walnut Creek* | 1.3 million SF

* completed prior to joining Level 10 Construction

**REFERENCES
CONTINUED**

Boyett Construction

Jim Roberts

President

(510) 264-9100

jroberts@

boyettconstruction.com

RELEVANT EXPERIENCE CONTINUED



Casey Wend

Vice President Of Operations

As Vice President, Casey will serve as the executive contact for the project team. He will work closely with the owner, architect and project team to develop a sound Project Execution Strategy to achieve all project goals. Casey is also responsible for assigning project resources to assemble the best team to meet the demands of the project.

INDUSTRY EXPERIENCE

22 years

EDUCATION

Boise State University

Bachelor of Science,
Construction Management

PROFESSIONAL DESIGNATIONS/TRAINING

OSHA 30
CPR

REFERENCES

KSH Architects

Jim Sunseri
Principal
(415) 954-1960
jsunseri@ksha.com

DES

Tom Gilman
President
(650) 364-6453
tgilman@des-ae.com

Jay Paul Company

Janette D'Elia
Sr. Vice President/COO
(415) 263-7403
jdelia@jaypaul.com

RELEVANT EXPERIENCE

CityView Plaza, San Jose | 3.6 million SF campus

200 Park Avenue, San Jose | 885,000 SF office + 399,000 SF parking

Catalyst Ph. II, Sunnyvale | 162,000 SF office + 308,742 SF parking

445 & 455 N. Mary Avenue, Sunnyvale | 288,522 SF office + 246,245 SF parking

Mathilda Commons, San Jose | 316,000 SF office | 358,141 SF parking

Google Moffett Place Building 6 TI, Sunnyvale | 285,600 SF office

Catalyst Ph. 1, Sunnyvale | 175,000 SF office + 200,000 SF parking

Moffett Place, Sunnyvale | 1.9 million SF campus

Moffett Towers II, Sunnyvale | 1.8 million SF campus

Confidential Client Central & Wolfe TI, Sunnyvale | 882,857 SF

Central & Wolfe, Sunnyvale | 882,857 SF office + 964,049 SF parking

Moffett Gateway Campus, Sunnyvale | 529,112 SF office + 249,005 SF parking

Structural
Principal-in-Charge

Ron Klemencic, PE, SE,
Hon. AIA
Chairman and C.E.O.



Ron, Chairman and C.E.O. of MKA, is known for his creative yet practical design solutions. A past 5-year Chairman of the Council on Tall Buildings and Urban Habitat, Ron's focus is complex high-rise and mixed-use designs. He has worked on projects in 29 states and 25 countries, with developments up to 8.4-million square feet, and is sought out by developers, architects, and contractors for his creativity, "big picture" approach, and unique ability to consistently produce cost-effective, innovative designs. Ron continues to lead the advancement of performance-based seismic design of tall buildings through initiatives including as the PEER TBI Guidelines and design of buildings, such as the 1,070-foot-tall Salesforce Tower in San Francisco.

Salesforce Tower
San Francisco, California, U.S.
Principal-in-Charge

Park Tower (Transbay Block 5)
San Francisco, California, U.S.
Principal-in-Charge

One Rincon Hill
San Francisco, California, U.S.
Principal-in-Charge

Transbay Block 1 (160 Folsom)
San Francisco, California, U.S.
Principal-in-Charge

33 Tehama
San Francisco, California, U.S.
Principal-in-Charge, SD

Oceanwide Center
San Francisco, California, U.S.
Principal-in-Charge

The Infinity
San Francisco, California, U.S.
Principal-in-Charge

Years in Engineering
34

Professional Registrations

California - Civil Engineer

California - Structural Engineer

Plus 16 Other States

Education

Master of Science in Engineering, University of California, Berkeley, 1986

Bachelor of Science in Civil Engineering, Purdue University, 1985

Professional Affiliations

Member, National Academy of Engineering

U.C. Berkeley Civil and Environmental Engineering Academy of Distinguished Alumni

Fellow, Council on Tall Buildings and Urban Habitat (Board of Trustees, 2007-2010)

Fellow, Structural Engineering Institute

Fellow, American Society of Civil Engineers

Fellow, American Concrete Institute (Board of Directors, 2009-2012)

Board Member, Charles Pankow Foundation (Founding Member 2005-2007)

Board of Governors, Network for Engineering Earthquake Simulation (2012-2014)

Member, National Academy of Construction

American Society of Civil Engineers

Structural Engineering Institute



MAGNUSSON
KLEMENCIC
ASSOCIATES



PHIL MAHONEY

Executive Vice Chairman



Newmark Knight Frank
3055 Olin Ave. Suite 2200
San Jose, CA 95128
pmahoney@ngkf.com
T 408.982.8430
F 408.988.6340

Years of Experience

37 Years

Areas of Specialization

- ♦ Office Leasing and Sales
- ♦ R&D Leasing and Sales
- ♦ Industrial Leasing and Sales

Professional Background

Newmark Knight Frank Executive Vice Chairman Phil Mahoney is one of the most successful commercial real estate brokers in the nation. He brings to his clients a unique understanding, perspective and awareness of the successful technology markets serving the Silicon Valley, and has for more than 37 years.

In 1992, Mr. Mahoney was appointed senior vice president and manager of the firm's Santa Clara office. He left his managerial post in the fall of 1995 to become a partner and director. He currently helps lead its Corporate and Institutional Services Group.

Mr. Mahoney has been among Newmark Knight Frank's top five producers since 1982. He has negotiated over 1,100 transactions totaling more than 80 million square feet of space valued at over \$20 billion. Mr. Mahoney was named a national "Top 100 Corporate Real Estate Executive" for 2018.

Clients have relied heavily upon Mr. Mahoney's expertise and comprehensive understanding not only of the marketplace, but also of the real estate process as a whole. In addition to his successes in the leasing market, Mr. Mahoney has sold numerous buildings, and has been involved in some of the most significant purchases of commercial/industrial property in the history of Silicon Valley. Mr. Mahoney was instrumental in concluding the largest office deal ever in the U.S., a 2 million-square-foot office lease.

Tenacious and dedicated, Mr. Mahoney counts among his clients Fortune 500 firms seeking to expand, as well as start-up companies looking for their first facility.

Partial Client List

- ♦ eHealth
- ♦ GoPro
- ♦ Network Appliance
- ♦ ROKU
- ♦ Silicon Graphics, Inc. (SGI)
- ♦ SoftBank
- ♦ Taiwan Semiconductor Manufacturing Company Ltd. (TSMC)

Professional Achievements

- ♦ Number One Broker for all of Silicon Valley, *San Jose Business Journal*, 1999 to 2001, 2004, 2006, 2007 and from 2010 to 2016
- ♦ Silicon Valley Dealmaker of the Year, *San Jose Mercury News*, 2012, 2014

- ♦ Top producer in Silicon Valley by square footage, 1995 to 2000, 2006, 2011, 2012, 2014 and 2016 (with more than 1.6 million, 1.8 million, 1.8 million, 1.6 million, 2.4 million, 6.0 million, 3.8 million, 4.5 million, 3.6 million and 4.8 million square feet, respectively)
- ♦ Top Producer for Newmark, nationally, 2016
- ♦ Top Three Producer Nationwide, 2011 and 2015
- ♦ Top Producer Nationwide, 2000 (more than 6.0 million square feet of transactions totaling \$2.8 billion)
- ♦ Youngest broker inducted into the Association of Silicon Valley Brokers (ASVB) Hall of Fame, 1994
- ♦ 17-time ASVB Broker of the Year; nominee for 19 straight years

Professional Affiliations

- ♦ Director, NAIOP Silicon Valley
- ♦ Director, Reading Partners of Silicon Valley
- ♦ Director, The Detection Group, Palo Alto, CA
- ♦ Coach of youth athletic teams

Education

Mr. Mahoney earned his degree in economics at Stanford University. His education and experience in the intensely competitive world of intercollegiate athletics helped prepare him for his career in commercial brokerage.



JOSH SHUMSKY

Managing Director

CA RE License #01883266



Newmark Knight Frank
3055 Olin Ave. Suite 2200
San Jose, CA 95128
jshumsky@ngkf.com
T 408.982.8490
F 408.988.6340

Years of Experience

8 Years

Areas of Specialization

- ♦ Retail Leasing
- ♦ Tenant Representation
- ♦ Landlord Representation
- ♦ Retail Growth Strategies

Josh Shumsky joined Newmark Cornish & Carey's retail group in 2012 as an associate specializing in retail leasing. Having previously worked in corporate retail for more than four years, Mr. Shumsky has a strong understanding of retailers' needs. Prior to beginning his real estate career, he worked in merchandising and business strategy for Orchard Supply Hardware, an 80-year-old hardware chain with 87 stores in California, and for Pacific Sunwear at its headquarters in Anaheim, California.

While attending Santa Clara University, Mr. Shumsky interned with Kimco Realty Corporation, creating comprehensive property profiles for a recently acquired portfolio of 14 centers in California and Nevada.

A member of the International Council of Shopping Centers (ICSC), Mr. Shumsky has been selected as the State Chair for the Northern California NextGen program, which is geared towards the challenges, interests and trends in retail real estate. Mr. Shumsky has also been recognized as one of Newmark Knight Frank's Top 5 Rising Stars, nationally, in 2016.

PARTIAL CLIENT LIST:

- | | | |
|------------------------------|-------------------------------------|---|
| ♦ Landlords: | ♦ Tenants: | ♦ |
| ♦ Brookfield Properties | ♦ Dunkin Donuts | |
| ♦ Republic Urban Properties | ♦ Aqui Cal Mex | ♦ |
| ♦ Sand Hill Property Company | ♦ Dekalash | ♦ |
| ♦ Equity Residential | ♦ American Family Care | ♦ |
| ♦ ADIA | ♦ Tharaldson Hospitality Management | |

PARTIAL PROJECT LIST:

- ♦ **Main Street Cupertino** (Sand Hill Property Company and ADIA):
 - Mixed-Use Development near Apple's new 3.1M S.F. Campus
 - Contains 130,000 S.F. of Retail, 260,000 S.F. of Office, 120 loft apartments, and a 180 room Marriott Residence Inn.
- ♦ **El Paseo de Saratoga, San Jose** (Sand Hill Property Company)
 - Contains ±296,000 S.F. of Retail, Restaurant, and Entertainment uses, including a 14 Screen AMC Theater. Developer is working to go Mixed-Use Residential.
- ♦ **Village at San Antonio, Mountain View** (Brookfield Properties)
 - Contains 250k S.F. of Retail, 400,000 S.F. of Office, 330 Residential units and a 167 room hotel.

PETER BIRKHOLZ, AIA, LEED AP

Principal



EDUCATION

Iowa State University, BArch, 1985
Advanced Management Institute,
Project Management Diploma, 2004

LICENSES

California: C23418, exp 4/2021
LEED Accredited Professional

AFFILIATIONS

AIA San Francisco
SPUR
Oakland Landmark Preservation
Advisory Board, Past Chair

HONORS & AWARDS

Livermore Depot Relocat. and Rehab.
2019 Governor's Historic Preservation
Award, Office of Historic Preservation,
California State Parks
140 New Montgomery Renovation.
2014 Governor's Historic Preservation
Award, Office of Historic Preservation,
California State Parks
2014 California Preservation
Foundation Preservation Design
Award for Rehabilitation
2014 Engineering News Record
California Best Renovation/Restoration
Project
2013 San Francisco Business Times
Real Estate Deals of the Year - Best
Rehab/Renovation
San Francisco Ferry Building
2004 AIA San Francisco Excellence
in Design Award; 2004 California
Preservation Foundation Design
Award for Rehabilitation and Reuse;
2003 National Trust for Historic
Preservation National Preservation
Award

Peter Birkholz has over 30 years of architectural experience and provides strong technical and design coordination knowledge. He worked on and has provided leadership on the design, construction documentation and construction administration for a range of building rehabilitation projects for local and state government entities. With this experience, he is able to quickly identify issues and to provide pro-active responses to projects.

Peter meets the Secretary of the Interiors Professional Qualification Standards for Architecture and Historic Architecture.

Select Project Experience

- Sims Ranch, Nicolaus Dairy Historic Structure Report, Elk Grove, CA
- Deer Hollow White Barn Historic Structure Report, Mountain View, CA
- Hagemann Ranch Historic District, Conditions Assessment and Rehabilitation Plan, Livermore, CA. Report and drawing production, consultant coordination.
- 1601 Clay Street, Oakland, CA. Project Manager. Rehabilitation and adaptive re-use of a historic building.
- Livermore Depot Relocation, Livermore, CA. Principal in Charge for the relocation and rehabilitation of a historic rail depot for use as a mixed-use transit building occupied by a regional transit agency.
- Judicial Council of CA, Glenn Courthouse Renovation and Addition, Willows, CA. Project Manager. Rehabilitation and new addition to a historic courthouse.
- US Mint Seismic Upgrade, San Francisco, CA. Architectural service related to repair of finishes, systems and exterior envelope related to a voluntary seismic upgrade.
- US GSA, Chambers Courthouse Pasadena, Feasibility Study to study renovation and lease options for an Federal Courthouse.
- Walt Disney Family Museum, Presidio of San Francisco, CA. Architect. Design and construction administration on the rehabilitation and adaptive reuse of historic barracks buildings for use as a museum
- Wyman Avenue Residences, Presidio of San Francisco, CA. Project Architect. Rehabilitation of seven former military houses
- The Exploratorium, Piers 15-17, San Francisco, CA. Project Manager. Exterior rehabilitation and adaptive reuse of historic pier structures for use as the new Exploratorium Museum
- Stanford University Medical Center, Hoover Pavilion, Palo Alto, CA. Project Manager. Exterior rehabilitation scope including roofing and facade of the renovation and conversion of the Old Palo Alto Hospital into a medical office building.



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Santa Clara, CA 95050
(408) 450-4800

KURT CHACON

Partner / Group Executive
KChacon@RedwoodEG.com

PROFESSIONAL SUMMARY

With over 40 years of experience in the electrical industry. Kurt has worked as an electrician, project supervisor, regional superintendent covering Northern CA, Nevada, and Oregon, project manager and group executive and has extensive experience in large projects including corporate campus, mission critical, life science, sports and entertainment, education, transportation and healthcare projects. As a project manager and group executive Kurt has designed millions of square feet of electrical systems and has successfully overseen and managed numerous large scale projects over the course of his career. Kurt brings to every project integrity, attention to detail, leadership and impeccable management skills.

RESPONSIBILITIES

As Project Executive on any project, Kurt will oversee the teams scheduling and preconstruction efforts including design and BIM in order to bring the most cost effective, life of systems, and serviceable solutions. He will also oversee contract negotiation, contract management, labor performance, cash flow, schedule adherence and most importantly, quality and customer satisfaction. During construction, he oversees project team management of day-to-day aspects of the project, including monitoring the materials procurement functions and working with the project managers and project engineers to ensure that quality and schedule expectations are being met or exceeded.

PARTIAL LIST OF A PROJECT DESIGN BUILD EXPERIENCE

- | | |
|--------------------------------------|--------------------------------|
| • JPC Moffett Gateway 560K sf | • Facebook 1M+ sf |
| • JPC Moffett Towers II 1.6M sf | • Equinix, Verizon, Microsoft, |
| • JPC Moffett Place 1.9M sf | Savvis, QTS Data Centers |
| • Perry/Arriaga Core/Shell 3+M sf | • Parking Structures 3+M sf |
| • Kaiser Redwood City Hospital | • PAMF MOB San Carlos |
| • Google 1M+ sf | • Stanford University 2+M sf |
| • Stanford Campus 12kV Replacement | • Kaiser Redwood City Hospital |
| • Stanford Stadium & Maples Pavilion | • Stanford Housing 4M+sf |

EDUCATION / SPECIAL TRAINING:

- | | |
|--|-------------------------------------|
| • Construction Management –
San Jose State University | • National Electrical Code Training |
| • Electrical Apprenticeship | • Seismic Restraint Training |