

Sam A. Hout, PE

Education

- MS, Civil Engineering, California State University Long Beach, 1983
- BS, Civil Engineering, University of Texas Arlington, 1980

Registrations/Licenses

- State of California, Professional Engineer #38256
- State of California, Class A General Engineering Contractor #1018297 (Corporation)
- Certifications
- Transit Management Certification, University of California, Irvine, California, 1998
- Transit Management Certification, Bay Area Urban Transit Institute, San Francisco, California, 1987

Memberships

- Fellow Member and Technical Group Past President, American Society of Civil Engineers
- Member, Consulting Engineers and Land Surveyors of California
- Member, Design-Build Institute of America
- Member, Building Industry Association
- Member, Tau Beta Pi Engineering Honor Society
- Member, Chi Epsilon National Civil Engineering Honor Society

Major Accomplishments

- Principal/Owner of Hout Construction Services responsible for business and project development of the firm's national and global consulting practice
- Senior Vice President of CH2M HILL Southern California Transportation
- Transportation Practice Leader for Stantec's Southern California operations
- Vice President of PBS&J for 5 years responsible for business and project development of the firm in the five Pacific States of California, Washington, Oregon, Alaska, and Hawaii
- Principal/Owner of the Culver Group for 4 years responsible for business and project development of the firm in California
- Project Director with URS for 1 year responsible for the \$800 million infrastructure and parking improvements for the Disney California Adventure project
- Program Director with the Orange County Transportation Authority for more than 12 years responsible for the \$3.1 billion Measure M transportation program in Orange County, California
- Project Director with Bechtel Power Corporation for more than 6 years responsible for design and construction of complex facility projects, nuclear power plants, and major industrial projects
- Publications
- Project/Construction Management Manual for Capital Improvement Projects, 1999

Employment History

- Hout Construction Services, Inc., 2015-present
- CH2M Hill, 2013-2015
- Stantec, 2011-2013
- Hout Construction Services, 2007-2011
- PBS&J, 2003-2007
- Culver Group, 2001-2002
- OCTA, 1998-2001
- Disney/URS, 1997-1998
- OCTA, 1987-1997
- Bechtel, 1980-1987

Qualifications (General)

Sam Hout has more than 30 years of demonstrated success in engineering and construction of civil engineering and infrastructure projects. His diversified experience in both the public and private sectors has positioned him to be an industry leader in the US and around the globe. He melds strong technical acumen and interpersonal skills with excellent communication abilities to effectively relate to all management levels. He maintains a high level of enthusiasm on his assignments and projects. Mr. Hout delivers quality projects on schedule and within budget.

Mr. Hout's strong sense of mentorship drove him to be a part-time instructor for the graduate civil engineering and construction management program at California State University Long Beach for nearly a decade. He successfully completed several Leadership Perspectives Programs throughout California.

Qualifications (Design-Build)

Sam Hout brings more than 30 years of experience in the design and construction of transportation infrastructure projects, including freeway, highway, rail, and aviation assignments worldwide. He has managed or provided strategic advice for large, complex projects in Southern California, including the \$3.1 billion Measure M Program for the Orange County Transportation Authority (OCTA). Mr. Hout is a savvy manager with experience in design oversight, construction, schedule and budget control, change order management, and enforcement of QA/QC procedures. He has extensive design experience and knowledge of construction standards and practices, including Caltrans, AASHTO, and FHWA.

Mr. Hout's role as Design-Build Coordinator on Design-Build projects is to enhance and expedite the delivery process by collaborating with the project manager, design manager, and construction manager, which has been instrumental in eliminating hurdles related to third-party coordination, utilities coordination and relocation, right-of-way acquisition and easements, agency permits and approvals, railroad right-of-entry, design packaging, construction techniques, public and community concerns, and many other engineering and construction challenges that face Design-Build projects.

Qualifications (OCTA-Focused)

Sam Hout brings more than 30 years of experience in the design and construction of transportation infrastructure projects, including freeway, highway, rail, and aviation assignments worldwide. He has managed or provided strategic advice for large, complex projects in Southern California, including the \$3.1 billion Measure M Program for the Orange County Transportation Authority (OCTA). Mr. Hout is a savvy manager with experience in design oversight, construction, schedule and budget control, change order management, and enforcement of QA/QC procedures. He has extensive design experience and knowledge of construction standards and practices, including Caltrans, AASHTO, and FHWA.

With his 12-year tenure at OCTA, as well as dozens of projects and task orders completed for Orange County highways and roadways, Mr. Hout has well-established relationships with relevant stakeholders, including OCTA, Caltrans, UPRR, utilities, municipalities, and others. He served as Program Manager/Director of Design and Construction for the \$3.1 billion Measure M Program. Other major OCTA projects include the I-405 Improvement Project Design-Build, Centerline Project, State Routes 91/55/57 PSR, I-405 Striping, SR 91 Widening, I-5/I-405 Interchange, I-5 Reconstruction, and Orangethorpe Avenue Grade Separation. Mr. Hout will apply this local experience to the [????] project to bring efficiencies that will keep the proposed project on schedule, on budget, reduce risks, and increase community acceptance.

Qualifications (Utilities Focused)

Sam Hout was responsible for the development of utilities on many transportation projects, including the following services:

- Preparing and updating matrices
- Coordinating with utility companies and Caltrans
- Preparing Caltrans encroachment permits and utilities letters
- Developing and producing the U-Sheets as required by Caltrans

As Director of Engineering and Construction for OCTA on the \$3.1 Billion Measure M program from 1991 to 2001, Sam was responsible for developing, finalizing, and executing all necessary MOUs, cooperative agreements, funding agreements, and other necessary agreements with local agencies, Caltrans District 12 and Headquarters, and federal agencies. His vast hands-on experience in developing agreements will be a great asset to Metro and the Greater Los Angeles local-agencies community.

Project Experience

I-405 Design-Build Project, Orange County, California. Design-Build Coordinator and Financial Business Manager on the project. The Orange County Transportation Authority (OCTA) in cooperation with the California Department of Transportation (Caltrans) selected OC 405 Partners to design and construct the I-405 Improvement Project. Key elements of this approximate 16-mile widening project include the following:

Addition of a general-purpose lane in each direction of I-405 from Euclid St to the I-405/I-605 Interchange

Addition of a tolled express lane in each direction from SR-73 to SR-22

Addition of auxiliary lanes in the NB direction at Euclid St off-ramp; and from Seal Beach Blvd on-ramp to the WB SR-22/7th Street off-ramp

Extension of existing SB auxiliary lane from Harbor Blvd off-ramp to Euclid St on-ramp

Removal of SB auxiliary lane from Beach Blvd to Magnolia St off-ramp

Reconfiguration of interchanges and ramps comprised of 23 new or replacement crossroad/ramp bridges, one pedestrian bridge, and seven bridge widenings on I-405

New, modified or replaced structures, including two overhead railroad crossing

New and upgraded drainage facilities

Pavement construction and revised delineation

Tolling infrastructure

Coordination with utility owners for relocation of known utilities

OCTA, Project Management and Construction Management Services for Transit Facilities Projects, Orange County, California. Construction Manager leading PM/CM services for OCTA's transit facilities projects. He is responsible for managing the projects at five bus maintenance and operations bases (bus bases), five transportation centers, and two park-and-ride facilities. The individual construction projects for each facility varies in the range of \$100,000-\$2 million each. OCTA has identified more than 20 individual projects to be completed by 2021. His team's responsibilities include full PM/CM services, agency coordination, document control, construction planning, project controls, and construction oversight.

OCTA, Measure M Program, Orange County, California. Program Manager/Director of Design and Construction responsible for the \$3.1 billion Measure M improvement projects, including freeway, rail, and transit facilities. Mr. Hout managed design, right-of-way engineering and acquisition, and construction. The projects included funding, master planning, designing, and constructing; light rail (centerline project) and heavy rail (Metrolink); bus transit facilities (maintenance and operations facilities, transit centers, park-and-ride facilities); freeway and highway improvements (all Orange County transportation system); and street and road improvements. The program was completed on schedule, within budget, and with no claims.

CVAG, Linking Desert Communities, Coachella Valley, California. Project Executive for Coachella Valley Associated Governments' (CVAG) CV Link, which will connect Coachella Valley cities and tribal lands with a safe, continuous, multimodal pathway for pedestrians, bicyclists, and low-speed electric vehicles. CV Link's design will change the landscape of the Coachella Valley with features and forms unprecedented in pathway design. The CV Link Master Plan calls for 52 path miles, 690 permanent jobs, 12 million annual vehicle miles saved, and \$1.47 billion in economic benefits for the area. The results will include relieved congestion on Highway 111, improved air quality, increased tourist amenities and mobility, community recreation and fitness, and a stimulated economy.

OCTA, State Route 91/55/57 PSR, Irvine, California. Supervised a comprehensive study on the corridor between SR 55 and SR 57 to determine preliminary design, operational characteristics, and

overall feasibility for adding road capacity for the Orange County Transportation Authority (OCTA). Continued improvements for the SR 55 and SR 91 freeway interchange complex were explored, as well as an evaluation of overall road capacity needs between the two major interchanges.

OCTA, Interstate 405 Striping, Irvine, California. Principal-in-charge for this Orange County Transportation Authority (OCTA) project to design a continuous access feature along the I-405 freeway. This design will allow commuters to enter and exit at will in the existing HOV lane between the SR-73 toll road and I-5 interchanges. HOV connectors are also being elongated from 50:1 to 115:1 to further help with traffic build up. This approach will increase mobility, reduce traffic, and improve public safety.

Valencia Company/Caltrans District 7, Interstate 5 and Valencia Boulevard Interchange, Valencia, California. Project Director responsible for the construction of the \$20 million Interchange of Valencia Boulevard with I-5. The project replaced the existing two-lane bridge with a new seven-lane bridge, as well as reconstructed all northbound and southbound on and off ramps. Mr. Hout provided leadership to the construction management team that was able to complete construction and close-out the project without claims in just 16 months.

OCTA, State Route 91 Widening Projects, Orange County, California. Responsible for design and construction of 14 miles of freeway reconstruction on SR 91 for Orange County Transportation Authority (OCTA). Primary features included addition of High Occupancy Vehicle (HOV) lanes between SR 55 and the Los Angeles County line; the reconfiguration of the interchange of SR 91 and SR 57; and the reconstruction and widening of all bridges in that stretch of highway.

OCTA, Interstate 5/Interstate 405 Interchange, Orange County, California. Design Director and Project Director for this \$113 million Orange County Transportation Authority (OCTA) interchange project by providing project and construction management services to make sure the project was completed on schedule and within budget. The project included the reconfiguration of the freeway-to-freeway connectors, addition of collector/distributor roads to eliminate weaving problems, and a new interchange at Bake Parkway. Mr. Hout acted as the Design Director during the design phase of the project, and as Project Director during construction. He received ACSE's 0000 Project of the Year Award.

OCTA, Interstate 5 Reconstruction, Orange County, California. Responsible for the design and construction of numerous segments of the 47-mile stretch of I-5 from Pacific Coast Highway in San Juan Capistrano to the Los Angeles/Orange County line. The \$1.9 billion Orange County Transportation Authority (OCTA) project was one of the largest and most complex public works projects ever undertaken in Orange County.

UCI, Anteater Drive and California Avenue Design-Build, Irvine, California. Project Director responsible for leading the design and construction team for this Design-Build project for the University of California, Irvine, including a new roadway system along Anteater Drive; the extension of California Avenue; signalized intersections at Culver Drive/Bonita Canyon and Shady Canyon; and signing and striping, curb and gutter, storm drain facilities, bicycle path, landscaping and irrigation, street lighting, and utilities. The team provided design and construction services, including the preparation of plans, specifications, and estimates (PS&E). This \$20 million construction project was completed within budget, ahead of schedule, and with no claims.

City of Irvine, North Irvine Transportation Mitigation Program, Irvine, California. Principal-in-Charge for the independent review of the proposed mitigation measures and cost estimates for 18 projects throughout the City of Irvine as part of the North Irvine Transportation Mitigation program under an on-call contract. Projects were located on Jamboree Road, Bake Parkway, Culver Drive, Alton Parkway, Irvine Center Drive, Sand Canyon, Alicia Parkway, and various offramps along I-5 and I-405. All task-order projects were completed on schedule and within budget. The program constructed more than \$50 million of transportation improvements.

OCTA, Orangethorpe Avenue Grade Separation Construction Management, Anaheim and Placentia, California. Principal-in-Charge and Project Manager for the Orangethorpe Avenue Grade Separation project construction management. This project resulted in safe separation of road from rail—continuing Orange County’s goal to improve the transportation system, alleviate current traffic impacts, enhance safety for citizens and visitors, and increase freight capacity. This project included an elevated and skewed main overcrossing to span the BNSF railroad tracks, and two smaller structures crossing the existing flood channel. The main overcrossing structure is two distinct portions: a cast-in-place, post-tensioned box girder and a pre-cast girder section, constructed in sequence on more than a thousand driven piles in close proximity to a residential area. The project also included environmental, survey, and close interaction with BNSF railroad personnel and a host of third-party stakeholders. Mr. Hout led the team to support the Orange County Transportation Authority (OCTA) through the bid period, preconstruction, during construction, and post-construction.

EMAAR, Burj Dubai Fun Trolley Project, Dubai, Dubai United Arab Emirates. Assembled a consulting team of professionals to provide engineering and construction services for the Design-Build of the Burg Dubai Fun Trolley project. The project consisted of a street car circulating people-mover around the tallest building in the world, named the Burj Dubai (now known as Burj Khalifa). The trolley project was put on hold due to funding shortfalls caused by the world economic and financial crisis.

AEIB/PJSI, Dubai Monorail Project, Dubai, Dubai United Arab Emirates. Project Executive for program management and construction management consulting services to the Architectural and Engineering Innovation Bureau (AEIB) responsible for designing and constructing the Design-Build monorail system on the Palm Island in Dubai. This monorail project provided continuous service for the Palm Island to the Atlantis Resort.

City of Anaheim, Anaheim Fixed Guideway, Anaheim, California. Assembled a consulting team to provide preliminary engineering and environmental services to clear the project for the City of Anaheim. The Anaheim Fixed Guideway transit project consisted of rail alternatives to provide a people-mover system between the Anaheim Regional Transportation Intermodal Center (ARTIC) to Disneyland and the Anaheim Convention Center. The future system is intended to provide connectivity between ARTIC, the California High-Speed Rail system, and employment and activity centers throughout the City of Anaheim.

Orange County Great Park Corporation, Irvine Fixed Guideway, Irvine, California. Assisted the Orange County Great Park Corporation in providing preliminary engineering and environmental services to clear the project for the City of Irvine. The Irvine Fixed Guideway transit project

consisted of rail alternatives to provide a people-mover system between the Irvine Spectrum, the Great Park, and commuter and local transit systems.

Alameda Corridor, Alameda Corridor Project, Los Angeles, California. Principal-in-Charge of the Design-Build team for the construction of the Henry Ford Grade-Separation project. Mr. Hout and his team provided construction staking, project management, and construction management services.

Metro, Gold Line Design-Build Project, Los Angeles, California. Assisted on the Design-Build team for the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line project by providing construction staking, construction management, and survey monumentation services to the Design-Builder.

SCRRA, Metrolink Track and Station Improvements, Various Southern Counties, California. Oversaw the construction of Southern California Regional Rail Authority's (SCRRA) Metrolink's track and station improvements in the counties of Los Angeles, Orange, San Bernardino, Riverside, and Ventura.

OCTA, Various Orange County Transit Projects, Orange County, California. Involved in planning, designing, and constructing many of Orange County's bus maintenance and operations facilities, Park-n-Ride facilities, and transit centers for the Orange County Transportation Authority (OCTA).

OCTA, Orange County's Light Rail System Centerline Project, Orange County, California. Involved in the planning and implementation of Orange County's light rail system commonly known as the Centerline project. As an Orange County Transportation Authority (OCTA) representative, Mr. Hout was involved with alignments, funding, preliminary engineering, and right-of-way and utility clearances for the project. The project was eliminated from Orange County's Transit Master Plan by the Board of Directors in 2008.

CHSRA, California High Speed Rail Initial Construction Section, Greater Fresno and California Central Valley, California. Project Executive leading the Stantec/Jacobs Design Team as part of a Design-Build team to plan, design, build, and operate a high-speed rail system (System) for the California High-Speed Rail Authority (CHSRA). Mr. Hout led the Statement of Qualifications (Phase 1) with the construction joint venture team of Dragados USA – Samsung – Pulice – CC Myers and secured a position on the short list for the initial \$2 billion construction segment in Fresno. The ultimate 800-mile high-speed rail system will be coordinated with California's existing transportation network, particularly intercity rail and bus lines, commuter rail lines, urban rail transit lines, highways, and airports. By implementing the high-speed rail system, California will have a comprehensive transportation network—connecting major cities, employment centers, activity centers, entertainment centers, and other important locations. Mr. Hout made certain his team provided an interoperable, flexible, and innovative design that is easily adaptable for future enhancements. The team's comprehensive approach weaved system sustainability into the design, construction, operation, and maintenance—developing strategies that promoted recycled materials, mitigated environmental and community impacts, reduced carbon footprint, and other innovations without compromising technical specifications.

SCRRA, Metrolink Construction Management Program, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties, California. Responsible for the Southern California Regional Rail Authority's (SCRRA) Metrolink construction management program in Southern California. He assisted SCRRA in constructing many of their heavy rail track improvements and several station development projects. The construction management team under Mr. Hout's leadership provided thorough constructability reviews, full-service management and inspection experts, office and project engineers, track and station professionals, administrators and field office facilities to oversee construction of SCRRA's 300 miles of track and station improvements.

Sam served as Project Manager on many Metrolink contract task orders throughout Southern California, including, but not limited to, the following:

San Gabriel Track Improvements—\$20 million track and station improvements, including 9 miles of new track, two new bridges, two new stations, and modifications to three existing stations; work also involved a shoe-fly and siding

Camarillo Station Improvements—Platform upgrades, new safety upgrades, and parking lot enhancements and restriping

Sun Valley Siding and Newhall Line Exchange—New siding to enhance train safety and efficiency, track rehabilitation, wall stabilization, and neighborhood issue resolution

Tunnel 26—Lighting and safety upgrades

Orange County Three Bridge Project—Three pedestrian bridges to improve public safety and train movement efficiency

San Gabriel Subdivision Tie Replacement—Upgrades to wood ties and ballast additions to several miles of tracks, while keeping the busy line operational, including night work

Chatsworth Station—Safety improvements and parking lot expansion

Penlon Bridge Project

LAWA, Airports and Aviation LAX In-Line Security Baggage Screening, Los Angeles, California. Project Executive responsible for project construction management of the in-line security baggage screening at the North Terminals at Los Angeles International Airport (LAX) for Los Angeles World Airport (LAWA). This project involved the day-to-day construction management of \$192 million improvements. The improvements encompassed the public area refurbishment in Terminals 1, 2, and 3, as well as the construction of the in-line baggage screening system to host the Transportation Security Administration's (TSA) equipment. Terminal 1 and 2 involved 21,000 square feet of new free-standing building hosting two Explosive Detection Systems (EDS) and Baggage Inspection Room (BIR). Terminal 3 involved new Baggage Handling System (BHS) in a 35,000-squarefoot renovated space to host two EDSs and two BIRs.

Orange County Great Park Corporation/City of Irvine, Mixed-Use, Sports, and Recreation Orange County Great Park, Irvine, California. Project Executive responsible for design management oversight, program management, and construction management services. The Orange County Great Park (OCGP) includes habitat preservation, conservation and open space,

parks and recreation, education facilities, institutional complex, rail transit, and other public-oriented land uses. The 4,000-acre private land development included such uses as agriculture, research and development, commercial, retail, transit-oriented, and medium and low-density residential development. Mr. Hout assisted the OCGP staff and the City of Irvine in planning, design, and construction of all elements. The project elements included backbone infrastructure, including roadways within the park; underground wet and dry utilities; drainage elements; traffic control and street lighting; riparian corridors; wildlife corridor; sports park; open spaces and connecting corridors; grading and infrastructure development for the Museum District; gateways/entry features and icons; water features; park signage and lighting; park landscaping and landscape framework; on- and off-street parking; above-ground structures, buildings, and facilities; and demolition of existing infrastructure and facilities. Mr. Hout also assisted with bidding, award, construction, and construction. The estimated cost for developing OCGP is \$1.5 billion.

Walt Disney Company, Disney's California Adventure, Anaheim, California. Assisted in developing Disney's \$2 billion Anaheim resort expansion. Mr. Hout was instrumental in developing the construction management plan for the infrastructure group to guide the design and construction of streets, parking, and park development projects. He and his team delivered \$800 million of infrastructure projects within the first year of the project.

Southern California Water Company, Various Projects, Various Locations, California. Assisted the Southern California Water Company with their five-year Capital Improvement Program. Mr. Hout managed the design and construction of pipelines, plants, pump stations, storage tanks, and deep-well construction projects. The projects were located throughout southern California.

Newhall Land and Farming, Valencia Company, and Valencia Water Company, Valencia Sewer and Water Projects, Valencia, California. Responsible for several sewer and water projects, including the Main Trunk District 32 sewer and the Avenue Tibbits water/sewer projects. The Tibbits project consisted of large diameter pipe-laying activities, deep utilities protection and relocation, pipe jacking operations under I-5, and street improvements on various streets in Santa Clarita. These multi-million-dollar projects provided sewer and water to numerous communities in the Santa Clarita Valley.