

# Curt Scheyhing, G.E., Senior Principal Project Engineer

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## EXPERIENCE SUMMARY

### *Professional Registration*

Civil Engineer,  
California R.C.E. 59216  
Geotechnical Engineer,  
R.G.E. 2766

### *Education*

B.S., Civil Engineering  
San Diego State  
University, 1993  
M.S., Civil Engineering,  
San Diego State  
University, 1995

Curt Scheyhing has more than 13 years of geotechnical experience ranging from directing field and laboratory investigations to engineering analysis and design. He has been involved in investigation, analysis, and geotechnical design of various transportation projects in the Orange County, Los Angeles and San Diego, areas. His experience includes analysis of static and seismic slope stability of soil and rock slopes, design of spread footings, driven piles, and drilled piles for bridge foundations, design of earth retaining structures including concrete walls, MSE walls, soil nail walls, and tieback walls, settlement analysis for foundations and earth fills, liquefaction evaluation, use of lightweight cellular concrete fills, and ground improvement including surcharge and stone columns.

## **BRIEF SUMMARY OF EXPERIENCE**

### *Buildings*

- **South Court Facility, Laguna Niguel, CA:** Project engineer responsible for the geotechnical investigations and reports for the proposed project site which is the current home of the existing courthouse, jury assembly, library, fire station, vehicle maintenance facility, district attorney's office and public defender's office occupying the 28-acre property. Site is bounded on the south by Crown Valley Parkway, on the east by Alicia Parkway, on the north by Pacific Island Drive, and on the west by a graded residential slope. The proposed construction will include: Addition of 14 courtrooms for a total of 206,840 square feet; new 3-story parking garage with a total of 475 spaces; New city hall; Various At-Grade Parking areas. GDC also provided recommendations for the mitigation of expansive soils and design parameters for post-tensioned slabs and flat works.

### *Rail*

- **Pasadena to Los Angeles Gold Line LRT, Cities of Los Angeles and Pasadena, CA:** Project engineer for a geotechnical investigation of a 13.7 mile light rail transit extension from downtown Los Angeles to Pasadena. The project is mostly at-grade following the abandoned Atchison Topeka & Santa Fe (ATSF) Railroad right-of-way. A total of 13 stations were designed. GDC provided 10 segment reports, 13 station reports, two seismic retrofit reports, and one new pedestrian overcrossing report. Reports for Segments 4 and 8 included the Figueroa and Colorado Boxes, which are being constructed using cut-and-cover method. The reports provide recommendations for retaining walls, MSE walls, stations and platforms, track design, excavation and shoring, probabilistic seismic hazard assessment, static and seismic earth pressures for temporary shoring and permanent walls, racking displacement of the tunnel sections during seismic event, slope stability.

**Schools**

**Robert F. Kennedy Learning Center (former Ambassador Hotel site), Los Angeles, CA:** Project engineer for the redevelopment of the original Ambassador Hotel / Cocoanut Grove site, located west of downtown Los Angeles. The 23.8-acre property was graded to accommodate a \$318 million integrated campus to be named the Robert F. Kennedy Learning Center. The project is the most expensive facility built by the Los Angeles School District, and includes an 800-student K–3 School, 1000-student Middle School and a 1000-student High School. Curt developed design level recommendations to incorporate a 36 foot high soil nail wall into one of the building walls for the proposed multi story building structure. The soil nail wall was designed to retain the earth, and to be structurally separated from the building wall, in order to eliminate the large unbalanced seismic earth pressures on the building from a conventional retaining wall. The wall was designed to be stable with minimal movements for the Upper Bound Earthquake (975 year return period) with peak ground accelerations of 0.73g. This is the first school project under Division of State Architect (DSA) review that included incorporation of a soil nail wall into a building structure.

**Slopes**

**Santa Anita Canyon Road Slope Repair Project, Arcadia, CA:** Project engineer responsible for evaluation and repair of storm damage along this winding mountain road that occurred in the 1995 rainy season. The slope repair was performed using geogrid and Sierrascape baskets to reconstruct a deep erosion gully that formed in the winter of 1995 on a 100 foot high 1H: 1V Decomposed Granite (DG) slope resulting in collapse of a portion of the roadway and leaving a 30 foot high near vertical scarp. The erosion occurred when a landslide from the upper slope blocked the roadway, and heavy storm runoff flowing down the paved roadway discharged over the side. The City required a repair that stayed entirely within the City right of way, and wanted a "non-structural" solution (no soldier piles or tiebacks, etc.). Due to the space limitations a steep reinforced soil slope solution was selected. Curt directed and performed geologic and geotechnical evaluations, and developed detailed recommendations for the repair. These included geologic mapping, post-repair global slope stability evaluation utilizing back-calculated shear strength parameters, evaluation of temporary excavation stability, recommendations for backfill strength parameters and compaction, and subdrainage.

**Transportation**

**SR-22 Design Build Project, Orange County, CA:** After completion of the Post-APS study and award of the design-build contract, GDC was retained as a sub consultant to the construction management firm for OCTA. Curt acted as consultant to the construction manager and OCTA, and served as the primary geotechnical reviewer of geotechnical reports prepared by the design build contractor's geotechnical engineer. Curt attended design and over-the-shoulder meetings at least twice weekly, and worked closely with Caltrans geotechnical reviewers, OCTA, and the design-build geotechnical engineers to quickly resolve the design and review issues in order to meet the aggressive design schedule.

**Water-Wastewater**

**Haynes Generating Station Units 3 & 4, Long Beach, CA:** Project engineer for the Los Angeles Department of Water and Power/Kiewit Industrial Company's evaluation of twin 60-in. diameter intake pipelines supported on 99 30- and 36-in. diameter cast-in-drilled-hole (CIDH) piles. Group Delta Consultants performed geotechnical investigation, analyzed and developed design recommendations, including seismic design criteria, axial and lateral capacity for CIDH piles, FLAC analysis for lateral spreading due to liquefaction, and construction considerations.