

GROUP DELTA



Playa Vista
Development



Eleve Lofts/Skydeck Apts
Los Angeles



Arden Lofts
Glendale



City of
Champions

Statement of Qualifications Housing & Mixed Use Developments

Serving California Since 1986

Irvine
32 Mauchly
Suite B
Irvine, CA 92618
(949) 450-2100

Torrance
370 Amapola Avenue
Suite 212
Torrance, CA 90501
(310) 320-5100

San Diego
9245 Activity Road
Suite 103
San Diego, CA 92126
(858) 536-1000

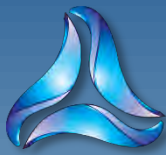
Ontario
1035 So. Milliken Avenue
Suite G
Ontario, CA 91761
(909) 295-5550

Victorville
12180 Ridgecrest Road
Victorville, CA 92395
(760) 881-3224

Oakland
1970 Broadway
Suite 1100
Oakland, CA 94612
(510) 671-0010

Anaheim
1320 South Simpson Circle
Anaheim, CA 92806
(714) 660-7500

“Delta is the Difference”



GROUP DELTA

WHO WE ARE



Group Delta is a consulting geotechnical and environmental engineering firm with seven offices located in the counties of Orange, Los Angeles, San Bernardino, San Diego and Alameda. Our team consists of civil and geotechnical engineers, environmental engineers, engineering geologists, laboratory and field technicians, deputy inspectors, drafting/CADD technicians, and drilling and support personnel specialized in their respective fields. We offer a broad range of services to serve the needs of our clients.

GEOTECHNICAL ENGINEERING AND GEOLOGIC SERVICES

- Feasibility studies
- Third Party Reviews
- Foundation design
- Earth Retaining Structures Design
- Pavement Design
- Earthwork and Grading
- Earthquake and Fault Studies
- Geologic Hazard Evaluations
- Numerical Modeling Analyses
- Seismic Design & Hazard Assessments
- Hydrogeologic Evaluations
- Dewatering
- Ground Improvement Analysis & Design
- Laboratory Testing
- Slope Stability & Landslide Investigation & Mitigation
- Instrumentation and Ground Monitoring



Hollywood Fault Study

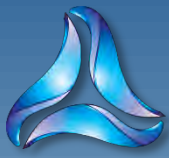
- Pile Drivability & Load Tests
- Seismic Retrofitting Design
- Geologic Reconnaissance & Mapping
- Geophysical Investigations
- Trenching Investigations

ENVIRONMENTAL SERVICES



Tank/Hazardous Materials Sampling

- Phase I Initial Site Assessments (ISAs) / Environmental Site Assessments (ESAs)
- Hazardous Materials Management & Industrial Hygiene
 - Surveys and Investigations
 - Technical Abatement Specifications and Work Plans
 - Abatement and Remediation Monitoring Services
- Phase II Site Investigations (SIs)
- Construction Environmental Compliance
- Phase III Site Remediation
- Stormwater



GROUP DELTA

FORENSIC SERVICES

- Earthquake Damage Assessments: Causation studies and preparation of repair recommendations.
- Landslide Investigations: Causation studies and/or development of stabilization schemes.
- Construction Vibrations: Vibration monitoring and geotechnical testing.
- Dam Investigations
- Settlement Analyses: Floor level surveys, causation studies and/or preparation of repair recommendations.
- Expansive Soils: Subsurface investigations, preparation of repair recommendations.
- Groundwater: Subsurface investigations, preparation of subsurface drainage recommendation.

TESTING AND INSPECTION SERVICES

Group Delta has two materials testing laboratories located in Anaheim and San Diego, California. Our laboratories are licensed as an approved testing facility by various agencies including the Division of the State Architect (DSA), City of Los Angeles, Caltrans, CCRL and AASHTO. In addition, Group Delta's San Diego laboratory has been awarded accreditation to the technical competence and quality assurance requirements of ISO/IEC 17025:2005 as determined by AASHTO Highway Subcommittee on Materials.

Soils Testing

- Classification & Index
- Strength Tests
- Volumetric Change
- Permeability
- Compaction
- Aggregate/Subgrade

Materials Testing

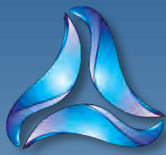
- Asphalt Testing
- Concrete Aggregate
- Concrete Cylinders
- Concrete Beams
- Masonry
- Masonry Unit Cubes
- Masonry Prisms
- Grout/Mortar
- Dry Pack Blocks
- Shotcrete
- Batch Plant Inspections
- Reinforcing Steel
- Structural Steel
- Chemical Physical Properties
- AWS/CWI Welding
- Post-Tensioning
- Epoxy Dowels/Drilled in Anchors
- Pull Testing
- Non Destructive Testing – UT/MT
- High Strength Bolting
- Fireproofing Inspections and Sampling
- Concrete & Masonry Coring and Extraction
- Mix Design Reviews & Trial Batched
- Fiber Wrap Inspection
- Vapor Emissions Testing



Direct Shear, Consolidation & Sand Equivalent Testing



Asphalt & R-Value Testing



GROUP DELTA

Group Delta meets all the requirements as an approved testing agency with the following local and national accrediting/certification authorities:

- ISO 17025
- AASHTO (American Association of State Highway and Transportation Officials)
- ACI (American Concrete Institute)
- AMRL (AASHTO Materials Reference Laboratory)
- ANSI (American National Standards Institute)
- APWA (American Public Works Association)
- ASNT (American Society of Nondestructive Testing)
- ASTM (American Society for Testing and Materials)
- AWS/CWI (American Welding Society/Certified Welding Inspector)
- California Department of Transportation (Caltrans)
- CCRL (Cement and Concrete Reference Laboratory)



- City of Los Angeles
- DSA (Division of the State Architect)
- ICBO (International Conference of Building Officials)
- NICET (National Institute for Certification in Engineering Technologies)
- UBC (Uniform Building Code)

Inspection

Earthwork Inspection and Testing – Group Delta provides geotechnical observation and testing services for all stages of site grading. Our field compaction testing services are provided by experience soils technicians working under the supervision of licenses professional engineers.

Asphalt Inspection and Testing – Group Delta provides comprehensive asphalt testing and AC Mix Design Services. We are regularly certified by AMRL in our laboratories.

Concrete Inspection and Testing – Group Delta’s concrete inspection and testing staff is re-certified bi-annually by the Cement and Concrete Reference Laboratory (CCRL) and annually by Caltrans. Our ACI certified concrete technicians perform field and batch plan sampling of concrete materials to assure compliance with project specifications.

Specialty Construction Inspection – Group Delta provides experienced special inspectors licensed by the International Code Counsel (ICC) for Sprayed Applied Fireproofing, Structural Masonry, Structural Steel Bolting and Welding, Pre-Stressed Concrete, and Reinforced Concrete. Group Delta can also provide Certified Welding Inspectors (CWI) licensed by the American Welding Society (AWS) and non-destructive testing such as mag-particle and ultra-sonic testing.

Group Delta Technicians & Inspectors hold the following certifications:

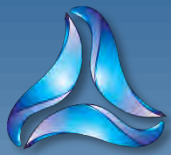
ICC Inspection

- Masonry
- Structural Steel/Welding
- Concrete
- Fireproofing
- Pre-Stressed Concrete

Caltrans Certified

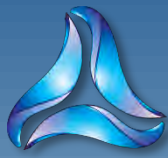
- Materials Testing
- Soils Testing
- Nuclear Gauge Safety
- ACI Certified Concrete
- Soils

City of LA Deputy Inspector



GROUP DELTA

PROJECT EXPERIENCE



PLAYA VISTA DEVELOPMENT Los Angeles, CA

Project Highlights

- Awarded the Gold Nugget Award in the single-family detached home category at the Pacific Coast Builders Conference
- Newly developed runway office, retail and housing project that will serve as Playa Vista's downtown
- Newly developed 66,000 sf \$45 Million, IMAX Headquarters

Group Delta Highlights

- Lead Geotechnical Engineering firm during both the design and construction phase
- Implemented multiple surcharge programs to mitigate large settlements
- Observed the installation of over 10,000 piles and hundreds of acres of grading
- Performed over 50 static axial pile load test



Project Information

Client:	Various
Owner:	Playa Vista LLC
Total Cost:	\$12 Billion
Completed:	Ongoing



A-TOWN PLATINUM TRIANGLE Anaheim, CA

Project Highlights

- Area surrounds Angel Stadium, Honda Center and the Grove of Anaheim
- Project will bring 9,500 housing units, 5 million sq. ft. of office space and 2 million sq. ft. of commercial use and multi-level parking structures
- Urban development is under the guidelines of The Platinum Triangle Master Land Use Plan

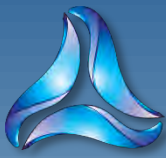
Group Delta Highlights

- Provided geotechnical investigations that provided cost-effective foundation recommendations
- Services included critical sequencing of shoring/excavation due to high density structures planned for the site



Project Information

Client:	Lennar
Owner:	Lennar
Total Cost:	\$1 Billion
Completed:	On-going



CITY OF CHAMPIONS REVITALIZATION PROJECT Hollywood Park, Inglewood, CA

Project Highlights

- New home of the LA RAMS
- Redevelopment includes remodeling/upgrading of casino
- Site will include new housing, office space, retail, hotel, lakes and NFL stadium
- Project development till 2024

Group Delta Highlights

- Major Near Field Group Motion study with conditional mean spectra
- Soil/Structure modeling of new 100 ft. free standing permanent wall
- Geotechnical investigations and recommendations for the redevelopment
- Major foundations for stadium



Project Information

Client:	Wilson Meany Sullivan
Owner:	Hollywood Park Land Co. LLC
Total Cost:	Est. \$10 Billion
Completed:	Ongoing



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HYATT REGENCY GRAND COAST RESORT Huntington Beach, CA

Project Highlights

- 504-room, four-story, hotel complex includes two levels of subterranean parking and extensive landscape and hardscape features
- Additional features include ballrooms, conference rooms, and retail facilities
- Amenities include tennis courts, walkways and pedestrian bridges crossing Pacific Coast Highway

Group Delta Highlights

- Scope of work included geotechnical review of existing information for the site that resulted in providing recommendations that **saved client more than \$1 Million** in pile foundation cost
- Additional geotechnical recommendations were provided for grading, site preparation, seismic hazards, liquefaction evaluation, surcharge program and pavement design



Project Information

Client:	Robert Mayer Corporation
Owner:	Hyatt Corporation
Total Cost:	\$70 Million
Completed:	2010



TERRANEA RESORT Rancho Palos Verdes, CA

Project Highlights

- Project is the largest construction of this type in the history of the city
- Sits on the cliffs overlooking the Pacific Ocean on 102 acres providing a spectacular view
- Hotel is 400,000 sf and includes 50 casitas, 32 villas and 20 bungalows
- Amenities include spa, three swimming pools, 1,075 parking spaces and 9-hole golf course

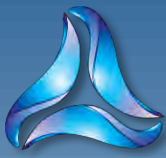
Group Delta Highlights

- Provided services to the City as the project Inspector of Record
- Provided subsurface investigations and reviewed safety requirements
- Conducted daily building inspections included electrical, plumbing, fire sprinklers, HVAC systems as well as overseeing all special inspections and materials sampling



Project Information

Client:	City of Rancho Palos Verdes
Owner:	Lowе Enterprises
Total Cost:	\$480 Million
Completed:	2010



CARLSBAD HILTON OCEANFRONT RESORT Carlsbad, CA

Project Highlights

- Resort is located just east of Pacific Coast Highway, 500 feet from coastal bluffs of Carlsbad State Beach
- Development included the construction of a three-story wood-framed hotel with separate three-story parking garage, both with basement areas

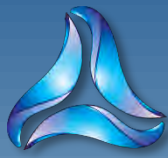
Group Delta Highlights

- Provided geotechnical investigations for site development
- During construction provided grading oversight and testing
- Construction support services included materials testing and inspection services



Project Information

Client:	Wave Crest Oceanfront, LLC
Owner:	Hilton Hotels
Total Cost:	Calibri \$75 Million
Completed:	2012



CENTRAL PARK WEST Irvine, CA

Project Highlights

- First urban master planned community located in Orange County
- Development borders four major intersections and has close proximity to shopping areas
- Housing includes various luxury flats consisting of four-story buildings over two levels of basement parking.

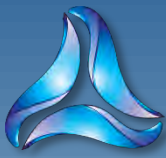
Group Delta Highlights

- Provided geotechnical recommendations for the development
- Major issues for this project included shallow groundwater, heavy measurements and mat foundations
- Construction support services included quality control testing and inspection services



Project Information

Client:	Lennar Homes
Owner:	Lennar Homes
Completed:	2017



ELEVE' Glendale, CA

Project Highlights

- Four-story residential wood framed structure consisting of podium decks with a 1-level subterranean parking structure
- Development includes a ground floor level for retail and 208 lofts and apartments
- Development was originally named "Broadway Lofts"

Group Delta Highlights

- Provided initial geotechnical investigation and reports for development
- During construction provided shoring observations, materials testing and inspection services



Project Information

Client:	American Multi-Family Development (AMFD)
Owner:	AMFD
Completed:	2013



BLACK MOUNTAIN RANCH San Diego, CA

Project Highlights

- 5,100 acre master planned community with 60% (2,800 acres) dedicated to open space
- Housing will consist of single family dwellings and multi-family residents
- Project includes schools, community parks, commercial centers and bridges
- 2008 Mixed Use Development of the Year Award

Group Delta Highlights

- Provided geotechnical investigations and provided reports for project design
- Construction support services included geotechnical oversight, materials testing and special inspection services
- Provided bridge foundation investigations for more than ten miles of new public right-of-way



Project Information

Client:	Taylor Woodrow Homes
Owner:	Taylor Woodrow Homes
Total Cost:	\$325 Million
Completed:	2002



THE VILLAGE Santa Monica, CA

Project Highlights

- Project is a mixed use, mixed income development that is the final piece in the Revitalization of the Civic Hub in downtown Santa Monica
- Urban mix of 318 luxury condominiums, affordable rental apartments and parking structures, and 20,000 sq. ft. of retail shops

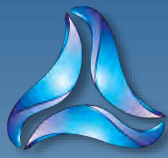
Group Delta Highlights

- Provided geotechnical investigation and recommendations for the preliminary design
- Provided seismic recommendations and foundation recommendations
- Construction support services including soil inspection and testing



Project Information

Client:	Related Companies of California
Owner:	Santa Monica Redevelopment
Total Cost:	\$350 Million
Completed:	2014



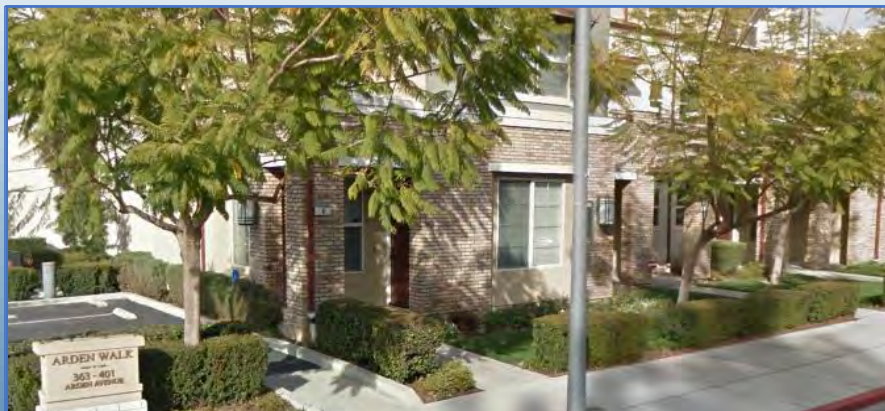
ARDEN WALK TOWNHOMES Glendale, CA

Project Highlights

- 1.42 acre site in Glendale consisting of multi-family residential developments, seven buildings with 23 townhome units
- Project includes 3-story units with post-tensioned flow slab on-grade

Group Delta Highlights

- Design level geotechnical investigation with seismic ground motion analysis
- Geotechnical observation and testing of grading and preparation of subgrade support for post-tensioned slab



Project Information

Client:	Olsen Company
Owner:	Olsen Company
Total Cost:	\$65 Million
Completed:	2008



TRESTLE GLEN APARTMENT COMMUNITY San Mateo County, CA

Project Highlights

- Urban infill redevelopment of obsolete RV trailer park
- Completed as P3 between County of San Mateo and BRIDGE Housing Corporation
- Mix of 119 affordable multi-family apartments and on-site childcare facility
- Transit-oriented development located adjacent to Colma BART Station and SamTrans bus lines

Group Delta Highlights

- Scope of work included a geotechnical investigation (performed by Bay Area staff prior to joining the firm)
- Developed cost-saving innovative solution to mitigate liquefaction potential eliminating need for pile foundations
- Provided construction support services during earthwork and ground improvement elements

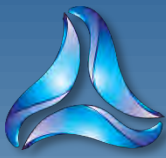


AWARD WINNER: 2011 Sustainable San Mateo County & 2010 ASCE San Francisco Section Outstanding Project



Project Information

Client:	BRIDGE Housing Corp.
Owner:	BRIDGE Housing Corp.
Total Cost:	\$44.5 Million
Completed:	2010



SAN SEBASTIAN SENIOR HOUSING Laguna Woods, CA

Project Highlights

- Demolition of an existing building and construction of a new three-story building and parking garage

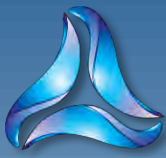
Group Delta Highlights

- Negotiated site closure with the Regional Water Quality Control Board (RWQCB) via natural attenuation – ultimately allowing project to progress on schedule and saving client money
- Performed initial site assessment and follow-up site investigation



Project Information

Client:	The Robert Mayer Corporation
Owner:	The Robert Mayer Corporation
Completed:	2009



PALERMO AT LAKE POINTE TOWNHOMES Chula Vista, CA

Project Highlights

- New townhome community consisting of 1062 to 1652 sq. ft. townhomes
- Townhomes will feature 2 to 4 bedrooms and 2.5 to 3.5 bathroom
- Community features include greenbelts, pool, spa and tot lot

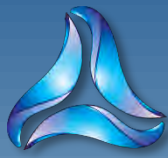
Group Delta Highlights

- Provided initial geotechnical investigations for project design
- Construction support services included geotechnical engineering, materials testing and quality control inspection



Project Information

Client:	Lennar Homes
Owner:	Lennar Homes
Completion:	2015



SANTA ANA STATION DISTRICT APARTMENT HOMES Santa Ana, CA

Project Highlights

- Development consists of a 74-units of apartment homes for low income families
- Location is in the Lacy Neighborhood of the Santa Ana Station District
- Mix of affordable rental and for sale townhomes totaling 138 units
- Development one of the first under the City's Transit Zoning Code

Group Delta Highlights

- Provided geotechnical investigations and recommendations for design
- Provided geotechnical oversight during construction
- Construction support services also included materials testing and quality control inspection services



Project Information

Client:	Related Companies of California
Owner:	Santa Ana District Housing Partners
Total Cost:	\$45 Million
Completed:	2013



TURNBERRY DEVELOPMENT Anaheim, CA

Project Highlights

- 76 townhome community
- 1500 to 2000 sq. ft. units
- 2-4 bedrooms
- Upper \$400,000

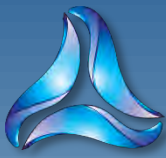
Group Delta Highlights

- Site Inspection to observe current environmental conditions.
- Reported on decontamination risks via sample testing.
- Conducted drilling activities and recorded borings.



Project Information

Client: Lennar
Owner: Lennar
Completed: 2015



VERBENA FAMILY APARTMENTS San Ysidro, CA

Project Highlights

- Project includes 80 low income apartments consisting of 27 two-bedroom flats and 53 three-bedroom townhouses
- 177 parking spaces including closed garage spaces
- Amenities include community room, recreation/picnic space, tot lot, laundry facilities and on-site management

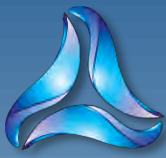
Group Delta Highlights

- Provided geotechnical investigations and report for project design
- Construction support services included quality control materials testing, inspection and geotechnical engineering oversight



Project Information

Client:	Emmerson Construction
Owner:	San Diego Redevelopment
Total Cost:	\$26 Million
Completed:	2012



WESTMINSTER SENIOR HOUSING Westminster, CA

Project Highlights

- Development consists of two-story and three-story senior townhouse apartments
- Site is 3.07 acres and includes eight buildings with a total of 832,006 sf

Group Delta Highlights

- Provided geotechnical investigations and design recommendations
- Construction support services included quality control materials testing and inspection



Project Information

Client:	Related Companies of California
Owner:	Westminster Redevelopment Agency
Completed:	2003