

# REPRESENTATIVE LAND DEVELOPMENT/COMMERCIAL/RESIDENTIAL PROJECTS

#### **CLOVER CREEK VILLAGE**

Geotechnical Engineering

# Construction Materials Testing and Special Inspection Services

CGi provided geotechnical engineering and materials testing services for the design and construction of the multiphase Clover Creek Village subdivision. The 180-lot subdivision was constructed on sloping terrain and involved numerous relatively thick fills, installation of keyways and subdrains, construction of numerous buried utility galleries, and construction of a number of roads, including Preserve Way.

### MERIAM PARK DEVELOPMENT - NEW URBAN BUILDERS

Geotechnical Engineering

### Construction Materials Testing and Special Inspection Services

CGi provided geotechnical engineering services and a Phase I Environmental Site Assessment for the 250-acre Meriam Park project located in Chico, California. The project consists of mixed use development that includes residential, commercial, and recreational facilities, many of which are large, heavily loaded structures. In addition, bridges will span Little Chico Creek and will involve foundation design for those structures.

### SIERRA PACIFIC INDUSTRIES, SHINGLETOWN SUBDIVISION

Geotechnical Engineering

### Construction Materials Testing and Special Inspection Services

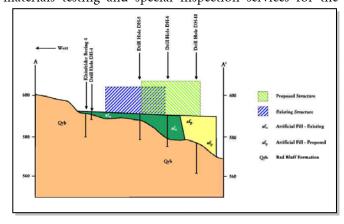
CGI was retained to provide geotechnical engineering, materials testing, and special inspection services for a new 132-lot subdivision located on 360 acres in Singletown. The development included numerous roads, buried utilities, a new bridge spanning Millseat Creek, a new water storage tank, and additional ancillary improvements. CGI performed an extensive exploration program for the subdivision and 120foot long bridge. In general, the subdivision was underlain by competent volvanic materials; however, the bridge abutment sites were underlain by soft, weak, compressible clays unsuitable without amendment to support the bridge abutments. CGI, working closely with the project structural engineer, designed a geogrid-reinforced composite raft foundation beneath the abutments to reduce settlement and increase foundation bearing capacities.

## HOME BASE REDEVELOPMENT/WINCO FOODS

Geotechnical Engineering

### Construction Materials Testing and Special Inspection Services

CGi provided geotechnical engineering and materials testing and special inspection services for the redevelopment of the former Home Base site located in Redding, California. The project consisted of demolishing an existing single 96,000-square-foot structure reconstructing a 92,000-square-foot singlestory CMU structure on a reconfigured site for a WINCO Foods store. The project involved significant differential settlement issues because the new structure rests on existing fill up to 16 feet thick and on an equal thickness of proposed fill materials. In addition, two 15-foot-high, two hundred foot long mechanically stabilized embankment





(MSE) walls were constructed to retain a portion of the proposed fill materials. The project has involved extensive research on the site history, subsurface exploration, extensive laboratory testing and geotechnical analyses, and preparation of alternatives to mitigate differential settlement and expansion issues. Site construction was completed in 2005.

#### REDDING BANK OF COMMERCE ADDITION

### Construction Materials Testing and Special Inspection Services

CGi is currently providing a wide variety of construction materials testing and special inspection services for the 12,500 square-foot addition to Redding Bank of Commerce's (RBC) new building addition. CGi is providing compaction testing and observation during grading, special inspection of concrete and reinforcing steel placement, welding inspection, high strength and epoxy bolt placement, concrete masonry unit (block - CMU) placement, grout and mortar placement, and fireproofing application. In addition, CGi has performed laboratory testing on soil, concrete, mortar, and grout during construction of the facility.

### **BEST BUY**

### Geotechnical Engineering and

# Construction Materials Testing and Special Inspection Services

CGi provided geotechnical engineering and construction materials testing and special inspection services during construction of the new Best Buy Retail Outlet located in Redding, California. The project consists of a single story 30,000 square foot masonry and steel-framed building with a concrete slab-on-grade. The structure is founded on continuous and isolated foundations. Services provided included geotechnical engineering investigation, and special inspection and sampling and testing of: soils, structural masonry, concrete, structural steel and welding, high strength bolts and bolting, and chemical and mechanical anchorages.

#### **MERCY OAKS VILLAGE**

### Geotechnical Engineering

Mercy Housing California retained CGi to perform a geotechnical study for a 3-story, 50,000 square-foot residential care facility located on a 5-acre parcel in the City of Redding. The structure foundation required specific recommendations to reduce the impacts from differential settlement due to the site's sloping conditions. Asphalt concrete pavement for parking areas and driveways will cover the majority of the remaining site. Appurtenant construction will include retaining walls, underground utilities, storm drainage and landscaping.

### STATE FUND INSURANCE

### Geotechnical Engineering and

### Construction Materials Testing and Special Inspection Services

CGi provided geotechnical engineering and construction materials testing and special inspection services for the design and construction of a new three-story, approximately 75,000 ft<sup>2</sup> office building in Redding, California. CGI performed an extensive exploration and laboratory testing program to develop conclusions and recommendations for design and construction of the relatively heavily loaded structure. Uncertified fill was identified beneath the development area and alternatives for mitigating its presence were provided in our report. During construction, CGI performed compaction testing, concrete placement observation and testing, welding inspection, and additional special inspection services.