

JAMES S. SCOLARO

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EDUCATION

B.S. California State University, Chico (with special recognition) **1985-2001**
Department of Civil and Environmental Engineering
Emphases: structures, fluid mechanics, and hydrology

TEACHING EXPERIENCE

Research Assistant Professor **Spring 2000 – Present**
California State University, Chico
Department of Civil Engineering

CIVL 110 – Graphics for Civil Engineers (2 units)

- Created the course to replace MECH 100 (ME 025)
- Compiled topics and created the lab manual.

CIVL 130 – Surveying (3 units)

- Facilitated the purchase of modern survey equipment and total stations.
- Compiled topics and created the lab manual for modern surveying methods and technologies.

CIVL 131 – Introduction to Civil Engineering Design (3 units)

- Restructured and implemented modern software into the course.
- Compiled topics and created the lab manual incorporating terrain modeling software, modern surveying techniques, and global positioning systems.

CIVL 205 – Computer Applications in Engineering (2 units)

CIVL 211 – Statics (3 units)

CIVL 312 – Structural Testing Laboratory (1 units)

CIVL 313 – Structural Mechanics (4 units)

CIVL 321 – Fluid Mechanics Laboratory (- units)

CIVL 402 – Contracts, Specifications, and Technical Reports (4 units)

CIVL 441 – Transportation Engineering Laboratory (- units)

- Compiled and created a lab to incorporate terrain modeling software and roadway design.

CIVL 556 – Timber Design (3 units)

CIVL 561 – Open Channel Hydraulics (3 units)

- Currently compiling and creating a curriculum from this course to be included in a new water resources course, CIVL 461.

CIVL 562 – Hydrology (3 units)

ENGR 002 – Surveying for Non-Engineers (3 units)

WORK EXPERIENCE

Rancho Engineering, Paradise, CA

2006 - Present

Responsibilities include supervision of site surveying along with responsible charge of engineering analyses, plans and specifications pertaining to storm water hydrology and site development.

Personal contributions:

- Responsible charge for surveys, including topographic and site surveying in addition to construction staking.
- Autodesk Civil 3D site modeling.
- Site development plans and specifications.
- Roadway and driveway design.
- FEMA floodplain hydrology analysis.
- Storm water drainage and detention design with plans and specifications.
- Creek channel hydrology, erosion control, and HEC-RAS modeling.
- Design domestic water-distribution system, including fire flow demand, storage tank sizing, extended period simulations, pump performance, and water quality simulations.
- Design sewer systems, including pipeline routing, septic system sizing, and peak period performance.

Roberts Consulting Engineering RCE, Chico, CA

1999 - 2005

Responsibilities include supervision of site surveying along with responsible charge of engineering analyses, plans and specifications pertaining to structures, hydrology and site development.

Personal contributions:

- Responsible charge for surveys, including topographic and site surveying in addition to construction staking.
- Autodesk Land Desktop site modeling.
- Site development plans and specifications.
- Roadway and driveway design.
- FEMA floodplain hydrology analysis.
- Creek channel hydrology for establishing base flood elevations for existing and new construction
- Storm water drainage and detention design with plans and specifications.
- One challenging project was a bridge design, which included structural analysis for HS traffic loading on a steel beam with concrete deck composite construction, channel hydrology analysis for peak 100-year flood scenario, site development plans, and site surveys along with construction staking. The bridge has been built and in service today.
- Structural analysis for residential construction, including dead, live, snow, wind, and seismic loading scenarios.

Land Image Landscape Architects, Chico, CA

1998 - 2000

Responsibilities include supervision of site surveying along with responsible charge of plans and specifications pertaining to hydrology, irrigation systems, and site development.

Personal contributions:

- Responsible charge for surveys, including topographic and site surveying.
- Autodesk Land Desktop site modeling.
- Site development plans and specifications.
- Storm water drainage design with plans and specifications.
- Irrigation system design, including sprinkler demand, pipe sizing and routing, and irrigation timing schedules.

Dan Campbell, Civil Engineer, Lakeport, CA

1992 - 1996

Responsibilities included supervision of site and property boundary surveys along with responsible charge of engineering analyses, plans and specifications pertaining to structures, hydrology and site development.

Personal contributions:

- Responsible charge for surveys, including property boundary surveying, topographic and site surveying, and construction project staking.
- Section, Range, and Township boundary surveying and cadastral computations.
- Property boundary deeds and official records research and creating Tentative Maps, Parcel Maps, Subdivision Maps, and Records of Survey.
- Creating and recording Parcel Maps, Subdivision Maps, and Records of Survey.
- Autodesk Land Desktop site modeling.
- Site development plans and specifications.
- Roadway and driveway design.
- FEMA floodplain hydrology analysis.
- FEMA base flood elevation surveying for flood certificates for existing and new structure on or near Clear Lake.
- Creek channel hydrology for establishing base flood elevations for existing and new construction.
- Storm water drainage design with plans and specifications.
- Structural analysis for residential and commercial construction, including dead, live, snow, wind, and seismic loading scenarios. One project was Seigler Springs' three-story motel/office building requiring seismic retrofit. This existing construction dated back to the early 1900's, which was built with hewn logs and mortared rock foundations. The retrofit included a steel frame portion and a plywood shearwall portion with a slip joint between that allowed for period variations. This seismically active area of Lake County is popular for its hot springs and geothermal development.
- Structural steel design analysis and construction plans for The Lake Company's custom pier, dock, and boatlift fabrication business, which preferred structural steel tubing for piers and framing to support wood decking. The most complex projects were boathouses that included frames that lifted boat out of the water for storage inside. The designs were put to the test during a winter storm event that left many structures on Clear Lake in ruins. The Lake Company had no failures.

Fulton Reclamation Facility, Orland, CA

1989 - 1991

As Site Operator, my responsibilities included site surveying, ground water monitoring, soil water monitoring, soil sampling, and waste drilling mud sampling. The Fulton's idea was to amend existing gravelly loam soils with waste drilling mud to create a layer of topsoil capable of absorbing water and nutrients for cultivation of winter wheat and barley crops.

Personal contributions:

- Created and obtained Waste Discharge Requirements from The Regional Water Quality Control Board and all permits from Glenn County. This included presentations to the Board of Supervisors and many public groups interested in the management of drilling mud disposal sites.
- Created perimeters for the groundwater and soil monitoring schedules along with the list of constituent to monitor for determining environmental impacts.
- Submitted proposals and obtained Waste Discharge Requirements from The Regional Water Quality Control Board and all permits from Glenn County. This included presentations to the Board of Supervisors and many public groups interested in the management of drilling mud disposal sites.
- Executed the all groundwater and soils testing in compliance with Standard Methods for the Analysis of Water and Wastewater.
- Site development plans and specifications.
- Prepared quarterly reports for both county and state review.
- As of 2010, this facility was still operational and producing crops.

California Water Service Company, San Jose, CA**1981 - 1985**

The San Jose office was the central hub for all operations in the company. Hired by the engineering department as a drafting technician, my primary responsibility was to maintain current maps of the water distribution systems in five districts, including Chico. Additional duties included drawing plans and creating cost estimates for proposed projects requiring water distribution expansion and modifications.

Personal contributions:

- Maintained water distribution maps
- Created new schematics used to establish pressure gradients within the distribution system.
- Created graphical rendering for presentations as required for executives and department leaders
- Prepared annual maps and schematics for each district.
- Assisted with site surveys, construction inspections, and as-built drawings.

FAFCO Solar Systems, Sunnyvale, CA**1979 - 1980**

The Sunnyvale office provided solar system designs and installation services.

Personal contributions:

- Installed solar systems for heating residential swimming pools
- Installed domestic water solar systems that supplemented existing water heaters.
- The second year, I was assigned to the engineering department. My duties included initial site visits for dimensioning and structural inspection, generating sets of proposed solar system design plans, and securing all required permits. The company serviced the entire southern and eastern bay area.

US Army, 2nd Armor Division and 1st Cavalry Division, Fort Hood, TX**1975 - 1979**

Enlisted, E4. MOS: 13B, 13E, 13F. Assigned to the 1/16th Field Artillery, duties included fire direction control, forward reconnaissance, and support planning for infantry and armored battalions.

Contributions and commendations:

- Brigade 75, Operation TRAINCON, September 1976 to March 1977, Grafenwohr, Germany, Certificate of Appreciation. This was a combined arms training exercise involving European military deployments. This operation required additional language and customs training.
- Combined Arms Tactical Training, CATTs exercises, TRADOC Battle Captains Course, Aug 1977, Letter of Commendation. This was a computer-generated battle exercise.
- Division Restructuring Study Field Testing, Aug to Dec 1977, Letter of Commendation. Performed the duties of Lieutenant in support of infantry and armored battalions as a Forward Observer.

AWARDS

Award for Professionalism from the American Society of Civil Engineers, Feather River Branch, 2002.

CERTIFICATES

Engineer-In-Training (EIT), State of California, 1991.
Land Surveyor In Training (LSIT), State of California, 2002.