University of California, Irvine – Engineering III
Irvine, California
111,000 SF, five-story Lab Building. Project is set to attain a LEED NC Gold certification. tk1sc provided electrical engineering, architectural lighting design, telecommunications design, audio / visual systems design, security systems design, fire alarm system design, and utility company consulting services for this project.

Western Digital
Irvine, California
365,000 SF headquarters consisting of office space, data center and 165,000 SF of test lab for the testing of hard drive components. Over 5,000 lineal feet of overhead Starline Track Busway was installed within the test labs supported by Power Distribution Units. Selected labs were further supported by a modular 550 kVA, Uninterruptible Power Systems and 1500 kW Standby Generator system. tk1sc provided mechanical, electrical and plumbing engineering, telecommunications design, audio/visual systems design, security systems design services.

Emulex Laboratory Building
Costa Mesa, California
This multiple building campus headquarters included a central laboratory building designed to accommodate various electronic test lab configurations. A dedicated central plant provided cooling to multiple critical environment air conditioning systems. Spaces included an electro-magnetic test room, environmental test chambers, optics test lab and client server test environments. Dedicated condenser water central plant, redundant critical environment cooling systems, process venting systems, Liquid Nitrogen piping systems. 180,000 SF Total (including 45,000 SF Laboratory Building).
Carl Karcher Enterprises Headquarters  
Anaheim, California  
CKE moved their Headquarters into a new three-story 88,000 SF building. The project included a 44-cabinet Data Center with redundant UPS. tk1sc provided mechanical, electrical and plumbing engineering, architectural lighting design, telecommunications design, fire alarm system design, and utility company consulting services for this project.

Emulex 
Costa Mesa, California  
This multiple building campus headquarters included a central laboratory building designed to accommodate various electronic test lab configurations. A dedicated central plant provided cooling to multiple critical environment air conditioning systems. Spaces included an electro-magnetic test room, environmental test chambers, optics test lab and client server test environments. Dedicated condenser water central plant, redundant critical environment cooling systems, process venting systems, Liquid Nitrogen piping systems. 180,000 SF Total (including 45,000 SF Laboratory Building). tk1sc provided mechanical and plumbing engineering.

Verizon Wireless Call Center  
New Mexico  
This 2000+ seat Call Center is located in an existing building near downtown Albuquerque, NM. The 194,600 SF facility is supported by a 2,200 SF data center with redundant UPS units, two separate electrical distribution paths, a single generator, and over 5,000 Category 6 cables. tk1sc provided data center electrical engineering for the Data Center portion of the project and telecommunications design services for the entire project.
TECHNOLOGY & RESEARCH

Advanced Bionics – Valencia, California
First generation tenant improvements.  53,000 SF Office, 29,000 SF will be Lab / Cleanroom / Manufacturing areas including 10,000 SF of Class 10,000 Clean Room at 60 air changes/hour with ceiling HEPA-filtration and low return air distribution.

Advanced Sterilization Products - Irvine, California
Tenant improvement including Office and Research Laboratory areas and Class 100K Clean Rooms.

Applied Medical Resources – Rancho Santa Margarita, California
Multiple projects.  Medical equipment manufacturing, facility.  Projects have included office, manufacturing, warehouse and shipping areas.  Manufacturing areas included; chilled water auxiliary cooling system, compressed air, environmental exhaust, and separate waste systems for manufacturing equipment.

Blizzard Entertainment - Irvine, California
This leading edge electronic gaming producer created a new headquarters facility to house all of their diverse business needs. Specialty areas included a Theatre, Recording Studio, multiple Computer Rooms, high-density Data Center, full-service Cafeteria, Exercise Room and Art Display areas.  A fast-track project, construction documents for the whole facility were completed in eight weeks.  tk1sc provided mechanical, electrical and plumbing engineering, architectural lighting design, telecommunications design, audio / visual systems design, security systems design, fire alarm system design, and utility company consulting services for this project.

Boeing Space Division – Anaheim, California
tk1sc was the Electrical Engineering firm of record for seventeen (17) electronic lab projects in this Boeing campus. These projects consist of electronic laboratories for the research, development, and testing of missile guidance systems and other various classified satellite labs.

Boeing Space Division – Huntington Beach, California
tk1sc was the Electrical Engineering firm of record for five (5) electronic lab projects in this Boeing campus. These projects consist of electronic laboratories for the research, development, and testing of missile guidance systems and other various classified satellite labs.

California State Polytechnic Pomona – Pomona, California
Center for Technology, Training & Incubation (CTTI) - Completed for the College of Extended University, the facility is divided into the Pomona Technology Center (PTC), the NASA/JPL Technology Center (NCC), and the College of the Extended University and provides a place for start-up technology companies to develop their products and services in an academic setting.  The facility includes both Wet & Dry Lab environments.  70,300 SF Total.  Designed to DSA Standards.

Cisco Systems – Irvine, California
tk1sc was the Electrical Engineering firm of record for this project in Irvine that consisted of approximately 48,000 SF office component and approximately 15,000 SF of electronic laboratories for the research, development, and testing of networking equipment.
TECHNOLOGY & RESEARCH

Experian Corporate Headquarters - Costa Mesa, California
This office campus project consisted of three 4-story office buildings housing Experian's new Southern California headquarters. The project included a 4,000 SF Technology Center, Executive Offices, full-service cafeteria and 2-story glazed Entry Lobby/Building Connector. 310,000 SF Total

First American Headquarters - Santa Ana, California
This headquarters campus consists of six two-story, three-story, and four-story buildings, totaling 435,000 SF. The project includes a 50,000 SF, base-isolated, Tier 4 / Level 9 data center building with a 15,000 SF raised floor environment requiring nearly one million feet of Category 6 and 10 gigabit fiber optic cabling. The campus is interconnected to the data center from two disparate fiber optic and copper cable routes. The data center is connected to multiple telecommunications service providers from redundant paths terminated in redundant equipment rooms. tk1sc provided electrical engineering, architectural lighting design, telecommunications design, fire alarm system design, and utility company consulting services for this project.

Fluor Daniel Corporate Headquarters – Aliso Viejo, California
Multi-Building Campus. 535,000 SF total. tk1sc provided mechanical and plumbing engineering services.

Gould Medical Products Division – Oxnard, California
Medical & Surgical Products Manufacturing & Testing including Class 10K Cleanroom. 125,000 SF Total

Hughes Ground Systems Division at Canyon Corporate Center – Anaheim, California
Build-To-Suit. Laboratory, Manufacturing & Product Testing. 600,000 SF Total. tk1sc provided mechanical and plumbing engineering services.

Hughes Microelectronics Systems Division (MSD) – Rancho Santa Margarita, California
Multi Building Campus with Manufacturing, Testing, Data Center. 300,000 SF total. tk1sc provided mechanical and plumbing engineering services.

KIA Motors of America - Irvine, California
A new automobile Research & Development facility comprised of low-rise office and high-bay garage/warehouse areas. Construction was completed in two phases. Including Phase One-220,000 SF and Phase Two-110,000 SF. tk1sc provided mechanical and plumbing engineering.

Loral Aeronutronics – Rancho Santa Margarita, California
Build-To-Suit. Manufacturing & Testing Facility. 300,000 SF Total. tk1sc provided mechanical and plumbing engineering.

Meggitt Defense Systems - Irvine, California
This federal defense contractor consolidated three facilities into a single building, which previously housed the southern California headquarters of a major automobile manufacturer. Their new facility included Office areas, Engineering Labs, Manufacturing and Assembly areas. With a limited project budget tk1sc was able to re-utilize a majority of the existing mechanical systems despite the new functional requirements.
TECHNOLOGY & RESEARCH

Oakley Technical Center – Foothill Ranch, California
The headquarters facility for this cutting-edge optics manufacturer includes product design areas, offices, theatre, recreational facilities, manufacturing areas, employee cafeteria and retail areas. Mechanical and plumbing systems were designed to address a multitude of functional needs including process cooling systems, manufacturing and assembly ventilation systems and plumbing process piping (water, gas & compressed air). Mechanical systems were also carefully integrated into the various cutting edge architectural features of the building. 400,000 SF

Pacific Life Home Office Data Center – Newport Beach, California
This project completely relocated one of two Home Base Data Centers in an existing office building basement area. This included a new Data Center with High-Density Cooling, new central cooling plant with fully redundant components, and non-aqueous fire protections systems. 12,000 SF. tk1sc provided mechanical and plumbing engineering services.

QLogic – Multiple Test Lab Projects at Multiple Campuses
These projects consist of electronic laboratories for the research, development, and testing of post-bus adapters for storage area networking equipment.
- Aliso Viejo, California - Twenty-five (25) electronic labs.
- Dean Lakes, Minnesota - Four (4) electronic labs.
- Eden Prairie, Minnesota - Three (3) electronic labs.
- Mountain View, California - Three (3) electronic labs.
- Roseville, California - Four (4) electronic labs.

QLogic Corporation – Shakopee, Minnesota
A large manufacturer of data, server, and storage networking components moved into a new two-story, 120,000 SF building near Minneapolis. tk1sc worked with the Client to determine appropriate Data Center Tier based on operational needs and provided space planning for a 35-cabinet data center with an 18-inch raised floor, redundant UPS systems and a generator connection point for a trailer-mounted portable standby generator. Power and HVAC systems are designed to be concurrently maintainable, avoiding the need for system shutdown during maintenance. tk1sc provided mechanical, electrical and plumbing engineering consulting and telecommunications design services for this project.

Skyworks Solutions - Irvine, California
Skyworks Solutions, Inc. manufactures high performance analog and mixed signal semiconductors. At their regional offices in Orange County, tk1sc completed first generation tenant improvements in three, two-story office buildings. 131,000 SF Total

Sorin Biomedical (formerly Shiley) – Irvine, California
Heart Valve Manufacturing Facility with Clean Rooms. 120,000 SF Total. tk1sc provided mechanical and plumbing engineering services.
TECHNOLOGY & RESEARCH

Taco Bell/YUM! Brand Foods - Irvine, California
The Taco Bell Corporate Headquarters building consisted of a 200,000 SF, five-story tenant improvement with a ground floor data center and (9) IDFs connected by fiber optic cable and multi-pair copper riser cables. A unique feature of this Project is use of environmentally friendly raised flooring and under floor air distribution allowing individual occupants to control their office/work station environment. **tk1sc** worked closely with the Project’s Mechanical Engineer to develop special details for cable penetrations through the raised floor that prevented unwanted air leakage. **tk1sc** provided mechanical, electrical and plumbing, architectural lighting design, telecommunications design, fire alarm system design, and utility company consulting services for this project.

University of California, Irvine (UCI) – Irvine, California
CAL IT2 Laboratory – **tk1sc** was the Electrical Engineering firm of record for this 150,000 SF 4-story facility which consists of clean room laboratories for research and development of information technology systems, as well as supporting offices and infrastructure.

University of California, Irvine (UCI) – Irvine, California
Engineering Unit 1 - Remodel of existing 31,400 SF of wet and dry labs and offices in 80,400 SF building. Engineering Unit 2 – New 130,000 SF engineering laboratory, computing and office building including 12,000 SF of class 100, 1,000 and 10,000 labs. **tk1sc** provided mechanical and plumbing engineering services.

Wakunaga Pharmaceuticals – Mira Loma, California
Headquarters Facility. Build-to-suit for Office, Pharmaceutical Production and Warehouse/Shipping. 57,700 SF
TECHNOLOGY – DATA CENTER

Access360 – Irvine, California
BEA Data Center – Reno, Nevada
Confidential Client – Austin, Texas
Enfrastructure – Aliso Viejo, California
FileNet – Costa Mesa, California
Home Federal Savings, Service Center – San Diego, California
Home Savings of America – Irwindale, California
Kaiser Permanente – North Hollywood, California
Los Angeles County Office of Education Refurbishment/Upgrade – Downey, California
Metropolitan Water District (MWD) Headquarters Tower at Union Station – Los Angeles, California
Molina Health Care – Long Beach, California
New Century Mortgage – Irvine, California
Nextel Communications - Irvine, California
Option 1 – Irvine, California
Pacific Life – Irvine, California
Pacific Life Home Office Data Center – Newport Beach, California
Press Enterprise - Riverside, California
Production Data Center (Confidential Client) – San Jose, California
Qlogic Corporation – Aliso Viejo, CA & Shakopee, Minnesota
Remedy Temp – Aliso Viejo, California
Saddleback Community College District - Mission Viejo, California
Shopping.com – Irvine, California
Skyworks Solutions – Irvine, California
System One Corporation – El Segundo, California
State Street Corporation – Irvine, California
Tenet Healthcare – Anaheim, California
Toyota Regional Call Center – Baltimore, Maryland / Chandler, Arizona
Transamerican Data Center – Rancho Bernardo, California
Union Bank of California Monterey Park Service Center – Monterey Park, California
Union Bank of California San Diego Service Center – San Diego, California
Verizon Wireless – Irvine, CA/Rancho Cordova, CA/Salt Lake City, UT/Albuquerque, NM/Bellevue, WA/Chandler, AZ
Viking Office Products – El Segundo, California
VM Ware – Wenatchee, Washington
Washington Mutual UPS Upgrade – Irvine, California