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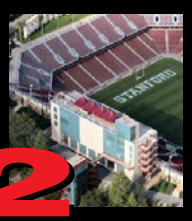

And more...

A publication of the National Electrical Contractors Association and the International Brotherhood of Electrical Workers of Northern California.

InterContinental Hotel San Francisco

IBEW/NECA wires the most technologically advanced hotel in San Francisco

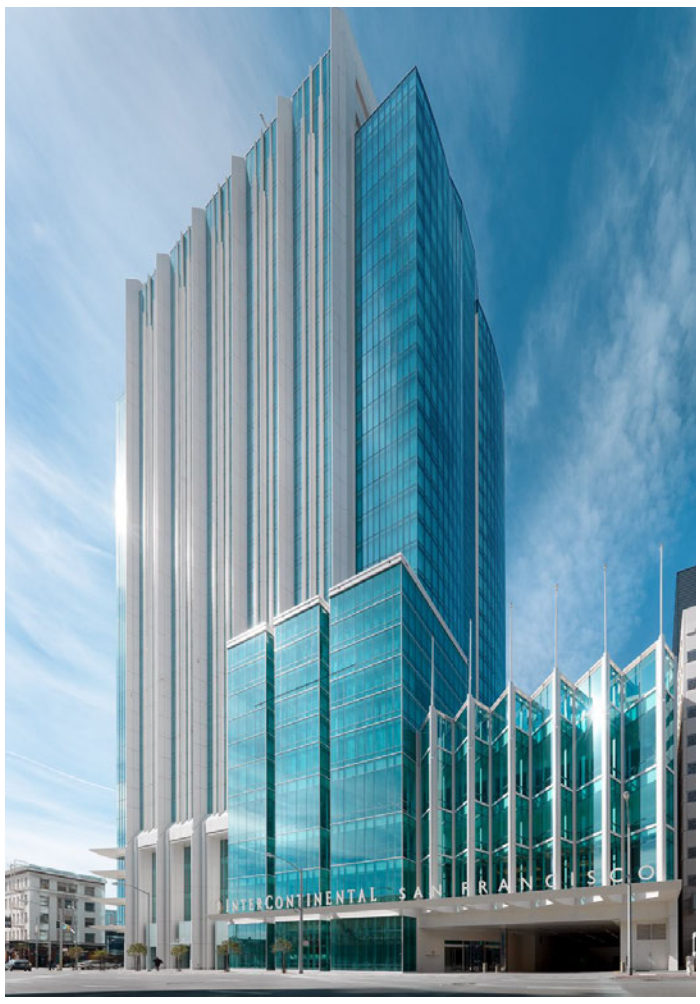

PHOTO BY RIEN VAN RIJTHOVEN

InterContinental Hotel San Francisco, 888 Howard Street

You have to be ahead of the curve to wire the Bay Area's most technologically advanced hotel. That's why the InterContinental Hotel San Francisco chose NORCAL VDV Contractor Ceitronics and its team of virtuosos to integrate its new $3.5 million state-of-the-art communications system.

Ceitronics implemented a high speed fiber backbone and sophisticated AV systems at the 888 Howard Street location, helping to provide an unparalleled experience to hotel guests. The new systems also reduce the building's carbon footprint by lowering energy consumption. The project began in February 2007 and was completed in May 2008. Technicians from the International Brotherhood of Electrical Workers (IBEW) Local 6 in San Francisco and IBEW Local 332 in San Jose wired the hotel.

In addition to the high-speed fiber backbone, some of the system's most interesting highlights (see center spread on pages 4-5) include advanced room occupancy monitoring, infrared sensing light switches and thermostats; automatic doorbells and do not disturb systems, and HD videoconferencing systems. The AV and communications consultant is Shen, Milsom & Wilke. The builder is WebCorp.

Ceitronics as Engineer

"When you are using the latest technology as we were in this job, some of the components are so new that we have to implement special software to get the various products to work together correctly. More often than not Ceitronics works directly with the manufacturer during BETA testing of the software," said Scott Mitchell, General Manager of Ceitronics. "Very little of the AV industry components are 'plug and play'. Ceitronics works closely with the consultants to complete the details of the owner's vision and integrate the consultant's design with the various obstacles encountered during the construction of the building. That's why on the A/V side we have to have project engineers that are truly engineering the work."

Built on a small footprint, the 33-floor hotel gracefully rises above San Francisco's happening SoMa district. The brilliant blue glass tower houses 550 rooms, topped by the duplex Presidential Suite with striking views of the city skyline and bay. The floors have only 22 guest rooms each, contributing to an intimated atmosphere. The hotel offers a ten-room spa and treatment center, along with a heated indoor lap pool and fitness center. The 43,000 square feet of conference space contain high-speed Internet access, ISDN lines, independent climate and audio-visual presentation systems and advanced security.

Fiber Backbone

Floors 1-6 incorporate the main lobby, front desk, bar and restaurant, conference rooms, and spa and treatment facilities. Ceitronics installed an additional high speed fiber backbone exclusive to these floors which has the bandwidth to handle the A/V requirements of these spaces, as well as plenty of room to expand. A Media Matrix audio system was used to provide high quality sound and manage the rooms independently.

The entire first floor has an automatic sound leveling system that modifies audio levels by room based on ambient background noise. Ceitronics installed an independent sound system and HD video conferencing capabilities in the Executive Boardroom on the 4th floor. Each conference area has its own controls for background audio.

Efficient Hospitality

Ceitronics installed the main fiber backbone as an extremely efficient system that keys on room occupancy. Each room received eight Cat 6 four-pair cables to provide an IP based backbone for all services. Some of the cabling is connected to infrared sensing light switches and an infrared sensing thermostat in each room. The

(Continued on back page)

To find a NECA/IBEW Union Contractor go to www.norcalvdv.org

Featured IBEW/NECA Co

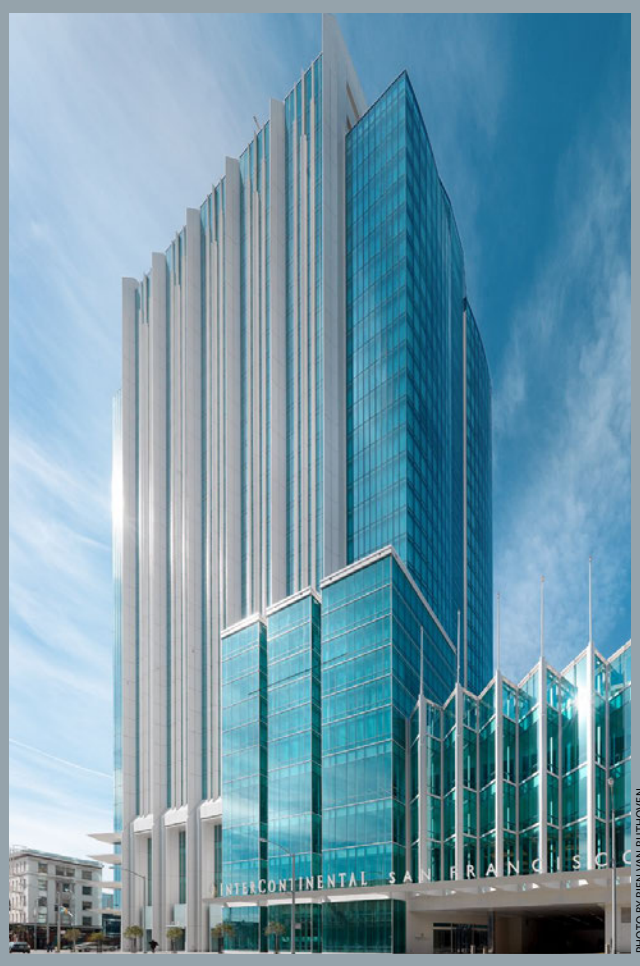

PHOTO BY RIEN VAN RIJTHOVEN

InterContinental Hotel San Francisco; Ceitronics

Alameda County Juvenile Justice Center San Leandro; Walker Comm, Inc.

PHOTO BY CONTRA COSTA ELECTRIC

Sacramento Municipal Utility District Sacramento to Tahoe; Contra Costa Electric

Kaiser South Sacramento Sacramento; Collins Electric

Silicon Graphics Sunnyvale; Ceitronics

Advanced Medical Optics Santa Clara; Paganini Communications, Inc.

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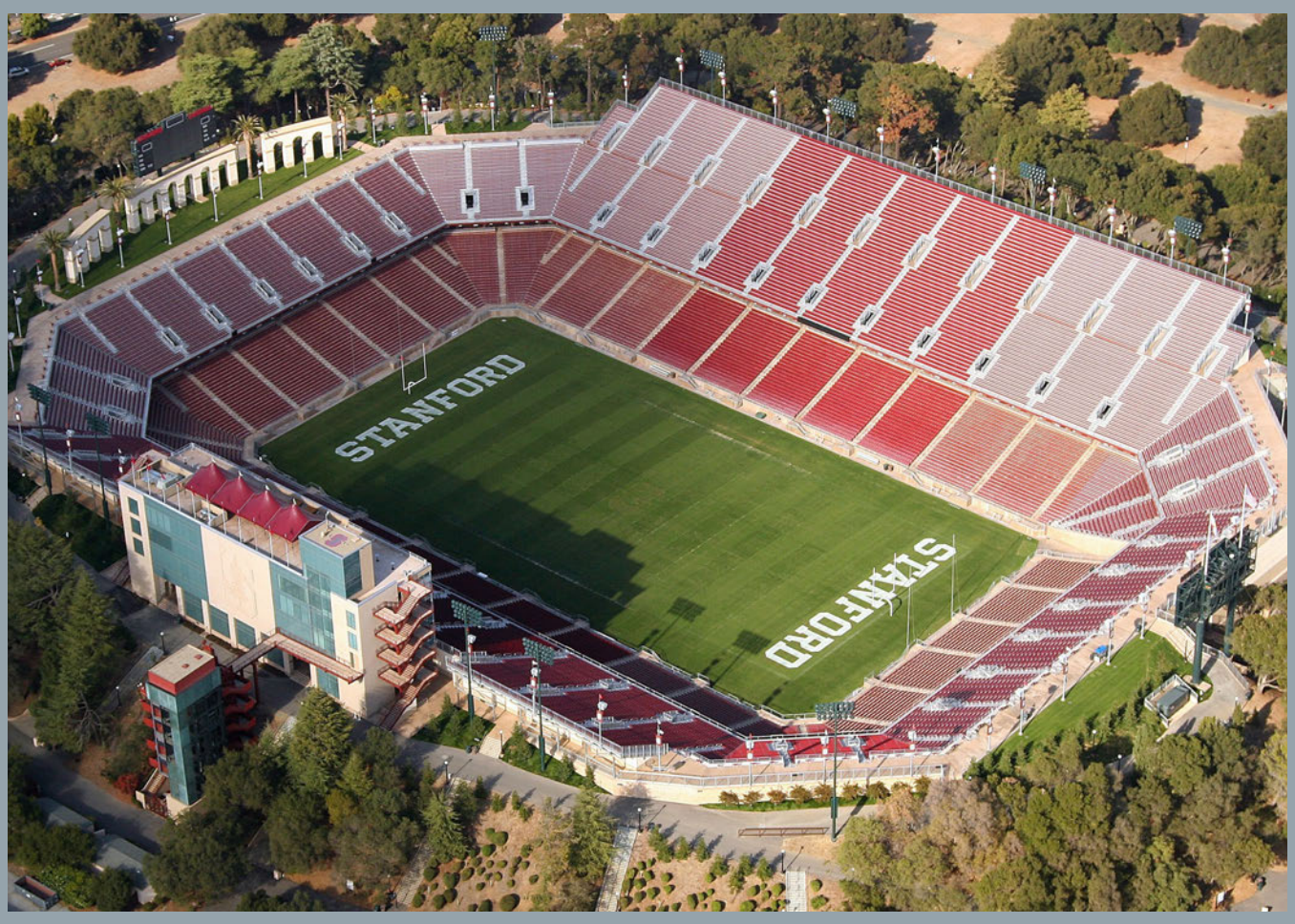


Stanford Stadium Stanford; Redwood City Electronics

Sheraton Stockton at Regent Pointe Stockton; Collins Electric

St. Mary's College of California Moraga; Lloyd F McKinney Associates

Sutter Roseville Medical Center Roseville; Collins Electric

Dougherty High School San Ramon; Ceitronics

Villa Venuto at Palm Valley San Jose; MDE Electric Company

PHOTOS BY MARK DAFEO UNLESS OTHERWISE INDICATED

Floors 3-6 are conference rooms, with 1 ballroom on floor 5 and a grand ballroom on the third floor. The ballrooms are divisible to have multiple meetings and all audio is individually controlled.

Floor 2 acts as the “Back of House” and contains kitchens, management offices and the MDF Server room which houses the controls for the A/V systems through out the building.

Media Matrix Audio system installed on floors 1-6. Allowing completely room specific control of ambient music from the MDF (Main Distribution Frame) Room on the second floor. A high speed fiber backbone was installed to handle the load of the A/V system and has plenty of bandwidth available to expand the system.

The 6th floor has all of the spa facilities, and treatment rooms that all feature iPod docks as well as background music feeds. The Club InterContinental Lounge is also on this floor and features 2 42” plasma TVs. The fitness room has 2 42” plasmas as well. Hot tub, swimming pool area, and terrace all have independent music systems.

The executive boardroom on the 4th floor is home to high end audio systems and an HD video conferencing system.

The entire first floor has an automatic leveling system that maintains audio levels in each room in relationship to ambient background noise.

The first floor contains the front desk, lobby, bar area, restaurant, and private dining area with distinct audio for each room controlled centrally in the MDF. The bar has 3 32” televisions providing entertainment. The PBX (Private Branch Exchange), control system for phones, is found on this floor as well.

The MPOE (Main point of entry), the main termination point of all cabling entering the building was built in basement 2.

PHOTOS BY RIEN VAN RIJTHOVEN

VOICE DATA VIDEO
SOUND AND COMMUNICATIONS
of Manteca, California

InterContinental Hotel San Francisco—
IBEW/NECA builds the most technologically-advanced hotel in the country.

The InterContinental Hotel Group gave union contractor Ceitronics a challenge when requesting the most technologically advanced hotel in San Francisco. Ceitronics delivered a masterpiece of building automation, high quality audio and video systems, and advanced room occupancy monitoring. The high-tech systems provide guests with an unparalleled hospitality experience and maximize costs and efficiencies for the hotel itself.

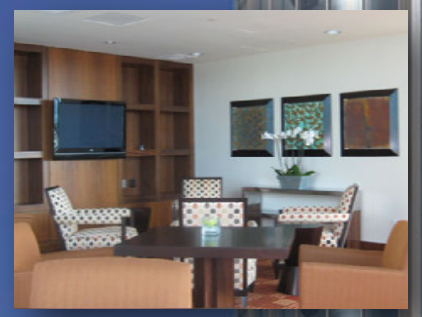
The building has infrared sensing lighting installed in all 550 rooms for energy saving. The lights are automatically dimmed if no movement is detected in the room. Doorbells also indicate room occupancy and can be set to "Do Not Disturb." The rooms are also equipped with infrared sensing thermostats that provide energy savings by monitoring the room occupancy.

Upon check in rooms are automatically "turned on" allowing climate control and lighting to begin to function. The two IR light switches and the thermostat are tied to the nearest IDF to relay to and from the MDF.

HVAC (Heating, Ventilation, & Air Conditioning), and elevator machinery were built into the 34th floor.

The top floors are reserved for the Presidential and Executive suites. Both suites offer spectacular views. The audio systems in the suites feature A/V receivers for full surround sound. The Presidential Suite features 50" and 42" plasma TVs with a single 50" in the Executive Suite.

Electrical closets, IDF (Intermediate Distribution Frame), were built on floors 1, 3-6, 8, 11, 14, 18, 21, 24, 27, 30, and 33. Each IDF acts as a communications hub relaying information for use in the building management system.



Veracity Consulting's Sean Price sees growing role for convergence technology

PHOTO BY VERACITY CONSULTING

Sean Price, President and CEO of Veracity Consulting

> ***There is no way to compare union versus non-union technicians. The training provided to IBEW technicians isn't provided to non-union technicians; unfortunately, non-union technicians learn their skills on the job at the expense of the client.***

Veracity, founded in 2000 in Northern California, has grown to be one of the industry's leading, future-focused providers of IT consulting, design and management services. They serve as the Information Architect working with and supporting traditional architectural teams in the rapidly developing and technically demanding field of intelligent building solutions. Their primary objectives are to reduce capital expenditure through the convergence of systems infrastructure and to utilize technology to reduce and stabilize clients' operational expenditures.

Q: When a client comes to you with a request for new system architecture, what are your first steps?
A: We begin our programming sessions much like any other consulting firm. What differentiates our programmers from other firms is our ability to segue into a technologist roll and speak to the topics of building intelligence and the convergence of building systems into the physical layer. (Information Architect)

Q: What are some of the current trends in systems architecture?
A: Everything seems to be a trend these days. Our company integrates BAS and IT platforms so we are always looking to see what products are emerging and what level they can perform at.

Q: The entire low voltage industry seems to be making a push for convergence of as many systems as possible. How is this affecting Veracity's offerings to customer and how are you staying ahead of this trend?
A: Our message to clients is to converge as many systems as possible so we welcome the push from the industry. However, we still believe the push for convergence is in its infancy (or educational) stage. It seems that every article you read these days you will find someone talking about convergence or some other industry buzzword. The question is how many clients are actually converging multiple building systems? I believe there is a lot of opportunity in a relatively untapped market at this point.

Q: Can you give an example of the extent of a project where you pushed the envelope in regards to convergence?
A: We are currently in the design development phase of a project where all systems have been designed to reside on a single building network. There is no pushing of an envelope when your technologist understands the client's expectations and designs the building systems to the current available products. However, we are always implementing new technologies and testing new products at our EBC.

Q: What are some of the current obstacles to a truly unified single monitoring system for building systems?
A: Knowledge! We are designing buildings today with a single unified monitoring system. Open protocols like BACnet, Lon, Modbus, and OBIX have made it easy to integrate systems. Products like Field Server, Tridium, Black Box and others have made it easy to connect these systems together. But to make these systems truly interoperable requires great system design and up-front forward thinking.

Q: How are these obstacles being overcome now?
A: With the advent of connected real estate, these obstacles are being challenged today. The expression Information Architect is starting to become an industry term. Bringing these technologists into the planning stages with the architect and MEP teams and designing interoperable systems up front and over the physical layer is the first step.

Q: Are manufacturers beginning to address this trend by making their architectures more available?
A: Manufactures have spent millions of dollars on their hardware and software products and have gone to great lengths to keep their intellectual property to themselves. Most all manufactures have an open protocol product line or gateway into their systems. Because of the complexity of the different protocols and the systems available, we recommend that an information architect gets involved early in the project to aid in the selection of the different manufactures and protocols.

Q: What is your opinion of the quality of work performed by IBEW technicians you have worked with (versus their non-union counterparts)?
A: There is no way to compare union versus non-union technicians. The training provided to IBEW technicians isn't provided to non-union technicians; unfortunately, non-union technicians learn their skills on the job at the expense of the client.

For more information contact Sean Price at sean@veracityconsultants.com, visit www.veracityconsultants.com, or call 866.483.7224 x705

HD Conversion and Green Movement Drive Demand for New Technologies

PHOTO BY GE

GE Legend™ IP PTZ Camera

The brave new world of high tech is driving progress within the sound and communications industry at a breakneck speed. The record pace of emerging technologies is primarily spearheaded by manufacturers that are responding to customers' needs and wants, but the industry also has its pioneering technologists who are striving to pull customers along with them.

Here's a brief look at some of the most interesting breakthroughs:

Conversion to Digital Broadcasting

Many customers are changing to HD video because of the impending FCC mandated conversion to digital broadcasting, which takes effect on February 19th, 2009. With all broadcasted signals converting to digital by next February, the scramble has begun to upgrade sets and systems to accommodate this change.

Green Directives

Manufacturers and installers are also working to stay ahead of "Going Green." In Europe, the Restriction of Hazardous Substances Directive (RoHS) restricts the use of six hazardous materials in the manufacture of various types of electronic equipment. American manufacturers have taken this directive to heart, not wanting to lose lucrative European markets. This, in turn is pushing the green electronics movement within the U.S. and similar stateside legislation in the near future.

Security System Upgrades

IT systems and wireless technology are driving a change in the technology for security systems. Wireless IP based surveillance systems are becoming more widely used, along with monitoring systems online. The Dallas Police Department recently deployed a wireless mesh technology of over 500 cameras in a recreational area. Officers in patrol cars were able to monitor the cameras via the internet. Redundancy built into the system makes it extremely stable and the wireless technology allows for an ease of installation far beyond that for conventional wired technologies.

PHOTO BY GE

More on Emerging Technologies Next Issue...

How can I find a CCTV Contractor?

Briggs Electric, Inc.
Contact: Greg Dye
gregdye@briggselectric.com
5138 Metric Way, Carson City, NV 89706
Tel: (775) 887-9901
Fax: (775) 887-9454

CAL Communications Service Co.
Contact: Randall J Weber
randy@calcsc.com
525 Second St., Rodeo, CA 94572
Tel: (510) 799-0300
Fax: (510) 799-0966
www.calcsc.com

Ceitronics
Contact: Scott Mitchell
scott_mitchell@cei.com
2460 Zanker Rd., San Jose, CA 95131
Tel: (408) 435-0500
Fax: (408) 435-5423
www.ceitronics.com

Contra Costa Electric, Inc.
Contact: Chris Payne
chris_payne@emcorgroup.com
825 Howe Rd., Martinez, CA 94553
Tel: (925) 299-4250
Fax: (925) 299-1672
www.ccelectric.com

DK Technology
Contact: Darren Willis, RCDD & John MacKay, RCDD
dwillis@dk-technology.com
11875 Dublin Blvd, Suite C-153
Dublin, CA 94568
Tel: (925) 829-6001
Fax: (925) 829-6003
www.dk-technology.com

Dynalectric Company
Contact: Dave Griffy
david_griffy@emcorgroup.com
414 Brannan St., San Francisco, CA 94107
Tel: (415) 597-4700
Fax: (415) 543-1301
www.design42.com/dynalectric

Eilbacher Electric
Contact: William Eilbacher
lectrospec@aol.com
41794 Vargas Rd., Fremont, CA 94539
Tel: (510) 490-5530
Fax: (510) 651-7885

The Facilities Group
Contact: Thomas Ward
tward@facilitiesgroup-sf.com
400 Brannan St, Ste 7, San Francisco, CA 94107
Tel: (415) 284-1500
Fax: (415) 284-0984
www.facilitiesgroup-sf.com

Groseclose Electric Company
Contact: George Yeager
gyeager@redshift.com
231 Commission St., Salinas, CA 93901
Tel: (831) 424-2791
Fax: (831) 424-6132

Harris Electric
Contact: ErinLisa Miller
emiller@harriselectric.com
6681 Sierra Ln #A, Dublin, CA 94568
Tel: (925) 560-9880
Fax: (925) 560-9881
www.harriselectric.com

Intrepid Electronics Systems, Inc.
Contact: Kurt Brinkman
kurt@intrepidelectronic.com
4377 Adeline St., Emeryville, CA 94608
Tel: (510) 597-9966 x115
Fax: (510) 597-9980

J M Electric
Contact: Frederick Jensen
faj@jmelectric.com
400 Griffin St., Salinas, CA 93901
Tel: (831) 422-7819
Fax: (831) 758-9638

Lloyd F McKinney Associates, Inc.
Contact: Rick McKinney
rick@mckinneyassoc.com
25350 Cypress Ave., Hayward, CA 94544
Tel: (510) 783-8043
Fax: (510) 783-2130
www.mckinneyassoc.com

McMillan Security Systems
Contact: Mike Schimm
1515 S Van Ness Ave., San Francisco, CA 94110
Fax: (415) 826-0142

Metropolitan Electrical Construction, Inc.
Contact: Gary Olson
golson@metroelectric.com
2400 3rd St., San Francisco, CA 94107
Tel: (415) 542-3000
Fax: (415) 550-6515
www.metroelectric.com

Netversant-Northern California
Contact: Russell Hayslip
rhayslip@netversant.com
1411 S Milpitas Blvd., Milpitas, CA 95035
Tel: (408) 945-5700
Fax: (408) 945-2910
www.netversant.com

Paganini Communications, Inc.
Contact: Larry Andrini
larrya@pagcos.com
190 Hubbell St., San Francisco, CA 94107
Tel: (415) 575-3900
Fax: (415) 575-3920
www.pagcos.com

Point 1 Electrical Systems, Inc.
Contact: Shane Stoltenberg
info@point1.com
24963 Huntwood Ave., Hayward, CA 94544
Tel: (510) 259-0877
Fax: (510) 259-0876
www.point1.com

Quality Sound
Contact: James Bryan
jbryan@qualitysound.net
2010 E Fremont St., Stockton, CA 95205
Tel: (209) 948-2104
Fax: (209) 948-0955
www.qualitysound.net

River City Community Corporation
Contact: Ben Wadsworth
bwads@rivercitycom.com
643 W Stadium Ln., Sacramento, CA 95834
Tel: (916) 576-8310
Fax: (916) 576-8324

Rosendin Electric, Inc.
Contact: Terry Legler
tlegler@rosendin.com
440 Ninth St., San Francisco, CA 94103
Tel: (415) 575-1600
Fax: (415) 575-1699
www.rosendin.com

Spectrum
Contact: Robert Rivera
rrivera@spectrumccsi.com
226 North Lincoln Ave., Corona, CA 92882
Tel: (951) 371-0549
Fax: (951) 270-3833
www.spectrumccsi.com

Steiny and Company, Inc.
ssteiny@steinyco.com
27 Sheridan St., Vallejo, CA 94590
www.steinyco.com

Systems Edge a Division of California Electric Company
Contact: Annita Deitrick
annitadeitrick@californiaelectric.com
3015 Adeline St., Oakland, CA 94608
Tel: (510) 597-6288
Fax: (510) 597-6287
www.californiaelectric.com

W Bradley Electric
Contact: Robert Bourdet
90 Hill Rd., Novato, CA 94945
Tel: (415) 898-1400
Fax: (415) 898-5991
www.wbeinc.com

Walker Comm, Inc.
Contact: Gary & Donald Walker
donaldw@walkercomm.com
521 Railroad Ave., Fairfield, CA 94533
Tel: (707) 421-1300
Fax: (707) 421-1359
www.walkercomm.com

Young Electric Co, Inc.
Contact: James Young
jpy@youngelec.com
3317 26th St., San Francisco, CA 94110
Tel: (415) 649-3355
Fax: (415) 648-8259
www.youngelec.com

InterContinental Hotel

(continued from page 1)

sensors allow the lighting and heating to be powered down when the rooms are empty and to be powered up when a guest enters. The rooms themselves are held in a standby state, conserving energy, until the guests check in at the front desk. Upon check in, the rooms are automatically "turned on", allowing climate control and lighting to begin to function. The doorbells of the rooms can also be set to indicate 'do not disturb'. Each room also has wi-fi and a docking system for iPods.

"The low-voltage-systems industry is constantly changing," said Scott Mitchell. "It's evolving more rapidly than any other MEP discipline. Some of the products we used on this project were so new they used 'bleeding edge technology.' Ceitronics employees continuously update their skills by attending the latest seminars and by developing close ties with engineers of the various AV manufacturers. That's why Ceitronics does the actual final engineering, and that's why it takes a lot of coordination. But, at the end of the day, the technology is integrated seamlessly and the hotel's guests have the latest in amenities at their disposal."

PHOTO BY RIEN VAN RIJTHOVEN

Main entrance to the InterContinental Hotel San Francisco