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MARK MILLER AUTO DEALERSHIP

Cache Valley Electric recently completed a major renovation of Mark Miller Toyota, located in Salt Lake City. This facility is only the fourth LEED Certified Toyota dealership in the United States. They are currently seeking Gold status. Leadership in Energy and Environmental Design (LEED) is the nationally accepted

contractor, Sahara Inc. of West Bountiful, Utah, in their goal to achieve LEED certification on this design build project. The 69,160 sq. ft. renovation utilized several of CVE's services including, electrical construction, voice and data, audio visual, building security and network services. Design for the renovation began



benchmark for the design, construction and operation of high-performance green buildings and is quickly becoming an important distinction. This certification provides independent, third-party verification that a building project is environmentally responsible and a healthy place to live and work.

Cache Valley Electric played a major role in assisting the owner, Mark Miller, and the general

in July 2007. Project Manager Jim Lawson met with Sahara and Mark Miller to better understand how CVE could contribute to the LEED certification. After considerable research, CVE designed a sophisticated Crestron Controls daylight harvesting lighting control system. Along with thirty-five "active" skylights, this system provides efficient lighting for the

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SALT LAKE CITY OFFICE
2345 South John Henry Dr.
Salt Lake City, UT 84119
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PORTLAND OFFICE
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Beaverton, OR 97005
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LAS VEGAS MOTOR SPEEDWAY

Cache Valley Electric's Teledata division was awarded a contract to upgrade the Las Vegas Motor Speedway's fiber system. Project manager Robin Haslam mapped out the existing raceways and determined where new fiber should be installed. In December 2007, lead technician Brad Hansen and four other technicians pulled 7,000 feet of 12-strand single mode OSP fiber optic cable from the main communications room along the 1½-mile long NASCAR track. From there, an additional 1,500 feet of the fiber was extended to the credentials building through a 3/8-mile long Bull Ring track.

This project sparked a need to also revamp the track's phone services. CVE provided these services through its Technology Services Division. Project manager John Lee, along with engineers Scott Searle and Derek Anderson, completed the upgrade on schedule by February 2008 in time for the NASCAR Cup race. The project included unified voice and data, 170 IP phones and over 300 analog devices. Voice service was expanded throughout the track and was provided to all of the facility's sponsors and vendors. **CVE**



BD MEDICAL



Cache Valley Electric's Audio Visual department recently designed and completed the first two phases of BD Medical's

training and conference room renovation at its Sandy, Utah facility. Nine training and conference rooms were updated during this portion of the renovation. A large training room, capable of accommodating up to 200 people, was outfitted with state-of-the-art Clear One audio conferencing capabilities. This room can also be divided to function as three separate training rooms.

In addition, three 110-inch projection screens and three LCD screens are housed between 9 training rooms. All are controlled by Crestron touch screen panels. The system gathers information into a server and sends constant status updates for each room to

the facility's IT personnel. Each Crestron panel features a help button, allowing IT personnel to override the manual system if end users encounter difficulties.

Project manager Brian Parkin designed and selected equipment for the project. Field manager Steve Simmons coordinated manpower and field operations while Shaun McIntire served as CVE's Crestron programmer.

Cache Valley Electric's Audio Visual department is capable of handling a wide array of projects, on any scale level, ranging from:

- Control Systems
- Audio Conferencing
- Paging
- Video Conferencing
- Satellite Capabilities
- Captured Lectures
- Distant Learning Centers

CVE and its Teledata Division has also enjoyed a long, successful relationship with BD Medical. We have participated in many local and international projects with them. **CVE**

NUCOR STEEL – MEMPHIS, TN

Cache Valley Electric is in the final stages of a major renovation and upgrade to Nucor Steel's Bar Mill in Memphis, Tennessee.

When this newly renovated mill resumes production in fall 2008, it will produce 850,000 tons of high quality steel annually. Known in the trade as a Special Bar Quality Products Mill (SBQ), this project has been very significant for Cache Valley Electric. Nucor has invested a large amount of money in upgrading, modernizing and increasing the capacity of this mill. Interestingly, Cache Valley Electric originally worked on this facility in 1996 when it was owned and operated by Birmingham Steel.

Under the direction of superintendent Joey Walters, Cache Valley Electric began work on this project in May 2006. A crew of 126 electricians is presently on site. **CVE**



TRIVANI

Several CVE divisions recently completed a tenant finish project for Trivani of Springville, Utah. Trivani, a new multi-level marketing company of health and personal care products, renovated a historic building to serve as its Utah headquarters.

Teledata project manager Brad Readicker was instrumental in helping Trivani determine how to approach their project and choose the best solution for its needs. Teledata's scope of work included the installation of a Uniprise solution. Lead technician Ryan Nicholson and his team installed 24,000 ft. of CAT 5e cabling to 100 work stations with voice over IP data terminations. In addition, the team also installed a 50 micron, 10 gigabit fiber backbone. Readicker stated, "This project was challenging in a couple of ways. We needed to protect the historical integrity of the building while updating the infrastructure. We also needed to help Trivani future-proof the infrastructure to accommodate the explosive growth they are experiencing."

CVE's Technology Services Division account manager Rob Andrews, along with engineers Derek Anderson and Craig Larson, created a Cisco network infrastructure system for Trivani. "With Trivani being a new company, they really needed a technology partner that knew what they were doing to help get their company off the ground. During the vendor selection process, what really separated CVE TSD from the competition is our engineering resources. Being able to provide one entire network solution (Voice/LAN/WAN/Security/Wireless) really gave us the competitive advantage. Many companies are starting to see the value in a vendor such as CVE with all our Divisions that offers an end-to-end network solution. The partnership for technology services has been very strong in supporting their growth demands. We originally started out with the Springville location and call center and have since added a Japan location to their network. We are currently in the planning stage to add a Mexico office in the next six months," stated Rob Andrews.

Network services experts Keri Hansen and Colleen Westerman provided Trivani with a Qwest multi-protocol loop service. This gives Trivani T1 point-to-point connectivity between its Springville, Utah and Tokyo, Japan facilities. This task took extensive coordination to insure there was no downtime with the company's phone lines.

This project was completed the beginning of July 2008. **CVE**

MARK MILLER AUTO DEALERSHIP

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building. By measuring the amount of natural light during the day and adjusting the wattage to accommodate a preset level of brightness. CVE installed twenty-three sunlight sensors throughout the building. Data from the sensors routes to a control panel and allows lights to dim or brighten as necessary. CVE also used leading-edge, energy efficient light fixtures. This technology allows the building to conserve considerable energy throughout the day. Dave Roberts, one of CVE's in-house engineers, facilitated the design of the complete electrical distribution system and lighting system for the dealership.

Cache Valley Electric has worked hand in hand with FFKR Architects on this project. James Kanno, Associate AIA for FFKR, stated, "The Mark Miller Toyota project has been a wonderful challenge for us at FFKR and our partners Sahara, CVE and CCI Mechanical. I feel that we are able to set a new standard in the automotive industry with Mark's [Miller] example. A state of the art lighting system that controls lighting according to the amount of daylight in the space, a high efficiency HVAC system that will save energy as well as properly heat and cool the building, and a new type of active skylight to increase the amount of natural daylight in the building are just a few examples. We hope that with Mark Miller Toyota as an example, we will be able to continue to push forward in the category of 'green buildings'".

CVE's Technology Services Division designed and installed a complete Cisco voice and data network for Mark Miller that features LAN/WAN/wireless technologies. Account manager Rob Andrews remarked, "Mark Miller is a forward thinker. He wanted the best overall network for his employees and customers so he decided on Cisco Systems for that solution. His current and future customers

are really going to enjoy this state-of-the art facility." CVE engineer Scott Searle designed a system that allows Miller to capitalize on emerging IP technologies such as unified communications, mobility, wireless phones, push-to-talk IP phones, point-to-point bridges for data between facilities, and secured wireless networks. This design provides endless capability for call control and business management of the Call Manager platform. In the future, Miller will be able to easily add his other dealerships to the central Call Manager for a Cisco Unified Network.

Mike Petric, vice-president of Avtec Systems Integrators, a division of CVE also designed the building security system. This system includes an intrusion detection system and video surveillance for the entire site. In addition, overhead door controls monitor traffic for an elaborate loop system in the service bays, car wash and Express Lube facility. CVE audio visual specialist Brian Parkin designed and installed a stand-alone Crestron Controls system for the facility. This system allows streamlined board room controls. An instructor or speaker can control a drop down projector screen and the internet from a touch pad screen on the podium. CVE also installed eleven 42" LCD televisions with an in-house broadcast network. The televisions are located throughout the facility and will broadcast the dealership's energy saving statistics, current advertising, training sessions and off-air broadcasts.

CVE's Teledata division re-cabled the facility with over 90,000 feet of high-end cabling solution and installed 185 voice and data drops in the office and service areas. This enables the dealership to run state of the art technology.

The dealership opened in mid-June 2008. 

UTAH VALLEY UNIVERSITY DIGITAL LEARNING CENTER

Cache Valley Electric's Teledata team recently implemented one of Utah's largest Category 6 cabling installations. This project was an integral part of elevating Utah Valley State College to university status. The school was required to expand its library from 35,000 to 190,000 sq. ft. and construct a Digital Learning Center to house new study rooms, labs, updated classrooms and a new data center.

The CVE team worked with Layton Construction of Sandy, Utah on designing this project since 2005. Project manager Tim Hadden and division manager Myron Perschon led CVE's design/build efforts. The team had enough foresight to offer 10G before it existed, knowing that it would be available when the project was finally installed.

CVE installed over a half mile of CAT 6A Siemon/Mohawk cabling and 500 feet of 5E cabling throughout the 190,000 sq. ft. building. CAT 6A cabling runs to the finished data center cabinets, allowing 10G Ethernet over a full 100-meter channel. Mohawk provided a new GigaLAN 10 product for the project. This cabling is the smallest overall diameter CAT 6A product on the market, measuring only 0.295 inches in overall diameter.

Cache Valley Electric also installed 5,000 feet of 144-strand fiber to complete the fiber ring, connecting the campus' Digital Learning Center, Computer Science building and Liberal Arts building. Eventually the University's main computer room will be housed on the third floor of the new Digital Learning Center.

Project manager Tim Hadden remarked, "The manpower deployment for this job was a difficult task for two reasons. First of all, we needed to coordinate with the other trades. In addition, the majority of the manpower needed to be implemented at the very end of the project in order to quickly complete the 2,200 terminations to the workstations. Blake Adams, CVE's lead technician, did a great job spearheading the coordination of our technicians." Due to the cooperation of the many trades, UVU was able to meet the necessary criteria to become a university and opened as scheduled on July 1, 2008. **CVE**

CACHE VALLEY ELECTRIC'S NEW LOGAN OFFICE

After 28 years in its former building, Cache Valley Electric has moved into its new location at 875 North 1000 West in Logan, Utah.

This new 22,000 sq. ft. building includes 14,000 sq. ft. of office space and an 8,000 sq. ft. warehouse. The Logan office will continue to serve as the company's corporate headquarters and also houses the construction division that oversees much of CVE's industrial work. Located just south of CVE's previous



location, the new office is a blend of architecture that highlights Cache Valley Electric's 93-year history while symbolizing the company's commitment to the future and technological advances.

The building's centerpiece is a meticulously restored 1928 REO Speed Wagon Line truck in the spacious lobby. This unique vehicle serviced Salt Lake City's overhead trolley lines in the 1920's-30's. CVE's accounting department is located to the south of the lobby while the construction offices are on the building's north side.

Architect Robert McArthur designed CVE's new office. The facility was completed in 10 months by JayDee Barr Construction and will serve Cache Valley Electric's needs well into the future. **CVE**

RECENTLY AWARDED PROJECTS

AVTEC

Central Valley Water Reclamation

- Salt Lake City, UT
- Digester 6/7 Fiber Install
- Headworks Camera Replacement

Codale Electric – Warehouse Security System

- Salt Lake City, UT

Dave Johnston Power Plant – GTPS VII

- Security Upgrade – Glenrock, WY

Dixonville 115/230 Substation

- Dixonville, OR

Grants Pass Substation GTPS VII Security System – Grants Pass, OR

IM Flash Technology – Building 80 Security

- Controls – Lehi, UT

Pacificorp – Draper, UT

- Camp Williams
- New Control Building Security System GTPS VII

Rocky Mountain Power – FDS Expansion

- Mona, UT

Salt Lake City International Airport

- SLC, UT
- Network Video Recorder Upgrade – Video Surveillance
- Business Conference Room – Digital Audio Recording System

ELECTRICAL CONSTRUCTION

DIVISION

Logan

CMC Arizona Power Distribution and Utilities Package – Mesa, AZ

IPSCO Exhaust Fan System – Blytheville, AR

Nucor Jewett Texas High Voltage Upgrade

- Jewett, TX

Nucor Memphis Baghouse – Memphis, TN

Nucor Memphis Meltshop – Memphis, TN

Nucor Memphis Roll Mill – Memphis, TN

Nultron Turbine Generators Removal

- Martins Creek, PA

NuStrip LMF / VTD Installations

- Blytheville, AR

NuStrip Water Treatment Facilities / Baghouse – Blytheville, AR

NYS Baghouse Power Distribution / Embedded Conduit Installation

- Blytheville, AR

SeverCorr-Phase II-35KV Power Distribution – Columbus, MS

Salt Lake City

Bear River Access Road – Brigham City, UT

BYU Idaho Auditorium – Rexburg, ID

Cisco @ Canopy I – Lehi, UT

Logan – Cache Airport 2008 – Logan, UT

Nephi Airport AWOS – Nephi, UT

Park & Jet Lighting – Salt Lake City, UT

Proctor & Gamble Temporary Power

- Tremonton, UT

Regence Data Center Phase I

- Salt Lake City, UT

SLC International Airport Taxiway "H"

- Salt Lake City, UT

Spanish Fork Airport – Spanish Fork, UT

West Liberty Foods Water Treatment Plant

- Tremonton, UT

SERVICE DIVISION

American Express – Data Center Remodel

- Salt Lake City, UT

Boeing – UPS Addition – Salt Lake City, UT

Dannon Yougurt – Plant Utility Monitoring

- Salt Lake City, UT

Discover Financial – Fiber Backbone

- Salt Lake City, UT

Goldman Sachs – Call Center Addition

- Salt Lake City, UT

Kellogg's (Garden Burger) – Plant Upgrades

- Salt Lake City, UT

Pacificorp – Mercury Monitoring

- Naughton, WY

Pacificorp – Jim Bridger, WY

- Mercury Monitoring

- Fly Ash Loading Project

- Fiber Backbone

Rocky Mountain Power – UPS Replacement

- Salt Lake City, UT

Single Edge – UPS Addition

- Salt Lake City, UT

TECHNOLOGY SERVICES

DIVISION

Davis School District – Voice System

- Upgrade – Farmington, UT

Granite School District – Microwave Project

- Salt Lake City, UT

IM Flash Technology – Maintenance Project

- Lehi, UT

Jordan Valley Water Conservancy

- Voice Expansion – West Jordan, UT

Mark Miller Toyota Dealership

- Salt Lake City, UT

Park City School District

- Voice Project – Park City, UT

Simplifile – Voice Project – Provo, UT

US Ski & Snowboard Association – Voice,

- Data, Wireless, Security – Park City, UT

Utah National Guard

- Router Upgrade Project – Draper, UT

TELEDATA

Portland

Converse Office Project – Costa Mesa, CA

Motorolla – Beaverton, OR

Nike Factory Stores

- Atlanta, GA , Cabazon, CA, Deer Park, NY

- Eugene, OR, Jersey Shores, NJ

- Orange County, CA, Westchester, NY

- White Plains, NY

Nike Golf – Fort Worth, TX

Sysco Foods – Office Remodel

- Wilsonville, OR

Salt Lake City

Pepsi – Salt Lake City, UT

Davis Hospital – Layton, UT

Franklin Covey – Salt Lake City, UT

Hexcel – Salt Lake City, UT

Myriad Genetics – Salt Lake, UT

Clear Link – Salt Lake City, UT

IHC Multiple locations – UT

Xango – Alpine, UT

Salt Lake School District

- Salt Lake City, UT

USANA – West Valley City, UT

Primary Children's Hospital

- Salt Lake City, UT

St. Johns Medical Center

- Jackson Hole, WY

Interbank FX – Salt Lake City, UT

ATC – Ogden, UT

Sanpete Jail – Manti, UT

Nucor Steel – Decatur Alabama

Morgan Stanley – Salt Lake City, UT

Iban – Santa Clara, CA

Attensity – Salt Lake City, UT

Basic Research – Salt Lake City, UT

Zions Security – Salt Lake City, UT

Vaction Resorts – Murray, UT

Kimball Equipment – Salt Lake City, UT

Nature's Sunshine – Spanish Fork, UT

YESCO – Salt Lake City, UT

Smiths – Magna, UT

Smiths – Salt Lake City, UT

Oracle – Salt Lake City, UT

America West Bank – Salt Lake City, UT

Harmon Music Group – Sandy, UT

Sinclair Oil – Salt Lake City, UT

Provo High School – Provo, UT



CACHE VALLEY ELECTRIC