

NEVSLETTER

Us IWENIY 20ft

TAKE 20 SECONDS TO VIEW 20 FEET AROUND

Situational Awareness will keep you out of harms way and get you home safe.

Salt Lake City International Airport North Concourse Phase 1

SALT LAKE CITY, UTAH

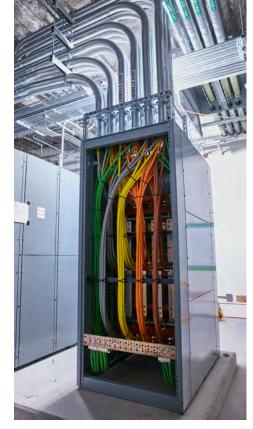
476,650 SQ FT AUSTIN-OKLAND, A JOINT VENTURE GENERAL CONTRACTOR

SALT LAKE CITY DEPT. OF AIRPORTS OWNER

CVE DIVISIONS ELECTRICAL CONSTRUCTION, AVTEC, TELEDATA, MULTIMEDIA, DAS, CVE TECHNOLOGIES GROUP

PROJECT OVERVIEW

The new North Concourse at the Salt Lake International Airport is nearly 50% complete and on schedule to open in the fall of 2020. Cache Valley Electric is proud to be involved in this project with a broad scope of work including complete electrical construction and redundant power system (capable of powering all critical systems during an outage), structured cabling, Distributed Antenna System for cellular connectivity, physical security, Wi-Fi access infrastructure, and more. This highly collaborative project is an excellent opportunity for multiple CVE divisions to work together providing significant integrated value to both the Austin Okland Joint Venture team and the Salt Lake Department of Airports. For years to come, Salt Lake residents as well as the travelers who pass through the new North Concourse will appreciate the state-of-the-art building teeming with the most advanced technology available.



Salt Lake City International Airport, continued from pg 1







ELECTRICAL CONSTRUCTION DIVISION (ECD) SCOPE OF WORK

- Dual incoming RMP electrical service yards
- Dual emergency diesel fired backup generators
- Emergency backup UPS system
- Building automation system
- Distributed Antenna System for airport communications
- Extensive, custom LED lighting fixture package
- Ample convenience power, receptacles, etc. for travelers in concourse area(s)
- Fire alarm system that communicates with South Concourse and other buildings on the airport campus
- Extensive signage and wayfinding package for travelers
- Extensive teledata system including full build outs of numerous IT closets
- Full CCTV and multiple security systems installed in the airport for different levels of security
- Public address system throughout concourse for airport and public communications
- VDGS (visual docking guidance system) for aligning aircraft at passenger boarding bridges
- Construction, power and data to Passenger Boarding Bridges (PBBs)
- Power and data provisions for airport tenants, vendors, concessions, etc.

TELEDATA SCOPE OF WORK

- 650,000 feet of Cat6A shielded data cable
- 6,650 Cat6A data jacks
- 147 data cabinets
- 125,000 feet of fiber cable
- 7,328 feet of fiber optics fusion splices
- 200,000 feet of micro-duct

CVE TECHNOLOGIES GROUP SCOPE OF WORK

Procure, configure, and deploy the network infrastructure that will provide all connectivity for the North Concourse

AVTEC PHYSICAL SECURITY SCOPE OF WORK

- Provision and installation of facility-wide control systems to include access control, video surveillance and digital paging
- Working with numerous enablement packages for support of the facility transition.



Dundon-Berchtold Hall

PORTLAND, OREGON

FORTIS CONSTRUCTION & CHERRY CITY ELECTRIC GENERAL CONTRACTOR

CVE DIVISION CVE PORTLAND STRUCTURED CABLE, AV, DAS, SECURITY

PROJECT OVERVIEW

The CVE Portland team began a great partnership with the University of Portland in the fall of 2018 when construction began on Dundon-Berchtold Hall, a new teaching and academic hall on the campus in downtown Portland. Construction concluded in fall of 2019 and the newest academic building on the campus is now complete with 17 classrooms, an auditorium, 36 offices, and 3 conference rooms. The building is brimming with technology and security features and supported by the structured cabling backbone, all installed by CVE Portland.

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@cachevalleyelectric awearecve

acvetech @cve-technologies-group-inc PROJEC.



UNIVERSITY OF PORTLAND

OWNER

SCOPE OF WORK

- 3 floors of structured cable install
- Wireless access points installed throughout
- Card readers to provide access and security
- Security cameras installed
- Projectors, screens, speakers installed in the classrooms, conference rooms, offices and auditorium.
- Public safety Distributed Antenna System (DAS) install connected with other buildings on campus.
- LEED Gold Certification





OBSERVIAN (a) observianting

@observian

Connect with all our CVE Divisions on social media!

PG 3

CHG Healthcare MIDVALE, UTAH

CHG HEALTHCARE OWNER

CVE DIVISION OBSERVIAN

PROJECT OVERVIEW

Observian is assisting CHG Healthcare in migrating their applications to the AWS Cloud. Observian's AWS certified cloud engineers have helped jumpstart CHG's application migration process by first performing an AWS Well Architected review to ensure that CHG implemented AWS's Best Practices. This review helped educate the CHG technical staff and ensured that a scalable and secure environment was developed to rapidly migrate applications following best practices.

Observian engineers have also helped CHG's CI/CD (continuous integration/continuous delivery) software delivery process so that future software application deployments can be rapidly, securely, and properly executed in the AWS Cloud.



SCOPE OF WORK

- 200 hours of Professional Services
- 2 Observian Architects

WHY CLOUD?

Companies are moving data to the cloud for one simple reason: return on investment. Today, if you are hosting a web server on premise, you are paying for that server 100% of the time. When you architect that web server in the cloud, that server exists at no cost when it is not in use, at night, for example.

The International Data Corporation reports that the five-year total cost of ownership (TCO) of developing, deploying, and managing critical applications in AWS delivered a 64.3% savings when compared to deploying the same resources on-premises or in hosted environments.

Project Update

UDOT 1-15 TECH CORRIDOR AT TRIUMPH BRIDGE LEHI, SR-92 TO LEHI MAIN STREET LEHI. UT



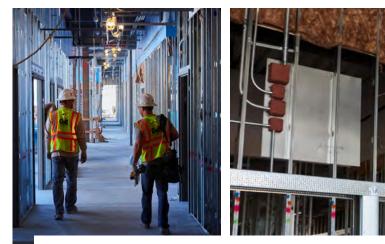


PROJECT OVERVIEW

This \$430 million project widening I-15 in Utah County, Utah will now improve traffic congestion between Lehi's Main Street and S.R. 92 (Timpanogos Highway), known as the Tech Corridor. Cache Valley Electric's Signal and Utility Division worked with UDOT to provide lighting, signals, signage, traffic monitoring, utility, and toll lane controls.

SCOPE OF WORK

Two additional travel lanes in each direction; new bridge over I-15 at Triumph Boulevard; one-way frontage roads and redesigned interchanges between S.R. 92 and 2100 North; reconstructed bridges at cross streets and railroad crossings; new bike and pedestrian connections.



IHC Spanish Fork Hospital

SPANISH FORK, UTAH

234,522	OKLAND CONSTRUCTION	INTER
SQ FT	GENERAL CONTRACTOR	HEAL

CVE DIVISIONS ELECTRICAL CONSTRUCTION. TRANSMISSION LINE & SUBSTATION, TELEDATA & MULTIMEDIA

PROJECT OVERVIEW

Cache Valley Electric—as a trade partner with Okland Construction—is currently working on Spanish Fork Hospital, another successful project with Intermountain Healthcare. The four-story hospital will include four operating rooms (with shell space to add two more), two endoscopy rooms, two C-section operating rooms, five LDR (labor, delivery, and recovery) rooms, three birthing rooms and 28 patient rooms, as well as spaces for MRI, CT scan, radiology, radiation, and fluoroscopy. A three-story medical office building will also connect to the hospital.

CVE's site package includes complete electrical construction, structured cabling, installing 89 site lighting pole fixtures and light fixtures for the helipad, and bringing in two separate utility feeds. In addition, CVE is building a remote central utility plant, housing three generators (with an option to add a fourth) and installing a tunnel from the central processing plant to the hospital.

In truly innovative fashion, the CVE team designed, engineered, coordinated, prefabricated, and installed the headwalls for all of the patient rooms (pictured to the right). CVE's BIM group designed and coordinated with other trades to create the prefabricated pieces to include the setup for electrical, gas, and mechanical. This saved time and labor costs by having one trade-instead of several-on-site during installation.

PROJEC



RMOUNTAIN THCARE OWNER

SCOPE OF WORK

- Utility yard power: medium voltage meter cabinet installation transition switch, and 600 amp pad mounted switch
 - 2-2500KVA 12470/480 transformer and 1-2000 KVA 1 2470/480 transformer
 - Complete installation of Black Diamond video infrastructure for all operating and endoscopy rooms
- Fiber/copper backbone, voice/data
- Camera, WAP, TV, TOTGuard
- Nurse call home run cabling for the hospital and clinic
- 1 million feet of Siemon Cat6A F/UTP cable
- TEC (Data Center) with 11 cabinets with a fiber and copper cross connect infrastructure
- AV, overhead paging, and sound masking







Young Living Essential Oils

LEHI, UTAH

260.000 SQ FT

OKLAND CONSTRUCTION GENERAL CONTRACTOR

YOUNG LIVING ESSENTIAL OILS OWNER

CVE DIVISION MULTIMEDIA

PROJECT OVERVIEW

Construction was recently completed on a new five-story corporate headquarters for Young Living Essential Oils. The building features four floors of employee offices and conference rooms; the main level is a customer-oriented space. Throughout the project, CVE Multimedia worked closely with Okland Construction and the Young Living facilities team to outfit the building with awe-inspiring features including an auditorium complete with a 28-foot screen, customer experience theaters, a café, and video walls.

The 28-foot-wide, 1,270 lb projection screen is the largest that the CVE Multimedia team has installed to date. Multimedia Project Manager Ryan Lewis and his team worked closely with CVE Safety, Young Living, and Okland Construction for

months in advance so when the time came. CVE Multimedia Foreman Matt Ivey and his team were able to get the screen hoisted into the building with the help of Okland Construction and structurally mounted in the ceiling in only one day. The custom format of this screen required edge blending two 10K lumen projectors together to fill this massive screen and the end result is absolutely stunning.

SCOPE OF WORK

- Outfitted building-wide distributed audio, sound masking, and digital signage for 65 conference rooms.
- Installed a fully-loaded auditorium featuring a 28-foot wide projection screen with two edge blending projectors and a Crestron NVX network video distribution system and line array speaker audio, as well as customer theater spaces featuring three 2x2 video walls.





Recently Awarded Projects

ELECTRICAL CONSTRUCTION

Utah State Correctional Facility -Men's General Population Bldg -Male Maximum Security Bldg -Security & Electronics System Procter & Gamble

-Project Rosetta & Diaper Line Aligned Energy - Multiple projects DataBank – SLC 05 Construction of 100 sg. ft. Data center DataBank – 2 MW upgrade project DataBank – on going maintenance projects

HEAVY INDUSTRIAL

Nucor Steel – Hickman, AR Galvanizing Line Duct Banks Water System 5 MCC Upgrade FX 3&4 Roll Mill Drive Upgrade-

- Hickman AR
- EAF 2 Vault Upgrade-Hickman AR NYS – Armorel, AR
- Switchyard 5 Upgrade Air Liquide - Armorel AR - Compressor B
- Calstrip -Hickman AR
- Plant Ethernet Wiring
- Precoat Metals Houston TX
- Wet Section Upgrade
- Precoat Metals- Armorel AR
- Incinerator Upgrade Big River Steel Phase 2 – Osceola AR
- Autonomous coil storage building Power distribution and Utilities. -Russula Water Treatment systems,
- embedded conduits and grounding. -Tunnel Furnace power distribution &
- utilities
- -Deep well pump #4
- -Melt shop lighting and utility
- expansion -Gas Cleaning plant embedded
- conduits and grounding
- -Main substation 35KV switch yard embedded conduits & grounding.

HAWAII ELECTRICAL CONSTRUCTION

Bishop Residential Conversion Phase 1 Siemens AT&T Keawaula Pacific Guardian Center FA Phase V Triple VA CFA Room Meadow Gold Waster Water Treatment Phase 2 Project NDA Ala Moana-Shopping Center Various Additions Senior Residence Iwilei Hallway

TRANSMISSION LINE & SUBSTATION

Doc Crew – Park City, UT Copco 2 & Weed Junction Substations - Weed, CA 90Th South Substation Bus Tie Breaker – West Jordan, UT Enterprise Valley Substation – Enterprise UT Ochoco Substation – Prineville, OR Naples Substation – Naples, UT GE Nextra - Big Stone City, SD GE Boise Bench – Boise, ID Goggin Substation Civil – Salt Lake City, UT Q-888 Bullard Substation – Lakeview, OR

BAF Substation – Rexburg, ID SERVICE DIVISION LDS – Salt Lake Cannery – Line Additi

Salt Lake City, UT Albany – Tank Winding Room – Salt La City, UT

Verizon Wireless – Salt Lake Airport – DAS Installation

University of Wyoming -Stadium/Aren DAS/WiFi Installation – Laramie WY Dannon - Boccard - Process Line Addition – West Jordan, UT CEDAP - Line Relocation - France CEDAP – Building Service and Equipm – Clearfield, UT

SIGNAL & UTILITY

Daybreak Pkwy & Vadania Signal UDOT Region 3 Signs Ninigret North III Substation Signal Syracuse Garden City Bore Highland Dr. & Corporate Way Signa CR England TSD UTA Airport Station Relocation Proje SR-164 & Mill Road/Woodland Hills Clinton 1500 W 1800 No Ped Pole Upgrade UTA Tiger Sandy Multi Use Path 31st ST & Pennsylvania, Oqden SLC Airport IC1, IC2 Comm Raceway Gate Electrical Vail Resorts Trash Compactors Wrong Way Detection Adams Ave Lighting Upgrade, Washington Terrace Northrup Grumman Site X Electrical Dugway Conduit Path for Fiber for Teledata

AVTEC

American Express Corporate Offices (SLC) - Security Project Avista Corporation Mission Parking Structure - Security Project **BioFire Diagnostics** Project 650 Komas Phase 1 and Phase 2 Cambia Health Salt Lake / Cottonwood System Improvements Ciner Dominion Energy: Riverton Odorant - Security Upgrad Coleman Station – Security Upgrade Levan Peak – Security Upgrades Medicine Butte - Security Upgrades Flexential Security Controls Projects: City, UT Malouf Linens Park City Municipal Public Utility District No. 1 of Chelar County Technician & Electrical Support

Security Control System Upgrade Hub and IT Building Additions Proj Nashville, TN; Portland, OR; Salt La Office Expansion - Security Project MARC / Utility - Security Upgrade Contract



	Rocky Mountain Power Mercer Substation – Security Controls	4th & N Portlar
on –	PacifiCorp JC Boyle – Video System Upgrades	City of cable,
ake	LCT – Video Management Upgrade Wind Generation / Transmission –	Wildho cable,
	Security Project Salt Lake City Department of	Army (Portlar
na	Airports	Salem
	IC2 – Video Project Salt Lake City Department of Public	securit Lincolı
	Utilities Parley's Water Treatment Project	cable, Nike –
nent	North Salt Lake Water Reclamation – Upgrade Project	AV. Be Cambi
	City of Saratoga Springs	Portlar
	Police & Court Security Project Western Governor's University	MLK C securit
	Tower 2 – Security Project	
	Retail Expansion – Security Project	Eugen
al	TELEDATA/MULTIMEDIA TELEDATA	Adobe NetDo
ect	Codale Reno – Reno, NV	Utah R
Dr	Vivint Solar New Building – Lehi, UT Boral Plant Upgrade – Tijuana, Mexico	State o WGU
	American Express – Sandy, UT	The Ch
	U of U Hospital & Clinics Wireless	day Sa Interm
/ &	Upgrade – SLC, UT U of U Infill Project – SLC, UT	Mayo (
,	Roosevelt Elementary – Roosevelt, UT	Biofire
	Dugway Fiber Infrastructure – Dugway, UT	Sports ARUP
	SLCC Jordan Campus Student Center -	Health
l	South Jordan, UT Provo Fire Station #2 – Provo, UT	Equini: North
	Galileo ProcessingNew Data Center –	Galileo
	SLC, UT Hawaii State Hospital – Kaneohe, HI	The St Energy
5	MULTIMEDIA	Bend-l Sorens
	Health Equity TP-3 Building – Draper, UT	Salt La
	Health Equity Conference Room Upgrade (2 Buildings) – Draper, UT	Huntsr Solutic
	South Jordan City Fire Station 64 –	Health
	South Jordan, UT Davis Technology College Allied Health	TriMet Hawaii
	Building – Kasville, UT	Sun Ru
	IHC Altaview Hospital Education Center Meeting Rooms – Sandy, UT	Park C Utah T
	Hawaii State Hospital New Patient	Barrick
ject	Facility – Kaneohe, HI	Vykin Lake C
	WIRELESS/DAS	Jerry S
les es	Salt Lake City Airport – Public Safety	Ultrade
	DAS – SLC, UT University of Wyoming Neutral Host	Overst AgRes
S	DAS – Laramie, WY	-
	Rady's Children Hospital – San Diego, CA OHSU – ECEC – Portland, OR	OBSEF Weste
ake	Sprint Grand Wailea – 5G – Wailea, HI	Applic
	University of Utah – ACC, Rehab, and Housing – SLC, UT	NetDo (Applic
t	Mountain View Hospital – Idaho Falls, ID	Impler
es	CVE PORTLAND	Prestig Securi
١	Cache Valley announced as OHSU	Master
	preferred contractor Jaguar – structured cable, security, AV.	Monito Talk De
	Portland, OR	

Montgomery – Structured Cable. nd OR Portland Security - Structured security. Portland, OR orse Resort & Casino – structured security. Pendleton, OR Corp of Engineers - Audio Visual. nd, OR Police Dept - structured cable, ty. Salem, OR n City Police Dept - structured security. Lincoln City, OR structured cable, security, DAS, eaverton OR ia - structured cable, security, AV. nd, OR and surrounding cities. Condos – structured cable, ty. Portland, OR

ECHNOLOGIES GROUP

ne Water & Electric Board Systems Inc. ocuments Retirement Systems of Utah hurch of Jesus Christ of Latterints nountain Health Care Clinic Diagnostics man's Warehouse Laboratories hEquity ix Inc. Clackamas School District Processing andard Insurance Company v Solutions La Pine School District son Communications ake City School District man Cancer Institute onReach Catalyst Pacific Health ın City Municipal Fransit Authority Oswego Public Schools Seiner ent ock.com erves

RVIAN

ern Governors Universityation migration to AWS ocuments- Application Dynamics cation Monitoring Tool mentation) ge Financial- Alert Logic (Cloud ty Tool Implementation) Control- Dynatrace (Application pring Tool Implementation) esk- GSuite Implementation

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733 Bishop St., Ste 2170 Honolulu, HI 96813 808-354-0080

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Fond Farewell to Holiday Trucks

In 1999, our owner and CEO Jim Laub began the tradition of gifting diecast collectible American classic trucks to our valued customers during the holidays. The trucks have been a symbol of our deep appreciation for the friendships we have formed with our customers.

Over the course of the years, we have exhausted the options of classic trucks to replicate. CVE brought many American classics to life in holidays past, many of them are still on display in offices around the country. This is a tradition we are proud of, and while our trucks are retiring this year, our dedication to our customers and dear friends lives on.







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