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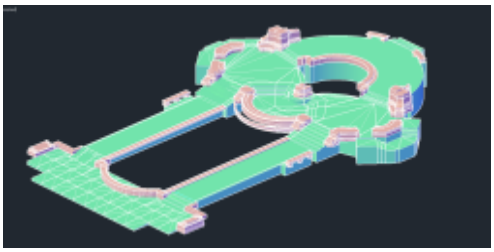
McNeil Engineering scans the Mormon Battalion Monument

Salt Lake City, and the state of Utah as a whole, is home to a wealth of unique and interesting history. One of the most interesting chapters in the early history of our state is the story of the Mormon Pioneers. An important part of the pioneer migration is the Mormon Battalion, the first (and only) religious-based unit in U.S. Military History.

Scanning the Monument

Formed in 1846, the Mormon Battalion served during the Mexican-American War and was composed of between 500 and 600 men with some women and children accompanying the group. The commanding officer was regular army and the rest were of the Mormon faith.

The group is most well-known for a record-breaking march that started in Council Bluffs, Iowa ultimately ending in San Diego, California. The journey spanned over 2000 miles, but is attributed with assisting in spreading the LDS faith to all corners of the American west and southwest through the later colonization of the area.



Model of Monument Plaza

If you have visited the Utah State Capitol, then you are familiar with the Mormon Battalion Monument that honors this amazing, and harrowing journey. McNeil Engineering's **survey team** was recently tasked with 3D scanning the monument plaza in preparation for an upcoming restoration project.

The data was used to create a 3D model of the entire monument plaza, and will be used during the course of the remodel. We couldn't be more proud of working on this project, and look forward to seeing the final product.

Preserving this amazing piece of Utah and LDS history is an honor we do not take lightly.

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Calvin L. Rampton Complex Gets a New Look...

That new look included a landscape redesign and a parking lot repaving and upgrade. The Calvin L. Rampton Complex in Taylorsville, which houses the Utah Department of Transportation and the Utah Department of Public Safety, was named in honor Calvin L. "Cal" Rampton who served as Utah's 11th Governor from 1965 to 1977. Rampton served 3 terms as Utah's Governor and was very popular with the citizens of Utah.

Re-Striping of New Asphalt at Calvin L. Rampton Complex

Two teams from McNeil Engineering's Consulting Department designed these changes. The landscape architecture team completed the new landscape design that was completed As part of phase 1. The paving design team completed the parking lot design .The parking lot was such a large project that it had to be broken up into 3 phases. The parking lot upgrades included new asphalt, new drainage and ADA ramps from the parking lot as well as construction management and quality control..

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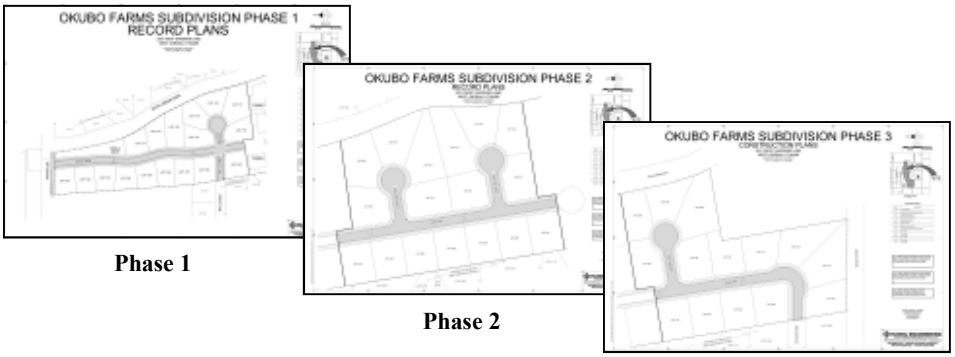
Okubo Farms Subdivision

Okubo Farms subdivision is a new 3 Phase 20 acre subdivision located along 90th South at approximately 2150 West in West Jordan, Utah. Like much of the farm land in the Salt Lake Valley, most of Okubo Farms was sold to a developer to be turned into a new subdivision. McNeil Engineering provided all the surveying and engineering design for this project as well as construction management.

Once completed Okubo's will have 48 residential lots. Phase 1 consisted of 17 lots and laid the foundation for the expansion of the utilities into the subdivision. The homes in Phase 1 are completed and occupied. Phase 2 consists of another 17 lots and Phase 3 has 14 lots. Phase 2 is currently in various stages of construction and Phase 3 is just underway.



Phase 1

Phase 2

Phase 3

One of the challenges faced in the design of this subdivision included the HEC-RAS modeling of the South Jordan Canal. This project involved coordination with West Jordan City, UDOT, Salt Lake County and 2 canal boards.

McNeil Engineering is proud to be a part of the growth of the Salt lake Valley through the design of subdivisions such as Okubo Farms.

Phase 2 Looking Towards Phase 1

Phase 3

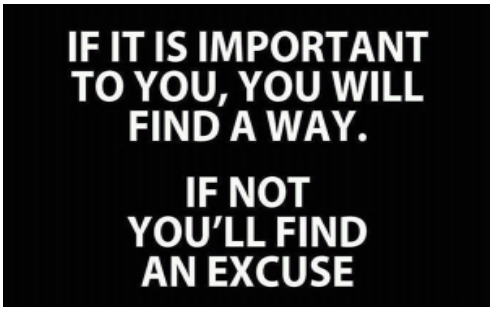
FUN FACT Big Brutus is the second largest electric shovel in the world. The electric shovel constructed in 1963 took more than 150 railroad cars and over a year to build. It is 160 feet tall and operates at 15,000 horsepower. The shovel had to be shut down in 1974 because the cost of operation was twice that of the value of coal it recovered.

Central Park Irrigation Design

McNeil Engineering's **Landscape Architecture** team is working with the city of South Salt Lake to secure funding to replace the irrigation system at Central Park located on the corner of 300 East and Claiborne Avenue. McNeil Engineering completed a preliminary design for a new irrigation system with anticipated cost. This provided the information and tools necessary for the city to submit a grant request to the JVWCD. Once funded, the McNeil Engineering team will prepare construction documents and perform construction administration services for the instillation of the new irrigation system..

Central Park Ball Field

Central Park, South Salt Lake City



Taking Down The Old To Make Way For The New

If you grew up in the Salt Lake area you probably remember going on field trips to the Wonder Bread Bakery. At the end you would get that miniature loaf of bread. You may have even spent the bus ride back to school breaking off small pieces of the bread and rolling them into balls and trying to hit all your friends. Those days are now just a memory and so is the Wonder Bread Bakery. The bakery was recently torn down to make way for a new mixed use development.

Old Wonder Bread Bakery

The Liberty Boulevard development is now under construction on the site of the old Wonder Bakery on the 700 East block of 400 South . This project is a mixed use with residential apartments and commercial space. As with other projects featuring the Liberty moniker in the downtown area of Salt Lake City, **Cowboy Partners** is the developer. **Architectural Nexus** is the architect that designed this development. The project will include 267 residential units and 4,000 square feet of ground floor commercial space. The three plus acre project will be a block long, with street frontage on both 400 and 500 South and 700 East between X Wives Place and Ruby River Steakhouse.

Liberty Boulevard is one of three Cowboy Partner "Liberty" projects in various stages of construction or planning in downtown Salt lake City. Liberty Crest, Liberty Boulevard and Liberty Square.

Rendering of Liberty Boulevard

McNeil Engineering completed all the **civil engineering design** and **surveying** for this project. The Civil Engineering design included: Horizontal Control Plan, which provided the coordinates and/or dimensions for the layout of the building and site improvements including the curb & gutter, asphalt pavement, and sidewalks. The Grading & Drainage Plan, which established the proposed elevations for the building finish floor and the on-site improvements, and the on-site storm drain system, including the storm water detention. The Erosion Control Plan, which provided the recommended BMP's for the construction period. And finally, the Utility Plan, that provided the design for the proposed on-site water, fire and sewer services for the project. It also included coordination with the plumbing design for the size and location of utility services (including gas) for the project. We coordinated with the electrical engineer for the location of dry utilities including light poles, transformers and communication facilities.

Liberty Boulevard Construction

New ASCE Leadership

The annual meeting of the ASCE Utah Section was held June 17th at the Utah State Capitol. New officers were sworn in at the meeting. Three of McNeil Engineering's employees have now officially stepped into their new roles in ASCE Utah Section leadership. **Matthew Roblez,** was sworn in as the Utah Section President. It is the third time He has served in this position. **Anthony Schmid** was sworn in as President-Elect for the Utah Section and **Walter Travis** as Secretary-Treasure.

The ASCE Utah Section is in good hand for the next year.

ASCE
UTAH SECTION
Celebrating 100 Years of Excellence

Complete list of new ASCE Utah officers for 2016—2017 :

ASCE Utah Section Officers
Matthew Roblez, Section President
Anthony Schmid, Section President-Elect
Walter Travis, Section Treasurer/Secretary
Northern Utah Branch
John Powell, President
Tom Dickinson, President-Elect
Scott Archibald, Secretary/Treasurer
Wasatch Front Branch
Jeff McBride, President
Darren Burton, President-Elect
Mark Chandler, Secretary/Treasurer
Central Utah Branch
Degen Lewis, President
Jeff Egbert, President-Elect
Steven Lord, Secretary/Treasurer
Southern Utah Branch
Jared Madsen, President
Kirt McDaniel, President-Elect
James Thompson, Secretary/Treasurer
Younger Member Forum
Michelle Howes, President
Ashley MacMillan, President-Elect
Gabe Shields, Secretary
Vince Willis, Treasurer

Employee Anniversaries this Quarter		
Employee	**Date Started**	**Years of Service**
Rodney Davis	8/1/1983	33
Brian Warner	8/4/2003	13
Robert Poirier	8/2/2004	12
Ted Didas	9/6/2005	11
Dennis Kent Withers	7/9/2012	4
Henry Fox	8/11/2014	2
Justin Smith	8/17/2015	1

Rock & Roll Fantasy...

Matthew Performing with Paul Stanley Co-Founder of Kiss

Who says fantasies don't come true? When you were a kid did you ever dream of being a rock star? McNeil Engineering's Matthew Roblez did! And, his fantasy came true, at least for one night. Matthew recently returned from a rock & roll fantasy camp, where he got to learn from and performed with some big names in rock & roll. Paul Stanley, Tracii Guns, Jeff Scott Soto, Matt Starr and Don Felder, of the Eagles to name some.

When he returned, all Roblez could say was, *"Wow, what a cool experience."* The camp consisted of three days for learning and rehearsals leading up to the big performance on Saturday night at Whiskey A Go-Go, in Hollywood, California, where he rocked the house.

Crane Design...

Part of the business philosophy of McNeil Engineering's Structural Department is to be as diverse as possible with the services that we provide and be experts in all of them. Since 2002 McNeil Engineering has been engineering cranes for all the major crane manufacturers in the intermountain west. Our engineering guidance in crane engineering has been sought out by many professionals across the country. Our designs include small ½ ton jib cranes in industrial facilities to 20 ton double girder cranes for the Naval Station in Pearl Harbor, and everything in between.

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Oquirrh Mountain Market Place

Since the opening of Sprouts Market in January 2015, Oquirrh Mountain Market Place has continued to grow and expand. Oquirrh Mountain Market Place is a 45 acre commercial project located on 11400 South and just west of Bangerter Highway in South Jordan, Utah. When fully completed Oquirrh Mountain Market Place will include over 127,000 square feet of retail and restaurant space.

Sprouts Market

McNeil Engineering provided all of the site surveying and engineering including Construction staking, design of parking lots, grading and drainage, water system and sanitary sewer facility. McNeil Engineering also provided the design for widening the adjacent public streets including 4000 West (from 11400 South to 11800 South) and 11400 South (from 4000 West to Bangerter Highway).

Views of Oquirrh Mountain Marketplace

New 4D Simulation May Prevent Construction Project Delays

You can use a pen to put that ribbon cutting ceremony in your calendar. That is if your project's planners used the new 4D simulation designed by researchers at Concordia University.

The transition from draft board to finishing a building project is rarely smooth. Large construction projects are complex, with a variety of structural components being pieced together on a large scale. When problems arise, a seemingly isolated change of plans can disrupt a number of other tasks. Large public works projects and reconstruction projects -- when project leaders must manage construction and continued public use -- can prove especially problematic. The new simulation looks to simplify the process and reduce the chance of delay by isolating and minimizing risk of overlapping problems and schedule conflicts. The modeling allows planners to schedule different construction components in a way that minimizes the potential for ripple effect problems -- keeping slowdowns and setbacks contained.

Planners can also use the model to ensure a balance between public use and building crews on transportation reconstruction projects. When total demolition is not an option, the simulation helps transportation planners smoothly transition traffic flows from old infrastructure to new infrastructure.

"This parallel coordination of construction and demolition activities with traffic flow is essential to the success of these projects," Amin Hammad, a systems engineer at Concordia, said in a news release. "That's why our new modeling method uses a 4D approach -- taking into account the three normal space axes, plus time, to coordinate the traffic phasing with the demolition and construction of the old and new segments, respectively."

Hammad is the lead author of a new paper on the construction simulator, published this week in the journal Automation in Construction.

"This study allows decision makers to better schedule construction and demolition activities to avoid any conflicts that may delay the project and increase the cost," Hammad concluded.

Source: http://www.upi.com/Science_News/2016/06/07/New-4D-simulation-may-prevent-construction-project-delays/2011465329664/