



# McNEIL ENGINEERING<sup>TM</sup>

## Spring 2019

# epicenter

April, May, June

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## Zero Scape or Xeriscape?

How many times have we all heard somebody say “zero-scape”? Sounds interesting...except it’s “xeriscape”, not “zero” scape—which would mean “no” landscaping.

Xeriscape, which was coined by Nancy Leavitt in the 1980’s, is a blend of the Greek word “Xeros”, which means dry or arid habitats and the term “landscape”, the visible features of an area of land. Xeriscape literally means dry landscape or dry-scape. The “Xeriscape” landscaping method, originally used in the western regions of the United States, was created particularly for arid and semiarid climates because it uses water-wise designs and drought-tolerant plants, mulch or stone, and minimal supplemental irrigation. That practice has become the typical term for water efficient landscaping using specific plants and ground cover suitable for the climate to create a visually attractive landscape that is at least partially self-maintaining and uses little or no irrigation water. If correctly designed and maintained, a Xeriscape can effortlessly consume less than half the water of a conventional landscape and, once established, Xeriscape should require less maintenance, water, and time.



Achieving Xeriscaping often means replacing turf/lawn with soil, rocks, mulch, and drought-tolerant native plants. Drought-tolerant plants are especially adapted to arid climates and are called xerophytes. Xerophytic plants often have less overall surface area than other plants, reducing the area that is exposed to the air and reducing water loss through evaporation. They may also have smaller leaves or fewer branches than other plants.

Some xerophytes have tiny hairs on their surfaces to provide a wind break and reduce air flow, thus reducing the rate of dehydration and enabling them to maintain a layer humidity around them. Succulents, a variety of xerophyte, have leaves coated with a powdery white wax; that wax and the color of the plants skin helps reflect sunlight and diminish water evaporation. Xerophytes are adapted to conserve water and store their own water during dry periods, and can survive long periods of extreme dryness with their deep spreading roots.

(Continued on page 5) Xeriscape



## Timpanogos Cave is Getting a New Visitor Center

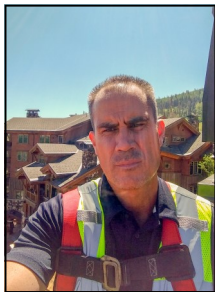
Back in 1991 the visitor center at Timpanogos Cave was destroyed by a fire. A temporary modular visitor center was built as a temporary quick fix in it's place. Fast forward twenty seven years and that temporary fix is finally getting replaced.



Last year the cave closed a month early to begin construction. Construction has continued through the winter and is expected to be completed in June of this year. At that time the cave will reopen to visitors and resume normal operations.

Timpanogos Cave is a National Monument located up American Fork Canyon in Utah County in the State of Utah.

**McNeil Engineering's Structural Engineering Department** completed some of the structural engineering on the new visitor center.



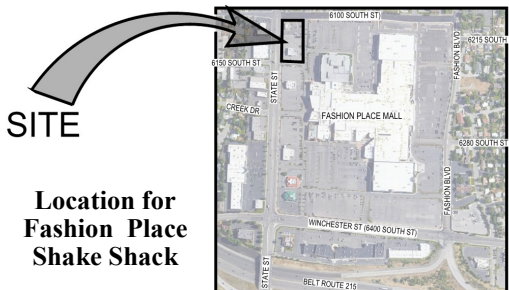
**Matthew Roblez, SE, SECB**  
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## From Its Humble Beginnings...Shake Shack Is Coming to Utah

Shake Shack started as a hot dog stand near Madison Square Park in Manhattan, New York back in 2001 to support the Madison Square Park Conservancy's first art installation. In 2004, a permanent location opened and Shake Shack was born. Fast forward 15 years and 26 states since that permanent location opened, Shake Shack is now coming to Utah. Shake Shack has announced two Utah locations. The first location will be in Sandy that will open this summer and the second will be at Fashion Place Mall that will open later this year..



Back in 2016 and 2018 local fans of the fast food chain were tweeting the company encouraging them to come to Utah. In response both times the company replied that no plans yet for any Utah locations.



However, Shake Shack was listening because it wasn't too long after the second tweet that the company announced the first location and now a second Utah location. The company said the menu will feature all the Shack classics, including the ShackBurger, crinkle-cut fries and classic shakes.

In keeping with its charitable roots the company will partner with a local charity program, and will donate 5 percent of sales to that charity.

**McNeil Engineering's Civil Engineering Department** completed the civil engineering design, Our **Landscape Architecture Department** completed the landscape design and our **Survey Departments** completed an ALTA and topographic survey for the Fashion Place location for Client Brookfield Properties.

## FUN FACT

One of the most unique places in Utah is the Bonneville Salt Flats, named after the ancient sea that covered the area. Stretching over 30,000 acres, the white salt is millions of years old. Thousands of tourists, filmmakers, and land speed racers make it famous throughout the world.





**SEMINAR: Presented by  
Matthew Roblez, SE, SECB  
Brian Warner, SE, LEED AP**

**Foundation Damage and Repair: Science, Materials and Techniques**

Salt Lake City, UT

Friday, May 31, 2019

Marriott University Park

8:00 AM - 4:30 PM

- **Understand** the impact of soils on structures
- **Identify** common foundation types throughout Utah, and identify causes of foundation settlement
- **Explore** typical loads on foundations, including gravity loads and soil loads, and discuss the effects of water on foundation integrity
- **Talk** about the design and construction of footings, slabs. Basement walls and retaining walls
- **Get** tips on evaluating and repairing foundation damage, and explore the foundation repair process

**Continuing Education Credits:**

**Architects**

6.5 HSW CE Hours

6.5 AIA HSW Learning Units

**Professional Engineers**

6.5 Profession Ed. Hours/PDHs

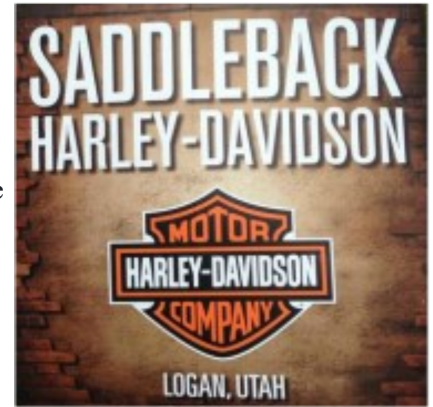
For more information on cost and to register click the link: <https://www.halfmoonseminars.org/seminars/132330/foundation-damage-and-repair-science-materials-and-techniques-seminar/salt-lake-city-ut#tab-speakers/>



HalfMoon Education Inc.  
WWW.HALFMOONSEMINARS.ORG

**An ALTA Survey For the New Harley Davidson Location in Logan**

The Harley Davidson dealership located in Logan, Utah has moved from it's old location on North Main to it's new location at 455 S. Main in Logan. **McNeil Engineering's Survey Department** completed an ALTA/NSPS Land Title Survey on Harley Davidson's new location for The **Clawson Group**. McNeil Engineering would like to thank Kevyn Aldrich and The Clawson Group for this opportunity. The Clawson Group is a Mortgage Lender specializing in commercial real estate services.



**New Logan Harley Davidson Location**

Harley Davidson Management didn't like their location on the north end of Main Street. In fact they referred to the north end as a "dead-zone." Harley Davidson completed a traffic study on traffic on North Main Street versus traffic on South Main Street and the results show that Harley Davidson will see more than double the Main Street traffic at their new location on South Main.

According to Harley Davidson Management the new location will solve many of the problems they had at the old location. The showroom in the new location is 4 times the size of the old location. This will allow them to display more bikes and merchandise.

Sounds like this new location will be better all around for Logan Harley Davidson.



**Michael Hoffman, PLS**  
Survey Manager  
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**Matthew Roblez is running for ASCE Region 8 Governor**

Matthew has served as ASCE Utah Section President **THREE TIMES!!!**

ALL ASCE Members...  
Matthew will need your vote starting May 1st through June 1st !!!



## Matthew Roblez In Washington DC to Talk With Congress

McNeil Engineering's own Matthew Roblez took part in the Legislative Fly-In March 12th and 13th. The Legislative Fly-In is an annual program where members of ASCE travel to Washington DC to meet with members of Congress to discuss the importance of our Nation's infrastructure. Thank you Matthew Roblez for representing McNeil Engineering and ASCE on such an important issue!



## Employee Anniversaries this Quarter

Employee	Date Started	Years of Service
Dan L Schaugaard	4/21/1999	20
David B Draper	5/22/2000	19
Walter C Travis IV	4/26/2006	13
Jacob H Felshaw	4/7/2008	11
Elizabeth A Draper	6/7/2010	9
Tevi Lawson-Avila	5/7/2012	7
Becky Scholes	5/6/2013	6
Noel A Enriquez	6/4/2014	5
Greg Ostermiller	05/01/17	2

## Trip of a Lifetime

By Carl Greene

Recently my family and I had the opportunity to take a trip of a lifetime – to cruise the Mediterranean and visit the coasts of Spain, Italy and France. Besides the incredible opportunity to spend some quality time with my family, we were able to walk through the pages of history and see firsthand the remnants left behind by those who came before us. As a student of engineering, architecture and history, having this opportunity was a dream come true. Quite the marvel to me is how these ancient structures have been able to withstand the ravages of time. Many of the buildings we saw have been around since long before our continent was even known to the world. Can we even imagine some of the buildings we know of today being around for a thousand years? Two-thousand years? Not likely. But here these monuments stand, showing us what man is capable of accomplishing. It is impressive what we can get done when we have a will to do things. Seeing marvelous buildings and structures like these makes me



Altare della Patria - Rome  
Constructed 1885

hopeful and excited about what we can do going into the future. I am also grateful that in our small way, McNeil Engineering is a part of how we are building our future and preserving what we have for the generations to come.



A Street in Genoa,  
Italy



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(Continued on page 5) Trip



## The World's Top 25 Universities for Civil Engineering in 2019 Ranked

# TOP 25

*Construction Week* rounds up the top 25 universities from around the world, according to the Times Higher Education World University Rankings 2019 for civil engineering.

### The world's top 25 universities for civil engineering in 2019 are:

- University of Oxford
- Stanford University
- Massachusetts Institute of Technology
- California Institute of Technology
- Princeton University
- Imperial College London
- ETH Zurich
- Johns Hopkins University
- UCL
- University of California, Berkeley
- Columbia University
- University of California, Los Angeles
- Cornell University
- University of Michigan
- University of Toronto
- Tsinghua University
- Northwestern University
- National University of Singapore
- Carnegie Mellon University
- Northwestern University
- New York University
- University of Washington
- University of Edinburgh
- University of California, San Diego
- University of Melbourne

(Continued from page 4) Trip

Photos Courtesy of Carl Greene



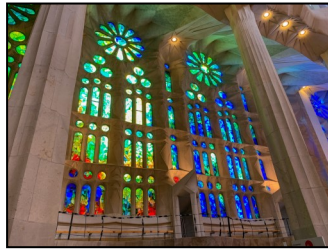
Park Gruell - Barcelona, Spain  
Constructed 1900



Arch of Constantine - Rome  
Constructed 315 AD



The Trevi Fountain - Rome  
Constructed 1732



Interior Sagrada Familia -  
Barcelona, Spain  
Constructed 1882



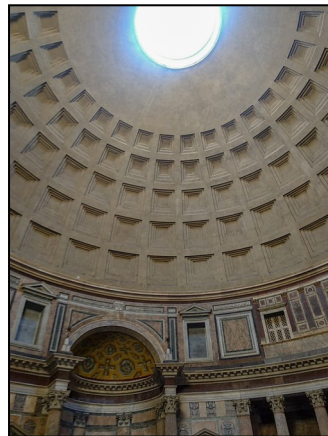
Cathedral Di San Lorenzo  
Genoa, Italy  
Constructed 1098



The Colosseum—Rome  
Constructed 70 AD



Exterior Sagrada Familia  
Barcelona, Spain  
Constructed 1882



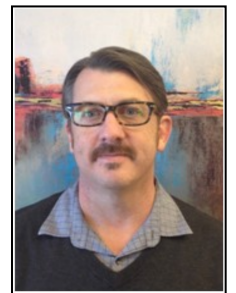
Interior of the Pantheon  
Rome  
Constructed 126 AD



Cathedral La Major  
Marseille, France  
Constructed 1852

(Continued from page 1) Xeriscape

The Xeriscape landscaping philosophy uses as many native, drought-resistant plants as possible and arranges them in efficient, water-saving ways, which also result in saving money and time. Because of those financial and environmental benefits, Xeriscaping has grown in popularity for both commercial and residential properties.



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**Greg Ostermilller ; Structural Department; Junior Structural Engineer**

**How long have you worked at McNeil Engineering?**  
*2 years*

**What do you find the most challenging working at McNeil Engineering?**  
*The different varieties of projects that come to us.*

**What do you like most about working at McNeil Engineering?**  
*I get to do what I love, and help make peoples dreams come true.*

**What has been your favorite project at McNeil Engineering?**  
*No one specific, but all of the custom homes I have worked on have been exciting.*

**What have you gained from working at McNeil Engineering?**  
*I have bettered my understanding of the principles that I learned through attending Utah State University, and have learned to apply them.*

**Where were you born and raised?**  
*Born in Boise, Idaho but raised in Fruit Heights, Utah*

**If you weren't raised in Utah, what brought you to Utah?**  
*I moved with my family when I was still an infant.*

**Favorite vacation location?**  
*Fishing in Alaska*

**Motto or personal mantra?**  
*"Always look on the bright side of life"*

**What are three career lessons you've learned thus far?**  
*Practice makes progress.*

**What is something you've always want to try and never have?**  
*Skydiving*

**What do you like to do in your spare time?**  
*Crossfit and wood working, spending time with my family*

**What are your top 5 bucket list items you want to accomplish?**  
*Own a Tesla, Scuba dive in Hawaii, Drive a super car around a race track, Design and help build my dream home, Travel Europe*

**What is your hidden talent?**  
*I really enjoy Big Band Swing Dancing (1940's era dance), I used to teach it at USU*

**Do you have a pet? If so what do you have?**  
*No, but I would love to have a chocolate Labradoodle*



**Greg Ostermilller**