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The Lonesome Tower… Not So Lonely Any More

In our Winter 2015 Newsletter we introduced you to the what we affectionately referred to as the "Lonesome Tower." Anyone who traveled 1300 East around 7700 South is familiar with this tower. The tower is actually an enclosed stairwell, constructed to be part of a multi-family development – just before the "crash" of 2007-2008. Then as real estate sales plummeted the developer pulled the plug and left the tower naked in view of thousands of travelers on 13th East.

Today the "Lonesome Tower" is not so lonely anymore. With the construction of the Ridge Apartments, a four building complex, the tower has new friends. The "Lonesome Tower" is now part of the fourth building in the complex. That building is the southern most building in the complex. The Ridge Apartments is located near the finest in shopping, entertainment, dining, and more. The 261-unit complex sits on a ridge along 1300 East, offering breathtaking views of the nearby Wasatch Mountains.

Lonesome Tower as it appeared from 2007 until Construction of the Ridge Apartments began in late 2015

McNeil Engineering completed the **Civil Engineering design, surveying and landscape design** on the Ridge Apartments. Designers and staff for McNeil Engineering worked closely with **Tom Henriod** with **Rockworth Companies** and **Rimrock Construction** on this project. We are happy to be apart of bringing the era of the "Lonesome Tower" to an end.

The north building is now open to residents with the other three buildings in various stages of completions. For leasing information on the Ridge Apartments visit their website at www.theridgesandy.com or email leasing@theridgesandy.com

Ted Didas, P.E.
President
801-255-7700 x. 114
ted@mcneileng.com

North Building of Ridge Apartments

View From the Ridge Apartments looking East

Roads Built from Tires

California generates more than 40 million scrap tires every year. While nearly 75 percent of used tires are recycled, the rest still end up in landfills or illegal dumps. Ground tire rubber can be blended with asphalt to beneficially modify the properties of the asphalt in highway construction. Through the department's Green Roads program, CalRecycle is reducing the amount of tires disposed in California's landfills by putting waste tires to new use as rubberized asphalt concrete.

The City of Huntington Beach, California used grant funding from the program to improve six miles of arterial streets that were riddled with potholes, sunken areas, and crumbling pavement. The rubberized asphalt is expected to extend the lifespan of the pavement by an additional 10 to 20 years.

Advice From A Tree

- Stand Tall and Proud
- Go Out On a Limb
- Remember Your Roots
- Drink Plenty of Water
- Be Content with Your Natural Beauty
- Enjoy the View

Water Conservation at Central Park

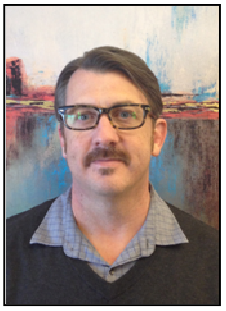
Central Park in South Salt Lake City

The Urban Design Director for the City of South Salt Lake (SSLC) sought the services of Scott Schoonover, Principal of McNeil Site and Landscape Architecture, to plan, design and manage the replacement of an outdated irrigation system at their Central Park Community Center. The 4.3 acre recreational fields had a labor intensive, inefficient system using quick coupler heads which required plugging in and switching to other zones throughout the day. The city realized it made fiscal and water conservation sense to replace this old system and invest in an advanced weather sensor that calculates evapotranspiration (ET) and adjusts the controller daily based on local weather conditions. In addition, a rain and freeze sensor was installed shutting down the system during rain and/or freezing conditions. Due to low water pressure in SSLC, a booster pump was necessary to achieve the optimum pressure for the installed rotor heads. To be as energy efficient as possible, a Variable Frequency Drive (VFD) was installed on the pump and a flow meter was installed on the mainline to monitor and react to changing water flows.

Scott Schoonover Taking Field Notes at Central Park

McNeil Landscape also assisted in the preparation of the preliminary scoping documents to apply for grant funds from Jordan Valley Water Conservancy District (JVWCD) following the strict guidelines and facilitating preparations for a city budget request. Water use calculations were provided as part of the submittal package along with a conceptual irrigation plan showing that water conservation would actually be achieved.

The fields were completed a month ahead of schedule, on budget, and in time for the kick-off of the spring recreational leagues. McNeil Landscape additionally provided SSLC a recommended irrigation schedule, based on Evapotranspiration Rate data, that would be used as the foundation and adjusted automatically as needed due to weather conditions to keep the fields in top condition.



Scott Schoonover, PLA, ASLA
Principal Landscape Architect
801-255-7700 x. 152
scotts@mcneileng.com

FUN FACT **World's longest underwater tunnel completed in China**

A 4.2-mile section of tunnel is completed at the Hong Kong-Zhuhai-Macao Bridge in China, becoming the world's longest and deepest underwater tunnel. The completion marks the end of construction on the major structural parts of the world's longest cross-sea bridge, which stretches 14.2 miles.

ASCE Utah Section's Annual Meeting

This years annual meeting for the ASCE (American Society of Civil Engineers) Utah Section was held on June 9th in Saint George. During that meeting Anthony Schmid was sworn in as the President of the Utah Section for this next year.

Matthew Roblez was also awarded the Engineer of the year at the annual meeting.

Congratulations to both these McNeil Engineering Employees!

We would also like to thank Matthew and Walter Travis for representing McNeil Engineering this past year in ASCE Utah Section Leadership. Matthew served as Utah Section President and Walter as Utah Section Secretary.

Swearing in of New ASCE Utah Section Officers, Including Anthony Schmid Far Left

Matthew Roblez Posing with the Engineer of the Year Award

The Effects of Technology...

By Matthew Roblez, SE, SECB— Structural Department Manager

Those of us who graduated from college and entered the field of engineering in the early 90's or before remember the days before computers. When I started in 1993, the office I worked in had one computer that everyone shared. Now, most everyone has a tablet, a cell phone and a laptop. It has increasingly become possible to work while on the move, something which appears to be blurring the line between people's work life and their home life. This is a problem. Civil engineering is a service oriented business so most of us feel obligated to answer the phone, emails or texts immediately to service our clients. If we don't, the client will certainly find someone else who will right? That is the fear of most of us. I wanted to write an article talking about mental health and how computers and technology are affecting all of us.

Our technology such as cell phones, tablets and laptops have become such a huge part of our daily lives that it's often hard to put them down. We seem to always be fighting for minutes. It may seem harmless to knock out a few emails before bed or take a nap, but studies have shown by keeping your mind engaged, you can trick your brain into thinking that it needs to stay awake. And if you're looking on social media, or reading emails, those experiences can make it hard to relax and settle into slumber.

By continuing to communicate with clients and co-workers after hours through technology not only creates stress, but it prevents your brain from relaxing and recuperating and preparing for the next day of work. Kansas State University researcher Young Ah Park said, "If there are any unpleasant text messages or emails from work-related people -- such as a boss, co-worker, clients, customers or contractors -- you may be more likely to ruminate about work-related issues or worries…. When people are really under stress their psychological and physical resources are drained, so they are less likely to self-regulate hostile behaviors…"

When we are using our technology, our brain is at work. To produce a physical analogy, if one is working biceps in the gym doing curls, the muscles need rest between reps or they can't perform as efficiently. In some cases if you overwork your muscles they cease to perform at all. So one who goes to the gym to become stronger, can actually become weaker by overworking their muscles. The brain is a muscle and also requires rest. Cell phone usage in particular keeps our brain active and in a sense we don't allow our brains to rest. Back in the day, we used to take mental breaks at the bus stop, walking to the break room, taking walks. Now, we all have seen the people walking around constantly checking their cell phones. This is keeping all our brains working and depriving them of the rest they need. "Idleness is not just a vacation, an indulgence or a vice; it is as indispensable to the brain as vitamin D is to the body, and deprived of it we suffer a mental affliction as disfiguring as rickets," essayist Tim Kreider wrote in *The New York Times*. "The space and quiet that idleness provides is a necessary condition for standing back from life and seeing it whole, for making unexpected connections and waiting for the wild summer lightning strikes of inspiration—it is, paradoxically, necessary to getting any work done." It is outside the scope of this small article to site all the research being done, but I can say in making an argument for the necessity of mental downtime, we can now add an overwhelming amount of empirical evidence to intuition and anecdote. Simply put, our brains need rest, and resting the brain makes us more creative and actually increases our efficiency.

Matthew Roblez, SE, SECB
Structural Manager
801-255-7700 x. 128
matt@mcneileng.com

A study commissioned by the Australian recruitment firm Randstad and conducted by Harvard Business School in

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Joining The Digital Age

We finally did it!!! McNeil Engineering has joined the digital age. It only took five years to get from filing cabinet to server. Now 30 plus years of project files have been scanned and now reside in our file server rather than the file cabinet.

Empty Filing Cabinets

This has been a labor of love for several kids of employees and clients. OK, maybe not a labor of love, just a labor. In those five years there has been several individuals that have help to get us to this point, they are: **Naomi Perry, Ryan Hermann, Brett Roblez, Isabel Warner and Tammie Scott** . Thank you for helping us go digital!!!

Another example of going digital is from our structural department. They no longer print business cards to distribute to people. They have M-Cards set up on their phones where they enter a person's email address and their contact information is emailed to that person.

Employee Anniversaries this Quarter

Employee	Date Started	Years of Service
Rodney Davis	8/1/1983	34
Brian Warner	8/4/2003	14
Robert Poirier	8/2/2004	13
Ted Didas	9/6/2005	12
Dennis Kent Withers	7/9/2012	5
Henry Fox	8/11/2014	3

Marriott Summit Watch Outdoor Mall Waterproofing

McNeil Consulting was engaged by the Marriott hotel chain to help them with the design and replacement of a heated concrete deck at their Summit Watch hotel in Park City, Utah. The existing waterproofing system beneath the heated slab was failing and water and other debris were starting to fall on the cars parked beneath the deck.

We called for having the entire top deck removed down to the concrete structural slab. We then installed waterproofing membrane along with a drainage fabric to move any water that penetrated the surface to the area drains. We also worked with Davis Engineering, a mechanical engineering office, to design and install a radiant deck heating system, with literally miles and miles of flexible tubing to run heated liquid during the colder months. This system keeps snow and ice from forming on the concrete deck during the busy ski season and makes this area a nice retreat for vacationers and locals alike.

A toping slab of concrete was installed over the tubing to provide the finished deck. We also helped to rehabilitate most of the concrete stairs that access the deck, including some structural design provided by our structural department, and we replaced a failing pre-cast concrete wall cap with new stone cap.

All of the construction work was completed in roughly 60 days and the shopping center is open for business and prepared for the ski season to come.

Construction of New Deck

Completed Deck

Carl Greene
Consulting Manager
801-255-7700 x. 118
carl@mcneileng.com

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2012 had participants turn off their cell phones and not use other digital devices for one night a week. The participants in this longitudinal study who ignored technology for one night a week experienced greater happiness, more job satisfaction, and better work-life balance. The change was remarkable: over a three-year period, 59 percent of those who refrained from using digital devices for one night per week agreed with the statement, "I am happy to begin work in the morning".

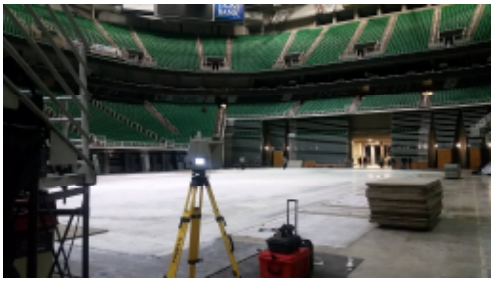
So, we should all realize that in our quest to be efficient and respond to our employees needs and our client's needs, we forgot the most important thing: We as human beings need rest, our brains need rest, and our digital devices who may seem to be making us more efficient, by robbing us of rest are actually making us less efficient and in some cases harming our mental well-being. Here are some suggestions that researchers have made to use technology and give our brains the rest they need.

Set boundaries on your work communications outside work, and making clients and co-workers aware of your after-hours availability. Drawing a line between work and home life not only benefits you, but it may benefit your employer and clients too, since, you'll be coming back to work the next day relaxed and recharged. Take time off from digital devices. Take an hour or two each day where you will make your digital devices unavailable. Take time to meditate or simply think without playing games or checking social media accounts. And keep your cell phones in your pockets while walking, waiting, or even using the rest room. Your brain will thank you. As with anything, digital devices and technology used properly can be very helpful and increase productivity, misuse can be harmful. Be aware of the rest your bodies needs and change your behaviors to recognize this. I'm certain it will lead to a more productive and happy life.

Introducing a New Member of Our Scanning Family

No, it's not a new employee. For the past several years McNeil Engineering has promoted our use of laser scanning technology. We have told you how our C10 scanners collects **50,000** data points per second and for those of you that have used this technology you know just how amazing it is.

McNeil Engineering wants to WELCOME the P40 Laser Scanner to our scanning family.



P40 in Action at the Vivint Smart Home Arena

Insert your own drum role here...The P40 scanner collects over **1,000,000** data points per second. You read that right, 1,000,000!!!

If you thought our C10 scanners collect a lot of data and they do, the P40 is mind blowing in comparison. The P40 offers highest versatility including long range capabilities, up to 885 feet. Delivering outstanding range, speed and data quality whenever and wherever needed.

What does this all mean for McNeil Engineering's clients? It means that laser scanning technology with our P40 will gather more accurate data in a shorter amount of time. More bang for your buck! No matter what you need scanned detail and accuracy matter.

Michael Hoffman, PLS
Survey Manager
801-255-7700 x. 138
mike@mcneileng.com

Scanning The New Intermountain Healthcare Facility

McNeil Engineering's Survey Department completed a laser scan at the new IHC facility being constructed on State Street in Murray. Due to the unique features of the structure and the need for accurate data, Steel Encounters had McNeil Engineering complete the laser scan. The Scan data will be used by Steel Encounters to accurately complete the layout of mullions. Mullions are vertical bar between the panes of glass in a window. Each mullion will be the full height of the building and need to be placed accurately in order for the glass to fit properly.

Laser Scanning at New IHC Facility

Construction of New IHC Facility