In life we sometimes discount the small things assuming they are insignificant. Later we find out that they often make all the difference. An example of this is a researcher who recently found a way to make computer hard drives hold many times the information by introducing common table salt during the manufacturing of the discs. Another example is stainless steel wherein trace components provide the chemical bonds that inhibit corrosion. Our mothers know that yeast and baking soda are among the smallest ingredients measured in bread or cake, but they are critical to good baking.

Each of us at Physical Facilities has recently had the opportunity to report on and review our progress on the goals we submitted for this past year. We are now charged with establishing new goals for the coming year. I enjoy thinking of better ways to accomplish things. Engineers are trained to evaluate factors that influence a problem. We group them together to make open or closed systems. Most mistakes are made when one factor is forgotten, misapplied, or its affects are misunderstood. To select which ones lead to a solution takes knowledge, experience, and sometimes a little trial and error. I think this is where the phrase “thinking outside the box” comes from.

As we contemplate how to make Physical Facilities better this coming year, remember the small things like teamwork, customer service, and good communication…and let’s have fun while we work.

The above photo of the TNRB terraced parking facility illustrates how innovative landscape design can generate a feeling of inspiration and tranquility amid concrete. Creative landscaping can be found at various sites throughout campus such as the interior courtyard of the JFSB and the Bell Tower water feature.

In 1996, a survey was conducted whereby twenty faculty and students were provided cameras to document the best and worst of landscaping on our campus. Two locations were predominantly photographed: the hillside east of the Marriott Center and the quad skylights between the ASB and the HBLL. Both of these sites demonstrate a massing of materials, linear designs, and mix of foliage that reminded them of the surrounding mountains. This input led to development of the current BYU landscape design philosophy, which is to enhance an atmosphere of education, inspiration, and tranquility.

Our campus landscape design reflects these principles by way of group plantings, focal points, and repetition of plant species, which include many familiar and new varieties. Examples of this philosophy can be found in the purple flowering “Lo and Behold Butterfly Bush” and the variegated-leaf “Golden Zebra Daylily” near the southeast corner of the WSC, or the “Allee Elms” at the east and south sides of Brigham Square. Notice how the unique bark on the trunks of the Allee Elms is exfoliating. On the east side of the Kimball Tower, “Crimson Pointe Flowering Plums” and “Fine Line Tallhedge” reinforce the sense of space by combining contrasts in textures and colors of plant types.

Another application of these landscape design principles is achieved through reoccurrence of subtle shapes. As an example, arches have been randomly placed around campus, such as the stone arch over the Marriott Center Victory Bell, the ornamental fence surrounding the Miller Park Baseball/Softball Complex, the Wav-Lok bike racks, or the side panels of trash receptacles. Even the portable signs found in Brigham Square and across campus repeat the arch.

Today, the campus environment boasts over 1,000 varieties of shrubs and trees in landscaped areas. We welcome any comments you may have regarding our university landscape. A self-guided tour of over 100 different trees on our campus is available at treetour.byu.edu. We hope by watching the tour you will learn and be inspired.
The Carpenter Shop is a multi-talented, diverse operation with a variety of trade skills stretching from cabinetry, millwork, and furniture construction to concrete, brick, block, ceramic tile, drywall, plaster, ceilings, doors, and framing. The shop serves Brigham Young University by responding to construction, maintenance, and repair needs of the university. This talented group holds multiple general contractor and specialty licenses associated with building and construction. Each individual came to BYU with many years of experience in their specialty or trade, and the combined construction-related experience of the shop totals well over 500 years, allowing for an effective response to a large variety of requests. Each full-time employee also brings a special strength and skill level that is unique from that of every other person, and it’s these special talents that enable them to accomplish all that is expected and often even more.

The Carpenter Shop staff consists of nineteen full-time employees and several talented students, which helps explain how they are able to keep up with the heavy work loads and demanding timelines. At times the work load becomes so heavy that it is necessary to involve outside subcontractors and/or construction-related companies to keep up with the rigorous schedules imposed upon them. At any given time work orders can number over one hundred, with an additional three to five hundred service requests. Service requests are similar to work orders except that they are usually much smaller in scope such as a squeaky door hinge, a missing doorstop, or a faulty light switch. Obviously the Carpenter Shop is not equipped to solve every problem; therefore, they often call upon other specialty shops in Physical Facilities for assistance. It’s their teamwork spirit and ability to work with other shops that make Physical Facilities such a strong service arm for the university.

In reading this article, it’s our hope that you have gained a more in-depth perspective of our Carpenter Shop operation. The staff in this shop certainly plays a major role in providing service to BYU and other areas that extend far beyond our campus such as the student housing complexes, Aspen Grove, Timp Lodge, Spring Haven, and even the buildings on top of West Mountain. This is a dedicated, close-knit group whose many talents make a real difference at BYU.

Setting Goals – Accomplishing Great Things

A few years ago Pres. Thomas S. Monson voiced the principle, “When performance is measured, performance improves. When performance is measured and reported back, the rate of improvement accelerates.” Over the last year Physical Facilities employees have put this concept to the test with some amazing results. At the end of 2010, all 36 departments, shops, and specialty areas in our division were asked to establish a goal that would make them and the campus a better place. One year later in November of 2011, each individual returned and reported their team’s experience. The success stories were notable and the difference each goal made in improving our performance was substantial. In 2012 it is our challenge to once again set meaningful goals that will make our campus community and us better than ever.

I give my personal thank you and congratulate every employee who can look back on the past year and say to herself or himself, “I set my sights on something higher and through my personal efforts I achieved it. I have made a positive difference.”
• The total area of sidewalks cleared after each snowstorm at BYU is equivalent to a pathway six feet wide by 150 miles in length.

• Snow is removed from 200 acres of campus parking lots, which is equivalent to 151 football fields or 3200 tennis courts.

• If a snowstorm occurs during the outdoor sporting event season, the Grounds snow removal crews must clear up to twelve acres of play fields. As long as snow continues to fall, the crews continue to work around the clock.

• The Grounds crews cover not only BYU campus; they are also responsible for clearing sidewalks and roads at the MTC and Provo Temple. Removing the snow in a timely manner is no small task. The job requires 26 tractors and plows, half a dozen snowblowers, 120 student employees and 43 full-time employees.

• Grounds crews use 800 tons of salt and 120 tons of calcium chloride each year to melt the ice and snow. To prevent harm to the plants, calcium chloride is used on sidewalks surrounded by grass and shrubs.

• In addition to Grounds crews, Custodial workers also labor to keep the university in tip-top condition during and after a snowstorm. It takes 216 student employees, 80 full-time employees, 216 shovels and 45 snowblowers to ensure proper snow removal and campus safety.

• BYU receives power from two points of delivery at 46,000 volts. Our substation transformers step down that energy to a distribution level of 12,500 volts and then, by means of 265 medium voltage transformers, the voltage is reduced further to 480 and/or 208 volts within each building.

• During the summer months, the campus-wide energy load can reach 24,000 kilowatts, which is enough to supply 5,000 homes, 20,000 refrigerators, 40,000 toasters, or 240,000 laptop computers. During winter months the load can reach 19,000 kilowatts during daytime hours and 12,000 kilowatts at night.

• There are over 100 elevators and more than 40 emergency generators on campus, all of which are serviced and maintained by our Physical Facilities Electric Shop. The generators have enough capacity to supply electricity for life-safety equipment and egress lighting in the event of a power outage.

• The new boardwalk around the perimeter of the Botany Pond was built with a specific purpose in mind. Root systems of various trees, including rare Bald Cyprus trees, line portions of the pond’s embankment. Pedestrian traffic along the pond edge created compaction and erosion issues that threatened the long-term existence of these specimens. The elevated boardwalk allows viewers close proximity to the pond while remaining ecologically friendly.
Physical Facilities Division
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ADDITIONAL EXAMPLES OF EXCELLENT CRAFTSMANSHIP
FROM THE BYU CARPENTER SHOP