1. Keeping Utah Moving Award

The Keeping Utah Moving Award is split into two categories, one highlighting a specific “Project” and the other highlighting a “Team or Individual.” This award is given to the individual, team or project that embodies the UDOT vision of Keeping Utah Moving.

In the PROJECT category, the 2017 finalists are:

- **The SR-12 Emergency Slide Repair** -
  
  In March, 2017, a major landslide occurred along scenic State Route 12 corridor. The slide initially took the roadway fill slope, guardrail, and the paved shoulder, with the shoulder slopes being very narrow on this portion of roadway. Eventually it took not only those pieces, but half of the two-way road. The area affected is located between the Town of Tropic and Bryce Canyon National Park and within the park boundaries. This portion of the roadway is very critical for emergency services for the National Park and the Town. The roadway is a critical corridor for transportation into some of our state and national parks. Most of the residents in the area live and commute from Tropic to Bryce Canyon everyday. If this road were to close it would be a 233 mile one-way detour to get from Tropic to Bryce Canyon National Park on a state route or 210 miles on a county paved road. This was the urgency in which the project was formed and put into action.

  - UDOT established a 24-hour monitoring, putting the public safety as a top priority. Region Four maintenance workers were critical in the monitoring of this situation. They never thought about themselves as they were asked to work off hours and nights to make sure someone was always there for the safety of traveling public.

  - The project team was able to implement an emergency contracting
process getting a contractor on board in less than a week. An on-call contact for some additional geotechnical information took less than a day with the support of the complex.

- Several distinct disciplines came together to preserve SR-12 and worked tirelessly to get the route back into commission serving two-way traffic, which was necessary for the upcoming tourist season. State Route 12 is the gateway to an abundant amount of tourist sites and public services.

- SR-12 provides the primary connection between Bryce Canyon National Park and the following: Capitol Reef National Park, Grand Staircase-Escalante National Monument, Kodachrome State Park, Escalante State Park and the Burr Trail.

  - SR-12 is an All-American Highway and a Scenic Byway.
  - SR-12 is the approach for Garkane Power Hydropower plant from Garfield County.
  - SR-12 serves as an arterial to US-89 for medical services servicing the towns of Tropic, Cannonville, Henrieville, Escalante and Boulder.

- **I-215: 300 East to SR 201 Reconstruction Project –**
  - UDOT reconstructed seven miles of I-215, one of the Salt Lake Valley’s most heavily-traveled corridors. The project includes replacing all the aging pavement with new, long-lasting concrete, adding auxiliary lanes between interchanges, improving on- and off-ramps, and rehabilitating seven bridges.

  - The existing asphalt on westbound I-215 from 300 East to Redwood Road was also removed as part of this project in 2016, and was replaced with new asphalt pavement.

  - This was considered UDOT’s number one project for 2016 thanks to its extensive scope and two-year schedule and because it encompasses what were once four separate projects, now combined for one cohesive design and construction effort.

  - This project cost $105 million and took two years to complete. It was a joint venture with Ralph L. Wadsworth Construction and Staker Parson Companies.

- **Bangerter 600 West Interchange –**
For many years, the intersection at Bangerter and 200 West has caused congestion and backup onto I-15. The Utah Department of Transportation (UDOT) installed a new grade-separated interchange at Bangerter Highway and 600 West to address this issue. This is one in a series of projects UDOT is investing in aimed at reducing travel times, connecting communities, and improving overall safety on Bangerter.

For this project, UDOT's team focused on using cost-effective measures to preserve infrastructure and create a reliable, safe roadway that would optimize mobility and reduce accident risk. Some of the benefits of the project at Bangerter and 600 West include:

- Reduced congestion in the area and improve regional mobility
- Improved safety on the exit ramps from I-15 onto Bangerter Highway
- A new interchange that accounts for future economic growth
- A significant improvement to traffic on the cross streets
- Access to current and planned developments and community growth

For the **INDIVIDUAL or TEAM** category, the 2016 finalists are:

- **Snow Removal by the Crew at Maintenance Station 4476:**
  - During a season when many crews exceeded their budgets for snow removal, our crew through teamwork, planning, and innovation was able to maintain our roads in a clear and wet condition while remaining on track to end the year within the guidelines set for our budget. This was no easy feat and was only accomplished through a consistent effort by the entire crew. We have the privilege to be the owners / operators of the only Varitech Brine Boss, Brine Making System, and the First and only Tow Plow outside of the Wasatch Front which have proved to be highly effective and innovative tools in our arsenal for snow fighting and has saved us countless hours, materials and many accidents, which resulted in considerable cost savings for both the Department and our stockholders the Traveling Public and helped us to achieve our goal of "Keeping Utah Moving" through the 6000' elevation level that is most often where the first snow is encountered while traveling North on I-15 through Cedar City and Beyond in our great State.

- **Jesse Sweeten, from UDOT’s Traffic and Safety Division:**
  - Jesse is FUN to work for! He has great engineering experience that makes him very well rounded for his position (Traffic & Safety Design Engineer). He works with many different departments
throughout the State to ensure projects are distributed, funding is arranged, work is performed per standards, and time commitments are met as agreed upon. Jesse has been known to do whatever it takes to complete tasks. He’s been blindfolded using a cane, or rolled around using a wheelchair to determine the effectiveness of the ADA guidelines for pedestrian ramps at an intersection. No task is too big or too small for Jesse!

- **Geneva Road Corridor Agreement:**
  - UDOT worked with the Vineyard Town and Orem City to develop a corridor agreement for Geneva Road. One of Utah County’s busiest state roads, Geneva Road is the primary north-south route west of I-15 where new high-density residential and commercial developments are being built. Since the Geneva Steel property became available for different land uses, both Vineyard and Orem have worked with UDOT to create a plan that will safely move people and goods. The corridor agreement ensures that traffic will continue to flow safely and smoothly as property is developed, keeping Utah moving.

2. Innovation Award

The Innovation award is given to those that develop “a process, product or idea that provides significant advancement” to what we’re already doing. Just like the Keeping Utah Moving Award, the Innovation Award is also split into two categories, one highlighting a specific “Project” and one highlighting a “Team or Individual.”

In the **PROJECT** category, the 2017 finalists are:

- **U.S. 191 Emergency Repair:**
  - U.S. 191 north of Vernal was closed late-May due to unstable soils caused by water diverting around a culvert pipe about 50 feet below the roadway surface. With high water run-off and environmental concerns, an innovative solution was needed to stabilize soils to reopen both lanes of traffic on the road. Kiewit brought the idea of a grout curtain to fill the voids around the culvert pipe and stabilize the soils. More than 130 cubic yards of compaction grout was placed through a series of borings, forming a grout curtain. This solution allowed the roadway to return to normal operations and prevented further soil erosion.

- **11400 South PCCP and Pipe Stabilization Project:**
  - There was an ongoing problem with the settlement of some PCCP slabs on 11400 South just east of Redwood Road. This settlement caused a large dip in the road that was jarring to the
traveling public and therefore generating a lot of complaints. The settlement was caused by a separation in the drainage pipe about 18” below the surface. The break in the pipe caused the moving water to remove base material leading to a dip in the road that was only getting worse. The cost to remove the pipe, install a new pipe, remove and Replace the PCCP carried very large price tag and a big inconvenience to the travelling public while the work would take place.

- Larry’s crew looked into other options and came across the URETEK deep injection which had been used on approach slabs and PCCP in the past but never to seal a drainage pipe from the outside of the pipe. The work was performed by Concrete Stabilization technologies. The work took one day to complete for a fraction of the price to remove and replace. Additionally, the work was done under a lane closure on a weekend with very little impact to the travelling public. The road is now level in this area and the pipe has been properly sealed using this method. We will look to use this method on future projects.

- **I-215; 300 E to S.R. 201 Reconstruction:**
  - UDOT reconstructed seven miles of I-215, one of the Salt Lake Valley’s most heavily-traveled corridors. The project includes replacing all the aging pavement with new, long-lasting concrete, adding auxiliary lanes between interchanges, improving on- and off-ramps, and rehabilitating seven bridges.
  - The existing asphalt on westbound I-215 from 300 East to Redwood Road was also removed as part of this project in 2016, and was replaced with new asphalt pavement.
  - This was considered UDOT’s number one project for 2016 thanks to its extensive scope and two-year schedule and because it encompasses what were once four separate projects, now combined for one cohesive design and construction effort.
  - This project cost $105 million and took two years to complete. It was a joint venture with Ralph L. Wadsworth Construction and Staker Parson Companies.

Our next UDOT award for Innovation is in the **INDIVIDUAL or TEAM** category. The 2017 finalists are:

- **I-70; Richfield South to Richfield North**-
  - Region Four advertised the first Design-Bid-Build (DBB) project using Innovative Design and Construction (IDC) technology in the State, and possibly the Nation, where the electronic document was the legal binding document.
The Project, located in Richfield Utah, was a major reconstruction project that rubblized the existing PCCP adjacent to Richfield on I-70.

The Project leveraged current technology. Some of the technology used was:

- Terrestrial LiDAR Survey as the primary tool for survey data and a Verification Survey to ensure the accuracy of the survey data
- Contracting community received an early release of electronic design files for evaluation and comment prior to the official advertisement.
- Machine Control Guidance (MCG) was required for Earthwork and ATMS work on the Project.
- Lastly, the project was constructed using crossovers to shorten construction time. As part of the crossover requirement, the Contractor was allowed to use Drums or Vertical panels to separate opposing traffic.

- **Bob Peterson from UDOT's Central Preconstruction -**
  - Bob Peterson is one of UDOT’s greatest assets. Other DOT’s have several CADD gurus to upkeep their software and CADD platforms. Bob does this and more for UDOT and is loved and respected by all who work with him. His mind is a constant source of innovation in creating tools and platforms that designers use to produce Intelligent Design and Construction data for our 3D projects. The day Bob retires is day all of us designers, CADD users, and Projectwise users dread. He has been instrumental in making UDOT the leading pioneer in the Intelligent Design and Construction initiative.

- **Utah Connected Vehicle Smart Transit Signal Priority -**
  - Connected Vehicle technology is one of several trends that promises to revolutionize transportation. The capability for vehicles to communicate with other vehicles, with the infrastructure, and with other travelers will improve safety and mobility, and decrease the environmental footprint of our vehicles. This Connected Vehicle project, a first in Utah, uses Dedicated Short Range Communication (DSRC) radios to allow interactive communication between UTA buses and traffic signals on Redwood Road in the Salt Lake Valley. When the buses are behind schedule, the signal grants additional green time to the bus so it can avoid a stop and get closer to its intended schedule. Software developed at the University of Arizona through a Pooled Fund Study, operates this interconnected system. This deployment is one of the first, if not the very first, operational DSRC system in the United States and provides critical insights in how to leverage connected vehicle technology.
3. UDOT Team Safety Award

The UDOT Team Safety Award goes to “an individual, team or project that embraces safety, and goes above and beyond to ensure the safety of our team members as well as the travelling public.”

For the UDOT Team Safety Award, the 2017 Finalists are:

- **I-80; Mile Post 20-30, and SR-58** -
  - GRP was able to complete the job on time while minimizing impact to the public by utilizing several key innovations such as a complete set of Variable Speed Trailers, asphalt paving the entire 38 feet wide road in only 2 passes with our extended arm attachment on our paver, and having extra man-power on-call 24/7 in order to aid any emergency situations. GRP was able to accommodate numerous wide loads larger than 29 feet wide on multiple occasions where most of the time, they had less than 24 to 8 hours’ notice. Safety was a big focus and for a project where a rehabilitation on 10 miles on a major interstate and almost 1.4 miles in an urban road to have no safety incident other than one rock chip claim is amazing. Project was bid in the minimum days allowed and had no issues meeting that goal.

- **I-15 Flexible Delineator, Mile Post 0 to 72** -
  - This project placed new flexible delineators starting at the Arizona State line to Mile Post 72 near Summit UT, just North of Cedar City UT. Flexible delineators provide longer and greater visibility with less maintenance over longer period of time. Potentiality saving accidents and maintenance. These delineators were placed with an innovative Special Provision that provided for better spacing between maintenance, culvert markers, and regular markers.

- **Portable Variable Speed Limit System** -
  - In the effort to attain Zero Crashes, Injuries and Fatalities, UDOT developed a new concept for how Portable Variable Speed Limit (PVSL) technology could be deployed with real-time system management intelligence to dynamically manage and reduce traffic operating speeds through active work zones where personnel are on site. This PVSL system utilizes a new dynamic variable speed limit algorithm to raise and lower regulatory speed limits. The PVSL System also provides a queue warning algorithm that is independent of the VSL algorithm, to control messages posted on the portable VMS trailers. Project Development led an effort to unify UDOT, AGC and law enforcement to develop, test, and implement
the PVSL system within four construction projects and is hopeful to see a behavior change in the traveling public's willingness to comply with reduced speeds in active work zones, thereby reducing the overall number and severity of accidents in work zones.

4. Shared Vision Award

The Shared Vision Award goes to “partners of UDOT that truly understand the vision, mission, strategic goals and emphasis areas of UDOT... and have collaborated to achieve that vision.”

The finalists for the Shared Vision Award are:

- **Open Source Signal Performance Measures (SPM) Software**
  - The Signal Performance Measures (SPM) story is one of true collaboration. Several years ago, traffic engineers brainstormed and launched a first-in-the-nation system for performance measures using existing equipment. The system allowed for data gathering that changed the way agencies do business. SPM software now allows agencies to use data that was always there... just without a convenient way of harnessing the data.
  - This award nomination is for the current phase of the SPM project - transforming the software into an open source package. Prior to this phase, numerous DOTs and public works agencies across the country have implemented SPM metrics that began in Utah. From Louisiana to Georgia to Minnesota, Wisconsin, Pennsylvania, Idaho and Las Vegas... SPM software is allowing agencies to gather more data to help traffic flow more efficiently.
  - In March 2016, UDOT engineers began discussions with FHWA to determine the best way to move towards open source software for SPMs. A short six months later, Utah DTS staff, UDOT engineers and partners went live with the software.
  - Agencies who have adopted the SPM platform are enhancing the system with new metrics. UDOT benefits through this process by gaining new metrics developed and tested elsewhere that can be used in Utah. Open source software allows industry partners (consultants and vendors) to use the metrics for improving standards and service to the public.
  - The first version of the open source software (4.0.0) was downloaded an incredible 218 times! The most recent version (4.0.1) was
downloaded an amazing 142 times. There is international interest, as well.

- Through innovation, partnership and shared vision, UDOT is revolutionizing the way traffic signals are managed... throughout the world. UDOT is helping to manage traffic through coordinated signals and gaining insight, new metrics and continued partnerships through their efforts with Signal Performance Metrics.
  - For more information, please visit https://itsforge.net/index.php/community/explore-applications#/30/133

- **SR-31 Landslides** –
  - The intense winter of 2016-2017 resulted in above-average snowfall in Fairview Canyon. As the snow melted this spring, several cuts and fills along SR-31 through the canyon experienced minor to moderate landslides. Many of the landslides occurred within the Manti-La Sal National Forest.
  - UDOT’s Mt. Pleasant maintenance station worked with Kyle Beagley, Forest Ranger, and Daniel Luke, Forest Roads Supervisor, of the US Forest Service to find innovative solutions to stabilize the landslides and to restore the roadway shoulders that perilously slid away. Their quick thinking allowed UDOT to Safely Preserve the Infrastructure while Optimizing Mobility in order to Keep Utah Moving.
  - SR-31 serves as the main thoroughfare between Sanpete county and Carbon and Emery counties. Hundreds of people rely on the high-elevation highway daily for employment, business and recreational opportunities. Hence, these repairs to SR-31 are key in continuing to strengthen Utah’s economy and enhance the quality of life.

- **Transportation and Land Use Connection Program** –
  - A partnership between UDOT, UTA, Salt Lake County, and WFRC, the Transportation and Land Use Connection (TLC) program provides technical assistance to local communities to help them achieve their goals and plan for growth. Awarded projects are those that reduce travel demand, improve access to opportunity, encourage utilization of alternative transportation, and ultimately preserve and reduce the amount of new infrastructure needed. UDOT involvement through the planning department and efforts such as TravelWise, have been incorporated into projects and the
collaborative approach with UDOT and other program partners allows projects to produce implementable results. This approach is consistent with the Wasatch Choice Vision and helps residents living throughout the region enjoy a high quality of life through enhanced mobility, better air quality, and improved economic opportunities.