



## PROJECT SUMMARY

### LOCATION

Salt Lake City, UT

### PROJECT OWNERS

Utah Department of Transportation

### LEAD DESIGNER

Michael Baker Intl

### PROJECT VALUE

\$146.5M

### PROJECT DURATION

3 years

### PROJECT DELIVERY METHOD

Design-Build

## PROJECT OBJECTIVES

- Enhance UDOT's inspection efficiency by digitizing processes.
- Include pictures, videos, and geolocation data in daily reporting to provide irrefutable project data.
- Collect mission-critical data to offer instant project insights.
- Provide robust searchability to enable quick access to key data.

## FAST FACTS

- Solution: HeadLight Fieldbook
- No. of Users: 65
- No. of Field Personnel: 42
- No. of Observations: 97,615

## ROI

- 2.5 hours per week saved by improving the inspection workflow.
- 100x more images/videos in reports, enriching inspection detail with detailed descriptions, labels, and geospatial data.
- 74% boost in same-day project data, offering stakeholders instant insights virtually.
- 56% reduction in time spent searching and exporting data.

# UTAH DEPARTMENT OF TRANSPORTATION DRIVES INNOVATION ON I-80 & I-215 RENEWAL PROJECT

## The Crossroads of the West

Salt Lake City, Utah has experienced tremendous growth over the past decade due to its innovative culture. That growth isn't just speculative: a [recent report](#) from the University of North Carolina at Chapel Hill named Salt Lake City as the 7th fastest-growing US city. To support this growth, the city's transportation system has been upgraded with a \$148 million investment by the Utah Department of Transportation (UDOT), replacing two major highways, I-80 and I-215. Constructed in the 1960s and nearing the end of its lifespan, I-80 has long served as a major east-west transportation and trade corridor while I-215, the Belt Route, provides an efficient route around Salt Lake City. This investment will reduce congestion for the growing community, enhance safety, and improve aging infrastructure through a design-build approach that leverages advanced technology.



## The Challenge: America's Boomtown Building for Tomorrow

I-80 and I-215 are critical arteries for local and interstate travel in and around Salt Lake City that see a combined 200,000 vehicles daily. I-80 serves local commuters traveling to Sugar House Park, locals heading to the mountains for recreation, and cross-continental movement of goods. Given the economic importance of these freeways, UDOT needed to maintain safe traffic flow during the course of construction. UDOT leveraged design-build project delivery for this cornerstone project to incorporate cutting-edge design and construction solutions to ensure a high-quality product, completed on time.

“The ease of taking pictures and recording my inspection throughout the day instead of everything at the end saves a lot of time. I collect much more [data], and it's more detailed than before.”

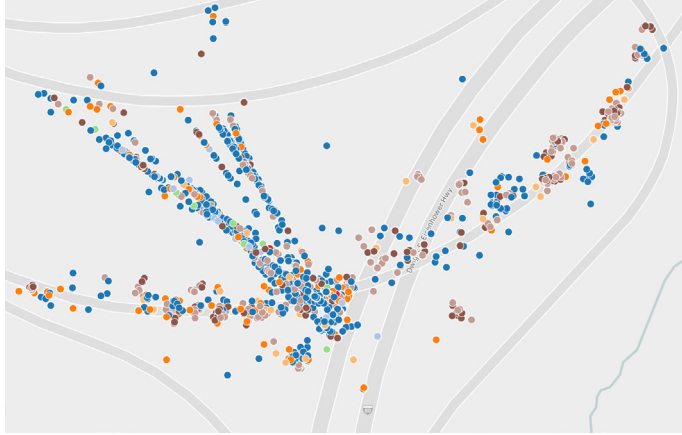
– Field Engineer,  
Region 2

## Design-Build and Technology

UDOT turned to modern and flexible technology which effectively supported the robust pace of this project. The legacy systems in place had a highly structured format that limited user input, was unable to include visual data, and was extremely time-consuming when searching for information or compiling reports.

The DOT chose to implement the HeadLight platform partly due to the ability to dynamically change the categories by which the data is classified, which is key in design-builds.

This flexibility enabled stakeholders to track the project by schedule items, activity codes, or work packages, which was critical for efficient payments and owner verification. HeadLight allowed field inspectors to capture project data in a flexible, searchable, and comprehensive manner, eliminating data silos and providing all stakeholders with real-time project data.



### Keeping Utah Moving

The I-80/I-215 Renewal project replaced a total of 25 miles of concrete along both interstates. Along the stretch of I-80, UDOT added an additional eastbound lane and rehabilitated and widened one bridge to be compatible with the additional lane. Two bridges, one at 1700 East and the other at 1300 East, which pass over I-80, were fully replaced.

The fourth and final bridge, an I-80 bridge over a local road, was demolished and reconstructed at 2000 East. Lastly, improvements to drainage, signage, and accessibility were made, enhancing the safety of travelers, including pedestrians and bicyclists.

### Innovation Leads the Way

The HeadLight platform provided the UDOT team with a centralized repository for all project-related data, including plans, specifications, inspection notes, and reports. With work spread across a large geographic area along with a number of subcontractors, the UDOT inspectors verified the work was done accurately and according to specifications. Fieldbook not only supported document control but also aided in simplifying the QA/ QC work. This was important to not only keep the project on schedule, but also within budget.

UDOT also leveraged Accelerated Bridge Construction (ABC), an innovative bridge construction technique, which was pioneered in Utah. This involves advanced planning and innovation to build the bridges off-site before sliding them into place. This technique reduces the time needed for road closures, traffic delays, and project costs. Demolition and sliding the new bridge into place was done over one weekend, eliminating many months of closures and millions in road user costs. The bridge at 1300 East weighs 5.3 million pounds and was slid 110 feet, making it the longest and largest structure slide in Utah.

“We had a GRAMA request on the project and having HeadLight made it easy to pull all the reports in less than a day vs 3-4 weeks with our legacy system.”

- Field Engineer,  
Region 2



A success as both an efficient means of refreshing aging infrastructure and leveraging modern project delivery methods, the I-80 & I-215 Renewed Design-Build Project received numerous awards, including being recognized as a Grand Winner in the Transportation Category for the American Council of Engineering Awards (ACEC) Utah Engineering Excellence Awards. It was also named the Grand Conceptor Award winner, the competition's highest honor.



**2023 ACEC Utah Grand Conceptor Award**  
**2023 Grand Winner in the Transportation Category**

Learn how HeadLight's flexible technology supports modern project delivery methods by visiting our [Construction Oversight & Inspection](#) page or [schedule a demo](#) today!