



CONTACT:
Eva Mosakowski, Director of Marketing
eva@mrpe.com | 646.734.2919

FOR IMMEDIATE RELEASE

**SENIOR CIVIL ENGINEERING STUDENTS AT CALIFORNIA STATE UNIVERSITY, SACRAMENTO
TEAMED WITH THE CITY OF SACRAMENTO AND MRPE, INC.
TO DESIGN SITE SOLUTIONS FOR LOAVES & FISHES**

Student-designed plans aim to improve facilities that serve the homeless community

Sacramento, CA (May 16, 2016) - Senior civil engineering students at California State University, Sacramento (CSUS) have broken new ground with a senior class project unlike any other undertaken at the University's Department of Civil Engineering. Two student teams have collaborated with Loaves & Fishes, and engineers from the City of Sacramento and MRPE, Inc., to design site improvements for two areas at the Loaves & Fishes location near North 12 Street and North C Street. Since 1983, Loaves & Fishes has provided survival services to homeless men, women and children.

The student members of Team 1, named "306 solutions", prepared a site design to improve the safety of pedestrian and bicycle traffic from North 12 Street onto the Loaves & Fishes property as well as redesigned a staff and volunteer parking lot off of Ahern Street. Team leader Emily Greene, along with fellow students Chantelle Garvin, Juana Tellez, Gage Steele and Kurosh Ghazizadeh, have gathered data, analyzed drainage and incorporated pavement design to create a site & grading plan. Efforts by 306 Solutions were guided by Matt Rodgers, PE of MRPE, Inc. and Matt Johns, PE with the City of Sacramento's Department of Public Works. Team 2, "NorCal Uplift | City Solutions" with Wyatt Arnold, O'Shea Bennett, William Cope, Andres Guillen and team leader Robert Heather repurposed 0.6 acres to prepare the site for the future build out of small, efficient single unit homes. Team 2 engaged in landscape design, environmental impact analysis, and designed site plans. Team NorCal Uplift | City Solutions received support from Robert Thaug, PE of MRPE, Inc. and Neal Joyce, PE with the City of Sacramento's Department of Utilities.

The idea for the student projects took form when CSUS administrative members and faculty and MRPE staff met with Sister Libby Fernandez, the Executive Director of Loaves & Fishes, and her team to discuss how students could be provided with experiential access to civil engineering. Students quickly signed up for the projects, eager to reset the frontier-line of educational opportunities. Through the projects, student teams learned firsthand how to provide engineering services to both private and municipal clients and along the way received frequent feedback from mentors in both sectors.

One of the highlights for the students was utilizing an unmanned aerial vehicle (UAV) to capture topographic data of the Loaves & Fishes site. UAV instruction was provided by Thomas Bartlett of Image in Flight, an expert in UAV technology and application. Mr. Bartlett is currently using UAV technology to capture images and video footage of the Golden 1 Center. This data will be analyzed by four-dimensional Building Information Modeling (BIM) software to monitor and communicate construction progress.

Students presented their projects on campus in the Delta Room at the CSUS University Union on Friday, May 13, 2016 from 10:30am until 11:00am.

Dr. Benjamin Fell, PE, Department Chair and Associate Professor of Civil Engineering at CSUS, who oversaw the projects along with Mike Conrad, PE is dedicated to providing students with tools necessary for their launch into the field of civil engineering. “This has been an incredible opportunity for Sacramento State civil engineering students and faculty, working with volunteer engineering mentors to interact with the community through an active service learning senior project”, mentioned Dr. Fell, “The students have been enthusiastic and passionate about their work because they understand it could be used by a community organization in the near future.”

These students, future environmental stewards, innovators and integrators of technology, not only gained real world skills they are also committed to raising the quality of life for all members of our community.