



**Project Status Report: CEE-2019CPST-007**

**Report Date: 2/10/2020**

**Team Members:** Craig Goff, Grant Moss, Nathaniel Flores, Rachel Anderson  
**Project Title:** UDWR Dam Structures Damage-Remedial Project

### 1) Summary of technical/non-technical challenges encountered

Challenge: Finalizing blueprints for the test model

Challenge: Determining 95% compaction of proctor density

Challenge: Artificially creating a rodent burrow in compacted soil

### 2) Team approaches & resolutions to overcome challenges

Challenge: Finalizing blueprints for the test model  
Resolution: We have consulted with the lab manager on our final design and materials. We are meeting with our faculty mentor to finalize materials. New calculations are being run to determine final dimensions.

Challenge: Determining 95% compaction of proctor density  
Resolution: Obtaining proctor data and analyzing results

Challenge: Artificially creating a rodent burrow in compacted soil  
Resolution: Using either section of linear pvc piping or compressed foam kernels in plastic casing

### 3) Status of challenge resolutions & potential project impact

Challenge: Finalizing blueprints for the test model  
Status: Meeting with faculty advisor, final dimensions pending

Challenge: Determining 95% compaction of proctor density  
Status: Results analyzed, 95% of proctor = 97 lb/ft<sup>3</sup>

Challenge: How to recreate a rodent burrow in compacted soil  
Status: Using in series vertical & horizontal pvc pipes to create U shape while soil is being compacted

Challenge: Artificially creating a rodent burrow in compacted soil  
Status: Deliberating between two options or combining the methods.

### 4) Project status & summary

We have final test results on the soil properties, including proctor, and classification results. These results give us a standard benchmark for the experiment we will perform. Calculations are being run to determine final dimensions of the experiment in hopes of downsizing. We are working on finalizing all materials, costs, and procedures. Once approved we will start the experiment to obtain our final results to see if seepage rate occurs when adding grout to burrow holes.

Please enter # of hours spent on project this last week for each team member in the order listed above