

mrf222

I am a Master of Engineering student in the College of Engineering from Beverly Hills, Michigan.

During my first semester, Fall 2013, I took the class CEE 2550 and I was part of the the Sand Source and Testing sub-team. This research involved finding ways to test river sand for use as filter sand as well as performing and modifying the tests in the lab using samples of sand similar to those currently used in AguaClara filters. We determined that for the narrow range of grain sizes used in the filter, the only useful treatment of sand obtained on site is to sieve it for the correct size. No sand cleaning is necessary because the AguaClara Stacked Rapid Sand Filters are able to backwash instantly, and so clean themselves as soon as filter media is added. The overall goal of this team was to further the independence of plant construction operations by eliminating the outsourcing of filter media acquisition.

During my second semester, Spring 2014, I switched to the Design team and participated as a volunteer. After completing the design training, I worked with Annie Ding on the Materials List challenge. Within the materials list goals, I worked to extract a pipe matrix using the drawing codes that will be used to cut pipe lances. There is still a lot of work that needs to be done regarding the Materials List challenge.

During the Summer 2014 program, I worked on the Design team. Some of my challenges included revising the training documents for later semesters and publishing the work done by the Design team from the spring. Since this summer, I have acted as the design team adviser. In following semesters, I helped new team members learn how to use the ADT and updated the training files.

During Spring 2016, I updated the CDC code.