

Water Resources Engineering for an Orphanage in Guatemala

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Friday, May 2nd
12:15* - 1:15 pm, 202 Hammond Building

Guatemala recently endured a civil war that orphaned many children, particularly in the region surrounding the town of Zacapa. The Casa de Esperanza orphanage was founded by a non-governmental organization in response to the large number of orphans in the area. The orphanage currently houses approximately 30 children but will eventually be home to roughly 100 children. The orphanage campus is located in an arid, rural region of a developing country, so municipal water and wastewater systems are not available. The campus currently relies on its own simple water, irrigation, and wastewater systems, but the existing systems are not sufficient for the growing campus. In particular, the campus experiences water shortages when large volunteer groups visit, the playgrounds have no irrigation systems (and thus little grass), and wastewater disposal systems have not been designed for any future campus development including one building currently under construction. Unfortunately, very little as-built information was available on the existing systems. Thus, extensive field investigations were required to understand the system status. In this seminar, the existing water, irrigation, and wastewater systems will be described and improvements will be recommended to meet the needs of the orphanage. While the irrigation and wastewater systems can be improved to accommodate the needs of the campus, the water supply system appears to be unsustainable in the long-run.

* Note that this is a 'brown bag' seminar series. 202 Hammond will be open at 12:00pm and you are encouraged to bring a lunch, show up early, and socialize with your colleagues.