DESIGN-BUILD PROJECT FOR ROOFTOP LEARNING CENTER ATUCUCHO, ECUADOR

Alan Bugg, PE, McWhorter School of Building Science, College of Architecture, Design, and Construction.
David Smith, School of Industrial and Graphic Design, College of Architecture, Design, and Construction

PROJECT DESCRIPTION

Building Science and Graphic Design collaborate on a service learning project to design and construct a rooftop learning center on the roof of the daycare center to provide an opportunity learn in fresh air environment while at the same time being protected from the weather and the equatorial sun. To realize this goal, faculty and students designed a canopy to cover and protect the existing rooftop playground as well as provide graphics for the learning center. Faculty and students will work with a local contractor to install the canopy in October 2019.

BACKGROUND

Atuchucho is one the poor neighborhoods inside the "Belt of Misery" in Quito, Ecuador. The literal translation of Atucucho is "mouth of the wolf". Atucucho started as a community of squatters with no government services. Unemployment, alcoholism, poor nutrition and sanitation, abuse, poverty, disease and general neglect place severe handicaps on thousands of children's ability to develop into happy, productive adults. In 2001, several churches in the Southeastern US, SIFAT, and the local Ecuadorian mothers' organization initiated plans to construct a daycare center to administer to the needs of local children. Though their efforts, the daycare center (Little Seeds of God) was constructed and became operational in 2004. Over the years, the daycare has continued to expand its services for local children as well as providing employment for members of the community.

LEARNING CENTER GRAPHICS

EXISTING CONDITIONS

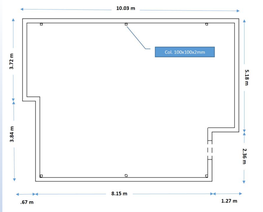
AERIAL VIEW

EXISTING PLAYGROUND

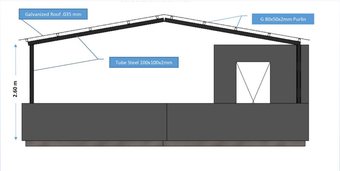
SURROUNDING NEIGHBORHOOD

The existing rooftop is currently being used as a playground.

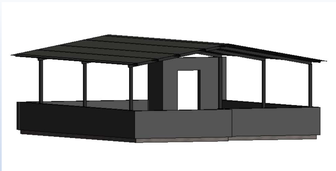
ROOFTOP LEARNING CENTER DESIGN



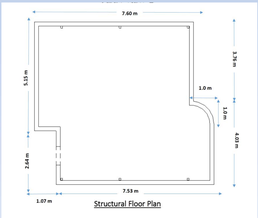
PLAN VIEW #1



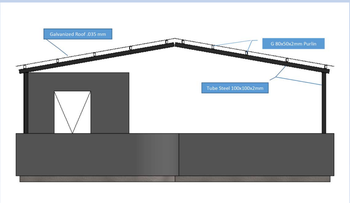
SOUTH ELEVATION



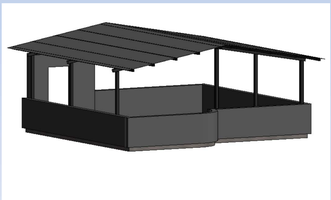
3D VIEW



PLAN VIEW #2

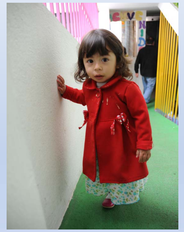


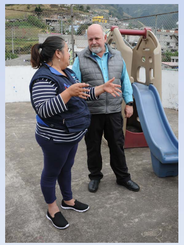
NORTH ELEVATION



3D VIEW

OUR CUSTOMERS AND STAKEHOLDERS





ACKNOWLEDGEMENTS

The research, design and construction of this project was funded by the 2018 McWhorter Fund for Excellence. The support provided is gratefully acknowledged. The team would also like to acknowledge the assistance and support of Scott Kramer of the McWhorter School of Building Science, SIFAT (Servants in Faith & Technology) and the students of the McWhorter School of Building Science.