



## **Build Change – Philippines, 3D Modeling for Construction Sequence, Details and Connections to Improve Disaster-Resistance of Socialized Row Houses**

Project location: Manila, Philippines

Proposed start/end date: June to August 2017 (flexible for an earlier start)

### **Organization Description**

Build Change is an award-winning international non-profit social enterprise based in Denver, Colorado which has been in operation since 2004. Build Change saves lives in earthquakes and typhoons by empowering people in emerging nations to build homes and schools that will protect their families and children. Build Change works to strengthen buildings before and after natural disasters strike in Colombia, Guatemala, Haiti, Indonesia, the Philippines, Nepal, and formerly China. Over 26,600 people have been trained on disaster-resistant design and construction who have in turn built more than 166,000 safer buildings. In the process, Build Change has created more than 12,500 jobs and more than 250,000 people are living in safer houses and learning in safer schools. Please visit our [website](#) for further information.

### **Project Description**

The project intern will help create 3D models to produce a construction sequence guide and 3D details for improving the disaster resistance of government-designed and funded socialized housing.

Build Change is working with a government institution in the Philippines that provides homes for thousands of families every year. We have provided technical assistance to improve the design and drawing quality, but the building teams and overseeing field engineers are not familiar with disaster-resistant construction. Construction is performed by workers without higher education or experience in reading 2D construction drawings and the overseeing engineers are not familiar with the principles behind seismic-resistant designs, details and connections of building components.

Build Change is striving to help our partner understand and visualize the construction and detailing of disaster-resistant buildings to improve the quality and safety of their projects. We are working to develop 3D resources that clearly and simply illustrate the proper disaster-resistant construction sequence, detailing and connections of the row houses being constructed throughout the Philippines by our government partner.

### **About this Internship Project**

For this internship, you will gain hands-on, real-world experience by:

- Working with Build Change's expatriate and local staff to:

- develop an understanding of our government partner's house designs, individual building components, connections and construction sequence
- build a 3D model of existing design to use for visualization and illustration
- use the 3D model to illustrate the construction sequence, highlight the individual components, and clarify complicated connections
- compile images and sequences in clear, easy to understand presentations or booklets
- train our government partner to understand the 3D model and use it as a training tool for their contractors and onsite builders

### **Qualifications, Skills & Experience**

The ideal candidate should possess the following:

- Enrollment in the [Autodesk Student Expert](#) program prior to the internship commencing is **required**. *Please provide documentation if you are already enrolled in the program.*
- Experience with using Autodesk software to model buildings and illustrate construction sequences and construction details (Revit or Inventor or 3D Max)
- Educational or work experience background in building design or construction, such as technician, engineer, and architect is a plus
- English fluency required; Tagalog or other Filipino dialect is a plus but not required
- Interest in post-disaster response and reconstruction or pre-disaster mitigation
- Good communication skills and excellent teamwork abilities
- No ego, drama, or pessimism; the successful candidate will be flexible, humble, and patient and have a good sense of humor
- Valid passport
- Women are encouraged to apply

### **What's in it for you?**

- Opportunity to work for an award-winning international non-profit social enterprise
- Use your skills to help improve the structural safety of the homes of thousands of low-income families, decreasing their risk from the impact of a natural disaster
- Gain experience in modeling complex construction techniques and presenting them in simple, easy to understand formats for non-technical parties
- Understand how to improve construction sequences of socialized housing
- Learn more about disaster resistant construction techniques
- Be mentored by professional engineers with extensive experience in building design and construction, applying the principles of disaster-resistant construction
- Paid compensation with housing, food and transportation provided

Please submit your resume and a cover letter to Trena Moya at [trena@buildchange.org](mailto:trena@buildchange.org) by 30 April 2017 and include **3D Modeling Intern - Philippines** in the subject.

Applications will be reviewed as they are received and interviews may be scheduled prior to the closing date.