



# NEPAL 11/22/17

## Nepal - Earthquake Relief / Home Construction

On April 25, 2015 the world learned of the devastation caused by the severe earthquake that hit Nepal. More than 9,000 people were killed and 22,000 injured by this single event. With equally devastating property and infrastructure damage Nepal was in need of the world's help with a post-earthquake health crisis and rebuilding.

Artur Moreira initially contemplated a locally based Newark fundraising relief effort to provide funds to support one of the various relief organizations. However, in past natural disasters, Artur had seen certain top-heavy organizations raise significant funds but the funds did not always flow down effectively to where they would be put to the fullest, best and timeliest use. This section chronicles some timely, well-planned and efficient steps where in short time a permanent home re-building plan in a small Nepal village was implemented and remains today.



## Step 1 - USA Fundraising & Nepal Contact

Through social media and old fashioned getting the word out Artur began fundraising out of his Newark, NJ home base with business contacts, friends, neighbors and the Nepalese-American community in New York City and New Jersey. A kick-off fundraiser was held at Adega Grill in Newark with Adega's owner's generously donating space, food and beverages. With donations between \$20 and \$3,000 in three short weeks \$10,000 was raised.

During the three-week fundraising effort, Artur's church pastor, Welber, was able to establish contact with a local Nepal village which was completely destroyed and in desperate need of rebuilding and began planning an emergency program to construct new housing in the village.

Artur was aware of a recent German-engineered design used in the Philippines for earthquake relief dwelling rebuilding. This seismic-resistant design was easy to implement with readily available steel welded frames and concrete masonry units.

## Step 2 - Travel & Planning

Getting from Newark to a small mountain village in Nepal is no quick, direct or easy trip. The first leg was a fifteen hour flight from New York's JFK to Indira Gandhi Airport in New Delhi, India. With all charitable endeavors, Artur pays his own expenses for travel, meals and lodging.

As fate would have it, during the flight from JFK to India, Artur met a German business owner and the conversation turned to the relief effort and the planned rebuilding project. The German gentleman was so impressed with the grassroots charitable effort Artur was spearheading that he wrote a check for \$5,000 on the plane! After landing in New Delhi, now with \$15,000, the next leg of the trip involved a flight to Kathmandu.



Securing Structural Steel and Concrete Masonry Units - Kathmandu

## Step 3 - Materials, Equipment & Logistics

Arriving in Kathmandu, Nepal, Artur was met by local village residents with whom his pastor had established contact. The next step was to secure a flatbed truck, concrete masonry units, cement, structural steel, a welding machine and various other tools, equipment and supplies. With the supplies secured, a seven hour journey over earthquake damaged roads lied ahead to reach the village located south of Kathmandu in Nepal's Bagmati region.



#### Step 4 - Mobilization

After the journey to the Bagmati mountain village, the next challenge was getting the materials, tools and equipment to the work zone. Because the village sat high on a hill with no vehicular road access, a human chain was formed for an entire day conveying the supplies up the rugged terrain to the village work zone.

#### Step 5 - Fabrication Shop Construction

As this village rebuilding program would be implemented with pattern houses to be repetitively fabricated and erected, a fabrication shop was set up where tools, equipment and materials would be staged and jigs could be created for efficient steel frame welding.



Fabrication Shop Land Clearing

#### Step 6 - House Construction

The new house designs involve a welded structural steel tube frame with a concrete masonry unit and corrugated steel siding envelope. Steel frames are efficiently prefabricated in the village fabrication shop and then erected at each house location. During Artur's week at the village, twenty-five family dwellings were completed and residents were trained in the crafts of steel fabrication, welding, erecting and masonry





### **Step 7 - Continued Rebuilding**

With the residents trained on the various crafts needed to construct the new house designs and the fabrication shop left behind with the welding machine and other tools and equipment, funding continues today.

Each family dwelling costs approximately \$700 to construct and to date more than seventy homes have been built.