

The Work Site



This is the future site of Amigos de Jesus' new 7th through 9th grade classroom. Our task was to dig and pour 20 concrete footings for this the final classroom building in the school complex.

Preparing the Holes



Work began by marking out the locations of all of the footings with string lines and a plumb bob. 3 ½ by 3 ½ foot holes were then dug by hand to accommodate the 3 by 3 foot footings.

After two days of digging and hauling the dirt away, all of the holes needed some fine tuning. Two inches of sand was placed in the bottom of each hole, wetted, and compacted.



HONDURAS 2008

Amigos de Jesus – A Home for Boys
San Jose de las Colinas, Honduras, Central America



Formwork



Reusable wooden formwork made in the carpentry workshop was used for pouring the footings.

Mixing & Pouring Concrete

Concrete mix design:
9 ft³ gravel, 6 ft³ sand,
3 (94 lb) bags cement,
and 18 gal water. In
addition to pouring 20
footings, 18 cylinders
were cast and tested
back at Villanova
yielding an avg. 28
day strength of
roughly 3,000 psi.



Reinforcement

No. 4 rebar was used to create a square mat placed 3 inches from the bottom surface of the concrete for appropriate cover. 4 dowels with transverse ties were used to create a rebar cage to be spliced with rebar from the columns.



Honduran workers will continue with construction by building up the CMU block walls, pouring concrete beams and columns, and securing a steel truss supported roof structure.