



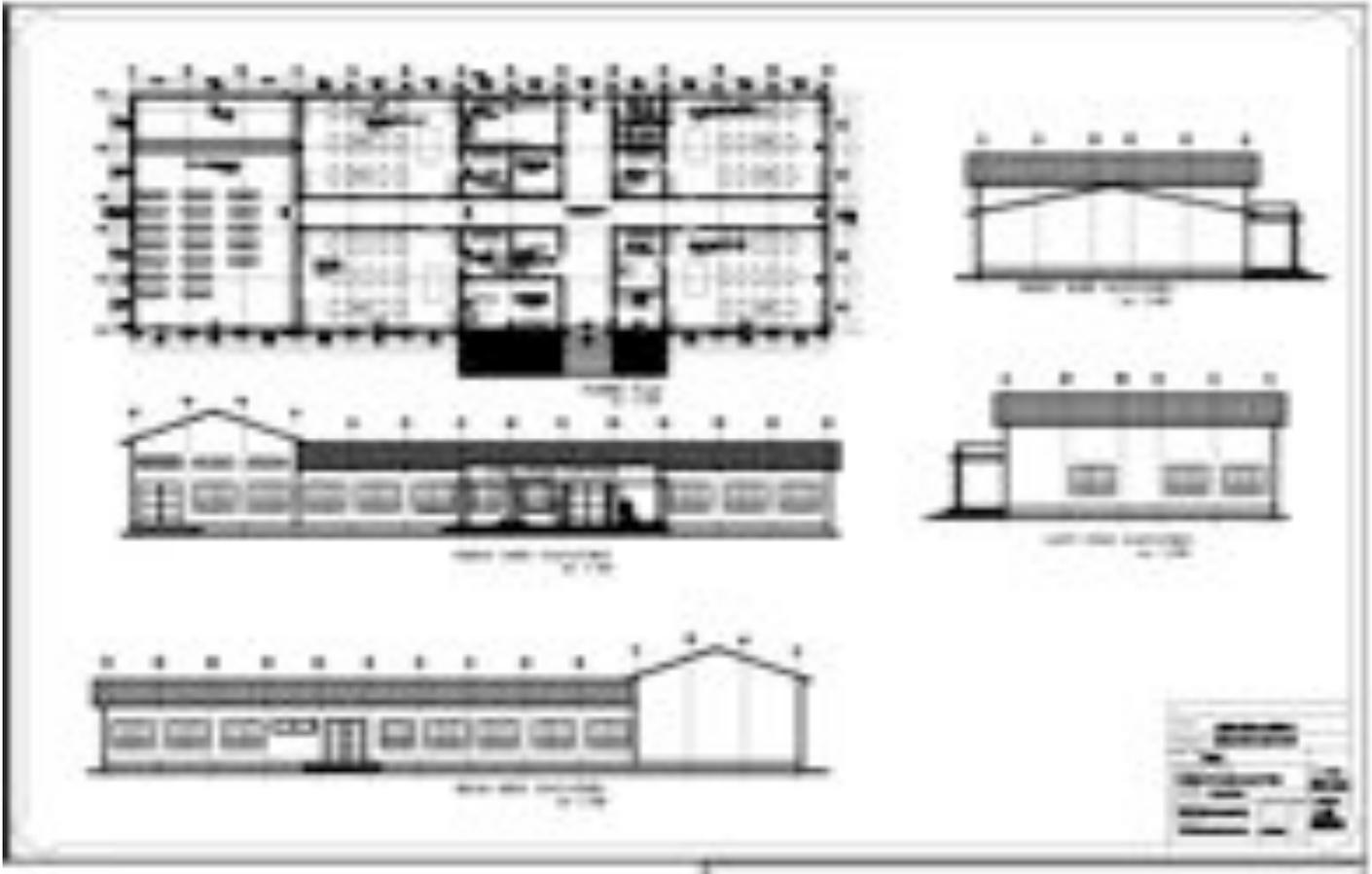
## JubaUniversity - STEM - Center

June 27, 2013

Updated on Jan 23, 2015

Our STEM (science/technology/engineering) Centers have been a spectacular success in neighboring Ethiopia. There, additional STEM projects have been sparked, which have cascaded into even more projects. Tens of thousands of Ethiopian students of all ages and grades are being offered hands-on STEM experiences, experiments, and enrichment.

Buoyed by that success, we decided to help the new country of South Sudan, which is Ethiopia's neighbor to the west. The people of South Sudan have suffered years of debilitating war, strife, and unspeakable terror. But they have a spirit to conquer the adversity, plus they are blessed with a number of natural resources to develop.



The University of Juba is considered the best of South Sudan's universities. Israel diplomat Dan Shaham introduced the GFCT to University leaders. In June of 2012, it was agreed that the GFCT would create a STEM Center on the University's campus. Later, all parties agreed on the layout: It's a challenge to build in South Sudan, but we like the challenge!

Finally, we get started one year later. The foundation is now partially completed.





In parallel with the foundation progress, we need to consider how to create the Hydraform blocks that will comprise the interior and exterior walls of the building.

Stichting WWE in DebreZeyit has accumulated much experience with Hydraform manufacturing. Their master formulator (and business agent), Micky, is in Juba, experimenting with the proper mixture of ingredients for the slurry that is pressed into bricks.

Check out the quality of our strong blocks, 90% of their content derived the soil near Juba.



*The architect/manager Abeba Eshete and Hydraform expert Mikitu Bekele, with baby Eyob on the White Nile near Juba, South Sudan*



*Project update of August 20, 2013:* The foundation is completed, awaiting the concrete floor. The heavy sturdy interior and exterior Hydraform walls will then be stacked above this layer.



The quality and strength of our Hydraform blocks are exceeding all expectations.



*Project update of April 2, 2014:* A disruptive civil war had erupted in mid-December 2013. Luckily, everybody working on the JubaU-STEM-Center project escaped without incident. However, our project did not resume until late March 2014, when Micky returned to assess the situation, and re-assemble the construction team workers. Another important milestone was the arrival on-site of the containers of structural steel products manufactured in Ethiopia. The walls of the JubaU-STEM-Center are now rising above the landscape!



from the outside:



*Project update of July 20, 2014:* The Juba area continues to be peaceful. The block-laying of the JubaU-STEM-Center is nearly complete. Great progress has also been made on a second building (seen in the background, to the right of the STEM Center), which will serve as a practical educational training center for the construction trades, e.g., welding, electrician, plumbing,



*Project update of January 23, 2015:* The Juba area continues to be peaceful, and a transitional government may start soon. The JubaU-STEM-Center and JubaU-Vocational-Center construction has proceeded during new challenging conditions. A truck gross weight limitation of 28 tonnes has nearly doubled transportation costs, and thus the price of all heavy goods. Even so, the construction crew has managed to weld the roof trusses and the exterior corrugated roof. The window frames are now installed, too, but the doors are not attached due to scarcity of door hardware. A container containing fixtures purchased in Dubai is expected in a few weeks. Furniture purchasing (desks, tables, storage cabinets and shelving) is underway.



## Observations at this point in the life cycle of the Juba University STEM Center construction project

- ⤴ The people of South Sudan can manufacture quality products as they march towards building a strong nation. But some skilled labor must come from the people of the neighboring nations of Ethiopia, Tanzania, and Kenya. That is exactly why we are establishing this practical educational engineering enrichment facility in Juba!
- ⤴ It seems apparent that factories, such as construction products manufacturing, can be established in South Sudan, permanently employing many workers. Full-time sustainable employment is a critical factor for the nation.
- ⤴ The neighboring country of Ethiopia can export intellectual expertise to South Sudan. Indeed, for the past decade, the East Africa region has been consistently fast-growing in terms of infrastructure, output, and wealth.
- ⤴ In emerging nations, the governmental and private institutions may be fragile and in their infancy. But visionary leaders tend to be accessible, practical, and committed.
- ⤴ The GFCT can continue along its path of catalyzing an ever-growing number of successful projects, independent of any donor support from either private or governmental sources. The future looks bright, as there are even more far-reaching projects in the pipeline.