

### Efficient Building Systems

#### *Panelized Permanent Forms for Saudi Arabia's Construction Needs*

In 2002, Efficient Building Systems, LLC (EBS) developed an innovative approach to building with concrete – the Structural Concrete Form, which is panelized and custom-built for commercial and residential construction projects. Today, EBS operates across the United States as a full service company providing architectural and technical support, engineering and structural design, precision manufacturing, and fast and dependable installation.

With its Concrete form, EBS develops structurally sound, insulated office buildings, warehouses, luxurious residential homes, and more. With approval from the Royal Commission for Jubail and Yanbu expected shortly, EBS plans to introduce its Concrete Forms into Saudi Arabia and establish in-country manufacturing capability by the end of the year.



After the forms are positioned they are filled with concrete on site, creating a single continuous structure.

EBS' Structural Concrete Forms are panelized and custom built offsite for each project. These stay-in-place forms are then shipped, erected, and filled with concrete. The concrete thickness is normally four, six or eight inches, depending on load conditions. Larger thickness could be made upon request. Gables, curves, and complex geometrical shapes are also possible.

The structures may reach 30 feet in elevation without a floor load. Higher elevations are possible, as multiple story structures can be built without additional steel frames. In fact, the structures may achieve an elevation as high as eight to ten stories.

EBS uses permanent forms for walls, floors, and roofs, which remain in place after the concrete is poured into their cavities – thus becoming a part of the structure. The forms include steel reinforcement, thermal and sound insulation and are ready to be finished with different types of materials. Electrical boxes and conduits can also be installed in plant if so desired.



One of several residential developments built using EBS forms. These 200 homes were built at a rate of 4 structures per week.

EBS' Concrete Forms are ideal for helping to meet Saudi Arabia's growing demand for housing and other important development projects. The concrete forms allow for expedited construction times. Each story takes approximately 3 days, which means that a 2-story villa, including elevated floor and roof, can be erected in about two weeks.

Among its many practical benefits, the EBS Concrete Form means faster construction times, lighter structure and foundation, green construction, lower insurance premiums, greater insulation against extreme temperatures and sound, sales differentiation, and reduced maintenance cost. EBS offers all the inherent strengths of solid cast in place concrete without the persistent problems associated with sealing, connecting, and joints of pre-cast concrete.

Large Saudi real estate developers have shown a keen interest in the EBS system for their high volume construction projects, and discussions with local construction companies are currently in progress. EBS welcomes the opportunity to serve Saudi Arabia's construction industry and embark on projects, both large and small, across the Kingdom.

For more information, please contact:

Oscar Stefanutti  
Managing Partner  
Efficient Building Systems, LLC  
2121 Whitfield Park Loop  
Sarasota, FL 34243  
Phone: 941-727-5001  
oscar@ebsforms.com  
www.ebsforms.com ■