

# Historical Move in Israel

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Five historical buildings have been saved from demolition in Tel Aviv, Israel. The fragile buildings are being moved backwards in a complicated operation involving local general building contractors Solel Boneh and structural moving specialists Mammoet from the Netherlands.

Tel Aviv, the capitol of Israel, is working on a major expansion plan of the city. The plan requires Kaplan Street, the city's main thoroughfare, to be widened. The street crosses an area better known as Sharona, as early as 1871 the location of the Sharona Colony of the Templar Society and nowadays the location of the Kirya headquarters of the Ministry of Defense of Israel. In the early days the Templars built numer-



*The Templar houses were excavated around in order to clear the cellar and to enable the Mammoet crew to install their skidding tracks and jack-and-skid shoe-and-beam assemblies.*



*The fragile Templar houses required additional strengthening and shoring up, together with an additional concrete floor, to enable jacking and skidding.*

ous houses and buildings with such typical features as arched windows, wide openings, cellars and beach rock walls. The Colony was actively inhabited by the Templars till after the Second World War. The area, including the buildings, were then bought and used by government institutions. Later it became the home and headquarters to the Israel Defense Force. The IDF used the buildings for their own purposes. Now that the IDF had its new headquarters built and concentrated in one building, the Templar buildings would become obsolete. Five of the buildings, standing along Kaplan Street, were directly threatened by demolition. The area had to be cleared for the road widening. Preservists started arguing the demolition and called for alternative solutions to the road widening. Finally this resulted in the decision to move all 5 buildings and to integrate them in the new south Kirya development plan, which includes an area for altogether 37 buildings to be preserved.

Last year the project owners, the Tel Aviv-Jaffa Development Authority, launched a worldwide tender for bids on the relocation of all five buildings. Some eight companies from around the world presented their bids. Local contractors Solel



**Mammoet used their computer controlled hydraulic jack-and-skid shoe-and-beam assemblies with hydraulic push/pull propulsion and standard track to move the structures.**



**A structure was skidded to and over its newly built concrete cellar and lowered by means of the inbuilt jacks in the jack-and-skid shoe.**

Boneh Building & Infrastructure Ltd. together with Mammoet from the Netherlands won the tender. Solel Boneh would take care of all construction related work, as where Mammoet was to supply specialized moving equipment, operators, engineering and engineering staff and supervision.

The five buildings, ranging in weight from about 200 to 900 tonnes, were positioned along Kaplan Street, covering one block. The buildings include three houses, a cultural center and a school, now being used as the post office. Because of their design, location and the additional site restrictions, none of the operations would be identical. Mammoet had opted for using their advanced computer controlled and integrated jacking and skidding system.

Solel Boneh started the preparatory work. Because of the fragile nature of all buildings their plan included work such

as removing all "loose" parts, reinforcing windows and walls, both from the out- and inside, and doing piling and groundwork. Four of the buildings have a cellar. Because of the fragile nature the existing cellar would not be moved. Instead a new and concrete copy would be built on the new location. In order to create a stable and stiff base for both the building to be moved and for the jacking and skidding operation, an additional concrete floor would be built underneath each structure. Inspection of the buildings prior to commencement of the work had revealed....

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**This Templar house had only a partial cellar underneath requiring additional piles to support that part of the additional floor in order to clear the ground underneath and to install the skidding equipment.**



**A detailed look at Mammoet's jack-and-skid shoe-and-beam assembly reveals the electronic control and measurement systems installed feeding the central computer.**