

# Post-tensioning

*POST-TEN is a STRAP module which enables the engineer to design post-tensioned pre-stressed concrete beams or slabs for virtually any type of structure including buildings and bridges.*

*Unlike other pre-stressed concrete programs, POST-TEN is fully integrated with STRAP, giving a one-step solution. By retrieving the analysis results from STRAP, POST-TEN not only designs the concrete section, it also calculates the effect of the pre-stressing forces on the model and combines all results to calculate the overall effects.*

## Section Design

POST-TEN features a number of tools to help the engineer quickly achieve a feasible and efficient arrangement of cables. A useful Magnel diagram indicates feasible combinations of cable forces and eccentricities. Built-in tools help the user to graphically generate cable profiles which lie within the feasible range over the entire span.

## Losses

Losses are calculated accurately using the time-step method. The user may define different times and levels of post-tensioning for different components of a model or for different cables. The program accounts for the cumulative effects of partial post-tensioning on the losses of all cables in the model.



Ayalon Highway 20/5 Bridge  
Structural Design: LEVIATHAN ENGINEERS

