

Soil retention elements

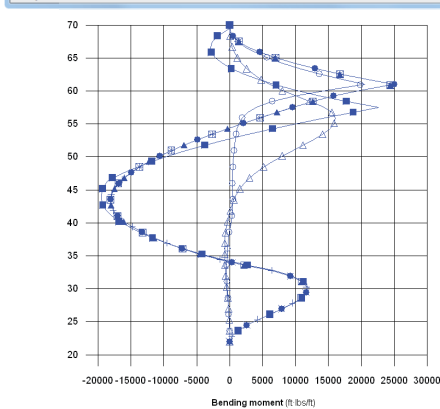
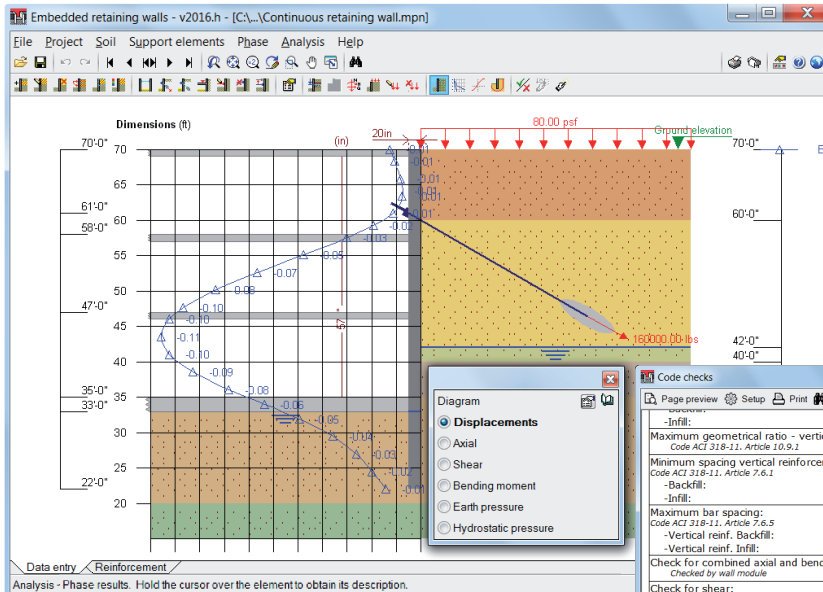
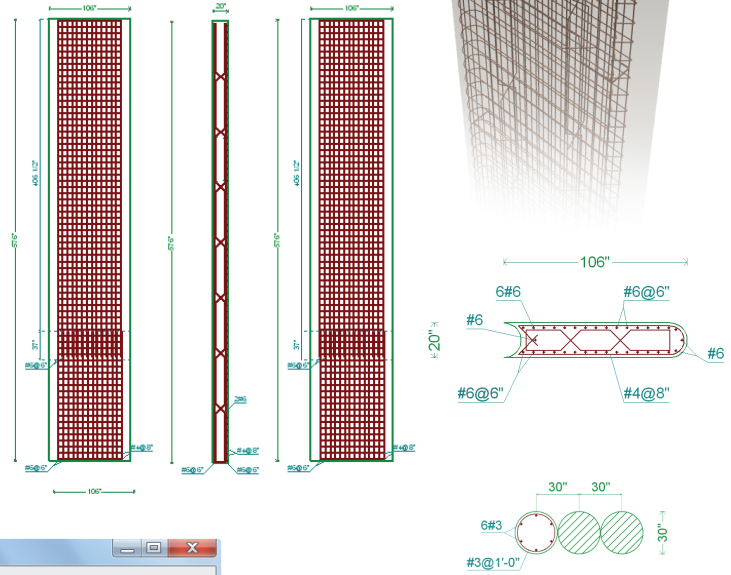
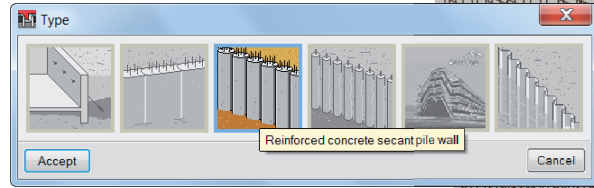
All that we are, all that we do is to aid our users with their projects and jobs



Embedded retaining walls

Analysis, design and check of retaining walls composed or reinforced concrete, concrete in-situ piles, steel sheet piles and mini pile screens.

- Possibility of defining different **soil layers**, berms at the infill and excavations at the backfill by phases.
- Active and passive **anchors**, struts, slabs, etc.
- **Floor slabs** at different levels.
- Option to consider **seismic action**.
- **Non-linear analysis**, considering elastoplastic behaviour for the soil and support elements.
- **Global stability analysis**. Ratio between the balancing moment of the passive pressure at the infill; safety factor of the passive pressure at the infill; and worst case slip circle.
- **Design** for the different construction phases.
- **Reports**: data, drawings of the construction phases, design results, force and deformation diagrams and material takeoff.
- **Drawings** displaying reinforcement layout with the option to edit and check the modifications.

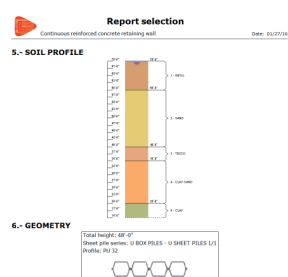


Report selection

Continuous reinforced concrete retaining wall

Elevation (ft)	Displacements (in)	Axial (lbs/ft)	Shear (lbs/ft)	Bending moment (ft-lbs/ft)	Earth pressure (psf)	Hydrostatic pressure (psf)
70.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
65.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
60.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
55.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
50.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
45.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
40.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
35.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
30.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
25.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00
20.00	-0.11	-0.00	7688.72	18118.51	-2318.71	0.00

Code checks	Calculated	Maximum	Minimum	Verified
Infill:				
Maximum geometrical ratio - vertical total:	0.00365	0.08		Verified
Code ACI 318-11, Article 10.9.1				
Minimum spacing vertical reinforcement:	0.00731			Verified
Code ACI 318-11, Article 7.6.1				
- Backfill:				
- Infill:				
Maximum bar spacing:	5 1/4"	5 1/4"		Verified
Code ACI 318-11, Article 7.6.5				
- Vertical reinf. Backfill:				
- Vertical reinf. Infill:				
Check for combined axial and bending:				
Checked by wall module				
Check for shear:				
Code ACI 318-11, Article 11.2.2.1				
Check for cracking caused by tensile stresses in the bars:				
Code ACI 318-11, Article 10.6.4				
Lap splice lengths:				
- Base backfill:				
- Base infill:				
Stiffeners horizontal bars:				
- Minimum diameter:				



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