It's chosen a problem type: *Plane_State.*

Material, self weight condition, and constraints are settled.

The particular case for the plate structure of concrete **without steel plates** is calculated, in order to compare it with the latter.
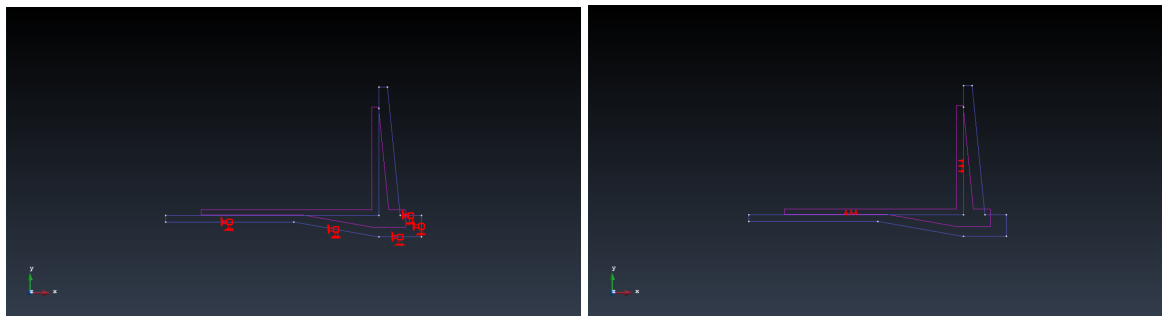
Concrete:
E=3*10¹⁰ Pa
ν=0,2
γ=24000N/m³
*thickness=**1m***

It's been built a quadrilateral 4-node mesh 402 elements and 518 nodes.
Elastic constraints are considered all along the base slab (5*10⁻⁵N/m³), and loads are settled.
A linear load must be applied for hydrostatic force of water, from 0 (surface) to 24500 N/m, which also corresponds for the bottom of the water tank.
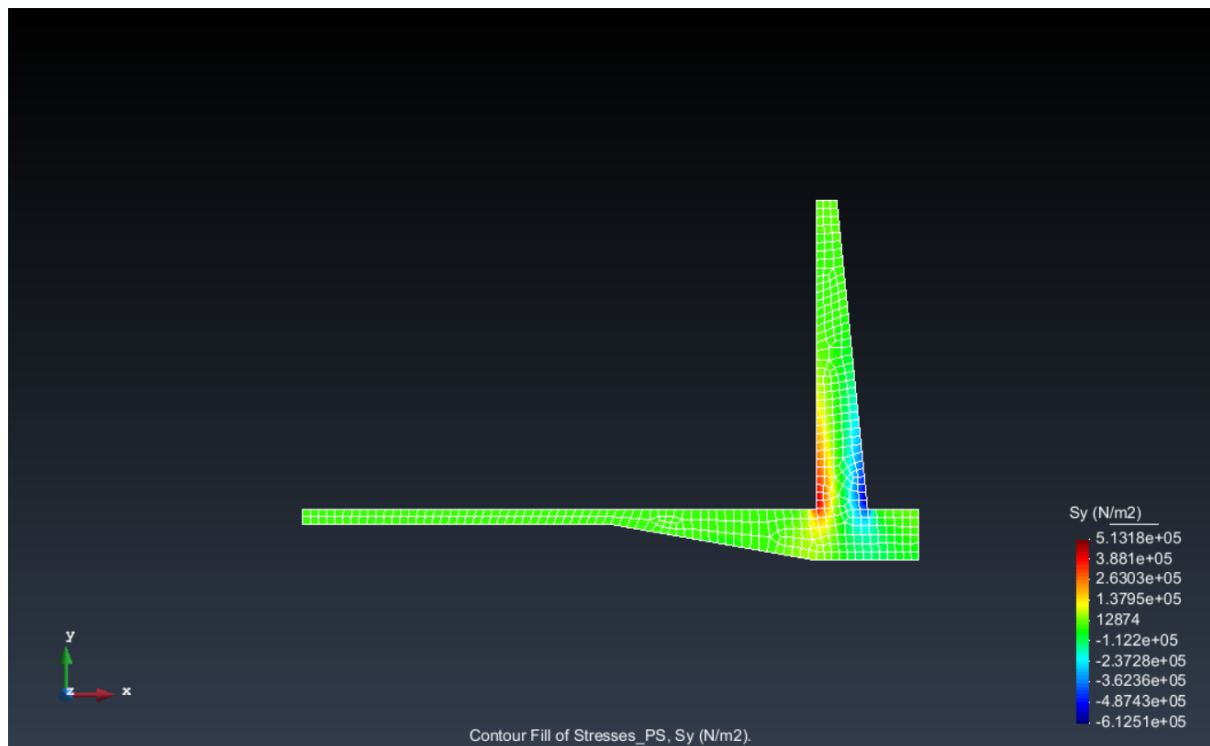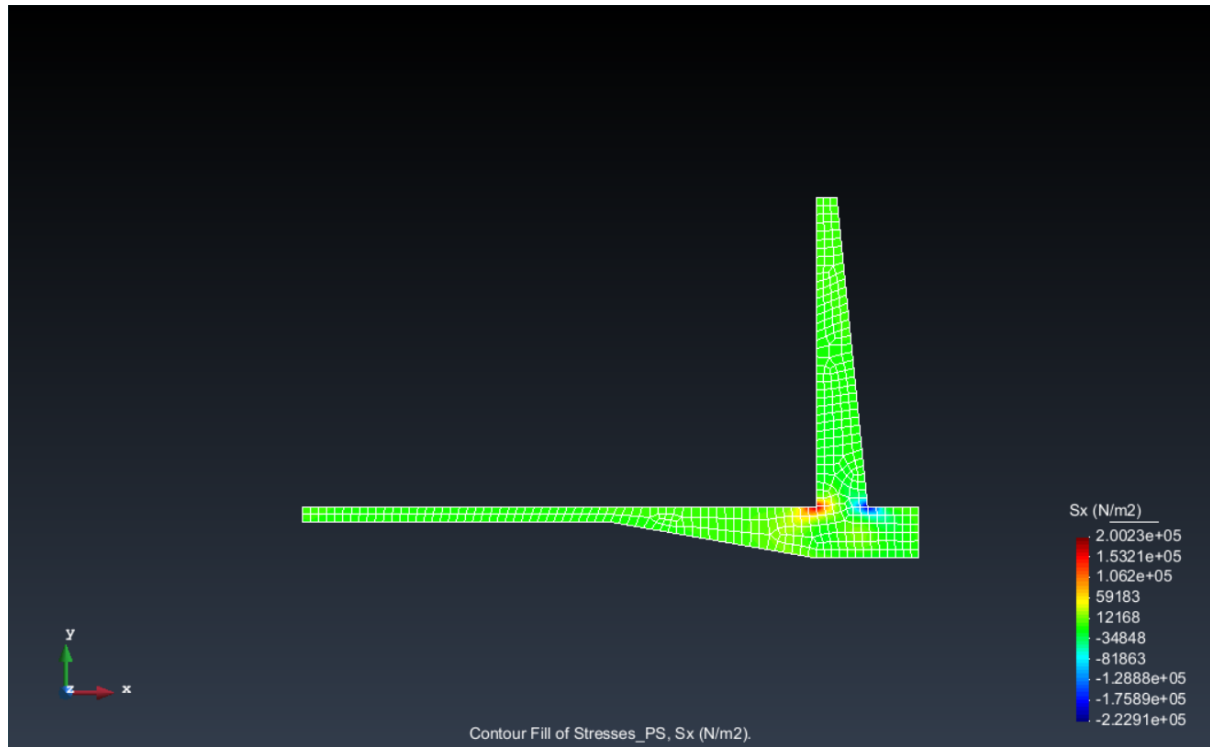

Displacements are checked (1 m depth case):
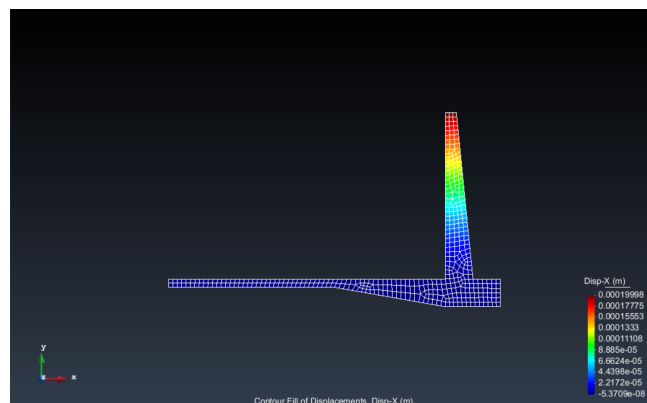
Stresses:

Contour Fill of Stresses_PS, Sx (N/m2).

Contour Fill of Stresses_PS, Sy (N/m2).

Both Sx and Sy are found to be high at the base of the "damm", as expected.
Stresses are opposite sign in either side and while Sx and Sy are both almost symmetric. Maximum
Sy stress is almost as 3 times as Sx.