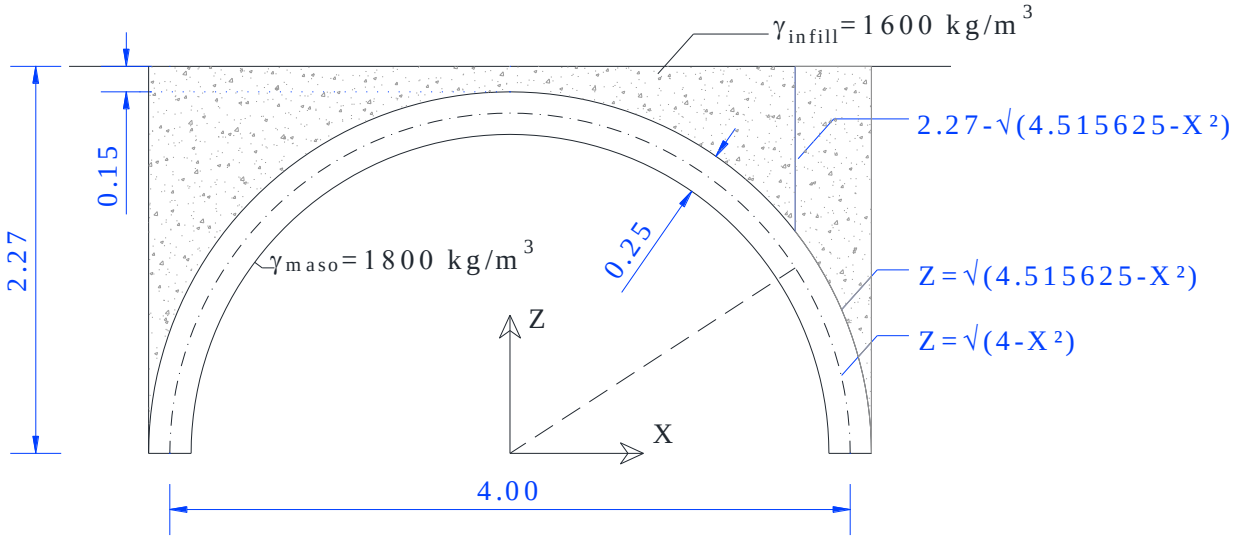
TUTORIAL 3

Nonlinear static analysis of barrel masonry vault

Let's consider the masonry barrel vault, sketched in the figure, made of masonry-like material having the following mechanical proprierties:

E = 3.0 GPa	Young's modulus
ν =0.2	Poisson's module
ρ =1800 kg/m^3	mass density

We suppose the structure subjected to self- weight and the weight of the infill. We assume the structure clamped at the base.



- In this example we will model the structure by NOSA-ITACA code using thick element shell (element n. 10 of the manual).
- We will see how to use the subroutine forcem.f to apply the weight of the infill (variable in X direction).
- **Watch the video.**