

```

;-----
; pil_sq.dat      evolution of peak load
;                  in a square pillar
;-----
def parm
ratl=1.14
rat_1=1.0/ratl
end
parm

def s_base
pnt=gp_head
sum=0.0
loop while pnt # null
  if gp_zpos(pnt)<-9.9 then
    sum=sum-gp_zfunbal(pnt)
  end_if
  pnt=gp_next(pnt)
end_loop
s_base=sum/(7.5*7.5)
end

;lower portion of the grid

gen zon tunint p1 0 7.5 0 p2 7.5 0 0 p3 0 0 -4.75 dim 2 2 2 2 2 2 2 &
size 6 6 4 4 6 rat ratl ratl 1 1 ratl

gen zon radtun p0 7.5 7.5 -4.75 p1 0 7.5 -4.75 p2 7.5 7.5 -10 p3 7.5 0 -4.75 &
dim 3.75 3.75 5 5 size 6 5 6 4 rat rat_1 1.25 rat_1 1 fill

mo ss
fix y range y -.1 .1
fix y range y 7.4 7.6
fix x range x -.1 .1
fix x range x 7.4 7.6
app szz -17e6 range z -10.1 -9.9
fix z range z -.1 .1

pro bulk 14.1e9 she 8.87e9 fric 35 coh 4e6 ten 5e5 ftab 1 ctab 2
table 1 0 35 0.01 32 0.02 30 .5 30
table 2 0 4e6 0.01 0.5e6 0.02 0 .5 0

ini sxx -25e6

```

```
ini syy -30e6
ini szz -17e6

hist unbal
hist gp zdisp 0 0 -2
hist gp xdisp 2 7.5 0
step 1000
ini zvel 0 range z -10.1 -9.9
fix z range z -10.1 -9.9
ini zvel -5e-6 range z -.1 .1
hist s_base

step 2000
save pil_sq.sav

ret
```