Design & Analysis of Stairs Using SAP2000

- WD =50 lb/ft^2 , WL= 75 lb/ft^2 :Slab waist = 6", f'c= 4ksi; fy = 60 ksi

Steps:

- Unit = lb-ft
- Model= stair cases
  - Stair type = type2,
  - Right level width= 6",
  - Storey height = 13",
  - Stair projected length = 11.25'
  - Opening b/w stairs = 1,
  - width1=5',
  - width2 =6'
  - Max mash spacing = 1
- Option>preference> concrete frame design ACI-2003
- Define> material concrete, modify, f'c =4 ksi, fy=60ksi
- Define > area section, modify, name= slab6. Thickness= 6"
- Define > load cases, line load
- Define > add default combo
- Select waist slab
- Select > invert selection
- Assign > area > local axis, -90°
- Select All
- Assign > Area load > uniform assign loads
- Analysis > analysis option, 3D
- Analysis > run analysis; model "Do NOT RUN" Run Now
- Display > show forces > area M11, M22
- Display > show forces > area AST1, AST2