

Overlapping punching-shear perimeters

What should I do when punching-shear perimeters overlap?

Answer: ACI 318 does not provide clear requirements as to how to deal with overlapping punching-shear perimeters. However, this uncommon case may be modeled within SAFE as follows:

1. Model only one column as you would following a hand-calculation approach.
2. Use statics to replace the loading within both columns with equivalent loads and moments located at the centroid of the composite section.
3. SAFE will then check the punching-shear perimeter of the total composite section. Here, results will align with general practice.

NOTE: Punching-shear overwrites are available such that the perimeter may be manually input according to requirements.

See Also

- Verification examples of punching-shear calculations per various building codes are available within SAFE through Help > Documentation.