RISA Webinar Q&A

Foundation Design including Retaining Walls

Jun. 5, 2012

Q: What is the best way to model a continuous footing?
A: You can model a continuous footing as a grade beam or as a smaller mat slab.

Q: Can you add strip or line load surcharges?
A: You can break the wall into segments to account for smaller surcharge areas.

Q: Can you model the footing of the retaining wall on piles?
A: We currently design the retaining wall as bearing on soil. If we get more requests for a pile bearing retaining wall then we will definitely add it.

Q: Can we model multiple layers of soil?
A: You can assign different soil regions to your model but any one region will have a single definition.

Q: If the soil is clay, how is k value calculated? (phi is zero.)
A: We wouldn't automatically calculate the K value for clay as we are assuming the back fill on the wall is a granular soil. However, you can enter the k value manually (overriding our calculation).

Q: Can we model masonry walls in addition to reinforced concrete?
A: We currently have reinforced concrete retaining walls only but if we get more requests for masonry retaining walls we will definitely add them.

Q: Do the retaining walls connect at the corners to provide bending moments in the horizontal direction?
A: We don't currently transfer forces at the corner joints for adjoining retaining walls.

Q: Can the retaining wall be modeled with a taper?
A: We do plan to add tapered retaining walls in the future but we haven't had many requests for them so far. If we get more requests we will add them sooner.

Q: Can you apply point or line loads to locations other than top of wall ?
A: We currently only apply loads at the top of the wall.

Q: Can you make the stem of a retaining wall CMU instead of concrete?
A: We currently have reinforced concrete retaining walls only but if we get more requests for masonry retaining walls we will definitely add them.

Q: What about a key interface between the stem and the footing?
A: We don't currently define a key for the interface between the footing and stem. If you can send us more information on how this would be defined we can look into adding it to the program.

Q: What about shear and flex checks at interface between soil key and bottom of the footing?
A: We don't design the key itself so we aren't currently reporting the forces at this location.

Q: The keyway did not reflect reinforcing. Does it get designed as well?
A: We don't currently design the key itself.

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