UG 210-20-4 ENG Availability of RISA-3D and RISA Foundation Software

User Guide: 210-20-4 **Date:** April 2, 2020

Subject: ENG – Availability of RISA-3D and RISA Foundation Software

Purpose. To announce the availability of RISA-3D and RISA Foundation.

Effective Date. Effective upon receipt

Background. Since many NRCS design engineers use RISA software programs CED has purchased a national license consisting of a 15-seat license for RISA-3D and a 5-seat license for RISA Foundation.

RISA 3D is a structural design and analysis program for use in designing more complicated structures. The program allows for the analysis of 1D members (beams, columns, braces, etc.), 2D elements (plates, walls), and 3D elements (solids) using Finite Element Method. RISA Foundation is a more focused tool from RISA that is geared specifically toward foundation design items such as mat foundations, grade beams, pile caps, retaining walls, isolated spread footings, and combined footings. It can be used independently but can also fully integrate with RISA3D. It has some standard tools integrated to help with foundation design and automatic mesh generation for modeling. The RISA 3D software includes most of the standard design codes for concrete, steel, wood, and masonry but the concrete codes use ACI 318 and currently don't include ACI 350 support in either programs. Both RISA software programs use graphical user input and have full member design capability for steel, concrete, cold-formed steel, masonry, aluminum, and timber (note that connection design may require additional tools).

As with any software, structural design experience is needed to correctly and safely use the software. RISA offers face to face training, but also offers other free independent training opportunities and tools on its website to help users gain a basic understanding of the software. RISA also offers a free demonstration version for user's that wish to load the software on their personal computers in order to become more familiar with the operation of the programs. Reference Attachment B for additional information on RISA training on their website.

Special Instructions. NRCS users may obtain the RISA software through their ITS managers but first must register to gain access to the national license. Reference Attachment A "Registering for the National RISA License Access". Once registered, users will need to contact their local ITS staff to have them download and install the applications from the IT Resources Web site under the "download Software" library.

Distribution. This user guide will be distributed through the eDirectives System. Users may obtain General Reference Guides, Tutorials, and Verification Problems from RISA's website: https://risa.com.

Filing Instructions. No formal requirements. Users retaining a hardcopy of the program documentation should keep the hardcopy in a three-ring binder adjacent to other technical directives.

Contact. Users may direct questions or comments regarding the software to the appropriate State-level staff engineer or to John Van Leeuwen, Structural Engineer, National Design, Construction, and Soil Mechanics Center, Fort Worth, TX, at (817) 509-3758, or by email at john.vanleeuwen@usda.gov.

/s/

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Attachment A

Attachment B

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