**SEPTEMBER 17, 2003 -** <u>FPA Structural Committee</u> Presentation: Document <u>No. FPA-SC-10,</u> "Quality Control Checklists for Foundation Inspection of Residential and Other Low-Rise Buildings"

Speaker: Jack Spivey, J. Spivey and Associates, Houston.

## **PRESENTATION SUMMARY**

Jack Spivey, UT Graduate and president of J. Spivey & Associates, Inc., a company that provides quality control inspections for foundations under construction, presented his subcommittee's paper No. FPA-SC-10, "Quality Control Checklists for Foundation Inspection of Residential and Other Low-Rise Buildings."

This paper completed FPA <u>Peer Review</u> in August 2003. Jack presented a draft revision of the paper and accepted comments from the audience of about 20. About ten comments will be incorporated into the paper and it will be published as Revision 0 shortly.

The purpose of the paper is to provide quality control checklists for builders, inspectors, engineers, architects, repair contractors and owners to help ensure the trades involved in site grading, form setting, pad preparation, slab make-up, pier drilling, concrete placement, tendon stressing, repair pier installation, etc. do quality work. The document includes seven one page checklists for field inspection personnel to use when making quality control checks on foundations.

The titles of the seven checklists are:

- 1. Post-Tension System Foundation Make-Up
- 2. Concrete Placement
- 3. Post-Tension System Stressing
- 4. Conventional (Rebar) Foundation Make-Up
- 5. Construction (Builders) Piers
- 6. Repair Piers
- 7. Segmented Repair Piles

Jack went through each checklist, showing an example of how to fill in each. Some points of interest noted during the presentation:

- The inspector should use a stringline to measure the slab thickness when checking a make-up.
- The inspector should look for evidence that trees were removed to construct the pad.
- The inspector should look for gripper marks on the tendons to verify they were stressed rather than just relying on paint marks.
- Tendon blowouts usually occur at live ends because the anchorage did not have sufficient concrete coverage above. However, if numerous blowouts occur in one slab, it usually means the concrete mix was bad.
- Pocket penetrometer readings of pier-hole cuttings are more accurate from the auger than from the belling tool.

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