Payment for additional testing can be a point of contention on jobsites, even though the ASCC-NRMCA “Checklist for the Concrete Pre-Construction Conference” includes the following questions that would help to resolve questions about payment responsibility:

1. How do the project specifications handle additional testing?
   If additional testing is required how will the parties be notified?
2. What investigative procedures will be used?
3. Who will be employed to conduct additional testing and who employs them?
4. How will the tests results be evaluated?
5. Who pays the costs of additional testing?
   If specifications are confirmed?
   If specifications are not confirmed?

If low concrete strength tests for a wall pour, a localized deficiency in slab thickness, or unexpected voids occur, the Owner, Design Team, or CM/GC may request testing of all the walls or slabs for the entire project. Project Specifications, including 2008 AIA MASTERSPEC Division 03300 and ACI 301-10 “Specifications for Structural Concrete” describe repair methods that are generally used on all projects. Thus all parties are aware before the start of the project that repairs are common occurrences. Difficulties arise when an isolated instance of specification nonconformance is used as justification for investigating larger areas with the expectation that the contractor will pay for such additional testing. ACI documents indicate that this is not appropriate.

When some portions of slabs on ground don’t meet the thickness tolerances of ACI 117-10 “Specification for Tolerances for Concrete Construction and Materials and Commentary,” that document states the following regarding localized occurrences of reduced thickness:

“4.5.4.6 When corrective action is required, additional samples shall be taken in the vicinity of unacceptable results to establish the extent of corrective action.”

For strength test results that don’t meet the requirements of ACI 318-08 “Building Code Requirements for Structural Concrete and Commentary,” that document states the following regarding where to test:

“5.6.5.2 — If the likelihood of low-strength concrete is confirmed and calculations indicate that load-carrying capacity is significantly reduced, tests of cores drilled from the area in question in accordance with ASTM C42 shall be permitted. In such cases, three cores shall be taken for each strength test that falls below the values given…”

Both ACI 117 and ACI 318 indicate that additional testing must be in the vicinity or area in question. If the engineer, owner, or general contractor requests further testing, they should pay for it. If evidence of other specification nonconformance is found (and confirmed when concrete is removed) contractors would be obligated to pay for the repair and the portion of the testing that resulted in discovery of the nonconformance. For instance, if an impact-echo device was used to search for hidden voids in an entire slab on deck and only one sq ft defect was found in the 10,000 sq ft surveyed, the contractor would pay for the repair of the one sq ft defect, and the contractor’s portion of the survey costs would be 1/10,000 of the total testing cost.

ASCC concrete contractors will review, with all parties, the questions from the ASCC-NRMCA Checklist and ensure that all parties understand who pays for additional testing as the project proceeds. For more information, see “Who Pays for Additional Testing” in Concrete Contractor, August/September 2010.

If you have any questions, contact your ASCC concrete contractor or the ASCC Technical Hotline at (800) 331-0668.