

SAFETY SHOOTER



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Concrete Structures

Scaffolding

Scaffolding, in my opinion, could be listed as the #1 item on a top ten safety checklist. I believe it becomes 50% more difficult to work safely and properly on scaffolding than on the ground.

Shotcreting using the dry-mix process is much easier to handle because of the weight of the hose, and the material being much lighter than

for the wet-mix process. The wet-mix shotcrete process usually includes a heavier hose and couplings, together with the hose being completely filled with material. Lifting the hose from level to level can become very difficult, sometimes requiring 5 to 6 men working as a team, with the workers having to stay within the framework of the scaffolding at all times.

To produce quality shotcrete, the nozzleman must constantly change shooting angles and positions, continuously working around scaffolding X-braces and guard rails with other workers, in a confined space. This increases the level of difficulty in properly placing shotcrete safely. Finishing and cleanup become more labor-intensive with the use of scaffolding because of the variations of height and changes in distances from the working surface.

The finishers must also take scaffolding very seriously. Extreme care must be taken in moving any scaffolding after initial set-up and inspection of scaffolding has taken place.



**photo courtesy of Russ Ringler*

Finally, the cleanup and rebound crew will also have a more difficult time when working from scaffolding than on the ground level. Overspray becomes more apparent because of the heights encountered. Rebound can become a potential problem because of the weight of rebound on the scaffolding and material buildup on the deck. Extreme care must be taken in this operation, and also in any moving of scaffolding to help with the cleanup effort, after original setup and inspection of the scaffolding.

Scaffolding also creates another major safety issue: a protection plan must be employed to safely protect all workers and other personnel below the scaffolding.

Finally, I highly recommend that all scaffolding be designed and installed by an approved scaffolding contractor and be completely inspected and approved before use. If it has to be changed or moved during shotcreting operations, have it inspected and approved.