

Cornell Local Roads Build a Better Mousetrap Competition Entry Form

Agency Name: City of Beacon

Contact Person: Reuben Simmons

Contact Phone #: (845) 220-6227

Contact Email: highway@cityofbeacon.org

Address: 1 Municipal Plaza
Beacon, NY 12508

Entry Title: Confine Space Simulator

Describe the problem/issue that lead to the idea.

The ability to plan annual training without weather interruptions
Provide safer training, The need to train larger groups in one session
Reduce time loss of traveling to alternate site location

Describe your solution, innovation or idea:

Contraption made with access to confine space mock of a manhole. We set up a tripod over the hole, drop in our smell meter. Go over the checklist with the employees.
Simulator shown with a window alternate for Fire Department required training (Bailout)

What labor, equipment and materials were used?

Approx. 32 man hours
Skill saw, Router, Belt Sander, Drill
2 x 4, 2 x 6, plywood, nails, nuts, bolts, threaded rod

What was the cost, if any?

approx: \$1500 in Material

What savings/benefits did this idea bring to your Community?

More trained employees to provide the best service to our ability to the community. Adequate training to educate employee on the safety precautions to take when entering confine spaces. Allows us to train more employees in a single session safely. Cuts down the travel and down time from our previous training schedule.

Please attach pictures and any additional information you need to describe the project with this form

*Return your completed form to The Cornell Local Roads Program
Email: clrp@cornell.edu | fax: 607-255-4080*

*Or mail to: Cornell Local Roads Program
416 Riley Robb Hall
Ithaca NY, 14853*

*Questions? Please contact us at 607-255-8033 or clrp@cornell.edu
Thank you for your submission to the 2018 Build a Better Mouse Trap Competition.*



FIRE DEPARTMENT

**13 South Avenue
Beacon, New York 12508
(845) 765-0899**

To: Reuben Simmons, Jr.
From: Chief Gary Van Voorhis
Date: December 26, 2017
Subject: Thoughts on the "Confined Space Simulator" contraption

The City of Beacon Fire Dept is designated as the Confined Space rescue team for all confined spaces within the City of Beacon as outlined in the Confined Space Policy of September 2010 written by Michael Davis. The initial purpose and design of the prop in question was to allow Fire Dept training on such Confined Space Rescues in both horizontal and vertical directions. This training is required both initially for all new FD members as well as annually as outlined in OSHA 29 CFR 1910.156.

The prop is also used annually for All City employees that may have to enter such a Confined Space for routine work to demonstrate proper safety operations, initial rescue attempts as well as familiarization with what Fire Dept Rescue Operations will be undertaken to rescue them. There are many City employees, as well as outside contractors, that routinely enter such Confined Spaces and as such are required to notify the FD of such activities. Through shared services, the portability of the prop has also allowed the City of Newburg FD the opportunity to utilize it for training evolutions.

Subsequent modifications to the simulator were made to include an add-on window prop for training on Emergency egress by firefighters. Firefighter Survival skills such as the head first ladder bail and the NYS 12NYCRR 800.7 required rope bailout system can be practiced at a reasonable height with allowance for additional safety systems in place. This training is required by law to be completed annually for all Interior Firefighters.

Some "standard" Interior firefighter training in the use of SCBA can also be accomplished with the prop. Traversing up and down stairs with limited visibility and proper weight distribution, room orientation, locating window and doorways, restricted opening SCBA maneuvers, laddering and window entry

Additional training evolutions have been conducted on FAST, Firefighter Assist Search Tactics, to rescue an Interior firefighter in distress from building collapse, loss of air, medical emergencies, trapped by fire, etc. Scenarios include moving a firefighter up or down the stairs, out an upper story window, or up through a simulated floor that has burned through or collapsed.

With the ability to remove the upper deck safety railings, simulated elevator rescue scenarios have also been accomplished. This allows training in a safe environment without any disruption to an actual in-service elevator at a site within the City of Beacon.







