Strengthening of masonry (URM) walls with polyurea

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Background:
Polyurea has been successfully used in spray coating system, including corrosion protection, containment, and others. Application of grid reinforced polyurea in unreinforced masonry (URM) walls strengthening is studied in this program.

Objectives:
1) Investigate the application of polyurea in structural strengthening
2) Investigate the performance of strengthened infill masonry walls

Notes for the pictures:
• Preparation of the walls
• Spraying polyurea to the specified area
• Test setup for URM walls
• Failure mode for wall CO B
• Failure mode for wall CY E

Conclusions:
1. Strengthening of URM walls with grid reinforced polyurea is an effective scheme.
2. Compared with strengthening with epoxy bonded FRP sheets, grid reinforced polyurea demonstrated better performance.