Urban Cluster
Live Fire Village, Breach Wall
Purpose

The Urban Cluster is a set of roads, buildings, facades, etc. designed to replicate a small urban area. Clusters can also include breach walls to support Stryker MGS training. Urban clusters are standard on mounted maneuver ranges including the (D)MPTR, (D)MPRC, DAGIR, BAX, and AGR. Refer to the individual range sections for details of placement and training requirements.

This RDG section includes general requirements for the Urban Cluster plus details of the live fire buildings and breach wall; refer to the separate sections for detailed requirements for the facades and other items.

General

The intent is for mounted and dismounted troops to maneuver to, engage, and clear a small urban area. Both vehicles and dismounted troop engage targets in the facades, only dismounted troops will engage the buildings. Facades include automated targetry; the buildings or the breach walls do not. The intent of the breach wall is to simulate a Stryker MGS breaching a wall. Dismounted troops then maneuver through the breach to clear a building. The urban cluster can include other automated targets placed in and around the area.

There are two Urban Clusters, a five and seven building layout, refer to the table below.

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<th>Five-Building Cluster</th>
<th>Seven-Building Cluster</th>
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<td>Buildings</td>
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<tr>
<td>Facades</td>
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<tr>
<td>Breach Walls*</td>
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* The breach wall is only included when Stryker MGS training is required.

Layout

The actual layout depends on many factors. Consider the training requirements of the installation, what type of scenario they are trying to replicate, range layout, environmentally sensitive areas, topography, SDZ, etc. Coordinate closely with installation training staff. Layout the roads and structures so that line of sight is available as needed. Do not place structures, targets, or electrical emplacements in the expected line of fire of other facilities as much as practical. Refer to the standard drawings for typical layouts.

Buildings

The buildings are training structures, not inhabited buildings. They should be relatively inexpensive and easily replaceable. They do not have automated targets and are only intended for live fire clearing using man-marking rounds. However, since live fire is taking place in the area,
the buildings should be able to withstand limited live fire without causing ricochets. They are generally treated wood construction with rolled roofing. Design building layout based on installation requirements; including sizes, location of openings, and orientation. Match the general size and layout shown on the standard drawings. Add courtyard walls if required by the installation.

**Breach Wall**

The breach walls are specialty structures used to train Stryker MGS crews in urban wall breaching TTPs. The standard includes plywood panels used as a target by the MGS crew to simulate the wall breach. The standard has a separate concrete wall with an irregular hole formed in it. The dismounted troops use this hole as the simulated breach in the wall. They enter through this hole and clear the structure behind the wall.

The breach wall requires a Stryker firing position 100M to 200M in front of it. Keep the area directly behind the wall clear of buildings and other structures to limit damage by the training round or debris. Provide a positive protection area for troops during the breaching operation and a building behind the wall for clearing.

**Facades**

There is a separate Facade section in the RDG. It contains all of the design requirements for the facades.

**Electrical**

There are no electrical requirements for the buildings or breach wall. The facades do have automated targets.
NOTES TO DESIGNER:
Refer to the ROE Write-Up for additional information and requirements
See Standard Facades and Breach Wall drawings for details of their construction
See TFW-02 for additional details of building construction
7 Building Cluster
1. Buildings
2. Breach Wall
3. Trail (see Note)
4. Clear Area
5. Building Cluster Wall
6. Trail (see Note)
(Breached only include at locations where Stryker MGS Vehicle qualification is required)
Stryker MGS Gun Target Line distance is a minimum of SDEM based on installation training requirement
Add positive protection area for troops during breaching operation
Layouts are typical. Based on topography, SDE, line of sight, and installation requirements
Facade walls are interred for line-of-sight, buildings are not
Guttered walls may be required to meet installation training mission
V-shaped facade counts as two facades
Ensure positive drainage away from structures
GENERAL

Intent of breach wall is to allow access to the plywood target panels. The target panels are designed to create a breach in the concrete wall which can be used for training exercises, maintenance, or other purposes.

SITE ADAPTATION

The standard design must be adapted to local conditions such as climate, topography, construction materials, and materials used in the local area. The design must be in accordance with the design codes and criteria of the area and the local building code. The design must also be in accordance with any applicable environmental regulations. The design must be in accordance with the design codes and criteria of the area and the local building code. The design must also be in accordance with any applicable environmental regulations.

ADDITIONAL CRITERIA

The intent is for the plywood panels to be easily removable. They would be removed during high-risk events and not need to be reinstalled. Ensure positive drainage away from structure.

CONCRETE BREACH WALL DETAILS

Note: Breach wall is reinforced concrete with gap between panels. The gap is required to ensure that the panels can be removed easily. Structural design is required based on actual site conditions and soil type.

CONCRETE PANEL

PLYWOOD PANEL

REAR ELEVATION

SCALE: 1" = 1'-0"

FOOTING DETAIL

SCALE: 1/8" = 1'-0"

WALL ELEVATION

SCALE: 1/8" = 1'-0"

PLAN VIEW

SCALE: 1/8" = 1'-0"