ENGINEERING TRACE

Castle Clinton

A drawing-based masonry concept compared with official city exterior geometry.

PDF-based study | canopy omitted to show walls



Official 2014 exterior | roof/courtyard surfaces



Teal: traced wall geometry with section assumptions. Amber: assumed door heads. Grey: survey-derived exterior.

The workflow

Read the evidence

Interpret public restoration drawings and reference photographs.

Build the concept

Create a simplified model that distinguishes interpreted and assumed geometry.

Compare the exterior

Review the drawing-based envelope against a separate city exterior reference.

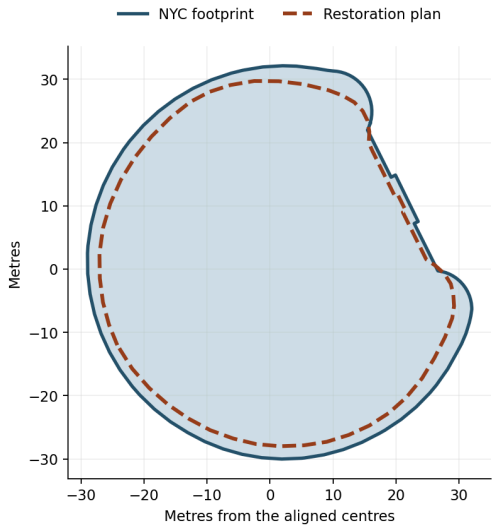
Communicate the result

Present the comparison through model views, a short film and a summary.

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How closely do the two outlines fit?

87.2% of their combined plan area overlaps after alignment.



Solid blue shows the NYC footprint. The dashed rust line follows the outside wall on the restoration plan.

1. **Source.** Trace the outer wall on the 2020 restoration plan, sheet A1.0. Use its 20-foot graphic scale to convert the trace to metres.
2. **Check.** Compare the traced area (2,414 m²) with the city footprint (2,767 m²). Align their centres and rotate the trace 116.5°. Keep the drawing scale fixed and exclude courtyard holes from both outlines.
3. **Result.** Divide the shared area by the area covered by either outline. The result describes the fit of the exterior shape. Survey position, concealed construction and structural capacity were outside this check.

NPS restoration drawings, sheet A1.0 (PDF page 4) · NYC building footprints

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