
DAVIDSON & ASSOCIATES

CONSTRUCTION ANALYSTS, INC.

Bethesda Hill Apartments Construction Document Review and Construction Monitoring



Service performed: Railing Inspection; Design new Balconies and Quality Assurance during Construction.

Product type: Rental apartments with cantilevered balconies.

Description: The Management company was concerned that the railings were not structurally sound and hired our firm to survey the cantilevered balconies and railings.

The balconies cantilever 6' from the face of the building and are constructed of standard 2x lumber. The interior of the wood cantilever was attached to the wood floor framing and only extended 6' into the interior, half of what is required per code and good engineering practices. Thus the balconies deflected down 2". The metal railings were attached to wood knee walls which were only nailed to the balcony floors. The entire assembly required replacement.

Davidson designed new framing that was supported by the exterior walls, not relying on a cantilever. The design included flashing to prevent water from entering the building and the far end was supported by columns. The framing included tie-back framing to meet the updated building code. The property is located in Bethesda, MD.

Architect: Davidson & Associates Construction Analysts, Inc.

Management: Bozzuto Management Co. **Duration:** 2016 (design), 2018-2019 (construction)

Magnitude: \$1.4 Million (\$1.770 M, 2025\$) **Contractor:** Chesapeake Finishing Inc