Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL’s Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. D989
December 02, 2020

Restrained Assembly Ratings - 1 and 2 Hr. (See Items 3 and 4)
Unrestrained Assembly Ratings - 1 and 2 Hr. (See Items 3 and 4)

Loading determined by Allowable Stress Design Method or Load and Resistance Factor Design Method published by the American Institute of Steel Construction, or in accordance with the relevant Limit States Design provisions of Part 4 of the National Building Code of Canada — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

1. Normal Weight or Lightweight Concrete — Normal weight concrete, carbonate or siliceous aggregate, 147 (+ or - 3) pcf unit weight. Lightweight concrete - expanded shale or slate aggregate by rotary-kiln method or expanded clay aggregate by rotary-kiln or sintered-grade method, 110 (+ or - 3) pcf unit weight. Concrete vibrated with 4 to 7 percent entrained air. Min. concrete compressive strength 4000 psi. See Item 4 for thicknesses.

2. Welded Wire Fabric — 6 X 6 - Min wire thickness W2.9 X W2.9.

2A. Re-bars — As an alternate to Item 2, max # 4 bars spaced 12-in. OC in both directions shall be used. When re-bars are used, the concrete slab thickness shall be increased a minimum 5/16 in.
3. **Rib Reinforcement** — Min. #3 rebar for Restrained Assembly Ratings and min. #4 rebar for Unrestrained Assembly Ratings. Min concrete cover below the steel reinforcement shall be 1-9/16 in. Reinforcement support chairs spaced at max 41-1/2 inches OC.

4. **Steel Floor and Form Units** — Nom 4-3/4, 8 or 9 in. deep composite, galv steel units. Min thickness 0.0375 inch (20 MSG). Side joints of adjacent units fully overlapping, fastened together by using 1-1/4 in. long self-drilling, self-tapping steel screws driven through Shear-Bond Clips (not shown) at 13-3/4 in. OC. Steel end closures flashings (not shown) made of min 0.056 inch thick (16 MSG) galv steel, fixed to the steel work before decking is placed. For Unrestrained Assembly Ratings, consult the deck manufacturer for comprehensive load tables and design parameters referencing this UL Design.

**BAILEY METAL PRODUCTS LTD** — Types COMSLAB™ 120, COMSLAB™ 210, or COMSLAB™ 225

<table>
<thead>
<tr>
<th>Assembly Rating, Hr</th>
<th>NW Siliceous</th>
<th>NW Carbonate</th>
<th>LW</th>
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<td>3-9/16</td>
<td>3-1/2</td>
<td>2-3/4</td>
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</tbody>
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