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. D930**

December 22, 2017

**Restrained Assembly Rating — 1, 1-1/2 or 2 h (See Items 3 and 4)**

**Unrestrained Assembly Rating — 0 or 1, 1-1/2 or 2 h (See Items 3 and 4)**

* 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 Concrete** — Normal weight concrete, carbonate or siliceous aggregate, 150 (+ or - 3) pcf unit weight, 4350 psi. Compressive strength, vibrated. Min concrete topping thickness \( D \) as measured from the crest of the floor units (See Item 4).

1a. **Lightweight Concrete** — 107-113 pcf unit weight, expanded shale or slate aggregate by rotary-kiln method or expanded clay aggregate by rotary-kilm or sintered-grade method, 3000 psi compressive strength, vibrated, 4 to 7 per cent entrained air.

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

3. **Rib — Reinforcement** — Steel reinforcement designed in accordance with ACI 318 latest specifications. Min concrete cover below the steel reinforcement shall be 1-19/32 in. for 1 and 1-1/2 hour and 3-7/16 in. for 2 hour ratings.

4. **Steel Floor and Form Units** — Composite, galv steel units. Min thickness 0.0375 in. (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 gauge 16 MSG galv steel, fixed to the steel work before decking is placed. Lightweight concrete loading shall be governed by normal weight concrete load tables. “Consult the deck manufacturer for comprehensive load tables and design parameters referencing this UL Design.”

<table>
<thead>
<tr>
<th></th>
<th>Normal or Lightweight Concrete Topping ( D = 2-1/2 ) in.</th>
<th>Normal Weight Concrete Topping ( D = 3-9/16 ) in.</th>
<th>Normal Weight Concrete Topping ( D = 4-1/2 ) in.</th>
<th>Lightweight Concrete Topping ( D = 3-1/4 ) in.</th>
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</thead>
<tbody>
<tr>
<td>Restrained</td>
<td>1</td>
<td>1-1/2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Assembly Rating, h (Steel Deck Span ( \leq 32 ) ft, 9-5/8 in.)</td>
<td>1</td>
<td>1-1/2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Unrestrained Assembly Rating, h</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>(Steel Deck Span &gt; 32 ft, 9-5/8 in.)</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>
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Last Updated on 2017-12-22

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