

<p style="text-align: center;">CSI</p> <p style="text-align: center;">CONSOLIDATED SYSTEMS, INC.</p> <p style="text-align: center;">Metal Dek® Group</p>	<p style="font-size: 24pt;">STANDARD OPERATING PROCEDURES</p>	<p>DATE</p> <p style="text-align: center;">September 23, 2009</p>	<p>PROCEDURE</p> <p style="text-align: center;">SOP 1.21.MDG</p>
		<p>REVISION</p> <p style="text-align: center;">0</p>	<p>PAGE</p> <p style="text-align: center;">1</p>
		<p>APPROVAL</p> <p style="text-align: right;">Allan Abbata</p>	
<p>SUBJECT: Fab-Dek™ V3.5 Roof Panel with Top Flat Plate</p>			
<p>Recommended Installation Guidelines</p>			

1.0 SCOPE

Fab-Dek™ V3.5 Roof Panel with Top Flat Plate is an assembly by which a top flat plate is mechanically attached to a 2" **Versa-Dek®** profile. This SOP describes procedures for field installation of this product. The **Fab-Dek™ V3.5** profile contains factory installed plastic lath, acoustical insulation batts and a metal screw attached top flat plate. The product is used as a metal form to contain and limit the boundaries of a lightweight insulating concrete roof system. When used as part of a roof system described above, the **Fab-Dek™ V3.5** panels must be installed so that the ribs of abutting units line up and therefore present a smooth panel/cell transition at the abutted unit ends.

2.0 RESPONSIBILITIES

The **Metal Dek Group®** is responsible for manufacturing the **Fab-Dek™ V3.5 Roof Panels with Top Flat Plate** according to the required deck layout dimensions and installation directives set by the deck manufacturer's Engineering Group. The product will be delivered to the jobsite as a complete roof deck form assembly and includes roof deck panel, screw attached top flat plate, acoustical insulation batts and plastic lath. The Deck Erector will be responsible for installing the **Fab-Dek™ V3.5** roof panels and associated accessories as shown on the Deck Erection (Final Field Use) Drawings. (See Typical Erection Drawings below in Item No. 6 - Forms and Records). The roofing subcontractor will be responsible for installing the lightweight insulating concrete fill system as specified in the Contract Documents. (See 7.0 Procedures for additional responsibilities.)

3.0 REFERENCES

1. SDI Manual of Construction with Steel Deck
2. Steel Deck Institute Design Manual - Latest Publication
3. **Metal Dek Group®** Erection (Final Field Use) Drawings
4. Figure 1 - **Fab-Dek™ V3.5 Roof Panel w/ Top Flat Plate** (Single Span Option)
5. Figure 2 - **Fab-Dek™ V3.5 Roof Panel w/ Top Flat Plate** (Double Span Option)
6. Figure 3 - **Versa-Wedge™ 3.5 WC** Hanger Clip and Load Table

4.0 REQUIREMENTS

The Deck Erector must be experienced in installing this deck type and be thoroughly knowledgeable with the Steel Deck Institute Code of Recommended Standard Practice and Manual of Construction with Steel Deck. All parties involved, including but not limited to, Architect, Engineer of Record, General Contractor, Steel Fabricator, Steel Erector and Roofing Contractor should receive and review documented field installation procedures for **Fab-Dek™ V3.5 Roof Panel with Top Flat Plate**. The ultimate review and execution of this procedure will be the responsibility of the General Contractor.

5.0 DEFINITIONS

None

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6.0 FORMS AND RECORDS

Metal Dek Group® Deck Erection Drawings (Final Field Use Dek Drawings)
 Figure 1 - **Fab-Dek™ V3.5 Roof Panel w/ Top Flat Plate** (Single Span Option)
 Figure 2 - **Fab-Dek™ V3.5 Roof Panel w/ Top Flat Plate** (Double Span Option)

7.0 PROCEDURES

(Manufacturers Recommended Installation Guidelines) The following procedures reflect the recommended installation guidelines set forth as standards developed by the deck manufacturer. The **Fab-Dek™ V3.5 Roof Panel with Top Flat Plate** is supplied as a custom product and shall not be installed without a total understanding of the roofing system (Lightweight Insulating Concrete Application), the supplied deck erection (Final Field Use) drawings and these recommended installation procedures.

1. Install the *Fab-Dek™ V3.5 Roof Panel with Top Flat Plate* in accordance with the *Metal Dek Group® Erection Drawings with General Notes and SDI Manual of Construction with Steel Deck*. The specific location and orientation of *Fab-Dek™ V3.5 with Top Flat Plate* is depicted on the *Metal Dek Group® Erection Drawings* designated as "Final Field Use Dek Drawings".

2. Recommended Procedures for Proper Installation of *Fab-Dek™ V3.5 Roof Panels with Top Flat Plate*:

- Installation of the initial **Fab-Dek™ V3.5 Roof Panel** is critical for proper bearing and straight alignment of the entire deck system. Refer to the Recommended Installation Procedures and General Notes - Deck Placement on the Final Field Use Dek Drawings.
- For proper installation, begin deck @ **“Start Point”** noted on deck drawings.
- Maintain the proper cover width by stretching the deck to the cover width dimension.
- Attach the panel ends to supporting members as shown on the Final Field Use Dek Drawings.
- The roof panel side lap connection is achieved by lifting the top flat plate of the preceding panel at the trailing edge (male leg side) to allow the attachment of the leading edge (female leg side) of the next panel. (See Fastening Detail on Final Field Use Dek Drawings).
- Prior to the side lap connection, it is recommended that a temporary wood block be inserted under the flat plate on top of and parallel with the first interior deck rib to expedite the side lap connection. Other means of lifting the top flat plate can be used. Caution needs to be exercised so as not to damage the top flat plate.
- Place the leading edge over the trailing edge as shown on the Final Field Use Dek Drawings.
- Remove the temporary block and attach the side lap joint as shown on the Final Field Use Dek Drawings.
- Cover all longitudinal panel side lap seams with a flat metal plate (size and gauge as noted on the drawings) to form sealed joints at the side lap and minimize potential concrete leakage. As an option and only during weather when temperatures are less than 55-60 °F, adhesive (duct) tape could be substituted.
- Cover the 3” top flat plate panel gap at the structural support members with a flat metal plate (size and gauge as noted on the drawings) to minimize potential concrete leakage at the supports. As an option and only during weather when temperatures are less than 55-60 °F, adhesive (duct) tape could be substituted.

CSi CONSOLIDATED SYSTEMS, INC. Metal Dek® Group	STANDARD OPERATING PROCEDURES	DATE September 23, 2009	PROCEDURE SOP 1.21.MDG
		REVISION 0	PAGE 1
		APPROVAL Allan Abbata	
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- When pour stop is required at the perimeter edges, attach with screws and install a light gage metal angle (size and gauge as shown on drawings) to form a seal along the horizontal leg of the pour stop. As an option and only during weather when temperatures are less than 55-60 °F, adhesive (duct) tape could be substituted. It will also be necessary to tape all pour stop corners and areas where the pour stop butts. (See Ref. Detail on drawings)
- Repeat the above procedures until all roof panels are installed.

3. After the roof deck panels have been installed as shown on the deck erection plans, it will be necessary to make sure all deck ribs and rib openings are lined up with the specified dimensions. It is the deck manufacturer's recommendation that a gauge block be used to measure the rib gaps to insure proper alignment and appearance.

4. Subcontractors are to adhere to all OSHA standards for maintaining field construction practices. *Fab-Dek™ V3.5 Roof Panel* components may contain sharp edges and proper field precautions should be implemented.

5. Extreme care shall be used to protect the *Fab-Dek™ V3.5 Roof Panels with Top Flat Plate*, acoustical insulation batts, plastic lath and top plate screws from being damaged prior to, during and after installation.

6. Locations of openings in the *Fab-Dek™ V3.5 Roof Panels with Top Flat Plate* shall be the responsibility of the trades requiring them. These openings shall be field cut and reinforced as required by the Engineer of Record. Holes shall be cut prior to installation of the above deck roofing materials. The penetrations shall be cut in such a manner as to present a neat appearance without burrs or sharp edges and in accordance with the SDI Manual of Construction for Steel Decks.

7. Suspended ceilings, light fixtures, duct works and/or other utilities are permitted and can be suspended from the *Fab-Dek™ V3.5 Roof Panel*. The EOR is responsible for the design and location of all hanging loads from the deck. The *Metal Dek Group®* has developed hanger systems to suspend point loads up to 100 lbs/hanger. Hangers can be acquired by calling 803.251.5029. (Phone Number Project Services Group).

8. For any instances in which a situation arises that is not covered by this SOP, contact is to be established with the *Metal Dek Group®*, Project Services Group, to provide guidance in resolving the issue(s) before proceeding.

This SOP is offered as the *Metal Dek Group's* recommendation for product installation. It is not intended as a guarantee or as a requirement. Successful installation can be achieved by following this procedure. The responsibility for appropriate quality installation procedures and safety practices ultimately lies with the General Contractor and the subcontractors involved. The *Metal Dek Group®* is available to answer questions or concerns associated with this SOP.