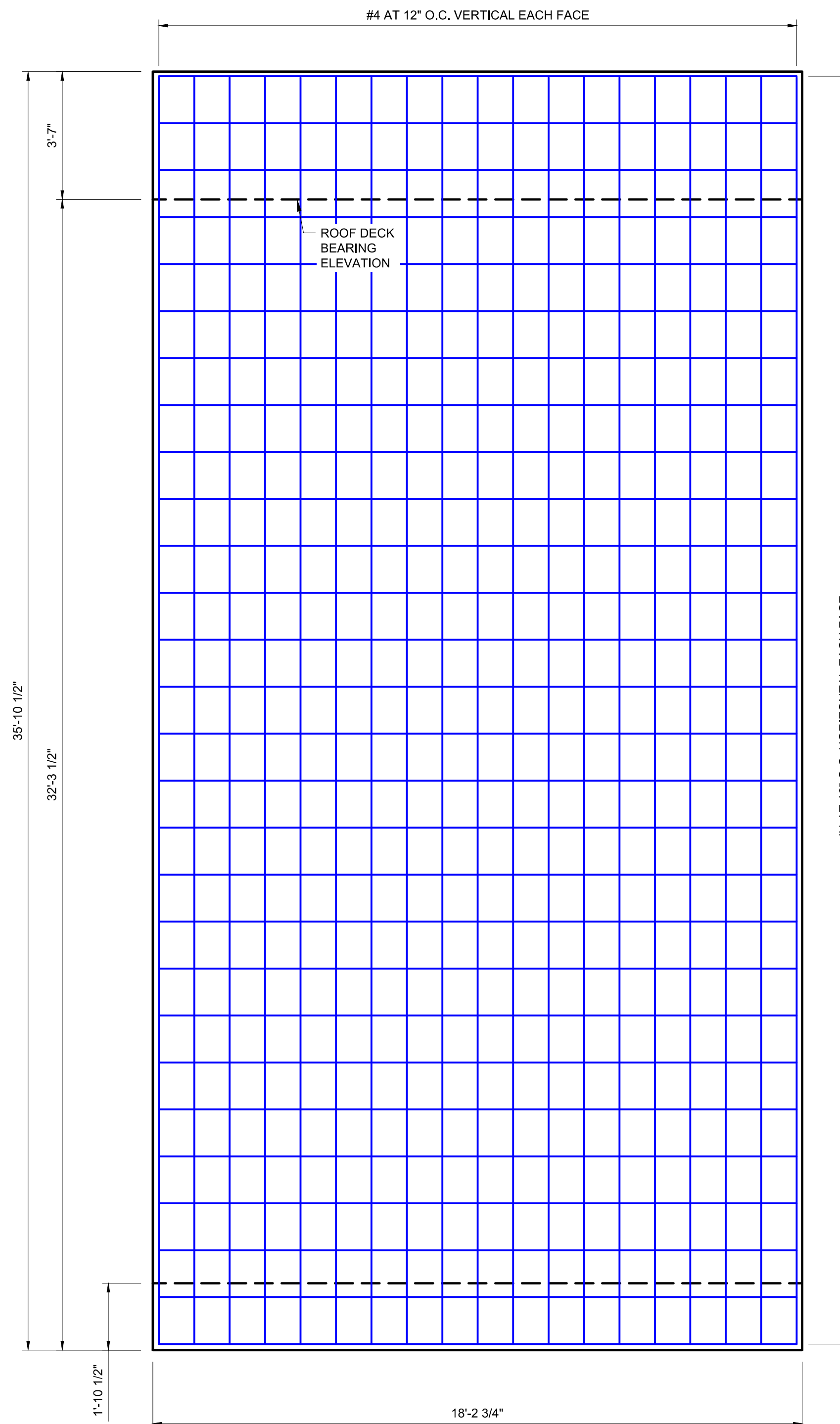


**TIPS REINFORCING**

3/8" = 1'-0"

- TIPS  
 3" EXTERIOR CONCRETE WYTHE (COMPOSITE)  
 4" EPS INSULATION  
 2-1/4" INTERIOR CONCRETE WYTHE (COMPOSITE)  
 9-1/4" TOTAL THICKNESS



**ORIGINAL PANEL DESIGN**

3/8" = 1'-0"

- ORIGINAL PANEL  
 7-1/4" STRUCTURAL SECTION (NON-COMPOSITE)  
 2" DOW EXTRUDED POLYSTYRENE BOARD INSULATION  
 3" EXTERIOR CONCRETE FACE (NON-COMPOSITE)  
 10-1/4" TOTAL THICKNESS

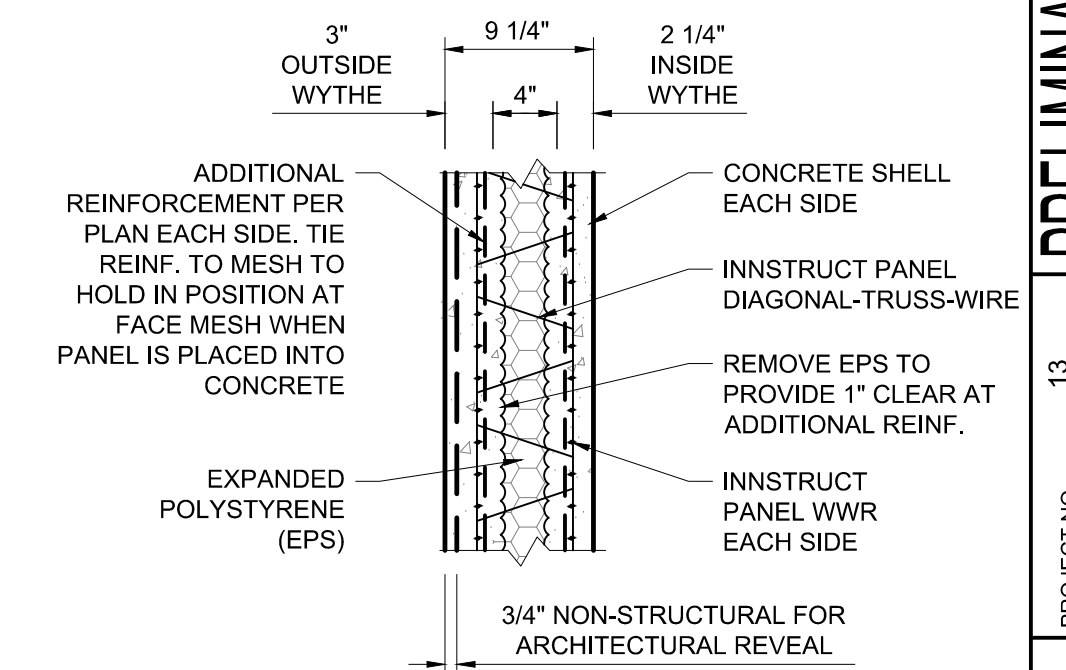
LIMITATION OF COMPARISON:  
 ORIGINAL PANEL DRAWINGS ARE BASED ON  
 PROJECT PLANS

TIPS COMPARISON DRAWINGS ARE PRELIMINARY  
 AND ARE SUBJECT TO CHANGE BASED ON FINAL  
 DESIGN.

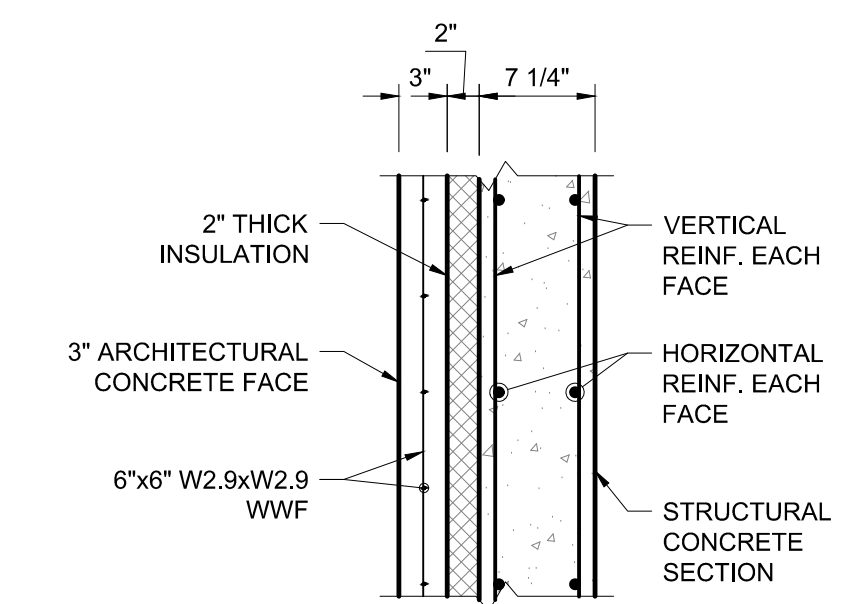
BAR SIZE LEGEND:

- #3 - CYAN
- #4 - BLUE
- #5 - RED
- #6 - GREEN
- #7 - PURPLE
- #8 - PINK

TIE BAR - - - - (SIZE PER COLOR)



**TYPICAL TIPS SECTION**  
 SCALE: N.T.S.



NOTE:  
 FIBER CONNECTORS AT 16"  
 O.C. EACH WAY TO CONNECT  
 3" CONCRETE FACE TO  
 STRUCTURAL SECTION

**ORIGINAL PANEL SECTION**  
 SCALE: N.T.S.

NO.	REVISIONS	BY	DATE

**FORSGREN Associates Inc.**  
 95 WEST 100 SOUTH, STE. 115, LOGAN, UT 84321  
 PH: 435.227.0333 FAX: 435.227.0334

**PRELIMINARY DRAWING NOT FOR CONSTRUCTION**

PROJECT NO. 13
DRAWN
DESIGNED
APPROVED
DATE

**INNOVATIVE STRUCTURAL SOLUTIONS**

**PROJECT 13B**  
**TIPS COMPARISON**

SHEET NO:
DATE: NOVEMBER 2020
PAGE NO:

# INNSTRUCT | Total Integrated Panel System (TIPS)

## Basic Design Comparison and Material Displacement Estimate

Project: **13B**

Prepared by:

Kim D. Blackburn

Panel Description: S101 no openings

Date:

1/1/2021

Total Wall Square Feet: 16,200

Total Panels in Project: 26

### Panel Configuration:

17 Number of Similar Panels in Project

35.83 Height (ft)

18.25 Width (ft)

- Area of Openings (ft<sup>2</sup>)

654 Panel Area (ft<sup>2</sup>)

150 Concrete Weight (lbs./ft<sup>3</sup>)



### Original Design Configuration:

3	Architectural Wythe (in)
2	Insulation (in)
7.25	Structural Wythe (in)
10.25	Concrete Thickness (in)
12.25	Total Thickness (in)
15.1	R-value Materials Only

### Innstruct | TIPS Design Configuration:

3	Outside Wythe (in)
4	Insulation (in)
2.25	Inside Wythe (in)
5.25	Concrete Thickness (in)
9.25	Total Thickness (in)
22.6	R-value Materials Only

### Design Comparison | Material Displacement:

#### Original Design

Material	Amount	Units
Concrete	21	cubic yds
Reinforcement	1,867	lbs.
Panel Weight	85,648	lbs.

#### TIPS Design

Amount	Units	% Reduced
11	cubic yds	<b>49%</b>
479	lbs.	<b>74%</b>
43,391	lbs.	<b>49%</b>

INNOVATIVE STRUCTURAL SOLUTIONS

375 East 400 North - Morgan, Utah 84050 | [www.innstruct.com](http://www.innstruct.com)

BETTER PANEL | LESS EFFORT | MORE PROFIT