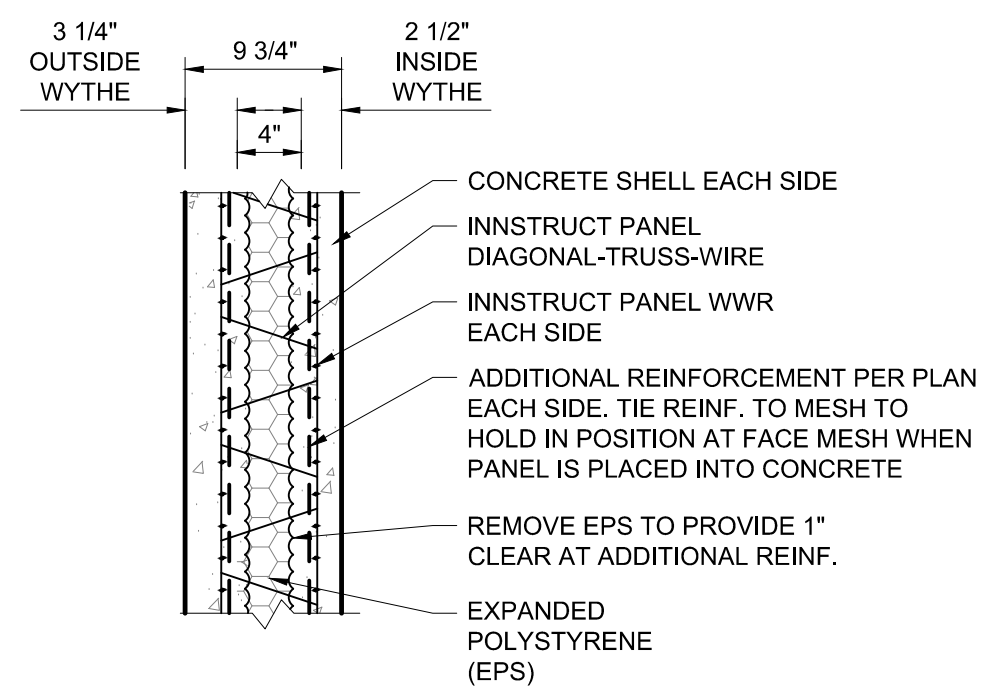


G:\Projects 18\14-18-0042 ISS Panels\14 Tilt-up Panel Comparison\0-Project Summary\CAD\SHEETS\8.dwg - 11/25/2020 3:13 PM



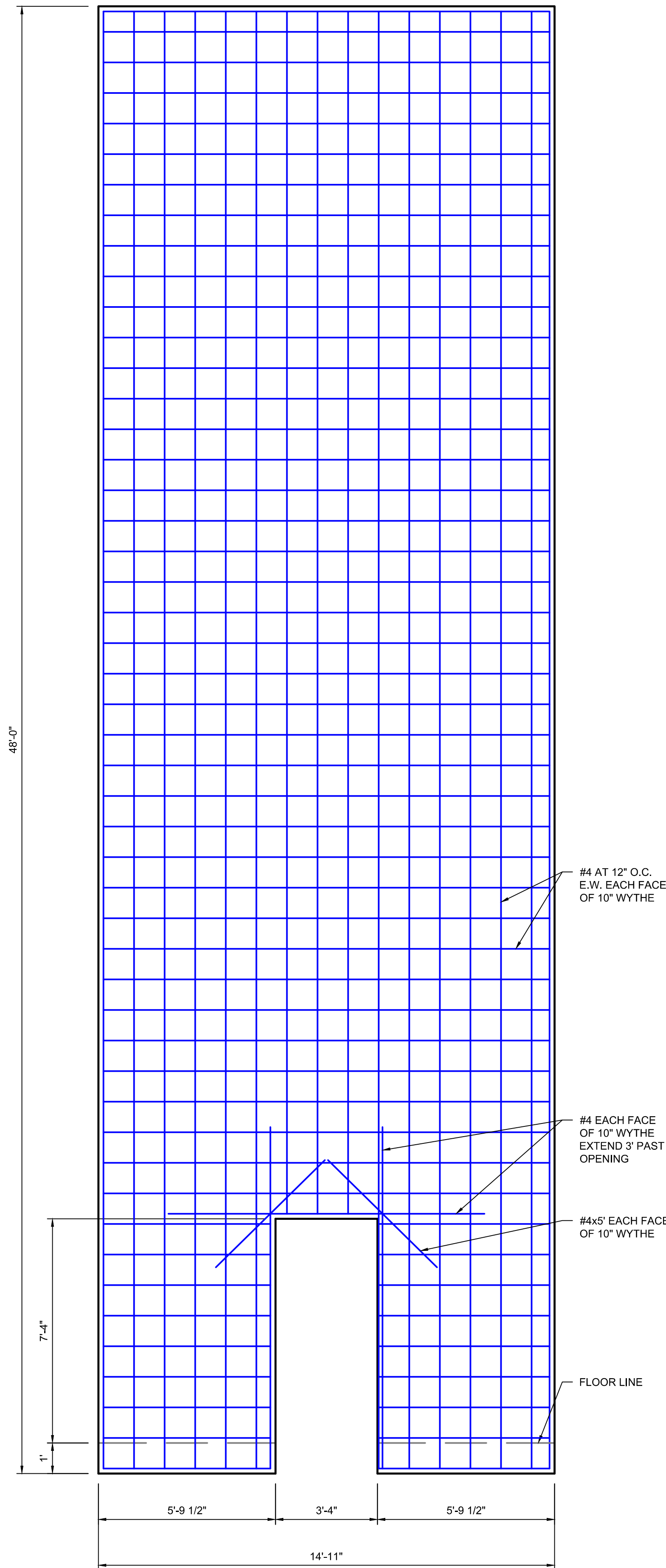
**TIPS REINFORCING**  
3/8" = 1'-0"



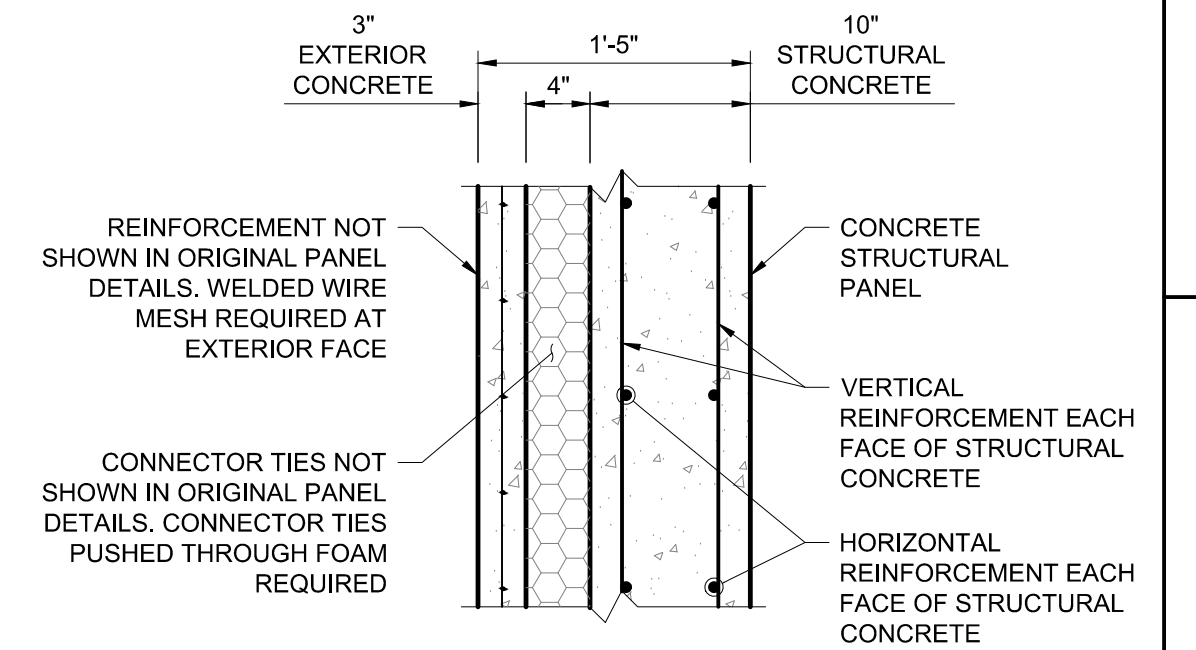
**TYPICAL TIPS SECTION**

SCALE: NTS

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



**ORIGINAL PANEL REINFORCING**  
3/8" = 1'-0"



**TYPICAL INSULATED PANEL DETAIL**

SCALE: NTS

**TILT UP PANEL**  
10" INTERIOR CONCRETE WYTHE  
4" INSULATION  
3" EXTERIOR CONCRETE WYTHE  
17" 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)

NO.	REVISIONS	BY	DATE

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

**PRELIMINARY DRAWING NOT FOR CONSTRUCTION**

PROJECT NO. 8
DRAWN
DESIGNED
APPROVED
QA/QC

**INNOVATIVE STRUCTURAL SOLUTIONS**

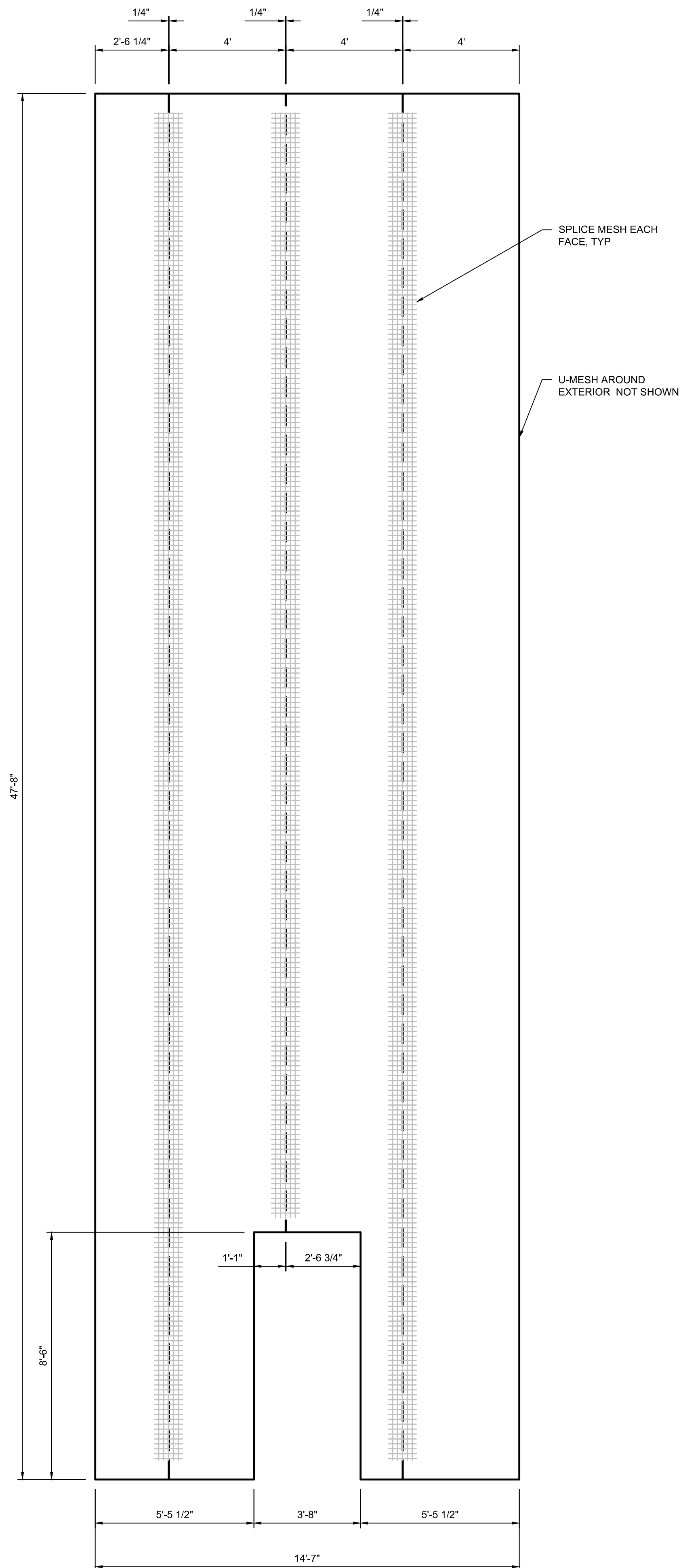
**PROJECT 8A**

**TIPS COMPARISON**

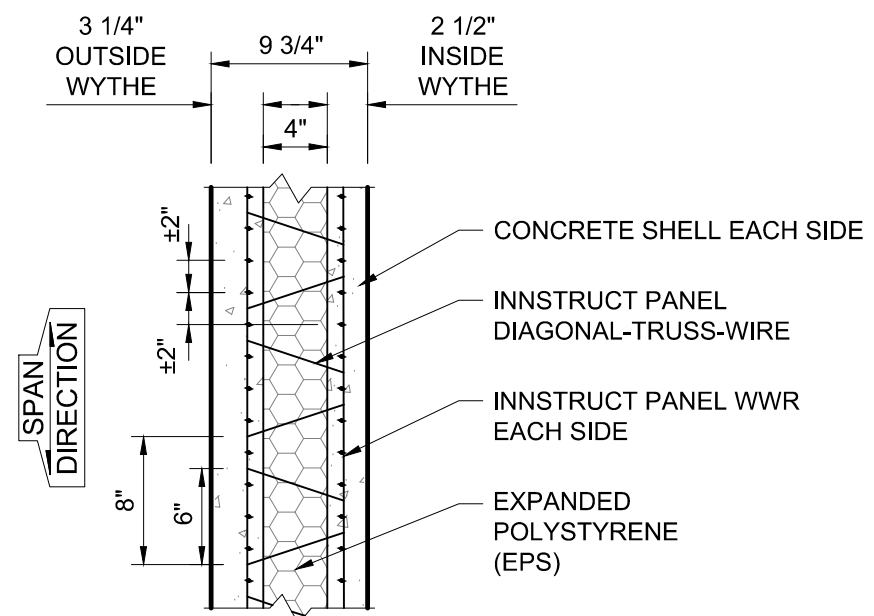
SHEET NO:

DATE: NOVEMBER 2020

PAGE NO:



**TIPS LAYOUT**  
3/8" = 1'-0"



**TYPICAL TIPS SECTION**

SCALE: NTS

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

NO.	REVISIONS	BY	DATE

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DATE

**INNOVATIVE STRUCTURAL SOLUTIONS**

**PROJECT 8A**  
**TIPS COMPARISON**

SHEET NO:
DATE: NOVEMBER 2020
PAGE NO:

# INNSTRUCT | Total Integrated Panel System (TIPS)

## Basic Design Comparison and Material Displacement Estimate

Project: **8A**  
 Panel Description: S100 man door  
 Total Wall Square Feet: 145,000  
 Total Panels in Project: 212

Prepared by: Kim D. Blackburn  
 Date: 1/1/2021

**Panel Configuration:**

- 22 Number of Similar Panels in Project
- 48.00 Height (ft)
- 15.00 Width (ft)
- 25 Area of Openings (ft<sup>2</sup>) 1 man door
- 696 Panel Area (ft<sup>2</sup>)
- 150 Concrete Weight (lbs./ft<sup>3</sup>)



### Original Design Configuration:

3	Architectural Wythe (in)
4	Insulation (in)
10	Structural Wythe (in)
13	Concrete Thickness (in)
17	Total Thickness (in)
26.5	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	28	cubic yds
Reinforcement	2,126	lbs.
Panel Weight	115,145	lbs.

#### TIPS Design

Amount	Units	% Reduced
11	cubic yds	<b>60%</b>
890	lbs.	<b>58%</b>
46,532	lbs.	<b>60%</b>

INNOVATIVE STRUCTURAL SOLUTIONS

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

BETTER PANEL | LESS EFFORT | MORE PROFIT