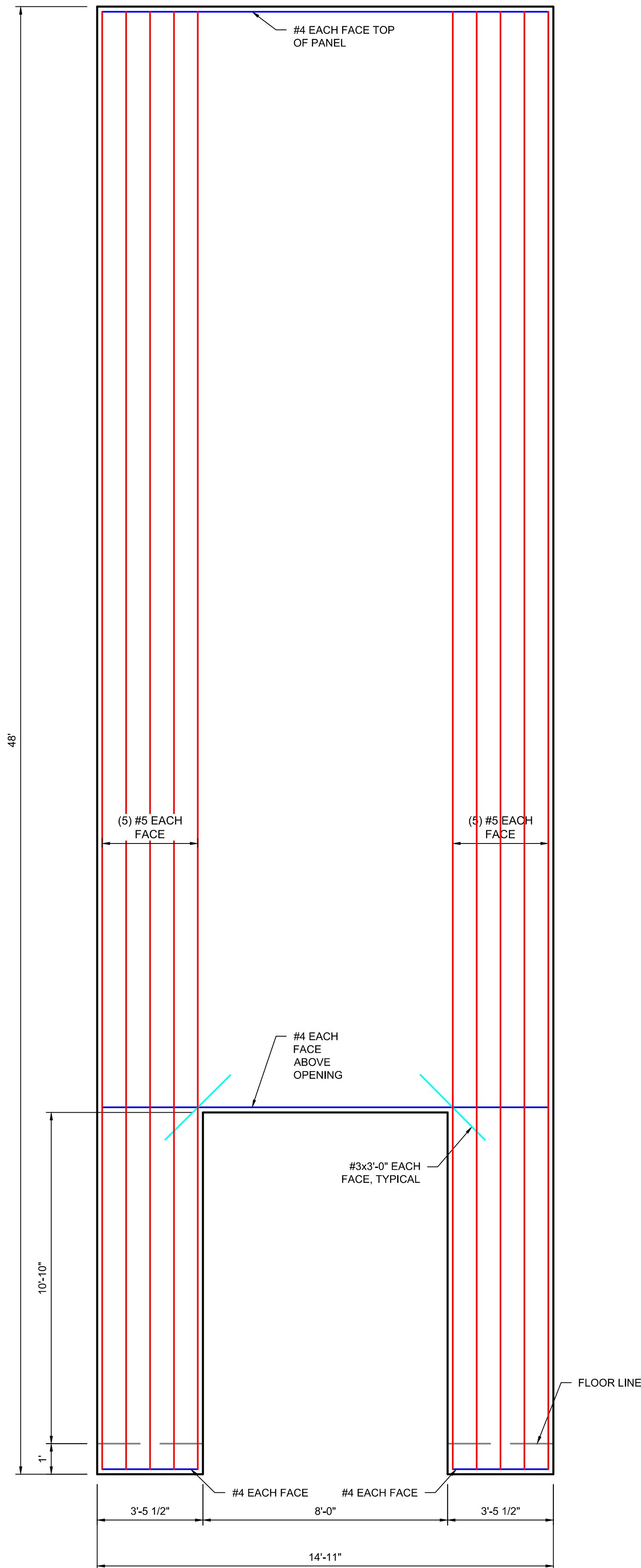
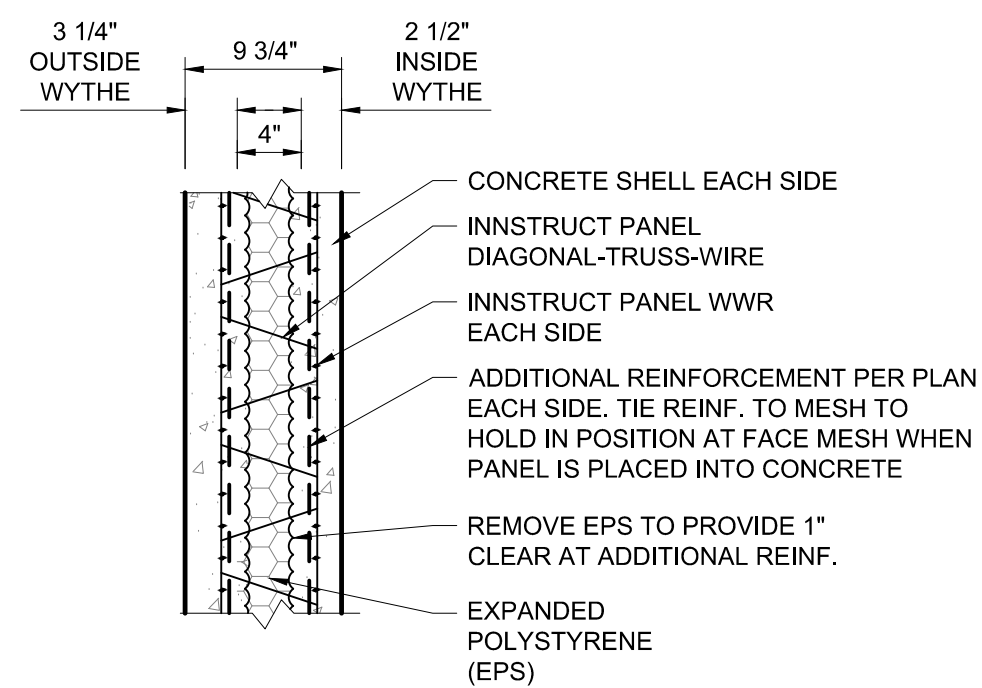


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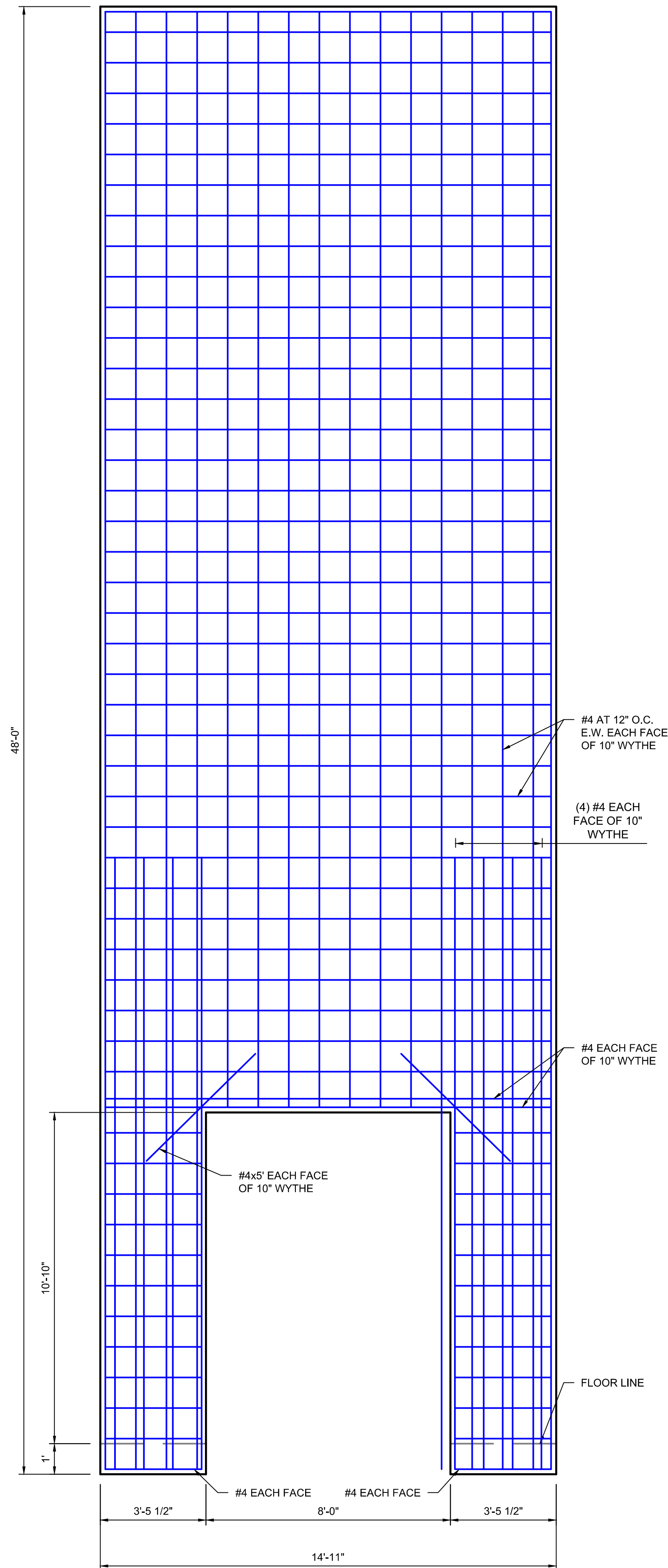


TIPS REINFORCING
3/8" = 1'-0"

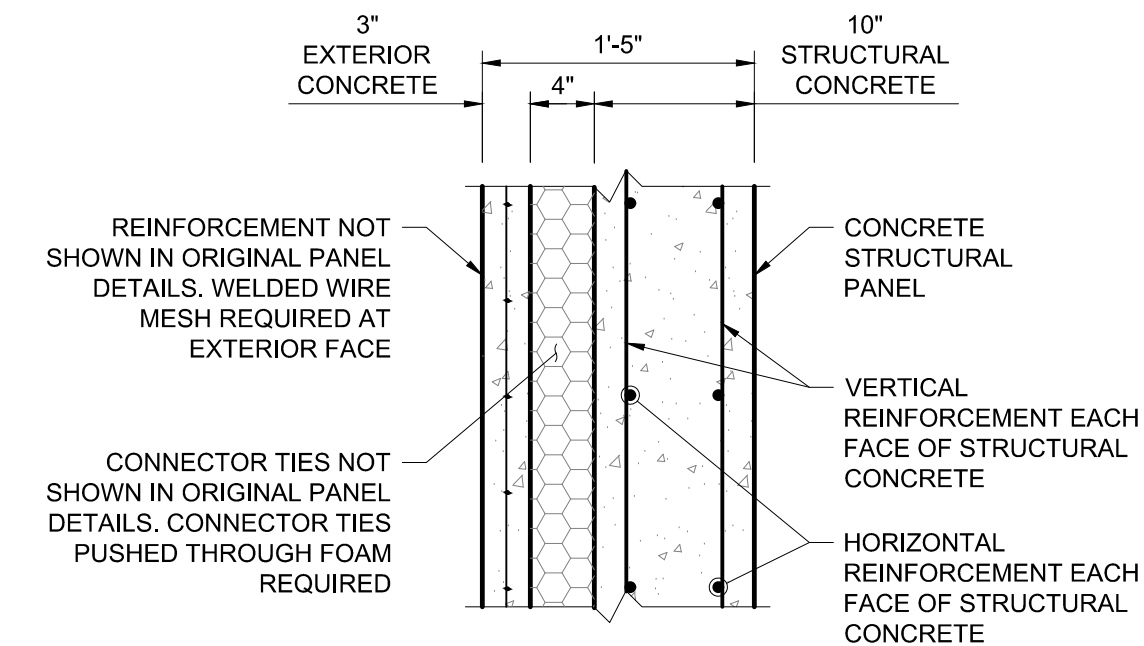


TYPICAL TIPS SECTION
SCALE: NTS

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

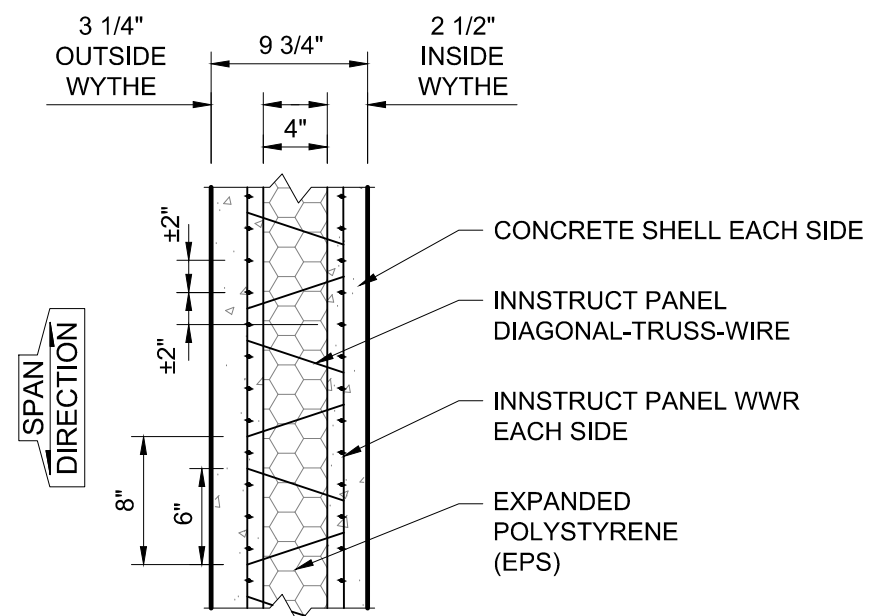
TIPS COMPARISON DRAWINGS ARE PRELIMINARY AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN.

BAR SIZE LEGEND:

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

TIE BAR - - - - (SIZE PER COLOR)

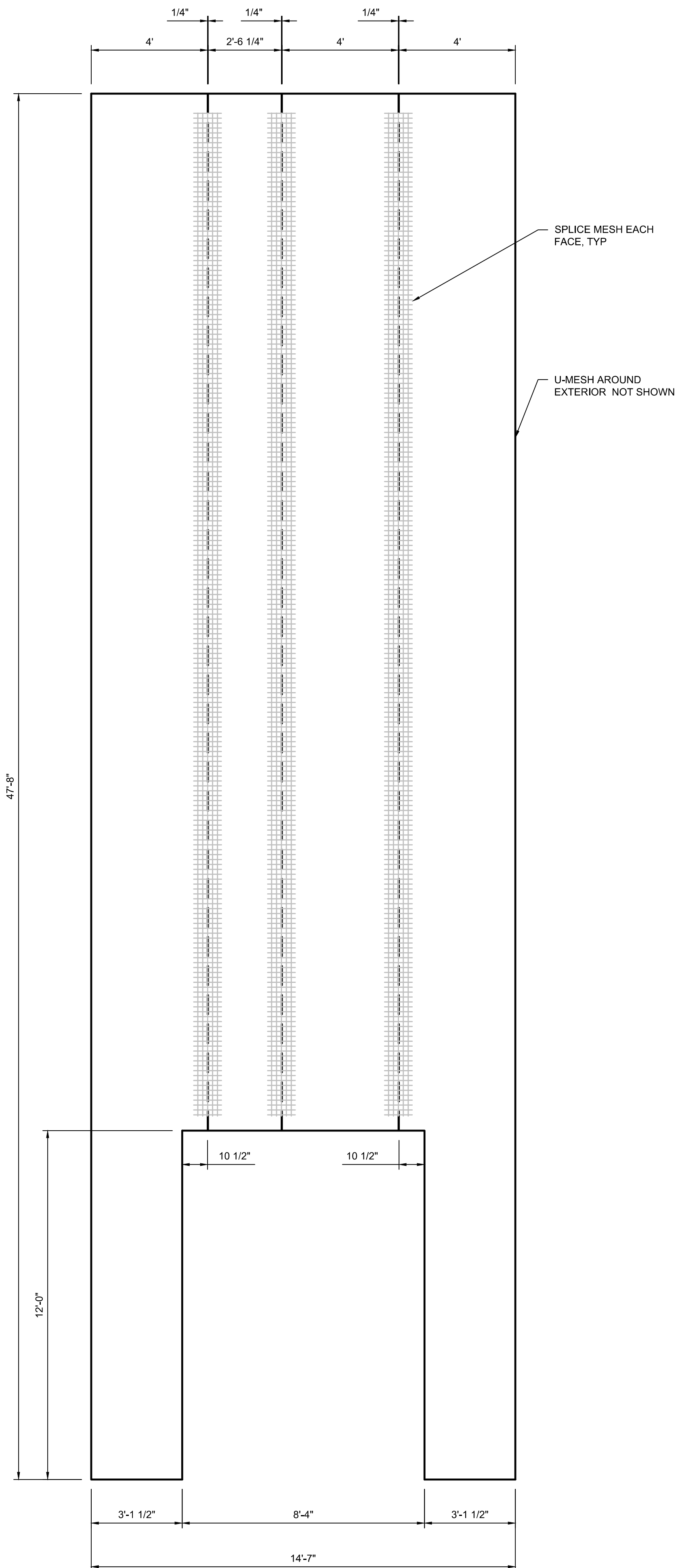
PROJECT NO. 8	DRAWN	DESIGNED	APPROVED	DATE	BY	REVISIONS	DATE
<p style="font-size: small;">This document or any part thereof in detail or design shall not be copied without the written authorization of Forsgren Associates Inc.</p> <p style="font-size: small;">95 WEST 100 SOUTH, STE. 115, LOGAN, UT 84321 PH: 435.227.0334 FAX: 435.227.0334</p>							
<p style="font-size: x-large; font-weight: bold;">PRELIMINARY DRAWING NOT FOR CONSTRUCTION</p>							
<p style="font-size: x-large; font-weight: bold;">FORSGREN Associates Inc.</p>							
<p style="font-size: x-large; font-weight: bold;">INNOVATIVE STRUCTURAL SOLUTIONS</p>							
<p style="font-size: x-large; font-weight: bold;">PROJECT 8B</p>							
<p style="font-size: x-large; font-weight: bold;">TIPS COMPARISON</p>							
SHEET NO:							
DATE: NOVEMBER 2020							
PAGE NO:							



TYPICAL TIPS SECTION

SCALE: NTS

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



TIPS LAYOUT

3/8" = 1'-0"

PROJECT 8B	INNOVATIVE STRUCTURAL SOLUTIONS	PROJECT NO. 8 DRAWN _____ DESIGNED _____ APPROVED _____ OAC/CC _____	PRELIMINARY DRAWING NOT FOR CONSTRUCTION	FORSGREN Associates Inc. 95 WEST 100 SOUTH, STE. 115, LOGAN, UT 84321 PH: 435.227.0333 FAX: 435.227.0334	REVISIONS NO. _____ BY _____ DATE _____
SHEET NO:		DATE: NOVEMBER 2020		PAGE NO:	

INNSTRUCT | Total Integrated Panel System (TIPS)

Basic Design Comparison and Material Displacement Estimate

Project: **8B**

Prepared by:

Kim D. Blackburn

Panel Description: S101 Overhead door

Date:

1/1/2021

Total Wall Square Feet: 145,000

Total Panels in Project: 212

Panel Configuration:

- 49 Number of Similar Panels in Project
- 48.00 Height (ft)
- 15.00 Width (ft)
- 85 Area of Openings (ft²) 1 Ovedrhead door
- 635 Panel Area (ft²)
- 150 Concrete Weight (lbs./ft³)



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	25	cubic yds
Reinforcement	2,208	lbs.
Panel Weight	105,396	lbs.

TIPS Design

Amount	Units	% Reduced
10	cubic yds	60%
1,055	lbs.	52%
42,727	lbs.	59%

INNOVATIVE STRUCTURAL SOLUTIONS

375 East 400 North - Morgan, Utah 84050 | www.innstruct.com

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