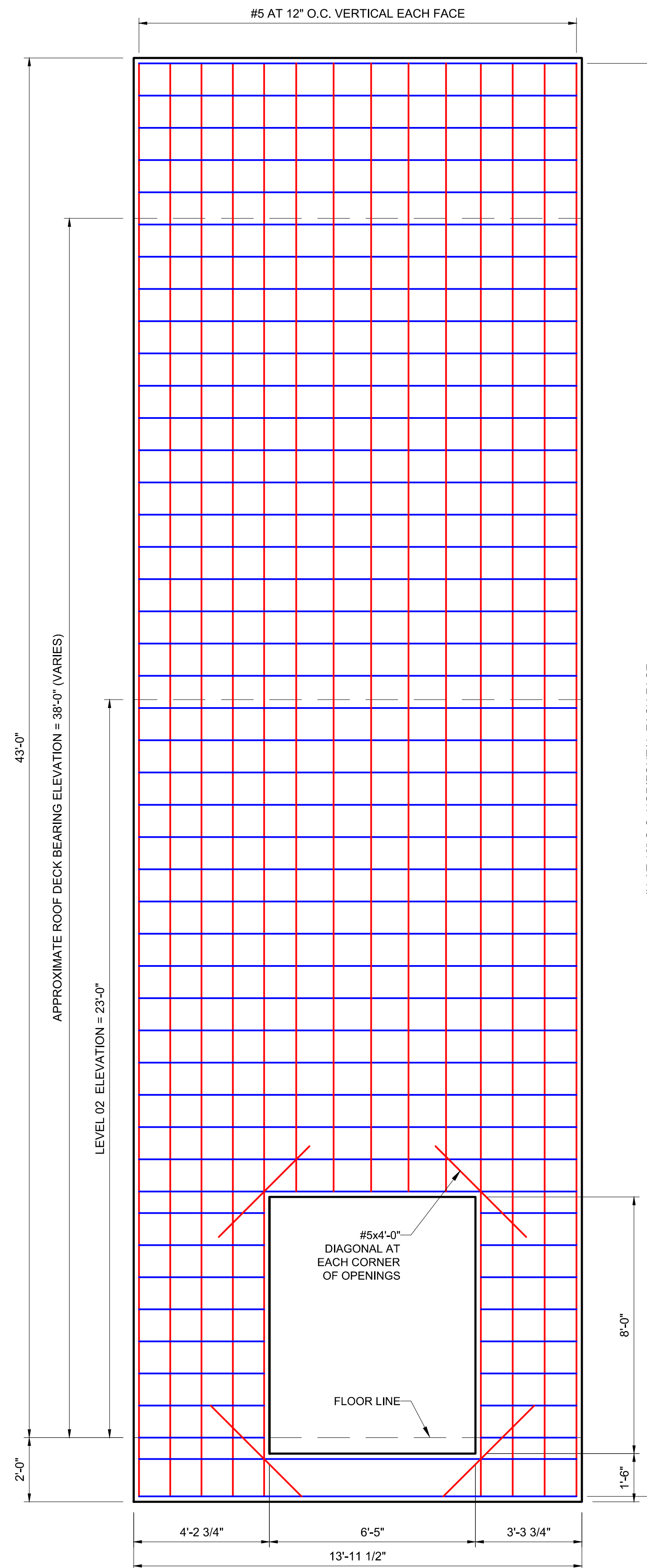


INNSTRUCT REINFORCING
3/8" = 1'-0"

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
 10" STRUCTURAL SECTION (NON-COMPOSITE)
 2" INSULATION
 3" EXTERIOR CONCRETE FACE (NON-COMPOSITE)
 15" TOTAL THICKNESS

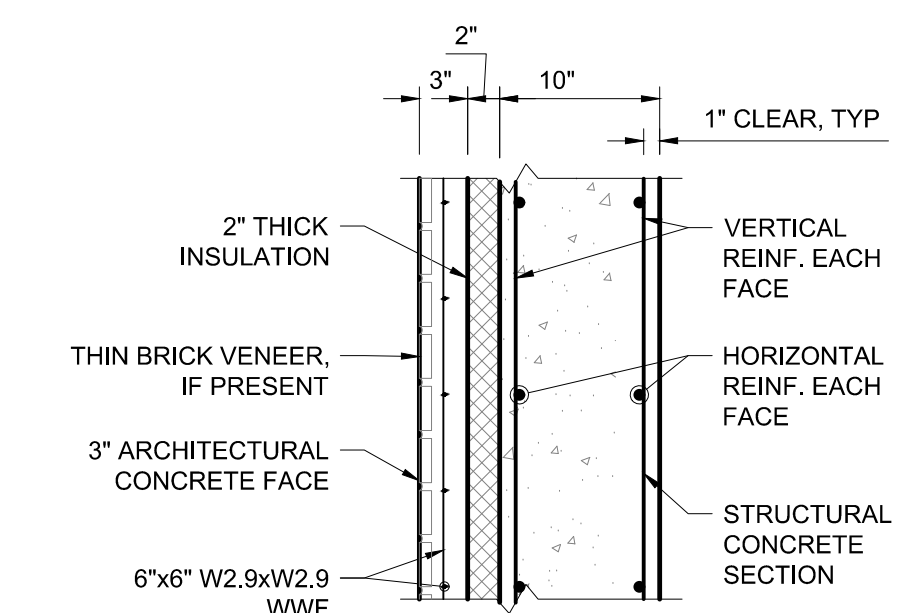
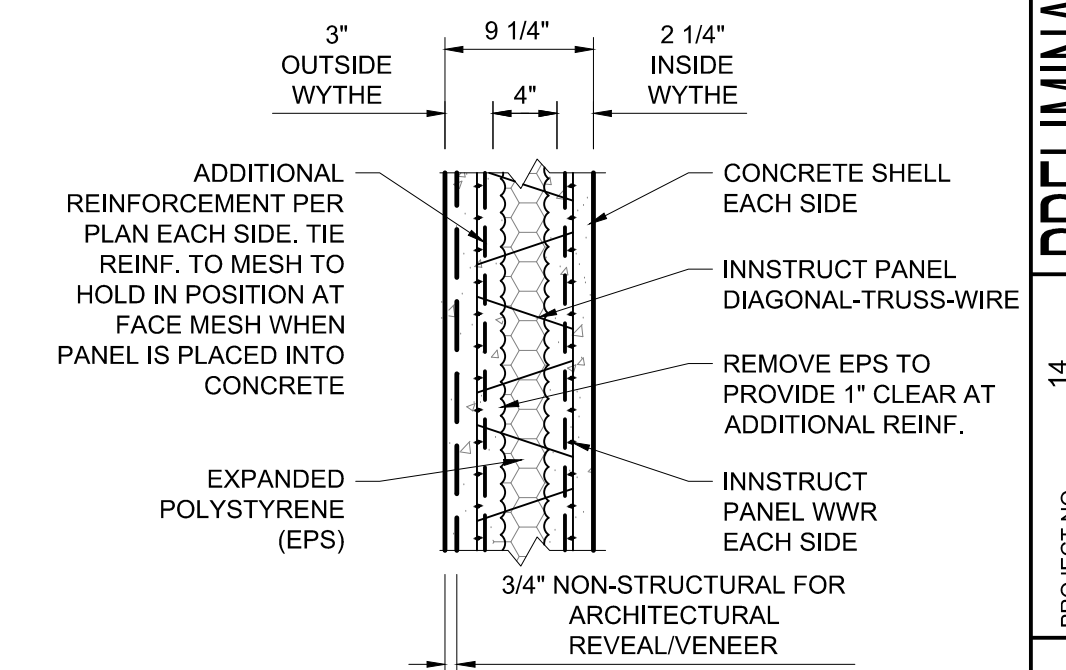
LIMITATION OF COMPARISON:
 ORIGINAL PANEL DRAWINGS ARE BASED ON PROJECT PLANS

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)



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

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. 14
DRAWN
DESIGNED
APPROVED
QA/QC

INNOVATIVE STRUCTURAL SOLUTIONS

PROJECT 14
TIPS COMPARISON

SHEET NO:
DATE: NOVEMBER 2020
PAGE NO:

INNSTRUCT | Total Integrated Panel System (TIPS)

Basic Design Comparison and Material Displacement Estimate

Project: **14E**
 Panel Description: S104 Small Overhead door
 Total Wall Square Feet: 54,933
 Total Panels in Project: 105

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

Panel Configuration:

- 8 Number of Similar Panels in Project
- 45.00 Height (ft)
- 14.00 Width (ft)
- 95 Area of Openings (ft²) - windows
- 535 Panel Area (ft²)
- 150 Concrete Weight (lbs./ft³)



Original Design Configuration:

3	Architectural Wythe (in)
2	Insulation (in)
10	Structural Wythe (in)
13	Concrete Thickness (in)
15	Total Thickness (in)
16.5	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	21	cubic yds
Reinforcement	2,169	lbs.
Panel Weight	89,035	lbs.

TIPS Design

Amount	Units	% Reduced
9	cubic yds	60%
484	lbs.	78%
35,565	lbs.	60%

INNOVATIVE STRUCTURAL SOLUTIONS

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

BETTER PANEL | LESS EFFORT | MORE PROFIT