

**INNSTRUCT REINFORCING**

3/8" = 1'-0"

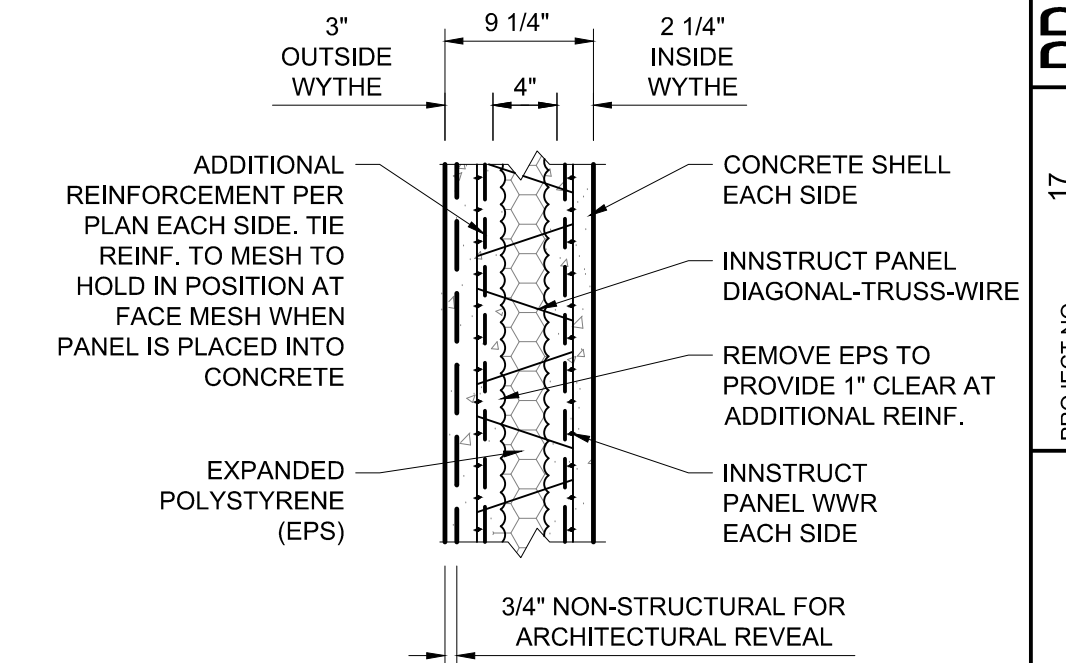
- TIPS  
 3" EXTERIOR CONCRETE WYTHE (COMPOSITE)  
 4" EPS INSULATION  
 2-1/4" INTERIOR CONCRETE WYTHE (COMPOSITE)  
 9-1/4" TOTAL THICKNESS



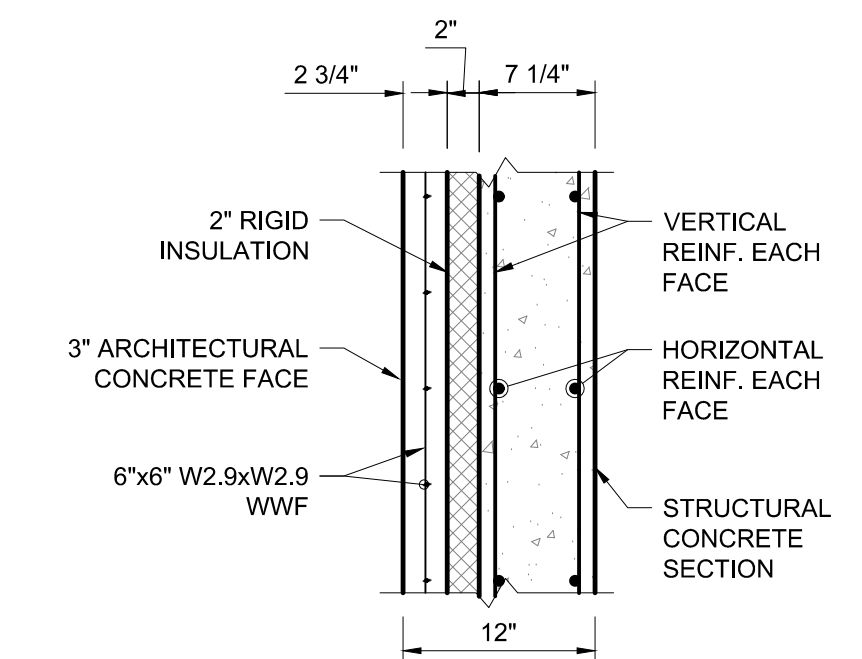
**ORIGINAL PANEL DESIGN**

3/8" = 1'-0"

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



**TYPICAL INNSTRUCT PANEL**  
SCALE: N.T.S.



NOTE:  
 FIBER CONNECTORS AT 16" O.C. EACH WAY TO CONNECT 2-3/4" CONCRETE FACE TO STRUCTURAL SECTION

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

NO.	REVISIONS	BY	DATE

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**PRELIMINARY DRAWING NOT FOR CONSTRUCTION**

PROJECT NO. 17
DRAWN
DESIGNED
APPROVED
QA/QC

**INNOVATIVE STRUCTURAL SOLUTIONS**

**PROJECT 17**

**TIPS COMPARISON**

SHEET NO:

DATE: JANUARY 2021

PAGE NO: 2 OF 2

# INNSTRUCT | Total Integrated Panel System (TIPS)

## Basic Design Comparison and Material Displacement Estimate

Project: **17B**  
 Panel Description: S101 Overhead door  
 Total Wall Square Feet: 51,538  
 Total Panels in Project: 80

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

**Panel Configuration:**

- 6 Number of Similar Panels in Project
- 27.00 Height (ft)
- 23.00 Width (ft)
- 264 Area of Openings (ft<sup>2</sup>) -Over head door
- 357 Panel Area (ft<sup>2</sup>)
- 150 Concrete Weight (lbs./ft<sup>3</sup>)



### Original Design Configuration:

2.75	Architectural Wythe (in)
2	Insulation (in)
7.25	Structural Wythe (in)
10	Concrete Thickness (in)
12	Total Thickness (in)
15.0	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	11	cubic yds
Reinforcement	1,422	lbs.
Panel Weight	46,047	lbs.

#### TIPS Design

Amount	Units	% Reduced
6	cubic yds	<b>48%</b>
279	lbs.	<b>80%</b>
23,707	lbs.	<b>49%</b>

INNOVATIVE STRUCTURAL SOLUTIONS

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BETTER PANEL | LESS EFFORT | MORE PROFIT