



Pre-Fabrication Construction

Casino in South Philadelphia



successful together.



Objectives

- Differentiate the positives and negatives of typical 'panelization' versus hybrid 'panelization'
- Recognize the sequence coordination involved in constructing a complicated exterior panel rainscreen wall system
- Examine virtual design tools and functionality needed to synchronize the installer and design team
- Appraise multiple virtual design tools in realistic scenarios in an actual case study during a pandemic

Project Overview

- 2018 - EDA submitted a bid for a hospitality construction project.
- The project was set to break ground in South Philadelphia.
- Project Size:
Over One Million SF.
(9 acre site)



Typical Panelization



Pros

- Accelerated Schedule
- Delivery Method & Price
- Utilization of computer modeling (REVIT)
- Fabrication in controlled environment

Cons

- Weathertightness
- Tolerances
- Constructability & Adaptability
 - Final material and colors must be selected early in construction

Solution Hybrid Approach

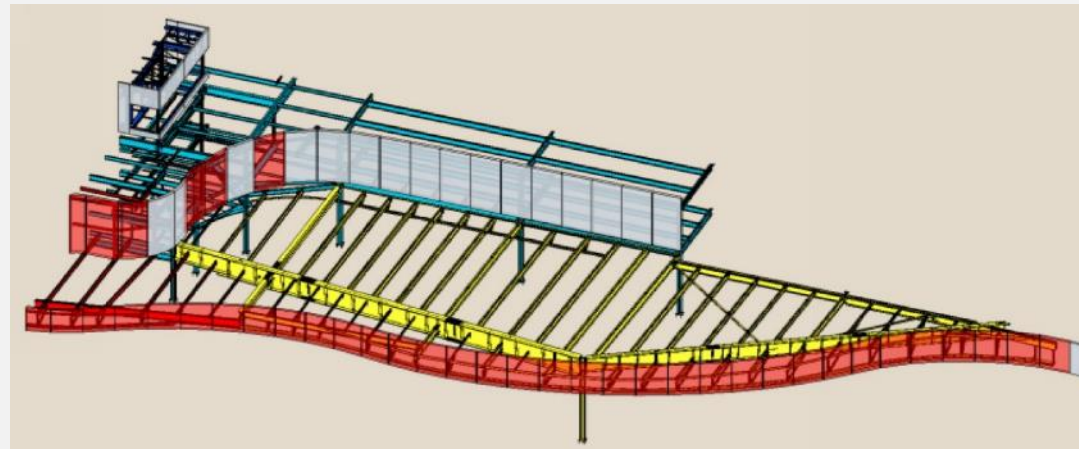
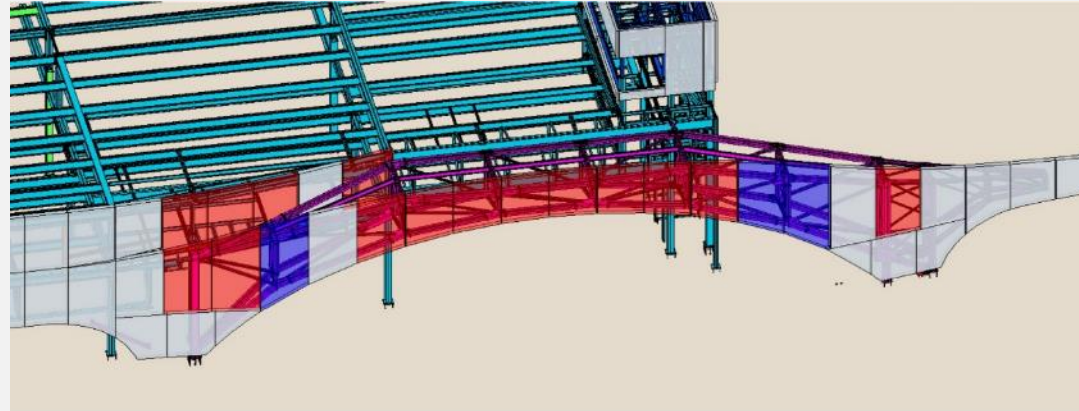
- Schedule
 - Building weathertight quickly
 - Exterior enclosure OFF the critical path
- Better weathertight solution
- Better tolerances on final product
- “Stick-Built” when needed
- Cost effective



Design Model as Basis for Contractor VDC/BIM

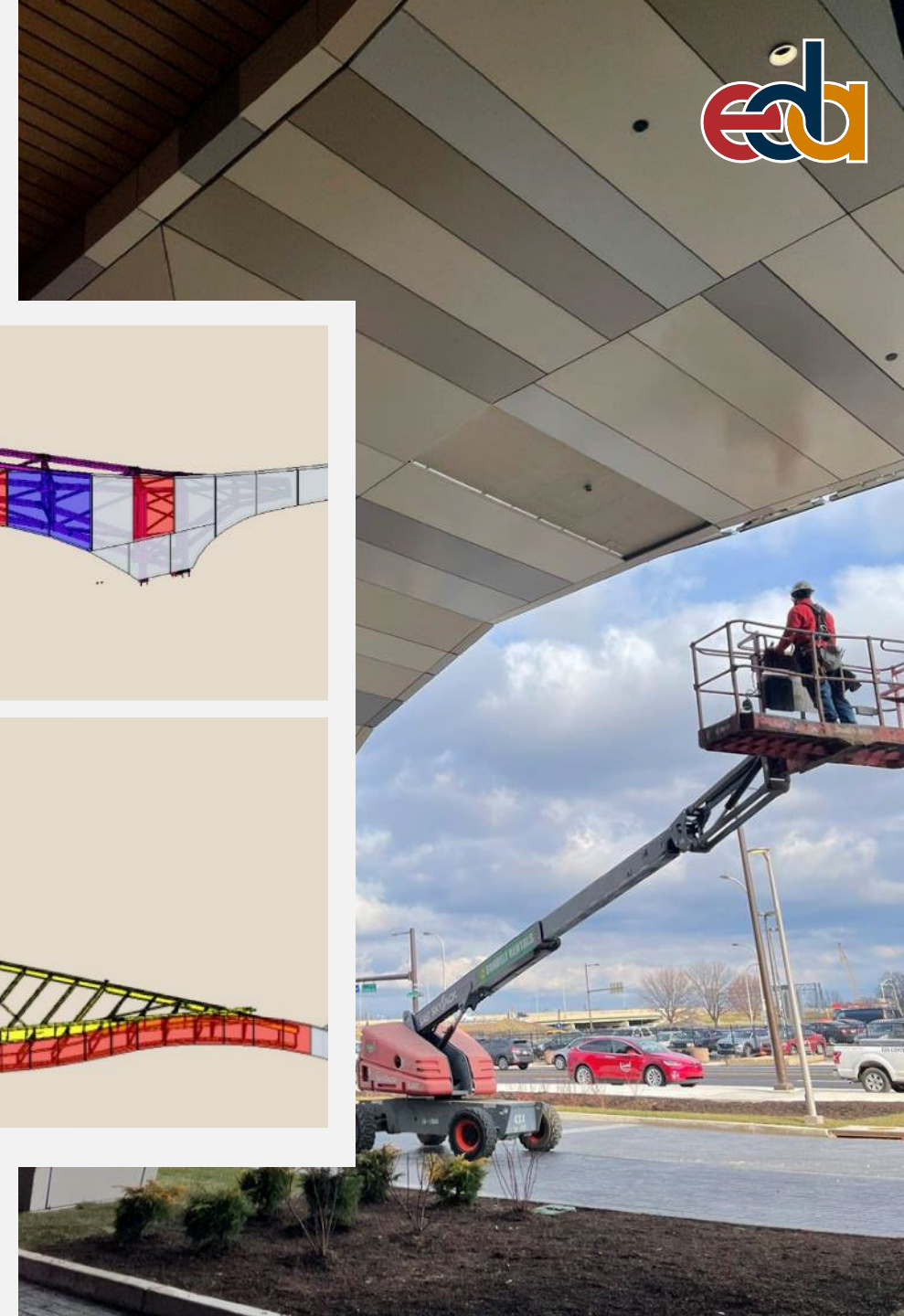


- Clashes with structural resolved and presented to Architect as required
- Allowed careful review of envelope vs non-envelope panel components
- Allowed Architect review against design model to consider merit of minor deviations
- Allowed shop drawing review to be focused: envelope earlier in construction; finish metal panels later on



RED = Cannot be resolved by Klover
BLUE = Potentially resolved by spacing vertical stud members to miss structural steel conflict

successful together.



Eyebrow Entrance Sequence

Steel Frame Construction



successful together.

Eyebrow Entrance Sequence

Backup Panel Installation



successful together.

Eyebrow Entrance Sequence

AVB & Sheathing on Backup Panels



successful together.

Eyebrow Entrance Sequence

Complete



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Porte Cochere Coordination Sequence

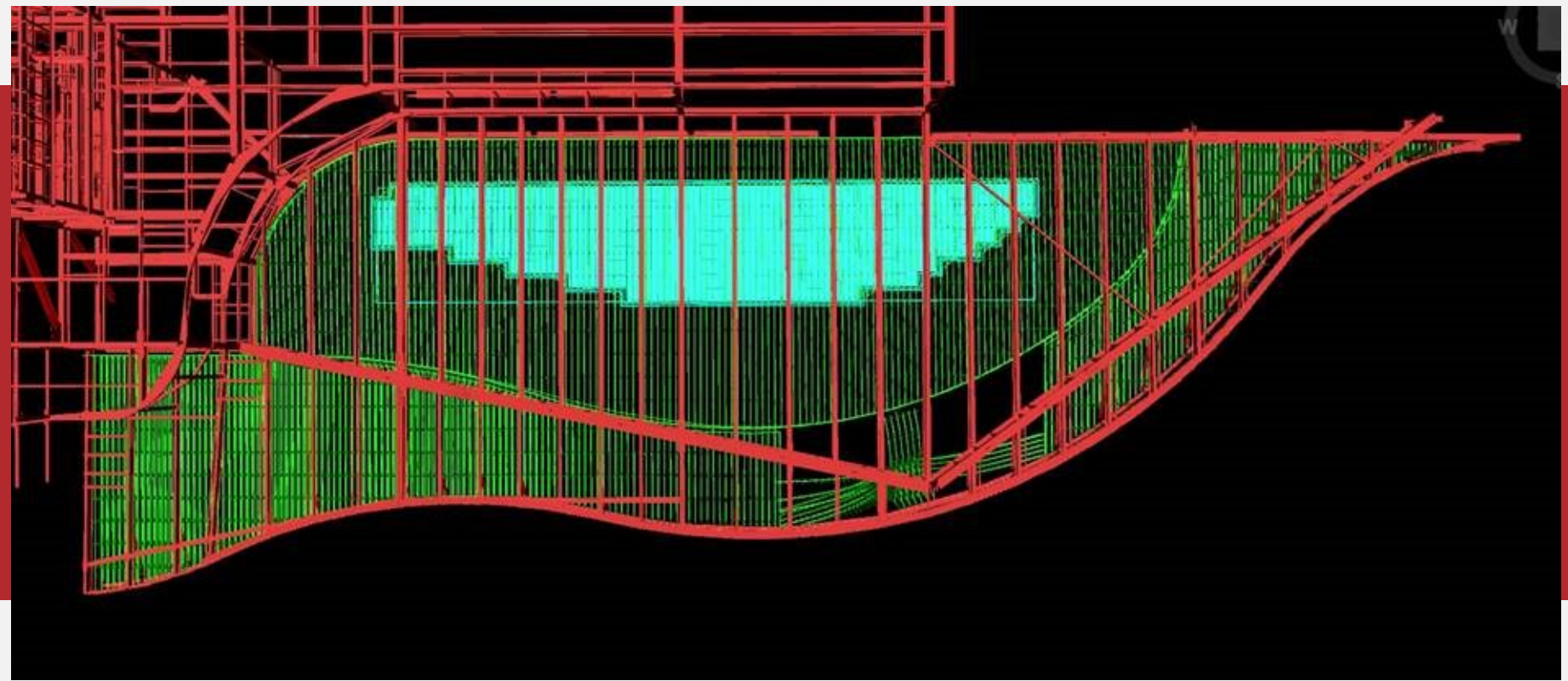
Cloud Scan



successful together.

Porte Cochere Coordination Sequence

Design Model



successful together.

Porte Cochere Coordination Sequence

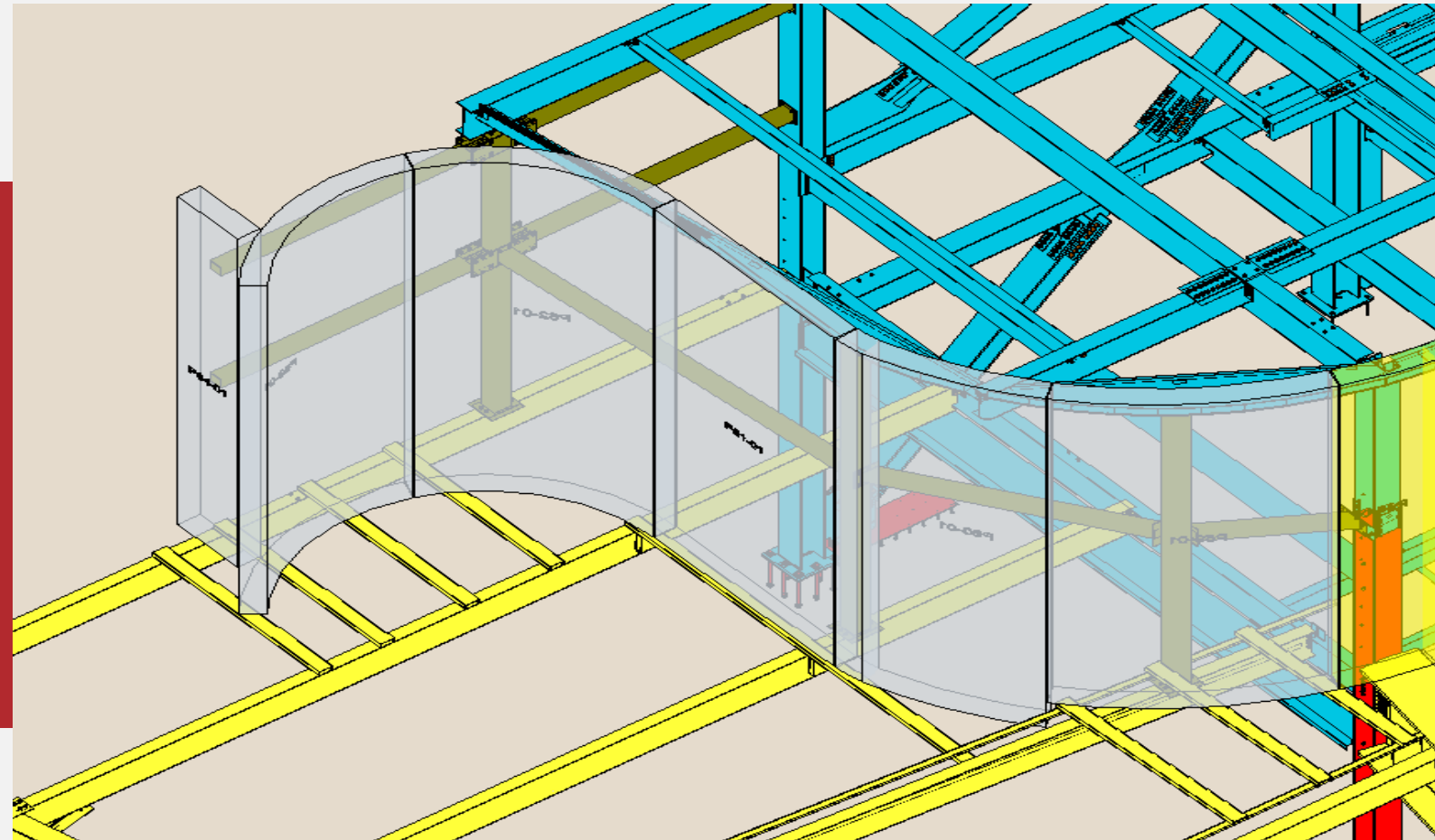
Steel Coordination



successful together.

Porte Cochere Coordination Sequence

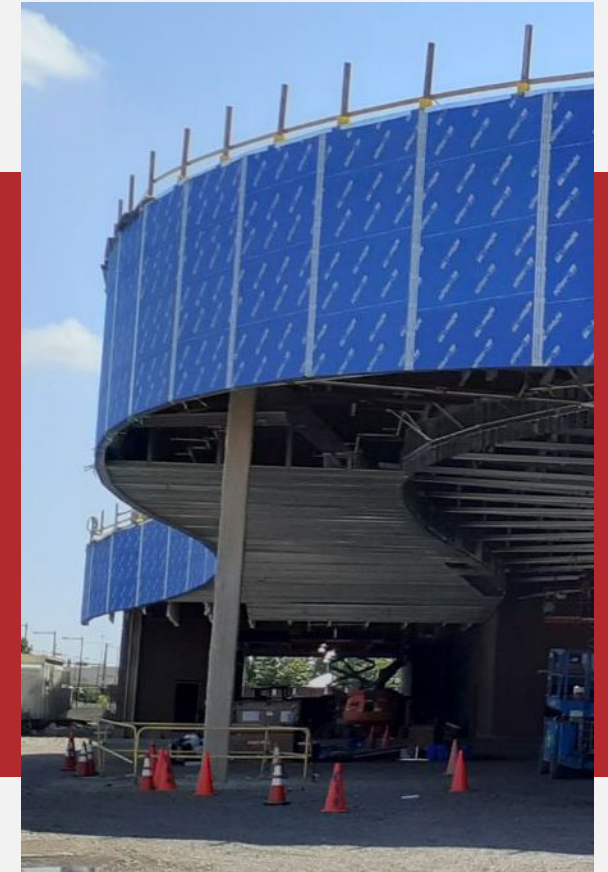
Steel and Panel Coordination



successful together.

Porte Cochere Coordination Sequence

Steel Coordination



successful together.

Porte Cochere Coordination Sequence

Backup Panel Install and Geometry



successful together.

Porte Cochere Coordination Sequence

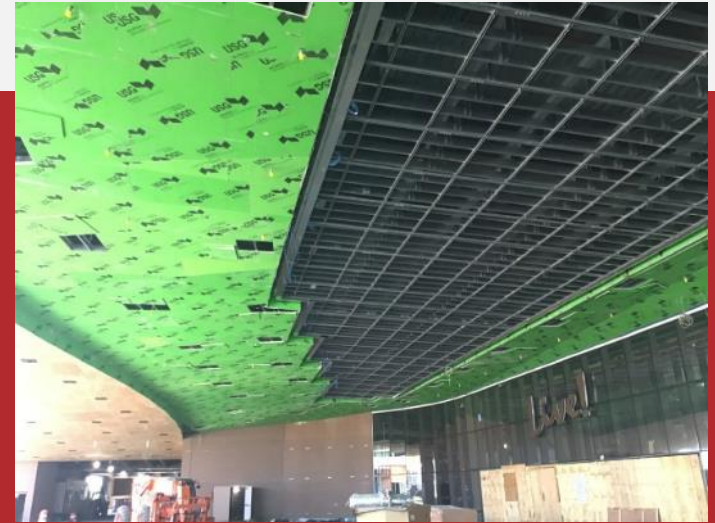
CFMF Coordination and Install



successful together.

Porte Cochere Coordination Sequence

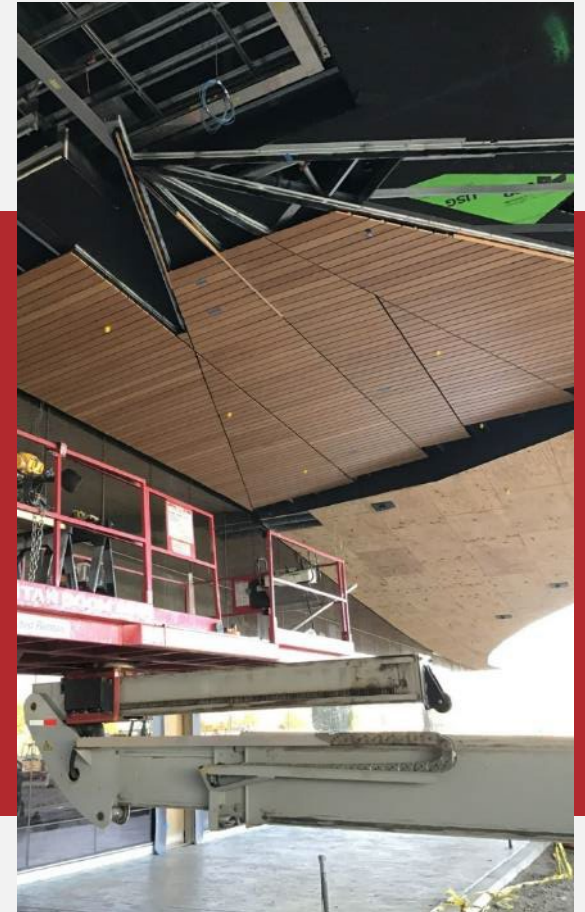
CFMF Coordination and Install



successful together.

Porte Cochere Coordination Sequence

Linear Wood Ceiling and ACM Soffits



successful together.

Porte Cochere Coordination Sequence

Linear Wood Ceiling and ACM Soffits



successful together.

Porte Cochere Coordination Sequence

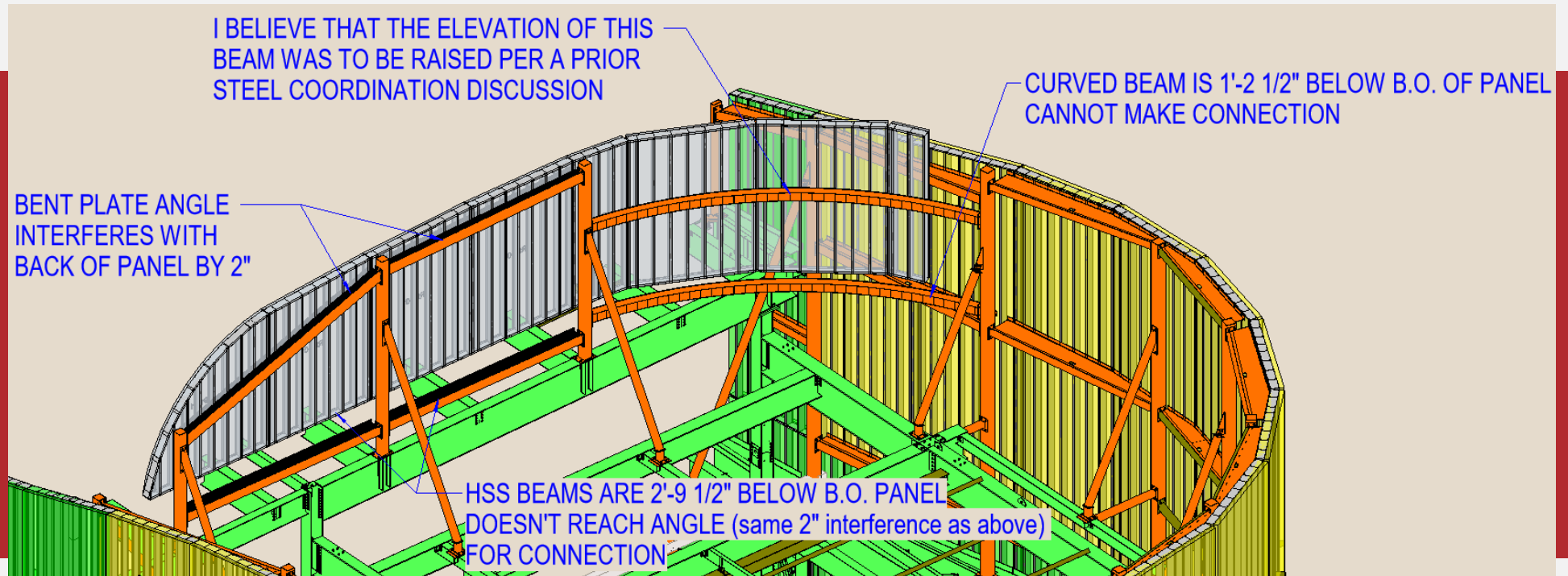
COMPLETE



successful together.

Area G Coordination

Design Model Coordination



successful together.

Area G Coordination

Backup Panels with AVB and Detail Tape



successful together.

Area G Coordination

CFMF in Progress



successful together.

Area G Coordination

Casino Corner Video Screen Frame



successful together.

Area G Coordination

Casino Corner Video Screen Frame



Hotel Shear Wall

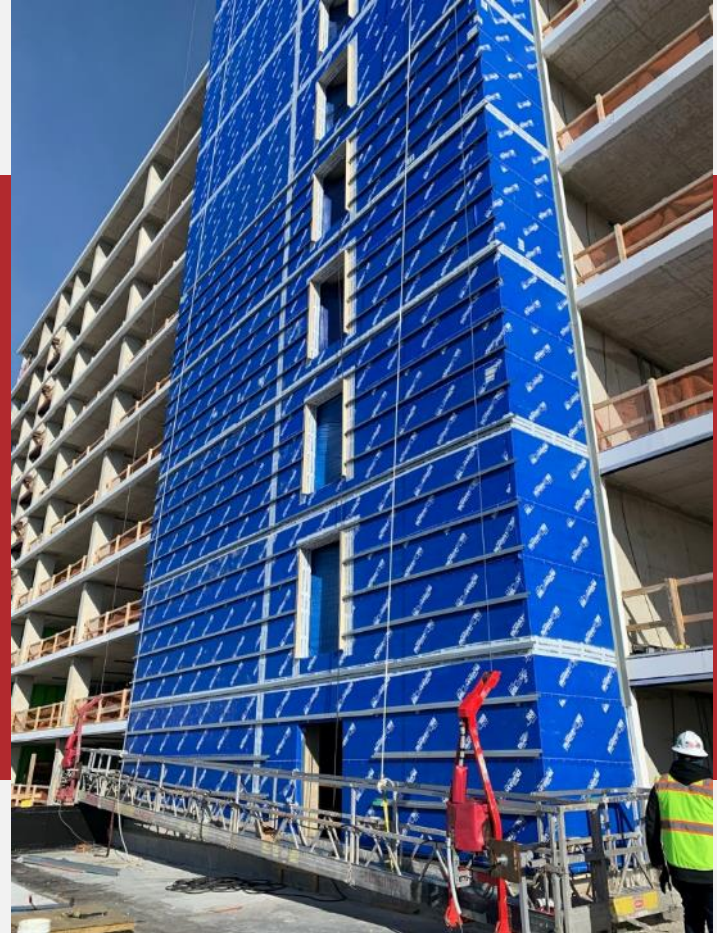
Install with Tower Crane and Swing Stage



successful together.

Hotel Shear Wall

Install with Tower Crane and Swing Stage



successful together.

Coordination with DM-2 at Parking Garage



successful together.

Coordination with DM-2 at Parking Garage



successful together.



Questions?

successful together.

