

DSI PROJECT – UNITED BULK TERMINAL

SKY HOPPER SUPPORT STRUCTURE

C1-C2-C6 Transfer Tower, over C1 conveyor

Located in Davant, LA, USA, UBT requested DSI to accommodate emergency installation of the sky hopper on the new C1-C2-C6 transfer tower, minimizing modifications to the existing support structure. DSI was able to keep most of the connections the same, the hopper support frame was designed to be supported on two vertical legs resting on an existing structure.

Built and first installed in 2000 with the purpose of feeding limestone from self unloading ships to C1 conveyor at the top of the C1-C6 transfer tower, the hopper has seen many modifications since then. As a part of UBT’s expansion, a C2 conveyor is to be installed parallel to C1 conveyor. Installing the new C2 Conveyor requires addition of new columns, making old connections of the hopper to the transfer tower not useable.



The challenge involved in this project was to design around the existing connections for the hopper. Keeping the tubular support frame the same with the exception of shortening it, new modifications involved re-designing the connections of the two vertical legs to the existing structure. One of the vertical legs was designed to be supported on the existing column of the C1-C6 transfer, while the other one was supported on DSI truss’s pin connection. The support frame is laterally supported off the new columns for the C1-C2-C6 transfer.

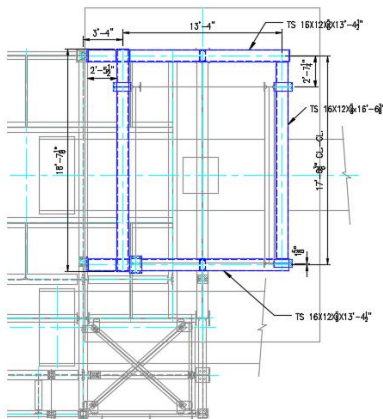


Figure 3: Elevation View

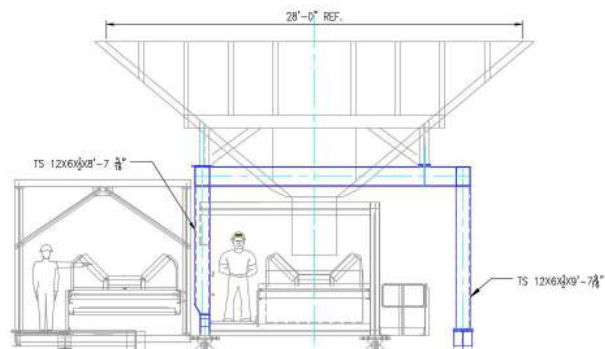


Figure 3: Elevation