

'Superprop®' Shores from Acrow Bridge Support Rehab in Vital Traffic Corridor in Tulsa, Oklahoma

System addresses problem of failing piers and pier caps during ODOT's largest project



Acrow is participating in the single-largest project ever awarded by the Oklahoma Department of Transportation (ODOT) by providing the temporary shoring for holding up the concrete girders and deck of an existing bridge in the ongoing rehabilitation of a vital traffic corridor surrounding downtown Tulsa. The corridor carries estimated 62,000 vehicles each day.

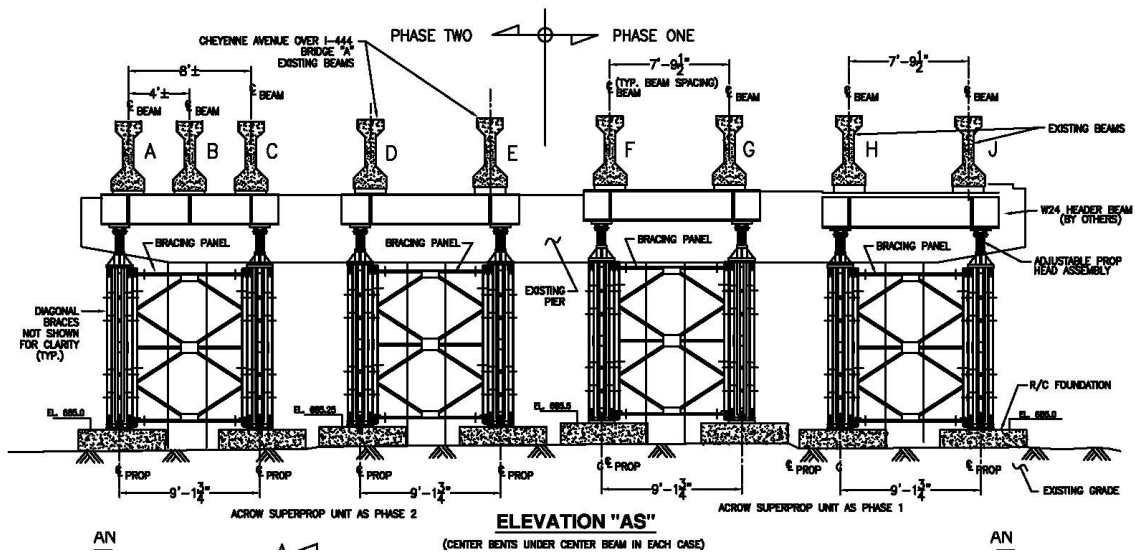
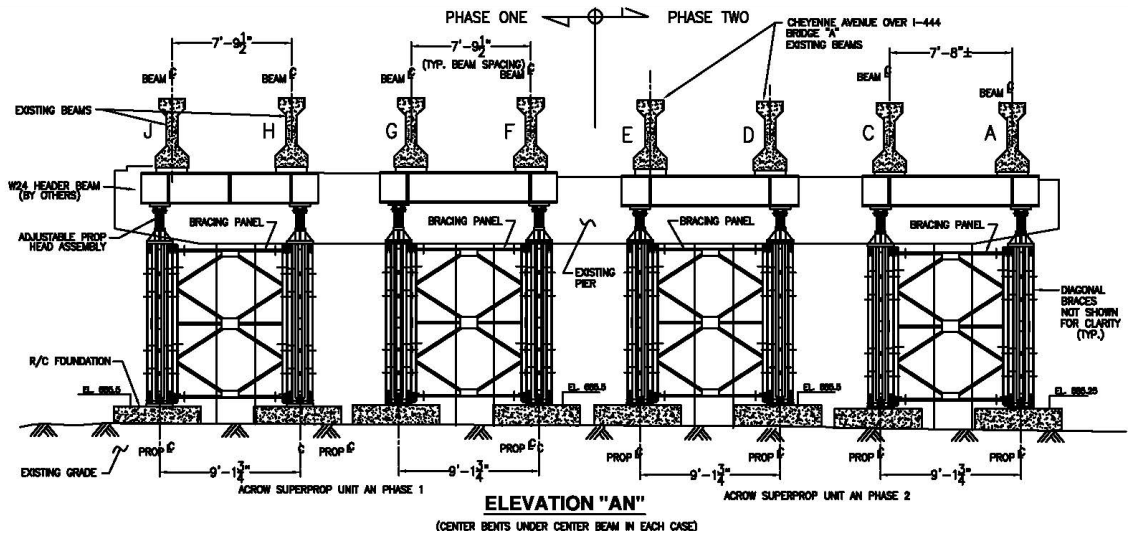
The \$75 million project will rebuild the north and west legs of Tulsa's Inner Dispersal Loop (IDL), replace the decks on 44 bridges on the north and west legs, and repair the surface on portions of the east and south legs which include portions of I-444, US-75, US-64 and SH-5.

Acrow's temporary shoring, called Superprop® Shores, is being used at three locations underneath I-444 where the piers and pier caps were worn out and failing during repair. ODOT is renting the Superprops® and panels used in its work on the project. A single Superprop® Shore, assembled from Acrow Bridge components, can support up to 270 tons.

By bracing Acrow shores with Acrow panels, a shoring system of superior strength and simplicity in design can be used in any vertical, horizontal or knee-bracing application.

The crowded urban area created the challenge of a very tight work footprint between two fast highways in a narrow median. In addition, the loads supported are unusually heavy. It was also necessary to quickly address a design change in the middle of the project that required Acrow's re-engineering of the installation and support system. Acrow's rental program and its ability to provide crucial structural components quickly and economically meets or exceeds the needs of DOTs and contractors alike.

Acrow Bridge has a long history of serving the transportation and construction industries. For more than 60 years, Acrow has built a great track record of successful collaborations with contractors and state departments of transportation on the design and installation of a full line of modular steel bridging solutions for vehicle, rail and pedestrian use.



Specifications

Acrow supplied Superprops® are configured as braced props to provide resistance to horizontal loads and overall stability.

Superprop® length:

- Cheyenne Ave. over I-444: 10 ft. high with adjustable screw assembly
- Main St. over I-444: 20 ft. high with adjustable screw assembly
- Boston Ave. over I-444: 10 ft. high with adjustable screw assembly

Live load: Design Specifications

AASHTO LRFD for Highway Bridges

Superprop® design:

- (A) Truss panels bracing and reinforcing chords to AASHTO M223 GD 65
- (B) Screw crown assembly, to AASHTO M223 GD 50
- (C) Chord brace and sole plates to AASHTO M223 GD 50
- (D) Panel pins to ASTM A193 GD B7
- (E) Bolts to AASHTO M164M – A325