FORM MARKS PROJECT FOCUS
EFCO'S NEWSLETTER FEATURING A SUCCESSFUL CONCRETE CONSTRUCTION PROJECT

Solving the Challenge of Formwork Stripping Relief

Sherman, Texas

2 Minute Read Time

HIGHWAY CONSTRUCTION PROJECT TO GROW LOCAL ECONOMY

The U.S. 75 Grayson County Highway project aims to improve transportation infrastructure in Grayson County, Texas. It is expected to benefit the local economy by creating jobs during construction and improving transportation connectivity in the area. The project is being broken down into stages to reduce the effect on traffic flow and is anticipated to wrap up by 2024.

IMPROVING TRANSPORTATION ON U.S. HIGHWAY 75

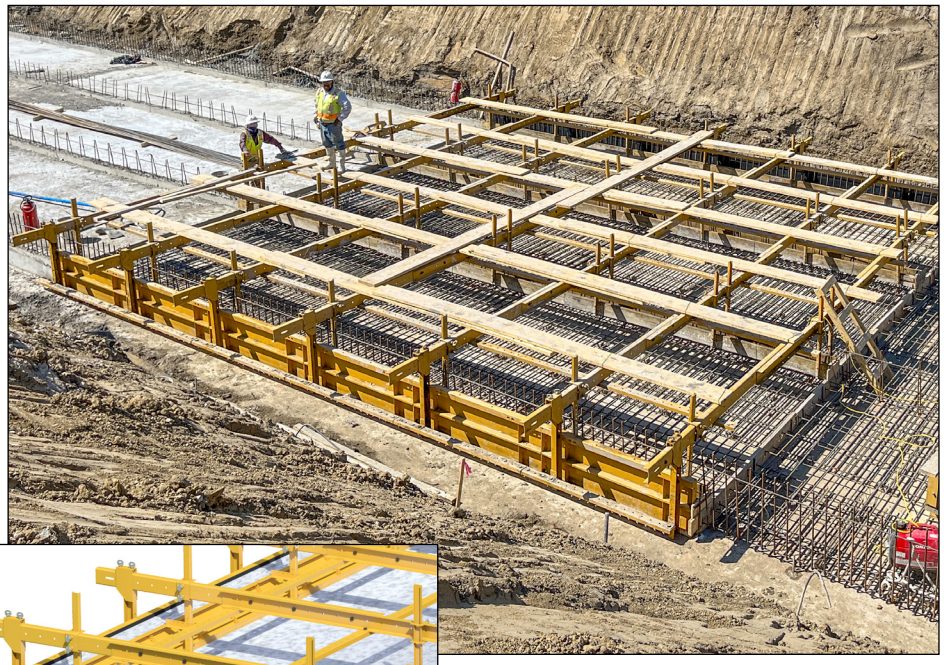
The U.S. 75 project involves expanding the existing highway to increase capacity and improve safety for motorists. The project includes the construction of additional lanes, bridges, and box culverts to facilitate traffic flow and allow water to flow under the highway. The construction also involves upgrading existing bridges and overpasses to meet safety standards.

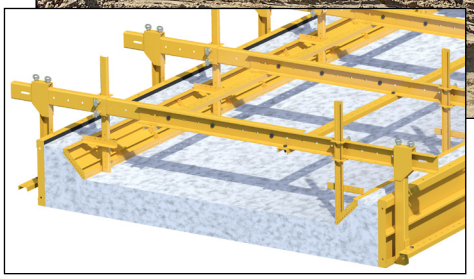
BOX CULVERT CONSTRUCTION / SAFE & RELIABLE

Box culverts provide a safe and reliable means of conveying water while minimizing environmental impact and reducing construction costs. As a result, box culverts have become increasingly popular in infrastructure projects worldwide, including highways, railways, and pedestrian paths.

CONSTRUCTION OF LARGE TRIPLE BOX CULVERT

Zachry Construction Corporation, a building firm based in San Antonio, Texas, with roots stretching back to 1924, is the main contractor for the U.S. 75 Grayson County Highway venture. Zachry Construction was tasked with the job of changing the course of the East Fork Post Oak Creek by building a 10' x 10' x 350' long (3 m x 3 m x 107 m long) triple box culvert. To help them accomplish this quickly and reach a high production rate, they chose EFCO's **Box Culvert Traveler** as their formwork solution.





INVERT ASSEMBLY

The rigid EFCO Invert Assembly produces a consistent base slab and starter walls, which allow for more effortless operation of the Box Culvert Traveler.

EFCO INVERT ASSEMBLY FORMWORK SOLUTION FOR SMOOTH OPERATION & CYCLING

EFCO provided a formwork solution that included one 32'-8" (10.0 m) wide x 36' (11.0 m) long invert gang assembly, enabling the contractor to pour a 36' (11.0 m) long culvert base slab with 5" (125 mm) starter walls daily. The EFCO invert solution is a rigid assembly that helps expedite the construction of the culvert base slab before the culvert walls and roof are installed. The invert gang also assists in constructing starter wall, which results in smoother operation and cycling of the traveler unit.

EFCO SOLVES THE CHALLENGE OF FORMWORK STRIPPING RELIEF

For the box itself, EFCO provided one 10' x 10' x 32' long (3 m x 3 m x 9.8 m) triple EFCO ***PLATE GIRDER***® Traveler, along with three sets of external roof support. With a crew size of nine plus a crane operator, Zachry could cast a box section every other day. The challenge of collapsing a 32' (9.8 m) long section of a 10' x 10' (3 m x 3 m) box is having the stripping relief to do so. EFCO solved this challenge with two offset header beams and tolerance plates. Utilizing a DC-Ratchet and Pipe Braces, the sides quickly contract, and the forms are lowered and cycled forward as one unit. ►

QUICKLY CYCLED BOX CULVERT TRAVELER

The EFCO Box Culvert Traveler can be cycled quickly because of EFCO's SUPER STUD® roof support system, which helps distribute the slab load into the walls before the roof has reached full strength.

> ***The traveler had a huge advantage in the production time as well as labor and material costs.***
>
> ***Jacob Fendlason,***
> ***Zachry Construction***

The inside Box Culvert Traveler is on wheels and can be pulled ahead to the next concrete pour location.

The roof headers and adjustable legs of the inside traveler frame are completely interchangeable. Any combination of leg and header sizes can be used to meet specific job requirements.

EFCO EQUIPMENT

Box Culvert Traveler, Invert Assembly, *PLATE GIRDER*, SUPER STUD

ZACHRY CONSTRUCTION TEAM

Marlon Vasquez . . . Structures Superintendent
Jacob Fendlason . . . . . Structures Engineer
Sam Hosch. . . . . Project Manager
Alan Kassen. . . . . Project Engineer
Arturo Gonzalez. . . . . Foreman

EFCO FORMWORK SPECIALISTS–DALLAS

Rob Edwards. . . . . Sr. Territory Manager
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Katie McCombs . . . . . Engineer

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