



Ranger Hill I-20 Project Update – December 2018

In September 2017, the Texas Department of Transportation (TxDOT) broke ground on a \$76 million project to reconstruct an approximately 3-mile stretch of I-20 known as “Ranger Hill,” located between the city of Ranger and State Highway 16 in Eastland County. The project will improve safety and mobility on this heavily-traveled section of the I-20 corridor by:

- Shifting the roadway alignment south by about 500 feet to straighten its curves
- Reducing the grade of the hill from 6 percent to 3.5 percent
- Adding a new westbound lane to accommodate slower vehicles climbing the hill
- Increasing the shoulder widths in both directions
- Adding continuous two-way frontage roads on both sides of the highway



Barriers separate the area where traffic has been shifted at the top of Ranger Hill on the south (eastbound) side of I-20. Once the project is complete, the new I-20 incline will be about half as steep as its current 6 percent grade.

TxDOT photo, November 2018.

To prepare the project site for these improvements, the rock on the south side of the Interstate must first be excavated, crushed, and redistributed to other parts of the construction area for use as embankment material. Over the fifteen months since the project began, contractor Zachry Construction has focused much of its work on these labor-intensive activities, including conducting more than 40 separate blasts using explosive devices to break up/excavate the rock. Each blast has required a brief temporary closure of the I-20 mainlanes in both directions to ensure the safety of motorists, and has been carefully planned and executed with assistance from the Ranger Fire Department, Texas Department of Public Safety, and off-duty law enforcement officers. This assistance is greatly appreciated.

TxDOT anticipates that major blasting activities will wrap up by the end of this year, and that all blasted rock material will be crushed and ready for use on other parts of the project by early next spring.

In addition to its excavation and crushing activities, Zachry has also constructed three culverts, which are in various stages of completion, and has relocated Intelligent Transportation System (ITS) equipment and two high mast lighting poles. Crews have also implemented eastbound traffic detours to accommodate drainage work and reconstruction of the area just south of the eastbound lanes.

Next year, Zachry is scheduled to begin constructing new pavement in the area that will eventually become the new eastbound mainlanes and frontage road. Traffic will then be shifted south of the existing freeway onto this section. Once the new pavement on the south side of the hill is complete, both directions of mainlane traffic will be shifted to it so that crews can begin constructing new permanent westbound mainlanes, frontage road, and bridges near the rest area.



Crews excavate rock at Ranger Hill using drilling and blasting equipment. For each blast, holes are drilled into the ground approximately 11 feet apart, and explosives are placed inside. Blast areas depend on the on the rock formation, shale location, and proposed roadway cross section and can produce up to 24,000 cubic yards of rock fragments that must then be crushed and placed as embankment material. The excavation and crushing process should be complete early next year. TxDOT photos, November 2018.