

Gradall XL 4300 III quickly handles under-road culvert replacement

26 March 2015 by GRADALL Industries

Runoff from nearby potato fields can clog culverts running beneath roads, creating washouts and resulting in flooding hazards if not quickly addressed. That was the case on Rt. 205 near Presque Isle, Maine, where Region 5 of the Maine Department of Transportation handled the work with excellent efficiency, using a Gradall XL 4300 III excavator.

Gradall versatility advantages

While culvert jobs usually require several Department of Transportation machines, the Rt. 205 job in Maine required only a Gradall XL 4300 III excavator along with a pavement saw and roller – a big benefit for cost-conscious county and state highway departments that like to rely on fewer machines and minimal manpower to do more work.

To maintain partial traffic flow, one-half of the culvert replacement was completed before starting the other half. After the initial pavement sawing was complete on the first half, a MDOT operator used the XL 4300 III and a grading bucket to pull up large pieces of the asphalt surface as well as part of the old culvert pipe. A ditching bucket cleaned up the edges of the ditch and created a level bottom at the desirable depth before lowering the new pipe into position. The tilting boom spread soil evenly over the pipe, leveled the surface again and then spread asphalt mix, which was rolled.

Once the first half of the road was completed, the process was repeated on the other half. The short tail swing on the XL 4300 III helped to minimize traffic flow interruption, while the wheeled undercarriage was able to move around on the paved surface without creating damage associated with track excavators.

The crew found the all-terrain XL 4300 III to be highly mobile, and exceptionally stable without having to use the optional outriggers while it worked from the front, rear, left and right sides of the machine. The ability to dig down close to the undercarriage was another advantage.

When all of the culvert pipe had been installed, the Gradall created a proper grade in the ditches on both sides of the road to create a clear drainage path. Workers said the entire job progressed quickly, starting at 7 a.m. when the pavement was cut. By 3:30 or 4:00 in the afternoon, they said, the Gradall was back in the equipment yard.