**Project Challenges**

- Extensive voids and extremely weak soil zones underneath a culvert and two lane road
- Water flowing completely under rather than through culvert
- Culvert & road settled 2.5"

**Solution**

- Inject hydro-insensitive URETEK polyurethane through floor surface of culvert surface to cutoff flow of water, fill voids, and stabilize soils to create a solid support for the culvert
- Lift culvert and pavement full 2.5" to original elevation

**Support**

- Designed injection points quantity and depth
- Pre-construction meeting with DOT and local authorities to minimize disruption
- On-site installation with no bypass required

**Outcome**

- **Minimal downtime**: All work performed in 6 hours
- **Stabilized soil**: Final roadway work was able to continue on schedule
- **No Road Closure**: Traditional repair methods would create 50 mile detour to closest river crossing

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**Before**

- Water flow is underneath culvert

**After**

- Water flow is through culvert

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**Upstream**

**Downstream**