pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Active and Abandoned Mine Operations

WHEATLEY ENGINE SHAFT SUBSIDENCE
Abandoned Mine Reclamation Project
Contract No. NC-15-001-101.1EMER

Bureau of Abandoned Mine Reclamation
2 Public Square, 5th Floor
Wilkes-Barre, PA 18701-1915

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ACTIVE AND ABANDONED MINE OPERATIONS
BUREAU OF ABANDONED MINE RECLAMATION

WHEATLEY ENGINE SHAFT SUBSIDENCE ABANDONED MINE RECLAMATION PROJECT CONTRACT NO. NC-15-001-101.1EMER

FACT SHEET

Location: The project site is located at Pine Tree Lane, Schuylkill Township, Chester County. From I-476, the site can be accessed by taking I-276W/I-76W for 14 miles to the PA 29N exit and turn right onto PA 29N. Take PA 29N for 0.6 mile and turn right onto Whitehorse Road. Travel 2.8 miles and turn left onto Creek Road. Travel 0.2 mile and turn left onto Pine Tree Lane.

Watershed: (HQ-TSF) Pickering Creek → Schuylkill River

Official Start Date: September 12, 2016

Contract Completion Date: November 8, 2016

Contractor: T. Brennan Heavy Equipment, LLC of Carbondale, PA

Property Owners: Not Listed

Project Cost: $105,791.34 (Final Amount)
$105,080.00 (Bid Amount)

Project Area: 0.05 Acre

Purpose: To eliminate a public health and safety hazard by backfilling an abandoned industrial mineral mine shaft subsidence beneath the attached garage of a private residence.

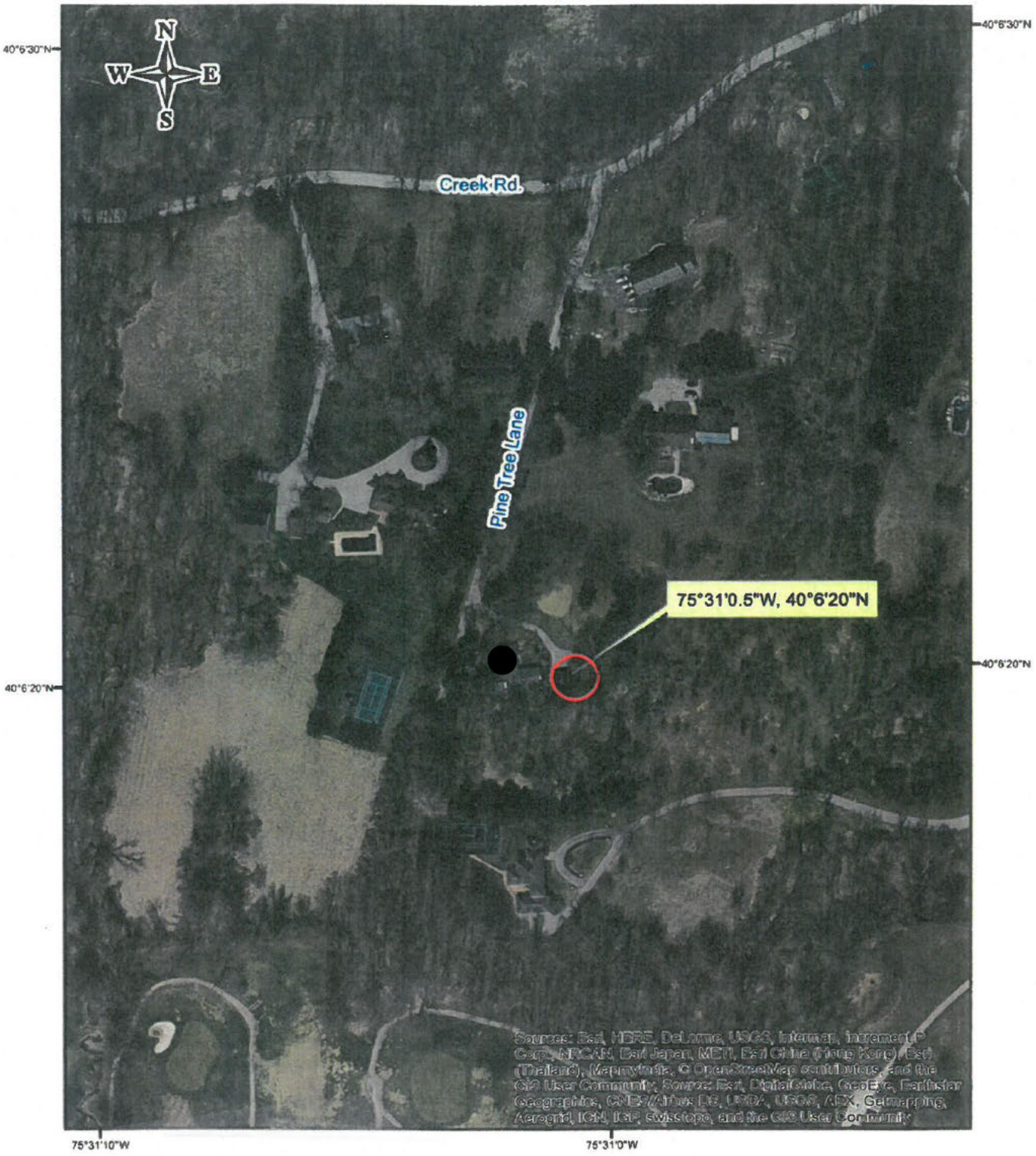
Description: A void was encountered adjacent to a homeowner's attached garage. The void measured two feet (2') long by one foot (1') wide at the surface. Below the surface, the void undercut the garage footer and extended underneath the garage approximately 15'x15'x47' deep vertically. The exact dimensions of the void could not be determined due to safety concerns and limited visibility. Water was encountered at a depth of twenty-seven feet (27'). Further research revealed that the current GPS latitude and longitude values recorded at the void location coincided with those listed for the Wheatley Engine Shaft in Mineral Resources Report M 72, "Zinc and Lead Occurrence in Pennsylvania", published by the Pennsylvania Geological Survey in 1977.

This Construction Emergency eliminated a public health and safety hazard by backfilling the shaft with approximately 517.6 tons of rock and 117 cubic yards of flowable fill. Four (4) six-inch (6") diameter coreholes were drilled in the garage floor to inject flowable fill into the mine void up to the bottom of the garage floor. For safety reasons, six (6) steel push piers were installed to support the garage foundation while backfilling. The driveway affected by the contractor's work was repaired with 227 square yards of superpave asphalt wearing course, $1^{1}/_{2}$" depth, and 0.6 cubic yard Class A concrete was placed in the driveway apron. The disturbed non-paved areas were seeded with a grass seed mixture.

Funding: The contract was funded from the Non-Coal Fund, a special state fund.

Project Management: Bureau of Abandoned Mine Reclamation
Wilkes-Barre District Office
570.826.2371

WHEATLEY ENGINE SHAFT SUBSIDENCE
CONTRACT NO. NC-15-001-101.1 EMER
Location Map



Aerial Photo
Schuylkill Twp., Chester Co.

0 200 400 Feet

1 inch = 200 feet

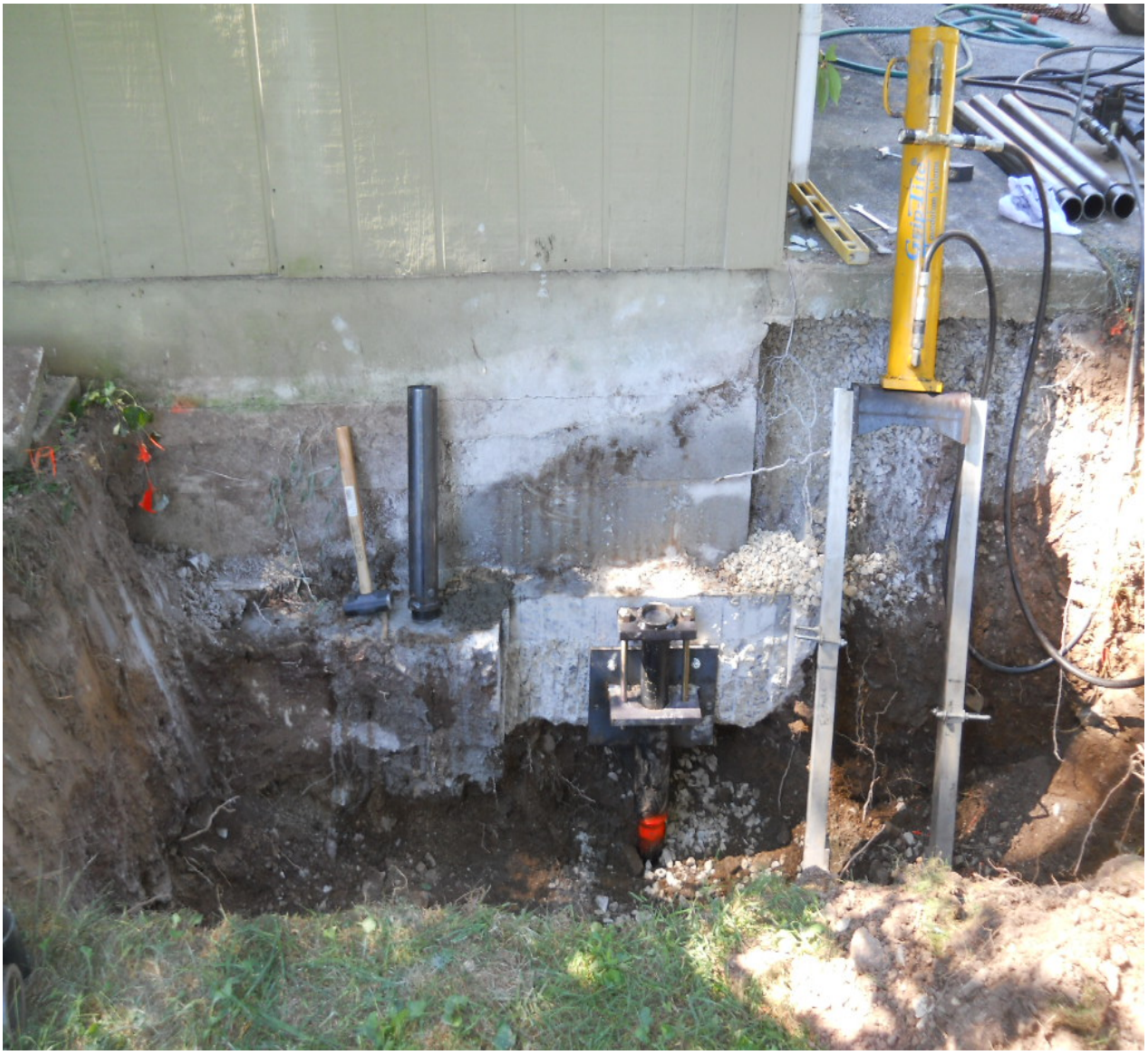
Pre-Construction

SUBSIDENCE OPENING SIDE OF ATTACHED GARAGE

PRE-CONSTRUCTION

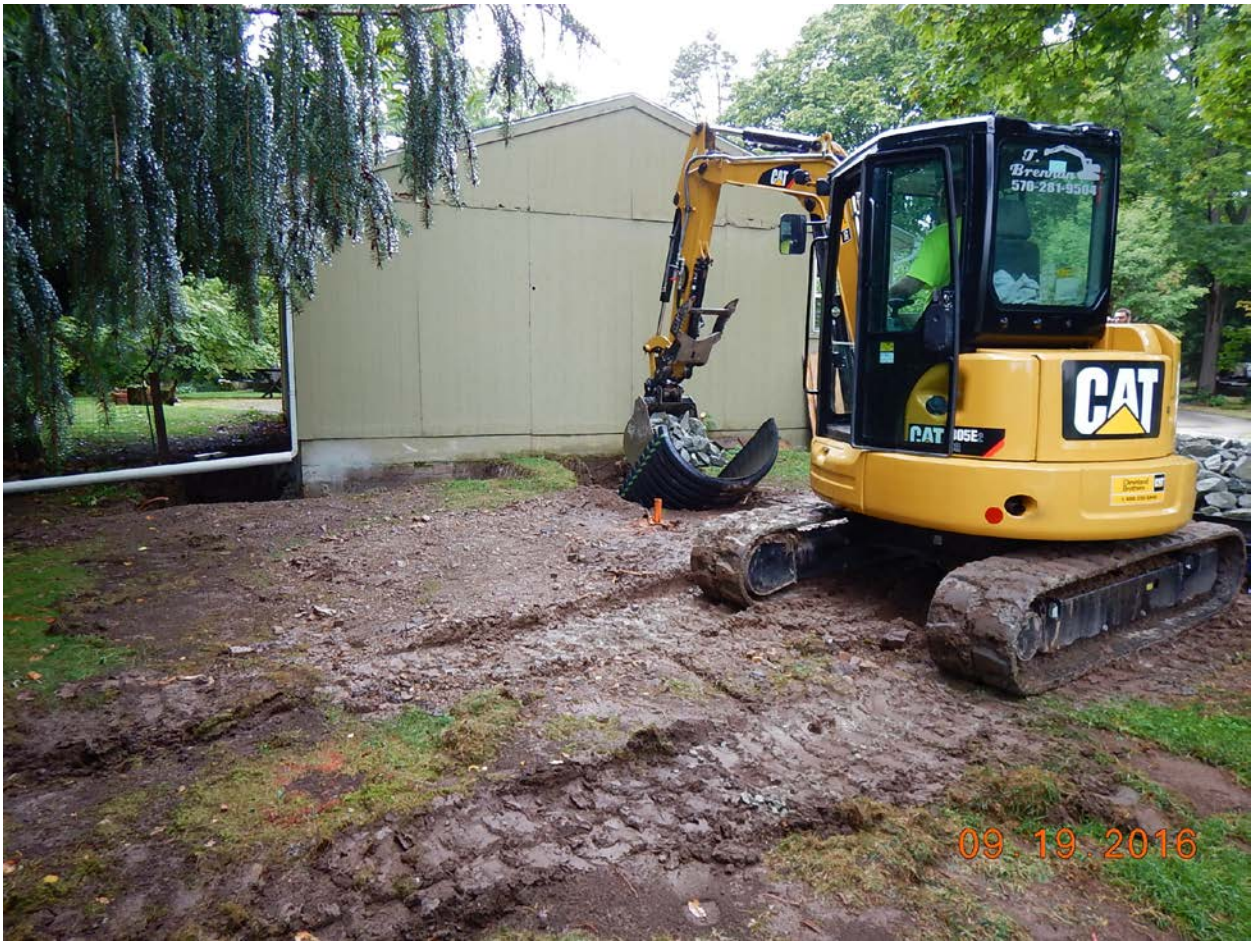
SUBSIDENCE OPENING

DURING CONSTRUCTION



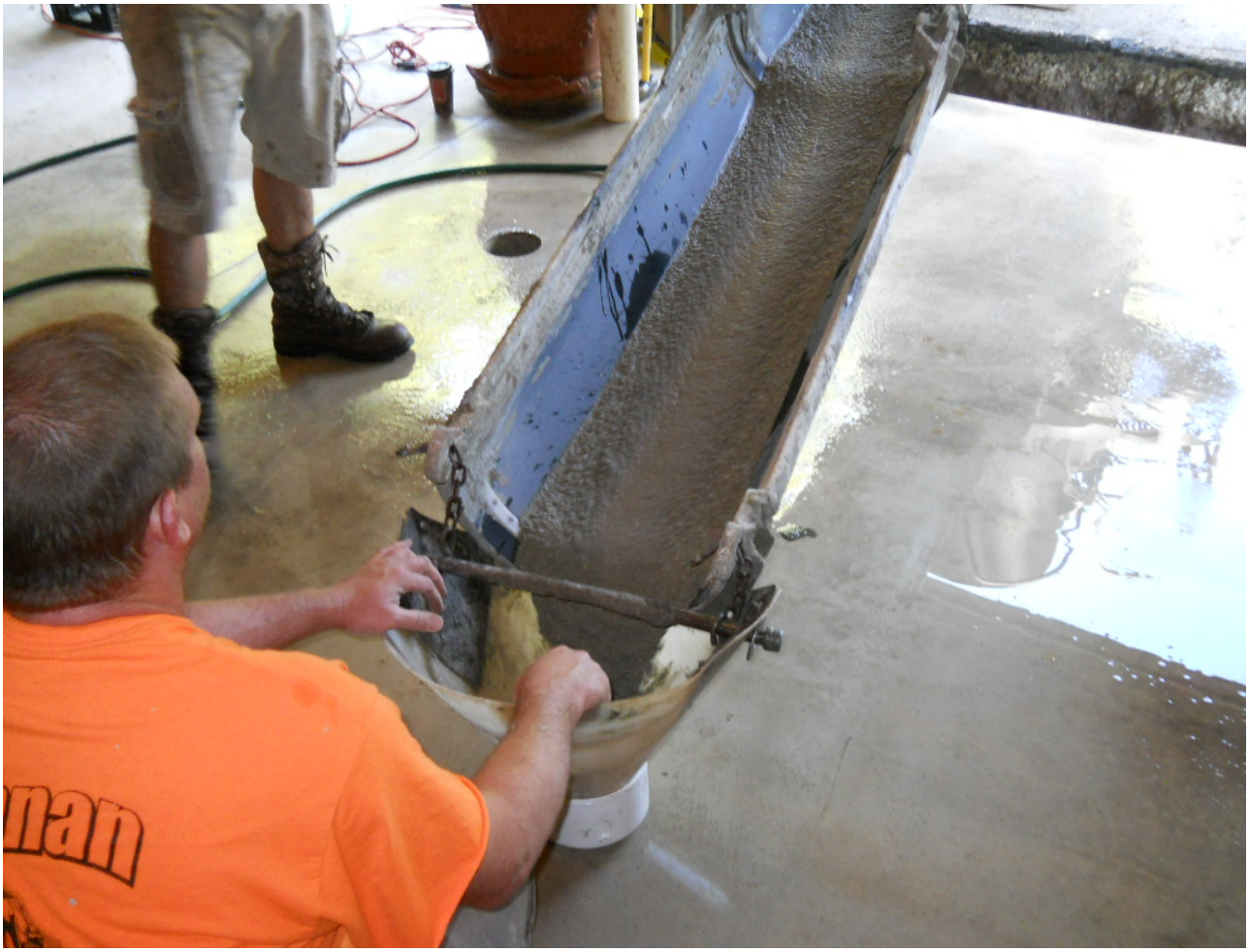
INSTALLATION OF STEEL PUSH PIERS TO SUPPORT GARAGE

DURING CONSTRUCTION



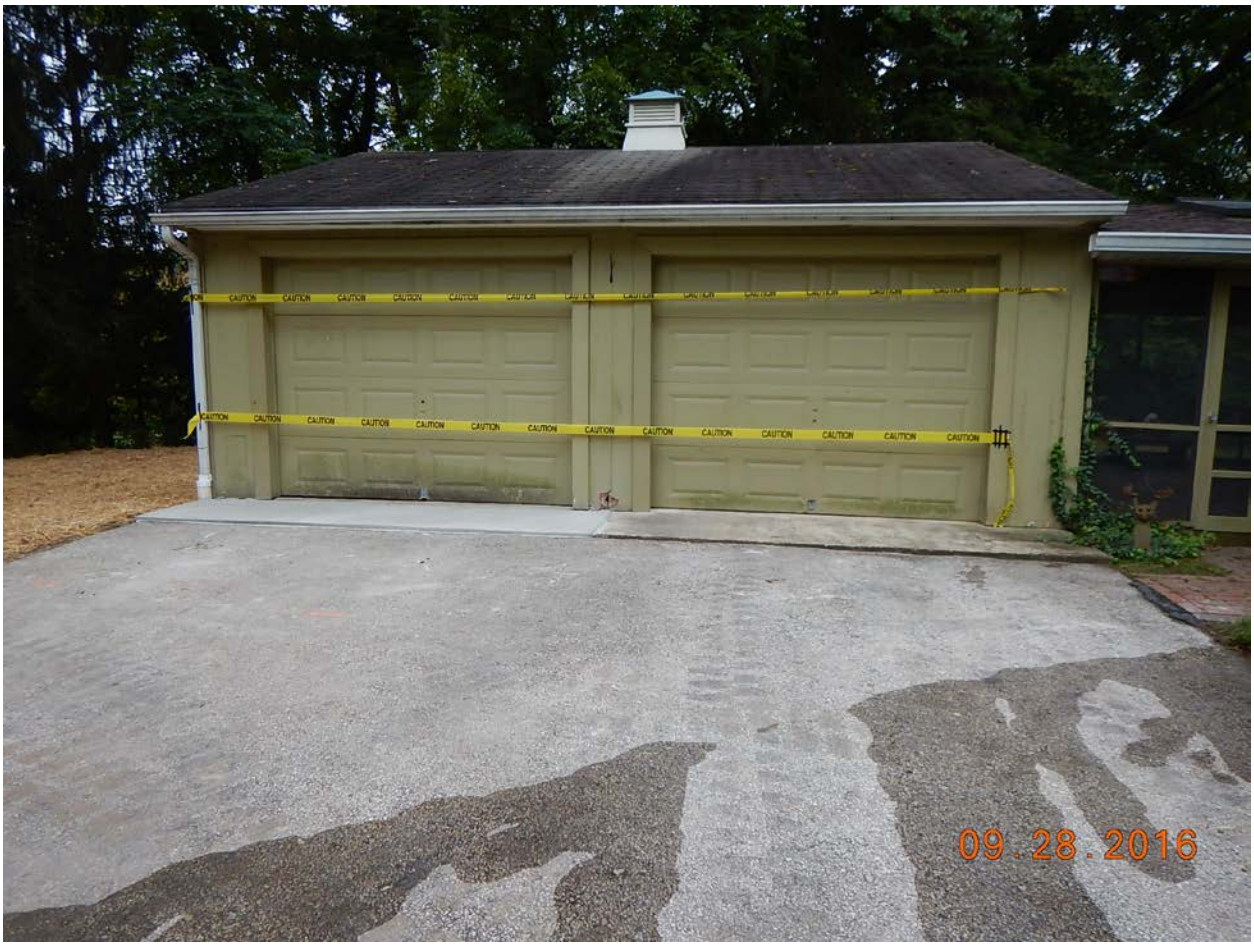
BACKFILLING MINE SHAFT WITH ROCK

DURING CONSTRUCTION



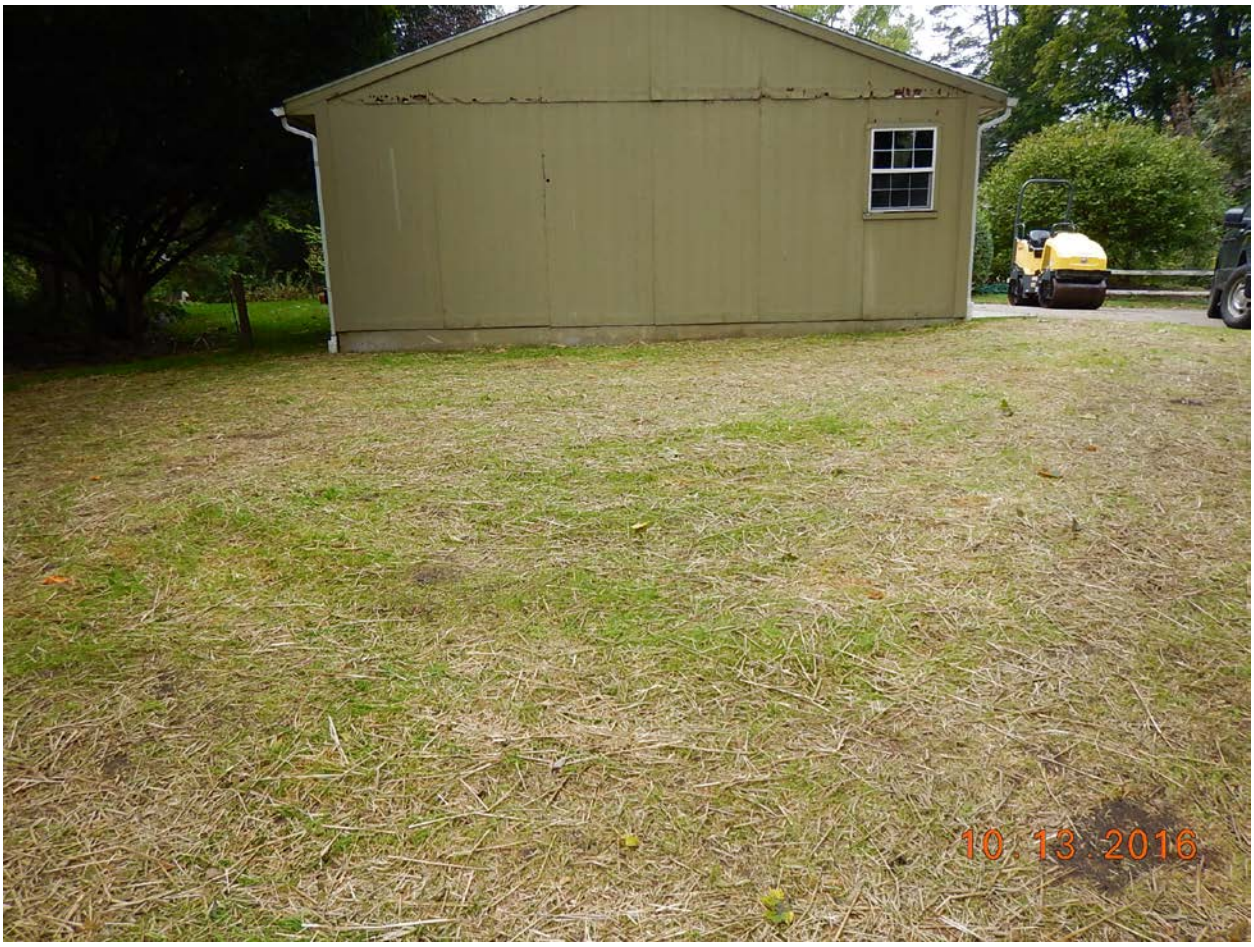
BACKFILLING MINE SHAFT THROUGH COREHOLES WITH FLOWABLE FILL

POST CONSTRUCTION



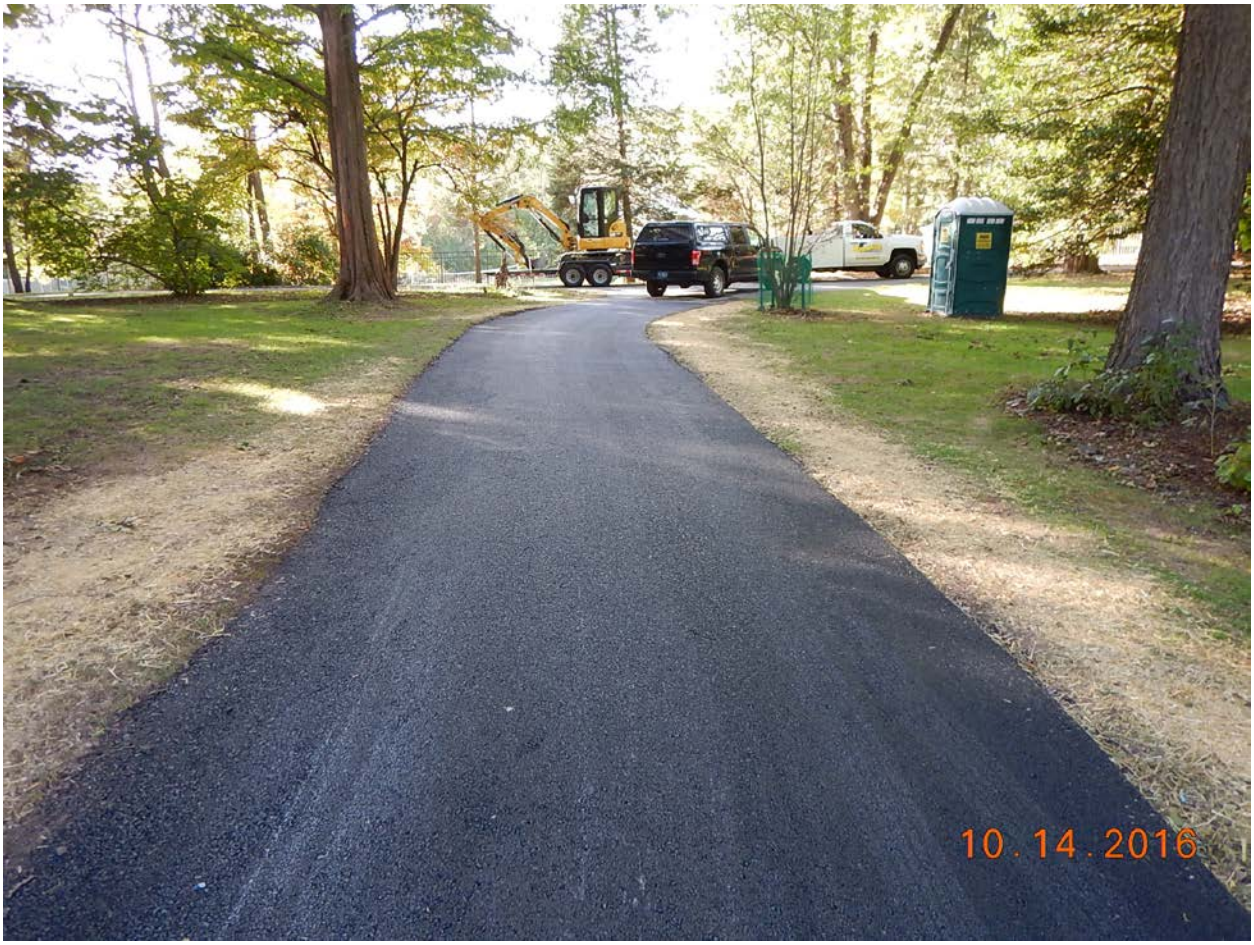
APRON REPLACED ON LEFT BAY OF ATTACHED GARAGE

POST CONSTRUCTION



BACKFILLED SUBSIDENCE AREA

POST CONSTRUCTION



REPAIRED DRIVEWAY