

## Daily Report

<b>Project:</b>	Durham Meadows Pipeline Installation	<b>Date:</b>	June 30, 2020
<b>Location:</b>	Maiden Lane, Pickett Lane, and the Shared Access Driveway	<b>Day of Week:</b>	Tuesday
<b>Project #:</b>	AECOM: 6061487	<b>Report No:</b>	110
<b>Contractor:</b>	Ludlow Construction	<b>Page:</b>	1 of 14

### Weather Conditions

**Conditions:** Daylight hours. Partly sunny. Winds variable 0-4 mph.

**Temperature (°F):** High 71°F Low 62°F

Contractors & Subcontractors Workforce					Equipment in Use							
Trade	#	x	hrs		Trade	#	x	hrs	Type	#	x	hrs
USACE					Ludlow Construction				Concrete/Asphalt Road Saw	1	x	8
Field Engineer	2	x	8		Superintendent	0	x	8	Dump truck	5	x	8
					Safety Officer	1	x	8	Excavator – Large	3	x	8
					Foreman	2	x	8	Excavator - Mid-Size	1	x	8
					Dump truck Operator	4	x	8	Excavator - Rubber Wheeled – Rock	0	x	8
					Excavator Operator	4	x	8	Skid Steer / Bucket Loader	1	x	8
					Skid Steer/Bucket Loader	1	x	8	Rolling Compactor	1	x	8
					Laborers	6	x	8	Plate Compactor	1	x	8
					<i>Note that some persons</i>				Jumping Jack Compactor	1	x	8
					<i>Multiple pieces equipment.</i>				Street Sweeper (Broce Broom)	1	x	8
									Material Hopper	1	x	8
					Sub-contractor	3	x	8	Pipe saw	1	x	8
					Municipal Police Detail	0	x	8	Light Tower	0	x	8
					State Police Detail	0	x	8				

**Visitors:**

## Pipe Connections, Installations, and Other Work

Ludlow installed 8" DIP at Station 529+56 on Pickett Lane in Durham.

Ludlow continued work on the stream crossing on Pickett Lane at Station ~511+00.

Ludlow continued worked on the water tank footprint at the top of the Shared Access Driveway.

Ludlow conducted a pressure test on the 6" DIP that Ludlow installed on Mill Pond Lane on June 26, 2020.

## Compaction Testing

Soil compaction testing was performed today. Compaction test data for the project can be found here:

<https://www.nae.usace.army.mil/Portals/74/docs/Topics/DurhamMeadowsWaterline/CompactionTests/>

In addition, soil compaction data is presented in the Contractor Daily Quality Control Reports located here:

**Res. Representative:**

J. Meunier

**Date:** 6/30/20

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<https://www.nae.usace.army.mil/Missions/Projects-Topics/Durham-Meadows-Water-Lines-Project/>

### Daily Activities –Shared Access Driveway, Middletown

Ludlow continued work on the water tank footprint at the top of the Shared Access Driveway.

0715: Ludlow continues to place and compact structural fill at the tank pad footprint in 12" lifts.

0852: Ludlow has structural fill within the water tank footprint brought up to elevation 436. JTC is present to collect compaction data from 4 quadrants on this lift.

1031: Ludlow surveyor Juliano Associates is on site to bring the benchmark up to the top of the hill. All four compaction tests on elevation 436 lift passed (>95%).

1130: USACE conducts a conference call with Rich Berlandy and Joel Meunier of AECOM to discuss the tank pad fill and compaction results. It was agreed that the elevation of the tank pad footprint could be brought from elevation 435 to 437 in two 12" lifts, given that all four compaction tests from the first lift passed at 95% or higher. Ludlow has already brought the elevation from 435 to 436 with the structural fill approved by AECOM.

1140: Ludlow has elected to bring elevation 436 up to 437 in an 8" lift, followed by a 4" lift, compacting at each lift and having JTC collect compaction data for each lift.

1235: Ludlow has placed structural fill from elevation 436 to 436.67 with an 8" lift. They are currently placing a 4" lift of structural fill from 436.67 to 437.

1320: Heavy rain begins to fall.

1338: Heavy rain has placed additional earth work on hold at the water tank footprint.

1402: Heavy rain continues to fall with no additional earth work performed at the water tank footprint.

### Daily Activities – Stream Crossing, Pickett Lane, Durham

Ludlow continued work on the stream crossing on Pickett Lane at Station ~511+00.

0738: Ludlow resumes work at the stream crossing on Pickett Lane at Station ~511+00. Ludlow is trenching on the east side of Allyn Brook in order to place 30" conduit under the stream bed.

0813: Ludlow has trench box placed partially across Allyn Brook and inside a portion of excavated stream bank east side of the stream. Ludlow has begun to excavate material within the trench box and live load it into dump trucks.

0925: Ludlow continues to work at Station 511+00. An excessive amount of silt is entering the stream from three silt bags which are overwhelmed with the amount of water and silt being pumped into them. AECOM notified USACE field engineer Kurt Mintell. Ludlow is trying to filter turbid water escaping the silt bags with 3/4" gravel and hay bales, which is not working.

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0937: Kurt Mintell and Bob Christie of the USACE arrive at the stream crossing work zone at Station ~ 511+00. A light-moderate rain begins to fall.

0957: AECOM checks the condition of Allyn Brook where it runs underneath Route 17. Very little turbidity is observed.

1000: Kurt Mintell speaks to Ed Hathaway of the USEPA about the turbidity situation in Allyn Brook and the decision to allow Ludlow to continue with the placement of the 30" conduit.

1200: Ludlow has the 30" conduit in place and backfilled at Station ~511+00. Turbidity downstream of the work zone is still elevated but has begun to diminish.

1318: Ludlow has finished work for the day at Station ~511+00. The stream flow bypass culvert (40" corrugated plastic pipe) and the sandbag dams located upstream and downstream of the work zone have been left in place. All pumps have been pulled from the stream. The ground surface to the east of the work area has been leveled but will need additional restoration work.

### Daily Activities – Pressure Test, Mill Pond Lane, Durham

Ludlow conducted a pressure test on the 6" DIP that Ludlow installed on Mill Pond Lane on June 26, 2020. The test ran from 0827 to 1027. The test passed with both start and end pressures at 150 PSI.

### Daily Activities – Installation of 8" DIP, Pickett Lane, Durham

Ludlow installed 8" DIP at Station 529+56 on Pickett Lane in Durham.

0728: Ludlow excavating on Pickett Lane at Station 529+56 to install 8" DIP. The pipe will be connected to an 8" R.S. gate valve that was previously installed on the 12" water line.

0832: Ludlow has a 20' section of 8" DIP installed at Station 529+56.

0918: Ludlow is daylighting an existing 8" DIP waterline and several 2" PVC conduits that run parallel with Pickett Lane to the east of the road. The PVC conduits are located about 15" BSG and the 8" DIP water line is located about 4' BSG.

1106: Ludlow is continuing to place 8" DIP at Station 529+56. They have installed 40' of pipe so far.

1147: Ludlow has finished placing 8" DIP at Station 529+56. They have pipe installed to 33' east of edge of pavement.

1258: Ludlow has backfilled the trench at Station 529+56 and is currently cleaning up the work zone with the Bocce Broom.

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**Picture 1: Ludlow placing structural fill at the water tank footprint, bringing the elevation from 435 to 436. Shared Access Road, Middletown. View to the southeast.**



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Picture 2: Work zone at the stream crossing located at Station ~511+00. Pickett Lane, Durham. View to the northwest.



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Picture 3: Pressure test set up on the hydrant installed on Mill Pond Lane on June 26, 2020. View to the south.



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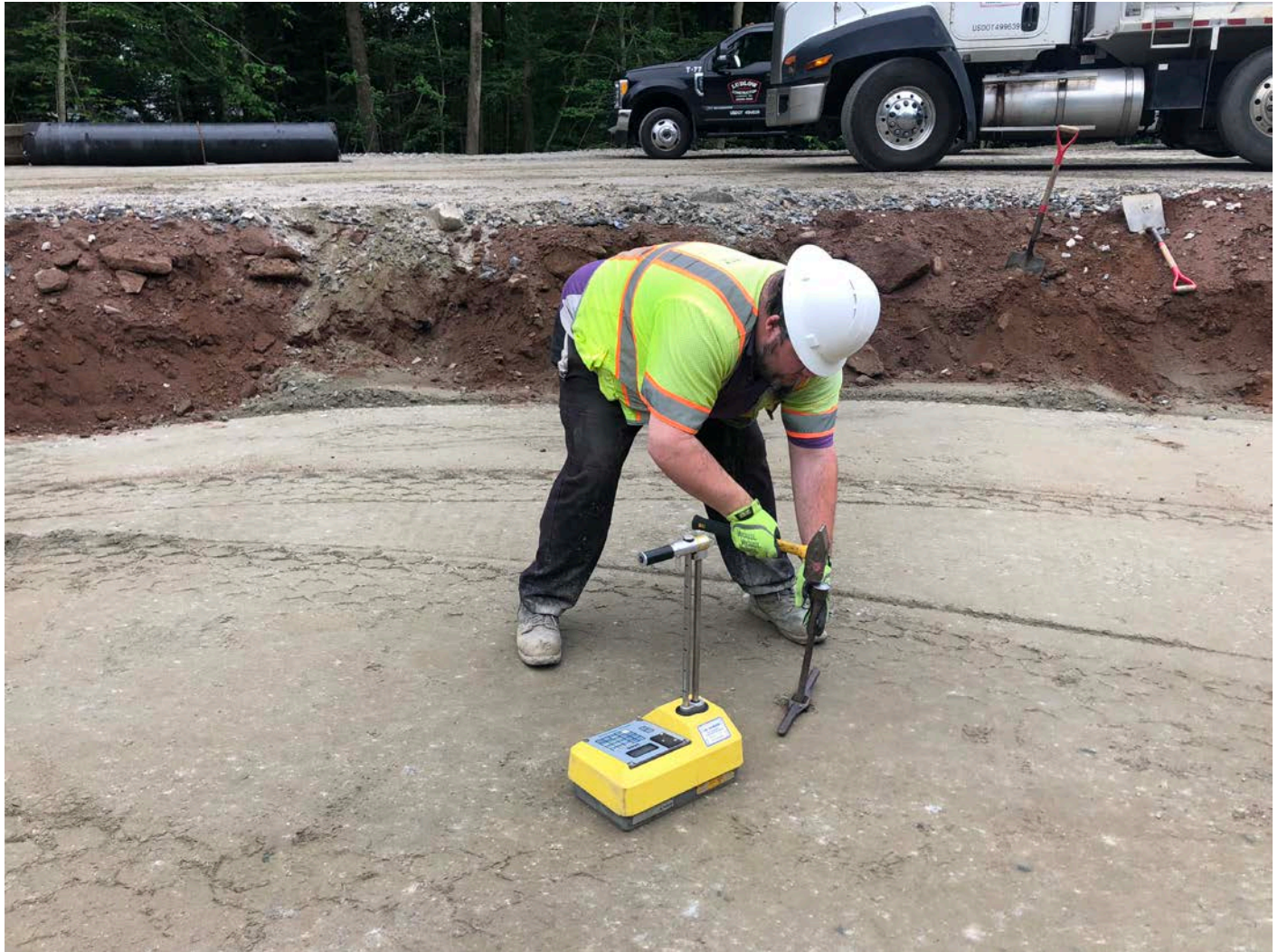
**Picture 4: Ludlow excavating within trench box placed at the stream crossing located at Station ~511+00. Pickett Lane, Durham. View to the northwest.**

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Picture 5: JTC collecting soil compaction data from the top of compacted structural fill at elevation 436 at the water tank footprint. Shared Access Driveway, Middletown. View to the south.



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**Picture 6: High turbidity observed downstream of the work zone at the stream crossing located at Station ~511+00. View is upstream and to the north. Pickett Lane, Durham.**

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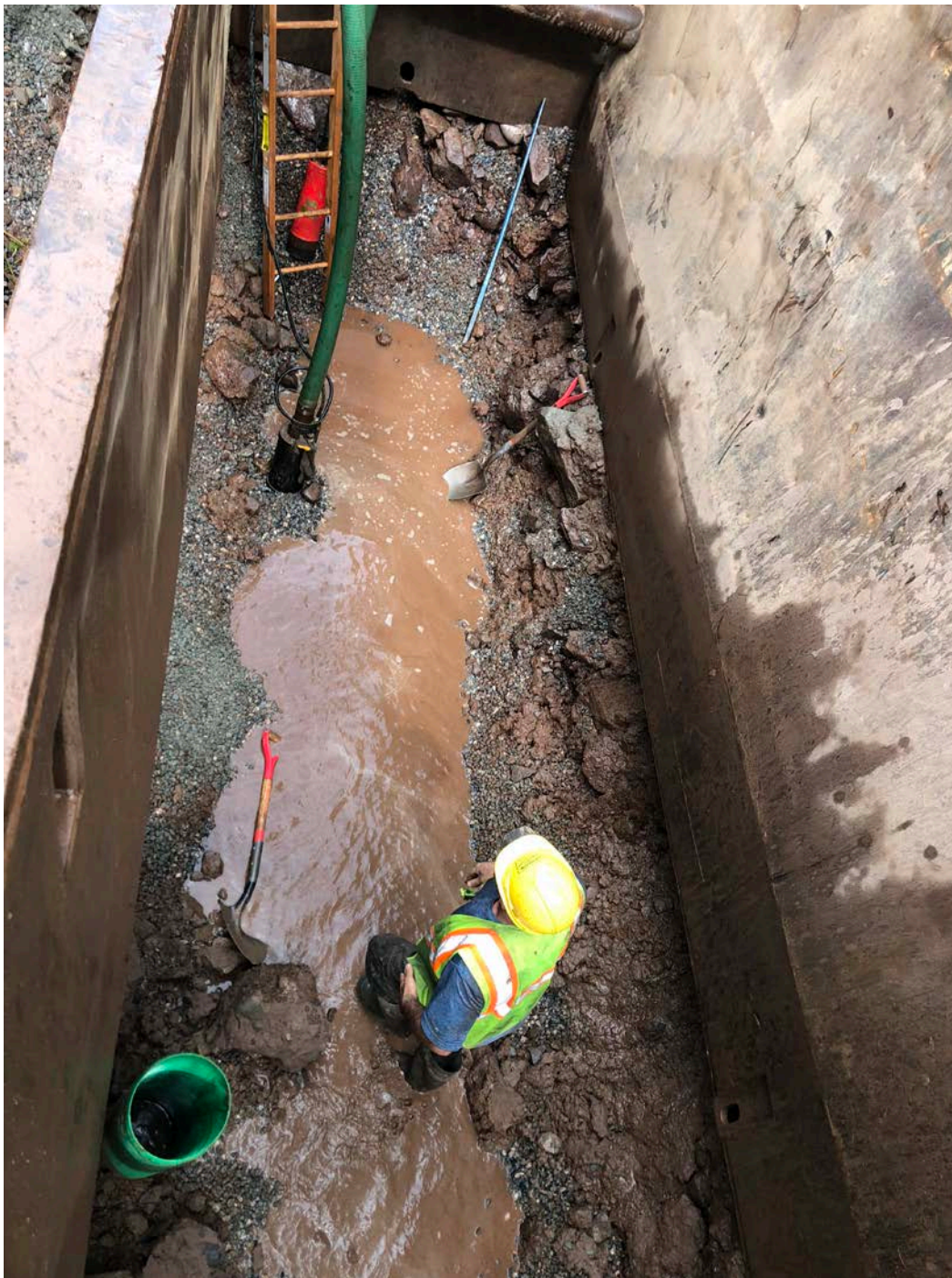


**Picture 7: Ludlow employed 3 silt bags to filter water pumped from the stream crossing work zone while placing 30" conduit. The bags (visible at the top of the picture) were not able to keep up with the water flow and silt load and failed, resulting in high turbidity downstream of the work zone. Station ~511+00, Pickett Lane, Durham. View to the northeast.**



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**Picture 8: Ludlow working within the trench box while preparing to place 30" conduit as part of the stream crossing at Station ~511+00. Pickett Lane, Durham. View to the west.**



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**Picture 9: Trench at Station 529+56 after having daylighted a number of utilities. View to the east. Pickett Lane, Durham.**

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Picture 10: Ludlow cleaning up work zone at Station 529+56 with a Bocce Broom. Pickett Lane, Durham. View to the east.



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**Picture 11: Allyn Brook looking upstream after trench box was removed and work ceased for the day. Turbidity has dropped significantly. View is to the north. Pickett Lane, Durham.**

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