

NEW ENGLAND CONSTRUCTION



ACP
SPECIAL FOCUS
TRUCKS, TRAILERS,
AND LUBRICATION

J. Masterson Construction Finalizing Warehouse Development Site Work for Jewett Construction Co.

ACP
1030 E Washington St Ste. 201
Indianapolis, Indiana 46202
ELECTRONIC SERVICE REQUESTED
PRESORT STD
U.S. POSTAGE
PAID
LEBANON JCT., KY
PERMIT # 737

CONTINUING A SUCCESSFUL PARTNERSHIP

Jewett Construction Co. Works with J. Masterson Construction
on Second Project in Wilmington, Massachusetts

By Joanne Ray



After a slow January 2022 start, site work on two warehouses in Wilmington, Massachusetts, is well underway.

“This is a complete ground up development of a vacant 28-acre parcel into two warehouse buildings and associated parking,” said Steve Souza, Project Manager for J. Masterson Construction of Danvers, Massachusetts.

The project started when Jewett Construction Co., a New Hampshire and Maine based management company specializing in commercial construction projects, was in collaboration with J. Masterson on a former project in Wilmington, Massachusetts. That project consisted of transforming an outdated, but spacious 411,733-square-foot warehouse, into a modern storage facility where J. Masterson did all of the ground improvements.

“This project is quite a bit larger,” said Kat Howland, Vice President of Employer

Brand and Talent at Jewett Construction Co. – the general contractor on the project. “This land will be transformed into two 100,000-plus-square-foot warehouses – building A and building B. Building A will consist of 103,440 square feet and building B will consist of 111,000 square feet. The two buildings are being constructed in sequence and the building schedule has been thoughtfully designed to improve site efficiency and speed of construction.”

The project site development kicked off with mass land clearing; tree and stump removal; the stripping and exporting of site loam of more than 30,000 cubic yards; cutting and filling 65,000 cubic yards of onsite material and importing and placing more than 15,000 cubic yards of fill.

One challenge that confronted the crew was the volume of dirt that needed to be moved.

“It took several earthwork crews all in sync and coordinating with each other to get the site to subgrade,” Souza said. “We were able

to speed up the process by using larger equipment like the Caterpillar 349 Excavator.”

Blasting Challenge

As the project progressed, the crew encountered another challenge with the volume of blasting for ledge removal. Maine Drilling and Blasting from Auburn, New Hampshire, took charge and removed more than 17,000 cubic yards with the help of a Epiroc T45 SmartROC Drill Rig.

“The ledge removal on this project was particularly challenging given the volume of ledge removal,” Souza said. “Blasting operations alone took more than two months. Additionally, the material needed to be processed in order to continue progressing with earthwork filling operations. It took months of planning to fine tune a schedule and sequence of operations so we could begin blasting as soon as possible and be able to continue other site work activities at the same time.”

Retaining Walls

As the project continued, the crew moved forward with the excavation, prep, installation and backfilling of six Versa-Lok style retaining walls with total heights reaching more than 27 feet tall. Versa-Lok segmental retaining walls are made from high-strength concrete units, dry-stacked, interlocked with pins, and then set on granular leveling pads. The mortarless walls are stabilized with geogrid soil reinforcement and do not require frost footings, according to the information on the Versa-Lok website.

Project progression came with the excavation and backfilling for concrete building foundations, interior column footings, interior under-slab plumbing and electrical – as well as the excavation, installation, and backfilling of more than 4,000 linear feet of water main and building services.





Sewer Main

Another challenge that came about was with the excavation, installation, and backfilling of more than 2,000 linear feet of deep sewer main and sewer manholes with depths reaching up to 15 feet from finish grade in some areas.

“One of the bigger challenges we faced was an existing live sewer main that ran directly through the property,” Souza said. “We could not blast to remove ledge in this area until the new sewer main was installed and the old main taken offline. The new sewer was challenging to install due to the depth of more than 10 feet requiring safe shoring, presence of constant groundwater/dewatering, as well as ledge removal by hydraulic hammering attached to an excavator. Lastly, to make the final connection of the new sewer main, we had to use pump trucks to bypass the existing sewer flow.”

Souza said that the deep sewer installation also involved the constant pumping of several feet of groundwater using traditional sumps, generators, and 3-inch pumps.

“The combination of the blasting, sewer main relocation, and volume of earthwork took a lot of coordination to be able to streamline the schedule to be ready for building foundations as soon as possible,” Souza said. “On top of installing other utilities and retaining walls at the same time, at one point, we were up to 30 pieces of equipment of varying sizes. Again, this requires a tremendous amount of coordination in the field from our supervisor, as well as the project management and engineering staff, to stay ahead and resolve any issues.”

Project Progression

Other details of the project include the excavation, installation, and backfill of multiple detention and infiltration drainage systems and basins, pipe varying in sizes up to 66 inches in diameter along with the excavation and backfill for new electrical services, telecommunications, site lighting and gas services. Part of project completion will include 28,000 square yards of new asphalt paving and the screening and re-spreading onsite loam.

“The project has been progressing well since we began in early January,” said Mike Brown, Senior Project Manager at J. Master-son. “Overall, it has been a complete team effort from everyone at J. Masterson and Jewett Construction. Doug Campbell is running this project as one of our senior superintendents and our field staff has done an excellent job to push the schedule.”

Much of the equipment used for the project involved Caterpillar 349, 336, 335, 329, 324 Excavators, D6 Dozer and 950 Wheel Loader. A Caterpillar 725 Articulated Haul Truck was used in addition to a John Deere for off-highway trucking. A newly acquired Sandvik QJ341 Jaw Crusher was used for onsite crushing and the processing of more than 30,000 cubic yards for site fill.

An ‘Exciting Endeavor’

Howland said this project has been an exciting endeavor for Jewett Construction.

“Many improvements have been made to the project site since early 2022,” Howland said. “We’ve prepped the site to subgrade, blasted ledge, and installed underground site utilities. Currently, we are placing foun-

dations for building B, continuing general ground improvement, creating site drainage placements and prepping the foundation for building A.”

Howland also said the project challenges have been “thrilling” to navigate.

“The size and scope of the project has led to key discussions early on regarding procurement of site materials and long lead items to ensure that materials will be ready when needed and the project continues to stay on schedule,” Howland said. “We are excited to bring a project of this size from concept to completion.”

Brown said the bulk of the mass earthwork has been completed and the active sewer main onsite has been re-routed.

“This had to be completed prior to the start of building preparation,” Brown said. “Over the next three months, we will have multiple crews installing underground drainage systems, finishing retaining walls, and the balance of the remaining site utilities. Site finishes and pavement will begin later in the fall.”

The project is scheduled to be complete in early 2023.