

Portsmouth Metropolitan Housing Authority Lett Terrace Drainage Remediation West Portsmouth, Ohio



Howerton Engineering & Surveying was contracted by Portsmouth Metropolitan Housing Authority to perform a drainage remediation at their Lett Terrace Facility located in West Portsmouth, Ohio.

PMHA had recently replaced all the exterior AC units with high energy efficient units. While these units reduced the cost of electric bills for PMHA it caused another issue for them. The higher energy efficient units produced a significant amount of condensation dripping out the units onto the surrounding yard. As a result of this increase, on hot summer days and even in times of extreme dry weather the yard was always wet. This created a swamp like environment for the residents preventing them from enjoying the outside due to insects, mud, patio flooding, and a swamp aroma.

Howerton Engineering performed a boundary and site survey to determine the limits of our project as well as defining drainage areas. A storm water drainage study was performed to determine the sizing of the drainage remediation. Multiple Grass Pave Swales with subgrade drains were designed to collect all surface water. The AC units along with the downspouts were all hard piped over to the swales. The site was cleared of multiple large shade trees that prevented sunlight from drying up the yard and all ditches were cleaned out and freed from any and all obstructions.

A new 36" storm sewer line was designed to collect the additional surface water and condensation drips. The storm sewer was tied into an existing storm sewer system and then increased from a 24" line to a 36" line with a new outfall system. A secondary storm sewer line was ran to a Rain Garden to allow for a portion of the storm sewer flow to travel down a 15" pipe and dump into a rain garden that would allow the water to naturally be absorbed back into the soil.

Client/Location

PMHA
410 Court Street
Portsmouth, OH 45662
(740) 354 - 4547

Client Reference

Steve Tennant
Modernization
Coordinator
(740) 354-4547
stennant@pmha.us

Project Status

Complete

Dates of Service

Design – 2018
Construction - 2019

Special Features

- Topographic Survey
- Boundary Survey
- Demolition Plan
- SWPP
- Erosion Control
- Stormwater Design
- Stormwater Study
- Rain Garden
- GrassPave2 Swales
- Grading Plan
- Construction Admin