

## NOTRE DAME-CATHEDRAL LATIN

## STREAM RESTORATION

The Township of Munson, in partnership with the Sisters of Notre Dame, Notre Dame-Cathedral Latin (NDCL), Geauga County Soil & Water Conservation District, and Chagrin River Watershed Partners, was awarded a S174,600 Ohio EPA Section 319(h) grant in 2019 to stabilize 600 linear feet of an unnamed tributary to the headwaters of the Chagrin River and restore 0.5 acres of riparian area. The project lies on NDCL's campus, which is owned by the Sisters of Notre Dame.

Prior to restoration, this stream displayed severe signs of degradation. The streambanks were extremely eroded and threatening the nearby athletic fields at NDCL. Head cuts and vertical incisions were present. This erosion led to serious sedimentation issues downstream and the stream channel had to be frequently dredged. A lack of riparian vegetation added to the instability of the streambanks.







Davey Resource Group, Inc. (DRG) and Marks Construction, Inc. were contracted as the design-build team to complete the restoration using a bioengineered approach. A series of grade control structures within the stream channel were installed, including rock sills and riffle-pool sequences, to stabilize the stream and reduce erosion and head cutting. The streambanks were graded to a more stable angle and planted with native vegetation including 3-gallon size shrubs, ball and burlap trees, and native riparian seed mix. In addition, a wetland floodplain was created at the downstream end of the project area to help reduce the impact of high-flow rain events and allow to the stream to access its floodplain.

The nearby location of the school allowed for unique educational opportunities for the students. DRG hosted presentations and tours during construction of the project for the environmental science students, the construction access was turned into a running path for use by the school's cross-country team, and the riparian seed mix was especially chosen to feature the school's colors of blue and gold.



This project was financed in part or totally through a grant from the United States Environmental Protection Agency through an assistance agreement with the Ohio Environmental Protection Agency. The contents and views, including any opinions, findings, conclusions or recommendations, contained in this product or publication are those of the authors and have not been subject to any Ohio Environmental Protection Agency or United States Environmental Protection Agency peer or administrative review and may not necessarily reflect the views of the Ohio Environmental Protection Agency or the United States Environmental Protection Agency and no official endorsement should be inferred.