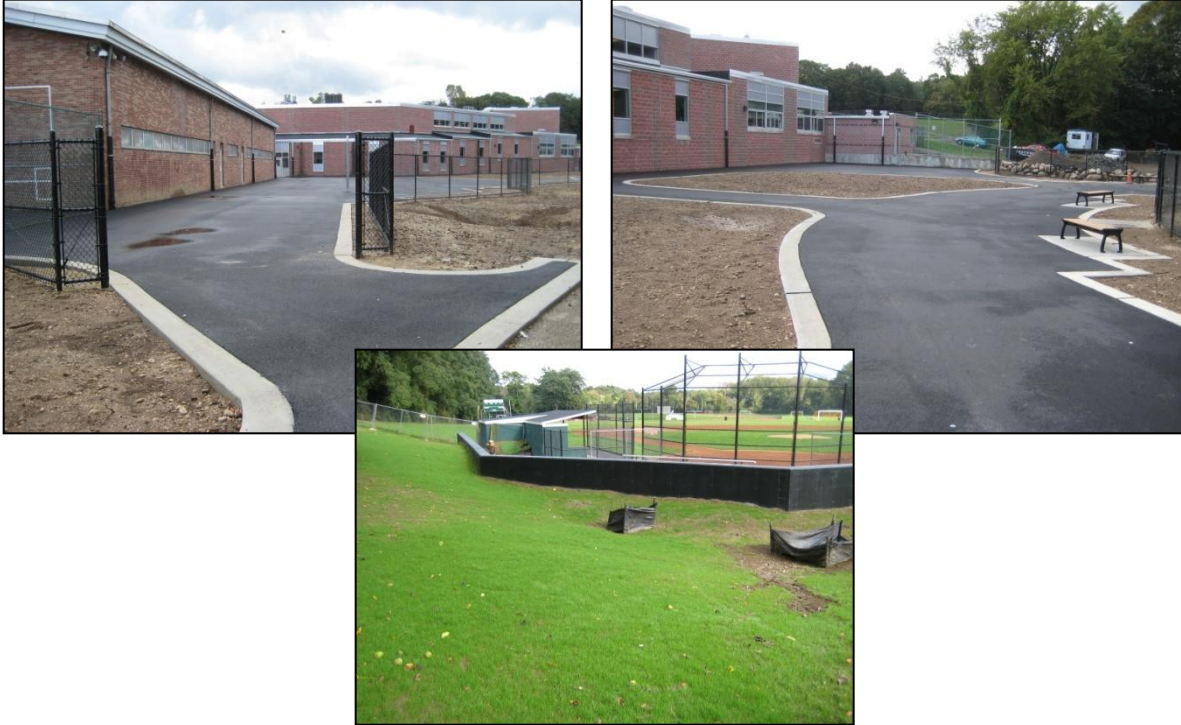


# Locust Valley High School Drainage Improvements



**Client:** Burton, Behrendt, Smith, P.C.

**Project Location:** Locust Valley, NY

This project involved the design of site drainage improvements at this high school on Long Island, NY. The school had experienced an increasing frequency of intense rainfall events that had led to flooding of portions of the site and some building locations. The situation had been exacerbated by overflows from the adjacent municipal storm drainage system onto school property. Also, recently added school building facilities complicated the storm flow treatment options on the site and added to the number of school facilities that were threatened by the flood damage. GPI conducted a review of plans for the new buildings as well as the plans for the original school construction that dated back to the 1960's to identify the original intent and capability of the storm drainage system existing on the site. GPI then designed improvements to help channel and control the impacts of increasing storm drainage flows.

System improvement elements included connection of the municipal system to a main trunk drainage line that existed through the school property, installation of an emergency pump station to protect the school's new power supply control equipment located in a new basement, and re-grading of key areas on the site to provide additional storm flow detention and absorption through the use of wet meadow or "rain garden" areas in conjunction with an "arroyo" system the district had begun to develop previous to GPI's involvement. Re-grading also addressed smoothing the flow corridor and introducing interim high points and collection inlets to improve the distribution of storm flows through the existing pipe system and the site in general. Services included data collection, survey, site design and civil engineering, mechanical and electrical engineering, and coordination with local government agencies.