



UNITED STATES

Mersen USA Plant Facility Bay City, MI



Owner
Mersen USA

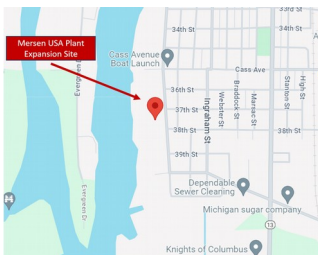
Engineer
SME USA

General contractor
Serenus Johnson Construction

Dates of work
May 2023 June 2023

Main figures

Controlled Modulus Columns
1,002 EA.



Description

As part of a multi-site expansion, Mersen USA – a graphite manufacturer – proposed to both increase capacity and to modernize the capabilities of its Bay City, MI, manufacturing plant. The expansion, which included technical, warehousing, and manufacturing space, is necessary to meet the growing demand for graphite products in semiconductors and electric vehicles. Mersen anticipated the creation of 75 new jobs for the Bay City area upon completion of the project.

The existing facility abuts the Saginaw River on the south side of the city. The westernmost portions of the property consist of manmade land. Fill soils from prior construction were placed within the building expansion areas. Of the new buildings and areas at the Bay City location, three would be supported on ground improvement with a total combined area of 45,000 sq ft. Design live loads of up to 1,000 psf were specified in the warehouse area.

Menard USA was contracted to install Controlled Modulus Column (CMC)[®] rigid inclusions to support the three new structures.

Ground conditions

Due to the proximity to the Saginaw River and the site history of various fill periods, the soil borings noted significant deposits of uncontrolled, manmade fills and organic peat soils. These soils, which extended up to 20-ft below existing grades, were deemed unsuitable to support the proposed structures.

Solution

Menard worked with the project team to provide the most economical and technically feasible solution. Menard designed and installed more than 1,000 CMCs, to an average depth of 17 ft, to support the new warehouse and tech building. Despite a number of challenges encountered onsite, including existing utilities, Menard delivered the project ahead of schedule.

“It was a pleasure working with the Menard team throughout the multiple challenges we encountered,” said John Keister, Vice President of Serenus Johnson Construction. “Menard demonstrated professionalism at all levels. We would gladly recommend you for future work based on our engagement.”

For a major expansion for Mersen USA, Menard supported three new buildings with CMC rigid inclusions.

