

PROJECT DESCRIPTION

Jamestown Ice Rink Shoring

Location:
Jamestown, New York

Client:
Herbert F. Darling, Inc.

Client Contact:
Mr. Tom Swiatek
(716) 632-1125



Cantilevered Soldier Pile and Lagging Wall Looking West

The basement excavation for the Jamestown Ice Rink extended approximately 16 feet below the level of the adjacent ground and street. West 3rd Street borders the north side of the site (to the right in the above photo) and is within several feet of the excavation limits.

The contractor desired a cantilevered wall to support the excavation to leave the excavation area open for construction and because utilities along West 3rd Street presented obstacles for installing tieback anchors. MMCE worked closely with the contractor to develop a cantilever design with sufficient stiffness to limit movement to the adjacent utilities and street. MMCE designed a soldier pile and lagging wall to support the excavation for the basement. McKinney Drilling, Inc. and Herbert F. Darling, Inc. constructed the wall.

MMCE installed inclinometers at two locations along the wall and monitored lateral movements during construction. The data showed that the cantilevered wall supporting 16 feet of soil moved about 0.75 inches laterally (at the top) during construction.