

**GEOTECHNICAL SITE CHARACTERIZATION  
PORT OF ROCHESTER HARBOR IMPROVEMENT  
AND HARBOR FERRY TERMINAL  
ROCHESTER, NEW YORK  
(VOLUME I)**

by

**Haley & Aldrich of New York  
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for

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## EXECUTIVE SUMMARY

This report presents a summary of research, exploration, and characterization of the subsurface conditions at the site of the proposed Port of Rochester Harbor Improvement and Harbor Ferry Terminal, City of Rochester Project ID # 99021, conducted by Haley & Aldrich of New York. It has been prepared in accordance with our Subconsultant Agreement with LaBella Associates, P.C. dated 16 December 1999.

The purpose of this study was to characterize the site's subsurface conditions in sufficient detail to support the planning and preliminary design of the proposed site improvements.

This report contains reproductions of historic (Sanborn) maps (1892 to 1967) depicting the various facilities that have occupied the site and records of several earlier subsurface explorations made on or near the site. It also contains detailed records of the 25 test borings, 27 test pits, and 3 groundwater observation wells installed as part of the current study of the site by Haley & Aldrich, LaBella Associates, and Bourne Consulting Engineers.

The project area has undergone significant geologic and man-made alteration. An approximately 85-foot-deep, steep-sided gorge in the bedrock formed by post-glacial erosion, encroaches beneath the former transit sheds (the North and South Warehouses) along the eastern edge of the site. From the gorge's edge the bedrock surface rises more gently from about Elev. 200 (City Datum) to Elev. 215 to 235 near the western edge and southern end of the site, ranging from about 60 to 20 feet below the present ground surface. The majority of the site is underlain by man-placed fill consisting of uncontrolled deposits of soil and iron-manufacturing slag and demolition rubble ranging from as much as 20 feet to as little as 1 foot in thickness. The fill varies quite randomly from loose to dense. In most areas loose alluvial (river-deposited) fine sand and silt underlie the fills which extend to depths of a few feet to more than 100 feet. Groundwater levels appear to be about 2 to 5 feet above river level.

These conditions, while providing generally fair support for at-grade roadways and parking areas, provide variably fair to poor support for buildings and additional earthfills. The loose fills and alluvial deposits could yield detrimental differential settlements under thick regrading fills and moderately to heavily loaded structures.

Careful consideration should be given to the existing data presented in this report and the need for additional exploration, testing, and evaluation of the subsurface conditions in the planning and design of proposed site and structural improvements.