SCHNABEL
GEOSTRUCTURAL DESIGN & CONSTRUCTION

Project Report

EXCAVATION SUPPORT | SOLDIER PILES & LAGGING | TIEBACKS

SADDLE CREEK RETENTION TREATMENT BASIN
OMAHA, NEBRASKA

Construction of the temporary earth retention system (ERS) for Saddle Creek Retention Basin Project (RTB) located in Omaha, Nebraska started in June 2019 and was completed in December of 2020. The Saddle Creek RTB is an important part of Omaha's water quality program called Clean Solutions. Over 65 times a year, untreated sewage overflows into the Little Papillion Creek from the sewer outfall at the project location. The purpose of the Retention Treatment Basin facility is to capture this water and treat it during wet weather. Schnabel was chosen by Hawkins Construction Company for its economical soldier beam and lagging design utilizing Hollow Stem Auger (HSA) tiebacks in marginal clay soils.

The project started with Schnabel installing over 165 soldier beams (900+ LF of wall) with the RTG19. On the north wall of the ERS, king piles were installed to extend 7' above existing grade to meet required flood conditions. Approximately 410 hollow stem auger tiebacks were installed for the first 3 to 4 tiers with an additional 110 re-groutable tiebacks drilled for the remaining 4 to 6 tiers. The deepest cut height was around 60' and had 6 tiers of ties.

Horizontal drilling was utilized for 3 tiers along the northeast corner to support a crane pad and ramp from three sides to accommodate future phases of work for Hawkins. Active inclinometer monitoring was utilized along the whole wall to get timely feedback on wall performance.

Owner: **City of Omaha Public Works Department**
General Contractor: **Hawkins Construction Company**
Design/Build Specialty Contractor:
Schnabel Geostructural Design & Construction

HAWKINS CONSTRUCTION COMPANY

For more information on this project or any other of our projects please contact Schnabel at:

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