

04-128-3P West Side Primary Settling Tanks 1-9 and Aerated Grit Facility Stickney WRP

Construction contract 04-128-3P West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, Stickney Water Reclamation Plant (WRP) is being financed by the Clean Water State Revolving Fund (SRF). The SRF program is administered by the Illinois Environmental Protection Agency and receives a portion of its money to fund these types of projects from the U.S. Environmental Protection Agency. SRF programs operate in each state to provide communities the resources necessary to build, maintain, and improve the infrastructure that protects one of our most valuable resources: water.

Service Area: Stickney

Location: Cicero, Illinois

Engineering Consultant: Greeley and Hansen

General Contractor: IHC Construction and F.H. Paschen S.N. Nielsen Joint Venture

Contract Award Amount: \$224,760,000.00

Award Date: December 4, 2014

Contract Duration: 1,200 Calendar Days

Project Description: Construction of nine 160-foot diameter primary settling tanks (PST) and six 132-foot long aerated grit tanks, associated support facilities, service tunnels, and conduits. The aerated grit facility will include shaftless-screw conveyors, centrifugal and airlift pumps for grit removal, grit classifiers, and a dumpster-loading system. Grit tanks will be covered for odor control. Process air for the grit tanks and PSTs will be provided by new turbo blowers. The PST area will have tunnel access pump stations containing scum pumps, sludge airlifts, an electrical substation, odor control vessels and fans, and associated equipment. PST effluent weirs and troughs will be covered for odor control. The ability to bypass six PSTs will be provided. Additionally, modifications to the existing Monitoring & Research building at the Stickney Water Reclamation Plant are included in this project. The work involves the installation of new air handling units, an absorption chiller, heat exchangers, pumps, and strobic fans. Replacement of associated controls, intake, supply, and exhaust ductwork, piping, conduit, and wiring at the Monitoring & Research building is also included. Equipment will be provided by the District, but installed by the contractor. Piping will be installed in Mechanical Room LC-118 to bypass and abandon leaking underground condenser water piping.

Project Justification: The West Side Imhoff tanks are being decommissioned and replaced with more modern and effective treatment equipment. Imhoff battery A and skimming tanks 1-8 have already been demolished in preparation for this project. The Imhoff tanks that have been in service since 1928 are labor-intensive to operate and provide inferior treatment to PSTs. Valves for sludge withdrawal are difficult to operate and have resulted in injuries to personnel. Skimming scum from Imhoff tanks requires personnel to walk narrow walkways above open sewage without fall protection. Certain

