

INVITATION TO INDUSTRY DAY

Boiling Spring Lakes Dams Construction / Reconstruction Project

Boiling Spring Lakes, North Carolina

August 19, 2020



Industry Day

Prospective contractors are invited to attend an on-site Industry Day that will be hosted by the City on Friday September 18, 2020 at Boiling Spring Lakes City Hall (see additional information below). A presentation about the project will be delivered to provide contractors with a general understanding of the design. Following the presentation, contractors will be invited to participate in an organized tour of each of the four dam sites. A test pit will be excavated at one or more of the dam sites, and contractors will be allowed to retain soil samples for their use. Contractors will be required to wear personal protective equipment (PPE) when within 50 feet of excavation equipment. PPE and containers for retaining and shipping soils will not be provided. Following the site visits, the group will return to City Hall for a Q&A session before adjourning. All participants are hereby notified that all presentations, questions and discussions during Industry Day are subject to North Carolina sunshine laws and therefore are public information.

Due to concerns about COVID-19, each contractor will be limited to two participants and the presentation will be outside. All participants will be required to wear a mask that covers the mouth and nose to be able to enter the building. The City will aim to adhere to a strict schedule to adjourn the event by noon. The presentation will also be made available via Microsoft Teams to participants who have provided an advanced request to the City.

Boiling Spring Lakes City Hall
9 East Boiling Spring Road
Boiling Spring Lakes, North Carolina

Friday September 18, 2020
7:45 AM – 12:00 PM

Anticipated Schedule

Following Industry Day, contractors can submit questions about the information presented at Industry Day. Questions can be submitted to jrepp@cityofbsl.com through 5:00 PM eastern time on Friday October 9, 2020. All submitted questions and corresponding responses will be compiled and distributed to contractors who participated in Industry Day by Friday October 23, 2020. Construction notice to proceed (NTP) is currently anticipated to be provided to the awarded contractor in summer of 2021. The currently estimated contract duration is approximately 185 weeks between NTP and substantial completion. Updated dates and contract durations will be provided in future bid documents.

Project Description

The Boiling Spring Lakes Dams are located in the City of Boiling Spring Lakes in Brunswick County, North Carolina less than 10 miles north of Southport, North Carolina. Sanford Dam is the largest dam in the dams system and retains Boiling Spring Lake, the largest lake in the City. The Military Ocean Terminal Sunny Point (MOTSU) access railroad traverses an embankment that is situated just downstream of Sanford Dam. The City and lake impounded by Sanford Dam take their name from the Boiling Spring, which was a well-established spring downstream of the MOTSU embankment that attracted local attention in the early 20th century prior to the development of the City. Since original construction of Sanford Dam around 1962, Boiling Spring Lake and Sanford Dam have experienced issues related to sinkholes which formed on or upstream of the dam or in the areas adjacent to the dam. North Lake Dam, Pine Lake Dam, Middle Lake Dam, and Upper Lake Dam were constructed immediately upstream of Boiling Spring Lake around the same time as Sanford Dam. Middle Lake Dam is privately owned and is not a part of the Project. All other dams are owned and maintained by the City of Boiling Spring Lakes. The dams provided aesthetic and recreational benefits throughout the City's lake system.

During Hurricane Florence in September 2018, Sanford Dam suffered major failure due to overtopping and substantial embankment erosion that caused sudden release and loss of the Boiling Spring Lake impoundment. Subsequent failures occurred upstream at North Lake Dam, Pine Lake Dam, Middle Lake Dam, and Upper Lake Dam. North Lake Dam and Pine Lake Dam were temporarily repaired to re-open East Boiling Springs Road which traverses over the two dams. Sanford Dam and Upper Lake Dam currently remain breached. Each of the four Project dams are earthen embankment dams with culverts or pipe-and-riser spillways. The goal of the project is to reconstruct the City-owned dams in accordance with current North Carolina Dam Safety regulations.

The general scope of the Project work includes the major components listed below.

- Mobilization, preparation of administrative, staging, and work areas, and establishing security and construction limits at each of the four dams
- Establishing and maintaining road closures and traffic controls for all four sites in accordance with the sequence of construction of the four dams, including acquisition of related permits
- Power and telecom utility relocation coordination
- Construction, operation, and maintenance of erosion and sediment control measures in accordance with an approved permit from the NC Department of Environmental Quality
- Development and implementation of control-of-water plans for each of the four dams, including design of temporary cofferdams, stream diversion elements, and dewatering measures consistent with conceptual design approved by NC Dam Safety
- Demolition/removal of existing spillway/culvert structures, foundations and appurtenances and construction of new cast-in-place concrete riser and box culvert spillways for all four dams, with an estimated total of about 4,000 cubic yards (CY) of structural concrete
- Approximately 98,000 CY of bulk excavation

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- Construction of new embankment sections, including the installation of core materials, drains and filters, with an estimated 110,000 CY of earthfill placement and an estimated 7,400 CY of drainfill placement
- Demolition of select existing roadway sections and construction of new roadway sections
- Construction of deep mixing panels through the upstream and downstream embankment slopes of all four dams, including development of soil-cement mix design, design and installation of temporary work platforms, installation of a demonstration panels, and sampling and laboratory testing of demonstration and production panels, with an estimated 26,000 CY of soil-cement
- Installation of a cutoff wall through the entire length of Sanford Dam embankment crest up to 60 feet deep. The wall will extend through the embankment and approximately 20 feet into the limestone rock at the bottom of the wall, with an estimated 80,000 square feet of wall profile area. Work will also include installation of a demonstration section and sampling and testing of demonstration and production wall sections
- Sanford Dam only: Installation of new instrumentation (structure monitoring points, vibrating wire piezometers, automated data collection and transmission equipment)