Designing for remote locations in Alaska presents logistical challenges and high construction costs that require unique engineering solutions. At a remote site in Alaska, on the Aleutian Island chain, the installation of the existing water piping system occurred over numerous projects spanning the 1950’s through the 1980’s. The existing water mains generally consisted of 6-in and 8-in cast iron and asbestos cement pipe materials. Additional projects in the early 2000’s successfully rehabilitated approximately 20,000 ft of pipe in the northern portion of the site using 8-in and 10-in HDPE pipe. In 2018, Coffman Engineers was tasked with two separate projects to provide rehabilitation designs for the remaining 34,000 feet of water mains. One project was design-build, and the other project was design-bid-build. The design-build was completed in 2019, and the design-bid-build is scheduled for 2020 and 2021 construction.

**Brian Gastrock, P.E.** is a professional civil engineer with more than 18 years of experience working on condition assessment, design, and construction management projects. Brian has more than 275,000 feet of water, sewer, and storm water piping experience on projects around Alaska. He has experience implementing trenchless solutions, including helping clients realize the cost and construction impacts of trenchless alternatives.

**Friday, January 24, 2020**
11:45 am-12:45 pm
UAA College of Engineering, EIB 211