



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

January 9, 2018
Subject: Barrel Bridge Replacement
State WIN: 018957.00
Location: York
Amendment No. 3

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

In the Plan Set:

REMOVE SHEET NUMBER 18 OF 31, MICROPILE DETAILS ABUT. 1, and **REPLACE** with the attached, revised SHEET NUMBER 18 OF 31, MICROPILE DETAILS ABUT. 1.

The following questions have been received:

Question: Will the micropile casing need to be galvanized?

Response: Yes, the micropile casing shall be galvanized. Please see revised Micropile Note 3, on revised Plan Sheet 18 for clarification.

Question: Will the size of the micropile casing still be required to be 9.625" x 0.545 wall, or could a small casing be submitted?

Response: The micropile casing shall be 9.625"x 0.545" wall. Please see revised Micropile Note 3, on revised Plan Sheet 18 for clarification.

Consider these changes and information prior to submitting your bid on **January 10, 2018**.

Sincerely,

George M. A. Macdougall P.E.
Contracts & Specifications Engineer

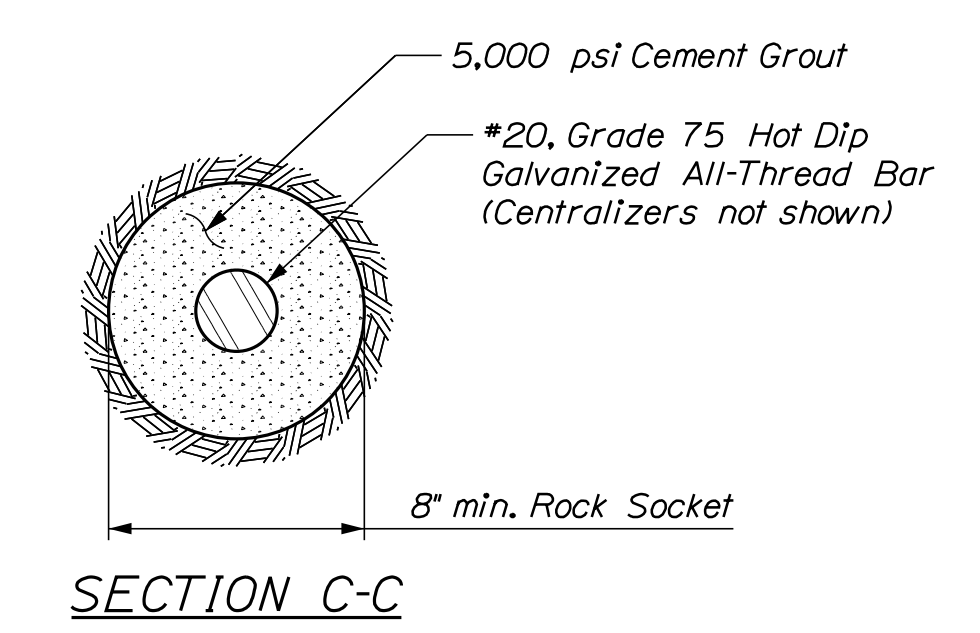
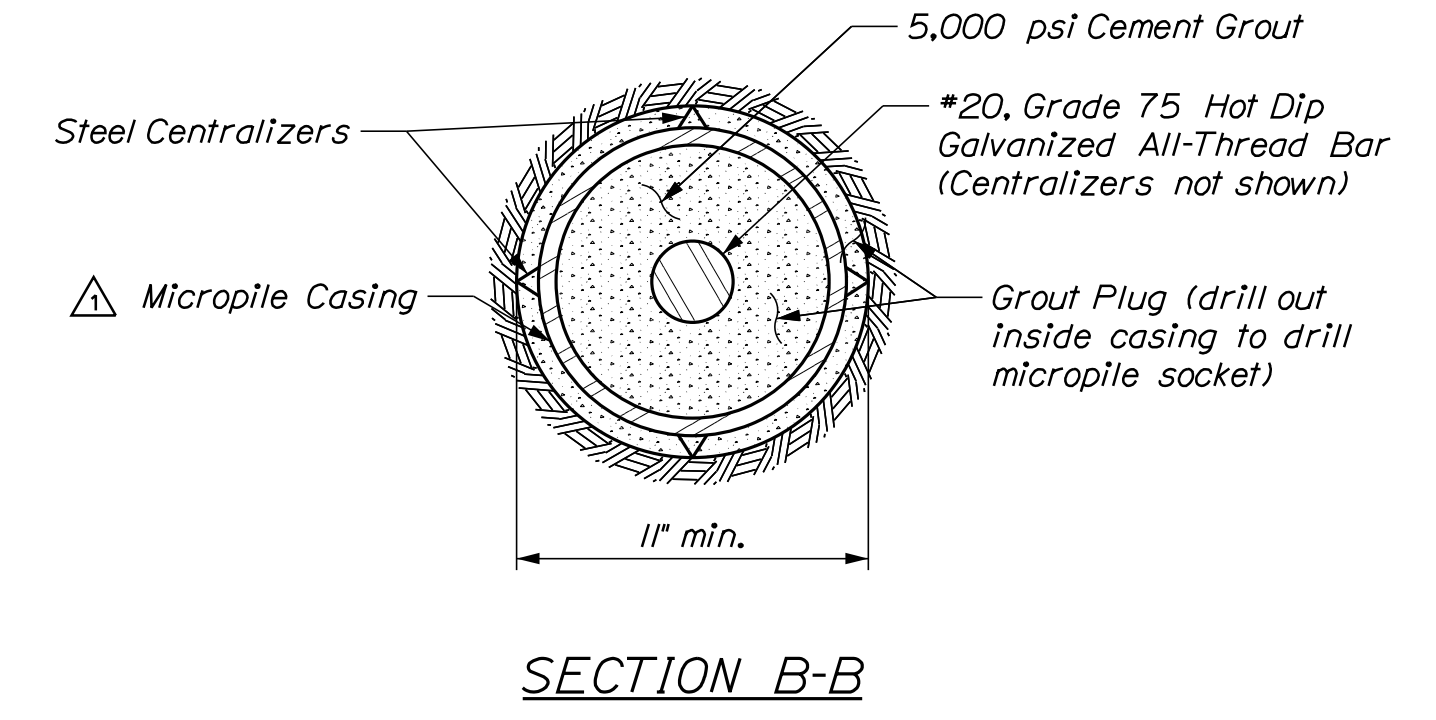
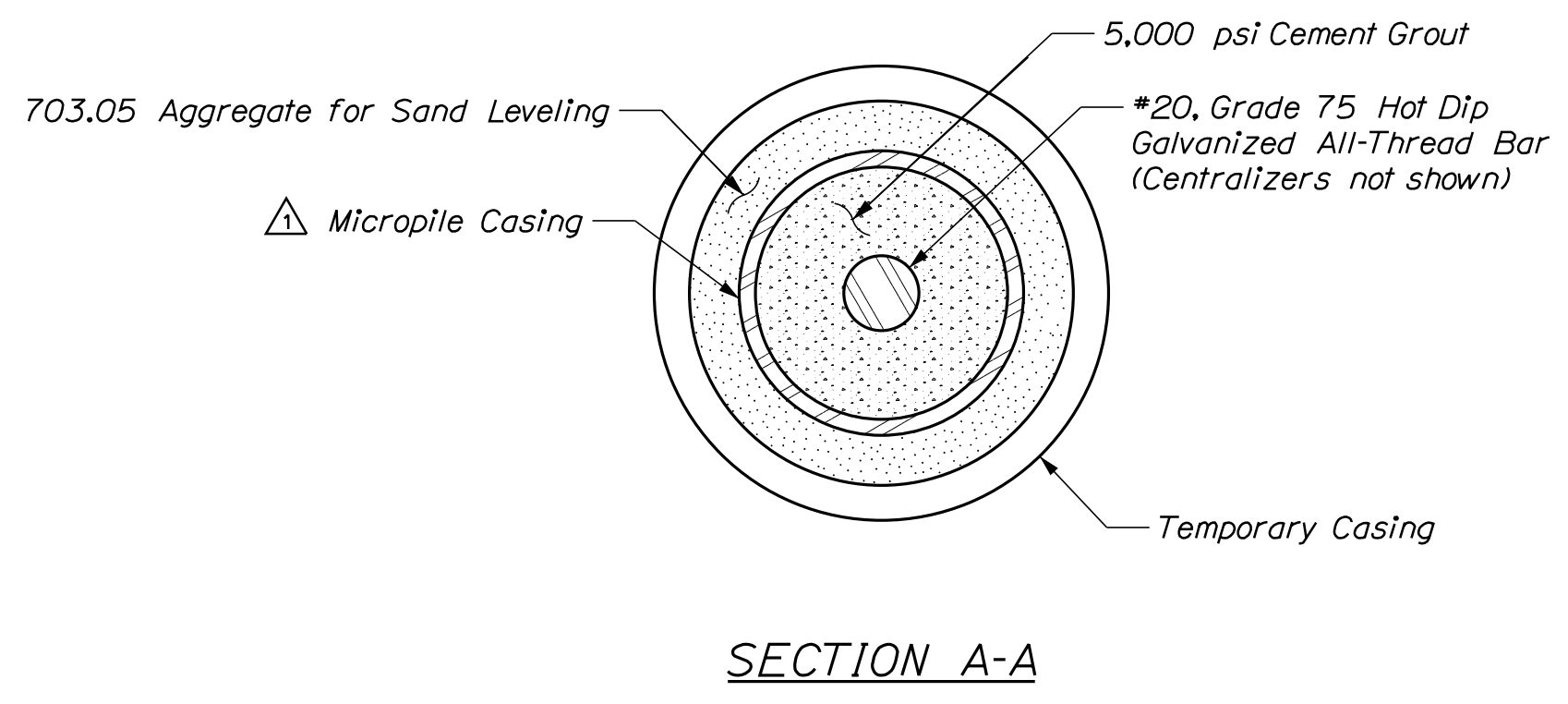
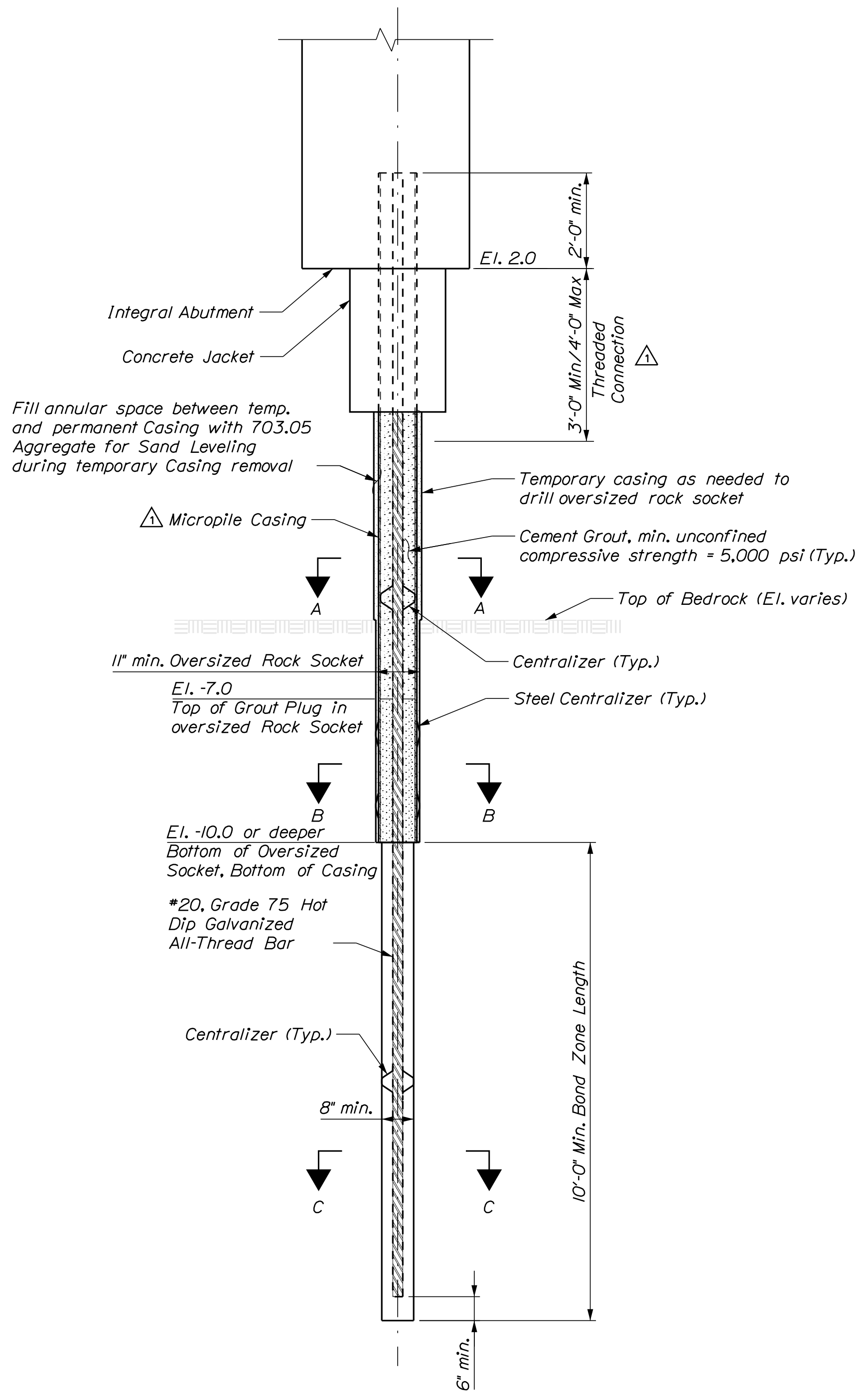


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Date: 1/9/2018

Username: Devan.C.Eaton

Filename: ... \018_Micropile Details 1_ Revised.dgn Division: BRIDGE



Micropile Notes:

1. The micropiles are designed to support a maximum factored Service Limit State compressive axial load of 311 kips per pile. The micropiles are designed to support a maximum factored Strength Limit State compressive axial load of 359 kips per pile.
2. Construct micropiles in accordance with Special Provision Section 50I, Micropiles.
3. The micropile casing shall be 9.625" x 0.545" Hot Dip Galvanized, API 5CT Grade N80, Fy = 80 ksi min. or approved equal.
4. Grout shall have a minimum 28 day compressive strength of 5000 psi in accordance with ASTM C 109.
5. The reinforcing bar shall be all-threaded for the entire length and shall meet the requirements of ASTM A615, Grade 75.
6. Micropiles shall be constructed as plumb as shown on the Abutment Pile Layout sheet.
7. Grout shall be placed by tremie in accordance with Special Provision Section 50I, Micropiles.
8. Micropile at Abutment No. 1 shall be installed in an oversized socket drilled to a minimum depth of 12 feet below the bottom elevation of the Abutment No. 1, corresponding to a casing tip at El. -10. The central bar tip elevation shall be El. -20.
9. Micropile at Abutment 1 are anticipated to be installed in accordance with the following sequence:
 - A. Install temporary casing and core and clean-out an 11-inch socket through the casing to El. -10 or deeper.
 - B. Place a 3 foot grout plug in the oversized socket, taking care to ensure that the grout remains below El. -7.0, and place a 9.625-inch casing to the bottom of the socket, with steel centralizers between El. -7 and El. -10.
 - C. After grout plug setup, drill the micropile rock socket through the grout plug and to the required depth into rock.
 - D. Place the central bar and grout via tremie methods using a tube attached to the central bar.
 - E. Remove the temporary casing, placing sand backfill outside of the permanent casing as the temporary casing is extracted.
10. The top of the grout plug at Abutment 1 shall be no higher than El. -7.0. The Contractor shall monitor grout level carefully during plug placement to ensure the correct top of plug elevation is achieved.
11. At Abutment No. 2, encountered top of rock ranged from El. -12.2 to -8.7 where explored by borings. The steel casing tip elevations shall extend a minimum of 5 feet deeper than the encountered top of rock, corresponding to a steel casing tip at El. -18 for the deepest encountered rock, and a central bar tip at El. -28. The intent of this requirement is to provide for 3 feet of casing penetration into rock and to account for potential variability in the top of rock surface.
12. Wood, cobbles, boulders, riprap and/or rock fill may be encountered in the overburden. The Contractor is require to provide Micropile installation equipment and methods capable of advancing through possible obstructions.

PREDRILLED MICROPILE IN OVERSIZED SOCKET ELEVATION

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		018957.00		WIN 018957.00		BRIDGE NO. 3500 BRIDGE PLANS	
BARRELL BRIDGE DOLLY GORDON BROOK YORK COUNTY		YORK COUNTY		MICROPILE DETAILS ABUT. 1		SHEET NUMBER	
YORK		YORK COUNTY		MICROPILE Casing Req. 1-5-18 Micropile Casing Note 1-9-18		18	
MICROPILE DETAILS ABUT. 1		YORK COUNTY		FIELD CHANGES		OF 31	