

ADDENDUM NO. 2

TO

PROJECT MANUAL

FOR

BISMARCK WWTF TRICKLING FILTER IMPROVEMENTS (Phase II)

FOR

CITY OF BISMARCK

BISMARCK, NORTH DAKOTA

March 13, 2017

This document was originally issued and sealed by Kenneth J. Weber, PE, Registration Number PE-6427 on March 13, 2017 and the original documents are stored at the office of Advanced Engineering & Environmental Services, Inc.

The following changes, additions, and deletions are hereby made a part of the Bidding Documents for the **BISMARCK WWTF TRICKLING FILTER IMPROVEMENTS (Phase II)** project as fully and completely as if the same were set forth therein. Acknowledge receipt of this addendum in the space provided on the Bid Form and also on the outside of the Bid envelope. **FAILURE TO DO SO MAY RESULT IN REJECTION OF BID.**

This addendum consists of two (2) pages and one (1) attachment (1 page).

SPECIFICATIONS

SECTION 00 52 00 STANDARD AGREEMENT

1. Page 00 52 00 – 3: **Add** under ARTICLE 4 – CONTRACT TIMES and after Article 4.03 the following Article:

“4.04 Interim Completion is defined as the completion of Stage 1 Work defined by Section 01 10 00 Article 1.15. Substantial Completion is defined as the completion of Stage 2 Work defined by Section 01 10 00 Article 1.15.”

SECTION 00 73 00 SUPPLEMENTARY CONDITIONS

1. Page 00 73 00 – 7: **Delete** Article SC-13.03.B in its entirety. The provisions of G.C. 13.03 are in effect.
2. Page 00 73 00 – 8: **Delete** the second Article SC-14.05.A in its entirety and replace with the following:

SC-14.05.A Add the following new paragraph immediately after paragraph G.C. 14.05.A.4, which is to read as follows:

“5. The Standard Agreement defines an Interim Completion date (Milestone) for interim operational completion. Construction necessary to operate the facility including Trickling Filter No. 2, Trickling Filter No. 1, associated yard piping, utilities, mechanical systems, electrical, instrumentation, controls, appurtenances and associated administrative/insurance requirements shall be completed such that OWNER may take over operation of those portions of the construction.”

SECTION 01 10 00 SUMMARY OF WORK

1. Page 01 10 00 – 9 Paragraph 1.11 A.1: **Delete** “Article 1.16” and replace with “Article 1.15”.
2. Page 01 10 00 – 11 Paragraph 1.15 B.3: **Delete** “Paragraph 1.16 C.” and replace with “Paragraph 1.15 C of this section”.

SECTION 01 51 00 TEMPORARY UTILITIES

1. Page 01 51 00 – 1 Article 1.02: **Delete** Paragraph A.4 and Paragraph A.9.
2. Page 01 51 00 – 1 Article 1.02: **Add** Paragraph “B. Monthly electricity and power bills to be paid by Owner.”
3. Page 01 51 00 – 1 Article 1.02: **Add** Paragraph “C. General Contractor shall include in their bid the cost of electricity and temporary electrical service for dewatering pump system operation. All charges associated with setting up this temporary service with MDU and all usage billed to this temporary meter shall be by the General Contractor”.

SECTION 46 54 85.10 CROSS FLOW TRICKLING FILTER MEDIA INSTALLATION

1. Page 46 54 85.10 – 4 Paragraph 1.06 D: **Clarification:** Media supplier has indicated some flexibility in media delivery schedule and rate of delivery is available in order to minimize storage. Avoidance of storage is not guaranteed. Questions for media supplier shall be submitted to Engineer for communication to supplier.

PROJECT DRAWINGS

CHANGES TO DRAWINGS – TF

1. Drawing TF A3: **Replace** all instances of “WEATHER” with “755A” in the column for gaskets on the door schedule. **Replace** all instances of “YES” with “S205” in the column for threshold on the door schedule. **Add** a column named “SWEEP” and add “964C” for each door on the door schedule.
2. Drawing TF S14: **Add** note to detail 1/TF S14 which reads, “Contractor shall sawcut new openings and furnish and install a shroud to connect existing vent tunnel to existing vent shaft. See details on drawing TF-S16.”
3. Drawing TF S16: **Add** Drawing TF S16 which is included as an attachment to this addendum.

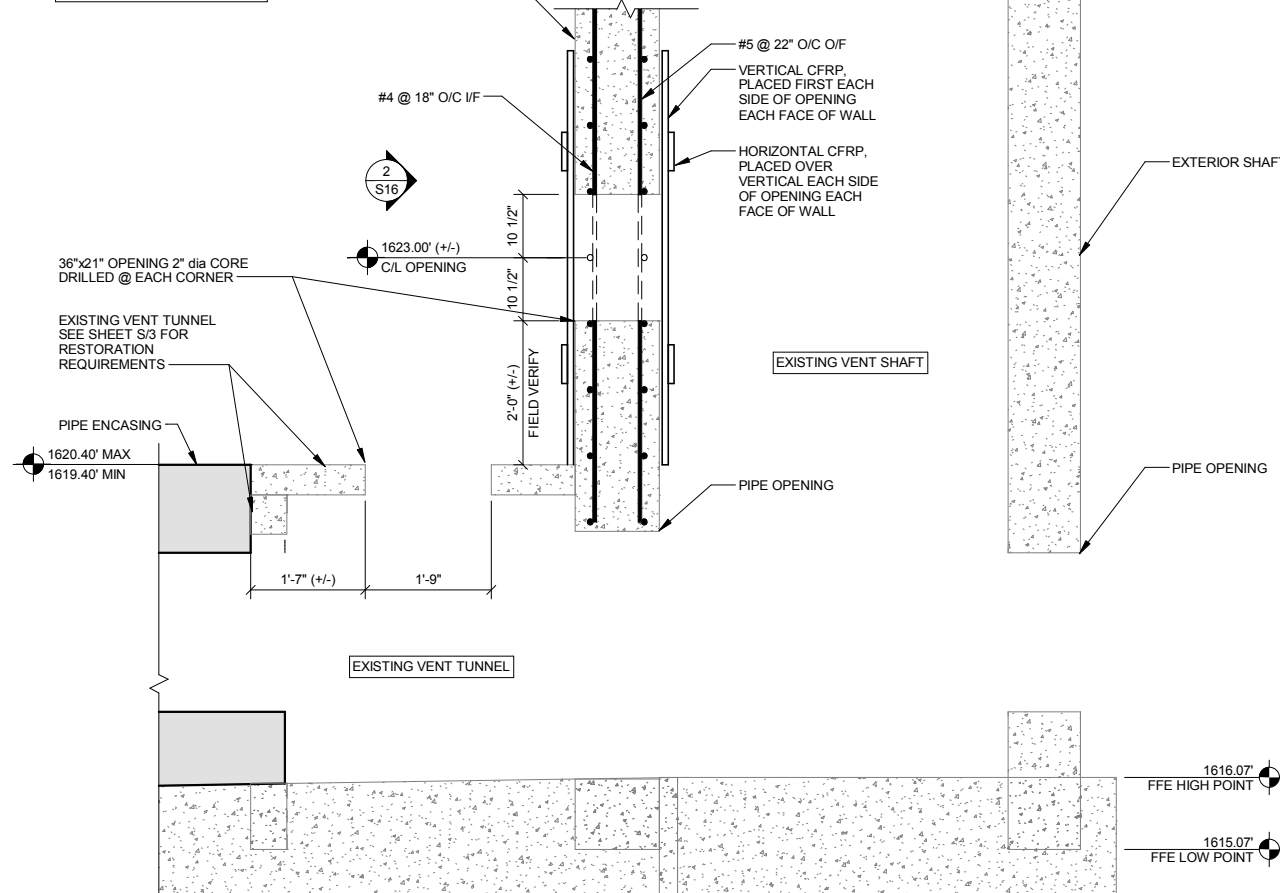
ATTACHMENT LIST TO THIS ADDENDUM

1. Drawing TF S16 (1 Page)

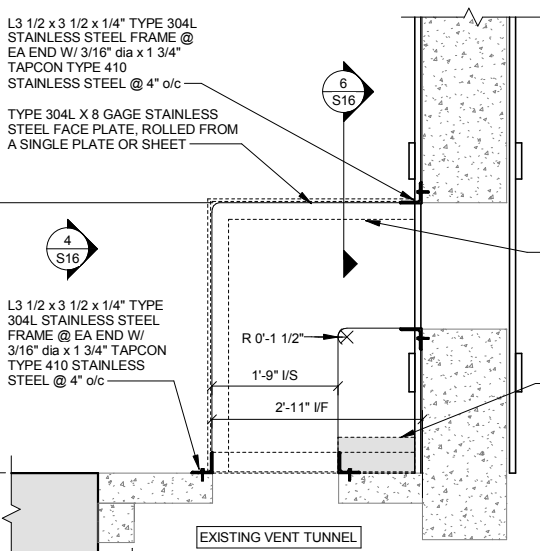
END OF ADDENDUM NO. 2

COORDINATE PLACEMENT SEQUENCE OF RESTORATION AND REFURBISH COATINGS W/ CFRP SUBCONTRACTOR

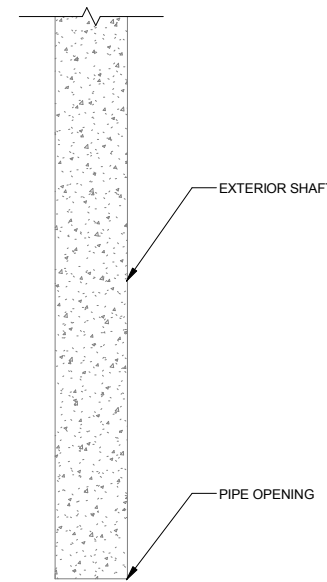
EXISTING CONCRETE WALL SEE SHEET S/3 FOR RESTORATION REQUIREMENTS



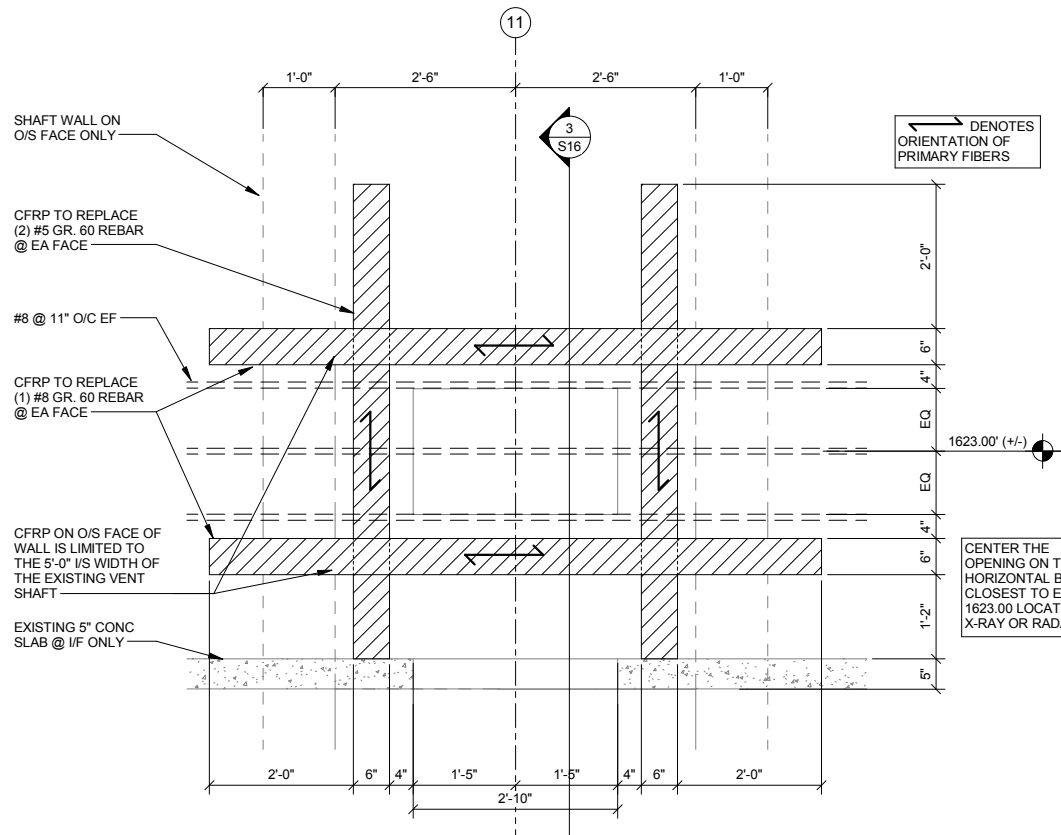
1
TF
S16
CFRP AIR INLET SECTION



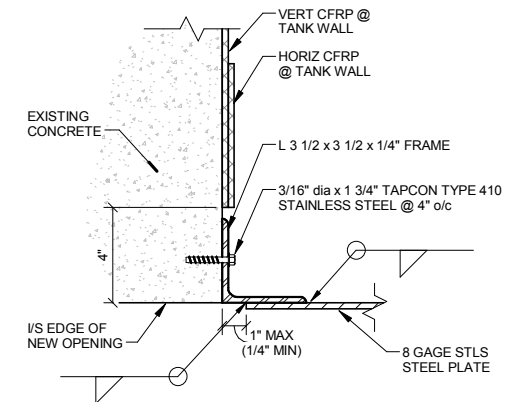
3
TF
S16
CFRP AIR INLET SHROUD SECTION



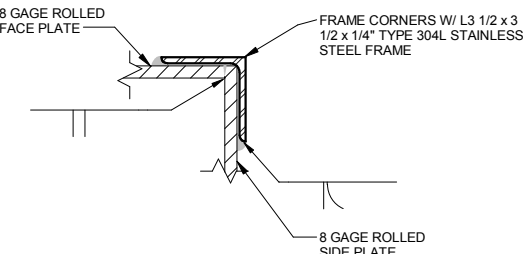
4
TF
S16
CFRP @ AIR INLET SHROUD - ELEVATION



2
TF
S16
CFRP @ AIR INLET - ELEVATION



5
TF
S16
AIR INLET SHROUD @ FRAME CONNECTION



6
TF
S16
BASE PLATE DETAIL

← DENOTES ORIENTATION OF PRIMARY FIBERS

CENTER THE OPENING ON THE #8 HORIZONTAL BAR CLOSEST TO ELEV 1623.00 LOCATE W/ X-RAY OR RADAR

This document was originally issued and sealed by Jay R Kleven, PE, Registration Number PE-4685 on 03/13/17 and the original documents are stored at the office of Advanced Engineering & Environmental Services, Inc.

CONSTRUCTION NOTES

- 1 ALL CARBON FIBER REINFORCING POLYMER (CFRP) SYSTEMS SHALL USE MATERIALS AND DESIGN METHODS THAT MEET ASTM D440.08R-08 "GUIDE FOR THE DESIGN AND CONSTRUCTION OF EXTERNALLY BONDED CFRP SYSTEMS FOR STRENGTHENING CONCRETE STRUCTURES"
- 2 ALL CFRP FABRICS SHALL BE UNIDIRECTIONAL FABRIC WITH THE PRIMARY FIBERS ALIGNED WITH, AND PARALLEL TO, THE INSTALLED LENGTH OF THE FABRIC.
- 3 ALL CFRP SHALL BE PRODUCTS SPECIFICALLY MANUFACTURED AND USED FOR STRUCTURAL STRENGTHENING APPLICATIONS.
- 4 THE COMPLETE DESIGN OF THE CFRP SHALL BE PREPARED AS A DELEGATED DESIGN REQUIREMENT OF THE INSTALLATION CONTRACTOR, INCLUDING ANCHORAGE, RUN-OUT LENGTHS, WIDTH, # OF PLYS, ADHESIVES, AND SURFACE PREPARATION.
- 5 THE CFRP IS BEING INSTALLED IN THE AREAS ALREADY SCHEDULED TO RECEIVE SURFACE RESTORATION COATINGS. CFRP INSTALLATION CONTRACTOR SHALL COORDINATE SEQUENCE, TIMING, SHARED SURFACE PREPARATION REQUIREMENTS WITH THE SURFACE RESTORATION.
- 6 THE CFRP SHALL BE INSTALLED AND CURED PRIOR TO CUTTING THE NEW HOLES 36"x21" OPENINGS.
- 7 THE CFRP WILL BE INSTALLED BY AN INSTALLATION CONTRACTOR WHO ARE EITHER CERTIFIED AS A LICENSEE OF SPECIFIC MANUFACTURERS, OR WHO HAVE PREVIOUS TRAINING AND WORK EXPERIENCE PROVIDING CFRP SYSTEMS.
- 8 PROVIDE A PROTECTION TOPCOAT FOR LONG-TERM PROTECTION FOR CONTINUOUS IMMERSION AND CONTACT WITH UNTREATED WASTEWATER WITH HYDROGEN SULFIDE AND OTHER COMMON WATER CHEMISTRY OF MUNICIPAL WASTEWATER.
- 9 SUBMIT A DELEGATED DESIGN AND INSTALLATION MANUAL FOR APPROVAL BY THE PROJECT ENGINEER OF RECORD PRIOR TO INSTALLATION.
- 10 THE CFRP INSTALLER SHALL PROVIDE A FIELD ADHESION TEST WHERE CFRP WILL BE PLACED OVER SURFACE RESTORATION MATERIALS OF ANY NATURE. PROVIDE ONE FIELD TEST FOR EACH TYPE OF SURFACE PREPARATION MATERIALS.
- 11 REFER TO SHEET S3 FOR INFORMATION REGARDING THE SCHEDULED CONCRETE SURFACE RESTORATION.
- 12 REBAR EQUIVALENT SIZE AND QUANTITY OF CFRP ARE INDICATED ON DETAIL 1/S14.
- 13 ALL WELDS SHALL BE PASSIVATED

SYMBOL	DATE	DESCRIPTION	APPROVED



BISMARCK WWTF TRICKLING FILTER IMP. PHASE II
CITY OF BISMARCK
BISMARCK, NORTH DAKOTA

DRAWING TYPE	CONSTR
PREPARED BY	KDE
CHECKED / APPROVED	JRK / JRK
DATE	MAR 2017
PROJECT NUMBER	P00501-2007-017
FACILITY	TF
DRAWING	S16