

KIAWAH RIVER PLANTATION (KRP) WASTEWATER TREATMENT PLANT (WWTP)

CONTRACT DOCUMENT AND TECHNICAL SPECIFICATIONS

PREPARED FOR:

KIAWAH RIVER PLANTATION HOLDINGS, LP
OCEAN BOULEVARD PROPERTIES, A SOUTH CAROLINA LIMITED PARTNERSHIP

T&H PROJECT NO.
J-25328

ADDENDUM NO. 5

March 31, 2016

This Addendum forms a part of the Contract Documents

PART I – QUESTIONS

1. Please refer to Section 01 79 01 Equipment and System Performance and Operational Testing. Article 1.01E requires the Contractor and equipment suppliers to make necessary corrections if the equipment or unit process systems fail to meet "the specified requirements and guarantees". Article 1.01.B.6 lists the treated effluent parameters that should be met. We are concerned how a situation will be handled where the requirements of the individual equipment specification sections are met, but the treated effluent does not meet specified parameters in Section 01 79 01. Can you confirm that the Contractor is not responsible for the cost of corrections necessary to meet the requirements of Article 1.01.B.6 (treated effluent parameters) as long as the requirements in the technical (process equipment) specifications are met?

Answer: The contractor is responsible to meet the treated effluent parameters listed in article 1.01.B.6 of specification section 01 79 01 which are SCDHEC permit discharge limits.

2. Warranty and Final Payment - Section 01 78 25-Plant Start Up and Commissioning. Describes Functional Test using water to demonstrate that the Plant will meet the requirements of the Process, etc. before commissioning and putting into service. As I understand it could be a while before the plant starts accepting sewage? Is that correct? Question is when will the warranty actually start and would this hold up Final Payment if we are complete. I may have missed something but Equipment Manufacturers are going to want to start warranties when their equipment is started up and tested. If we missed something please direct me to that section of the Specs or Clarify.

Answer: The contract documents require warranties to commence from the date of substantial completion.

Sludge seeding and its process shall be as recommended by the MBR System Supplier and coordinated with the Owner; and is the contractor's responsibility. Sludge will be provided by the Owner to the plant site. The contractor is responsible for screening the sludge used for seeding. Biomass augmentation (such as providing an additional source), if required, is the contractors responsibility and shall be

approved by the MBR system supplier, Owner and Engineer. All sludge fed into the new plant shall be filtered for failsafe operation of the membranes (1mm max.) Contractor shall coordinate with MBR system supplier to prevent sludge settling in the bottom of the tanks and between the membrane plates. Contractor shall also coordinate with MBR system supplier to prevent membrane fouling and foam development during startup and testing.

A SCDHEC partial permit to operate shall be obtained after successful clean water start up (see section 01 78 25 PLANT TESTING, STARTUP, AND COMMISSIONING). Once SCDHEC issues a partial permit to operate, the contractor shall commence with Commissioning and Performance Testing. After successful performance testing, a final permit to operation will be requested from SCDHEC. A final permit to operate from SCDHEC is one of the required items in order to be substantially complete.

3. Drawing 50-E-15 references Notes 8, 11 and 12 for the Internal Recycle Pumps and one of the MBR Permeate Pumps, but these notes are omitted from this sheet. Please provide Notes 8, 11 and 12.

Answer: The notes on the one line should be referencing "4, 7 & 14". Additionally, the contractor shall field coordinate with the equipment/system manufacturer to ensure all Ovivo and In-Plant SCADA points are connected and monitored, as required, for a complete system.

4. Section 01 15 00-3 paragraph 1.10 D mentions that there is a requirement for an arborist. Since the owner is contracting the clearing direct, will the cost for the arborist be covered by the owner?

Answer: The owner is contracting directly with others for the clearing. The owner will handle contracting directly for the arborist as well. Neither the cost for clearing or arborist services need to be included with the contractors bid.

5. Spec Sec 40 27 05.09 Insulation for Exposed Piping and Equipment, 1.01.A.2 says all Above Ground lines require Insulation. Is this for interior and exterior above ground piping?

Answer: Yes

6. Section 33 05 01.03-2.05 says that ALL ductile iron joints shall use 316ss bolts & nuts. This is normal for flanged joints but very unordinary and very expensive for mechanical joints. Normally mechanical joints use cor-ten corrosion resistant steel. Please confirm you want 316ss for ALL pipe joints.

Answer: Yes 316 SS for above ground and below ground.

7. Section 33 05 01.03-2.07 indicates glass lining for scum and grit lines. Are any of the lines on this job considered scum or grit? If so, which ones?

Answer: None of the lines are fully considered scum and grit.

PART II - REVISIONS

1. Drawings
- a. See revised sheets attached to this addendum:
- 06-C-02
 - 35-D-01
 - 35-D-02
 - 35-S-06

KRP WWTP

Bid Addendum No. 5 dated March 31, 2016

Page 2 of 3

2. Specifications

- a. Revise part 2.1.E of Specification SECTION 43 21 22 SELF PRIMING WAS PUMPS as follows:

Pump Schedules Outside Basins (Exterior): Pumps shall be provided to meet to following conditions and duty points.

Pump Name	WAS
Number of Pumps	2 (1 duty and 1 standby)
Fluid to be pumped	Screened, de-gritted, raw waste water, Returned Activated Sludge (RAS) and Waste Activated Sludge (WAS)
Fluid Specific Gravity	1
Fluid Viscosity	110
Hazardous Location	No
VFD Controlled	No
Solids Concentration (mg/l)	13,000
Primary Duty Point	
Capacity (gpm)	80
Total Dynamic Head 1 (ft)	32

PART III – PRODUCT APPROVALS

1. FIBLAST, LLC of Tuskegee, AL is an approved alternate manufacturer for the fiberglass column covers. www.fiblast.com. Sohail Asghar is the contact and can be reached at fiblast.sohail@gmail.com or 334-513-1314 Ext. 2.

PART IV – CLARIFICATIONS

1. The general contractor shall include in the base bid amount all permanent seeding, sod, plantings, irrigation and other landscaping and related shown on the drawings and/or required to stabilize and provide a permanent land cover to all disturbed areas. Contractor shall also include all necessary temporary seeding.
2. Exterior exposed PVC pipe shall be wrapped with Pipe Insulation.



Mark F. Yodice

Mark F. Yodice, P.E.
Project Manager/Engineer of Record

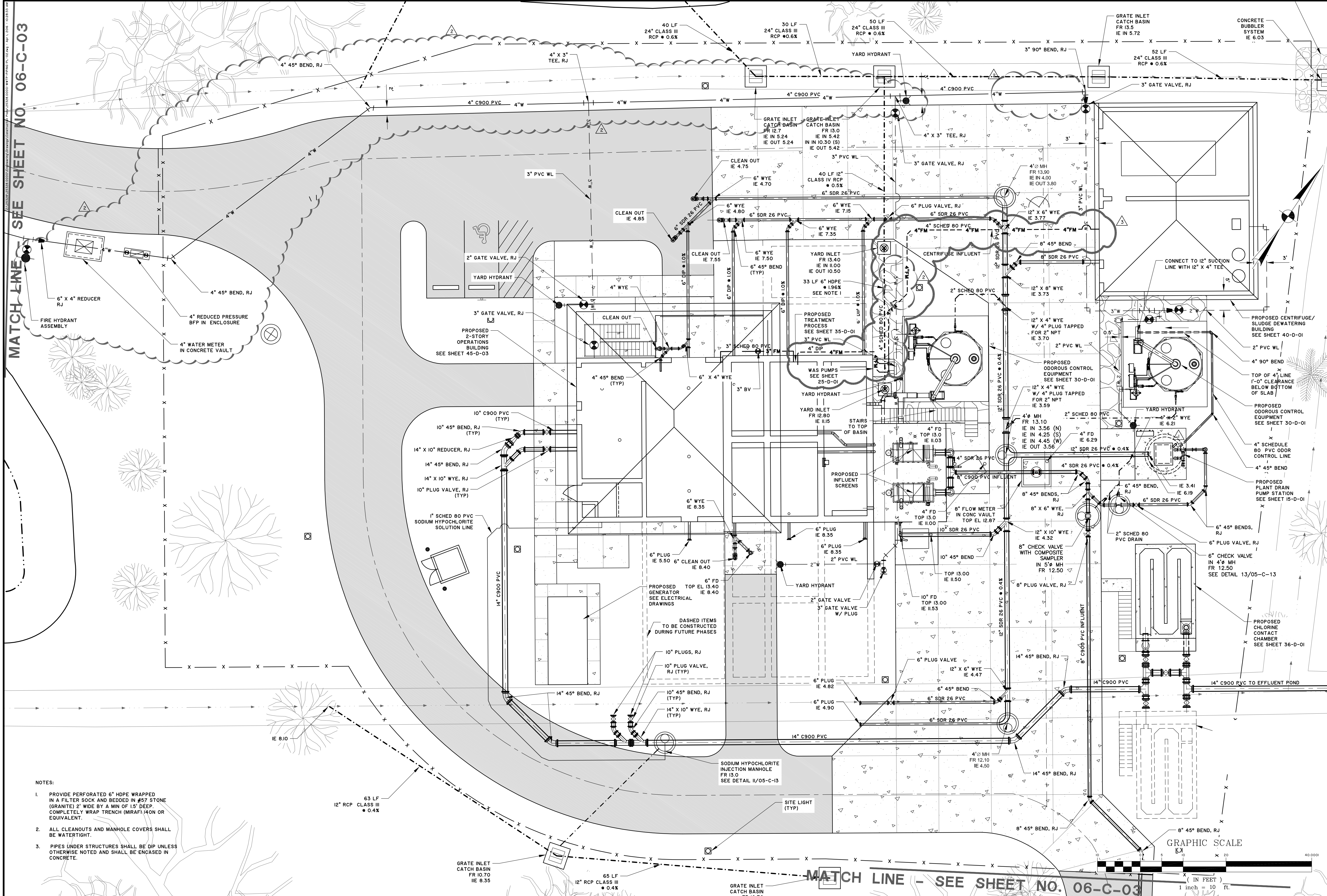
Attachments

END OF ADDENDUM NO. 5

KRP WWTP

Bid Addendum No. 5 dated March 31, 2016

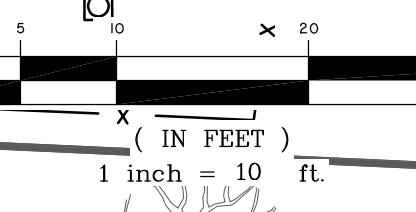
Page 3 of 3



MATCH LINE - SEE SHEET NO. 06-C-03

- NOTES:
- PROVIDE PERFORATED 6" HDPE WRAPPED IN A FILTER SOCK AND BEDDED IN #57 STONE (GRANITE) 2' WIDE BY A MIN OF 15" DEEP. COMPLETELY WRAP TRENCH (MIRAFI) 40N OR EQUIVALENT.
 - ALL CLEANOUTS AND MANHOLE COVERS SHALL BE WATERTIGHT.
 - PIPES UNDER STRUCTURES SHALL BE DIP UNLESS OTHERWISE NOTED AND SHALL BE ENCASED IN CONCRETE.

GRAPHIC SCALE



MATCH LINE - SEE SHEET NO. 06-C-03

Professional Engineer Seal for Thomas & Hutton, No. 3293, State of South Carolina.

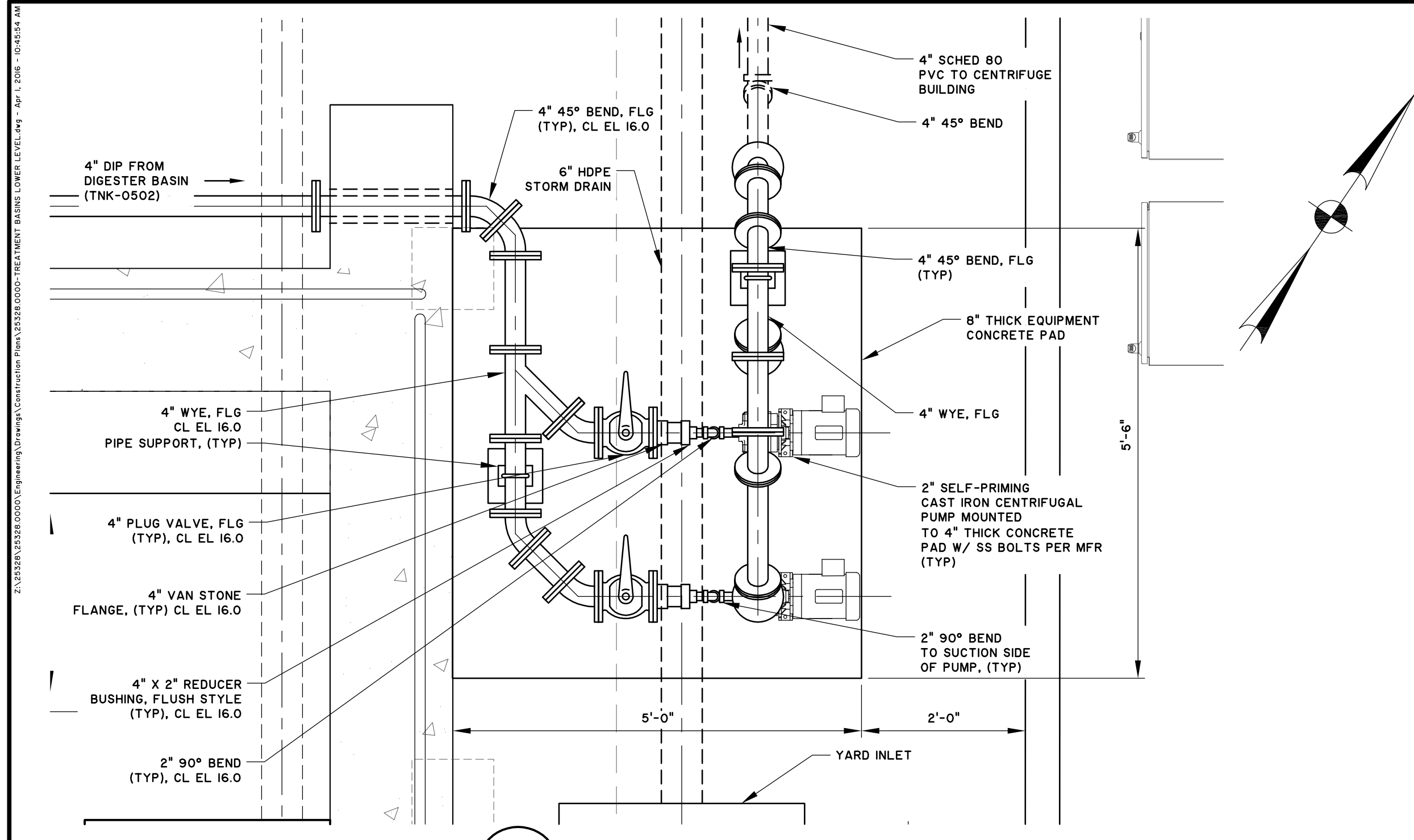
NO.	REVISIONS	DATE
1	GENERAL REVISIONS	
2	BID ADDENDUM #5	03/20/16
3	BID ADDENDUM #1 COMMENTS	3/17/16
	BY	MFY
	DATE	12/22/15

THOMAS & HUTTON
 Engineering | Surveying | Planning | GIS | Consulting
 682 Johnnie Dadds Boulevard • Suite 100
 Mt. Pleasant, SC 29464 • 843.849.0200
 www.thomasandhutton.com

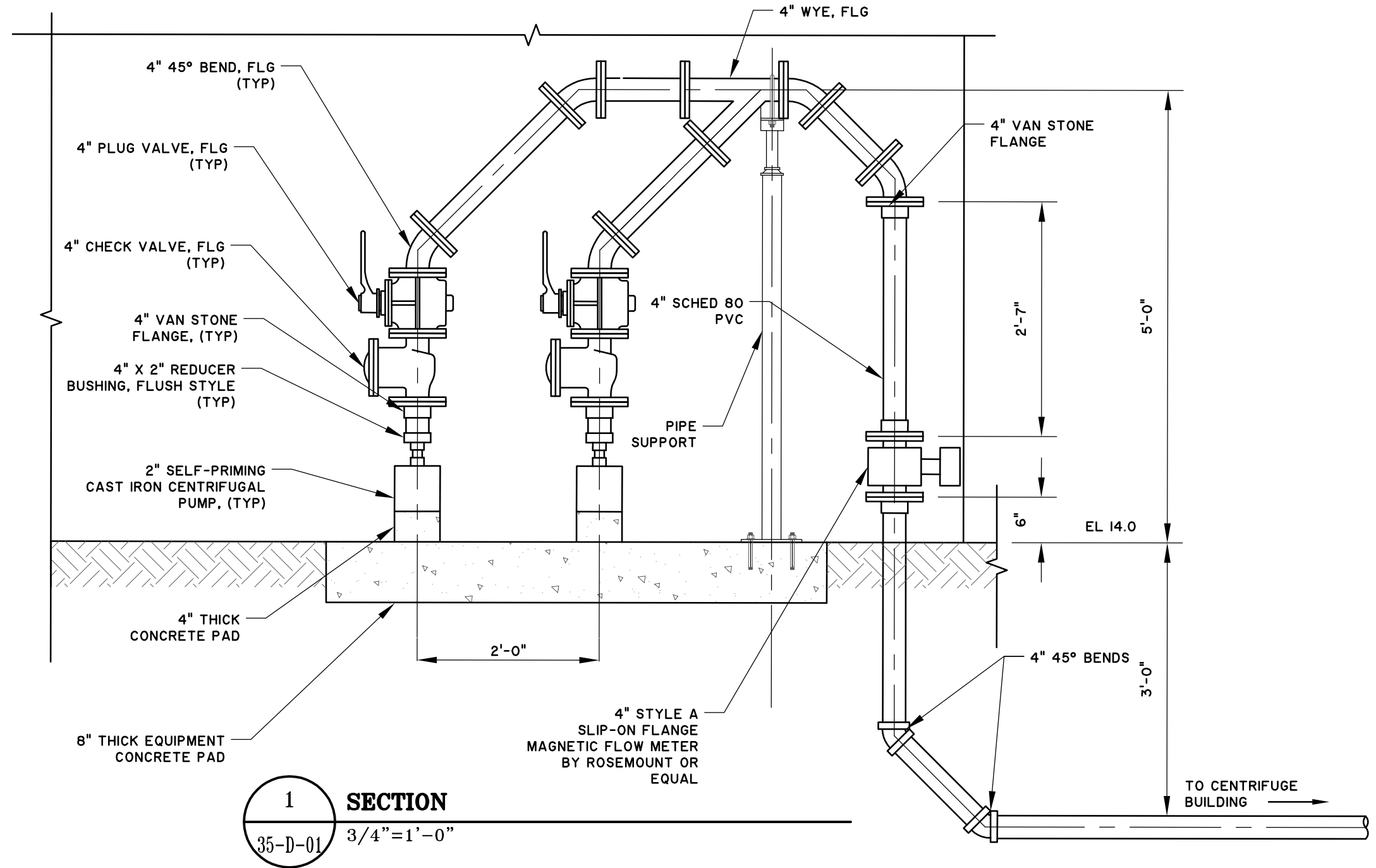
KIAWAH RIVER PLANTATION
 CHARLESTON COUNTY, SOUTH CAROLINA
KIAWAH RIVER PLANTATION WWTP
PIPING PLAN - WWTP

JOB NO:	J-25328 0000
DATE:	12/16/15
DRAWN:	DNF
DESIGNED:	KEN
REVIEWED:	MFY
APPROVED:	MFY
SCALE:	1" = 10'

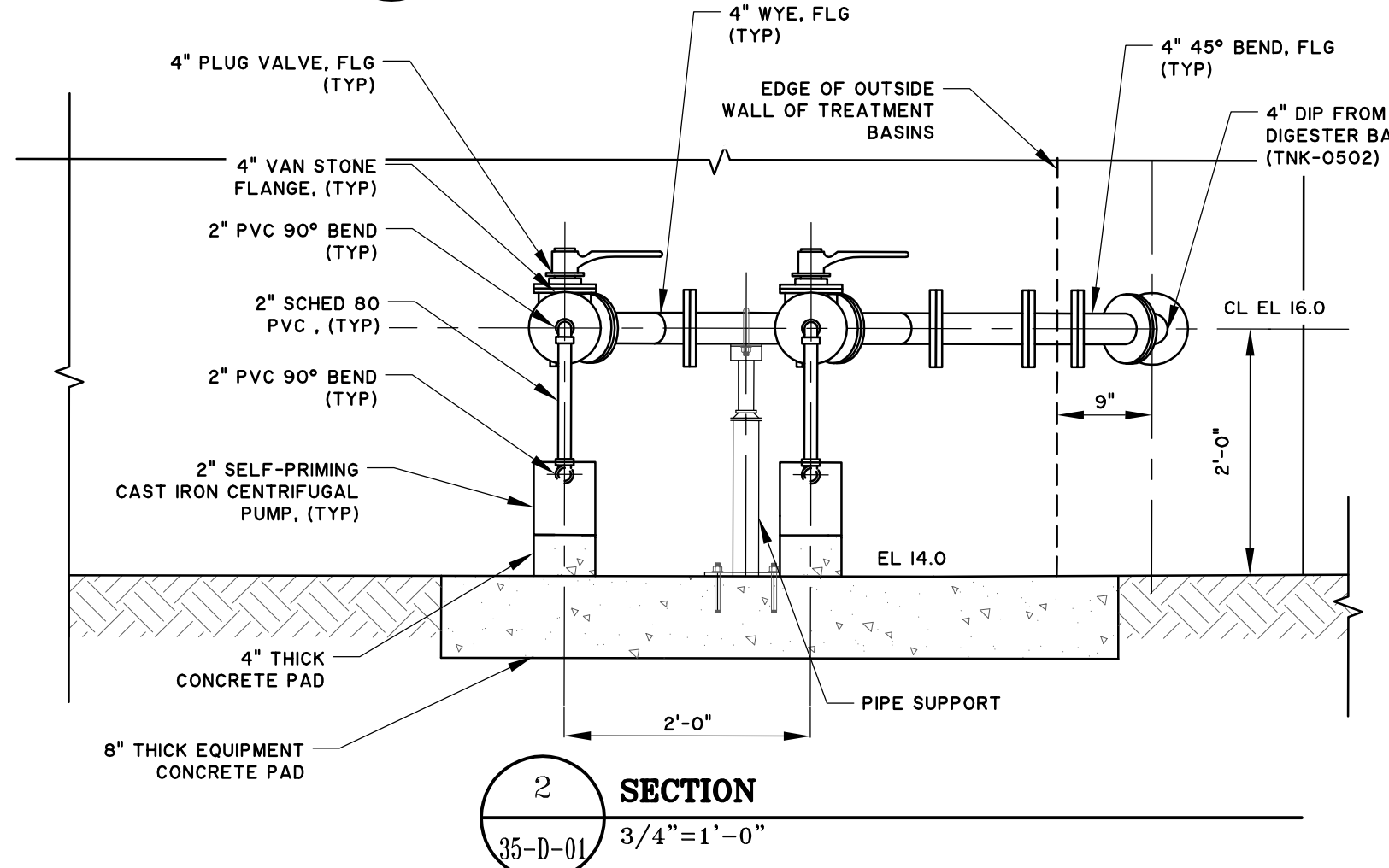
06-C-02



WAS PUMPS DETAIL - PLAN
3/4"=1'-0"

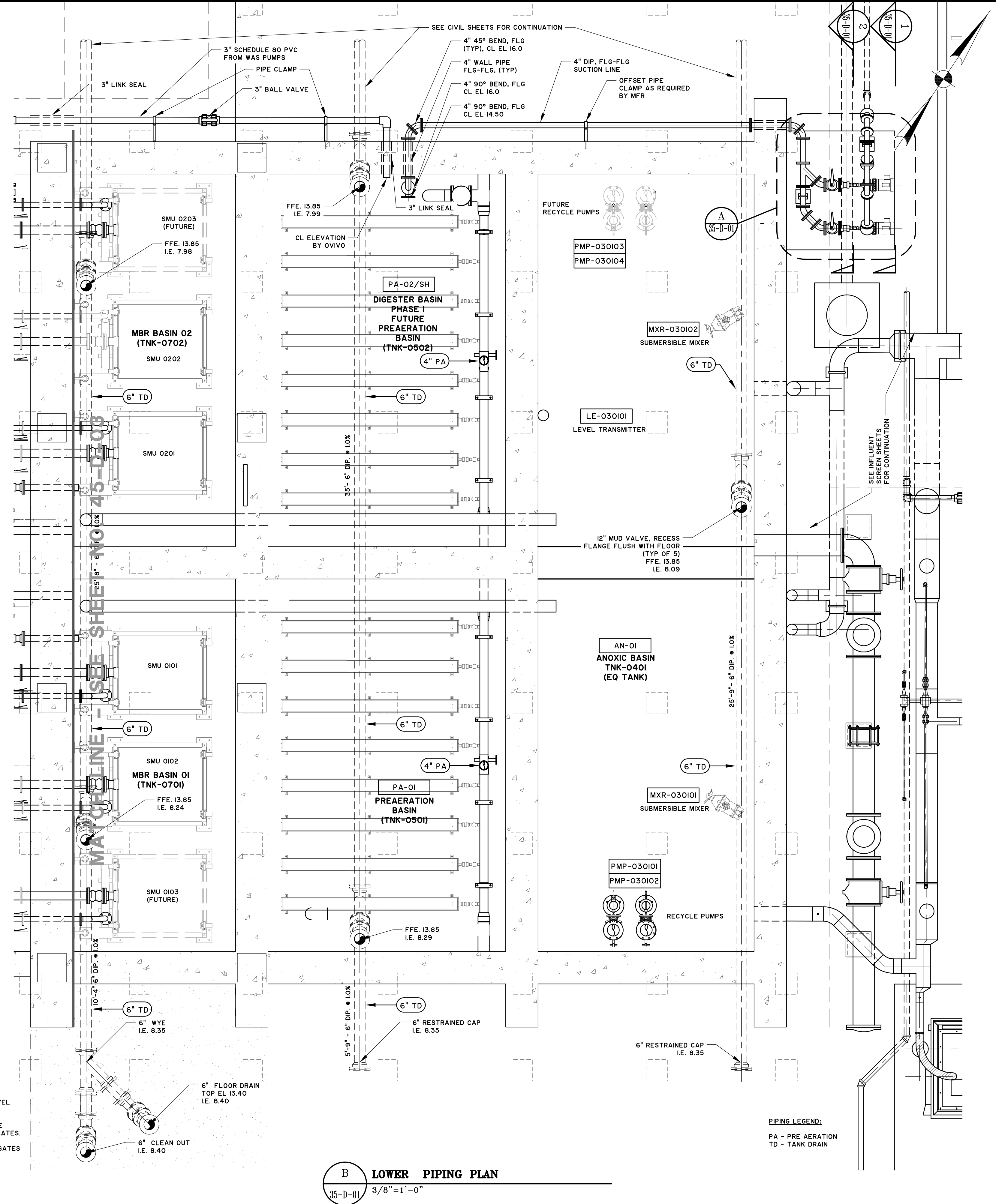


SECTION 1
3/4"=1'-0"



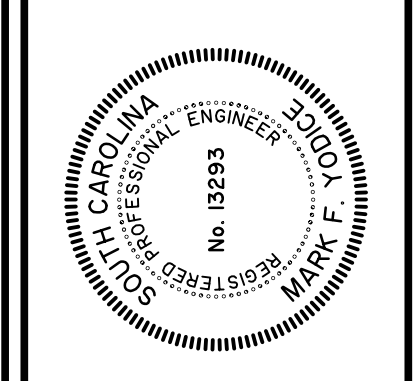
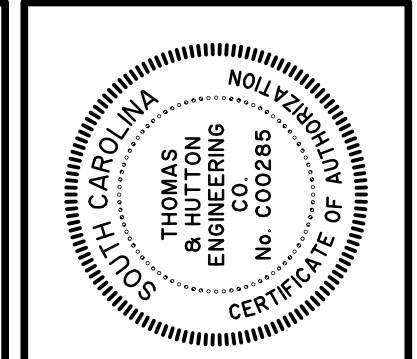
SECTION 2
3/4"=1'-0"

- NOTES:**
- CONTRACTOR SHALL COORDINATE LOCATIONS OF LEVEL SWITCHES IN MBR BASINS 01 AND 02 WITH OVIVO.
 - CONTRACTOR SHALL COORDINATE RAILINGS AND GATE PENETRATIONS IN GRATING/COVERS FOR THE SLIDE GATES.
 - CONTRACTOR SHALL SEAL OPENINGS AROUND SLIDE GATES AND OTHER OPENINGS WITH ALUMINUM PLATES.



LOWER PIPING PLAN
3/8"=1'-0"

PIPING LEGEND:
PA - PRE AERATION
TD - TANK DRAIN



NO.	REVISIONS	DATE
2	BID ADDENDUM #5	03/21/16
1	GENERAL REVISIONS	12/22/15

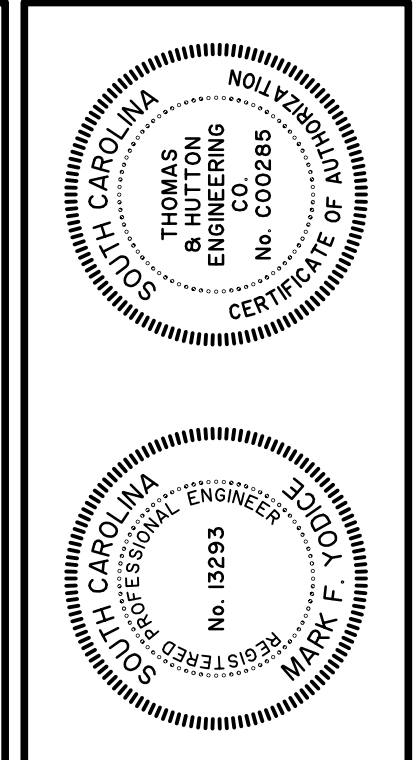
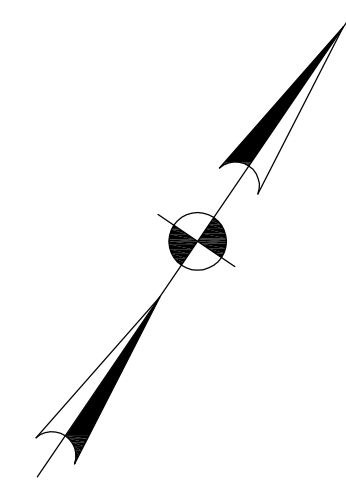
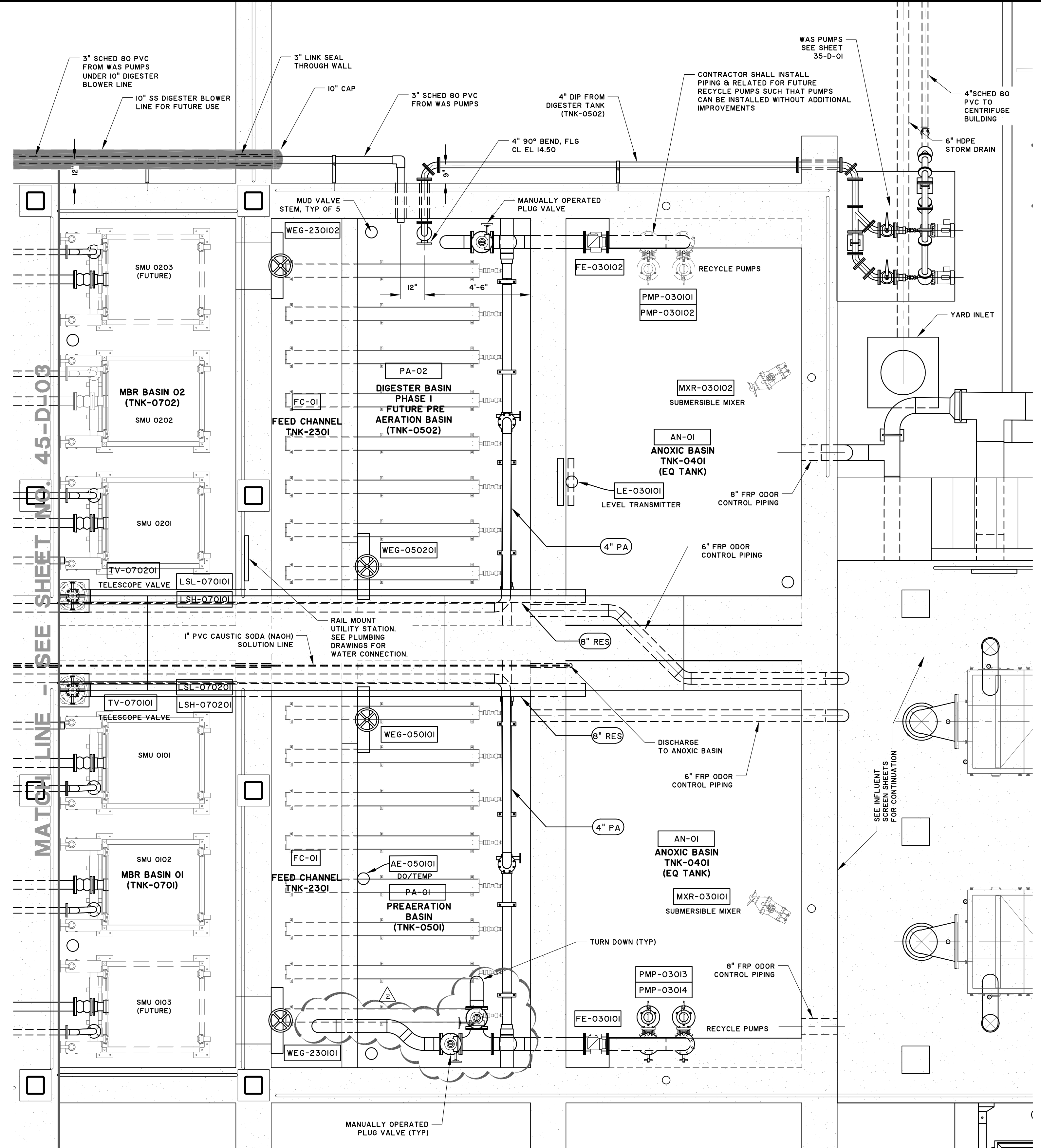
THOMAS & HUTTON
Engineering | Surveying | Planning | GIS | Consulting
682 Johnnie Dodds Boulevard • Suite 100
Mt. Pleasant, SC 29464 • 843.849.0200
www.thomasandhutton.com

KIAWAH RIVER PLANTATION
CHARLESTON COUNTY, SOUTH CAROLINA
KIAWAH RIVER PLANTATION WWTP
TREATMENT BASINS LOWER LEVEL - PLAN

JOB NO:	J-25328 0000
DATE:	12/16/15
DRAWN:	DNF
DESIGNED:	MFY
REVIEWED:	MFY
APPROVED:	MFY
SCALE:	AS NOTED

35-D-01

AUGUST 2007



NO.	REVISIONS	DATE
3	BID ADDENDUM #5	03/21/16
2	BID ADDENDUM #1 COMMENTS	3/7/16
1	GENERAL REVISIONS	12/22/15

THOMAS & HUTTON
Engineering | Surveying | Planning | GIS | Consulting
682 Johnnie Dodds Boulevard • Suite 100
Mt. Pleasant, SC 29464 • 843.849.0200
www.thomasandhutton.com

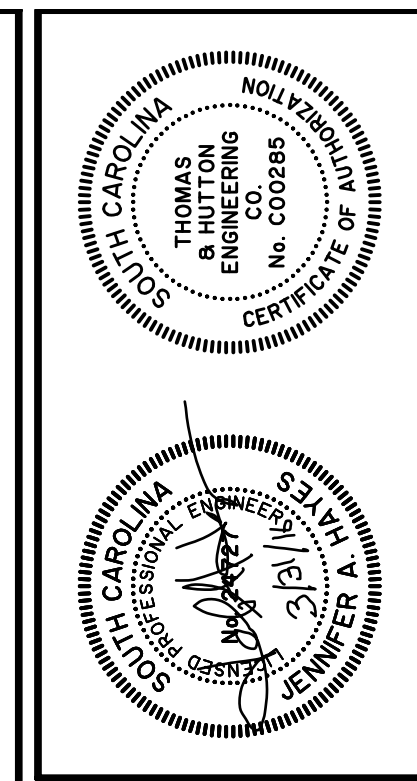
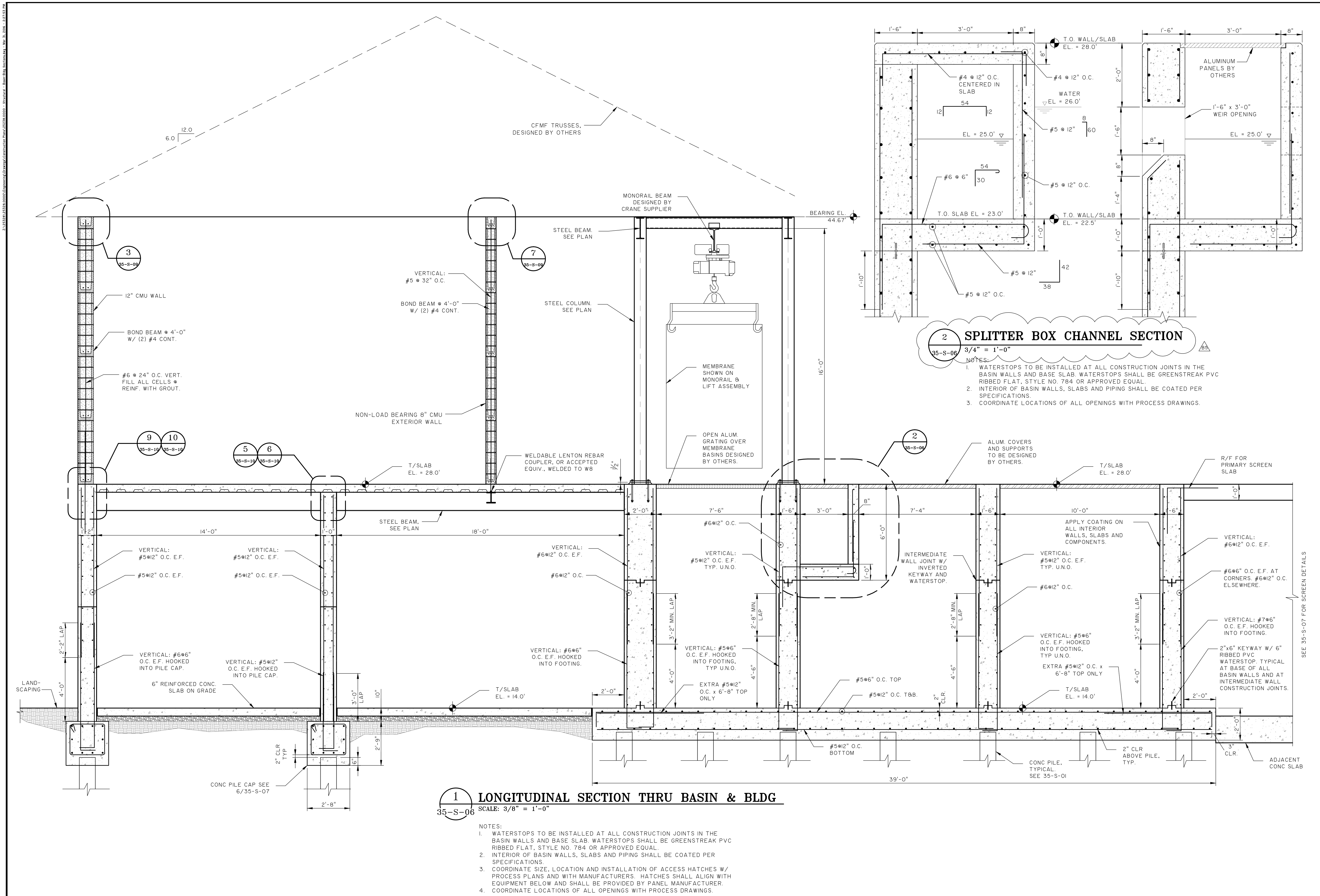
KIAWAH RIVER PLANTATION
CHARLESTON COUNTY, SOUTH CAROLINA
KIAWAH RIVER PLANTATION WWTP
TREATMENT BASINS UPPER LEVEL - PLAN

JOB NO:	J-25328.0000
DATE:	12/16/15
DRAWN:	DNF
DESIGNED:	MFY
REVIEWED:	MFY
APPROVED:	MFY
SCALE:	3/8"=1'-0"

35-D-02

A UPPER LEVEL PIPING PLAN
35-D-01 3/8"=1'-0"

- NOTES:**
- CONTRACTOR SHALL COORDINATE LOCATIONS OF LEVEL SWITCHES IN MBR BASINS 01 AND 02 WITH OVIVO.
 - CONTRACTOR SHALL COORDINATE RAILINGS AND GATE PENETRATIONS IN GRATING/COVERS FOR THE SLIDE GATES.
 - CONTRACTOR SHALL SEAL OPENINGS AROUND SLIDE GATES AND OTHER OPENINGS WITH ALUMINUM PLATES.
 - CONTRACTOR SHALL PROVIDE SUPPORTS AND BRACING TO SUPPORT EQUIPMENT.



NO.	REVISIONS	BY	DATE
B5	BID ADDENDUM 5	JAH	02/23/16

THOMAS & HUTTON
 Engineering | Surveying | Planning | GIS | Consulting
 682 Johnnie Dodds Boulevard • Suite 100
 Mt. Pleasant, SC 29464 • 843.849.0200
 www.thomasandhutton.com

KIAWAH RIVER PLANTATION
 CHARLESTON COUNTY, SOUTH CAROLINA

CANHOY PLANTATION WATER & SEWER - PHASE I
BASINS & BUILDING SECTION

JOB NO: J-25328.0000
 DATE: 12/18/15
 DRAWN: JAH/EAC
 DESIGNED: JAH/EAC
 REVIEWED: JAH/SHG
 APPROVED: MFY
 SCALE: AS NOTED

35-S-06