Addendum No. 2

CITY OF ABERDEEN
ABERDEEN, MARYLAND
DEPARTMENT OF PUBLIC WORKS

AWWTP Digester Gas Flare Replacement

Engineering Project No. 12563982

Receipt of this Addendum shall be automatically recorded by the City of Aberdeen once each Bidder downloads the Addendum No. 2 file from the City of Aberdeen website. No further action on the part of a Bidder is required to acknowledge receipt.

BIDDING REMINDERS

- **Bids due May 18, 2023 at 2:00 PM**. Deliver executed bid documents to Shawn Brogan at the City Office, 60 North Parke Street, Aberdeen, Maryland 21001 prior to 2:00 PM.

Supplemental Information to Assist Bidders

The metal panel for the outside wall facing shall be a 1" insulated aluminum panel such as CAP Industries Thermalclad (R-4.75) or equal.

Modifications to the Project Manual

Questions posed by bidders are as follows:

The door finish hardware schedule included in 08110-2.07 appears to be from another project.

Provide the following hardware set for the door finish:

- 1 ½ Pr. Butts – Stanley FBB 191 x 4 ½ x 4 ½ x NRP x US32D.
- 1 Exit Device – Sargent 8813 x ETL x US32D
- 1 Closer – Sargent x EN1431 - PH9 x SRI.
- 1 Cyliner – Key into Owner's existing keying system.
- 1 Kickplate – Rockwood K1062 x (8" x 34") x US32D.
- 1 Set of Weatherstripping - Pemko 319CR.
- 1 Door Bottom Sweep - Pemko 315CN.
- Threshold - Pemko 170A.

Please identify the Control System Integrator scope of work as this is listed in the List of Subcontractors. Please note that Division 13 is not included in the documents.

The Control System Integrator, Allied Control Services, Inc., is Aberdeen's vendor for services and will be used as a subcontractor to the General Construction Contract. Contact for Allied is:

- Paul C. Mamzic, 611 Garfield Avenue, P.O. Box 234, West Point, PA 19486 (215) 699-2855

- The drawings have been modified to reflect the scope of work for the integrator.
- The attached scope is proposed for the SCADA work. Contractor shall confirm scope with ACS and will provide the subcontractor price for ACS in Schedule A of the bid form.

Will the City please confirm if there are currently any approved disposal sites for the biosolids from the digesters?

The City of Aberdeen does not have any current approved disposal sites for biosolids. It is the contractor's responsibility to transport all biosolids removed from the digesters offsite to an approved location.

Will the City please confirm if "Schedule B" on the bid form is the sum of "Schedule E" and "Schedule F?"

Schedule G includes the sum of Schedules A through F. Schedule B is separate from Schedule E and Schedule F and is not the sum. Schedule B is for cleaning of the digester walls, not sludge/solids removal.

Will the City please confirm that if the Contractor exceeds the estimated number of dry tons during the digester cleaning(s), will the Contractor be paid for the additional volume at the same unit price per dry ton?

The quantities in the bid forms are estimates. Contractor will be paid for actual measured quantities based on field conditions. If the total tonnage exceeds the estimate, contractor will be paid based on the bid unit price for removal of the solids.

Will the City please confirm the projected start date for this project, specifically, the digester cleanings?

Projected start date for the cleaning depends on contractor schedule to start the work. There is no stipulated start date for the digester cleaning. The total project start date is estimated to be August 2023. Milestone 1 for the new digester gas flare will be substantially complete within 350 calendar days following project start. It is likely the contractor will want to have at least 1 digester cleaned within the 350 calendar days following the project start.

Will the City please confirm if 480V, 3 phase, 300 amp power will be made available to the Contractor for the digester cleaning(s)?

The City has convenience receptacles for miscellaneous lighting and tools needed for the work, but does NOT have 480V, 3 phase, 300 amp power available for the digester cleaning. Contractor is responsible for contacting BGE to obtain temporary service for the needed power supply.

What is the material specification for the upblast pipe shown on M-02101?

Provide a stainless steel upblast pipe of the same material as the intake pipe on the vaults.

Modifications to the Project Drawings

Modifications have been made as noted on the attached drawings:

- C01103
- D01102
- DD01102
- E01101
- E01102

- E01501
- E01601
- M01101
- M01501
- M02101

END OF ADDENDUM NO. 2

ALLIED CONTROL SERVICES, INC.

611 GARFIELD AVE. • P.O. BOX 234 • WEST POINT, PA 19486
Phone: 215-699-2855
Fax: 215-699-9030

NJ Electrical Contractor License 14734
DE Electrical Contractors License #T1-0004854
MD Electrical Contractors License #9097
WV Electrical Contractors License #043488
VA Electrical Contractors License #2710066014

May 4, 2023

Mr. Mark L. Pickering, P.E.
GHD Inc.
225 Grandview Avenue
Suite 403
Camp Hill, PA 17011

Subject: Aberdeen AWWTP SCADA I/O Additions Digester Gas Flare Project – I/O Installation Scope

Dear Mark,

The following is a summary of our meeting this morning:

New I/O Conduits Required:

- One 1.5" Conduit from Admin Building PLC Panel to new 6X6 I/O Junction Box installed above ceiling in hallway outside of Storage Room and Digester Gas Piping Room
- One ¾" Conduit from FIT-1 and FIT-2 Gas Flow Transmitters to new 6X6 I/O Junction Box
- One ¾" Conduit from existing wall mounted Siemens Ultrasonic Transmitters for Digester 1 and 2 level to 6X6 I/O Junction Box (transmitters wall mounted in hallway outside of storage room)
- One ¾" Conduit from Varec Control Panel to 6X6 Junction Box above ceiling outside of Storage Room and Digester Gas Piping Room

New I/O Wiring Required:

- Qty six, #16 AWG THWN/THHN from Varec Control Panel to new 6X6 Junction Box and continue run to Admin Building PLC Panel
- Qty two, #18 AWG 2C Shielded Pair from FIT-1 and FIT-2 Gas Flow Transmitters to 6X6 I/O Junction Box and continue run to Admin Building PLC Panel
- Qty two, #18 AWG 2C Shielded Pair from existing Siemens Ultrasonic Transmitters for Digesters 1 and 2 Level to 6X6 I/O Junction Box and continue run to Admin Building PLC Panel

Electrical Contractor Scope:

- Furnish and install all I/O Conduit and wiring.
- Install continuous wire runs with no splices.
- Label field end and PLC Cabinet end of all I/O wiring (label per ACS furnished wiring diagram)
- Tape all wire ends and leave eight feet of wire coiled in PLC panel and two feet coiled in the Varec Control Panel
- Leave one foot of signal wire at each flow transmitter and level transmitter termination compartment.

ACS System Integrator Scope:

- Terminate all I/O wiring at field end and Admin PLC panel wiring.
- Test all field I/O and furnish as-built wiring diagrams.
- Furnish all system programming and SCADA System startup, testing and training.

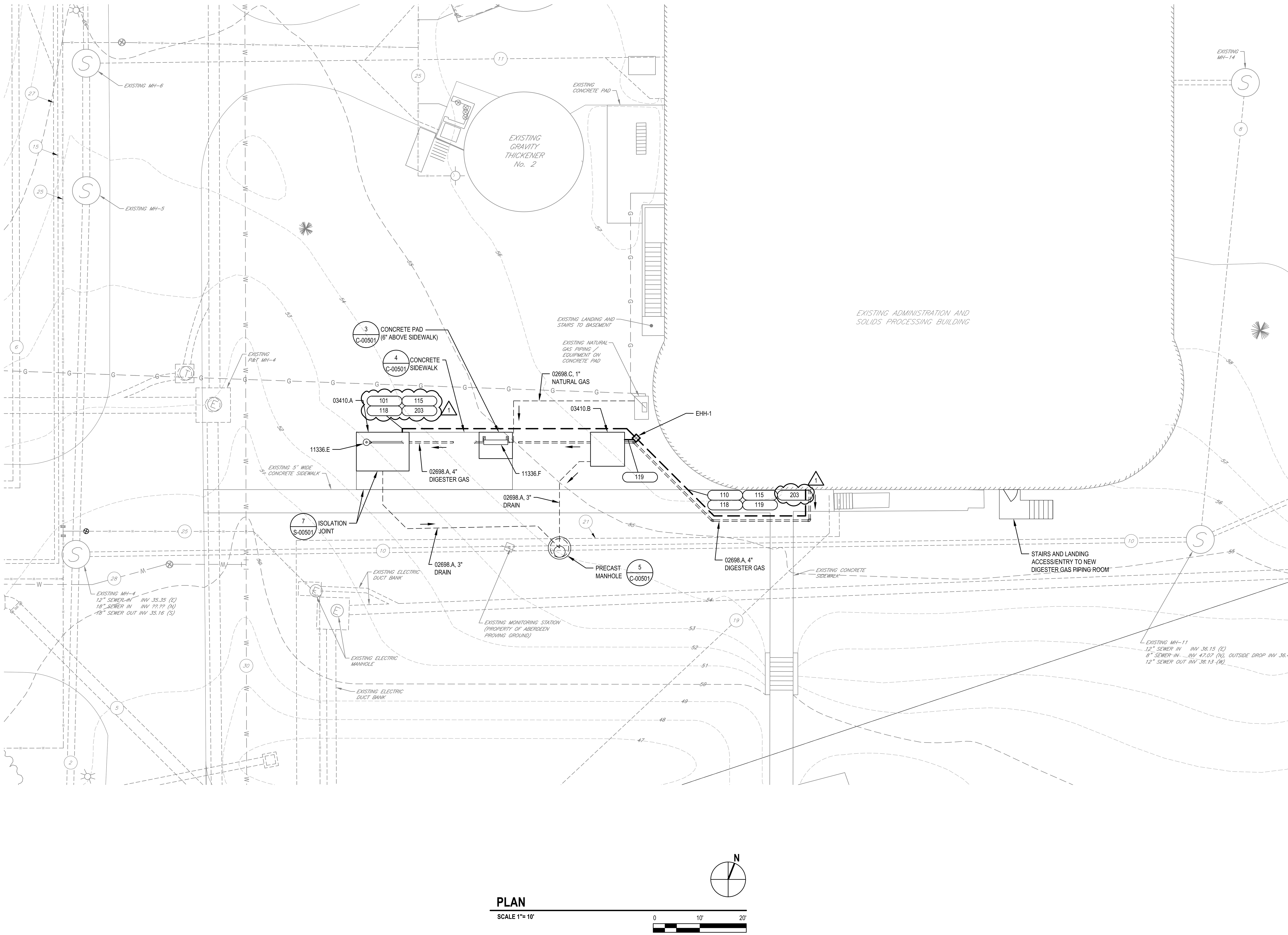
If you have any questions, please email me or call me on my mobile at 215-915-9894.

Regards,

Paul C. Mamzic

PCM/

cc: Parley Hess, City of Aberdeen



LEGEND

— — 50 — —	EXISTING CONTOUR MAJOR
— — 54 — —	EXISTING CONTOUR MINOR
— E — E —	EXISTING ELECTRICAL LINE
— W — W —	EXISTING WATER LINE
— x — x —	EXISTING FENCE LINE
— — — —	EXISTING SEWER
— G — G —	GAS LINE
	EXISTING TREE
	EXISTING EVERGREEN TREE
	EXISTING BUILDING
	EXISTING STRUCTURE

MATERIAL KEYING LEGEND

02698: UNDERGROUND PROCESS PIPING
- .A HDPE PIPE
- .C DR11 HDPE PIPE

03410: PRECAST STRUCTURAL CONCRETE
- .A PRECAST FLARE VAULT (10'-0" X 7'-0" INSIDE)
- .B PRECAST DRIP TRAP CHAMBER (6'-0" X 6'-0" INSIDE)

11336: WASTE GAS BURNER AND SAFETY EQUIPMENT
- .E FLARE ASSEMBLY
- .F FLARE CONTROL PANEL

EXISTING PIPING LEGEND

I.D.	SIZE	MATERIAL	DESCRIPTION
1	12"	D.I.P.	PLANT INFLUENT
2	18"	D.I.P.	PLANT INFLUENT
3	24"	R.C.P.	PLANT INFLUENT
4	30"	D.I.P.	PLANT INFLUENT
5	20"	D.I.P.	FLOW EQUALIZATION INFLUENT
6	18"	D.I.P.	PRIMARY INFLUENT
7	6"	D.I.P.	PLANT DRAIN
8	8"	D.I.P.	PLANT DRAIN
9	12"	D.I.P.	PLANT DRAIN
10	12"	–	STORM DRAIN
11	10"	–	GRAVITY THICKENER OVERFLOW
12	8"	D.I.P	FILTER RECYCLE
13	4"	DUCT	–
14	2 ½"	–	CATONIC POLYMER
15	3"	–	PRE CHLORINE SOLUTON
16	1 ½"	–	SODIUM ALUMINATE
17	4"	DUCT	SODIUM HYDROXIDE
18	6"	D.I.P.	SCUM
19	4"	D.I.P.	WASTE ACTIVATED SLUDGE
20	4"	–	THICKENED SLUDGE
21	6"	–	SLUDGE TRANSFER
22	6"	D.I.P.	PRIMARY SLUDGE
23	2"	D.I.P.	PLANT WATER
24	3"	D.I.P.	PLANT WATER
25	6"	D.I.P.	PLANT WATER
26	6"	D.I.P.	DILUTING WATER
27	1"	–	POTABLE WATER
28	1 ½"	–	POTABLE WATER
29	6"	–	POTABLE WATER
30	8"	–	POTABLE WATER
31	1"	–	SEAL WATER

No.	Issue	Checked	Approved	Date
1	ADDENDUM No. 2	SB	SB	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author B. WHALEY | Drafting Check M. WIESTLING | Project Manager M. PICKERING
Designer M. PICKERING | Design Check N. HATALA | Project Director S. CROSSWELL

Bar is one inch on original size sheet
0 1"

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Client **CITY OF ABERDEEN**
Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**
Title **SITE PLAN**
Size ARCH D

Project No. 12563982 | Date March 14, 2023 | Scale AS SHOWN | Sheet No. C-01103 | Sheet 6 of 28

MATERIAL KEYING LEGEND

01732: SELECTIVE DEMOLITION
.A TO BE REMOVED
.C TO BE REMOVED AND REINSTALLED

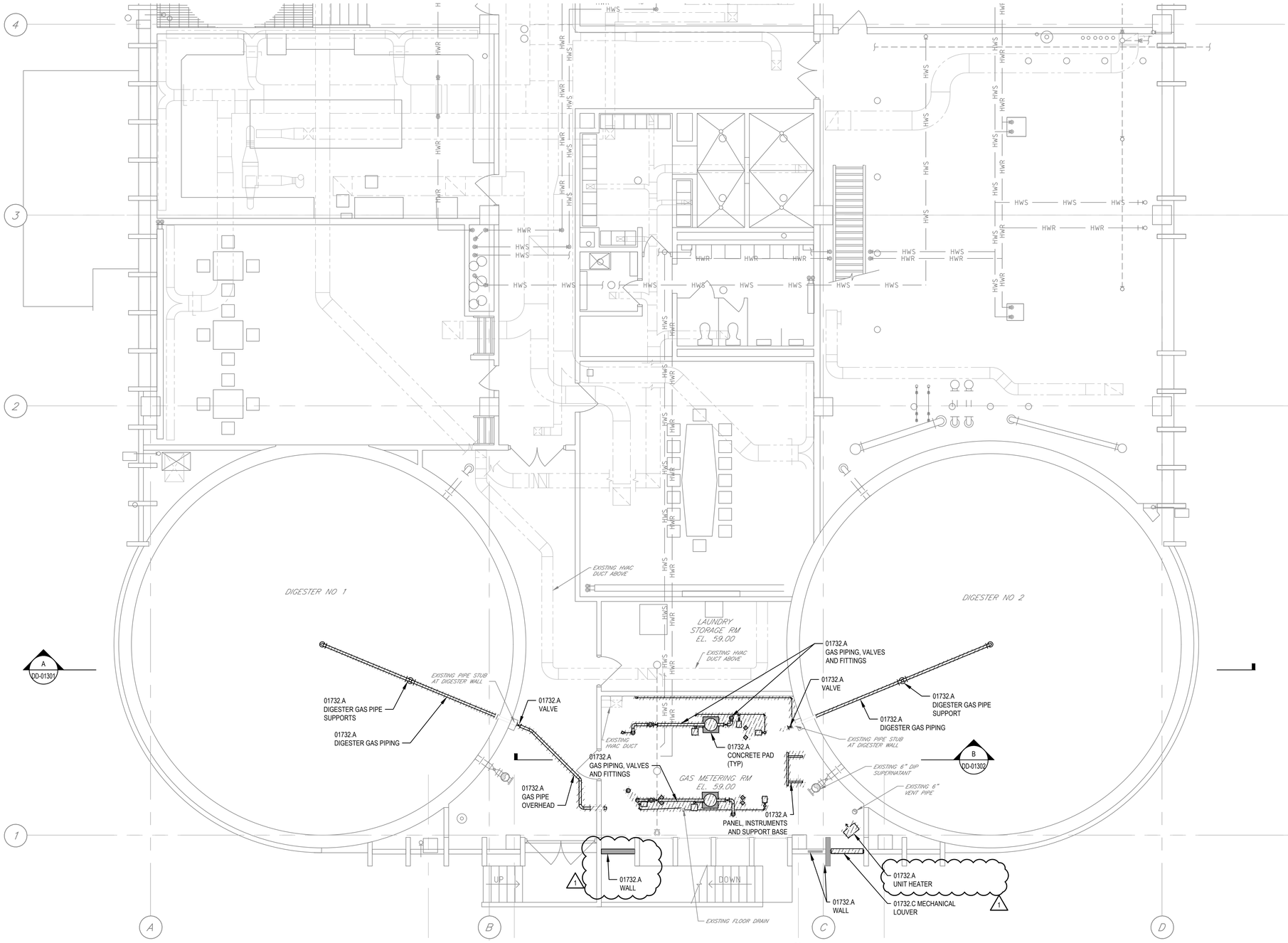
LEGEND

ITEM TO BE REMOVED

CONCRETE / MASONRY TO BE REMOVED

SHEET GENERAL NOTES

1. THIS DRAWING HAS BEEN PREPARED TO PROVIDE THE CONTRACTOR WITH A GENERAL SCOPE OF DEMOLITION WORK TO BE REQUIRED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ITEMS THAT MAY EFFECT DEMOLITION COSTS INCLUDING BUT NOT LIMITED TO EXACT EQUIPMENT AND PIPING LOCATIONS, ACTUAL EQUIPMENT AND PIPING SIZES, AND ALL INCIDENTAL EQUIPMENT OR PIPING NOT SHOWN BUT PART OF THE EQUIPMENT INDICATED TO BE REMOVED OR EFFECTING REMOVAL PROCESS.
2. REFER TO SPECIFICATION SECTION 01732 SELECTIVE DEMOLITION.



PLAN

SCALE 3/16" = 1'0"

0 4' 8' 12'

No.	Issue	Checked	Approved	Date
1	ADDENDUM No 2	EC	MLP	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author E. CAMACHO | Drafting Check M. WIESTLING | Project Manager M. PICKERING
Designer M. PICKERING | Design Check N. HATALA | Project Director S. CROSSWELL

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Client CITY OF ABERDEEN
Project ABERDEEN AWWTP
DIGESTER GAS FLARE REPLACEMENT

Title EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR DEMOLITION PLAN

Size ARCH D

Project No. 12563982 | Date March 14, 2023 | Scale AS SHOWN

Sheet No. DD-01102 | Sheet 10 of 28

Plot Date: 10 May 2023 - 2:23 PM Plotted By: Ed Camacho Filename: N:\US\Harrisburg\Projects\564\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Processs\12563982-DD01102.dwg

MATERIAL KEYING LEGEND

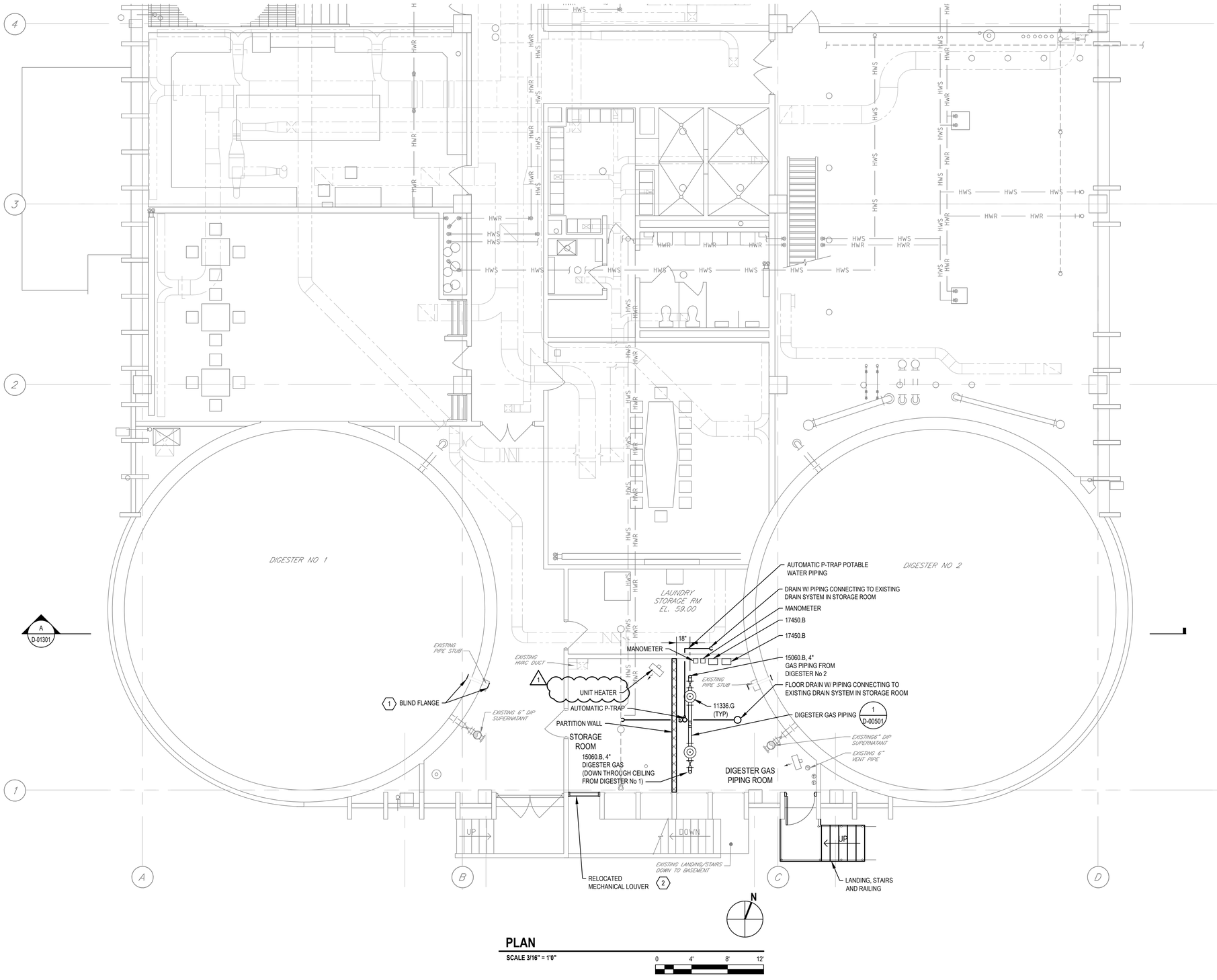
15060: ABOVE-GROUND PROCESS PIPING
.B SS PIPE

11336: WASTE GAS BURNER AND SAFETY EQUIPMENT
.G SEDIMENT TRAP WITH AUTOMATIC DRIP TRAP

17450: AIR AND GAS FLOW METERS
.B THERMAL MASS FLOW METER TRANSMITTER

SHEET KEYNOTES

1. CONTRACTOR TO SEAL PIPE AND INSTALL BLIND FLANGE ON EXISTING PIPE STUB AFTER REMOVAL OF DIGESTER GAS PIPING.
2. CONTRACTOR TO RELOCATE / INSTALL EXISTING EQUIPMENT.



PLAN

SCALE 3/16" = 1'0"

0 4' 8' 12'

No.	Issue	Checked	Approved	Date
1	ADDENDUM No 2	EC	MLP	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author **B. WHALEY** Drafting Check **M. WIESTLING** Project Manager **M. PICKERING**
Designer **M. PICKERING** Design Check **N. HATALA** Project Director **S. CROSSWELL**

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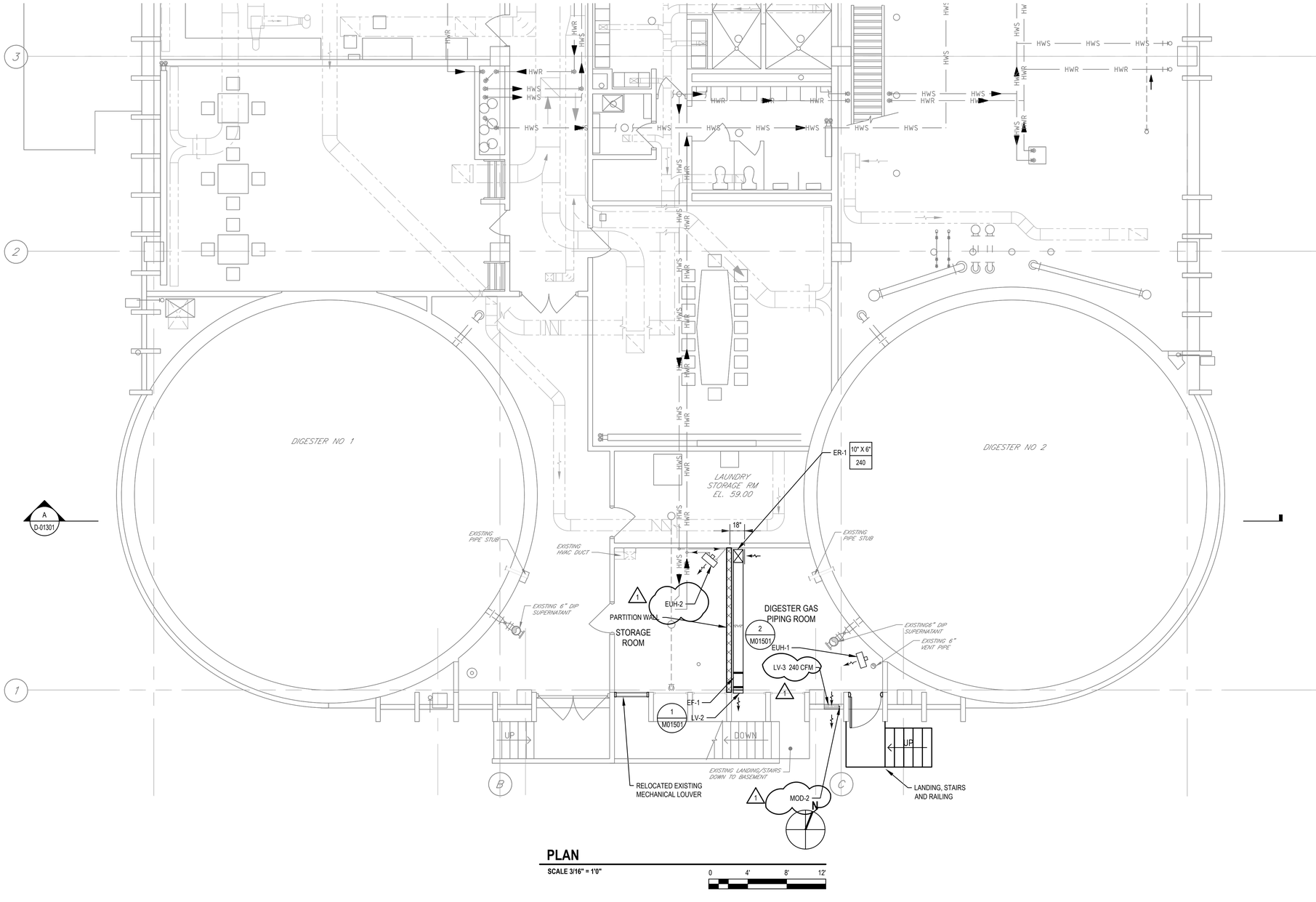
Client **CITY OF ABERDEEN**
Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**

Project No. **12563982** Date **March 14, 2023** Scale **AS SHOWN**

Title **EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR PLAN**

Size **ARCH D**
Sheet No. **D-01102**
Sheet **16 of 28**

Plot Date: 8 May 2023 - 10:42 AM Plotted By: Ed Camacho Filename: N:\US\Harrisburg\Projects\564\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Process\12563982-D01102.dwg



PLAN

SCALE 3/16" = 1'0"

0 4' 8' 12'

No.	Issue	RV	SP	MAY-10-2023
1	ADDENDUM No 2			
0	BID DOCUMENTS	EC	MLP	MAR-14-2023
		Checked	Approved	Date

Author **B. WHALEY** Drafting Check **M. WIESTLING** Project Manager **M. PICKERING**

Designer **R. VAN HOUTE** Design Check **S. PATRICK** Project Director **S. CROSSWELL**

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Client **CITY OF ABERDEEN**

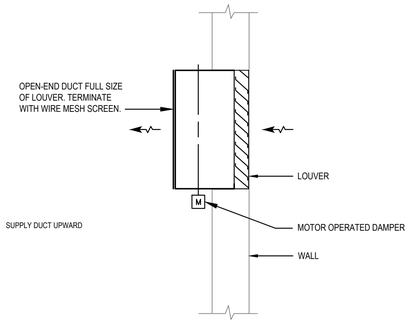
Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**

Title **EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR PLAN**

Size **ARCH D**

Project No.	Date	Scale	Sheet No.	Sheet
12563982	March 14, 2023	AS SHOWN	M-01101	21 of 28

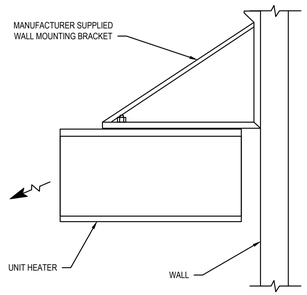
Plot Date: 10 May 2023 - 2:28 PM Plotted By: Ed Camacho Filename: N:\US\Harrisburg\Projects\564\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Mechanical\12563982-M01101.dwg



1 M01501 **LOUVER DETAIL**
SCALE: NTS

GENERAL NOTES:

1. REFER TO STRUCTURAL DETAIL DRAWINGS FOR COORDINATION OF NEW OPENINGS IN ROOF AND WALLS.



2 M01501 **ELECTRIC UNIT HEATER**
SCALE: NTS

HVAC SYMBOL LIST

T	THERMOSTAT
M	MOTOR OPERATOR
	EXHAUST OR RETURN AIR DUCT END SECTION
	SUPPLY OR RELIEF AIR DUCT END SECTION
12" x 20"	DUCT SIZE IN INCHES (FIRST No., SIDE SHOWN; SECOND No., SIDE NOT SHOWN)
	FLEXIBLE DUCTWORK
	ELBOW WITH TURNING VANES
LV-M	LOUVER WITH MOTOR OPERATOR (PLAN)
	FLEXIBLE FAN CONNECTION
UH	HORIZONTAL UNIT HEATER
	DIFFERENTIAL PRESSURE SWITCH
	PIPE UP
	PIPE DOWN
	TEE (DOWN)
	TEE (UP)
C	CONDENSATE PIPING
R	REFRIGERANT PIPING
NECK SIZE / CFM	GRILLE, REGISTER, DIFFUSER

ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BOD	BOTTOM OF DUCT
BOH	BOTTOM OF HEATER
BOF	BOTTOM OF FAN
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
℄	CENTERLINE
CP	CONTROL PANEL
CS	CONTROL STATION
CORR RES	CORROSION RESISTANT
dBA	DECIBELS
DB/WB	DRY BULB/WET BULB TEMPERATURE
DIA	DIAMETER
DL	DRUM LOUVER
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EL	ELEVATION
EXH	EXHAUST
EXT	EXTERNAL
F	FAN
FD	FIRE DAMPER
FF	FINISHED FLOOR
FRP	FIBERGLASS REINFORCED PLASTIC
FSOA	FAST-SLOW-OFF-AUTO SWITCH
FPM	FEET PER MINUTE
FO	FUEL OIL
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
HP	HORSEPOWER
HOA	HAND-OFF-AUTO SWITCH
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LV	LOUVER
MBH	THOUSAND BTUS PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MOCP	MAXIMUM OVER CURRENT PROTECTION
MOD	MOTOR OPERATED DAMPER
MTR	MOTOR
NEC	NATIONAL ELECTRICAL CODE
PNEU	PNEUMATIC
R	ELECTRIC FIN TUBE
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SENS	SENSIBLE
SP	STATIC PRESSURE
SS	STAINLESS STEEL
STL	STEEL
SUP	SUPPLY
TEMP	TEMPERATURE
T-STAT	THERMOSTAT
TS	TEMPERATURE SENSOR
TYP	TYPICAL
UH	UNIT HEATER
VA	VERTICAL ACCELERATOR
VD	VOLUME DAMPER
W	WATTS
WPD	WATER PRESSURE DROP
WG	WATER GAUGE
"	INCH

UNIT HEATER SCHEDULE - ELECTRIC

UNIT NO.	LOCATION	SERVICE	UNIT POWER			MOTOR		MOUNTING ARRANGEMENT.	DESIGN PRODUCT	REMARKS
			KW	VOLTS	PHASE	HP	AMPS			
EUH-1	DIGESTER GAS PIPING ROOM	SAME	5.0	480	3	1/4	7.0	HORIZONTAL	HEATREX-HX-233-FA-0056U	7
EUH-2	STORAGE ROOM	SAME	5.0	480	3	1/4	7.0	HORIZONTAL	HEATREX-HX-233-FA-0056U	7

1

FAN SCHEDULE

UNIT NO.	LOCATION	SERVICE	MOTOR				TYPE	CFM	S.P. (IN. WC.)	BLADE TYPE	FAN RPM	DRIVE	SONES	DESIGN BASIS	REMARKS
			HP	RPM	VOLTS	PHASE									
EF-1	DIGESTER GAS PIPING ROOM	SAME	1/12	1550	115	1	INLINE	306	0.250	CENTRIFUGAL WHEEL	1050	DIRECT	3.8	GREENHECK-SQ-DGEX-QD	2,4,7
SF-2	FLARE VAULT	SAME	1/6	1140	115	1	INLINE	100	0.250	CENTRIFUGAL WHEEL	1140	DIRECT	5.6	GREENHECK-SQ-120	6,4,7
SF-3	DRIP TRAP VAULT	SAME	1/6	1140	115	1	INLINE	100	0.250	CENTRIFUGAL WHEEL	1140	DIRECT	5.6	GREENHECK-SQ-120	6,4,7

LOUVER AND MOTOR OPERATED DAMPER SCHEDULE

UNIT ID 1	LOCATION	ROOM SERVED	EQUIPMENT TYPE	INTAKE/ EXHAUST	MIN. FREE AREA (SQFT)	DIMENSIONS (W" X H" X D")	BLADE ANGLE	OPERATOR TYPE	VOLTS/ PHASE	INTERLOCK WITH	DESIGN BASIS		REMARKS
											MANUFACTURER	MODEL	
LV-3	DIGESTER GAS PIPING ROOM	SAME	FIXED	INTAKE	0.48	18" X 12" X 5"	45°	-	-	-	GREENHECK	ESJ-202	-
MOD-2	DIGESTER GAS PIPING ROOM	SAME	V GROOVE BLADE CONTROL DAMPER	INTAKE	-	18" X 12" X 5"	-	PWR. OPEN/SPRG. RETURN	120/1	EF-1	GREENHECK	VCD-43	1,7
BDD-1	DIGESTER GAS PIPING ROOM	SAME	V GROOVE BLADE BACK DRAFT DAMPER	EXHAUST	-	12" X 12" X 4"	-	-	-	-	GREENHECK	WD-300	-
LV-2	DIGESTER GAS PIPING ROOM	SAME	FIXED	EXHAUST	0.32	12" X 12" X 4"	45°	-	-	-	GREENHECK	ESJ-404	-

1

LOUVER NOTES

LOUVER ACCESSORIES, INCLUDING MOUNTING ANGLES AND SILL FLASHING FOR LOUVERS, ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. FASTENERS, SHIMS AND OTHER ACCESSORIES FOR LOUVER INSTALLATION ARE ALSO TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. HEAD FLASHING, SEALANTS AND EXTERIOR CASING TYPE TRIMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

LOUVER FLASHING AND MOUNTING ANGLE DIMENSIONS AND CONFIGURATIONS, AS WELL AS FINISHES AND FINISH COLORS, ARE TO BE AS SHOWN BY THE DETAILS REFERENCED BY THE LOUVER INSTALLATION SCHEDULE IN THE ARCHITECTURAL DRAWINGS, AND AS INDICATED BY THE EXTERIOR FINISH SCHEDULE IN THE ARCHITECTURAL DRAWINGS.

LOUVERS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH 15940, THE LOUVER AND MOTOR OPERATED DAMPER SCHEDULE IN THE HVAC DRAWINGS, AND OTHER INFORMATION SHOWN IN THE HVAC DRAWINGS. LOUVER FINISHES AND FINISH COLORS ARE TO BE AS INDICATED BY THE EXTERIOR FINISH SCHEDULE IN THE ARCHITECTURAL DRAWINGS.

SCHEDULE NOTES

1. PROVIDE WITH INTEGRAL THERMOSTAT.
2. PROVIDE EQUIPMENT AS CORROSION-RESISTANT CONSTRICTION.
3. PROVIDE WALL MOUNTED ELECTRIC WALL HEATER WITH SURFACE MOUNTING FRAME AND APPURTENANCES ACCESSORIES.
4. PROVIDE INTEGRAL SPEED CONTROLLER ON DIRECT DRIVE FANS.
5. PROVIDE WITH REMOTE THERMOSTAT.
6. PROVIDE BACK DRAFT DAMPER.
7. PROVIDE EXPLOSION PROOF ENCLOSURE.

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1	ADDENDUM No 2	RV	SP	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author **E. CAMACHO** Drafting Check **M. WIESTLING** Project Manager **M. PICKERING**
Designer **R. VAN HOUTE** Design Check **S. PATRICK** Project Director **S. CROSSWELL**

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0 1"

STATE OF MARYLAND — JOHN TROUT — 45735 — PROFESSIONAL ENGINEER

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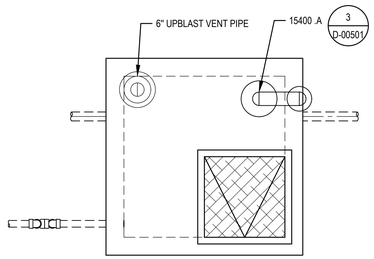
Client **CITY OF ABERDEEN**
Project **ABERDEEN AWWTP**
DIGESTER GAS FLARE REPLACEMENT

Title **DETAILS**
Size **ARCH D**

Project No. **12563982** Date **March 14, 2023** Scale **AS SHOWN**
Sheet No. **M-01501** Sheet **22** of **28**

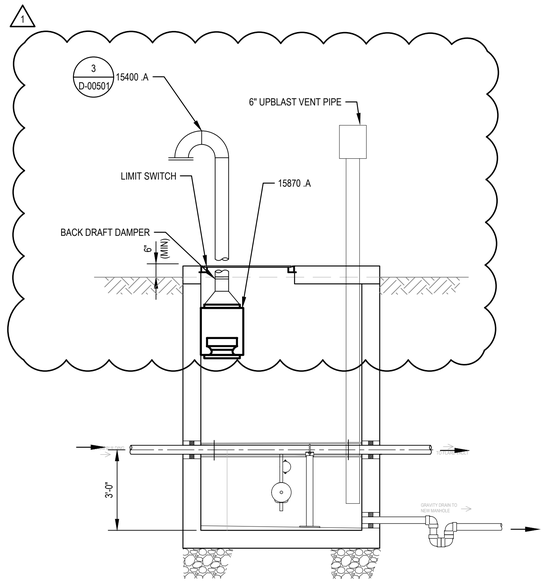
Plot Date: 10 May 2023 - 2:28 PM Plotted By: Ed Camacho Filename: N:\US\Harrisburg\Projects\564\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Mechanical\12563982-M01501.dwg



TOP PLAN

SCALE : 3/8" = 1'-0"

0 2' 4' 6'



A
-

SECTION

SCALE : 3/8" = 1'-0"

0 2' 4' 6'

MATERIAL KEYING LEGEND

15400: VENT
.A 6" TYPE 304 SS SCHEDULE 10 S GOOSENECK VENT

15870: POWER VENTILATORS
.A SF-3

No.	Issue	Checked	Approved	Date
1	ADDENDUM No 2	RV	SP	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author E. CAMACHO | Drafting Check M. WIESTLING | Project Manager M. PICKERING
Designer R. VAN HOUTE | Design Check S. PATRICK | Project Director S. CROSSWELL

Bar is one inch on original size sheet
0 1"

STATE OF MARYLAND · TODD TINGLE · 45756 · PROFESSIONAL ENGINEER

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Client CITY OF ABERDEEN
Project ABERDEEN AWWTP
DIGESTER GAS FLARE REPLACEMENT

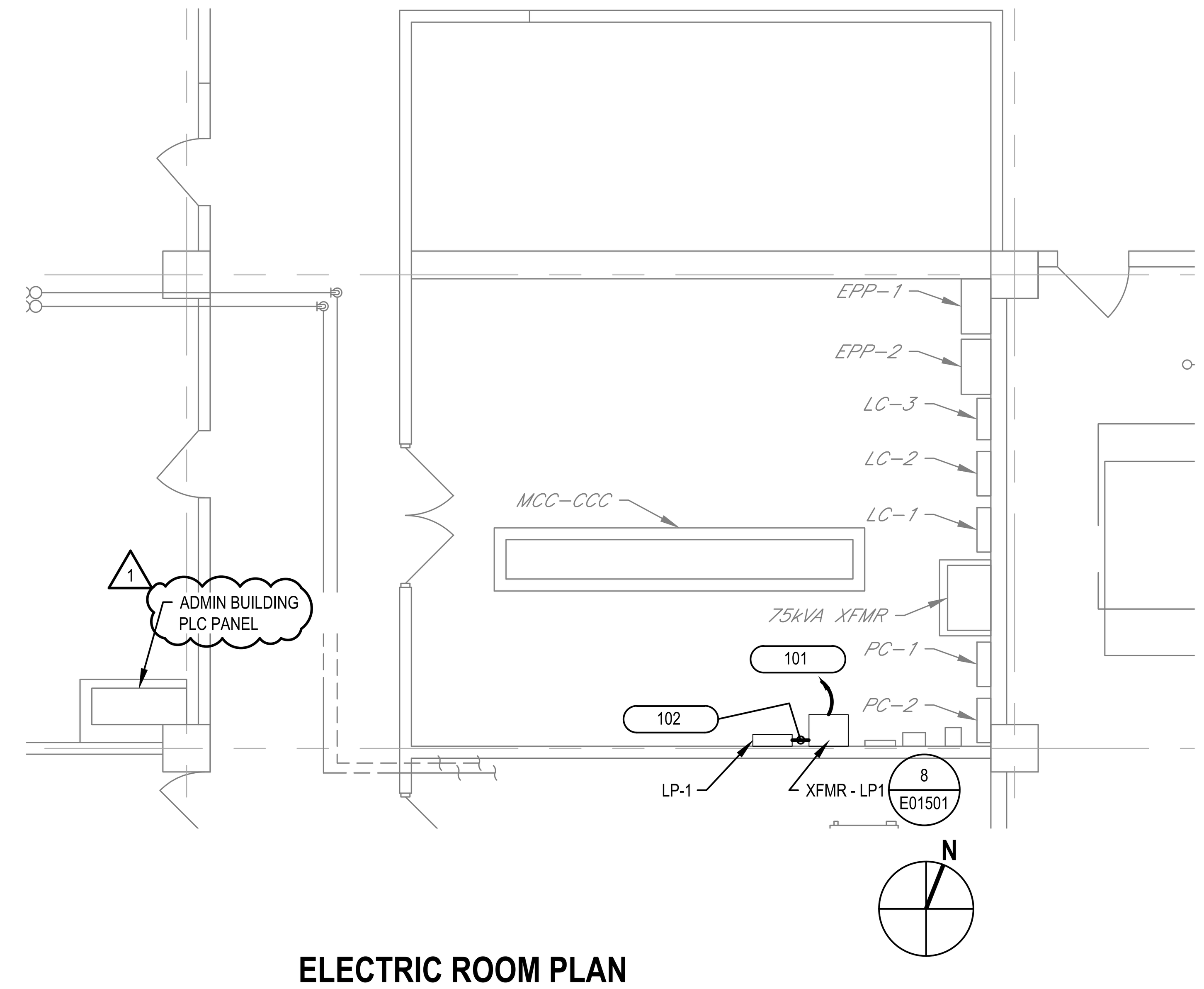
Title DRIP TRAP CHAMBER
PLAN AND SECTION

Size ARCH D

Project No. 12563982 | Date March 14, 2023 | Scale AS SHOWN

Sheet No. M-02101 | Sheet 23 of 28

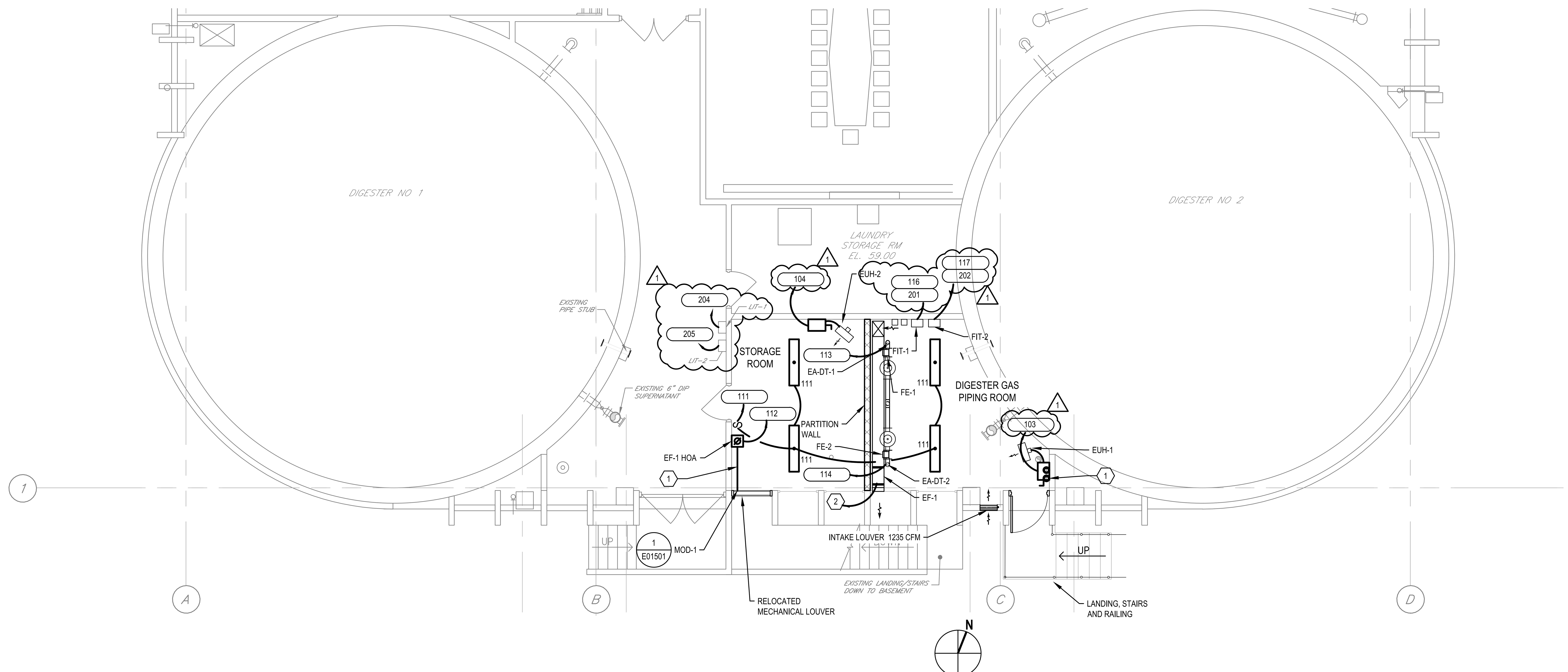
Plot Date: 10 May 2023 - 2:28 PM Plotted By: Ed Camacho Filename: N:\US\Harrisburg\Projects\564\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Mechanical\12563982-M02101.dwg



ELECTRIC ROOM PLAN

SCALE 3/16" = 1'0"

0 4' 8' 12'



PLAN

SCALE 3/16" = 1'0"

0 4' 8' 12'

MATERIAL KEYING LEGEND

- NEMA 7 DISCONNECT SWITCH
- S — NEMA 7 LIGHT SWITCH
- NEMA 7 HAND-OFF-AUTO SWITCH
- CLASS 1, DIV 1 XP RATED LIGHT FIXTURE

SHEET GENERAL NOTES

1. THE DIGESTER GAS PIPING ROOM IS CLASSIFIED AS A CLASS 1, DIVISION 1 HAZARDOUS RATED AREA. THE ELECTRICAL EQUIPMENT, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH NEC ARTICLES 500 AND 501.
2. CONDUIT SEALS SHALL BE LOCATED WITHIN TEN FEET OF THE ENTRANCE OF THE DIGESTER GAS PIPING ROOM. GROUT CONDUIT PENETRATIONS FOR GAS-TIGHT SEALING.
3. UNDERGROUND DUCT BANK WORK IS SHOWN ON DRAWING c-01103.

SHEET KEYNOTES

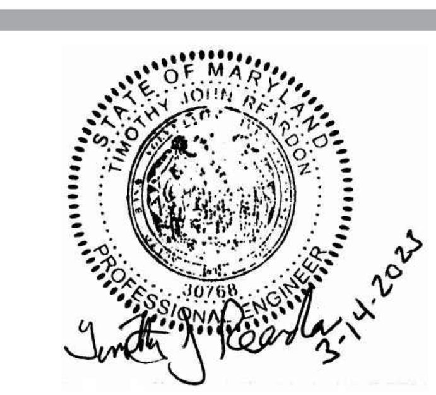
1. PROVIDE 3/4"C. 2#14
2. PROVIDE 3/4"C. 3#12, #12GND TO EF-1 HOA.
3. PROVIDE 3/4"C. 2#14 FROM THERMOSTATS TO ASSOCIATED UNIT HEATERS.

No.	Issue	Checked	Approved	Date
1	ADDENDUM No. 2	SB	SB	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author	P.DIFRANCISCO	Drafting Check	M. WIESTLING	Project Manager	M. PICKERING
Designer	S. BOCHNOWICZ	Design Check	T. REARDON	Project Director	S. CROSSWELL

Bar is one inch on original size sheet

0 1"



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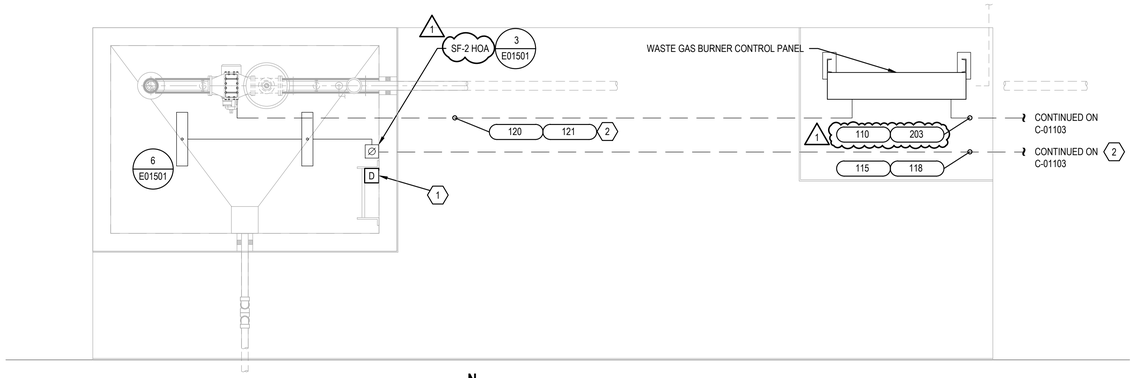
Client **CITY OF ABERDEEN**

Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**

Title **EXISTING ADMINISTRATION & SOLIDS PROCESSING BUILDING FIRST FLOOR POWER PLAN**

Size ARCH D

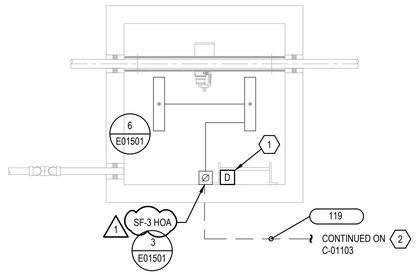
Project No.	Date	Scale	Sheet No.	Sheet
12563982	March 14, 2023	AS SHOWN	E-01101	25 of 28



FLARE VAULT INTERIOR PLAN

SCALE : 3/8" = 1'-0"

0 2' 4' 6'



DRIP TRAP CHAMBER VAULT INTERIOR PLAN

SCALE : 3/8" = 1'-0"

0 2' 4' 6'

MATERIAL KEYING LEGEND

D — EXPLOSION PROOF LIMIT SWITCH

∅ — NEMA 7 HAND-OFF-AUTO SWITCH

CLASS 1, DIV 1 XP RATED LIGHT FIXTURE

SHEET GENERAL NOTES

1. THE DRIP TAP CHAMBER VAULT AND FLARE VAULT ARE CLASSIFIED AS A CLASS 1, DIVISION 1 HAZARDOUS RATED AREA. THE ELECTRICAL EQUIPMENT, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH NEC ARTICLES 500 AND 501.
2. CONDUIT SEALS SHALL BE LOCATED WITHIN TEN FEET OF THE ENTRANCE OF THE VAULTS. GROUT CONDUIT PENETRATIONS FOR GAS-TIGHT SEALING.

SHEET KEYNOTES

1. PROVIDE 3/4"C. 2#14 TO SF HOA 1
2. PROVIDE 3/4"C. 3#12, #12GND TO EF HOA.

No.	Issue	Checked	Approved	Date
1	ADDENDUM No. 2	SB	SB	MAY-10-2023
0	BID DOCUMENTS	EC	MLP	MAR-14-2023

Author P.DIFRANCISCO | Drafting Check M. WIESTLING | Project Manager M. PICKERING

Designer S. BOCHNOWICZ | Design Check T. REARDON | Project Director S. CROSSWELL

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0 1"

STATE OF MARYLAND — JOHN T. REARDON — 16767 — PROFESSIONAL ENGINEER — 5-14-2023

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Client CITY OF ABERDEEN

Project ABERDEEN AWWTP
DIGESTER GAS FLARE REPLACEMENT

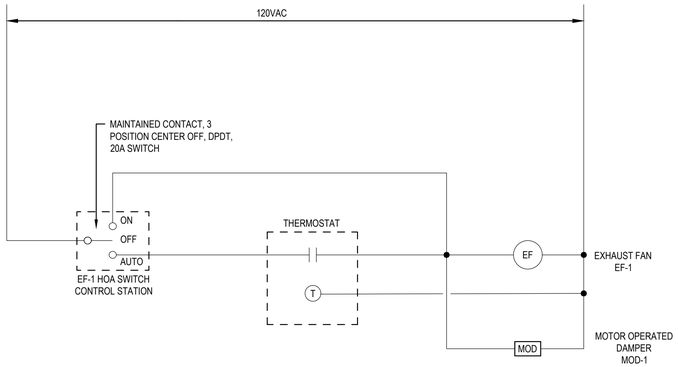
Project No. 12563982 | Date March 14, 2023 | Scale AS SHOWN

Title DRIP TRAP CHAMBER AND GAS FLARE VAULT PLANS

Size ARCH D

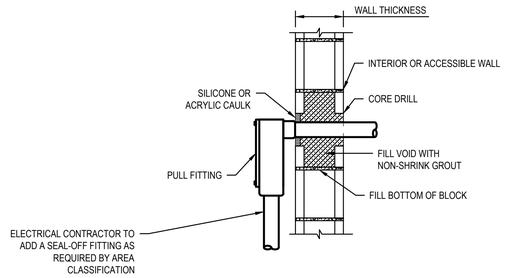
Sheet No. E-01102 | Sheet 26 of 28

Plot Date: 10 May 2023 - 2:51 PM | Plotted By: Ed Camacho | Filename: N:\US\Harrisburg\Projects\56\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Electrical\12563982-E01102.dwg



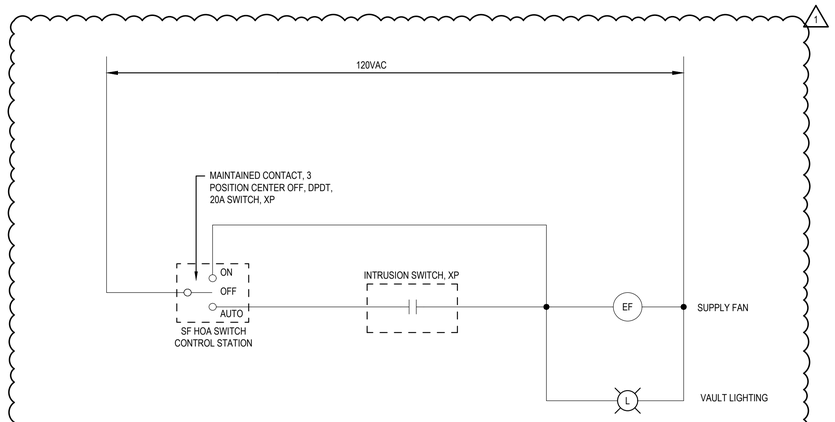
1 E01501 **EXHAUST FAN EF-1 SCHEMATIC**

SCALE: NONE



2 E01501 **TYPICAL CONDUIT THROUGH MASONRY WALL**

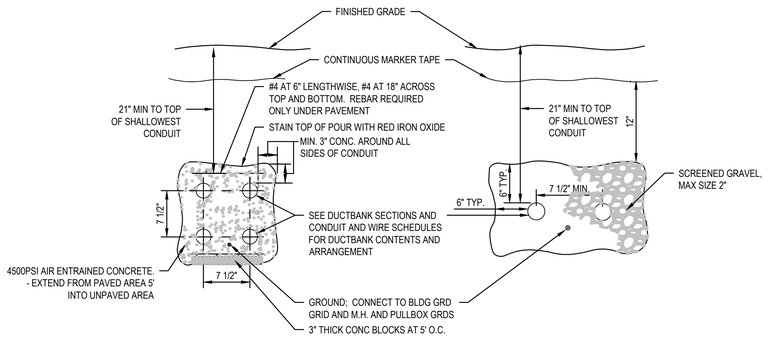
SCALE: NONE



3 E01501 **VAULT SUPPLY FAN AND LIGHTING SCHEMATIC**

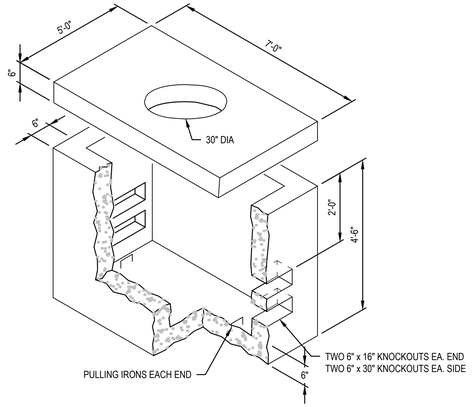
SCALE: NONE

(TYPICAL FOR SF-2 AND SF-3)



4 E01501 **DUCTBANK DETAIL - CONCRETE AND/OR GRAVEL ENCASED**

SCALE : NOT TO SCALE



PROVIDE CONCRETE COVER FOR HS-20 LOADING. SEAL WATERTIGHT WITH MORTAR.

ALLOW FOR MIN. 6" BETWEEN FINISHED GRADE AND TOP OF COVER.

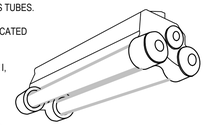
PROVIDE NEENAH R-1640-C1 OR EQUAL FRAME AND COVER WITH DROP HANDLES, LETTERED "ELECTRIC".

5 E01501 **ELECTRICAL PULLBOX (ACCESSIBLE)**

SCALE: NONE

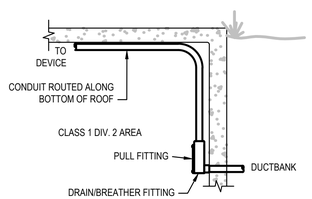
1. LED LUMINAIRE TESTED AND CERTIFIED FOR HAZARDOUS LOCATIONS.
2. MOUNTING: CEILING. SUSPENDED, OR WALL MOUNTED WITH WALL BRACKET.
3. COPPER FREE ALUMINUM ALLOY HOUSING WITH EPOXY FINISH.
4. HEAT AND IMPACT RESISTANT GLASS TUBES.
5. ALUMINIUM PAINTED REFLECTOR LOCATED ABOVE TUBES.
6. CLASSIFICATION, LISTED FOR CLASS I, DIVISION 1, GROUP D.
8. LED COLOR TEMPERATURE 4000K
9. 120 VOLT REPLACEABLE LED DRIVER.
10. MINIMUM 5 YEAR WARRANTY.

MANUFACTURERS:
RIG-A-LIGHT - XP LED SERIES
DIALIGHT -SAFESITE SERIES
OR APPROVED EQUAL



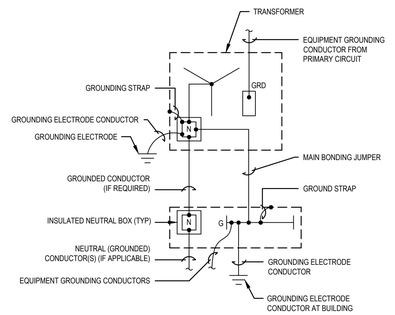
6 E01501 **LUMINAIRE "DL" SPECIFICATION**

SCALE: NONE



7 E01501 **VAULT ENTRY DETAIL**

SCALE: NONE



8 E01501 **SEPARATELY DERIVED SYSTEM GROUNDING SCHEMATIC**

SCALE: NONE

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Designer **S. BOCHNOWICZ** Design Check **T. REARDON** Project Director **S. CROSSWELL**

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COMMONWEALTH OF PENNSYLVANIA — SCOTT J. CROSSWELL — ENGINEER — 37714 — 2023

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Client **CITY OF ABERDEEN**

Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**

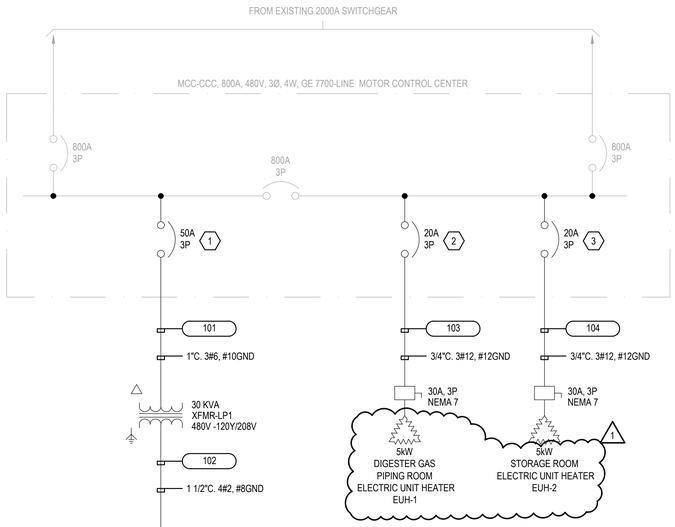
Title **ELECTRICAL DETAILS SCHEDULES, AND SCHEMATICS**

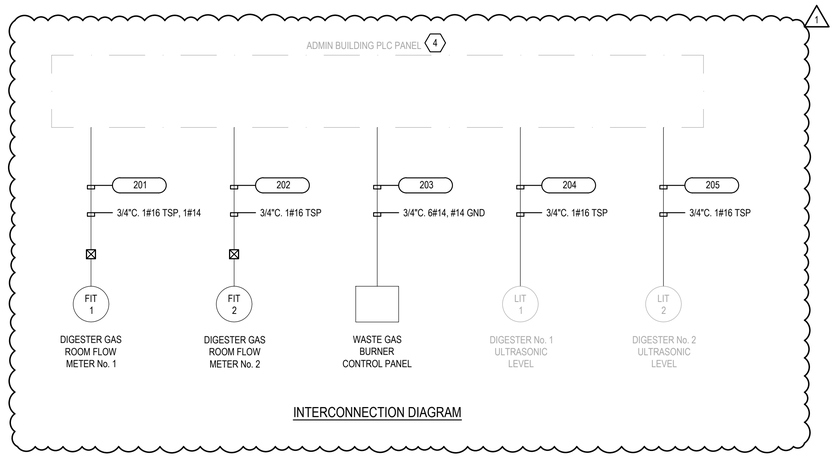
Size **ARCH D**

Project No. **12563982** Date **March 14, 2023** Scale **AS SHOWN**

Sheet No. **E-01501** Sheet **27 of 28**

Plot Date: 10 May 2023 - 2:51 PM Plotted By: Ed Camacho Filename: N:\US\Harrisburg\Projects\564\12563982\Task 01 - Digester Gas Flare Improvements\Digital_Design\ACAD 2020\Sheets\Electrical\12563982-E01501.dwg





INTERCONNECTION DIAGRAM

MATERIAL KEYING LEGEND

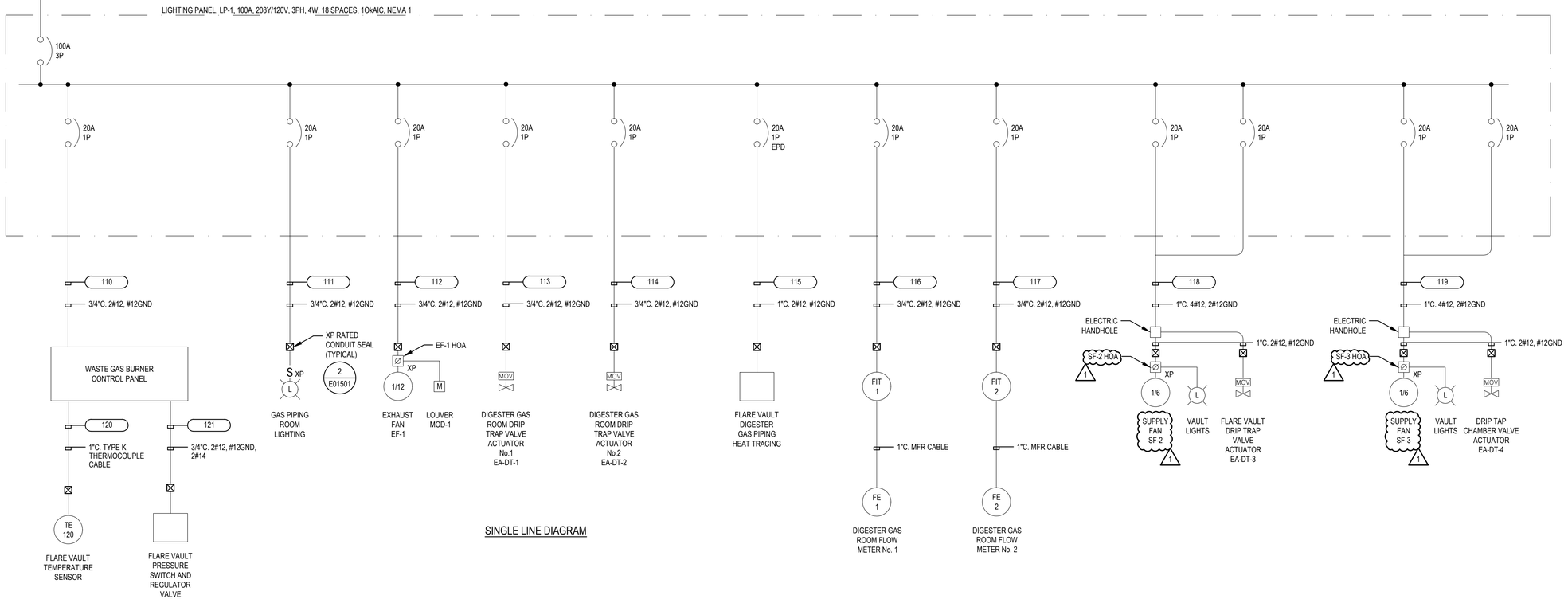
- NEMA 7 DISCONNECT SWITCH
- S — NEMA 7 LIGHT SWITCH
- ∅ — NEMA 7 HAND-OFF-AUTO SWITCH
- ⊠ — XP RATED CONDUIT SEAL
- L — LIGHT FIXTURE
- 1/8 — EXHAUST FAN
- MOV — ELECTRIC ACTUATED VALVE
- EPD — EQUIPMENT PROTECTIVE DEVICE, 30mA RATED

SHEET GENERAL NOTES

1. MCC-CCC PARTIAL SINGLE LINE DIAGRAM IS SHOWN. ALL CONNECTIONS TO EXISTING LOADS TO REMAIN UNLESS OTHERWISE NOTED.
2. ADMIN BUILDING PLC PANEL PARTIAL INTERCONNECTION DIAGRAM IS SHOWN. ALL CONNECTIONS TO EXISTING INSTRUMENTS TO REMAIN UNLESS OTHERWISE NOTED. 1

SHEET KEYNOTES

1. DEMOLISH EXISTING HIGH RATE RECIRC SLUDGE PUMP No. 1 BUCKET. PROVIDE NEW 50A, 3P GE 7700-LINE BREAKER BUCKET IN EXISTING SPACE.
2. DEMOLISH EXISTING DIGESTED SLUDGE PUMP No. 1/2 BUCKET. PROVIDE NEW 20A, 3P GE 7700-LINE BREAKER BUCKET IN PLACE EXISTING SPACE.
3. DEMOLISH EXISTING DIGESTED SLUDGE PUMP No. 1 BUCKET. PROVIDE NEW 20A, 3P GE 7700-LINE BREAKER BUCKET IN PLACE IN EXISTING SPACE.
4. PROVIDE MINIMUM 1' OF COILED AND LABELED SIGNAL CONDUCTORS IN ADMIN BUILDING PLC PANEL FOR OWNER CONNECTION. 1



SINGLE LINE DIAGRAM

No.	Issue	Checked	Approved	Date
1	ADDENDUM No. 2	SB	SB	MAY-10-2023
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Author **P.DIFRANCISCO** Drafting Check **M. WIESTLING** Project Manager **M. PICKERING**
Designer **S. BOCHNOWICZ** Design Check **T. REARDON** Project Director **S. CROSSWELL**

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Client **CITY OF ABERDEEN**
Project **ABERDEEN AWWTP DIGESTER GAS FLARE REPLACEMENT**
Title **SINGLE LINE DIAGRAM**
Size **ARCH D**
Project No. **12563982** Date **March 14, 2023** Scale **AS SHOWN**
Sheet No. **E-01601** Sheet **28** of **28**