

BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT BERKELEY COUNTY, WEST VIRGINIA

CONTRACT #10 – OPEQUON HEDGESVILLE WWTP UPGRADES

ADDENDUM #2

April 1, 2022

THRASHER PROJECT NO. 020-10042



TO WHOM IT MAY CONCERN:

A Non-Mandatory Pre-Bid Conference was held at 2 PM on Tuesday, March 8, 2022, for the above-referenced project. A copy of the notes from that meeting and the sign-in sheet were enclosed with Addendum #1.

The following may include changes regarding general items, specifications, and drawings, responses to questions received prior to the conference, at the conference, and after the conference, and clarifications.

Description(s) of equipment, materials, and/or products approved “as equal” to date prior to bid opening may also be provided in this Addendum. Please note that these approvals/disapprovals are made by the Engineer for this specific project based on the best available information and shall not be construed as precedent for approval/disapproval on other future projects of The Thrasher Group, Inc. **The Contractor shall be responsible for any and all changes necessary to accommodate any approved “as equal” equipment, materials, and/or products at no additional cost to the Owner.**

Attention is directed to the fact that while information provided in this Addendum may reference specific locations in the Plans and Specifications, the information provided shall be applied to all applicable locations in the Plans and Specifications.

Please acknowledge receipt of all Addenda in the Bid Opening Requirements and in the Bid Form.

A. GENERAL

1. Bidders are hereby notified to acknowledge receipt of all addenda in space provided on the Bid Form.

B. SPECIFICATIONS

The Bid Opening Requirements have been revised to eliminate the WVIJDC WV Jobs Act requirements. Use the attached revised Bid Opening Requirements for Bidding.

C. DRAWINGS

1. **ADD** Sheets 7A, 7B, and D6 included with this Addendum No.2.
2. **REPLACE** Sheet 3, 5, 8, 9, S1 included with this Addendum No.2.
3. **REPLACE** Sheets E1, E2, E3, E4, and E5 included with this Addendum No.2.

D. CLARIFICATIONS

1. The new Bid Opening date for the Opequon-Hedgesville WWTP Upgrades is to be held at 2 PM on April 19th, 2022, at the Berkeley County PSSD office at 65 District Way Martinsburg, WV 25402. Further questions regarding the project will be received until April 8th, 2022.
2. The Pre-Engineered Building will be bid per the existing plan set. However, due to expressed lead time concerns with this item, alternatives to the Pre-Engineered Building will be considered if all structural requirements are met. The responsibility of alternative buildings will be that of the contractor and will comply with Specification section 133419 – Delegated-Design Submittal: Include analysis data indicating compliance performance requirements and design data sheet and sealed by the qualified professional engineer responsible for their preparation.
3. The contractor is responsible for storing and handling all required materials for the Opequon Hedgesville WWTP Upgrades.

E. QUESTIONS AND RESPONSES

QUESTION

1. What is the Engineer's Opinion of Probable Construction Cost?

RESPONSE

About \$1.0 million

QUESTION

2. Where will the existing belt press be stored on site?

RESPONSE

The storing of the belt press will be at the location of the Opequon-Hedgesville WWTP.

QUESTION

3. What is the height of the retaining wall?

RESPONSE

A minimum of 3 feet exposed. Per Spec section 323223 – Delegated design: Engage a qualified professional engineer, as defined in Section 014000 “Quality Requirements,” to design segmental retaining walls.

QUESTION

4. Is a retaining wall necessary? Can it be graded instead?

RESPONSE

The retaining wall will be necessary, grading will not be adequate.

QUESTION

5. Who is responsible to maintain and operate the belt press during construction?

RESPONSE

The contractor is responsible to furnish and install all temporary facilities, but BCPSSD will operate the provided temporary facilities.

QUESTION

6. Can a 24” standing seam panel be used instead of a 16”?

RESPONSE

Reference Spec section 133419 – Delegated-Design Submittal: Include analysis data indicating compliance performance requirements and design data sheet and sealed by the qualified professional engineer responsible for their preparation. The Thrasher Group will comply with the judgement of the delegated professional engineer given compliance with Spec Section 133419 and structural loads provided on Sheet #S6 of the drawings under “General Structural Notes”.

QUESTION

7. Will the steel from the current catwalk be enough steel to reuse for the new catwalk?

RESPONSE

No. All new material will be required to construct the catwalk. Structural requirements of the new catwalk are entailed on Sheet #S6 of the drawings under "General Structural Notes".

QUESTION

8. Will a waterproof admixture concrete be required per included Spec. Section 033050?

RESPONSE

The concrete to be used will not require waterproof admixtures.

QUESTION

9. What are the necessary structural load capacities of the new press building?

RESPONSE

The structural capacities of the new press building are provided on Sheets S6, 7A, and 7B of the drawings. The building shall comply with Spec Section 133419 – Metal Building Systems.

QUESTION

10. What are the weights of the new conveyors to be utilized?

RESPONSE

Conveyor No.1 is 3,000 LBS and conveyor No.2 is 1,300 LBS. Conveyors No. 3 and 4 are 2,125 LBS each. Refer to Sheets 7A and 7B for the conveyor details.

QUESTION

11. Who will be the Project Representative from The Thrasher Group?

RESPONSE

The Project Representative has not yet been selected for this project.

QUESTION

12. The county is currently providing chemicals, hauling, and tipping fees for the disposal of the sludge cake. Will they continue to assume these costs during temporary dewatering?

RESPONSE

Yes.

QUESTION

13. How many loads of what size or how many tons of cake are currently produced daily – how many days a week?

RESPONSE

Typically, one 20 yard dumpster at 12-14 tons per day or 1-2 spreader trucks at 10 tons each per day Monday-Friday.

QUESTION

14. What is required moisture content for the landfill?

RESPONSE

20%.

QUESTION

15. What is the scope of supply for the equipment that is furnished by the owner?

RESPONSE

1 EA Belt Filter Press, 1 EA Polymer Blending and Feed Equipment, 1 EA Sludge Conveyor System and all other associated appurtenances for a complete operable system.

QUESTION

16. Is the existing overhead roll up service door to be utilized or is a new one required?

RESPONSE

A new door will be required to meet the requirements per Spec. Section 083323.

QUESTION

17. What is the weight of the new belt press?

RESPONSE

See "General Structural Notes" on Sheet #S6 of the drawings. Filter Press Per Manufacturer – 19,650 LB Static, 24,800 LB Dynamic.

QUESTION

18. Screw Conveyor – Are all sensors and cables included?

RESPONSE

The safety switch and motion failure alarm probe do not come with any wiring. The JDV Levels system will come with wiring. The JDV Levels system includes the dumpster protection sensor.

QUESTION

19. Screw Conveyor – Are the sensors prewired or will the contractor be installing conduit and cables?

RESPONSE

No, they are not prewired. The contractor will be responsible for installation of conduit and cables.

QUESTION

20. Screw Conveyor – Is the control panel included?

RESPONSE

Yes. Controls are in the belt press panel for the conveyor.

QUESTION

21. Screw Conveyor - Is there one control panel or four separate control panels?

RESPONSE

There is one control panel.

QUESTION

22. Screw Conveyor - Where will the control panel be located?

RESPONSE

The electrical drawings for the location of the screw conveyor control panel will be provided in this Addendum.

QUESTION

23. Screw Conveyor – Are the VFD’s sized and included?

RESPONSE

No. They are not required.

QUESTION

24. Belt Press – Is there a separate control panel for the press or will its components be in the same control cabinet as the screw conveyor?

RESPONSE

The control panel for the belt press is the same control panel for the conveyors.

QUESTION

25. Belt Press – Are the motors prewired to the control panel?

RESPONSE

Motors are not prewired to the panel.

QUESTION

26. Belt Press – Are termination boxes provided or do all electrical connections individually wired to the control panel?

RESPONSE

Electrical connections are individually wired to the control panel.

QUESTION

27. Belt Press – Are the VFD’s sized and included in the package?

RESPONSE

The VFD for the belt drive is included.

QUESTION

28. Where is the close-coupled submersible centrifugal pump located?

RESPONSE

BCPSSD is now going to purchase the close-coupled submersible pump themselves. It will not be installed as it is simply serving as a backup to the existing. It is no longer in the scope of this project.

QUESTION

29. Press Building – Referencing Sheet #9, What is the requirement for doors (D1-D4)? Would FRP doors be considered?

RESPONSE

Press Building - Doors D1-D4 are to be insulated aluminum doors, they are not to be substituted for FRP doors.

QUESTION

30. Press Building - Is R-38 roof insulation required over the existing modified Belt Press Building? If not, what is required?

RESPONSE

Reference Spec. Section 133419 – Metal Building Systems for the “Thermal Insulation” section for these requirements.

QUESTION

31. Press Building – Will EF-1 & EF-2 per roof exhaust fan schedule on Sheet #M1 take place of the roof ventilators described in Spec. Section 133419?

RESPONSE

Yes, they will satisfy that requirement.

QUESTION

32. The manufacturer for the Pre-Engineered Metal Building will be supplying the building with all galvanized structural framing, will this require painting.

RESPONSE

No.

QUESTION

33. Variable Frequency Drives – Does the Spec. 262913 2.4 apply to this job?

RESPONSE

They are included for the belt drive but are not required for the screw conveyor.

QUESTION

34. Variable Frequency Drives – Will the owner be providing for and paying for the VFD startup as listed in Spec. Section 26913?

RESPONSE

Yes.

QUESTION

35. Transformer “B” – Is this transformer a 15 KVA or a 30 KVA?

RESPONSE

Transformer “B” is a 30 KVA.

QUESTION

36. Drawing #7 - Can a detail be provided for the structural steel required to support the two conveyors?

RESPONSE

Reference Spec section 133419 – Delegated-Design Submittal: Include analysis data indicating compliance performance requirements and design data sheet and sealed by the qualified professional engineer responsible for their preparation. The Thrasher Group will comply with the judgement of the delegated professional engineer given compliance with Spec Section 133419 and the structural loads provided on Sheet #7A and Sheet #7B.

QUESTION

37. Drawing #7 – Will the conveyors be part of the equipment package supplied by the owner?

RESPONSE

Yes.

QUESTION

38. Drawing #8 – Would it be acceptable to reuse the interior framing channels for the new man door opening at the existing building?

RESPONSE

No.

QUESTION

39. What are the weights for the new roof fans and curbs that are to be installed?

RESPONSE

Refer to Sheet #M1 of the Drawings.

QUESTION

40. Drawing #1A – Will the hopper at the discharge end of the existing belt filter press be required to be removed?

RESPONSE

Yes.

QUESTION

41. Drawing #3 – Will a new concrete pad be required once the new valves are installed? Can a detail be provided?

RESPONSE

Yes. Refer to Sheet D6 included with this Addendum #1 for the detail.

QUESTION

42. Will the contractor be required to salvage anything inside the existing Belt Filter Press Building that is slated to be demolished?

RESPONSE

The Belt Filter Press is to be kept for BCPSSD's utilization along with the static mixer that is in the sludge line. Also, the electrical components to be kept will be determined at the time of construction by a BCPSSD maintenance technician.

QUESTION

43. What is the weight of the existing Belt Filter Press?

RESPONSE

19,650 LBS.

QUESTION

44. Will insulation be necessary for process piping the new building since it is to be heated?

RESPONSE

No.

QUESTION

45. For the existing building what is to be replaced by the contractor?

RESPONSE

Reference Sheets #7, 8, and 9 in the construction drawings for what is to be replaced and the responsibility of the contractor for the existing building.

If you have any questions or comments, please feel free to contact me at your earliest convenience. As a reminder, bids will be received until 2:00 p.m. on March 22, 2022, at the Berkeley County Public Service Sewer District's Office, 65 District Way, Martinsburg, WV 25404.

Sincerely,

THE THRASHER GROUP, INC.

A handwritten signature in blue ink, appearing to read 'D.R. Smith', is written over the printed name.

DOUGLAS R. SMITH, PE
Project Manager

Enclosures: Bid Opening Requirements
All Added or Replaced Plan Sheets

**PROPOSED
CONTRACT #10 OPEQUON HEDGESVILLE WWTP UPGRADES
FOR THE
BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT
BERKELEY COUNTY, WEST VIRGINIA
THRASHER PROJECT #020-10042**

A two envelope system will be used. Envelope No. 1 will be opened first and the Bid Opening Requirement items checked for compliance, as outlined on this page. If such documents are found to be in order, sealed Envelope No. 2 "Bid Proposal", which shall also be placed inside of Envelope #1, will then be opened and will be publicly read aloud. If the documents required to be contained in Envelope No. 1 are not in order, Envelope No. 2 "Bid Proposal" will not be opened and the Bid will be considered non-responsive and will be returned to the Bidder. At that time, the Owner will declare the Bidder non-responsive

BID OPENING REQUIREMENT CHECKLIST

Item	Completed Satisfactory (Check if completed)
1. Bid submitted on time	_____
2. Bid Bond (Sample BOR-2 & 3)	_____
3. Certification of receipt of all addenda to Plans and Specifications. (BOR-4)	_____
4. West Virginia Code §21-1D-5 Drug Free Workplace Conformance Affidavit (BOR-5 & 6)	_____
5. Copy of Contractor's License included.	_____

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Berkeley County Public Service Sewer District
65 District Way
Martinsburg, WV 25402

BID

Bid Due Date:

Description (*Project Name— Include Location*): Contract #10 Opequon Hedgesville WWTP Upgrades

BOND

Bond Number:

Date:

Penal sum _____ \$ _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

Bidder's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

*Note: Addresses are to be used for giving any required notice.
Provide execution by any additional parties, such as joint venturers, if necessary.*

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

**PROPOSED
CONTRACT #10 OPEQUON HEDGESVILLE WWTP UPGRADES
FOR THE
BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT
BERKELY COUNTY, WEST VIRGINIA**

Certification of Receipt of Addenda

In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

- (a) Bidder has examined copies of all the Contract Documents and the following addenda:

Date

Number

Signature

Date

Name and Title of Signer
(Please Type)

To Be Submitted in Envelope No. 1
Item No. 3 on Checklist

WEST VIRGINIA CODE 21-1D-5 PROVIDES THAT ANY SOLICITATION FOR A PUBLIC IMPROVEMENT CONSTRUCTION CONTRACT REQUIRES EACH VENDOR THAT SUBMITS A BID FOR THE WORK TO SUBMIT AT THE SAME TIME AN AFFIDAVIT OF COMPLIANCE WITH THE BID. THE ENCLOSED DRUG-FREE WORKPLACE AFFIDAVIT MUST BE SIGNED AND SUBMITTED IN THE FIRST ENVELOPE AS EVIDENCE OF THE VENDOR'S COMPLIANCE WITH THE PROVISIONS OF ARTICLE 1D, CHAPTER 21 OF THE WEST VIRGINIA CODE. FAILURE TO SUBMIT THE SIGNED DRUG-FREE WORKPLACE AFFIDAVIT IN THE FIRST ENVELOPE SHALL RESULT IN DISQUALIFICATION OF SUCH BID.



**State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
West Virginia Code §21-1D-5**

STATE OF WEST VIRGINIA,

COUNTY OF _____, TO-WIT:

I, _____, after being first duly sworn, depose and state as follows:

1. I am an employee of _____; and,
(Company Name)
2. I do hereby attest that _____
(Company Name)

maintains a written plan for a drug-free workplace policy and that such plan and policy are in compliance with **West Virginia Code §21-1D**.

The above statements are sworn to under the penalty of perjury.

Printed Name: _____

Signature: _____

Title: _____

Company Name: _____

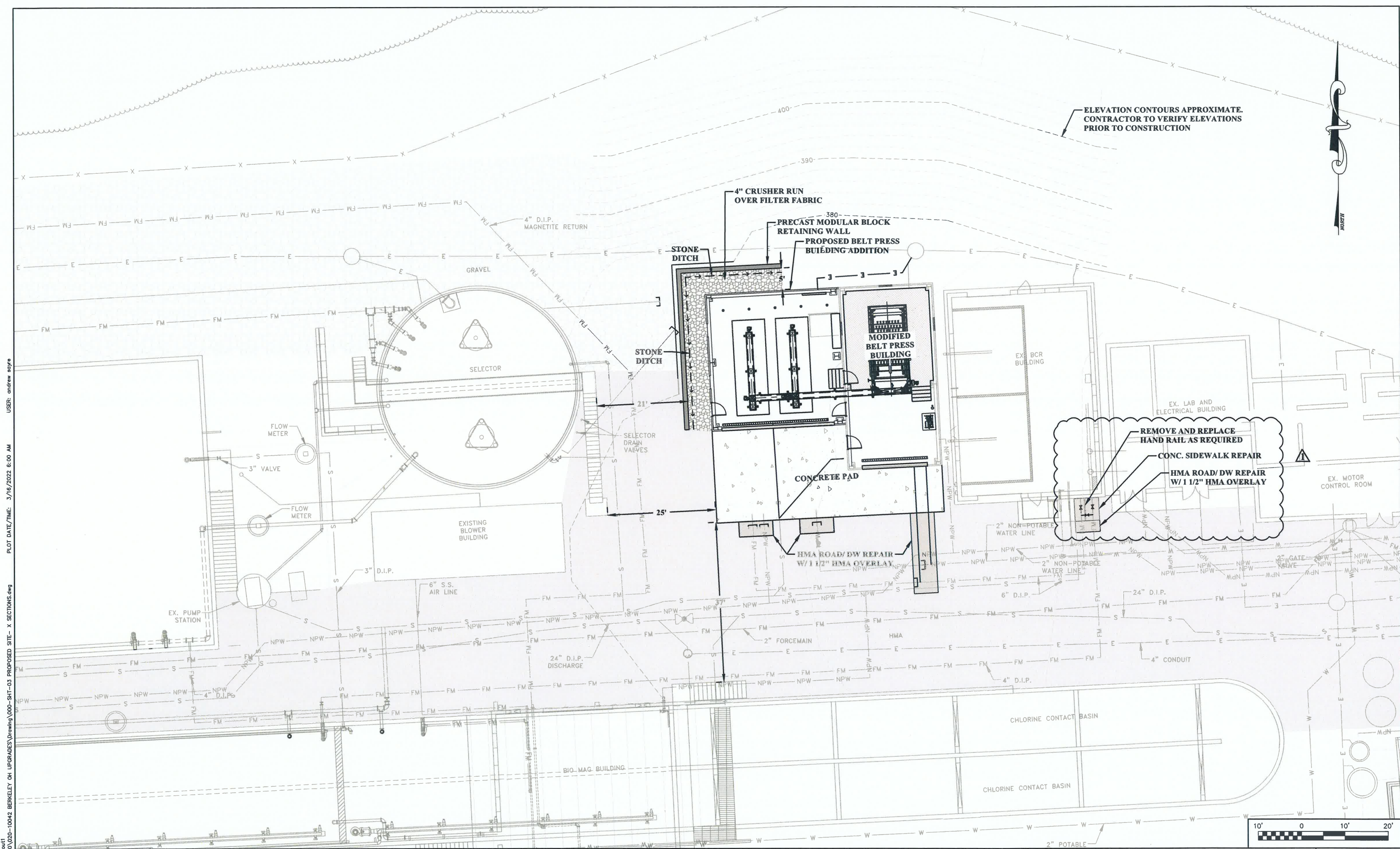
Date: _____

Taken, subscribed and sworn to before me this _____ day of _____, _____.

By Commission expires _____

(Seal)

(Notary Public)



ELEVATION CONTOURS APPROXIMATE.
CONTRACTOR TO VERIFY ELEVATIONS
PRIOR TO CONSTRUCTION



REMOVE AND REPLACE
HAND RAIL AS REQUIRED
CONC. SIDEWALK REPAIR
HMA ROAD/DW REPAIR
W/ 1 1/2\"/>



LAYOUT TAB: Layout1
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 PLOT DATE/TIME: 3/16/2022 6:00 AM

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NO.	BY	DATE	DESCRIPTION
1	AS	3/16/22	ADDENDUM #1



SCALE: AS NOTED
 DRAWN: A. SAYRE DATE: 6/2020
 CHECKED: A. SYKES DATE:
 APPROVED: D. SMITH DATE:
 SURVEY DATE:
 SURVEY BY:
 FIELD BOOK No.:

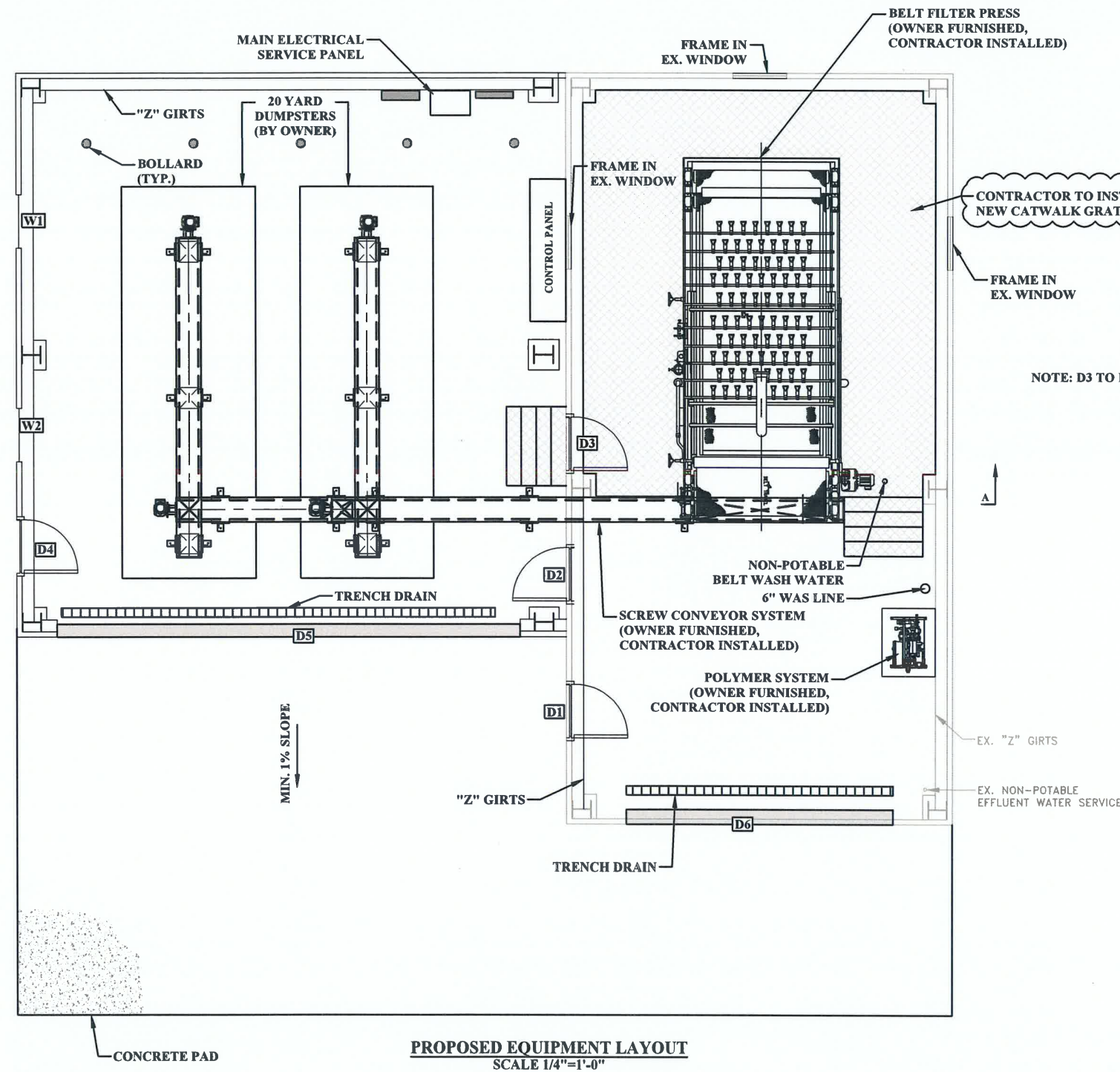
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 BRIDGEPORT WV 26330
 www.thrashereng.com
 PHONE (304) 624-4108 FAX (304) 624-7831

PHASE No.
 CONTRACT No.
 PROJECT No.
101-020-10042

**BERKELEY COUNTY P.S.S.D.
 UPGRADES TO OPEQUON-HEDGESVILLE
 WASTEWATER TREATMENT PLANT
 BERKELEY COUNTY, WEST VIRGINIA
 PROPOSED SITE PLAN**

SHEET No.
3

LAYOUT TAB: 5 Floor
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 PLOT DATE/TIME: 3/15/2022 9:23 AM
 USER: andrew sayre



PROPOSED EQUIPMENT LAYOUT
 SCALE 1/4"=1'-0"

NOTE: D3 TO BE INSTALLED AT CATWALK GRATING ELEVATION

NO.	BY	DATE	DESCRIPTION
1	AS	3/15/22	ADDENDUM #1



SCALE: AS NOTED	DATE: 8/2020
DRAWN: A. SAYRE	DATE:
CHECKED: A. SYKES	DATE:
APPROVED: D. SMITH	DATE:
SURVEY DATE:	
SURVEY BY:	
FIELD BOOK No.:	

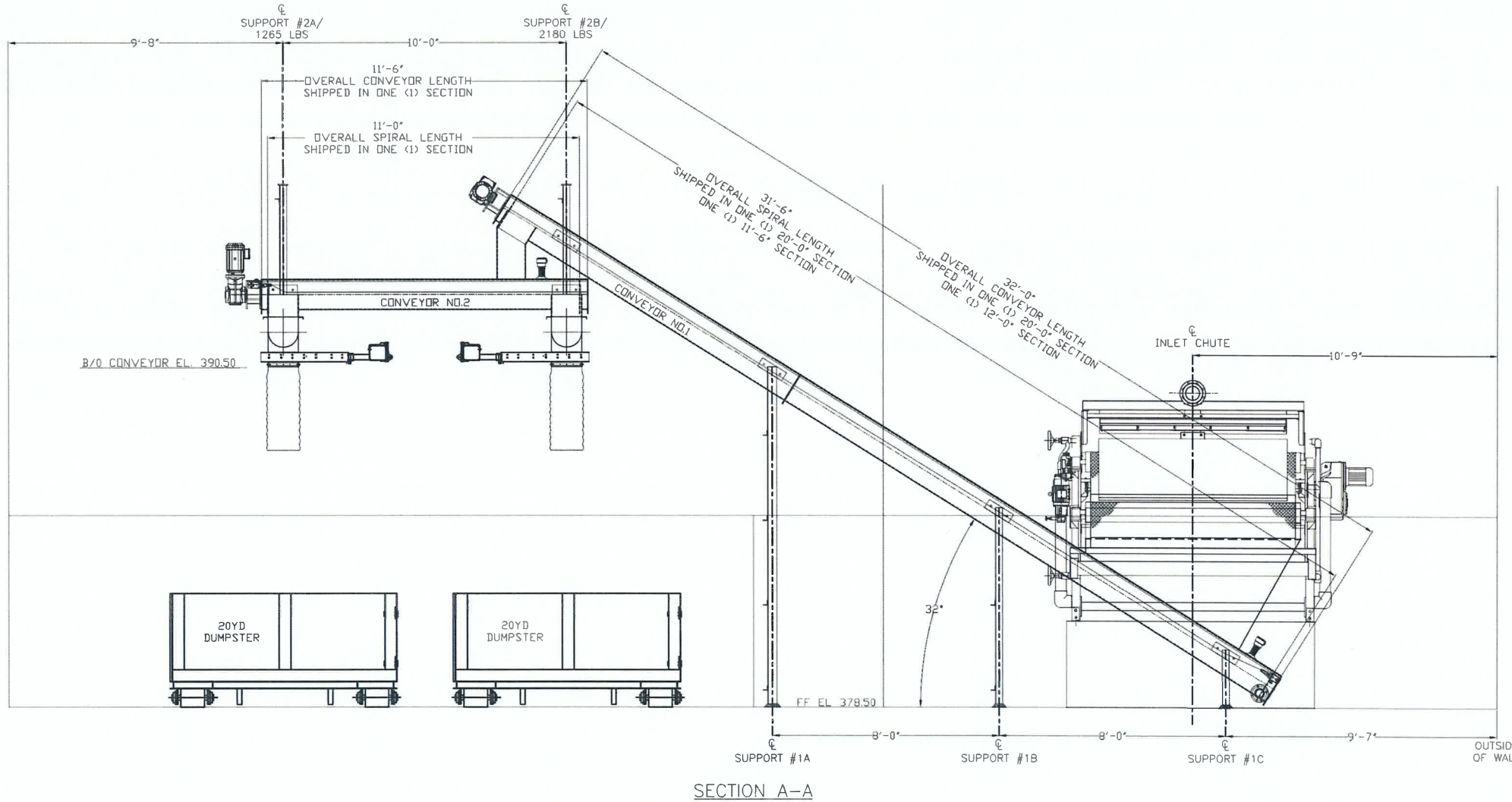
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PHASE No.	
CONTRACT No.	
PROJECT No.	101-020-10042

BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
PRESS BUILDING FLOOR PLAN

LAYOUT TAB: 7A
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 USER: andrew sayre

REVISION HISTORY		
REV.	DESCRIPTION	DATE
0	ORIGINAL SUBMISSION	03/14/2022



JDV
EQUIPMENT CORPORATION

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	NAME	DATE
DRAWN	KC	03/14/2022
CHECKED		
CUST. APPR.		
SPECIAL REQ.		

WWW.JDVEQUIPMENT.COM

TITLE:
SHAFTLESS SCREW CONVEYORS
SECTION VIEW A-A

DO NOT SCALE DRAWING

PROJ. NO. :	223047	MODEL:	U320
SIZE DWG. NO.	B	REV	0
	223047-20		

ADDENDUM #1

NO.	BY	DATE	DESCRIPTION
1	AS	3/15/22	ADDENDUM #1



SCALE: AS NOTED
 DRAWN: A. SAYRE DATE: 6/2020
 CHECKED: A. SYKES DATE:
 APPROVED: D. SMITH DATE:
 SURVEY DATE:
 SURVEY BY:
 FIELD BOOK No.:

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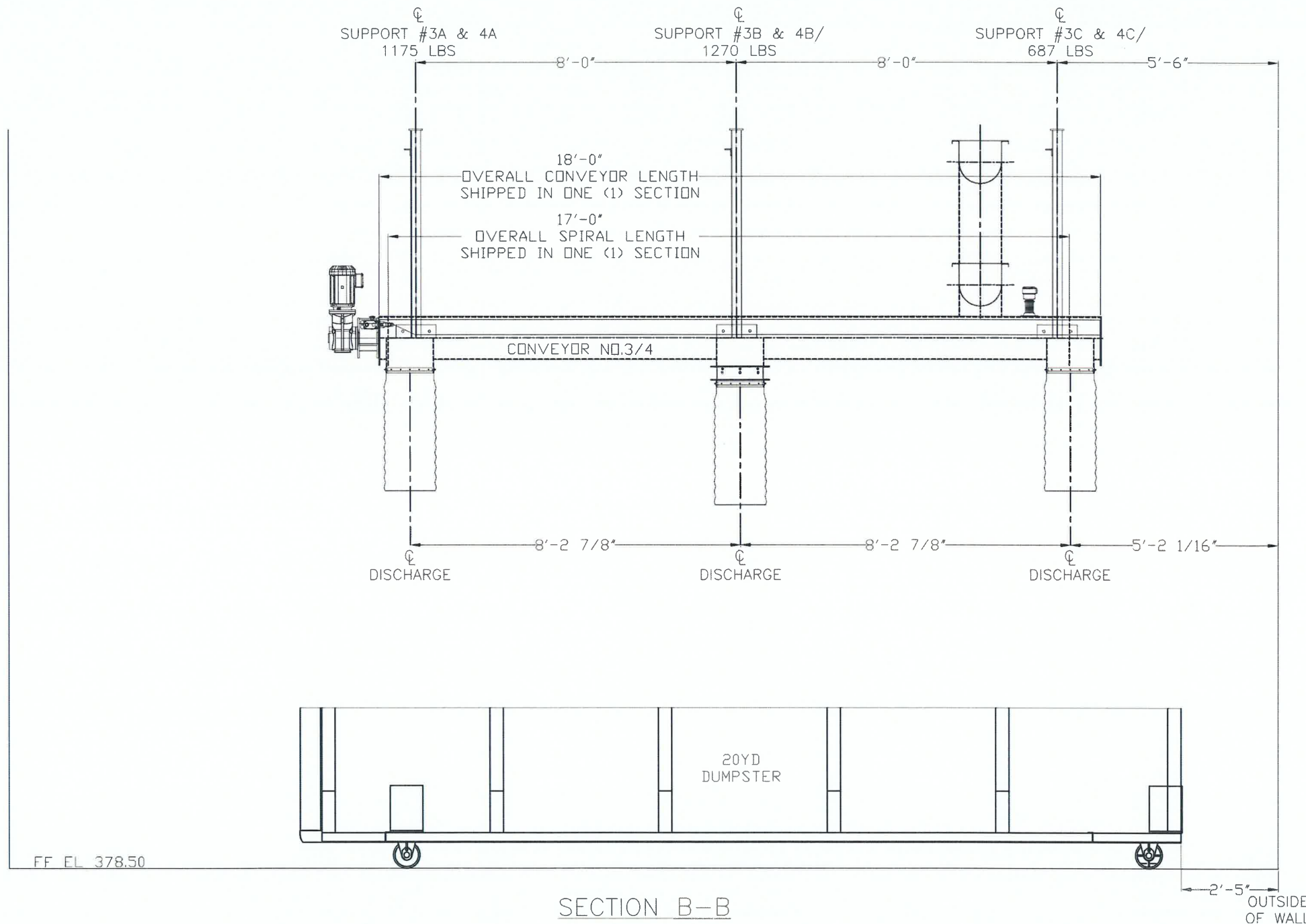
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CONTRACT No.	
PROJECT No.	101-020-10042

BERKELEY COUNTY P.S.S.D.
 UPGRADES TO OPEQUON-HEDGESVILLE
 WASTEWATER TREATMENT PLANT
 BERKELEY COUNTY, WEST VIRGINIA
 CONVEYOR DETAILS

SHEET No.
7A

LAYOUT Tab: 7B BERKELEY ON UPGRADES\Drawing\000-SRT-05 Building Plans.dwg
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REVISION HISTORY		
REV.	DESCRIPTION	DATE
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	NAME	DATE
DRAWN	KC	03/14/2022
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TITLE:
 SHAFTLESS SCREW CONVEYORS
 SECTION VIEW B-B

DO NOT SCALE DRAWING

PROJ. NO. :	223047	MODEL: U320
SIZE DWG. NO.	B 223047-21	REV 0

ADDENDUM #1

NO.	BY	DATE	DESCRIPTION
1	AS	3/15/22	ADDENDUM #1



SCALE: AS NOTED	
DRAWN: A. SAYRE	DATE: 6/2020
CHECKED: A. SYKES	DATE:
APPROVED: D. SMITH	DATE:
SURVEY DATE:	
SURVEY BY:	
FIELD BOOK No.:	

THRASHER

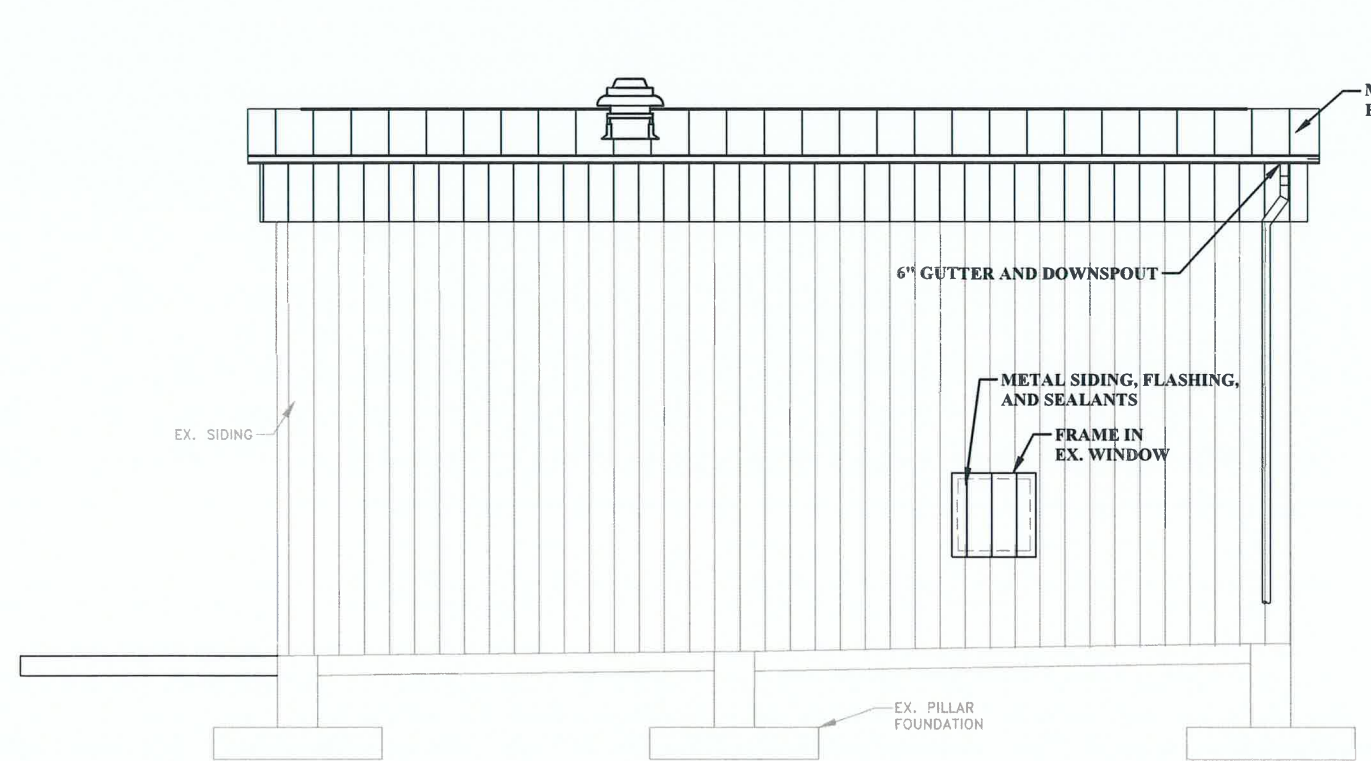
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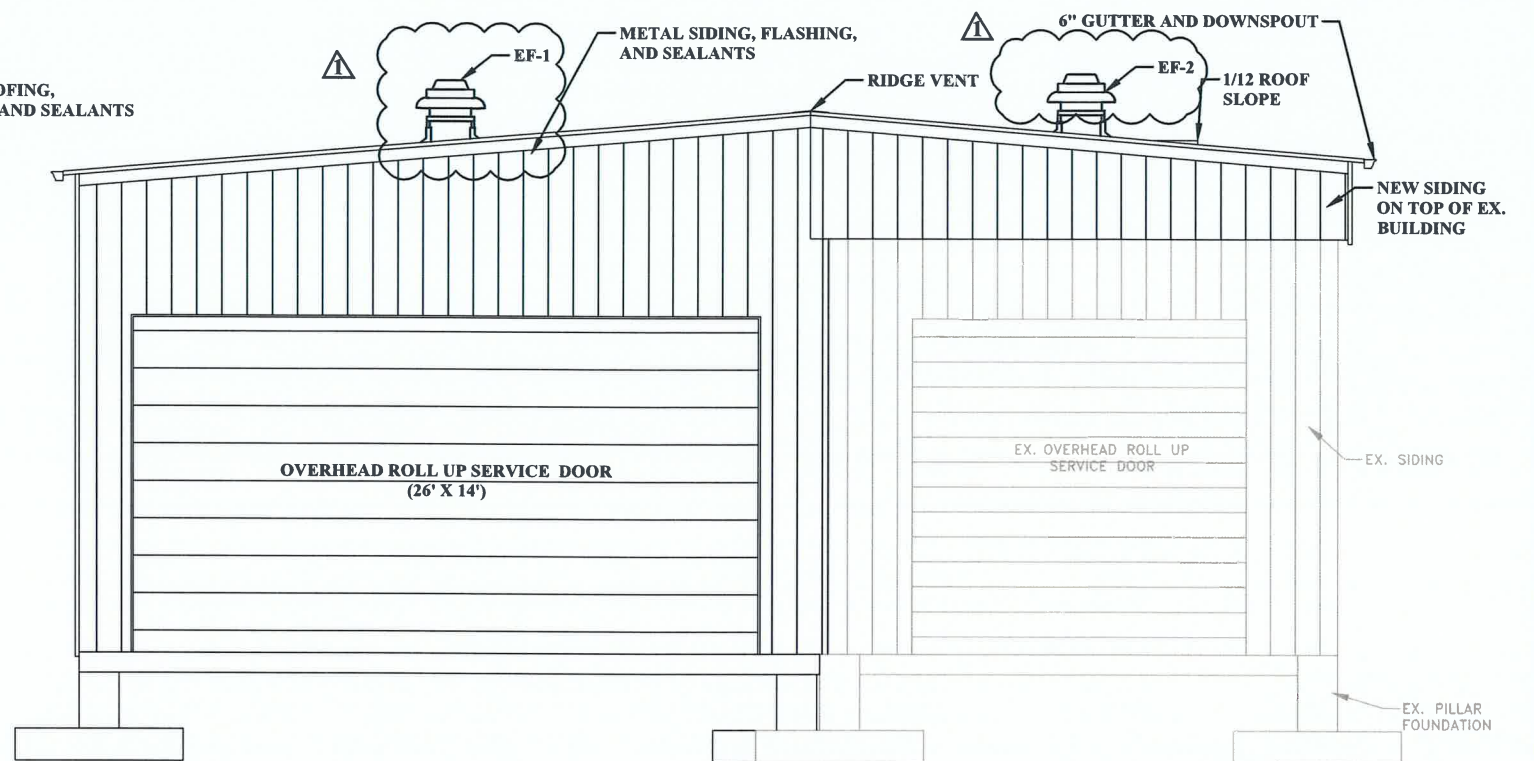
PHASE No.	
CONTRACT No.	
PROJECT No.	
101-020-10042	

BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
CONVEYOR DETAILS

LAYOUT TAG: 8-elevations USER: andrew sayre PLOT DATE/TIME: 3/31/2022 1:14 PM CAD FILE: R:\020\020-10042 BERKELEY ON UPGRADES\Drawing\000-SIT-05 Building Plans.dwg

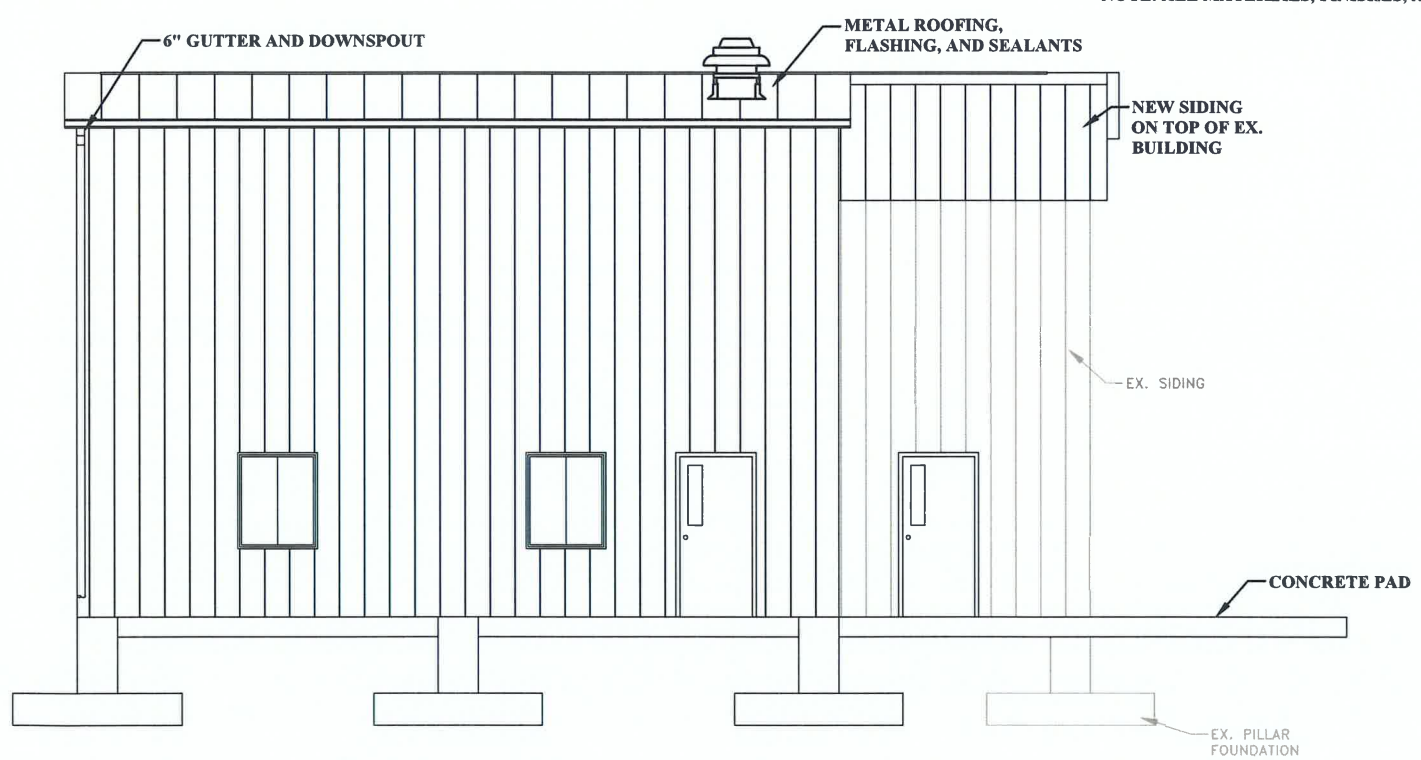


RIGHT ELEVATION
SCALE 1/4"=1'-0"

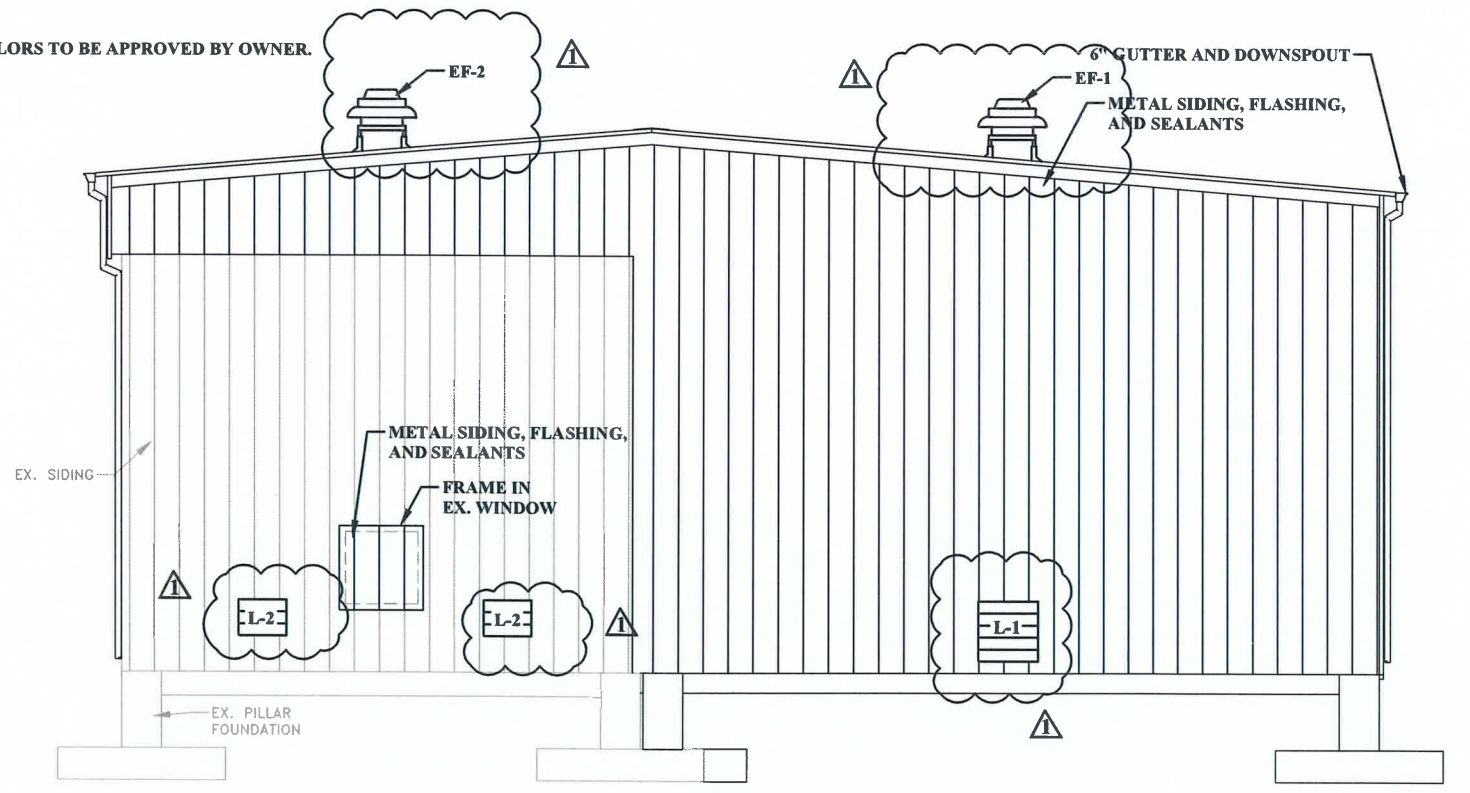


FRONT ELEVATION
SCALE 1/4"=1'-0"

NOTE: ALL MATERIALS, FINISHES, AND COLORS TO BE APPROVED BY OWNER.



REAR ELEVATION
SCALE 1/4"=1'-0"



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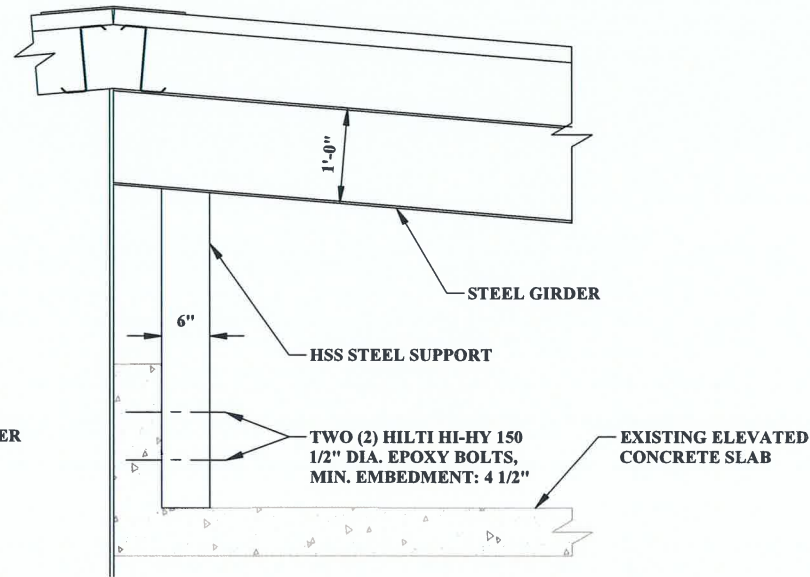
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DRAWN: A. SAYRE	DATE:
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APPROVED: D. SMITH	DATE:
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PHASE No.	
CONTRACT No.	
PROJECT No.	101-020-10042

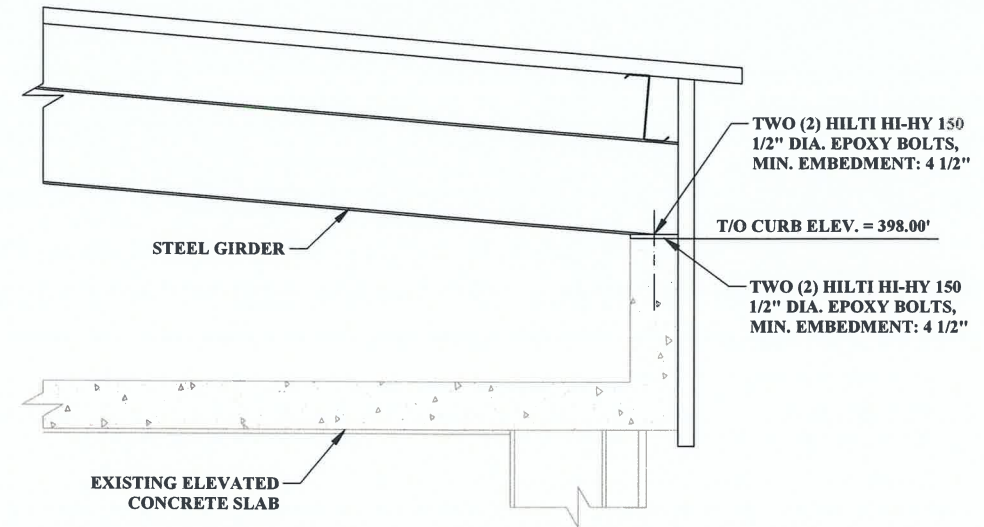
BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
PROPOSED PRESS BUILDING ELEVATIONS

SHEET No.	8
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NOTES:
1. ASSUMED SPACING OF SUPPORTS 10' ON CENTER

DETAIL A: TYPICAL CONNECTION TO EXISTING STRUCTURE AT RIDGE
NOT TO SCALE



NOTES:
1. ASSUMED SPACING OF SUPPORTS 10' ON CENTER

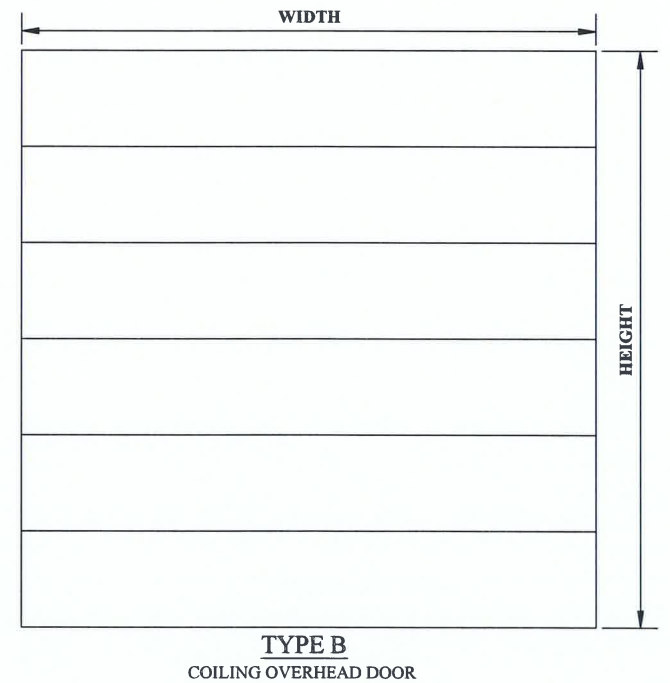
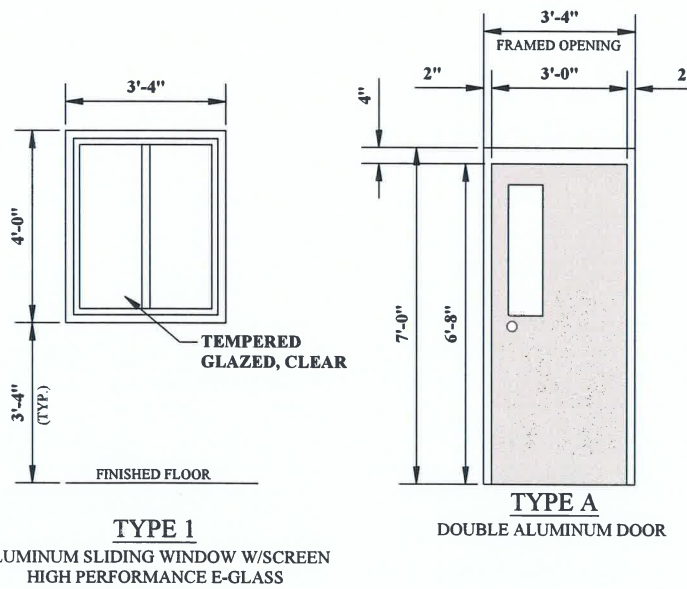
DETAIL B: TYPICAL CONNECTION TO EXISTING STRUCTURE AT EAVE
NOT TO SCALE

DOOR SCHEDULE						
DOOR NUMBER	WIDTH	HEIGHT	THICKNESS	MATERIAL	DOOR TYPE	REMARKS
D1	3'-0"	6'-8"	1 3/4"	ALUMINUM	A	DOOR AND HARDWARE PER SPEC SECTION 133419
D2	3'-0"	6'-8"	1 3/4"	ALUMINUM	A	DOOR AND HARDWARE PER SPEC SECTION 133419
D3	3'-0"	6'-8"	1 3/4"	ALUMINUM	A	DOOR AND HARDWARE PER SPEC SECTION 133419 TO BE INSTALLED AT CATWALK GRATING ELEVATION
D4	3'-0"	6'-8"	1 3/4"	ALUMINUM	A	DOOR AND HARDWARE PER SPEC SECTION 133419
D5	26'-0"	14'-0"	1 3/4"	ALUMINUM	B	DOOR AND HARDWARE PER SPEC SECTION 083323
D6	14'-0"	14'-0"	1 3/4"	ALUMINUM	B	DOOR AND HARDWARE PER SPEC SECTION 083323

- DOOR NOTES:**
1. ALL DOORS REQUIRE DOOR SILENCERS, PUSH PULL PLATES, PROTECTIVE PLATES, AND DOUBLE INSULATION.
 2. ALL EXTERIOR DOORS REQUIRE KEY LOCKSETS, DOOR STOPS, THRESHOLD, AND WEATHER STRIPS.
 3. DOORS MUST BE SIZED TO FIT OPENINGS USING MANUFACTURER'S RECOMMENDATIONS.
 4. DOOR GLASS SHALL BE SHATTERPROOF.
 5. OVERHEAD COILING DOORS SHALL BE INTERNALLY MOUNTED.

WINDOW SCHEDULE				
WINDOW NUMBER	WIDTH	HEIGHT	WINDOW TYPE	REMARKS
W1	3'-4"	4'-0"	1	
W2	3'-4"	4'-0"	1	

- WINDOW NOTES:**
1. WINDOW FRAME AND HARDWARE PER SPEC SECTION 133419.
 2. WINDOW GLAZING PER SPEC SECTION 088000.
 3. ALL WINDOWS REQUIRE INTERIOR AND EXTERIOR TRIM.
 4. WINDOWS MUST BE SIZED TO FIT OPENINGS USING MANUFACTURER'S RECOMMENDATIONS.
 5. ALL WINDOWS SHALL BE OPERABLE AND SUPPLIED WITH SCREENS.



LAYOUT TAB: 9-DETAILS BERKELEY OH UPRGRADE'S Drawing\000-SIT-05 Building Plans.dwg PLOT DATE/TIME: 3/15/2022 9:27 AM USER: andrew sayre

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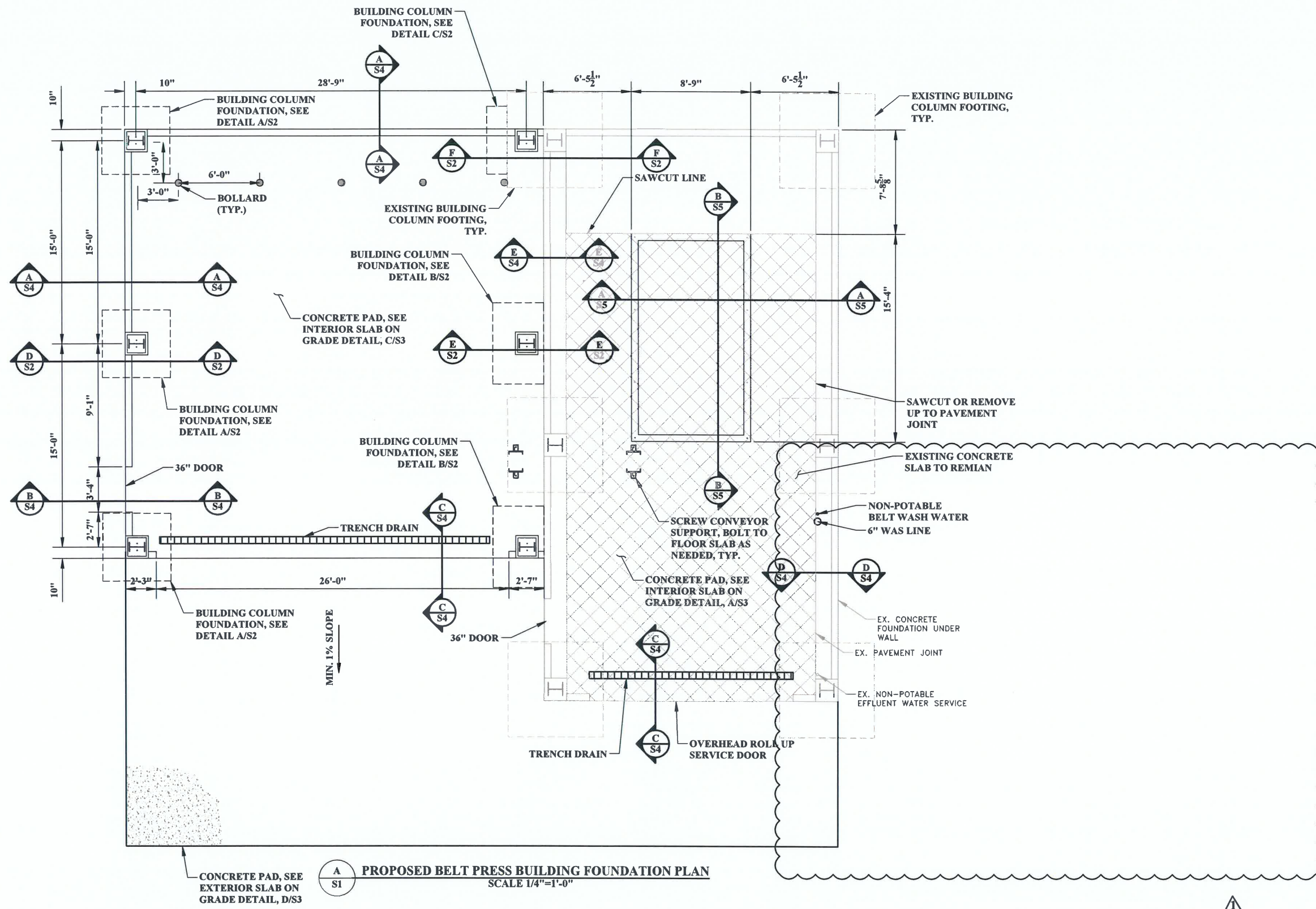
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BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
PRESS BUILDING DETAILS

SHEET No.
9

LAYOUT TAB: S1
 CAD FILE: R:\020\020-10042\BERKELEY OH UPGRADES\Drawing\001-SH1-SH1-00 Structural.dwg
 PLOT DATE/TIME: 3/31/2022 1:25 PM
 USER: andrew sayre



PROPOSED BELT PRESS BUILDING FOUNDATION PLAN
 SCALE 1/4"=1'-0"

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1	AS	3/31/22	ADDENDUM #2



SCALE: AS NOTED	DATE: 5/2021
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CHECKED: --	DATE: --
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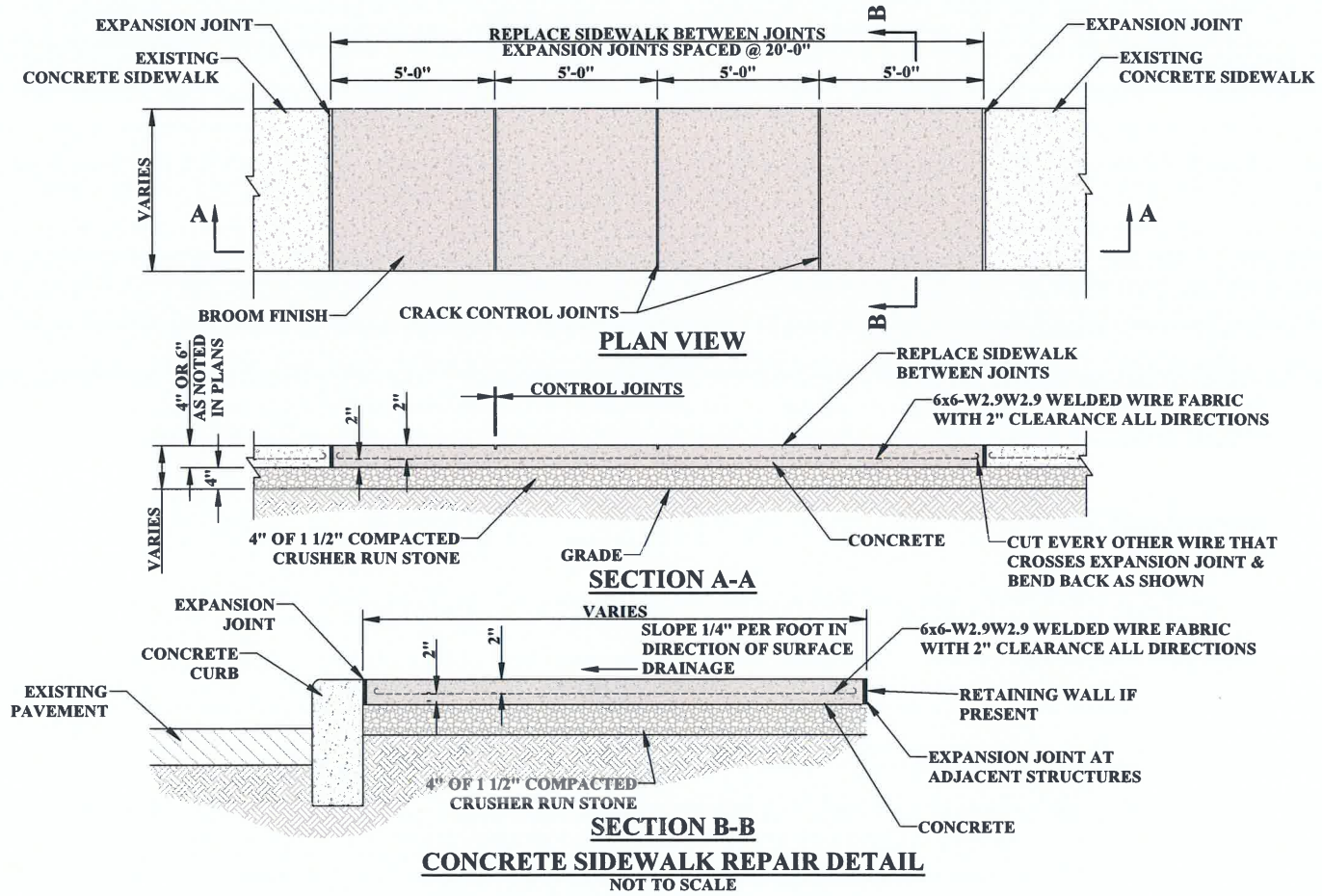
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BERKELEY COUNTY P.S.S.D.
 UPGRADES TO OPEQUON-HEDGESVILLE
 WASTEWATER TREATMENT PLANT
 BERKELEY COUNTY, WEST VIRGINIA
 PRESS BUILDING STRUCTURE PLAN

SHEET No.
S1

LAYOUT TAB: 06 DB THE INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF THE THRASHER GROUP INC. REPRODUCTION OF THESE DOCUMENTS IN WHOLE OR IN PART, FOR ANY REASON WITHOUT PRIOR WRITTEN PERMISSION, IS STRICTLY PROHIBITED. CAD FILE: R:\020\020-10042 BERKELEY CH UPGRADES\Drawing\005-TYP-SEWER DETAIL.dwg USER: andrew sayre PLOT DATE/TIME: 3/16/2022 6:08 AM



CONCRETE SIDEWALK CONSTRUCTION NOTES

- NOTES: 1) EXPANSION JOINTS SHALL BE 1/4" WIDE AND FULL CONCRETE DEPTH CONSTRUCTED AT 20 FOOT INTERVALS, AT ALL RETURNS, AND OPPOSITE EXPANSION JOINTS IN CURBS. A LONGITUDINAL EXPANSION JOINT 1/4" WIDE AND FULL CONCRETE DEPTH SHALL BE PLACED BETWEEN SIDEWALK AND CURB.
- 2) EXPANSION JOINTS SHALL BE 1/4" WIDE PREFORMED EXPANSION JOINT FILLER AND SEALED WITH JOINT SEALING MATERIAL AS APPROVED BY THE ARCHITECT OR ENGINEER.
- 3) WHERE CURBS AND SIDEWALKS ARE PLACED AROUND OR ADJACENT TO DRAINAGE STRUCTURES OR OTHER MISCELLANEOUS STRUCTURES, EXPANSION JOINTS SHALL BE CONSTRUCTED BETWEEN SUCH APPURTENANCES AND THE CURB OR SIDEWALK.
- 4) AROUND UTILITY POLES, METERS, FIRE HYDRANTS, AND OTHER LIKE FEATURES, CONSTRUCT AN INDEPENDENT RECTANGULAR-SHAPED SLAB A MINIMUM OF 1' IN ALL DIRECTIONS. PROVIDE 1/4" PREFORMED EXPANSION JOINT MATERIAL AT ALL INTERFACES WITH ADJOINING CONCRETE.
- 5) FOR SIDEWALK, PROVIDE 1/4" WIDE CONTROL JOINTS TO A DEPTH OF 1/4TH THE SIDEWALK THICKNESS AT INTERVALS EQUAL TO THE SIDEWALK WIDTH, AT ALL CHANGES OF DIRECTION, AND AT THE BEGINNING AND ENDING OF ALL TAPERED CURBS.
- 6) FOR CURBS, PROVIDE 1/4" WIDE CONTROL JOINTS TO A DEPTH OF 2" MINIMUM IN UNIFORM INTERVALS NOT TO EXCEED 20 FEET, AT ALL CHANGES OF DIRECTION, AND THE BEGINNING AND ENDING OF ALL TAPERED CURBS.
- 7) FINISHING SIDEWALKS - OUTSIDE EDGES AND JOINTS SHALL BE EDGED WITH A 1/4" RADIUS EDGING TOOL. DUMMY JOINTS SHALL BE 3/8" DEEP AND 1/8" WIDE AND SPACED EVERY 10 FEET. SURFACE SHALL HAVE BROOM FINISH. BROOMING SHALL BE TRANSVERSE TO THE LINE OF TRAFFIC. CURBING UPON REMOVAL OF FORMS THE EXPOSED CURBING FACE SHALL BE IMMEDIATELY RUBBED TO A UNIFORM SURFACE.
- 8) CURBING TO BE INSTALLED ONLY WHERE CURBING EXISTED PRIOR TO REMOVING OLD SIDEWALK. IF CURBING DID NOT EXIST, CONCAVING CONCRETE NEXT TO ROAD IS ACCEPTABLE.
- 9) WHERE JOINING TO EXISTING CONCRETE, THE EXISTING SHALL BE SAW CUT IN NEAT, EVEN 90° LINES.
- 10) ANY EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO, PARKING METERS AND FLAG POLE HOLDERS IN THE SIDEWALK REQUIRING REINSTALLATION SHALL BE REINSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 11) CURB AND SIDEWALK MAY BE POURED INTEGRALLY UNLESS OTHERWISE NOTED OR REQUIRED.

ADDENDUM #1

NO.	BY	DATE	DESCRIPTION
1	AS	3/16/22	ADDENDUM #1



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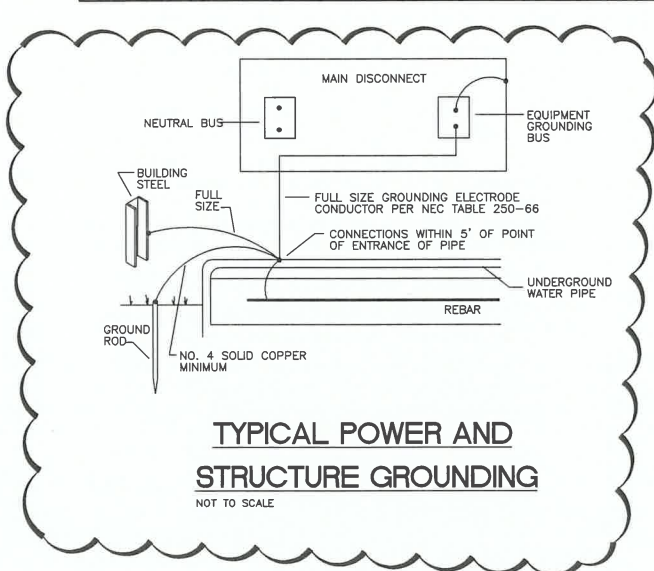
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PROJECT No.	101-020-10042

BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
TYPICAL SIDEWALK DETAILS

SHEET No.	D6
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GENERAL ELECTRICAL NOTES

- COORDINATE LOCATIONS OF CEILING-MOUNTED LIGHTING FIXTURES, SPEAKERS AND OTHER ITEMS WITH THE CEILING PATTERN AND MECHANICAL EQUIPMENT.
- LOCATE SNAP SWITCHES APPROXIMATELY 4 TO 6 INCHES FROM THE LATCH SIDE OF THE RELATED DOOR FRAME WHERE POSSIBLE, EXCEPT AS NOTED OTHERWISE.
- LOCATE SNAP SWITCHES DIRECTLY UNDER THERMOSTATS WHERE THEY ARE SHOWN IN CLOSE PROXIMITY (SEE MECHANICAL DRAWINGS).
- LOCATE WALL BOXES APPROXIMATELY AS INDICATED, EXACTLY AS DIRECTED OR AS NECESSARY TO ACHIEVE SYMMETRY AND COORDINATED WITH THE BUILDING, FINISHES AND EQUIPMENT.
- LOCATE ALL BOXES TO BE ACCESSIBLE.
- MOUNT SINGLE-GANG BOXES WITH THE LONGER DIMENSION VERTICAL EXCEPT AS NOTED OTHERWISE. MOUNT ALL BOXES AND PLATES PLUM.
- DO NOT INSTALL BOXES BACK TO BACK ON BOTH SIDES OF A PARTITION. OFFSET BOXES A MINIMUM OF 6 INCHES EXCEPT AS NOTED OTHERWISE.
- LOCATE ALL RACEWAYS TO AVOID INTERFERENCE WITH DUCTS, PIPES, MECHANICAL EQUIPMENT, WITH THE REMOVAL OF CEILING TILE, OR WITH ACCESS TO EQUIPMENT THAT REQUIRES PERIODIC ADJUSTMENT OR MAINTENANCE.
- DO NOT SUPPORT RACEWAYS OR EQUIPMENT FROM PIPES, DUCTS, OR A CEILING SUSPENSION SYSTEM.
- BRANCH CIRCUIT AND FEEDERS ARE DESIGNATED BY A NUMBER AND LETTER.
- INSTALL FEEDER RACEWAYS WITH NO MORE THAN 3 CURRENT-CARRYING CONDUCTORS PLUS A NEUTRAL CONDUCTOR, PLUS A GROUND CONDUCTOR.
- INDICATED BRANCH CIRCUIT CONDUCTOR SIZES ARE BASED ON NO MORE THAN 3 CURRENT-CARRYING CONDUCTORS AND A NON-CURRENT-CARRYING NEUTRAL CONDUCTOR IN EACH RACEWAY. WHERE THE NUMBER OF CONDUCTORS EXCEEDS THIS AMOUNT, ADJUST THE CONDUCTOR SIZES IF AND AS NECESSARY TO ACCOUNT FOR DERATING THEIR AMPACITY IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
- PROVIDE AN ADJACENT DISCONNECT SWITCH FOR EACH ELECTRIC UNIT HEATER.
- ADJUST LIGHTING FIXTURE LOCATIONS AS NECESSARY TO COORDINATE WITH EQUIPMENT AND TO PROVIDE OPTIMUM ILLUMINATION.
- PROVIDE WEATHERPROOF ADJUSTABLE PHOTOCELL CONTROL UNIT IN ACCESSIBLE ROOF LOCATIONS TO PROVIDE AUTOMATIC LIGHT CONTROLS AS INDICATED. PROVIDE ASSOCIATED RELAYS AND/OR CONTACTORS AS NECESSARY. LOCATE CONTACTORS OR RELAYS ACCESSIBLE ON WALL NEAR PANEL "B".
- COORDINATE OUTLET LOCATIONS AND CIRCUIT RATINGS WITH THE EQUIPMENT SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS AND WITH ALL EQUIPMENT AND FURNISHINGS SHOWN ON THE ARCHITECTURAL DRAWINGS.
- EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH SPECIFICATIONS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE.
- ALL WORK SHALL COMPLY WITH NFPA 70.
- ELECTRICAL BRANCH CIRCUITS SHALL NOT SHARE A COMMON NEUTRAL.
- SIZE ALL FUSES FOR FUSED SAFETY SWITCHES WITH EQUIPMENT MANUFACTURER.



ELECTRICAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	RECESSED OR SURFACE MTD. LED OR COMPACT FLUORESCENT LIGHTING FIXTURE
	WALL MOUNTED LED LIGHTING FIXTURE
	EXIT LIGHTING FIXTURE - SHADED AREA DENOTES FACE
	LED LIGHTING FIXTURE
	SINGLE POLE SNAP SWITCH
	THREE-WAY SNAP SWITCH
	DUPLEX CONVENIENCE RECEPTACLE
	TELEPHONE/DATA OUTLET SINGLE GANG BOX W/BLANK FACE PLATE EXTEND 3/4" CONDUIT W/PULLWIRE TO ABOVE CEILING.
	PLAN NOTE
	MECHANICAL EQUIPMENT NOTATION
	MOTOR CONNECTION
	FUSED SAFETY SWITCH
	GROUND FAULT INTERRUPTER
	WEATHERPROOF
	SINGLE POLE SNAP SWITCH WITH WEATHERPROOF COVER.
	REMOTE HEAD LIGHT
	DIRECT CONNECTION
	PHOTO CELL SWITCH
	DOUBLE DUPLEX CONVENIENCE RECEPTACLE
	SINGLE POLE SNAP SWITCH TO POWER FAN THERMOSTAT CONTROLS

CONDUIT AND CONDUCTORS KEY NOTE

POWER	P1,3	CONDUIT NO.
CONTROL	C1	
DATA	T1	

WIRE AND CONDUIT SIZE SCHEDULE

BREAKER AMP SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE WITH GROUND		
			1-POLE	2-POLE	3-POLE
20	#12	#12	3/4"	3/4"	3/4"
30	#10	#10	3/4"	3/4"	3/4"
40	#8	#10	3/4"	3/4"	3/4"
50	#8	#10	3/4"	3/4"	3/4"
60	#6	#8	3/4"	3/4"	3/4"
70	#4	#8	1"	1"	1"
80	#4	#8	-	1"	1"
90	#3	#8	-	1 1/4"	1 1/4"
100	#2	#8	-	1 1/4"	1 1/4"
110	#2	#6	-	1 1/4"	1 1/4"
125	#1	#6	-	1 1/4"	1 1/4"
150	#1/0	#6	-	1 1/2"	1 1/2"
175	#2/0	#6	-	1 1/2"	2"
200	#3/0	#6	-	1 1/2"	2"
225	#4/0	#4	-	-	2-1/2"
250	250MCM	#3	-	-	2 1/2"
300	350MCM	#3	-	-	3"
350	500MCM	#3	-	-	3 1/2"
400	500MCM	#3	-	-	3 1/2"

CONTRACTOR IS RESPONSIBLE FOR INCREASING WIRE SIZE AS REQUIRED FOR MAXIMUM VOLTAGE DROP OF 3%.

LIGHTING FIXTURE SCHEDULE

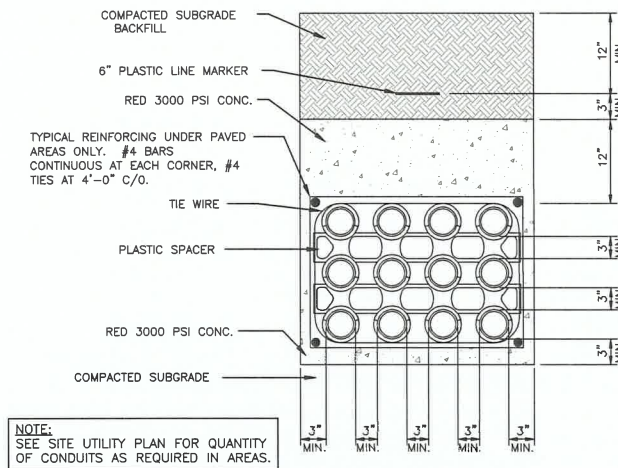
MARK	LAMP/TYPE	MOUNTING	MANUFACTURER	SERIES	DESCRIPTION	NOTES
L1	LED	SURF/PEND	COOPER		4' LED ENCLOSED AND GASKETED	120 VOLT
			LITHONIA	FEML48600LM	ACRY. LENS 1 - ELECTRONIC DRIVER	
L2	LED	WALL	COOPER		OUTDOOR GLASS LENS/ALUM HOUSING	120 VOLT
			LITHONIA	TWR1LEDAL040K	WET LOCATION, DARK BRONZE FINISH LUMEN OUTPUT SET AT #5	
L3	LED	WALL	COOPER		OUTDOOR GLASS LENS/ALUM HOUSING	120 VOLT
			LITHONIA	TWR2LEDAL040K	WET LOCATION, DARK BRONZE FINISH LUMEN OUTPUT SET AT #7	
X2	LED	WALL	COOPER		CLASS 1, DIVISION 2 EXIT LIGHT WITH BATTERY	120 VOLT
			RIG-A-LITE	HLEX1RDTWPEM	RED LETTER	
			MCPHILBEN		SINGLE FACED	

GENERAL NOTES PERTAINING TO ALL FIXTURES:

- VERIFY CEILING CONSTRUCTION TYPE WITH ARCHITECTURAL DRAWINGS TO DETERMINE WHETHER RECESSED LIGHTING FIXTURES SHALL BE FLANGE OR GRID TYPE MOUNTING.
- DIRECTIONAL INDICATOR ON EXIT SIGNS SHALL COMPLY WITH NFPA 101 SECTION 5-10.4.1.2.
- VERIFY VOLTAGE TO OPERATE FIXTURES WITH ELECTRICAL DRAWINGS.
- LIGHTING FIXTURES SHALL COME COMPLETE WITH NECESSARY MOUNTING HARDWARE.
- ALL RECESSED LIGHTING FIXTURES SHALL BE PAINTED AFTER FABRICATION.
- ANY REQUEST FOR SUBSTITUTION TO THE LIGHTING FIXTURE SCHEDULE SHALL BE OF EQUAL OR HIGHER QUALITY AS DETERMINED BY ENGINEER. ANY PERSON REQUESTING TO SUBSTITUTE FIXTURES MUST SUBMIT IN BOUND FORM A COLLECTION OF MANUFACTURERS CUT SHEETS TO BE REVIEWED BY ENGINEER A MINIMUM OF (FOURTEEN) 14 DAYS PRIOR TO BID. ACCEPTED SUBSTITUTIONS WILL BE REFLECTED IN AN ADDENDUM.

DRAWING INDEX:

- E1 GENERAL ELECTRICAL NOTES AND SYMBOLS LEGEND
- E2 BELT PRESS BUILDING LIGHTING PLAN
- E3 BELT PRESS BUILDING POWER PLAN
- E4 ELECTRICAL PANEL SCHEDULES
- E5 ELECTRICAL RISER PLAN



NOTE:
SEE SITE UTILITY PLAN FOR QUANTITY OF CONDUITS AS REQUIRED IN AREAS.

NO.	BY	DATE	DESCRIPTION
1	BKH	3-15-22	ADDENDUM #1

SCALE: AS NOTED	DATE: 6/2021
DRAWN: B. QUERREY	DATE: 6/2021
CHECKED: B. HENSLEY	DATE: 7/2021
APPROVED: K. SMITH	DATE: 7/2021
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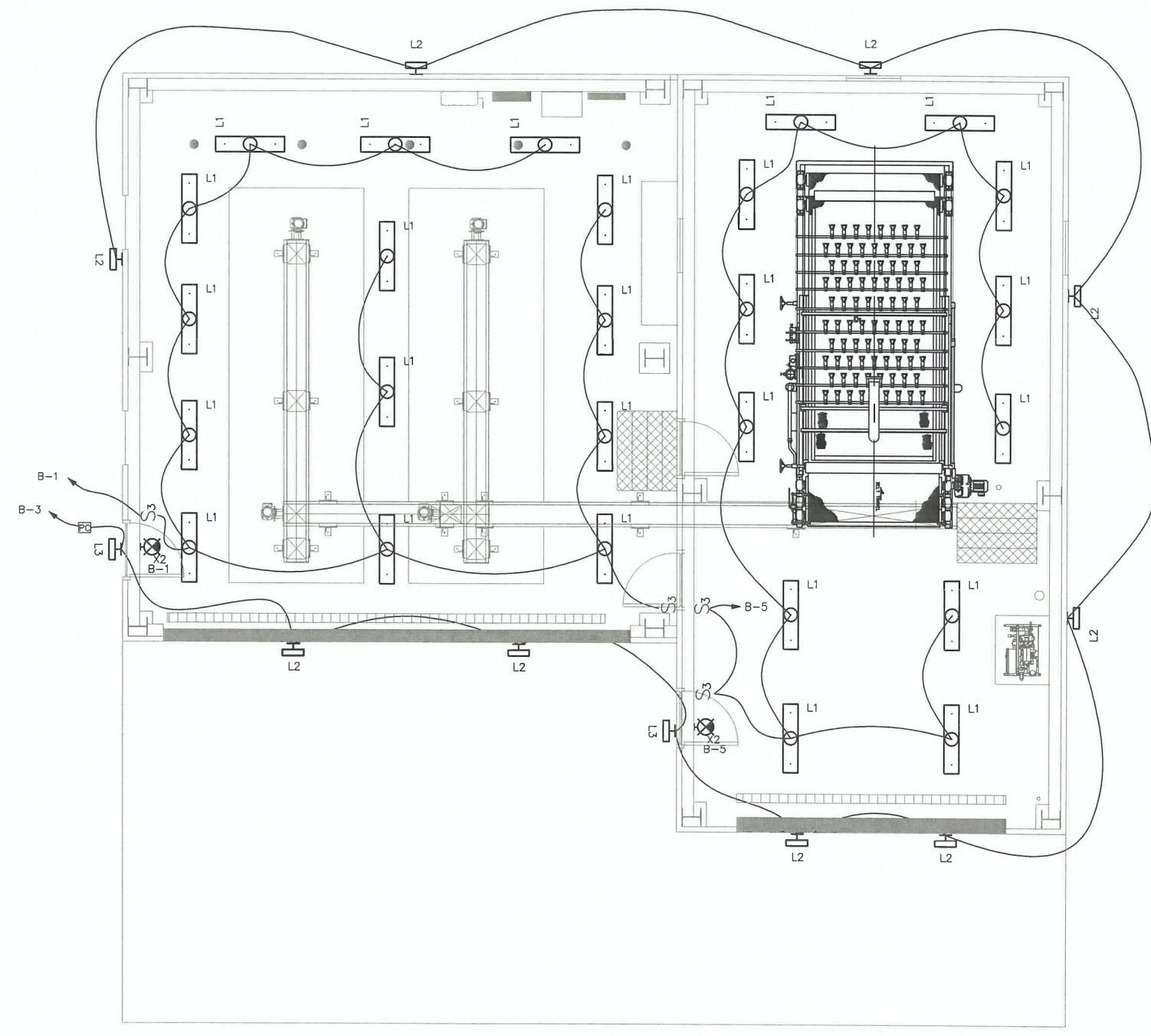
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PROJECT No.	020-10042

BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
ELECTRICAL LEGEND & SCHEDULES

SHEET No.	E1
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LAYOUT TAB: Sheet E2
 CAD FILE: R:\020\020-10042 BERKELEY OH UPGRADES\Drawing\003-SHT-00 Electrical.dwg
 PLOT DATE/TIME: 3/14/2022 10:35 AM
 USER: brion.k.hensley



BELT PRESS BUILDING LIGHTING PLAN
 SCALE 1/4"=1'-0"

NO.	BY	DATE	DESCRIPTION
1	BKH	3-15-22	ADDENDUM #1

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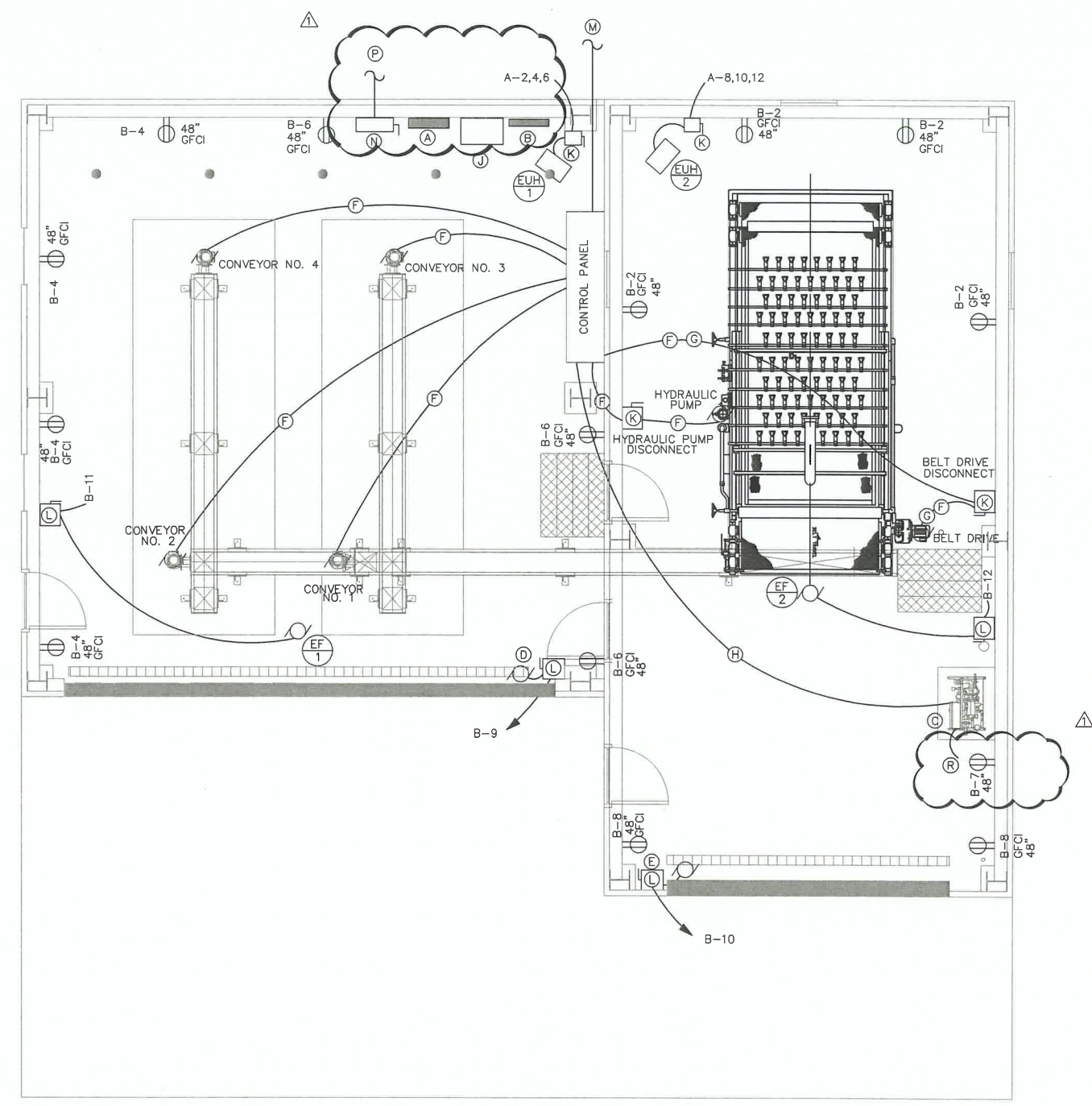
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BERKELEY COUNTY P.S.S.D.
 UPGRADES TO OPEQUON-HEDGESVILLE
 WASTEWATER TREATMENT PLANT
 BERKELEY COUNTY, WEST VIRGINIA
BELT PRESS BUILDING LIGHTING PLAN

SHEET No.
E2

ELECTRICAL NOTES:

1. SEE EQUIPMENT SPECIFICATIONS FOR CONTROL CIRCUITS OF ELECTRICAL EQUIPMENT.
2. SCREW CONVEYOR SENSORS AND EMERGENCY PULL CORD SYSTEM ARE INCLUDED WITH THE EQUIPMENT.
3. ALL SENSORS AND SWITCHES WILL REQUIRE CONDUIT AND WIRING TO BE INSTALLED PER MANUFACTURERS SPECIFICATION.
4. THE JCV LEVEL SYSTEM WIRING WILL BE SUPPLIED WITH THE PACKAGE BUT SHALL BE INSTALLED BY THE CONTRACTOR. ALL OTHER WIRING AND CONDUIT SHALL BE SUPPLIED BY THE CONTRACTOR.



- PLAN NOTES:**
- (A) 277/480V, 3 ϕ , 100A PANEL "A"
 - (B) 120/208V, 3 ϕ , 100A PANEL "B"
 - (C) POLYMER SYSTEM
 - (D) GARAGE DOOR #1 MOTOR AND CONTROLS. CONTROLS SHALL BE 48" AFF
 - (E) GARAGE DOOR #2 MOTOR AND CONTROLS. CONTROLS SHALL BE 48" AFF
 - (F) 3/4" CONDUIT WITH 3-#12 WIRES AND 1-#12 GROUND
 - (G) USE THHW-2 CABLES BETWEEN VFD AND MOTORS
 - (H) 1" CONDUIT WITH CONTROL CONDUCTORS PER MANUFACTURER
 - (J) 480V, 3 ϕ , 30KVA DRY TYPE, FLOOR MOUNT NEMA-3R TRANSFORMER.
 - (K) 480V, 3 ϕ , NEMA 4X SS DISCONNECT. 48" AFF
 - (L) 2P-30A, 120V, 1 ϕ , 2W, NEMA 4X SS FUSED SAFETY SWITCH. FUSED PER MANUFACTURERS SPECIFICATIONS. 48" AFF
 - (M) 1" CONDUIT WITH COMMUNICATION/CONTROL CONDUCTORS TO EXISTING PLANT SCADA SYSTEM.
 - (N) 480V, 200A, 3 PHASE, NEMA 4X SS FUSED DISCONNECT "A" WITH THREE 150A FUSES
 - (P) 2" CONDUIT WITH 4-2/0 WIRES AND 1-#6 GROUND TO EXISTING JUNCTION BOX.
 - (R) 115V POWER CORD BY MANUFACTURER.

BELT PRESS BUILDING POWER PLAN
SCALE 1/4"=1'-0"

LAYOUT TAB: Sheet E3
 CAD FILE: R:\020\020-10042 BERKELEY OH UPGRADES\Drawing\003-SHT-00 Electrical.dwg
 PLOT DATE/TIME: 3/14/2022 3:02 PM
 USER: bricen.k.hensley

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NO.	BY	DATE	DESCRIPTION
1	BKH	3-15-22	ADDENDUM #1

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SCALE: AS NOTED	DATE: 6/2021
DRAWN: B. QUERREY	DATE: 6/2021
CHECKED: B. HENSLEY	DATE: 7/2021
APPROVED: K. SMITH	DATE: 7/2021
SURVEY DATE:	
SURVEY BY:	
FIELD BOOK No.:	

THRASHER

600 WHITE OAKS BLVD, P.O. BOX 940
BRIDGEPORT WV 26330
www.thrashereng.com

PHONE (304) 624-4108 FAX (304) 624-7831

PHASE No.	
CONTRACT No.	
PROJECT No.	020-10042

BERKELEY COUNTY P.S.S.D.
UPGRADES TO OPEQUON-HEDGESVILLE
WASTEWATER TREATMENT PLANT
BERKELEY COUNTY, WEST VIRGINIA
BELT PRESS BUILDING POWER PLAN

SHEET No.	E3
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TRANSFORMER "K" SCHEDULE									
KVA	PRIMARY VOLTS	SECONDARY VOLTS	PHASE	PRIMARY CONDUCTOR #	SECONDARY CONDUCTOR #	TYPE	MOUNTING	FED FROM	
30	480	208/120	3	#10	#8	NEMA 3R	FLOOR	A-1,3,5	

NOTE:
1. TRANSFORMER SHALL BE DRY TYPE.

Panel A		NEMA-1		NEMA-3R		NEMA-4X Stainless Steel										
Location: 480/277 Volts, 3 Phase, 4 Wire																
Main Lug Only				Main Breaker												
Bus Rating: Amps				Main Breaker: 150 Amps												
Minimum Interrupting Capacity:				42,000 Amps Sym												
Flush Mount				Surface Mount												
Provide if checked: X Equipment Ground Bus Isolated Ground Bus Gutter Tape Through-Feed Lugs																
Serving	Load (Watts)	Cond. Size	Wire Size	C/B Trip	Cr. No.	Key Notes	A	B	C	Key Notes	Cr. No.	C/B Trip	Wire Size	Cond. Size	Load (Watts)	Serving
30KVA TRANSFORMER	10000				1		X				2			10000	ELECTRIC LINT HEATER #1	
	10000	1"	#8	3P140	1			X			4	3P80	#8	1"	10000	ELH-1 30KW
	10000				5				X		6					
	9688				7		X				8			8333	ELECTRIC LINT HEATER #2	
SCREW CONVEYOR AND BELT PRESS CONTROL PANEL	9688	1"	#6	3P950	9			X			10	3P80	#6	1"	8333	ELH-2 29KW
	9688				11				X		12					
Space					13	5	X				14					Space
Space					15	5		X			16					Space
Space					17	5			X		18					Space
Space					19	5	X				20					Space
Space					21	5		X			22					Space
Space					23	5			X		24					Space
Total Load-Odd Circuit (Watts)	59064	1. All wire size: #12 AWG minimum except as noted. 2. All conduit size: 3/4 inch minimum except as noted. 3. Ground fault interrupting circuit breaker. 4. Spare circuit breaker. 5. Space only. 6. Shunt-trip circuit breaker. 7. Arc-fault circuit breaker. 8. Solenoid operated circuit breaker.										54999	Total Load-Even Circuit (Watts)			
Total Load-Panel (Watts)	114063	9. Breaker lock-on clip. 10. Verify breaker size with manufacturer and match control panel main disconnect.										137.4	Total Connected Full Load Amps			
												171.7	Total Derated Connected Full Load Amps			



Panel B		NEMA-1		NEMA-3R		NEMA-4X Stainless Steel										
Location: 208/120 Volts, 3 Phase, 4 Wire																
Main Lug Only				Main Breaker												
Bus Rating: Amps				Main Breaker: 80 Amps												
Minimum Interrupting Capacity:				22,000 Amps Sym												
Flush Mount				Surface Mount												
Provide if checked: X Equipment Ground Bus Isolated Ground Bus Gutter Tape Through-Feed Lugs																
Serving	Load (Watts)	Cond. Size	Wire Size	C/B Trip	Cr. No.	Key Notes	A	B	C	Key Notes	Cr. No.	C/B Trip	Wire Size	Cond. Size	Load (Watts)	Serving
Lighting, Dumpster Building 14	840	2	1	1P20	1		X				2	1P20			720	Receptacles, Press Building Back
Lighting, Press Building T2	720			1P20	3			X			4	1P20			720	Receptacles, Dumpster Building Left
Lighting, Exterior	625			1P20	5				X		6	1P20			720	Receptacles, Dumpster Building Right
POLYMER ACTIVATION SYSTEM	1500			1P20	7		X				8	1P20			360	Receptacles, Press Building Front
Overhead Door Operator #1	1500			1P20	9			X			10	1P20			1500	Overhead Door Operator #2
Exhaust Fan #1, Roof	667			1P15	11				X		12	1P15			667	Exhaust Fan #2, Roof
SPACE					13	5	X				14					SPACE
SPACE					15	5		X			16					SPACE
SPACE					17	5			X		18					SPACE
SPACE					19	5	X				20					SPACE
SPACE					21	5		X			22					SPACE
SPACE					23	5			X		24					SPACE
Total Load-Odd Circuit (Watts)	5652	1. All wire size: #12 AWG minimum except as noted. 2. All conduit size: 3/4 inch minimum except as noted. 3. Ground fault interrupting circuit breaker. 4. Spare circuit breaker. 5. Space only. 6. Shunt-trip circuit breaker. 7. Arc-fault circuit breaker. 8. Solenoid operated circuit breaker.										4687	Total Load-Even Circuit (Watts)			
Total Load-Panel (Watts)	10639											29.3	Total Connected Full Load Amps			
												38.0	Total Derated Connected Full Load Amps			

USER: brion.k.hensley

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LAYOUT TAB: Sheet E4
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 WASTEWATER TREATMENT PLANT
 BERKELEY COUNTY, WEST VIRGINIA
 ELECTRICAL PANEL SCHEDULES

SHEET No.
E4

