

0005d worcester county commissioners\0085d027 - ocean pine biosolids dewatering\CAD\SHEETG-001 - Title Sheet.dwg May 15, 2026 - 11:54am lapt

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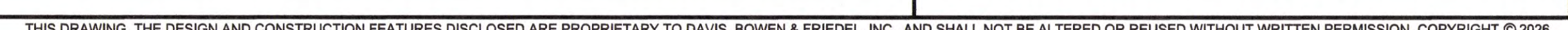


COMMENTS											
DATE											
Date:		JANUARY 2026									
Scale:		AS SHOWN									
Dwn.By:		JML									
Proj.No.:		0085D027									
TITLE SHEET Dwg.No.: G-001											

Sediment Control Plan Approval
Worcester Soil Conservation District
Snow Hill, MD 21863

Approved by Chelcee Blynn
Date 6/3/2006

Dwg.No.:
G-001



SLUDGE DEWATERING

TYPE	1,388 GPM
NUMBER OF UNITS	1
BELT WIDTH (GRAVITY SECTION)	2 METERS
PLANT CAPACITY PER DAY	13 MGD
DESIGN INFLUENT FLOW TO PRESS	165 GPM
SOLIDS CONCENTRATION TO PRESS	2-3%
SOLIDS CONCENTRATION FROM PRESS	17%
SOLIDS CAPTURED BY PRESS (MINIMUM)	95%
POLYMER DOSAGE (ESTIMATED)	16-20 ACTIVE LB/DRY TON (100 ACTIVE LB/DAY)

1. TOPOGRAPHIC SURVEY PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC., APRIL, MAY, AND JUNE 2022 ON MARYLAND STATE PLANE COORDINATE/NAED83. BENCHMARK MARKS ARE AS SHOWN ON PLANS. VERTICAL DATUM IS ON NAVD83.
2. BEFORE ANY EXCAVATION IS PERFORMED, CONTRACTOR SHALL CALL "MISS UTILITY OF DELMARVA" (1-800-441-3355) AT LEAST 48 HOURS PRIOR TO EXCAVATION, TO HAVE EXISTING UNDERGROUND UTILITIES LOCATED AND MARKED.
3. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS UNLESS WRITTEN APPROVAL HAS BEEN PROVIDED BY THE OWNER OR ENGINEER.
4. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE CONTRACT DOCUMENTS, INCLUDING PLANS, NOTES AND SPECIFICATIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO SUBMITTING A BID.
5. THE CONTRACT DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS OF CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE PERFORMED IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED, AND ALL RULES AND REGULATIONS THERE TO APPURTENANCE.
6. THE CONTRACTOR SHALL PROVIDE ALL STAKEOUTS NECESSARY FOR THE INSTALLATION OF THE WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN ALL WORK AREAS IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. TRAFFIC CONTROL, REGULATORY, WARNING AND INFORMATIONAL SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES, WITH THE RELOCATION KEPT TO A MINIMUM DISTANCE.
8. EXISTING UTILITY LOCATIONS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION, AND ARE SHOWN ONLY FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR SHALL TEST PIT TO VERIFY LOCATION, SIZE, MATERIALS AND INVERT OF ALL EXISTING UTILITIES, ANY DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION, WHETHER OR NOT SHOWN ON THE DRAWINGS, SHALL BE REPAIRED BY THE CONTRACTOR, TO THE UTILITY OWNERS' SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
9. WHENEVER EXCAVATION DISRUPTS GUY WIRES OR ENDANGERS EXISTING UTILITY POLES, THE POLE SHALL BE BRACED AND/OR GUY WIRES RELOCATED IN ACCORDANCE WITH THE UTILITY OWNERS' REQUIREMENTS AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL REMOVE AND IMMEDIATELY REPLACE, RELOCATE, RESET, OR RECONSTRUCT ALL OBSTRUCTIONS IN THE WORK AREA, INCLUDING, BUT NOT LIMITED TO: SIGNS, LANDSCAPING, CULVERTS, FENCES, UTILITIES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS ENCOUNTERED. ALL ASSOCIATED COST SHALL BE INCLUDED IN THE APPROPRIATE PRICES BID.
11. ALL PAVING, DRIVEWAYS, STORMDRAINS, STRUCTURES, CASTINGS, ETC., NOT DESIGNATED FOR REPLACEMENT, DAMAGED BY THE CONTRACTOR, SHALL BE REMOVED AND REPLACE IN-KIND AT THE CONTRACTOR'S EXPENSE.
12. THE CONTRACTOR SHALL TOPSOIL, SEED AND MULCH ALL UNPAVED AREAS DISTURBED DURING CONSTRUCTION, ACCORDING TO THE EROSION AND SEDIMENT CONTROL PLAN AND/OR THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
13. FITTINGS SHOWN ON THE PLANS ILLUSTRATE ANTICIPATED SIZE AND ANGLE OF DEFLECTION. THIS INFORMATION IS SHOWN FOR GENERAL INFORMATION AND IS NOT GUARANTEED. ACTUAL SIZES AND ANGLES MAY VARY DUE TO FIELD CONDITIONS.
14. CONTRACTOR SHALL MAINTAIN UTILITY SERVICE AND ACCESS AT ALL TIMES, WHEN TEMPORARY INTERRUPTIONS ARE NECESSARY, THEY SHALL BE KEPT TO A MINIMUM. 48 HOURS NOTICE SHALL BE GIVEN TO THE OWNER PRIOR TO SERVICE TRANSFERS OR ANY SERVICE DISRUPTIONS. WHERE CONNECTIONS TO THE EXISTING SYSTEM ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE ALL COUPLINGS, SLEEVES, AND ADAPTERS NECESSARY TO MAKE THE CONNECTION WITHIN THE PRICES BID. THE OWNERS PERSONNEL SHALL OPERATE ALL VALVES AND EQUIPMENT.
15. CONTRACTOR TO MAINTAIN A MINIMUM 18" VERTICAL CLEARANCE BETWEEN SEWER AND WATER PIPING, WITH WATER ABOVE SEWER WHERE FEASIBLE UNLESS OTHERWISE SHOWN ON THE DRAWINGS. MAINTAIN 10" HORIZONTAL SEPARATION, OUTSIDE OF PIPE TO OUTSIDE OF PIPE, BETWEEN PARALLEL WATER AND SEWER PIPING. WHERE MINIMUM CLEARANCES CANNOT BE MAINTAINED, WATER MAIN SHALL BE DEFLECTED TO GAIN CLEARANCE FROM SEWER, AS DETERMINED BY THE ENGINEER AND OWNER. FOR A MINIMUM OF 10' CENTERED ON THE CROSSING, SEWER MAIN JOINTS SHALL BE PLACED AS FAR AS IS PRACTICABLE FROM THE WATER CROSSING. SEWER MAIN SHALL BE INSTALLED WITH 12" VERTICAL CLEARANCE FROM ALL OTHER UTILITIES, INCLUDING STORMWATER, WATER AND SEWER MAINS SHALL HAVE A MINIMUM COVER OF 3.0' OF COVER. WHERE MINIMUM VERTICAL CLEARANCE CANNOT BE MAINTAINED, PIPE MATERIAL, TRANSITION TO DI AND CONCRETE ENCASEMENT OF ONE UTILITY MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER/OWNER.
16. ALL STORM AND SANITARY SEWERS AND SERVICES MUST REMAIN FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR BYPASS PUMPING AND SHALL INCLUDE BYPASS PUMPING IN THEIR BASE BID.

APPLICABLE CODES

IBC 2021
NFPA 1 Fire Code 2018

PROPOSED PROJECT AREA INFORMATION

Gross Area of Project: 1,991 SF
Use Group: F1 Moderate Hazard Factory Industrial (Sewage Treatment)

CONSTRUCTION TYPE: Type II-B, Non-Sprinklered

ALLOWABLE HEIGHT & AREAS

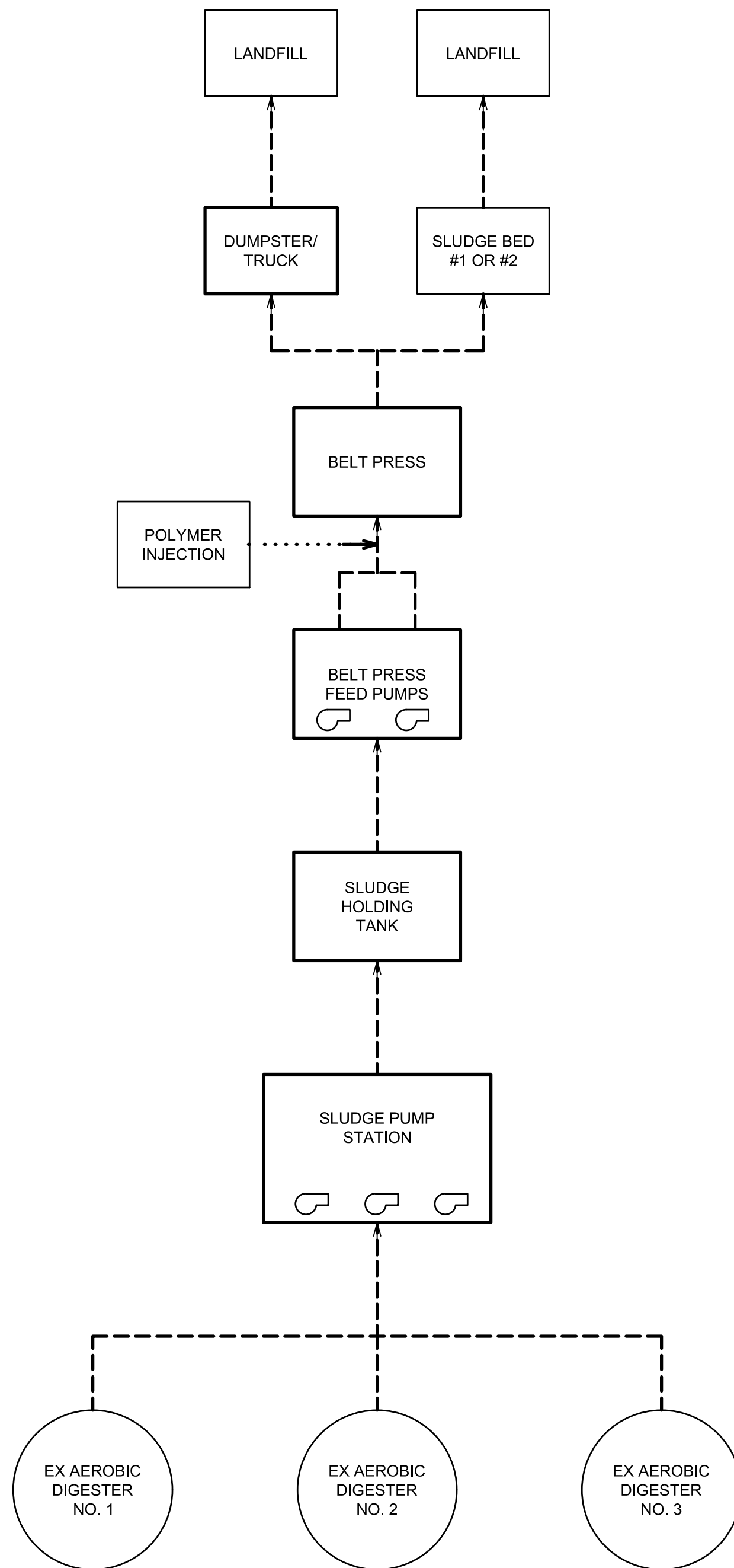
Allowable Building Area: 15,500 SF
Allowable Building Height: 2 Stories (55')

FIRE RESISTIVE RATINGS FOR BUILDING ELEMENTS

Structural Frame:	0h
Bearing Walls:	0h
Non Bearing Walls	0h
Floor/Roof Construction:	0h
Corridors:	0h

OCCUPANCY LOAD:

Industrial Area = 100 GSF / Person
Occupancy Load = 20 People



Legend for Figure 1:

- PROPOSED STRUCTURE
- EXISTING STRUCTURE
- BIOSOLIDS OR SLUDGE FLOW
- CHEMICAL FEED
- PUMP

EXISTING

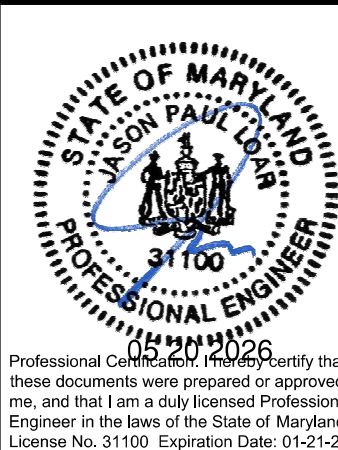
_____ PROPERTY LINE, RIGHT-OF-WAY LINE OR LOT LINE

_____ SETBACK LINE

_____ CENTERLINE OF ROAD

PROPOSED

	PROPERTY LINE, RIGHT-OF-WAY LINE OR LOT LINE		
	SETBACK LINE		
	CENTERLINE OF ROAD		
	EASEMENTS		
	FENCE		
	CONTOUR		
	SPOT ELEVATIONS: SURFACE, TOP OF CURB BOTTOM OF CURB		
	DITCH, SWALE		
	WATER BODY EDGE OF WATER LINE		
	EDGE OF WOODS, LIMITS OF CLEARING LINE		
	UNDERGROUND ELECTRIC LINE		
	OVERHEAD ELECTRIC LINE		
	UNDERGROUND TELEPHONE LINE		
	UNDERGROUND GAS LINE		
	FORCE MAIN		
	SEWER MAIN, MANHOLE, AND CLEANOUT		
	WATER MAIN, HYDRANT, BLOWOFF HYDRANT, VALVE, AND METER		
	STORM DRAIN, MANHOLE, AND INLET		
	CURB, CURB AND GUTTER		
	CONCRETE SIDEWALK, CONCRETE PAD, OR CONCRETE PAVING		
	BITUMINOUS PAVING, LIGHT DUTY / HEAVY DUTY		
	BUILDING		
	ITEMS TO BE DEMOLISHED		
	DECIDUOUS TREE, EVERGREEN TREE, AND SHRUBS		
	ROAD SIGN, MAIL BOX		
	TRAFFIC SIGNAL POLE		
	UTILITY POLE WITH GUY WIRES		
	WETLANDS		



**DAVIS
BOWEN &
FRIEDEL, INC.**

ARCHITECTS • ENGINEERS • SURVEYORS

BARFORD, MARYLAND
410-770-4744

MILFORD DELAWARE
302-242-1441

SABERSVILLE, MARYLAND
410-543-9919

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MASSACHUSETTS**

[illegible]

Date:	JANUARY 2026
Scale:	AS SHOWN
Dwn.By:	JML
Proj.No.:	0085D027

GENERAL INFORMATION

Dwg.No.

G-002



**DAVIS
BOWEN &
FRIEDEL, INC.**

ARCHITECTS • ENGINEERS • SURVEYORS

EASTON, MARYLAND
410.770.4744

MILFORD DELAWARE
302.424.1441

SALLISBURY, MARYLAND
410.543.9091

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

[illegible]

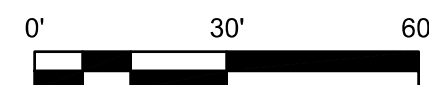
Date:	JANUARY 2026
Scale:	1" = 30'
Own.By:	JML
Proj.No.:	0085D027

EXISTING SITE PLAN

Dwg.No.:

V-101

EXISTING SITE PLAN



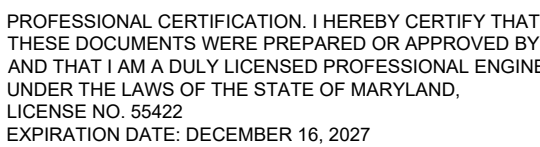
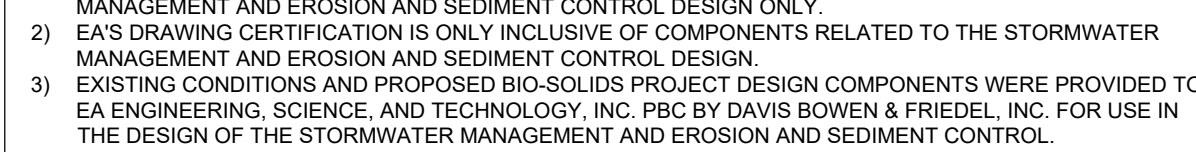
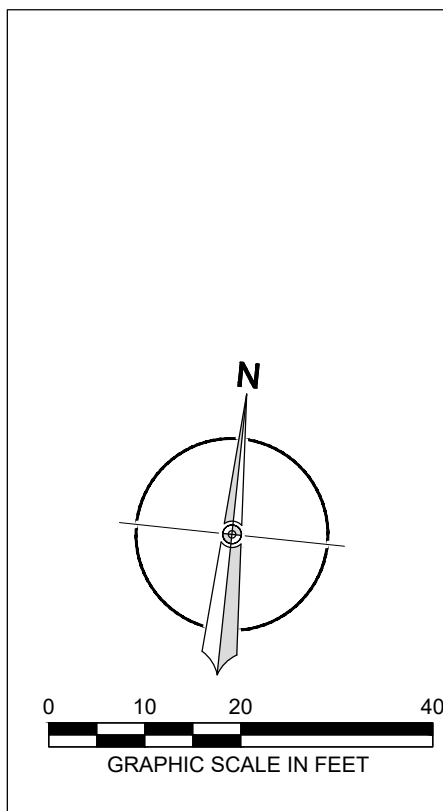


A1 **EXISTING SLUDGE PUMP STATION**
1"=2'



V-102

1. CONTACT WORCESTER COUNTY ENVIRONMENTAL PROGRAMS AT 410-632-1220, ENGINEER OF RECORD AT 410-641-5341, AND WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK AT THE SITE. FAILURE TO DO SO MAY RESULT IN A STOP WORK ORDER.
2. OBTAIN ALL NECESSARY PERMITS AND CONTACT MISS UTILITY AT 800-257-7777 AT LEAST 24 HOURS PRIOR TO STARTING ANY WORK. PROVIDE UTILITY LOCATION WITHIN AND IMMEDIATELY SURROUNDING THE PROJECT LIMITS. PERFORM TEST PITTING OF ALL UTILITIES MARKED AND AS SHOWN WITHIN THE DRAWINGS. PROVIDE THE ENGINEER OF RECORD WITH DATA OBTAINED, DISCREPANCIES FOUND, AND CONSTRUCTION CONFLICTS FOR RESOLUTION PRIOR TO ORDERING MATERIALS.
3. ALL MATERIALS STORED ON SITE SHALL BE PROTECTED AND PROPERTY SAFETY MEASURES SHALL BE PROVIDED TO ENSURE MATERIALS REMAIN ONSITE.
4. CLEAR AND CURB ANY MATERIAL NEEDED TO INSTALL PERIMETER SEDIMENT AND EROSION CONTROLS.
5. INSTALL PERIMETER CONTROLS: SUPER SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE.
6. OBTAIN INSPECTOR APPROVAL OF INSTALLED PERIMETER CONTROLS.
7. PERFORM TREE HARVESTING.
8. PERFORM STUMP AND ROOTMATT REMOVAL. PERFORM GRADING TO PROVIDE POSITIVE DRAINAGE. PERFORM TEMPORARY STABILIZATION IN AREAS THAT WILL BE RE-DISTURBED. PERFORM PERMANENT STABILIZATION IN AREAS THAT WILL REMAIN UNDISTURBED.
9. INSTALL AT-GRADE INLET PROTECTION ON EXISTING STRUCTURES.
10. NOTIFY THE EROSION AND SEDIMENT CONTROL INSPECTOR TO OBTAIN APPROVAL TO PROCEED PRIOR TO DEMOLITION, CONSTRUCTION, AND/OR STUMP REMOVAL.
11. PERFORM MASS GRADING OF THE SITE.
12. INSTALL CONCRETE WASHOUT STATION.
13. COMMENCE CONSTRUCTION OF BUILDING, SLUDGE BUFFER TANK, AND PROCESS UTILITIES. UTILITY TRENCHES SHALL BE RESTORED AND SAME DAY STABILIZATION PERFORMED. DISPOSE OF ALL CONCRETE WASTE WITHIN THE CONCRETE WASHOUT.
14. ONCE BUILDING ENVELOPE IS COMPLETED, COMMENCE SITE WORK PERFORM GRADING OF WET SWALES AND INSTALL TRENCH DRAIN AS SHOWN ON THE PLANS. WET SWALE TO BE UTILIZED AS SEDIMENT TRAPPING DURING CONSTRUCTION.
15. PREPARE SUBGRADE AND INSTALL CURBING. DISPOSE OF ALL CONCRETE WASTE WITHIN THE CONCRETE WASHOUT.
16. INSTALL STORM DRAINAGE PIPING AND STRUCTURE. INSTALL AT-GRADE INLET PROTECTION AROUND INSTALLED STRUCTURE.
17. PREPARE SUBGRADE AND INSTALL GRADED AGGREGATE AND BASE PAVEMENT.
18. PERFORM FINAL STABILIZATION OF COMPLETED VEGETATED AREAS.
19. ONCE STABILIZATION AND SUBSTANTIAL COMPLETION OF BUILDING AND SITE WORK, CONVERT WET SWALES TO FINAL CONDITIONS.
20. REMOVE SEDIMENT/SOIL TO 6 INCHES BELOW FINAL GRADE.
21. INSTALL RIPRAP OUTFALL.
22. INSTALL 6" OF TOPSOIL TO GRADES SHOWN.
23. PERFORM FINAL STABILIZATION OF WET SWALES.
24. PERFORM FINAL SURFACE ASPHALT PAVING.
25. UPON 95% VEGETATIVE ESTABLISHMENT AND WITH THE WRITTEN APPROVAL FROM THE EROSION AND SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY STABILIZATION AND STABILIZE ANY RE-DISTURBED AREAS.



1. SEE DRAWING V-101 FOR EXISTING CONDITIONS PLAN.
2. AREAS WITH STORMWATER MANAGEMENT FEATURES (STONE INFILTRATION, SUBMERGED GRAVEL WETLANDS, RAIN GARDENS) SHALL BE MINIMALLY USED FOR HEAVY CONSTRUCTION TRAFFIC TO PREVENT THE COMPACTION OF THE UNDERLYING SOILS.
3. SHOULD IT BECOME NECESSARY TO DEWATER AN OPEN TRENCH OR OTHER EXCAVATED PIT A SUMP PUMP OR APPROVED FILTER BAG SHALL BE UTILIZED PER DETAILS ON DRAWING C-502.
4. SILT FENCE MAY BE SHOWN OFFSET FOR CLARITY. SHALL BE LOCATED AT AND ALONG PROPERTY LINE, FENCE, OR WETLAND BUFFER AS APPLICABLE.
5. DELINEATED LIMITS SHOWN HEREIN DEPICT LIMITS OF PROPOSED CONSTRUCTION.

THE CONTRACTOR SHALL FURNISH, INSTALL, AND PERFORM MAINTENANCE AS
NEEDED AND AS DIRECTED BY THE EROSION AND SEDIMENT CONTROL
INSPECTOR.

1. STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL ON DRAWING C-504. CONTRACTOR SHALL PROVIDE A CULVERT AS NECESSARY TO ASSIST IN THE MAINTAINING DRAINAGE PATTERNS.
2. SUPER SILT FENCE. SEE DETAIL ON DRAWING C-504.
3. CONCRETE WASHOUT. SEE DETAIL ON DRAWING C-504.
4. AT-GRADE INLET PROTECTION. SEE DETAIL ON DRAWING C-504.
5. SEDIMENT TRACKING ONTO ON-SITE PAVEMENT SHALL NOT BE PERMISSIBLE. THE CONTRACTOR SHALL PERFORM STREET SWEEPING ON ALL SURROUNDING ROADWAYS DAILY SHOULD SEDIMENT TRACKING OCCUR.
6. LINEAR UTILITY TRENCH LIMITS. CONTRACTOR SHALL BACKFILL AND RESTORE SURFACE TO EXISTING CONDITIONS IN SAME WORKING DAY.
7. TEMPORARY SOIL AND MATERIAL STOCKPILE AREA SHALL BE PROTECTED WITH PERIMETER SILT FENCE. CONTRACTOR SHALL COORDINATE WITH EROSION AND SEDIMENT CONTROL INSPECTOR FOR DELINEATION OF NEEDED STOCKPILE AREA AND OBTAIN WRITTEN APPROVAL FROM THE INSPECTOR TO ALTER LIMITS OF SILT FENCE INSTALLATION.

LIMIT OF DISTURBANCE: 30,185 S.F. (0.693 AC.)
ESTIMATED EARTHWORK:
CUT: 500 CUBIC YARDS
FILL: 400 CUBIC YARDS
NET: 100 CUBIC YARDS (CUT)

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICABLE AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF APPLICABLE SOIL EROSION AND SEDIMENT CONTROL CODES. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

STEVEN LEMASTERS, P.E.
MD P.E. NO. 55422

I HEREBY CERTIFY THAT I HAVE INSPECTED THIS SITE AND THAT DRAINAGE ONTO THIS SITE FROM OTHER UPGRADE PROPERTIES, AND FROM THIS SITE ONTO OTHER DOWNGRADE PROPERTIES HAS BEEN ADDRESSED IN SUBSTANTIAL ACCORDANCE WITH APPLICABLE CODES.

STEVEN LEMASTERS, P.E.
MD P.E. NO. 55422

CERTIFICATION BY THE OWNER OR DEVELOPER THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO THE BEGINNING OF THE PROJECT. ADDITIONALLY, THE OWNER OR DEVELOPER SHALL CERTIFY RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE APPROPRIATE ENFORCEMENT AUTHORITY AND/OR MDE.

Dallas Baker Jr
OWNER SIGNATURE

Dallas, Tex.

PRINTED NAME _____

COUNTY COMMISSIONERS OF WORCESTER COUNTY, MARYLAND
1 WEST MARKET STREET
SNOW HILL, MARYLAND 21863

5/11/26

DATE _____

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland License No. 31100 Expiration Date: 01-21-27

EASTON, MARYLAND
410.770.4744

MILFORD, DELAWARE
302.424.1441

SALISBURY, MARYLAND
410.543.9091

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

[illegible]

Date: JANUARY 2026

Scale: AS SHOWN

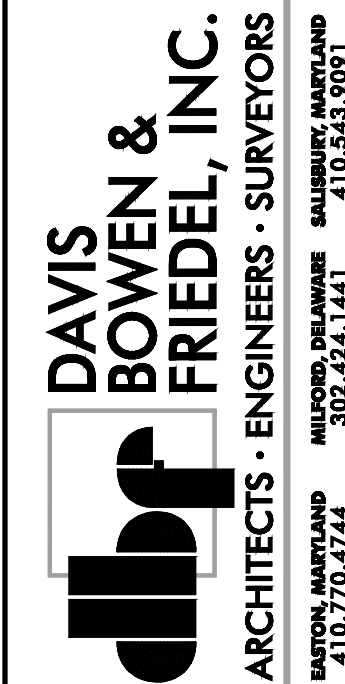
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**PROPOSED
EROSION AND
SEDIMENT
CONTROL
PLAN**

Dwg.No.	
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C-104



**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

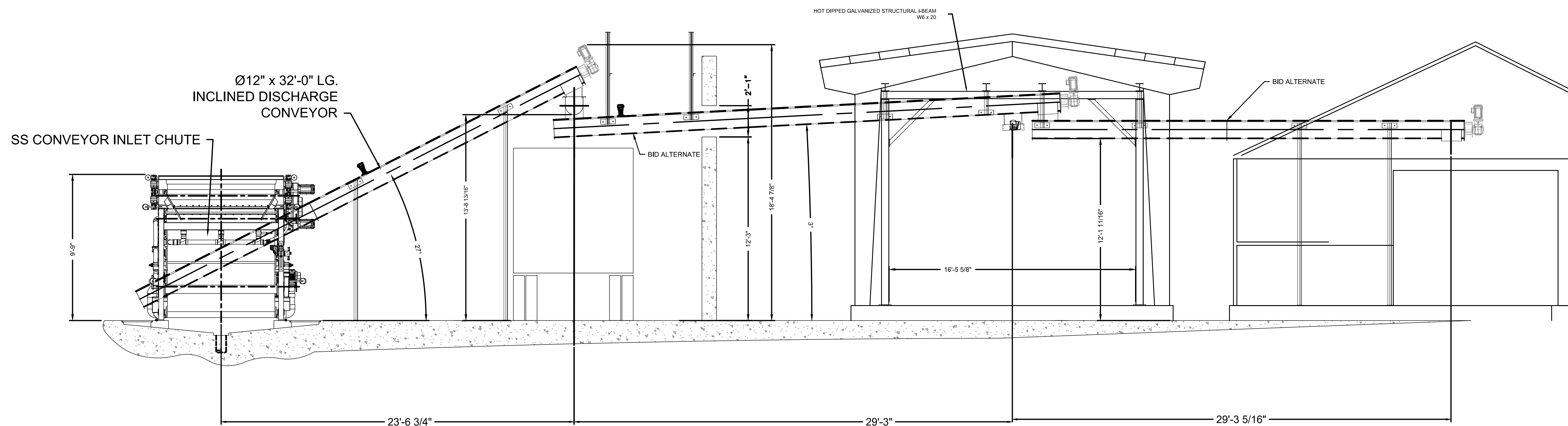
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Date:	JANUARY 2026
Scale:	1/4" = 1'-0"
Dwn.By:	JML
Proj.No.:	0085D027

**PROPOSED
CONVEYOR
ELEVATION**

Dwg.No.:

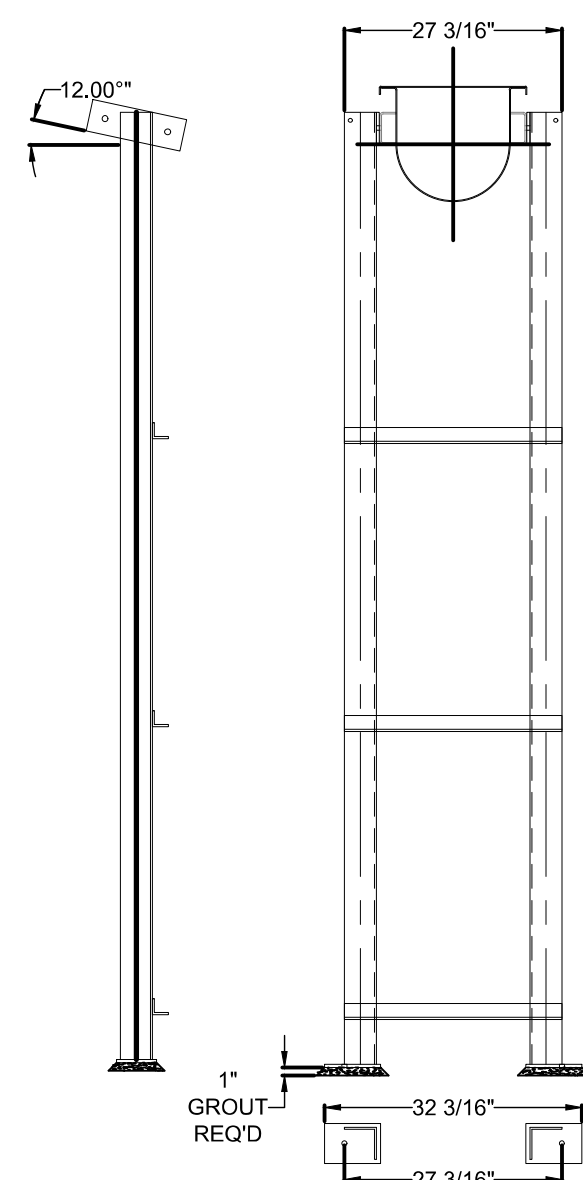
C-106



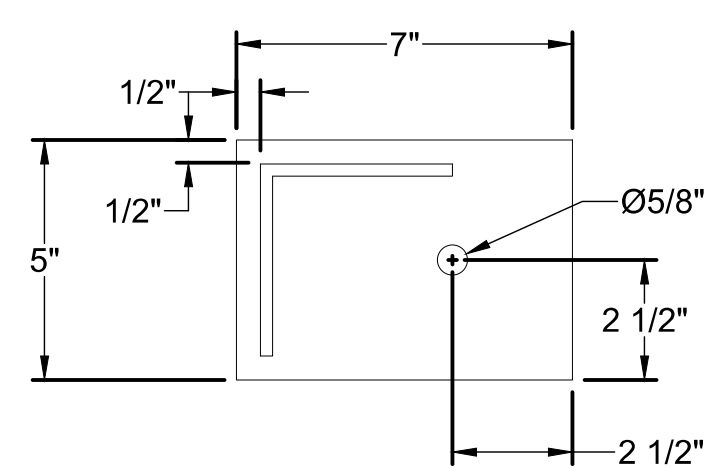
1. VERTICAL LEGS - 4"x4"x $\frac{1}{4}$ " 304 SS
2. HORIZONTAL CROSS MEMBERS - 2"x2"x $\frac{1}{4}$ " 304 SS
3. BASE PLATE - $\frac{3}{8}$ " 304 SS

CONVEYOR ELEVATION

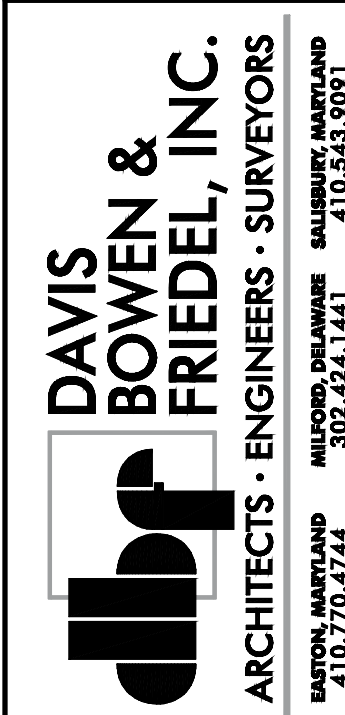
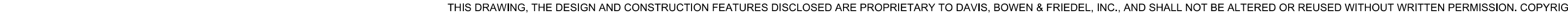
1/4" = 1'-0'



FLOOR STAND DETAIL
CEILING HANGERS
CONSTRUCTED SAME



BASE PLATE DETAIL



**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY MARBI AND**

[illegible]

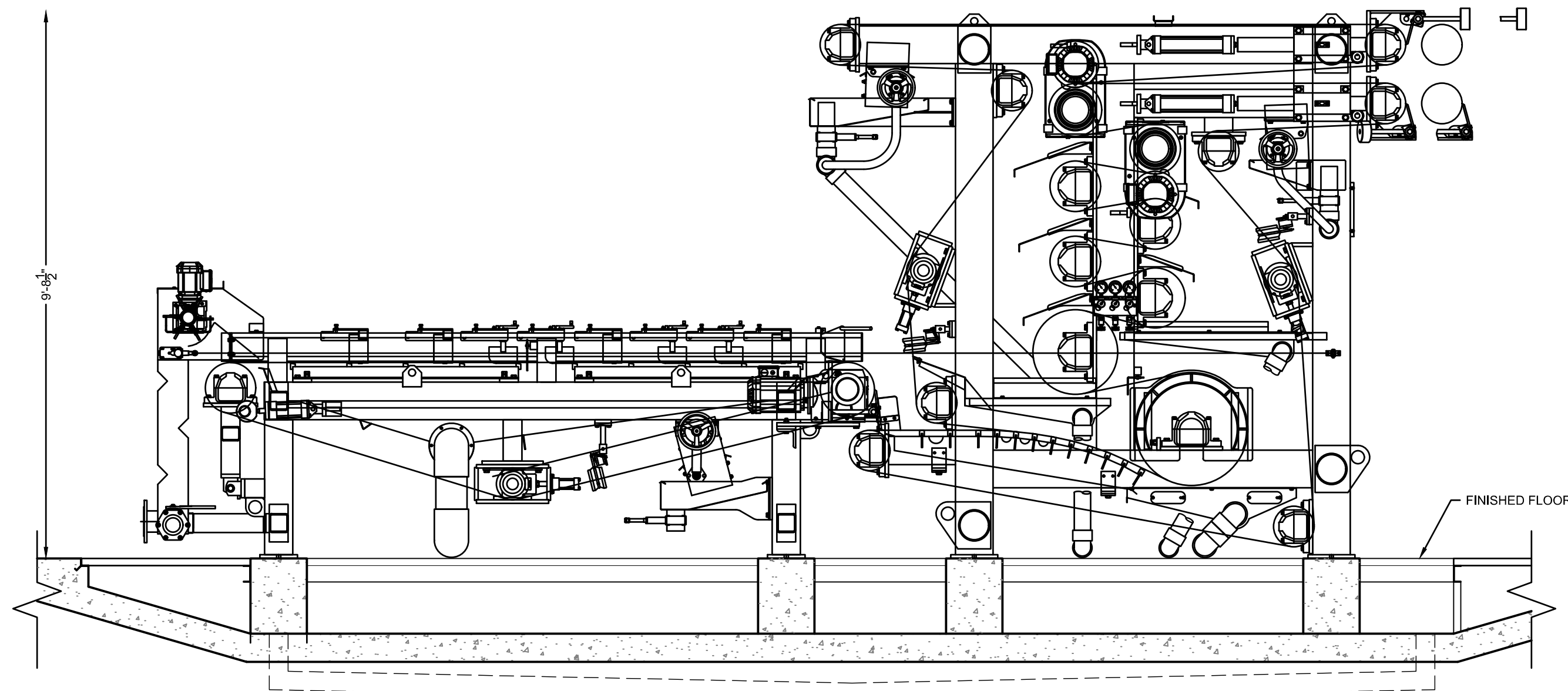
Date:	JANUARY 2026
Scale:	AS SHOWN
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Proj.No.:	0085D027

**PROPOSED
SLUDGE
BUFFER TANK**

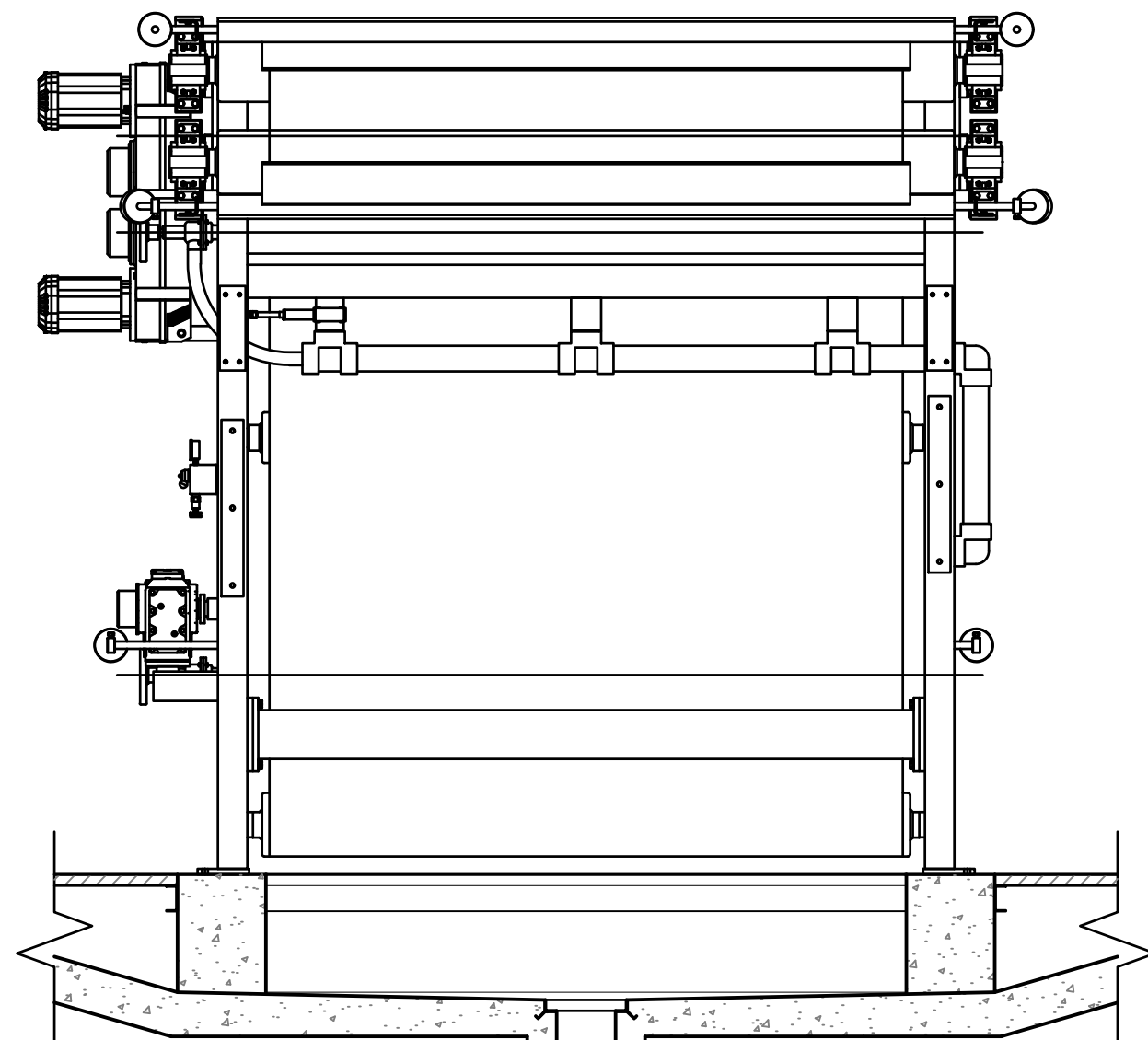
Dwg.No.:

C-108

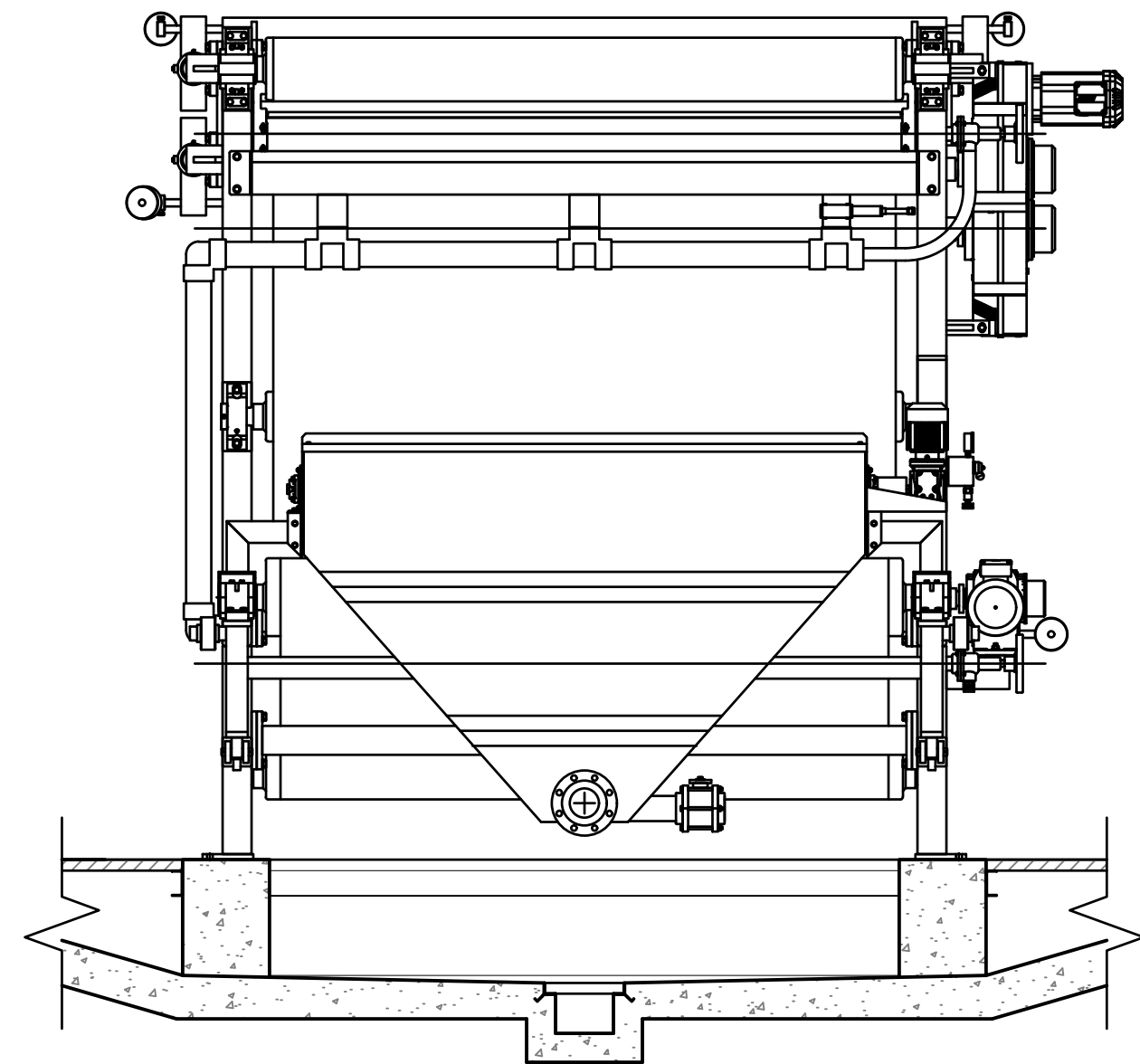
L:\00855\worchester county commissioners\00855027 - ocean pines biosolids dewatering\CADD\SHEET\C-103 - Proposed Building Plan.dwg (May 13, 2026) - 8:34am (kg)



A **DETAIL**
1/2" = 1'-0"

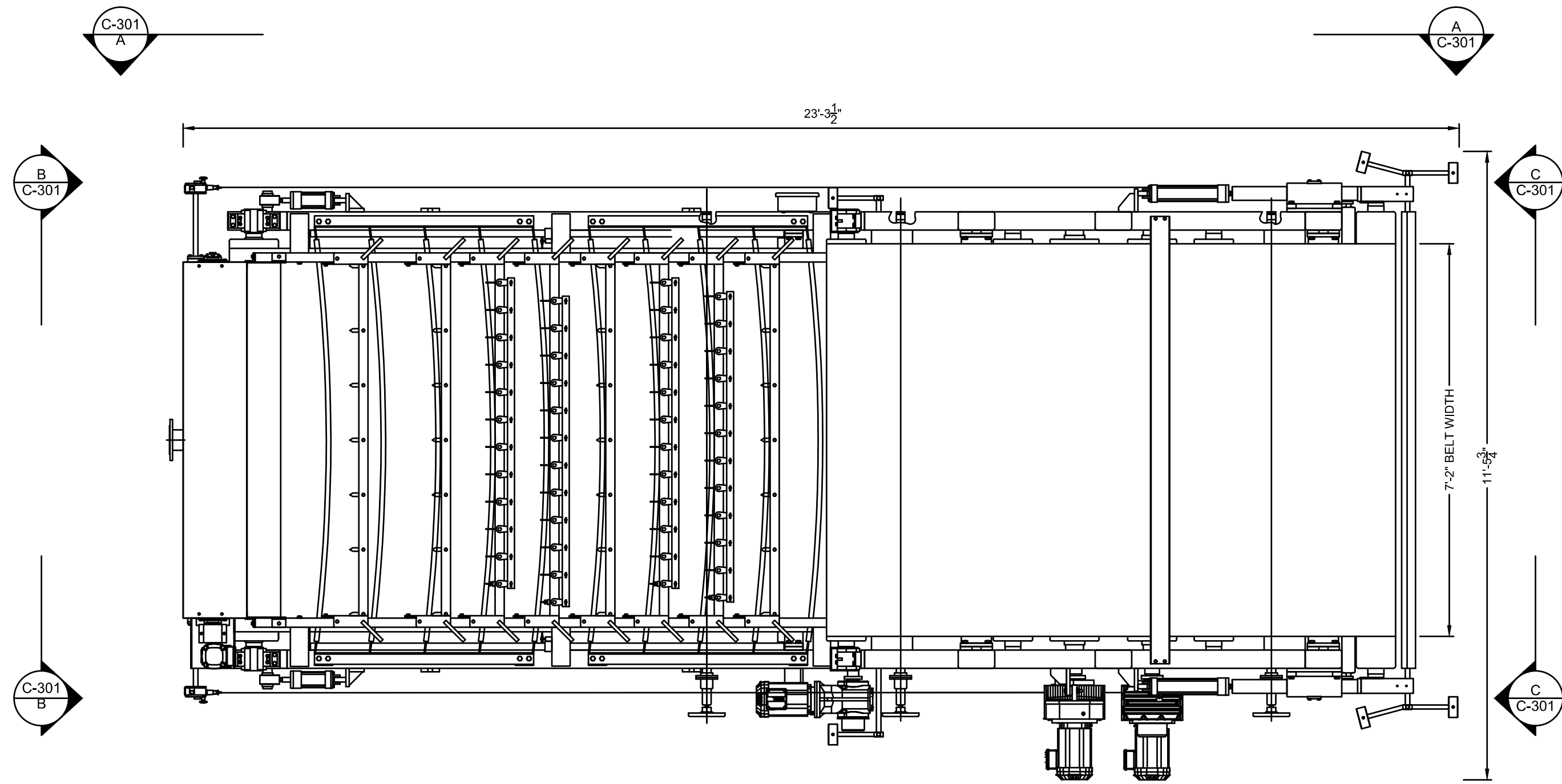


B **DETAIL**
1/2" = 1'-0"

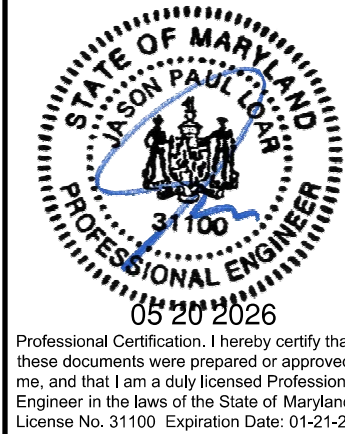


C **DETAIL**
1/2" = 1'-0"

PROPOSED EQUIPMENT SECTIONS
1/2" = 1'-0"



PLAN VIEW



DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS
BALTIMORE, MARYLAND 410.770.1441
MILFORD, DELAWARE 302.424.1441
SALISBURY, MARYLAND 410.343.7991

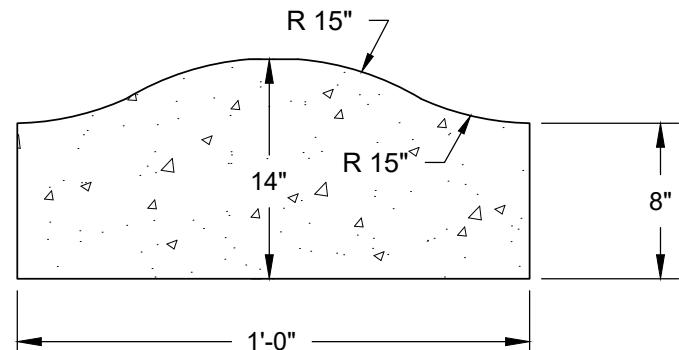
**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

DATE	COMMENTS

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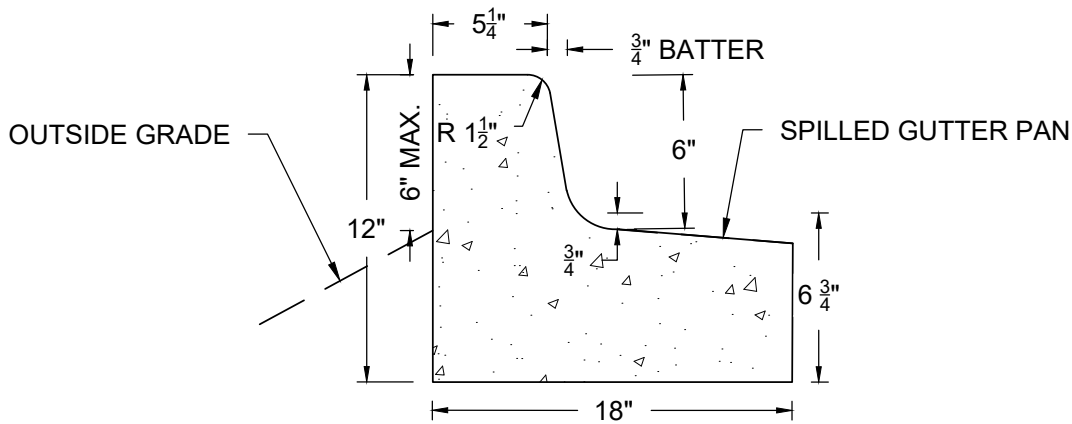
**PROPOSED
EQUIPMENT
SECTIONS**

Dwg.No.:
C-301



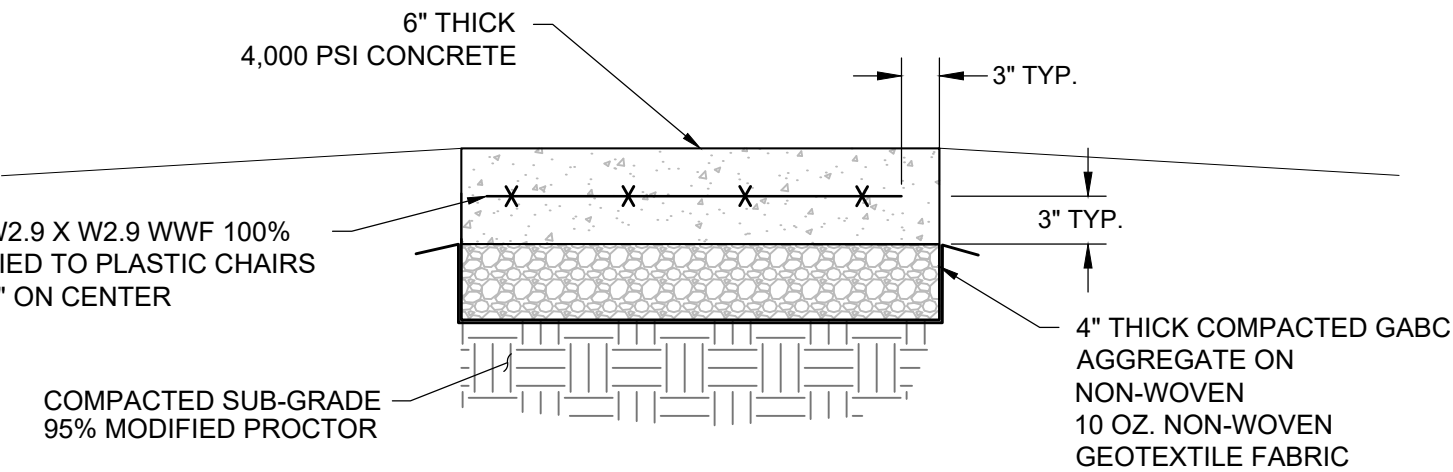
6" CONTAINMENT ROLL CURB
NOT TO SCALE

- NOTES:
1. CONCRETE SHALL BE MIX NO. 3.
 2. SUB-GRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.



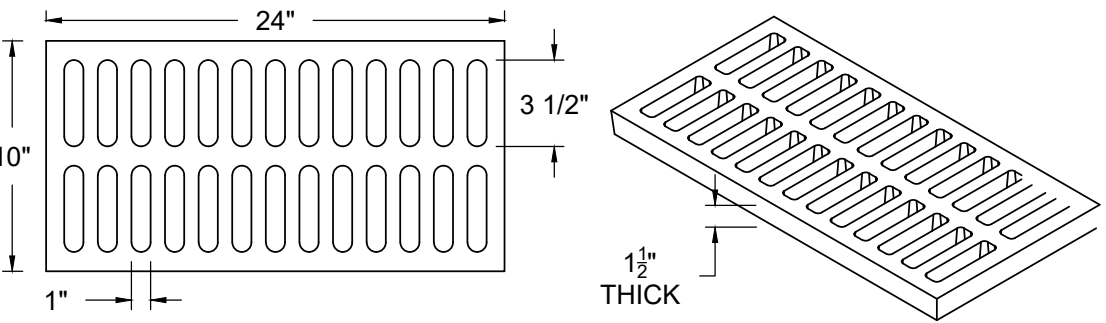
6" CONTAINMENT VERTICAL CURB AND GUTTER
NOT TO SCALE

- NOTES:
1. CONCRETE SHALL BE MIX NO. 3.
 2. SUB-GRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
 3. NO GREATER THAN 6" OF EXPOSED CONCRETE SHALL BE PROVIDED BEHIND THE CURB WHEN PERFORMING GRADE TRANSITIONING.



CONCRETE SIDEWALK / BUILDING APRON
NOT TO SCALE

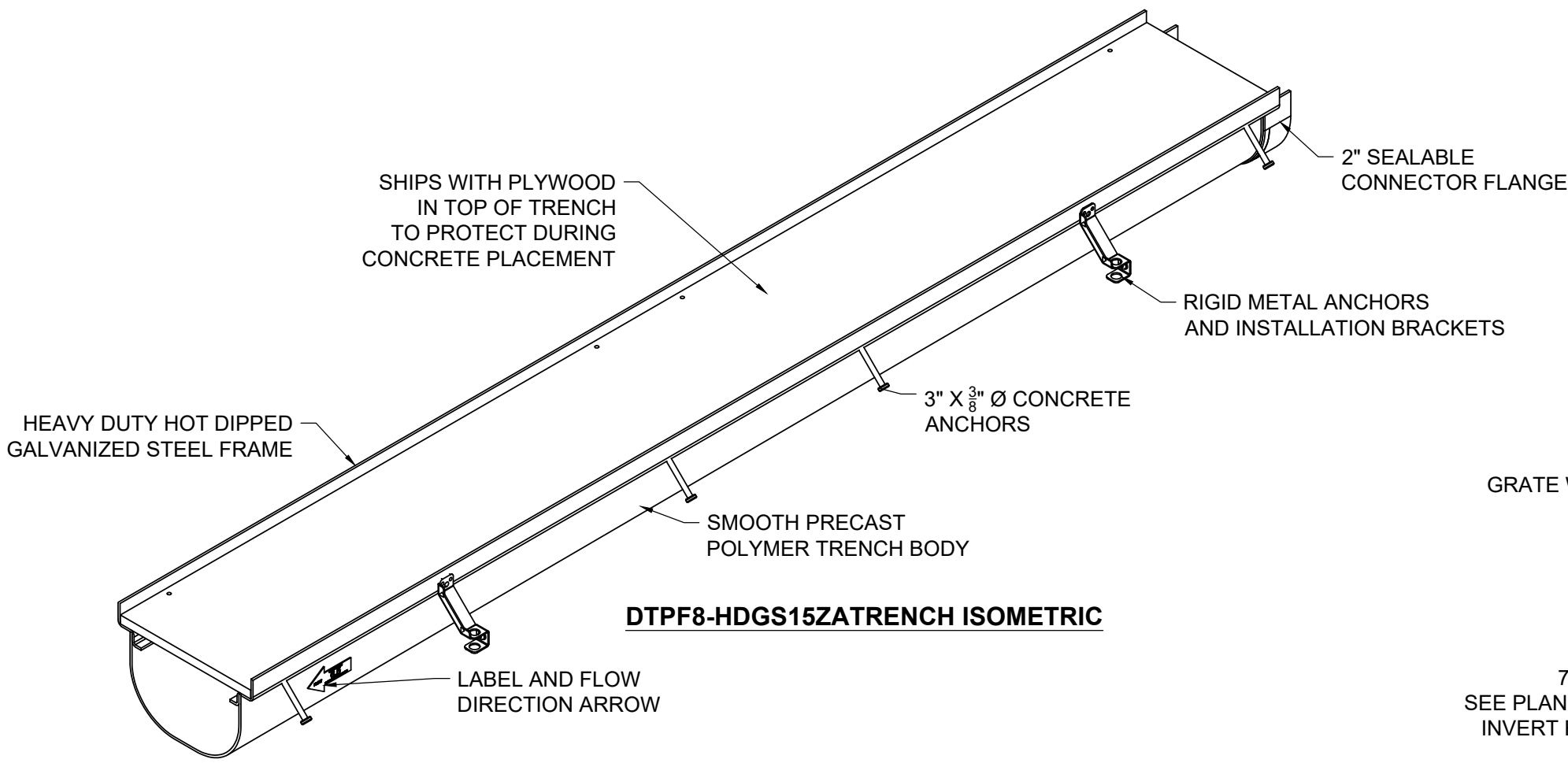
- NOTES:
1. CONCRETE SHALL HAVE EXPANSION JOINTS SAW CUT IN.
 2. EXPANSION MATERIAL SHALL BE PROVIDED WHEN ABUTTING EXISTING CONCRETE.
 3. A SMOOTH BROOM FINISH SHALL BE PROVIDED.
 4. IF UNSUITABLE SUBGRADE IS FOUND TO BE PRESENT A GEOTECHNICAL ENGINEER SHALL BE USED TO PROVIDE RECOMMENDATIONS.
 5. SAW CUT JOINTS 25% OF THE SLAB THICKNESS AT APPROXIMATELY 8' TO 12' APART AND CAULK.
 6. SUB-GRADE SHALL BE 4" OF COMPACTED SELECT FILL.
 7. COMPACT SUBGRADE AND GABC TO 95% OF MODIFIED PROCTOR.



10B24CI CAST IRON GRATE 10B24CI ISOMETRIC VIEW

DURATECH 10B24CI TRENCH DRAIN GRATE DETAIL
NOT TO SCALE

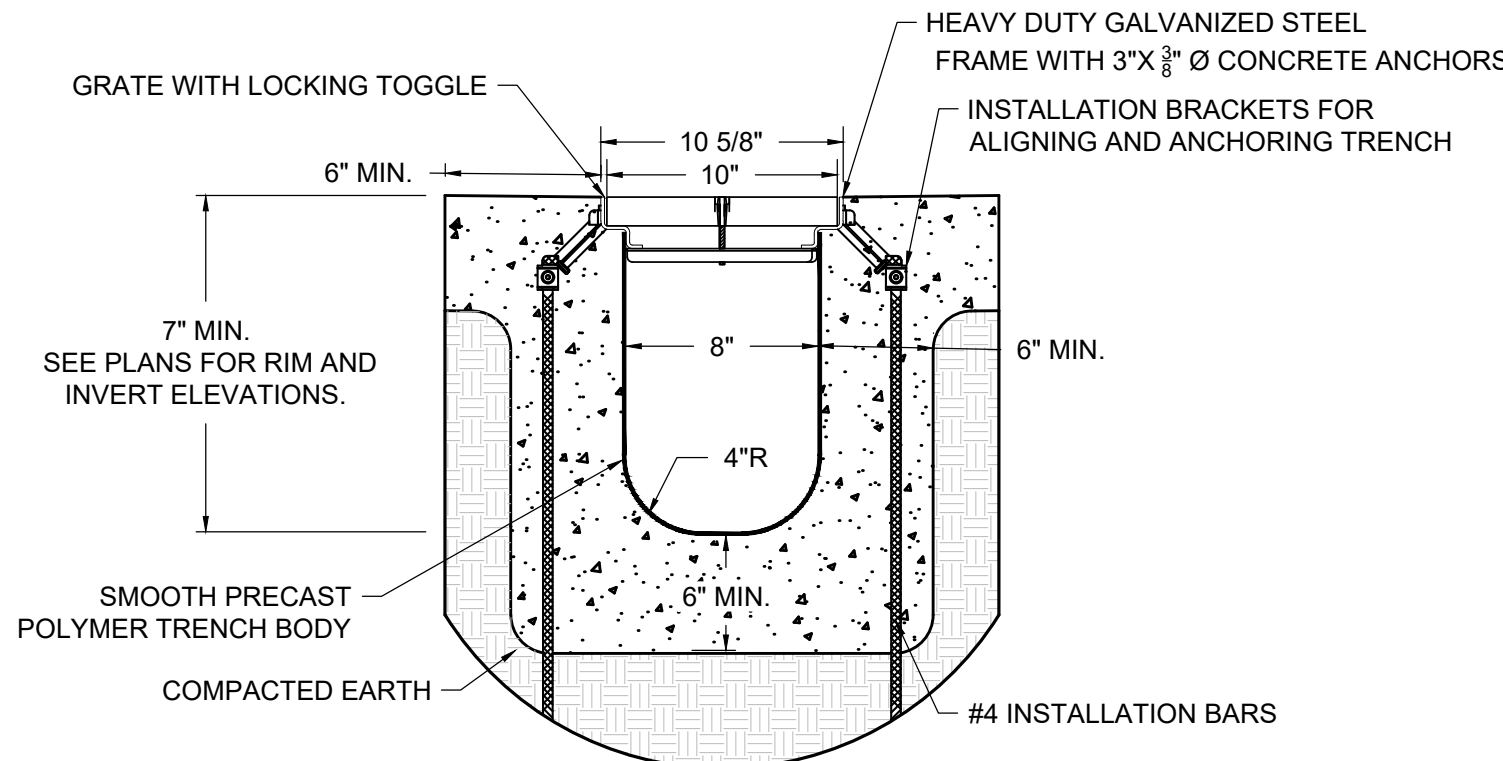
- NOTES:
1. GRATE MATERIAL IS CAST IRON, PER AASHTO M105 CLASS 35B
 2. GRATES ARE LOAD CLASS C
 3. GRATES ARE UNCOATED, AS CAST FINISH
 4. NO LOCKING DEVICES NEEDED OR SUPPLIED WITH THIS GRATE
 5. GRATE OPEN AREA 57.80 IN.²/LF



DTPF8-HDGS15ZATRENCH ISOMETRIC

STRUCTURAL NOTES

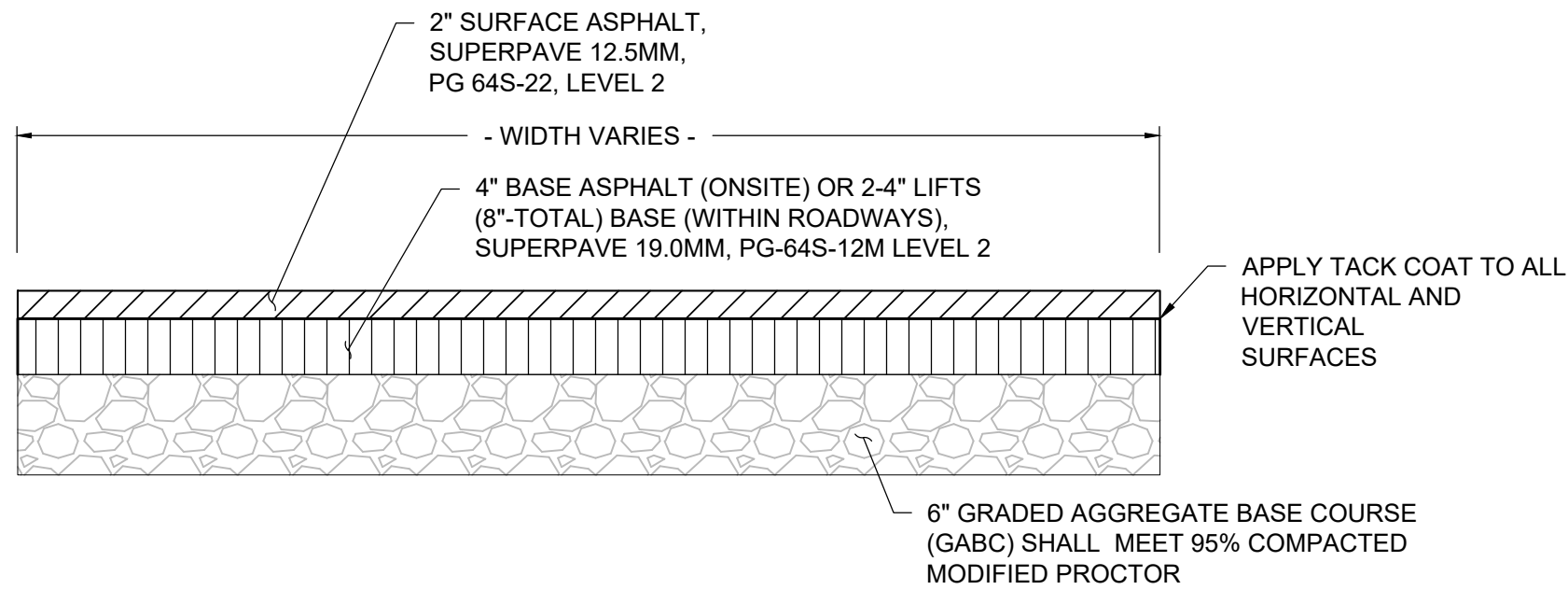
1. CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST AMERICAN CONCRETE INSTITUTE (ACI).
2. STRUCTURAL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS.
3. REINFORCING STEEL SHALL CONFORM TO ASTM DESIGNATION A-615, GRADE 60.
4. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS WHEN SPLICES, EXCEPT AS NOTED.
5. EXPOSED CORNERS SHALL BE CHAMFERED $\frac{3}{4}$ " X $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
6. ALL PENETRATIONS SHALL BE PLACED BEFORE CONCRETE IS POURED.
7. MINIMUM CONCRETE COVER FOR ALL REINFORCING IS 3", UNLESS OTHERWISE NOTED. PROVIDE 3" OF CONCRETE COVER AT BASE OF SLAB AGAINST EARTH.



- NOTES:
1. STANDARD SLOPE IS 0.5% UNLESS OTHERWISE SPECIFIED
 2. REINFORCE ACCORDING TO STRUCTURAL REQUIREMENTS
 3. TRENCH DRAIN MUST BE $\frac{1}{4}$ " BELOW FINISHED CONCRETE GRADE

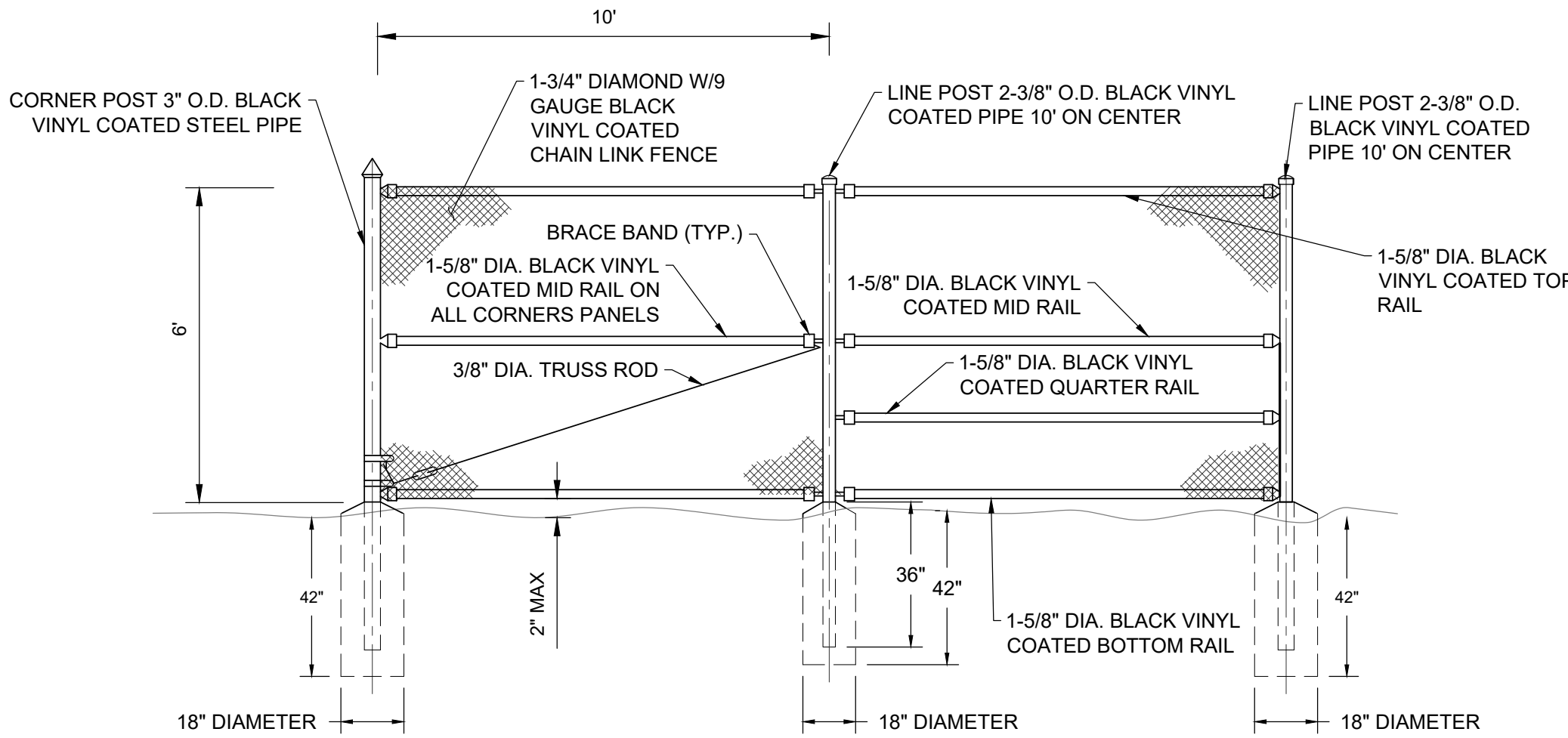
DTPF8-HDGS15ZA TRENCH SECTION

8" DURATECH DTPF8-HDGS
TRENCH DRAIN DETAIL
NOT TO SCALE



ASPHALT PAVEMENT DETAIL
NOT TO SCALE

- NOTES:
1. ASPHALT PAVEMENT SHALL ADHERE TO THE LATEST VERSION OF THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION'S CONSTRUCTION AND MATERIAL STANDARDS AND SPECIFICATIONS.
 2. SUBGRADE SOILS SHALL BE COMPACTED TO 98% OF THE MAXIMUM DRY DENSITY PER ASTM D698. UNSUITABLE SUB SOILS SHALL BE REMOVED AND REPLACED WITH APPROVED STRUCTURAL FILL.
 3. CONTRACTOR SHALL PROOF ROLL THE SUBGRADE SOIL WITH A LOADED TANDEM DUMP TRUCK OR RUBBER TIRE ROLLER WITH GROSS WEIGHT GREATER THAN 30 TONS. SUBGRADE SHALL BE APPROVED BY THE OVERSEEING GEOTECHNICAL ENGINEER PRIOR TO STONE BASE PLACEMENT.
 4. CONTRACTOR SHALL PROOF ROLL THE BASE COURSE STONE WITH A LOADED TANDEM AXEL DUMP TRUCK AND APPROVED BY THE OVERSEEING GEOTECHNICAL ENGINEER PRIOR TO ASPHALT PLACEMENT.
 5. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE. POOLING/PONDING OF WATER WILL NOT BE ACCEPTED.



CHAINLINK FENCE ELEVATION
NOT TO SCALE

- NOTES:
1. FOOTING WIDTH TO BE A MINIMUM OF (4)X POST WIDTH.
 2. ALL MATERIAL SHALL CONFORM TO FEDERAL SPECIFICATION RR-F-191G (1-25-1974).
 3. ALL FENCE COMPONENTS TO BE VINYL COATED COLOR TO BE BLACK.
 4. NO ALUMINUM FENCE TIES SHALL BE PERMITTED.
 5. THE MID AND QUARTER RAIL SHALL BE INSTALLED ON ALL FENCE PANELS AROUND THE FULL PERIMETER OF PROPOSED FENCE.
 6. FENCE POST FOOTERS SHALL BE MDOT SHA MIX NO. 3 (3,500 PSI).



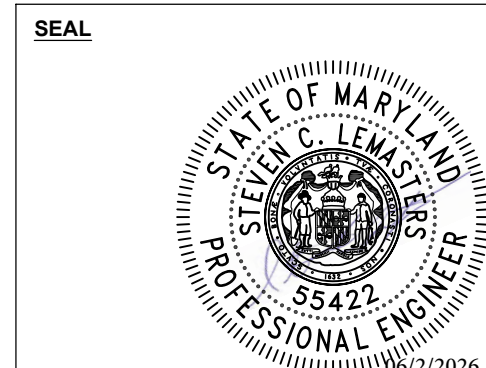
EA Engineering, Science, and
Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

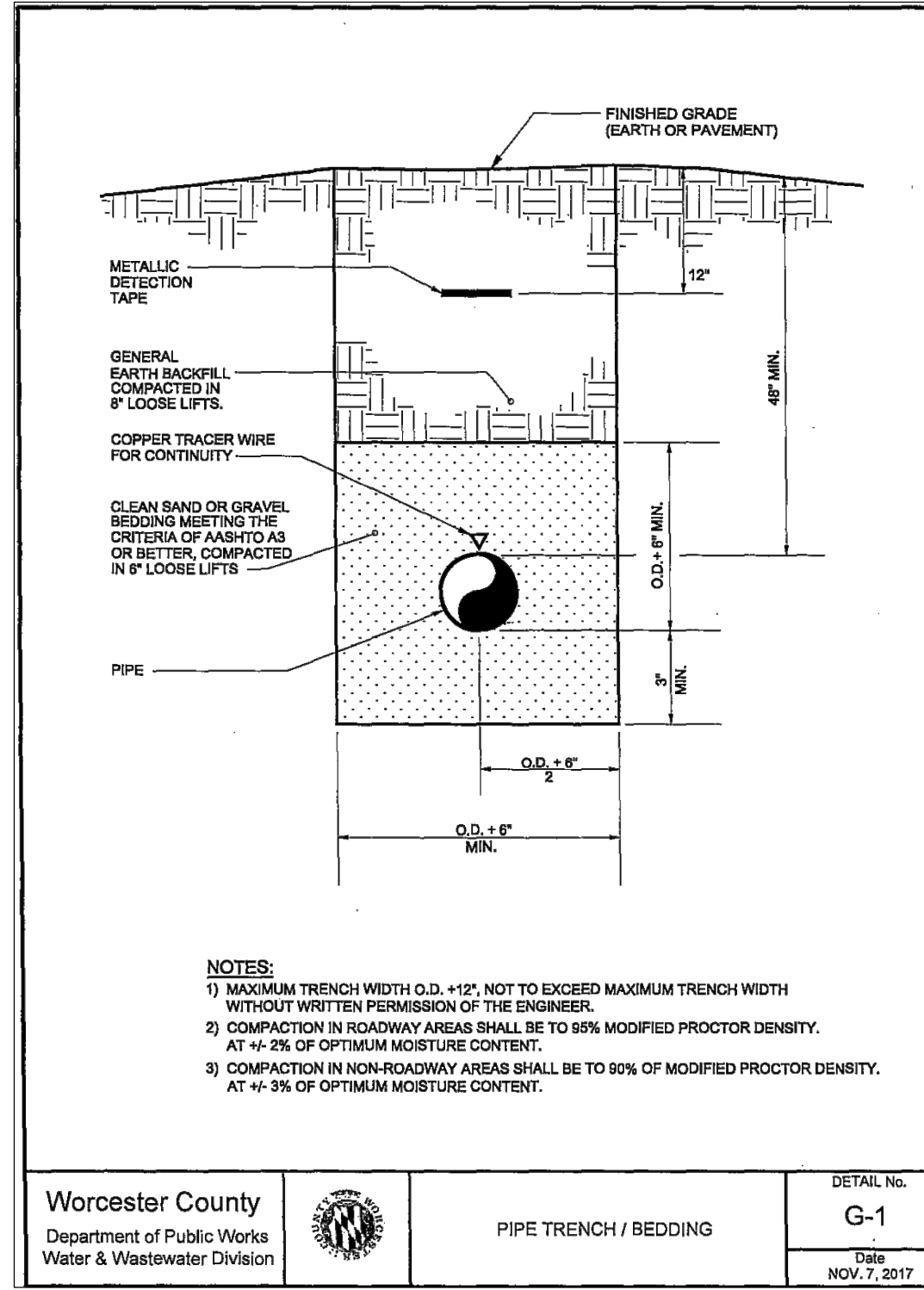
www.eaest.com

DRAWN BY: GA/SCL PROJECT NUMBER: 6424501 DESIGNED BY: GA/SCL PROJECT MANAGER: DCK

- GENERAL NOTES:
- 1) EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC'S PROJECT ROLE CONSISTED OF STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL DESIGN ONLY.
 - 2) EAS DRAWING CERTIFICATION IS ONLY INCLUSIVE OF COMPONENTS RELATED TO THE STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL DESIGN.
 - 3) EXISTING CONDITIONS AND PROPOSED BIO-SOLIDS PROJECT DESIGN COMPONENTS WERE PROVIDED TO EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC BY DAVIS BOWEN & FRIEDEL, INC. FOR USE IN THE DESIGN OF THE STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL.

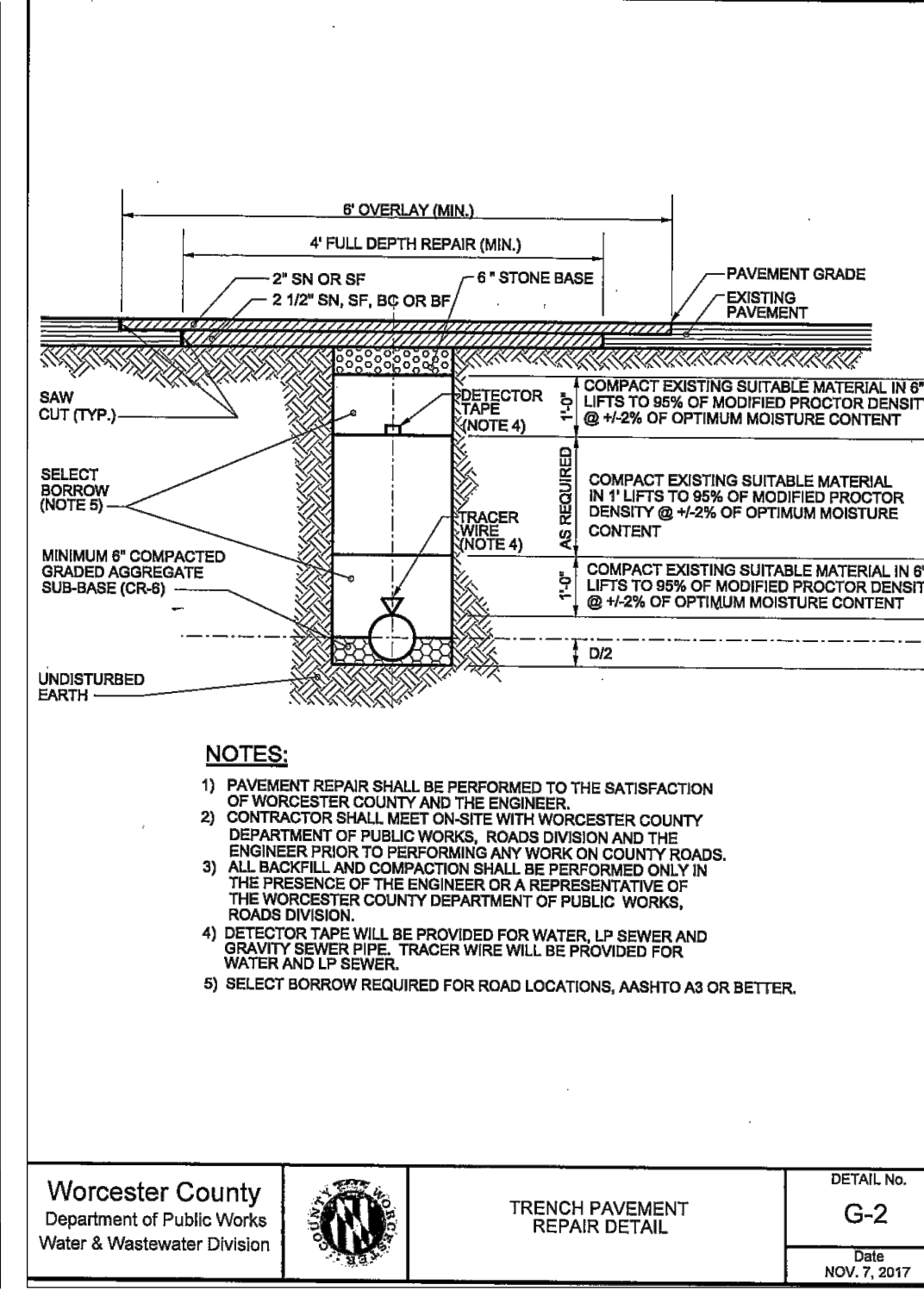


PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 55422 EXPIRATION DATE: DECEMBER 16, 2027



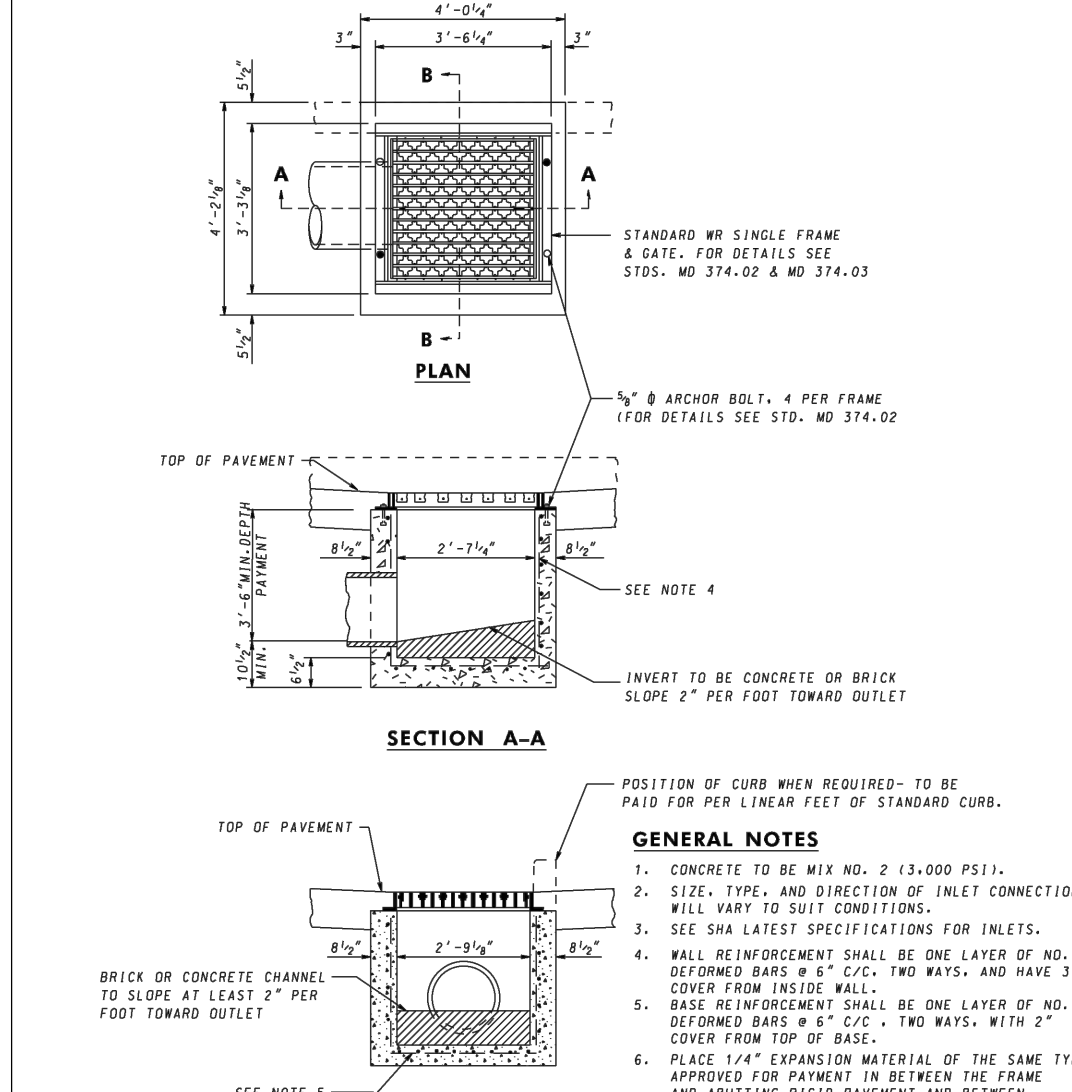
- NOTES:
- 1) MAXIMUM TRENCH WIDTH O.D. +12" NOT TO EXCEED MAXIMUM TRENCH WIDTH WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
 - 2) COMPACTION IN ROADWAY AREAS SHALL BE TO 95% MODIFIED PROCTOR DENSITY. AT 4-2% OF OPTIMUM MOISTURE CONTENT.
 - 3) COMPACTION IN NON-ROADWAY AREAS SHALL BE TO 90% OF MODIFIED PROCTOR DENSITY. AT 4-3% OF OPTIMUM MOISTURE CONTENT.

Worcester County Department of Public Works Water & Wastewater Division	PIPE TRENCH / BEDDING	DETAIL No. G-1 Date NOV. 7, 2017
---	-----------------------	---



- NOTES:
- 1) PAVEMENT REPAIR SHALL BE PERFORMED TO THE SATISFACTION OF WORCESTER COUNTY AND THE ENGINEER.
 - 2) CONTRACTOR SHALL MEET ON-SITE WITH WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS, ROADS DIVISION AND THE ENGINEER PRIOR TO PERFORMING ANY WORK ON COUNTY ROADS.
 - 3) ALL BACKFILL AND COMPACTION SHALL BE PROVIDED ONLY IN THE PRESENCE OF THE ENGINEER OR A REPRESENTATIVE OF THE WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS, ROADS DIVISION.
 - 4) DETECTOR TAPE WILL BE PROVIDED FOR WATER, LP SEWER AND GRAVITY SEWER PIPE. TRACER WIRE WILL BE PROVIDED FOR WATER AND LP SEWER.
 - 5) SELECT BORROW REQUIRED FOR ROAD LOCATIONS, AASHTO A3 OR BETTER.

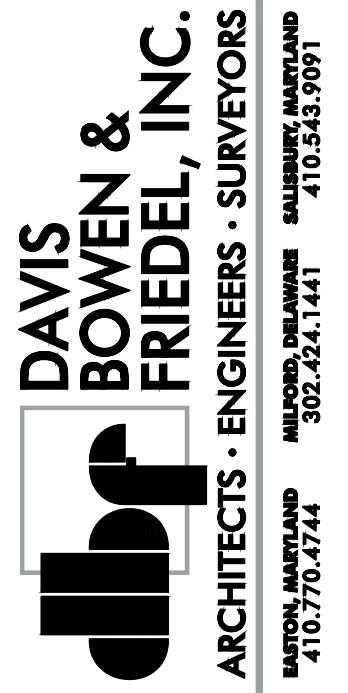
Worcester County Department of Public Works Water & Wastewater Division	TRENCH PAVEMENT REPAIR DETAIL	DETAIL No. G-2 Date NOV. 7, 2017
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- GENERAL NOTES:
1. CONCRETE TO BE MIX NO. 2 (3,500 PSI).
 2. SIZE, TYPE, AND DIRECTION OF INLET CONNECTION WILL VARY TO SUIT CONDITIONS.
 3. SEE SHA LATEST SPECIFICATIONS FOR INLETS.
 4. WALL REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 8" C/C - TWO WAYS, AND HAVE 3-4" COVER FROM INSIDE WALL.
 5. BASE REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 8" C/C - TWO WAYS, WITH 2" COVER FROM TOP OF BASE.
 6. PLACE 1/4" EXPANSION MATERIAL OF THE SAME TYPE APPROVED FOR PAVEMENT IN BETWEEN THE FRAME AND ADJUTING INLETS PAVEMENT AND BETWEEN ENDS OF INLET CURB AND NORMAL CURB.
 7. BRICK FOR MASONRY TO COMPLY WITH THE SHA SPECIFICATION.
 8. FOR UNDEPRESSED INLETS USE NORMAL PAVEMENT SLOPE.
 9. LAUNDER PIPES SHALL BE IN ACCORDANCE WITH STD NO. 383-91 AND NO. 383-92 OR AS DIRECTED BY THE ENGINEER.
 10. FROM THE CURB LINE, INLET HAS BEEN DESIGNED FOR NO-25 LOADING ACCORDING TO AASHTO LOPS BRIDGE DESIGN SPECIFICATIONS AND FOR A MAXIMUM DEPTH OF 15'-0".

SPECIFICATION 305	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED	DIRECTOR - "OFFICE OF HIGHWAY DEVELOPMENT"	SINGLE WR INLET
SHA State Highway	APPROVAL - SHA REVISION APPROVAL - FEDERAL REVISION APPROVAL - S-5-75 REVISION APPROVAL - S-22-72 REVISION APPROVAL - S-22-88 REVISION APPROVAL - S-22-14	STANDARD NO. MD 374.06

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland. License No. 31100. Expiration Date: 01/21/27



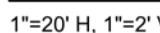
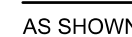
OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND

Date: JANUARY 2026
Scale: AS SHOWN
Dwn By: PLB
Proj No.: 0085D027

PROPOSED
SITE AND
STORMWATER
MANAGEMENT
DETAILS

Dwg No.:

C-503

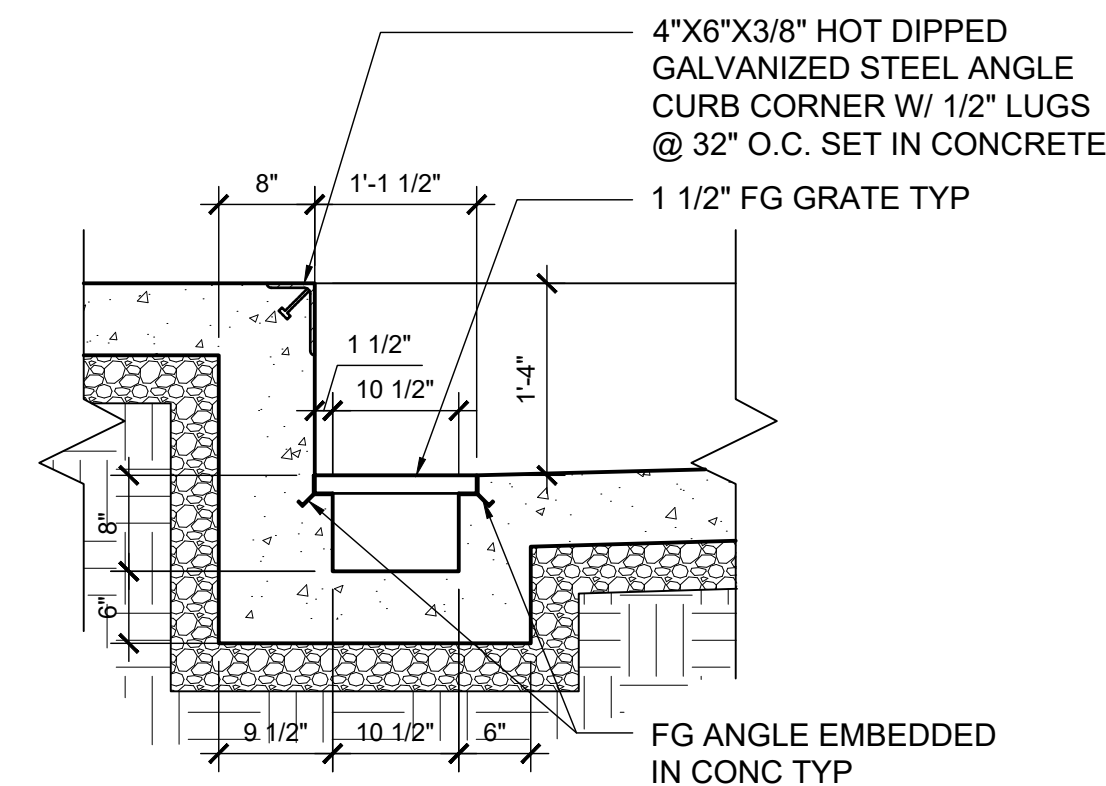


1. CONTRACTOR TO TEST PIT AND CONFIRM LOCATION DEPTH OF EXISTING UTILITIES

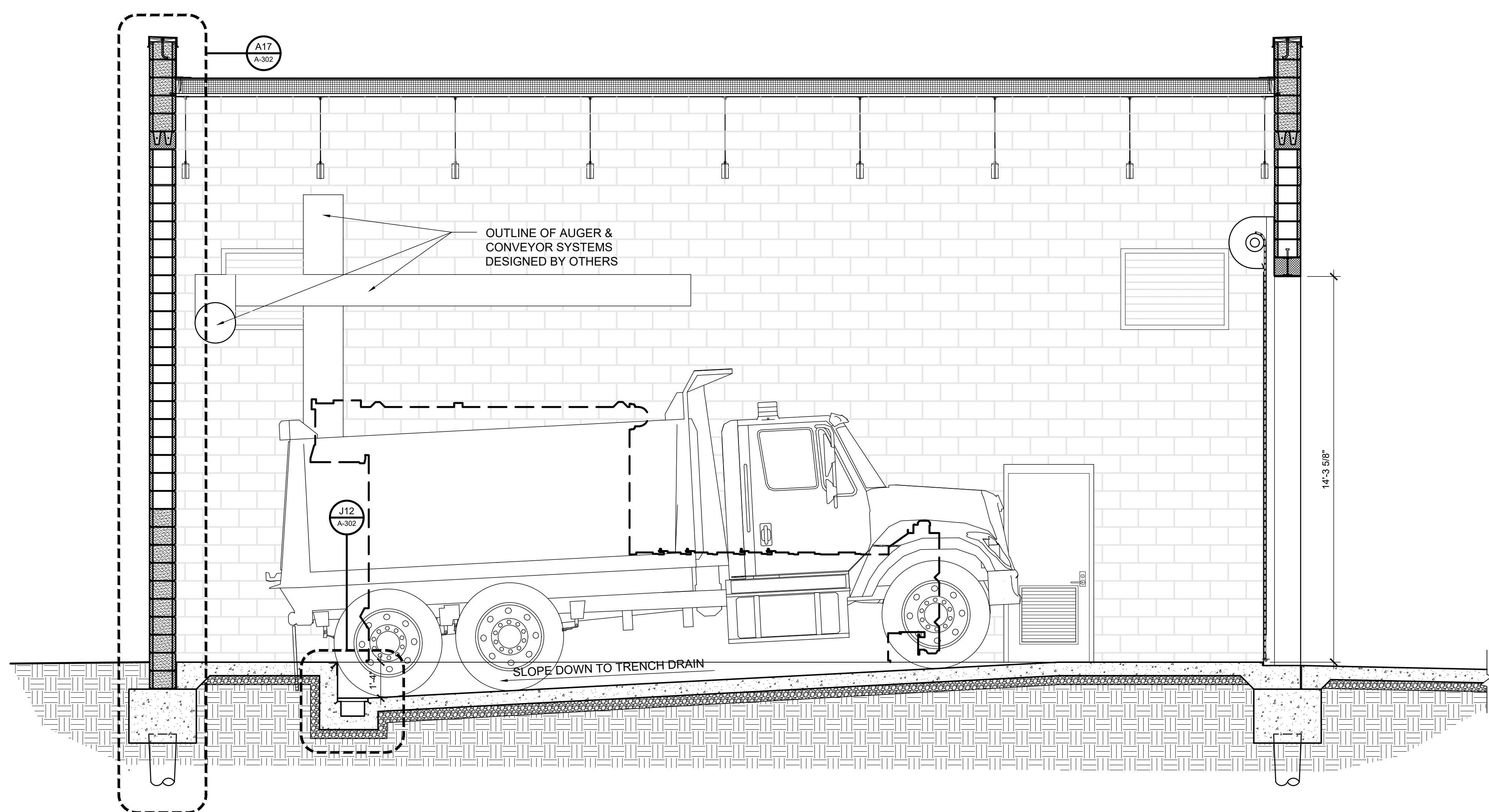


g.No.:

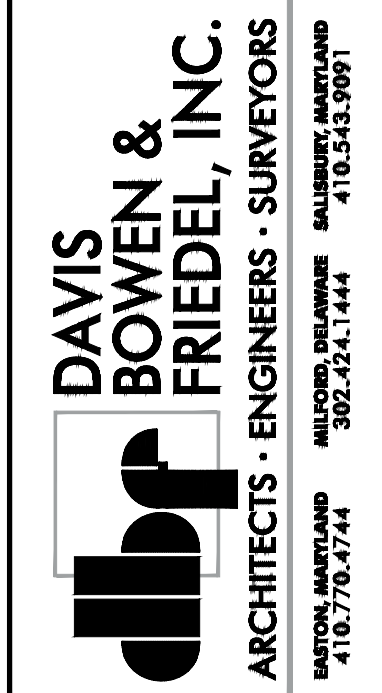
C-506



J12 TRENCH DRAIN DET
3/4" = 1'-0"



A17 **TYP WALL DETAIL**
3/4" = 1'-0"

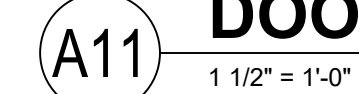
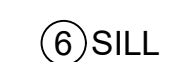
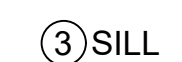
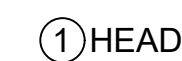


**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

[illegible]

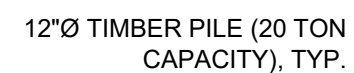
WALL SECTION & DETAILS

Dwg.No.:
A-302

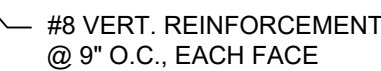




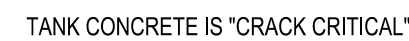
THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC. AND SHALL NOT BE ALTERED OR REUSED WITHOUT WRITTEN PERMISSION. COPYRIGHT © 2021



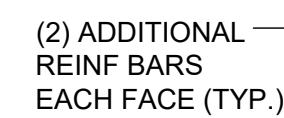
1/4"=1'-0"



3/4"=1'-0"

 $1/2"=1'-0"$ 

N.T.S.



N.T.S.

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland. License No. 62936 Expiration Date: 05-12-2016



OCEAN PINES BIOSOLIDS

COMMENTSDATE _____Date: JANUARY 2026AS NOTEDProj No :

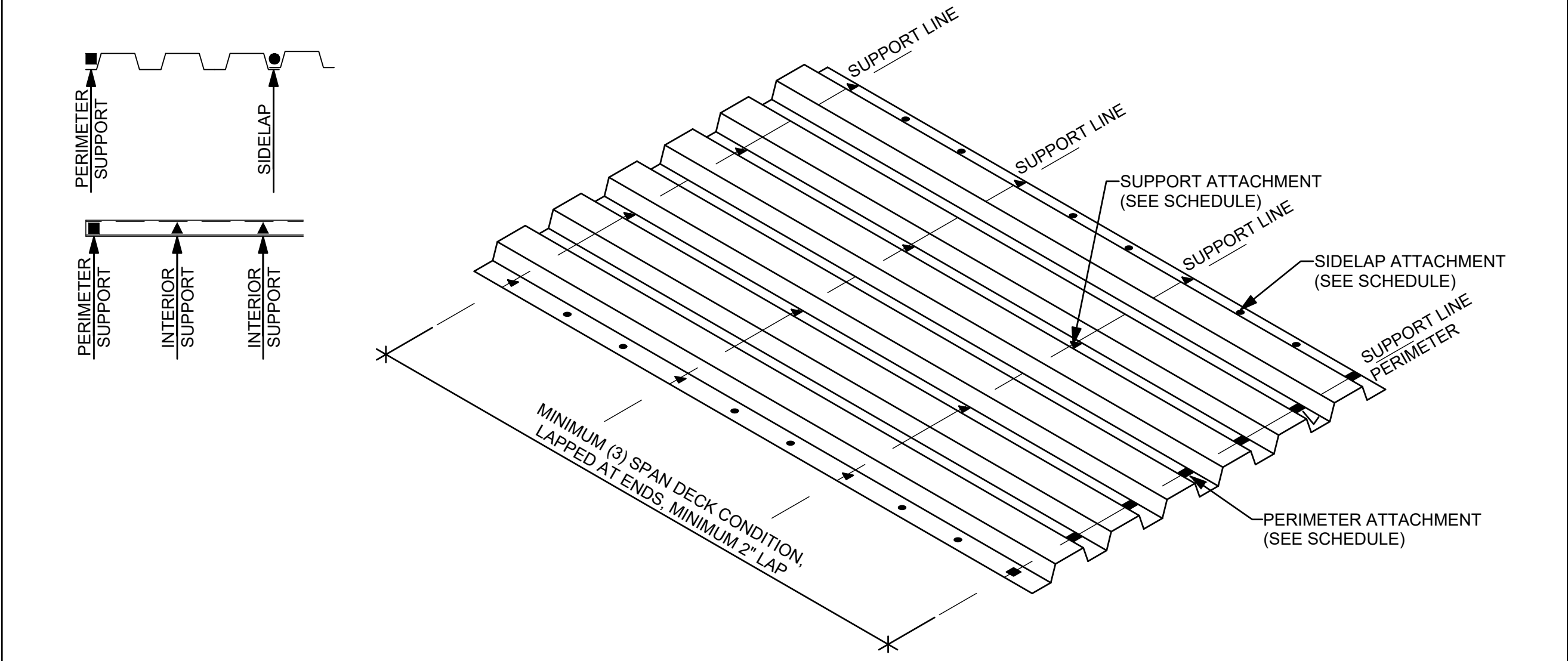
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**SLUDGE
STORAGE
TANK**

S-103

METAL DECKING SCHEDULE						
ROOF		METAL DECK ATTACHMENT				
		MARK	TYPE	SUPPORT ATTACHMENT 	PERIMETER ATTACHMENT 	SIDLAP ATTACHMENT
MARK	D1	D1	1.5B20	HILTI X-ENP19 PAF @ 36/4	HILTI X-ENP19 PAF @ 36/4	(6) #10 TEK (EACH SPAN)
TYPE	1.5B20					
DEPTH (in)	1-1/2"					
PROFILE	WIDE RIB	ATTACHMENT PATTERN				
GAUGE	20	36 / 4				
F _y (ksi)	50					
MATERIAL	ASTM A653					
FINISH	GALV. 90 / PAINTED					
I _p (in ⁴ /ft)	0.197					
I _x (in ⁴ /ft)	0.217					
S _x (in ³ /ft)	0.224					
S _y (in ³ /ft)	0.229	NOTES:				
V _r (lbs/ft)	3207	• METAL DECK SHALL BE CONTINUOUS OVER 3 SPANS (MINIMUM) UNLESS NOTED OTHERWISE.				
MISC.	N/A	• METAL DECK SHALL LAP 2" (MINIMUM).				

DECKING ATTACHMENT DETAIL



MASONRY WALL WALL OPENING SCHEDULE

TYPICAL WALL REINFORCEMENT

LINTEL (SEE SCHEDULE)

VERTICAL REINFORCEMENT (SEE SCHEDULE)

SILL (SEE SCHEDULE)

NOTE:
SEE TYPICAL MASONRY DETAILS & TYPICAL REINFORCEMENT LAP SPICE SCHEDULE

8"x8" 8"x16" 8"x24" 8"x32"

LINTEL & SILL REINF. LAYOUT

(1) VERTICAL BAR

(2) VERTICAL BARS

(4) VERTICAL BARS

(6) VERTICAL BARS

(8) VERTICAL BARS

VERTICAL REINFORCEMENT LAYOUT

MARK	LINTEL	SILL	VERTICAL REINF.
MO-1	12"x8" BOND BEAM w/ (1) #8 CONT. (BOTTOM)	N/A	8"x8" GROUT SOLID w/ (2) #8 VERT.
MO-2	12"x32" BOND BEAM w/ (8) #8 CONT.	N/A	12"x24" GROUT SOLID w/ (6) #8 VERT.
MO-3	12"x8" BOND BEAM w/ (1) #8 CONT. (BOTTOM)	12"x8" BOND BEAM w/ (1) #8 CONT. (BOTTOM)	8"x8" GROUT SOLID w/ (2) #8 VERT.

JOIST LOADING DIAGRAM

SLIDING/DRIFT SNOW
(SEE "SNOW DRIFT &
SLIDING SNOW DIAGRAM")

ADDITIONAL LOAD
(SEE "ROOF
FRAMING PLAN")

UNIFORM LOADS
(SEE JOIST SCHEDULE)

W

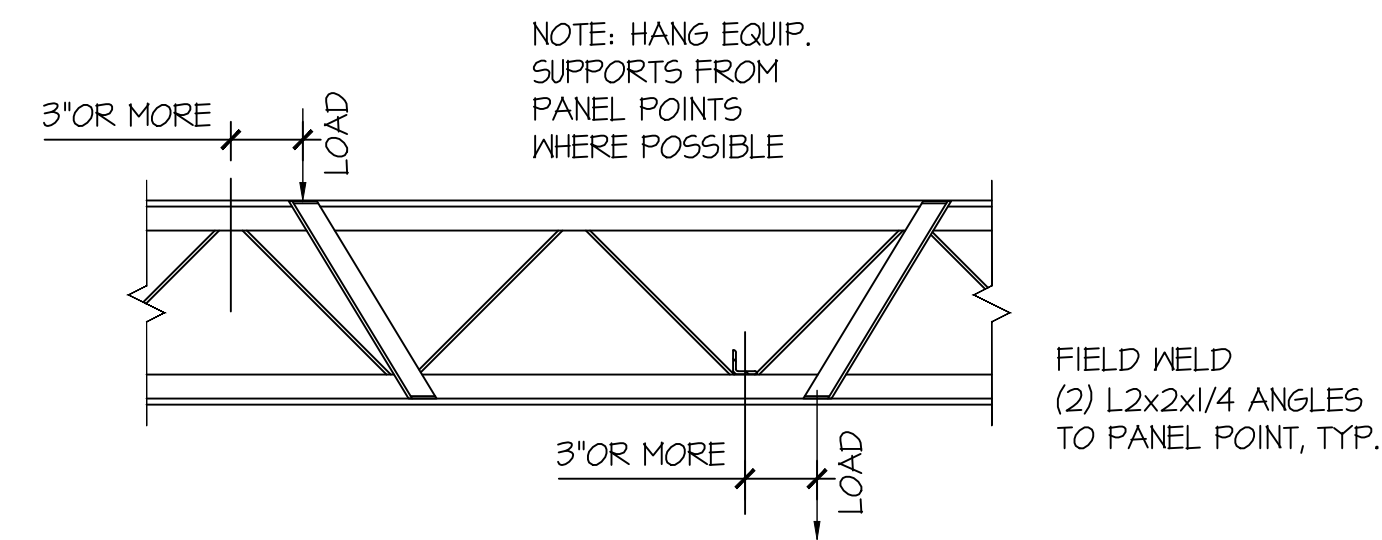
Pd

JOIST SCHEDULE	
----------------	--

MARK	SJI SERIES	MAX. JOIST DEPTH	SEAT DEPTH	UNIFORM LOADS (PLF)			TOTAL LOAD DEFLECTION
				DEAD LOAD (DL)	LIVE LOAD (RLL,LL)	SNOW LOAD (SL)	
J1	K	30"	5"	100	125	150	L/240
J2	K	30	5"	100	125	150	L/480

The diagram illustrates a joint reinforcement ladder, which is a precast concrete structure used for reinforcing walls. It consists of a series of rectangular sections connected by joints. The reinforcement is provided by continuous horizontal reinforcement bars, side rods, and cross rods. The diagram shows the ladder in a perspective view, with arrows indicating the direction of reinforcement.

FINISH	HOT-DIP GALVANIZED
SIDE ROD (DIAMETER & MATERIAL)	9 GAUGE
CROSS ROD (DIAMETER & MATERIAL)	9 GAUGE
VERTICAL SPACING	16" O.C.
	8" O.C. (BELOW GRADE)



D13 **TYPICAL JOIST REINFORCEMENT**

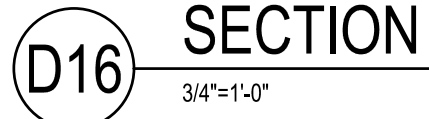
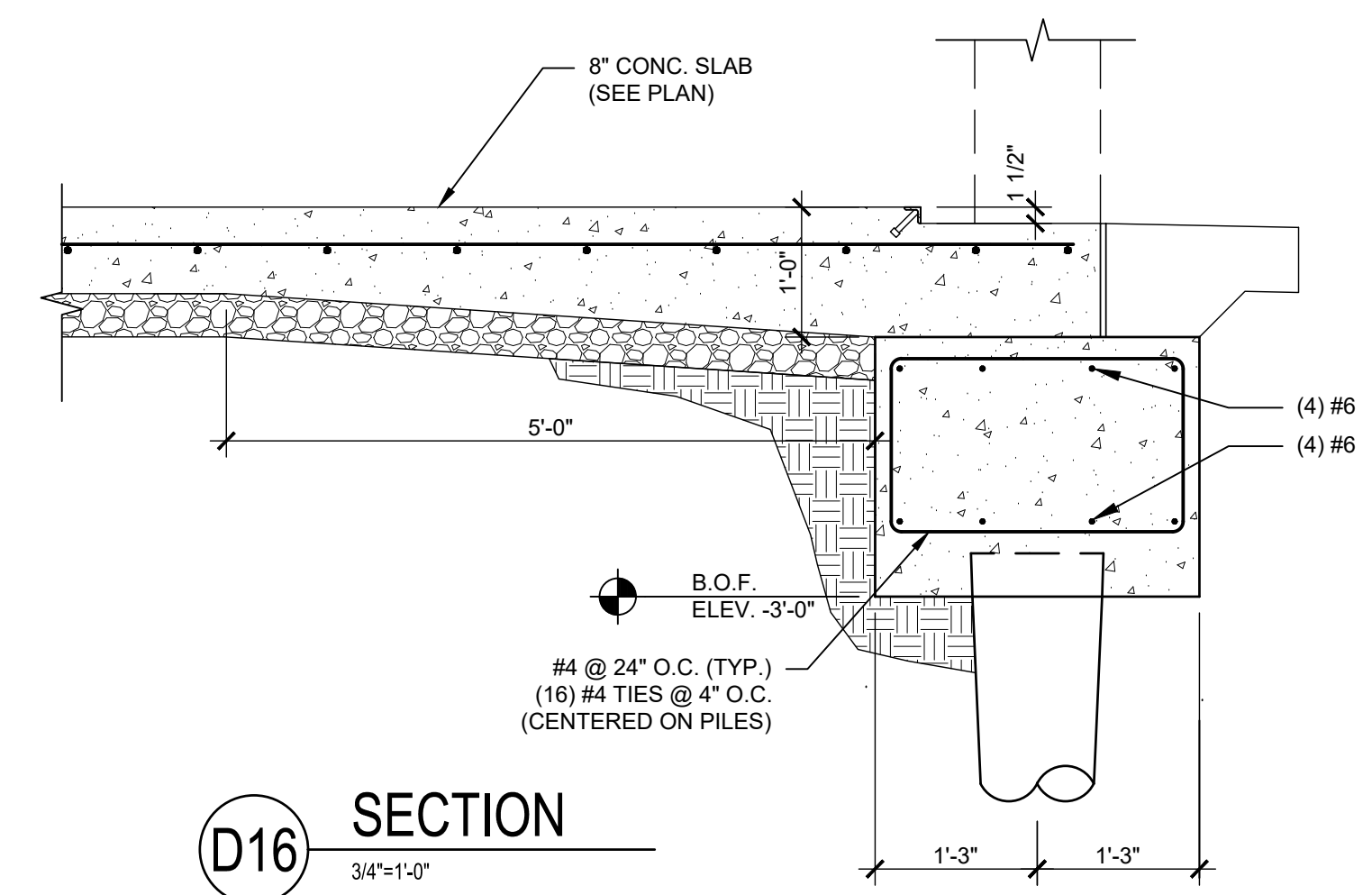
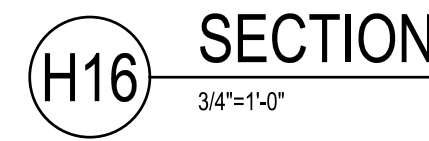
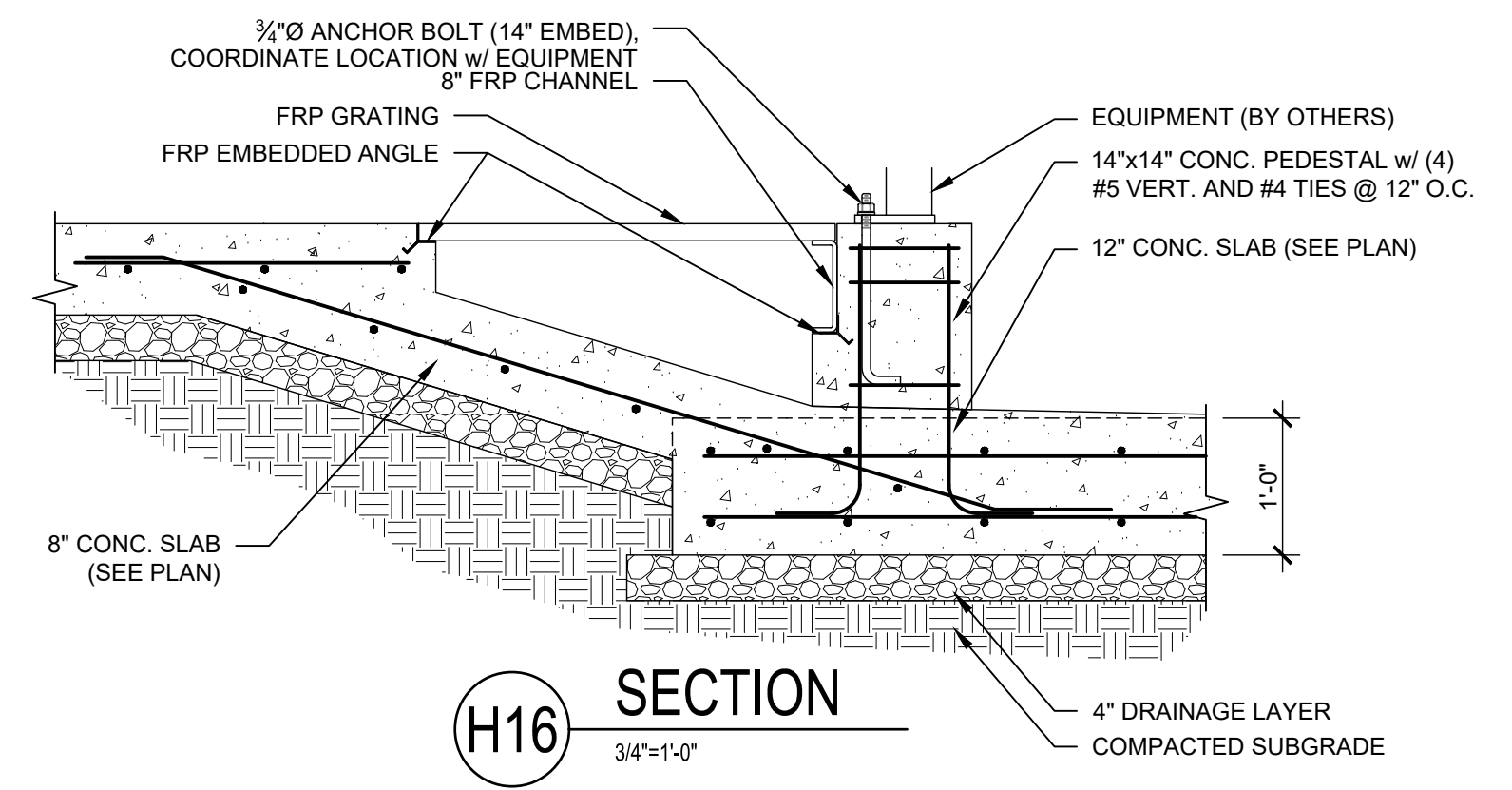
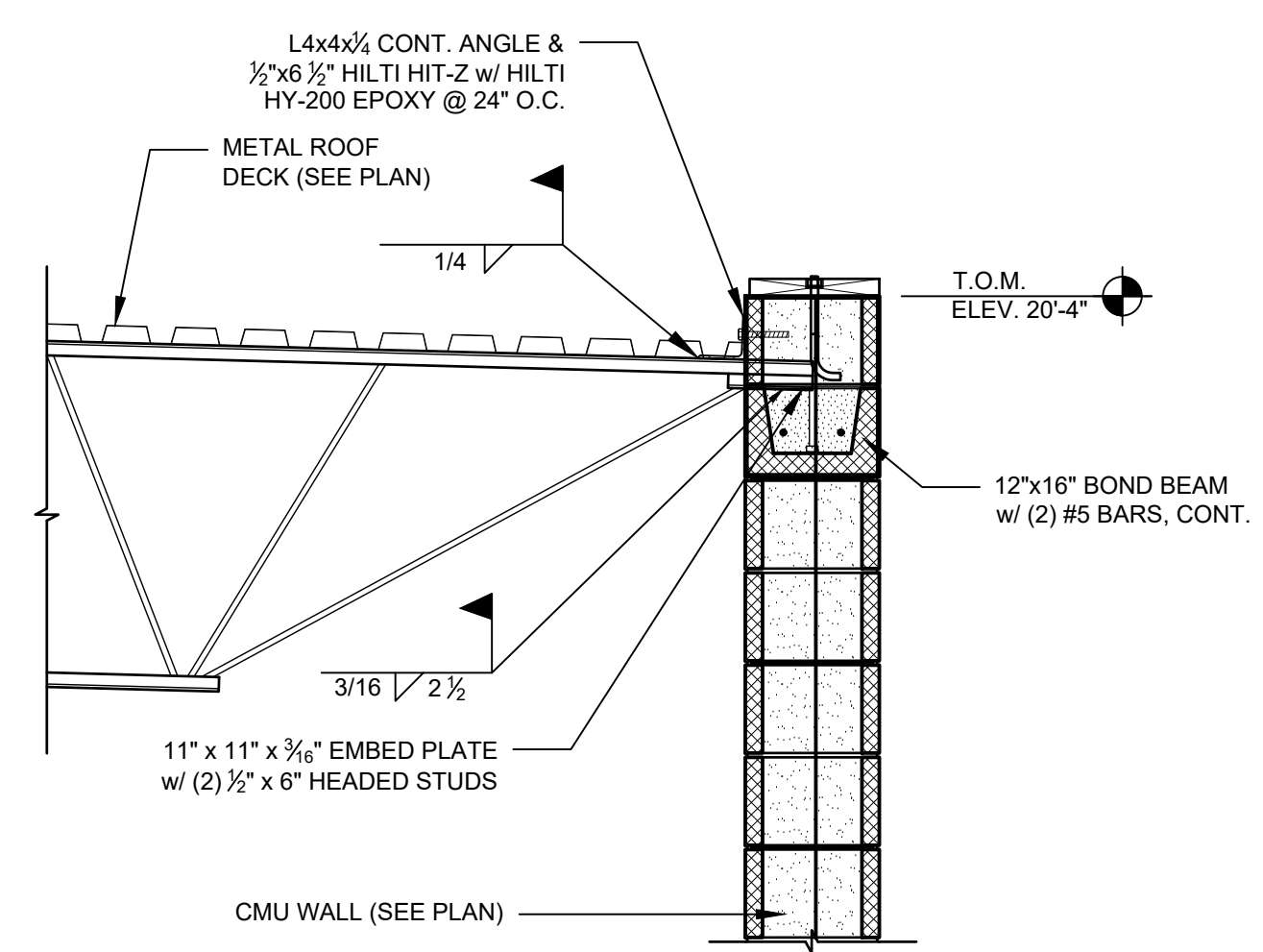
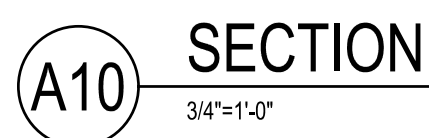
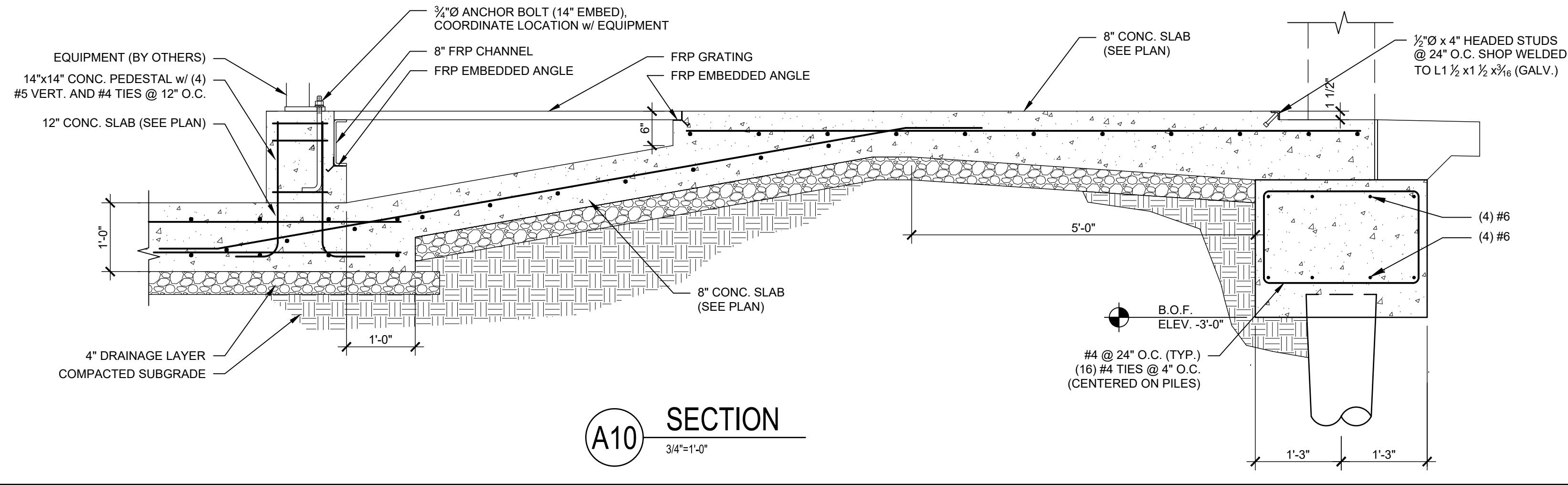
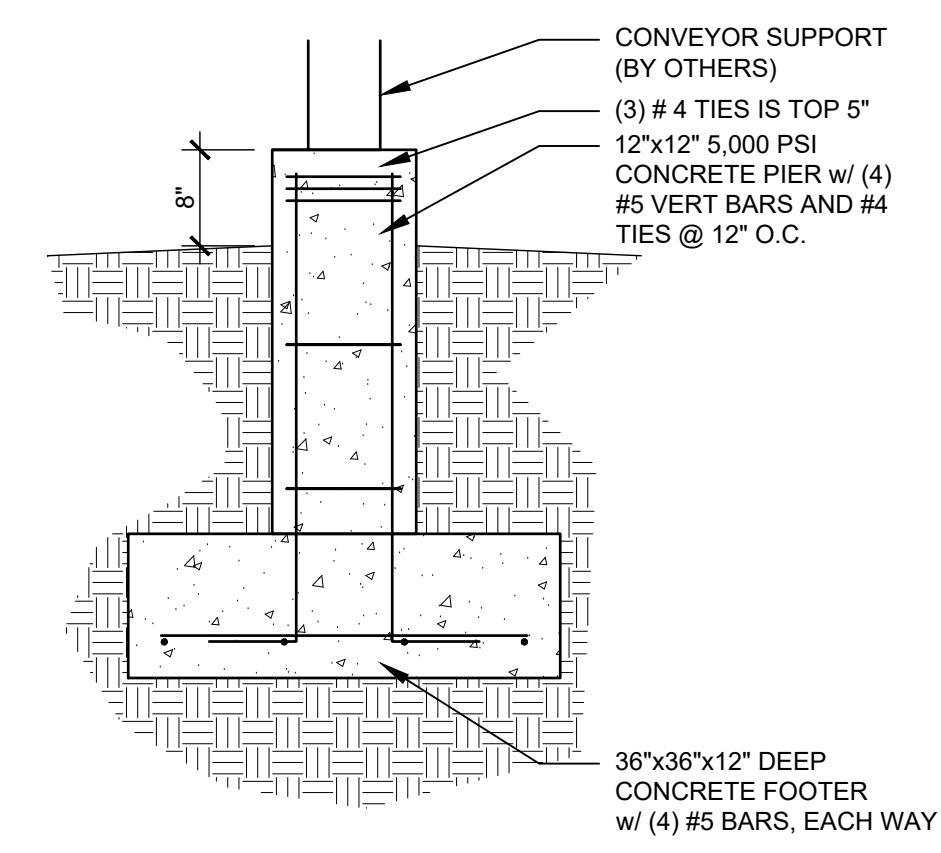
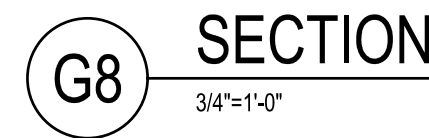
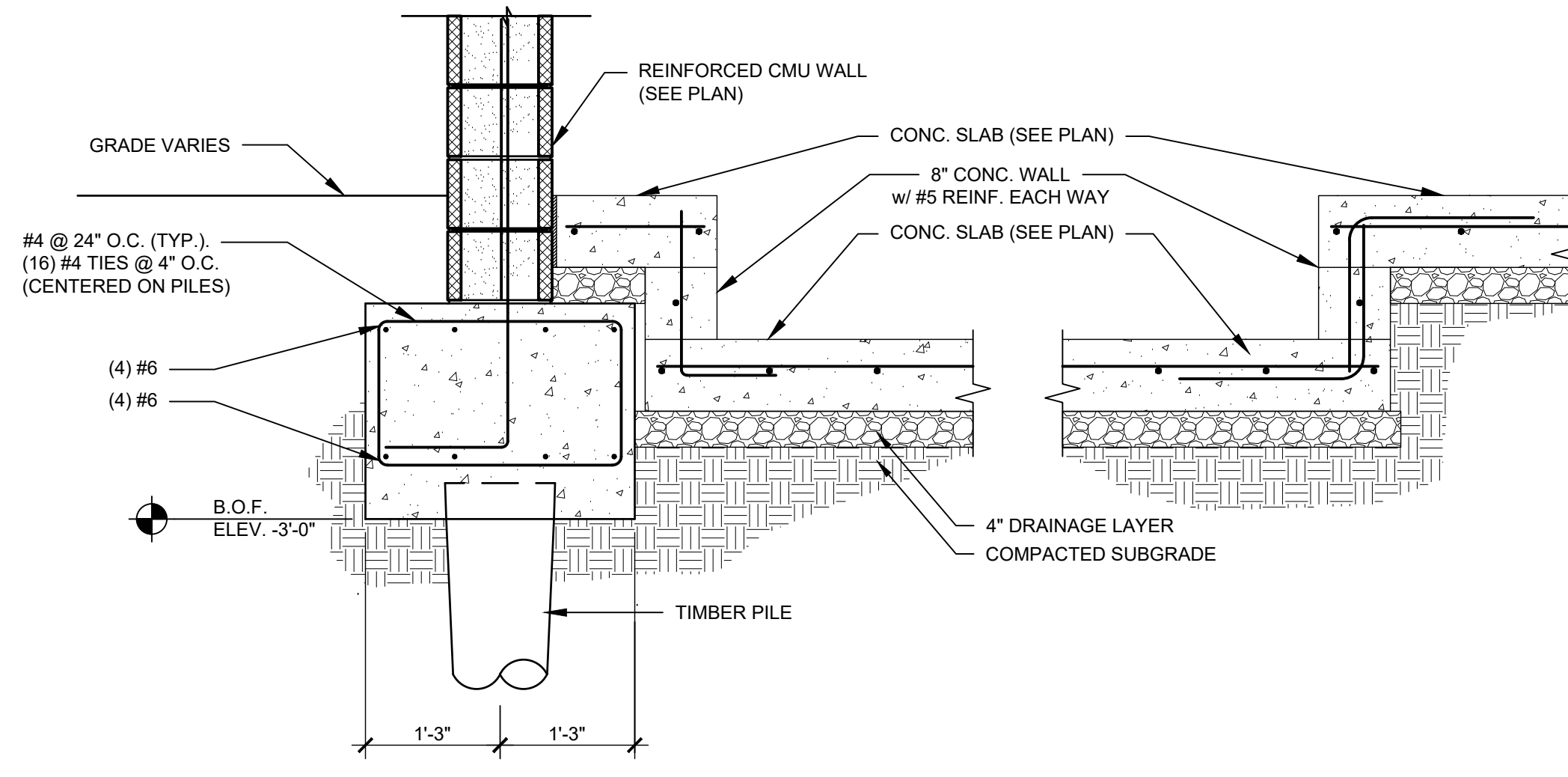
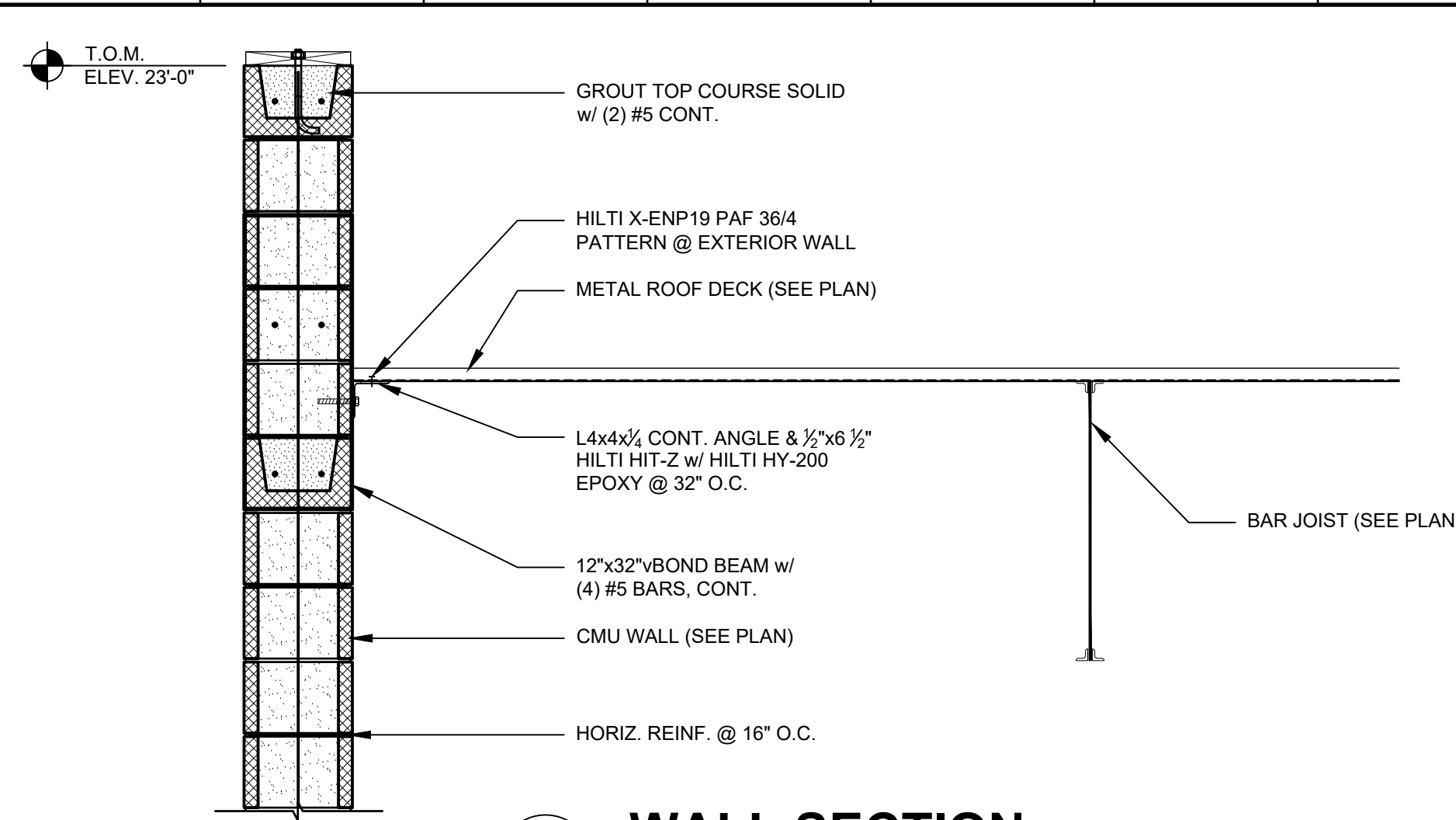
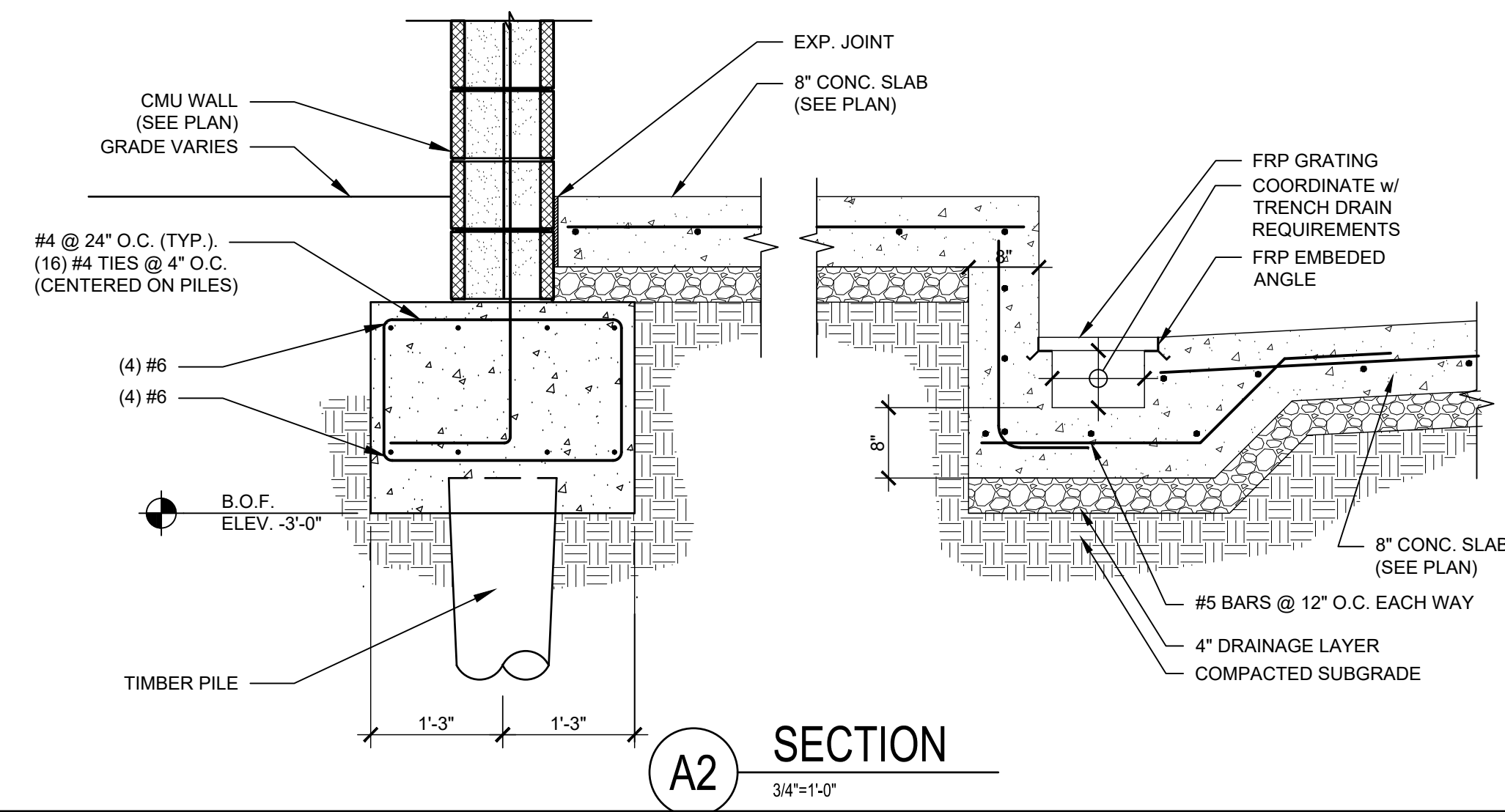
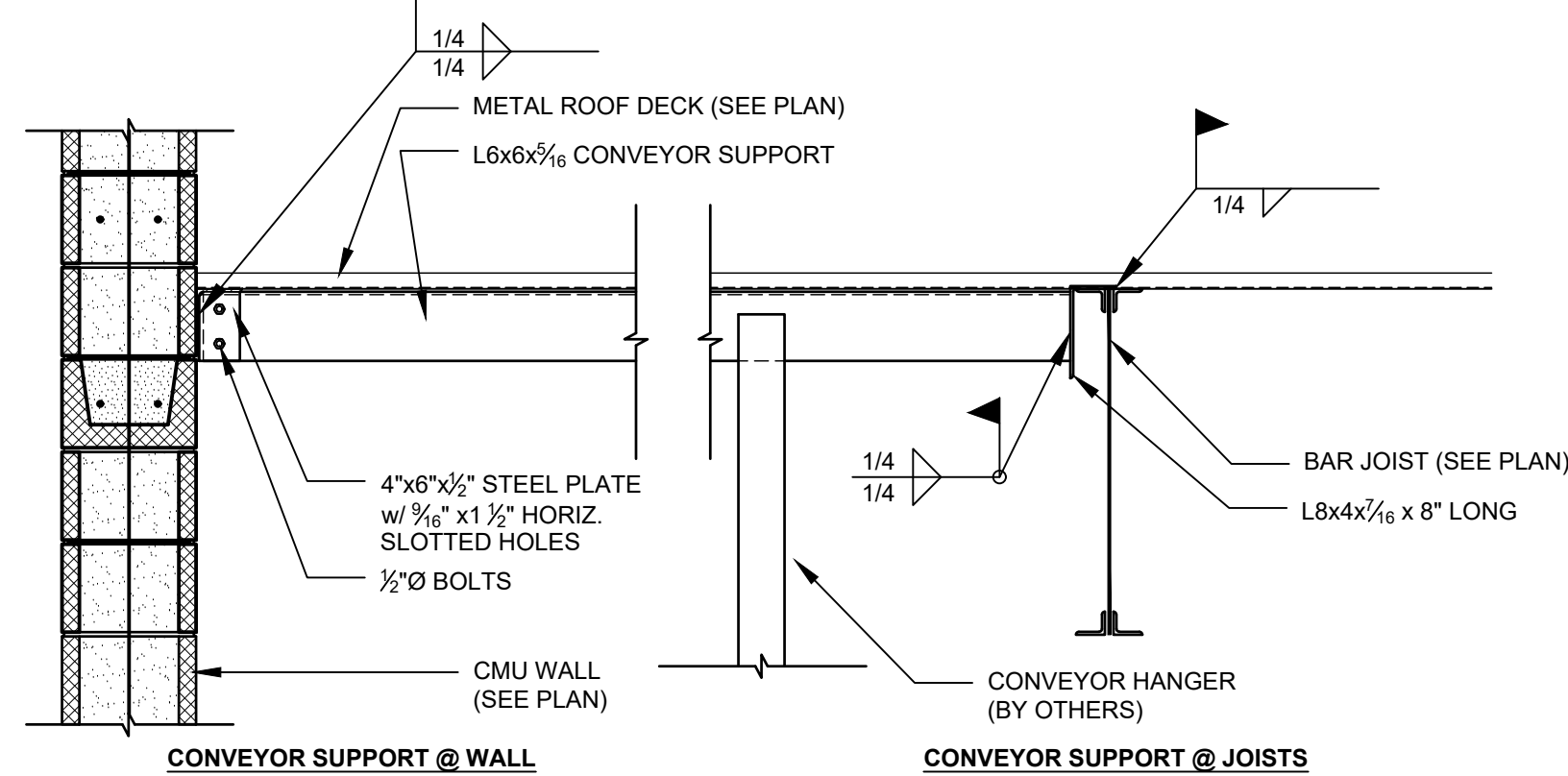
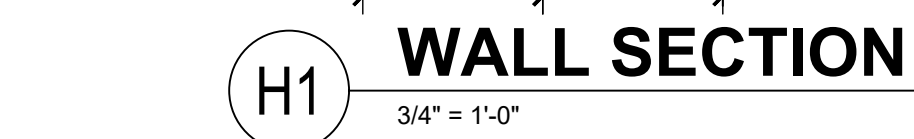
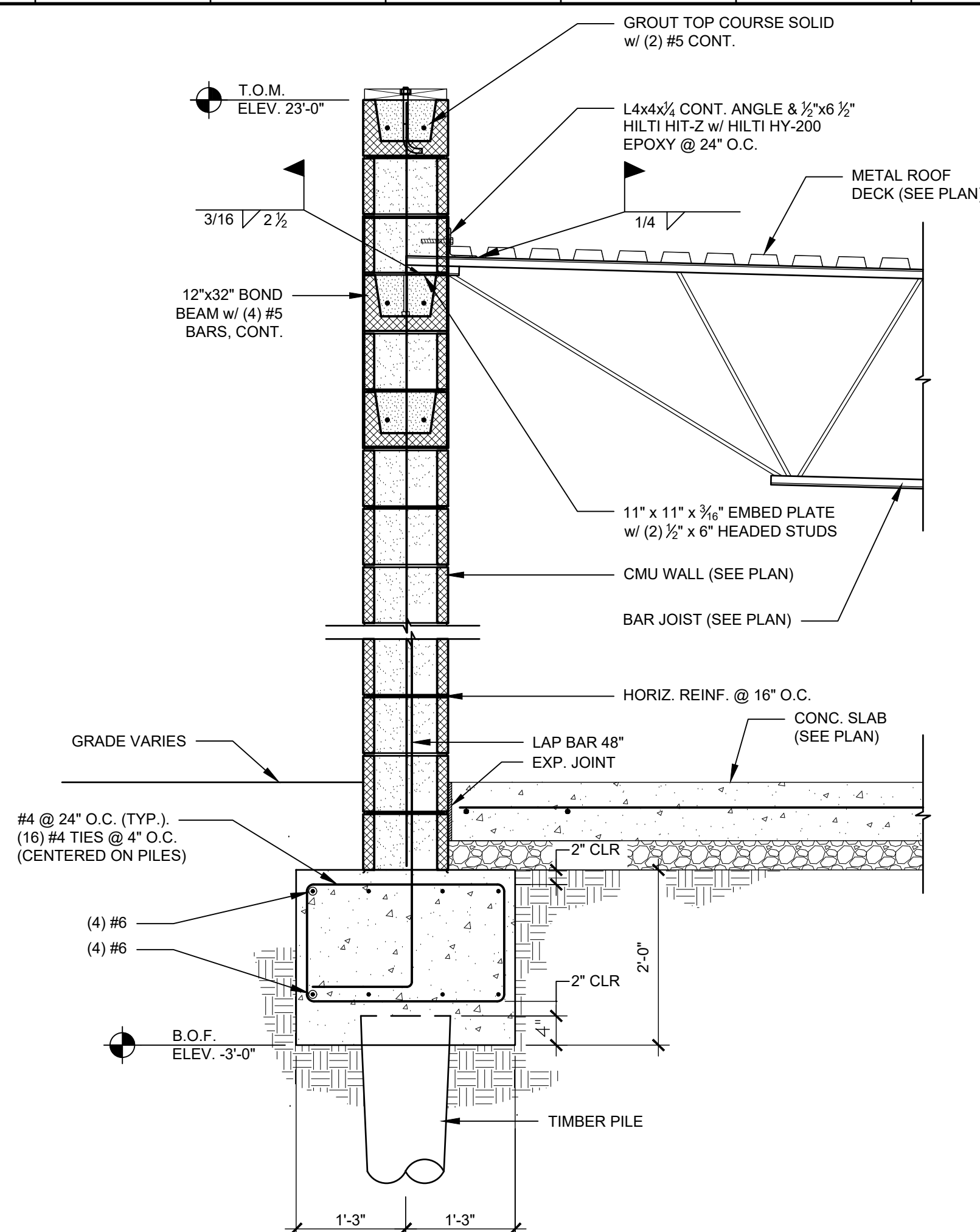
(D12) $3/4" = 1'-0"$

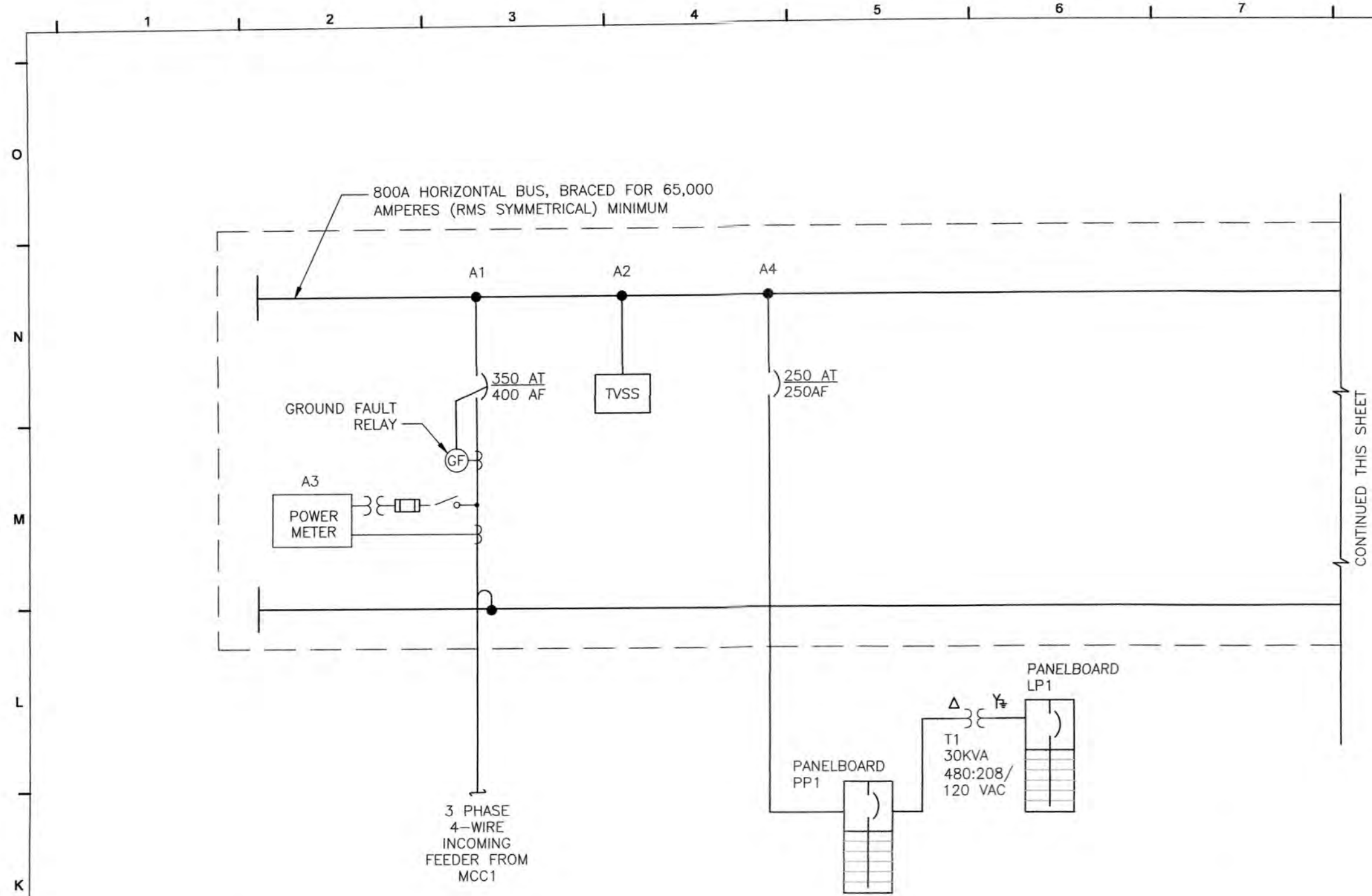
Diagram illustrating a sliding and drifting snow diagram. The diagram shows a rectangular area with a width of 5'-0" and a height of 5'-0". The area is divided into two sections: a top section labeled ① and a bottom section labeled ②. The top section is shaded with a stippled pattern, and the bottom section is also shaded with a stippled pattern. The dimensions are indicated by arrows and text labels.

ADDITIONAL SNOW DRIFT					
SCHEDULE SNOW DRIFT AREA					
	①	②			
ρ_s	22 PSF	5 PSF			
W	5'-0"	3'-0"			

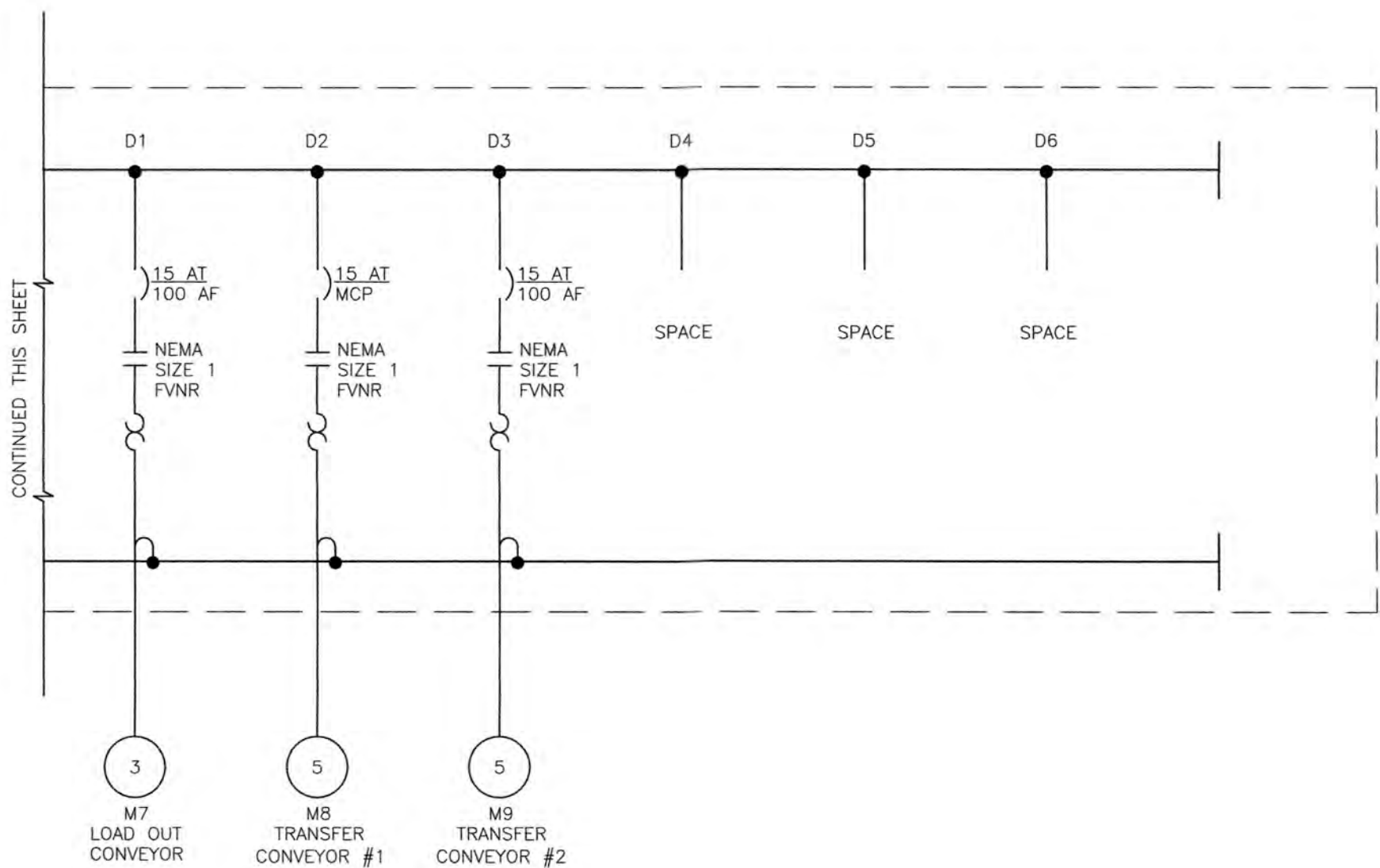
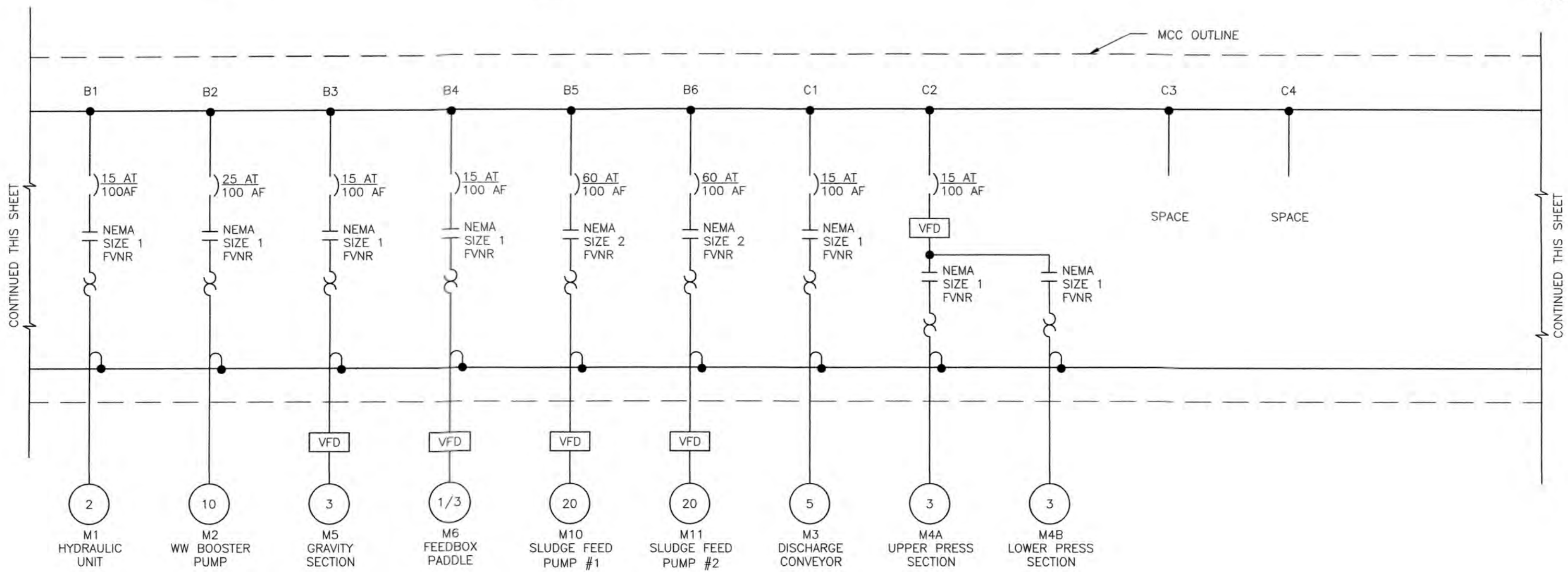
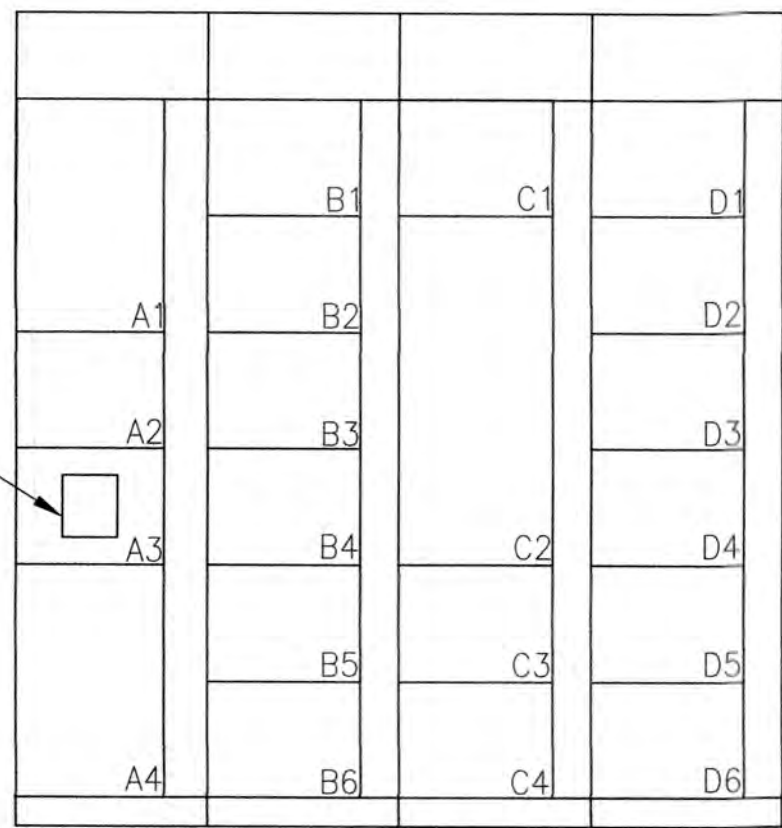
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WIND NET UPLIFT SCHEDULE			
WIND UPLIFT ZONE			
①	①	②	③
-22 PSF	-31 PSF	-43 PSF	-61 PSF





INSTALL POWER METERING EQUIPMENT ON MCC CUBICLE DOOR



PANEL SCHEDULE											
PANELBOARD PP1		LOCATION		ELECTRIC ROOM		INSTALLATION		SURFACE			
RATINGS 250		AMPS,		480/277		VOLTS,		3 PHASE PH,		4 WIRE, 50 HZ., GRD BAR -	
MAIN LUGS -		BKR INTERRUPTING RATING		65,000		RMS. SYMM. AMPS					
MAIN CIRCUIT BREAKER 250		AMPS,		CONNECTED LOAD -		KVA		PANEL SIZE		30	
DESCRIPTION	NOTES	BKR AMPS	OKT	A	B	C	OKT	BKR AMPS	NOTES	DESCRIPTION	
PROCESS AREA LIGHTS		20A	1	1	2	3	4	50A		ELECTRIC UNIT HEATER 1	
↓		20A	2P	3	4	5	6	50A			
PROCESS AREA LIGHTS		20A	3P	7	8	9	10	50A	3P	ELECTRIC UNIT HEATER 2	
↓		20A	2P	11	12	13	14	50A			
EXTERIOR LIGHTS		20A	3P	15	16	17	18	50A	3P	ELECTRIC UNIT HEATER 3	
↓		20A	2P	19	20	21	22	50A			
SPARE		20A	3P	23	24	25	26	50A	3P	ELECTRIC UNIT HEATER 4	
↓		20A	2P	27	28	29	30	50A			
SPARE		50A	3P	31	32	33	34	50A	3P	TRANSFORMER T1 (30KVA)	
↓		50A	2P	35	36	37	38	50A			
SPACE		50A	3P	39	40	41	42	50A	3P		
↓		50A	2P	43	44	45	46	50A			
SPACE		50A	3P	47	48	49	50	50A	3P		
↓		50A	2P	51	52	53	54	50A			
SPACE		50A	3P	55	56	57	58	50A	3P		
↓		50A	2P	59	60	61	62	50A			
SPACE		50A	3P	63	64	65	66	50A	3P		
↓		50A	2P	67	68	69	70	50A			
SPACE		50A	3P	71	72	73	74	50A	3P		
↓		50A	2P	75	76	77	78	50A			
SPACE		50A	3P	79	80	81	82	50A	3P		
↓		50A	2P	83	84	85	86	50A			
SPACE		50A	3P	87	88	89	90	50A	3P		
↓		50A	2P	91	92	93	94	50A			
SPACE		50A	3P	95	96	97	98	50A	3P		
↓		50A	2P	99	100	101	102	50A			
SPACE		50A	3P	103	104	105	106	50A	3P		
↓		50A	2P	107	108	109	110	50A			
SPACE		50A	3P	111	112	113	114	50A	3P		
↓		50A	2P	115	116	117	118	50A			
SPACE		50A	3P	119	120	121	122	50A	3P		
↓		50A	2P	123	124	125	126	50A			
SPACE		50A	3P	127	128	129	130	50A	3P		
↓		50A	2P	131	132	133	134	50A			
SPACE		50A	3P	135	136	137	138	50A	3P		
↓		50A	2P	139	140	141	142	50A			
SPACE		50A	3P	143	144	145	146	50A	3P		
↓		50A	2P	147	148	149	150	50A			
SPACE		50A	3P	151	152	153	154	50A	3P		
↓		50A	2P	155	156	157	158	50A			
SPACE		50A	3P	159	160	161	162	50A	3P		
↓		50A	2P	163	164	165	166	50A			
SPACE		50A	3P	167	168	169	170	50A	3P		
↓		50A	2P	171	172	173	174	50A			
SPACE		50A	3P	175	176	177	178	50A	3P		
↓		50A	2P	179	180	181	182	50A			
SPACE		50A	3P	183	184	185	186	50A	3P		
↓		50A	2P	187	188	189	190	50A			
SPACE		50A	3P	191	192	193	194	50A	3P		
↓		50A	2P	195	196	197	198	50A			
SPACE		50A	3P	199	200	201	202	50A	3P		
↓		50A	2P	203	204	205	206	50A			
SPACE		50A	3P	207	208	209	210	50A	3P		
↓		50A	2P	211	212	213	214	50A			
SPACE		50A	3P	215	216	217	218	50A	3P		
↓		50A	2P	219	220	221	222	50A			
SPACE		50A	3P	223	224	225	226	50A	3P		
↓		50A	2P	227	228	229	230	50A			
SPACE		50A	3P	231	232	233	234	50A	3P		
↓		50A	2P	235	236	237	238	50A			
SPACE		50A	3P	239	240	241	242	50A	3P		
↓		50A	2P	243	244	245	246	50A			
SPACE		50A	3P	247	248	249	250	50A	3P		
↓		50A	2P	251	252	253	254	50A			
SPACE		50A	3P	255	256	257	258	50A	3P		
↓		50A	2P	259	260	261	262	50A			
SPACE		50A	3P	263	264	265	266	50A	3P		
↓		50A	2P	267	268	269	270	50A			
SPACE		50A	3P	271	272	273	274	50A	3P		
↓		50A	2P	275	276	277	278	50A			
SPACE		50A	3P	279	280	281	282	50A	3P		
↓		50A	2P	283	284	285	286	50A			
SPACE		50A	3P	287	288	289	290	50A	3P		
↓		50A	2P	291	292	293	294	50A			
SPACE		50A	3P	295	296	297	298	50A	3P		
↓		50A	2P	299	300	301	302	50A			
SPACE		50A	3P	303	304	305	306	50A	3P		
↓		50A	2P	307	308	309	310	50A			
SPACE		50A	3P	311	312	313	314	50A	3P		
↓		50A	2P	315	316	317	318	50A			
SPACE		50A	3P	319	320	321	322	50A	3P		
↓		50A	2P	323	324	325	326	50A			
SPACE		50A	3P	327	328	329	330	50A	3P		
↓		50A	2P	331	332	333	334	50A			
SPACE		50A	3P	335	336	337	338	50A	3P		
↓		50A	2P	339	340	341	342	50A			
SPACE		50A	3P	343	344	345	346	50A	3P		
↓		50A	2P	347	348	349	350	50A			
SPACE		50A	3P	351	352	353	354	50A	3P		
↓		50A	2P	355	356	357	358	50A			
SPACE		50A	3P	359	360	361	362	50A	3P		
↓		50A	2P	363	364	365	366	50A			
SPACE		50A	3P	367	368	369	370	50A	3P		
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SPACE		50A	3P	423	424	425	426	50A	3P		
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SPACE		50A	3P	431	432	433	434	50A	3P		
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SPACE		50A	3P	439	440	441	442	50A	3P		
↓		50A	2P	443	444	445	446	50A			
SPACE		50A	3P	447	448	449	450	50A	3P		
↓		50A	2P	451	452	453	454	50A			
SPACE		50A	3P	455	456	457	458	50A	3P		
↓		50A	2P	459	460	461	462	50A			
SPACE		50A	3P	463	464	465	466	50A	3P		
↓		50A	2P	467	468	469	470	50A			
SPACE		50A	3P	471	472	473	474	50A	3P		
↓		50A	2P	475	476	477	478	50A			
SPACE		50A	3P	479	480	481	482	50A	3P		
↓		50A	2P	483	484	485	486	50A			
SPACE		50A	3P	487	488	489	490	50A	3P		
↓		50A	2P	491	492	493	494	50A			
SPACE		50A	3P	495	496	497	498	50A	3P		
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SPACE		50A	3P	511	512	513	514	50A	3P		
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SPACE		50A	3P	519	520	521	522	50A	3P		
↓		50A	2P	523	524	525	526	50A			
SPACE		50A	3P	527	528	529	530	50A	3P		
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SPACE		50A	3P	535	536	537	538	50A	3P		
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SPACE		50A	3P	543	544	545	546	50A	3P		
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SPACE		50A	3P	551	552	553	554	50A	3P		
↓		50A	2P	555	556	557	558	50A			
SPACE		50A	3P	559	560	561	562	50A	3P		
↓		50A	2P	563	564	565	566	50A			
SPACE		50A	3P	567	568	569	570	50A	3P		
↓		50A	2P	571	572	573	574	50A			
SPACE		50A	3P	575	576	577	578	50A	3P		
↓		50A	2P	579	580	581	582	50A			
SPACE											

PANEL SCHEDULE

PANELBOARD LP1 LOCATION ELECTRIC ROOM INSTALLATION SURFACE

RATINGS 100 120/208 VOLTS, 3 PHASE PH. 4 WIRE, 50 HZ., GRD BAR -

MAIN LUGS - BKR INTERRUPTING RATING 14,000 RMS. SYMM. AMPS

MAIN CIRCUIT BREAKER 80 AMPS, CONNECTED LOAD - KVA PANEL SIZE 24

DESCRIPTION	NOTES	BKR AMPS	OKT	A B C	OKT	BKR AMPS	NOTES	DESCRIPTION
CONTROL PANEL		20A	1P	1	2	20A	1P	EXHAUST FAN 1
RECEPTACLES		20A	1P	3	4	20A	1P	SPARE
RECEPTACLES		20A	1P	5	6	20A	1P	SPARE
RECEPTACLES		20A	1P	7	8	20A	1P	SPARE
RECEPTACLES		20A	1P	9	10	20A	1P	SPARE
EXIT / EMERGENCY LIGHTS		20A	1P	11	12	20A	1P	SPARE
HEAT TRACE		20A	1P	13	14	20A	1P	SPARE
"		20A	1P	15	16	20A	1P	SPARE
SPARE		20A	1P	17	18	20A	1P	SPARE
SPACE				19	20			SPACE
SPACE				21	22			SPACE
SPACE				23	24			SPACE



EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com

DRAWN BY: GA/SCL
PROJECT NUMBER: 6424501

DESIGNED BY: GA/SCL
PROJECT MANAGER: SCL

GENERAL NOTES:

- EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC'S PROJECT ROLE CONSISTED OF STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRICAL DESIGN ONLY.
- EA'S DRAWING CERTIFICATION IS ONLY INCLUSIVE OF COMPONENTS RELATED TO THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, ELECTRICAL DESIGN.
- EXISTING CONDITIONS AND PROPOSED BIO-SOLIDS PROJECT DESIGN COMPONENTS WERE PROVIDED TO EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC BY DAVIS BOWEN & FRIEDEL, INC. FOR USE IN THE DESIGN OF THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRIC.

SEAL



PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20812 EXPIRATION DATE: APRIL 24, 2027

Professional Certification, I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland License No. 31100 Expiration Date: 01-31-27

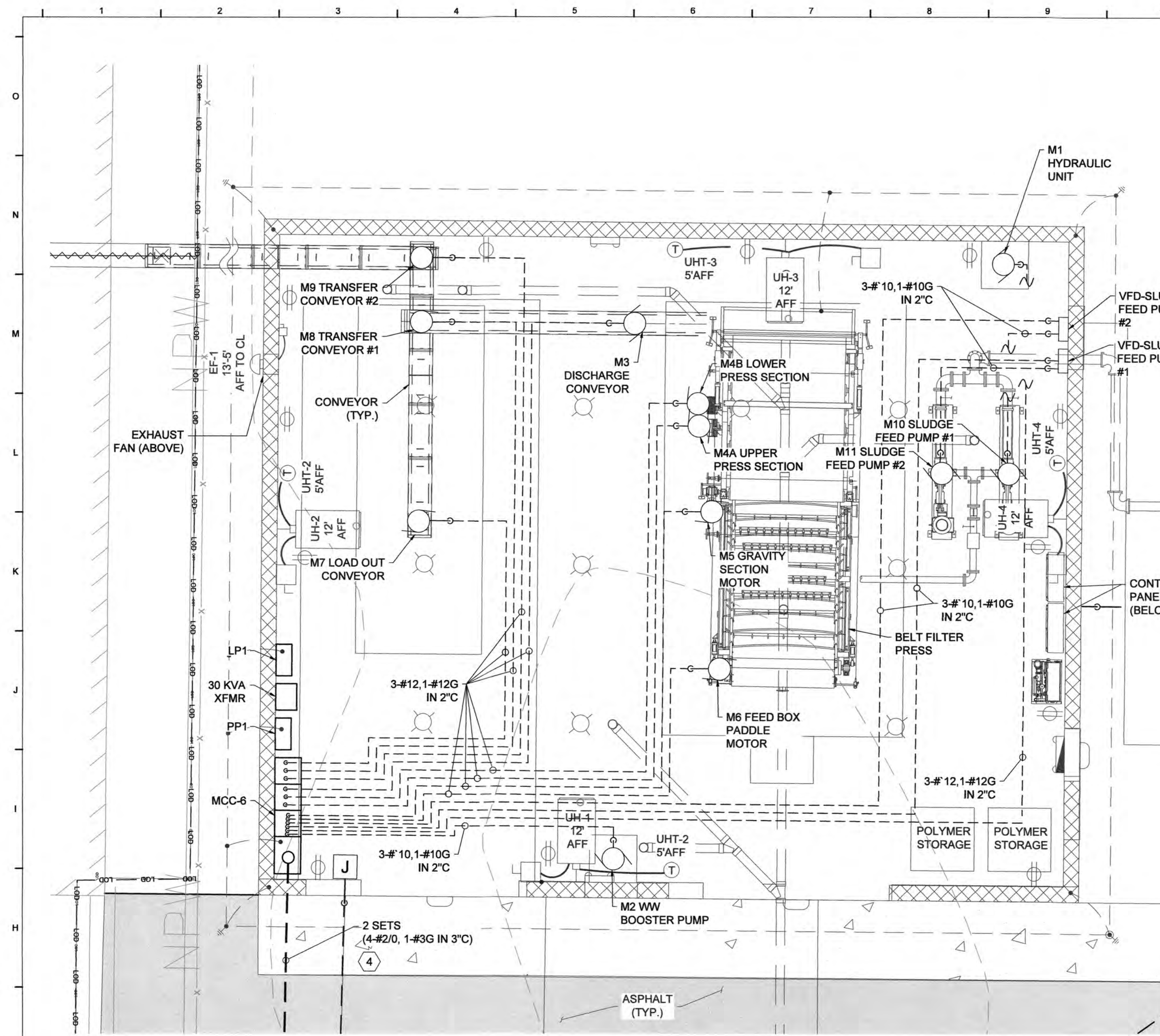
DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS
MARSH, MARYLAND
410.770.4740
410.543.9091

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

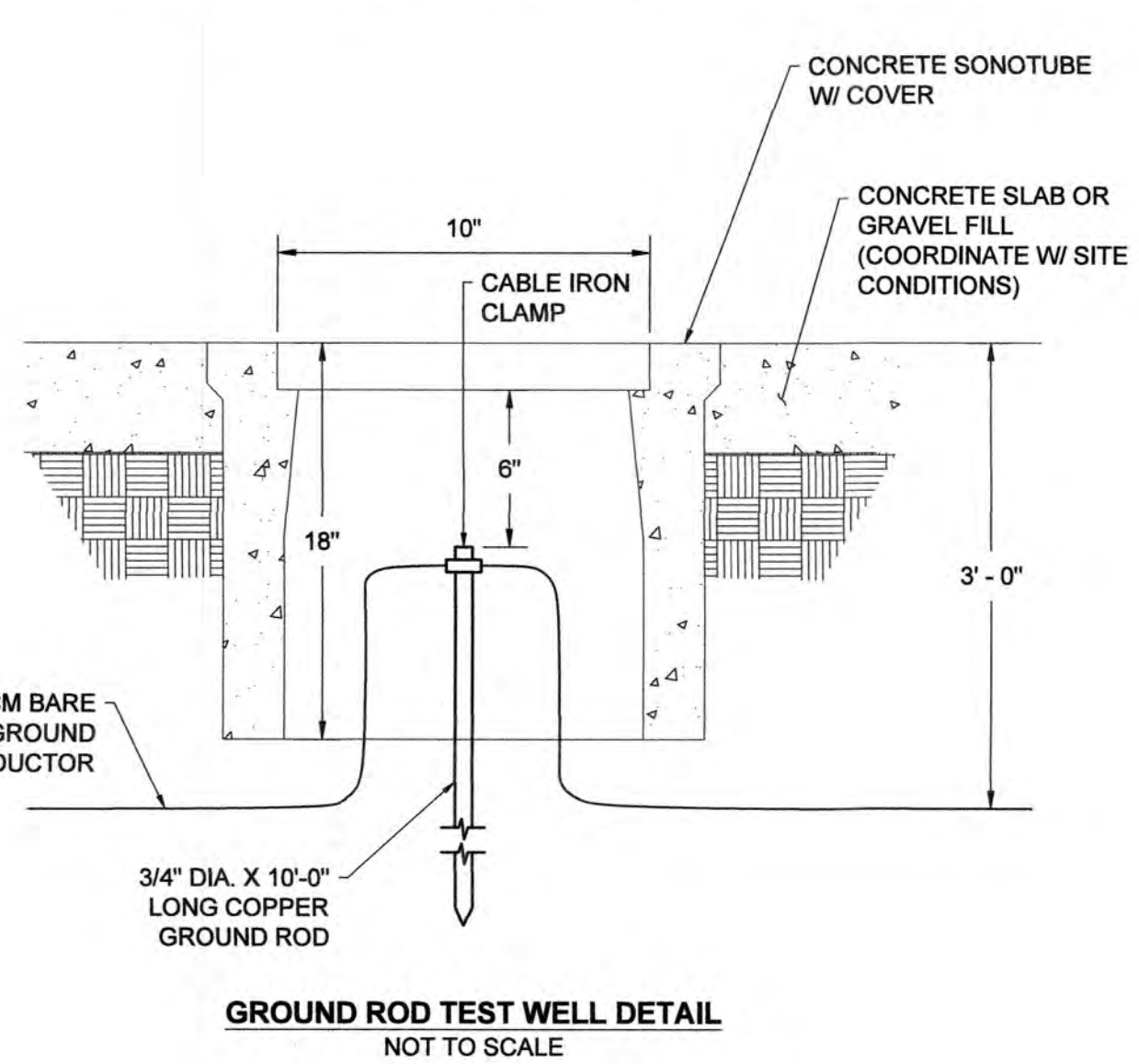
Date: JANUARY 2026
Scale: AS SHOWN
Dwn.By: PLB
Proj.No.: 0085D027

**SCHEDULES
AND ONE-LINE
DIAGRAMS**

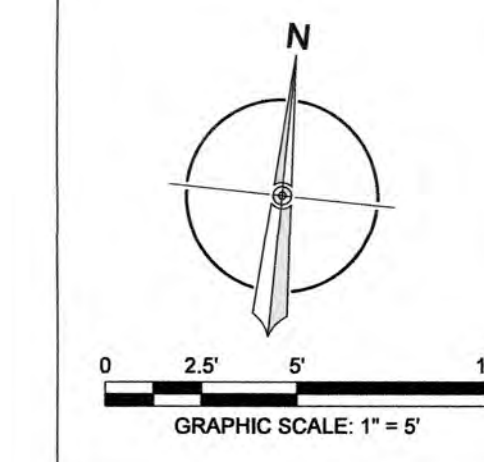
Dwg.No.:
E-2



POWER PLAN
SCALE: 1" = 5'



GROUND ROD TEST WELL DETAIL
NOT TO SCALE





EA Engineering, Science, and Technology, Inc., PBC

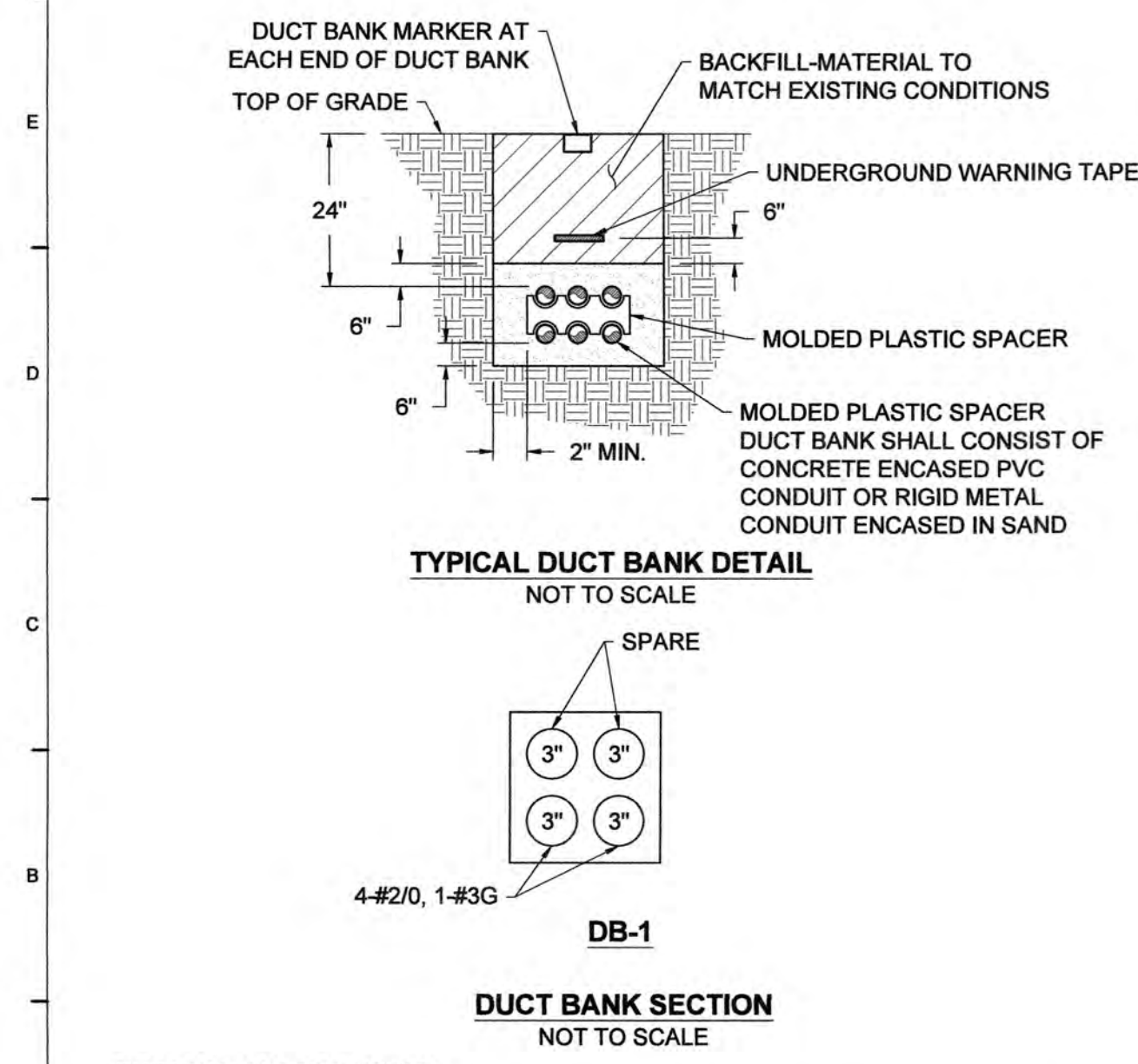
11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com

DESIGNED BY: GA/SCL
PROJECT MANAGER: SCL

GENERAL NOTES:
1) EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC'S PROJECT ROLE CONSISTED OF STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRICAL DESIGN ONLY.
2) EA'S DRAWING CERTIFICATION IS ONLY INCLUSIVE OF COMPONENTS RELATED TO THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, ELECTRICAL DESIGN.
3) EXISTING CONDITIONS AND PROPOSED BIO-SOLIDS PROJECT DESIGN COMPONENTS WERE PROVIDED TO EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC BY DAVIS BOWEN & FRIEDEL, INC. FOR USE IN THE DESIGN OF THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRIC.



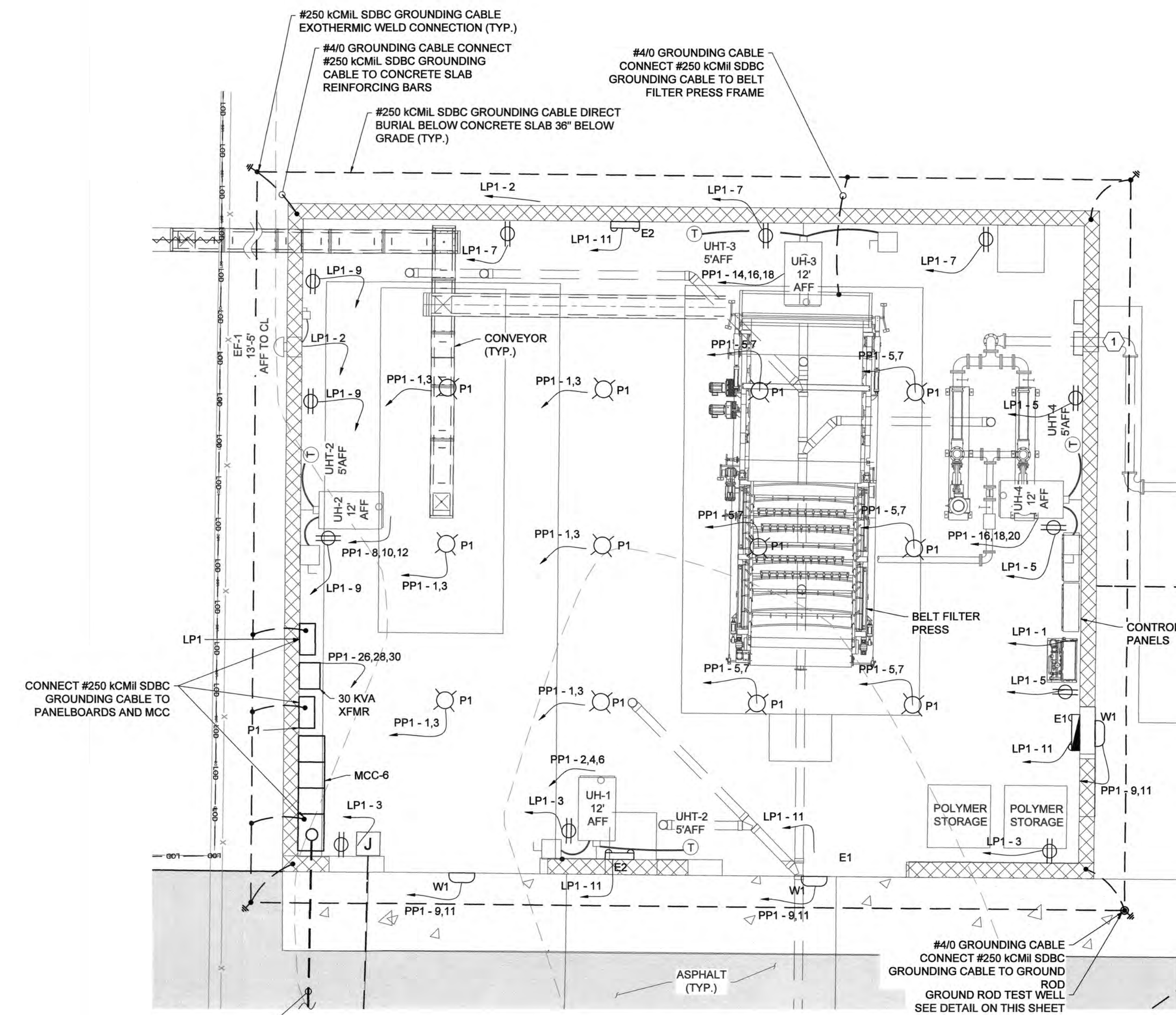
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20812, EXPIRATION DATE: APRIL 24, 2027.



DUCT BANK SECTION
NOT TO SCALE

DUCT BANK DETAIL NOTES

- TYPICAL DETAIL FOR CONDUIT ARRANGEMENT. EXACT CONFIGURATION OF CONDUITS WITHIN DUCTWILL VARY IN ACCORDANCE WITH CIRCUIT AND EQUIPMENT REQUIREMENTS.



HVAC EQUIPMENT, RECEPTACLE, LIGHTING, AND GROUNDING PLAN
SCALE: 1" = 5'

- GROUNDING PLAN NOTES**
- CONNECT THE GROUNDING SYSTEM TO METAL PIPE.
 - ALL CUT ENDS OF CONDUIT AND TUBING SHALL BE REAMED OR OTHERWISE FINISHED TO REMOVE ROUGH EDGES.
 - PROVIDE SWITCHES FOR ALL LIGHT FIXTURES OR LIGHTING EQUIPMENT; SWITCHES SHALL BE LOCATED AT THE ENTRANCE OF THE ROOM OR AREA BEING SERVED.

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS

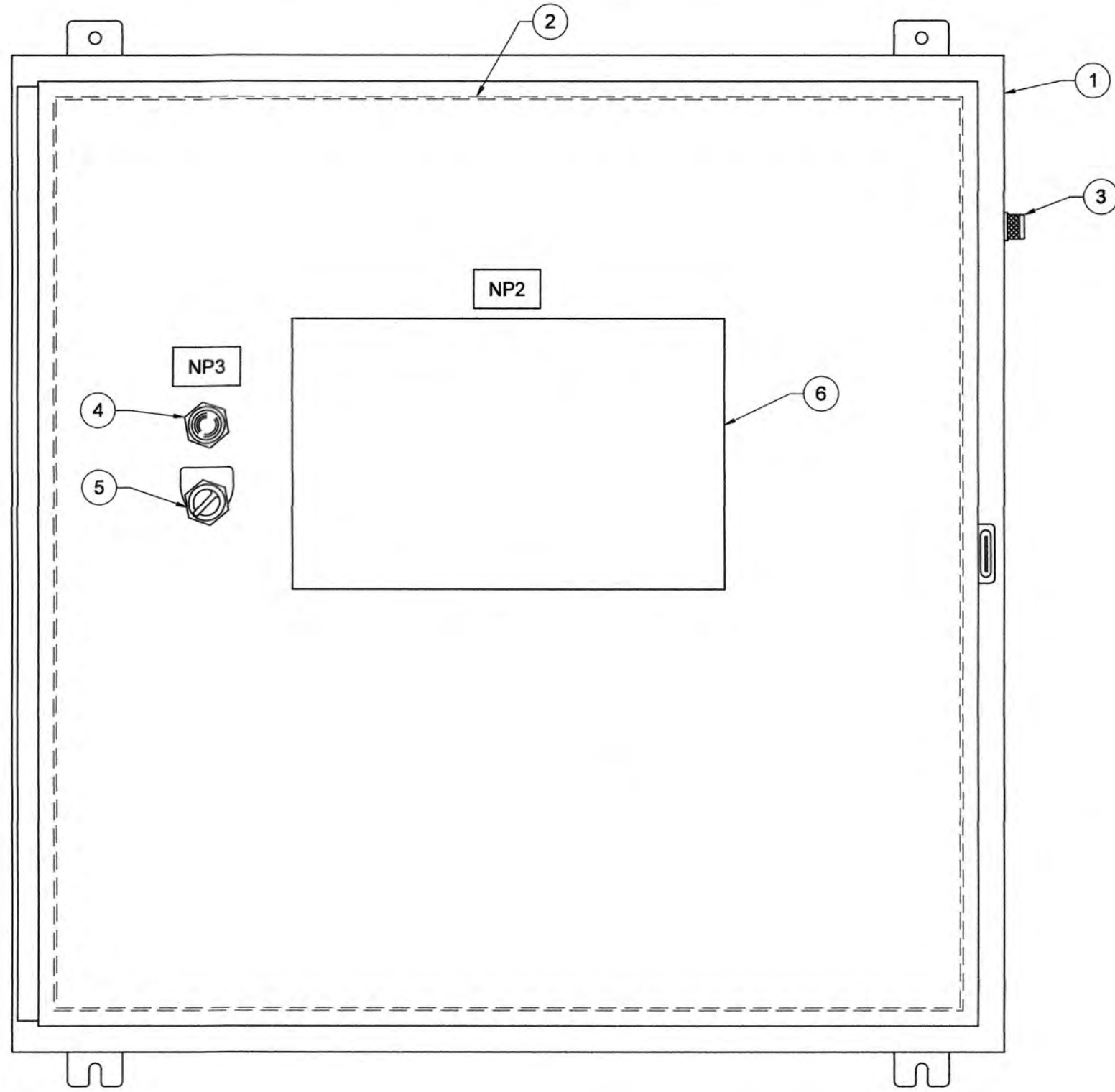
1107 W. 70th St.
P.O. Box 1441
Ocean Pines, MD 21811
410.641.5341

Date: JANUARY 2026
Scale: AS SHOWN
Dwn By: PLB
Proj No.: 0085D027

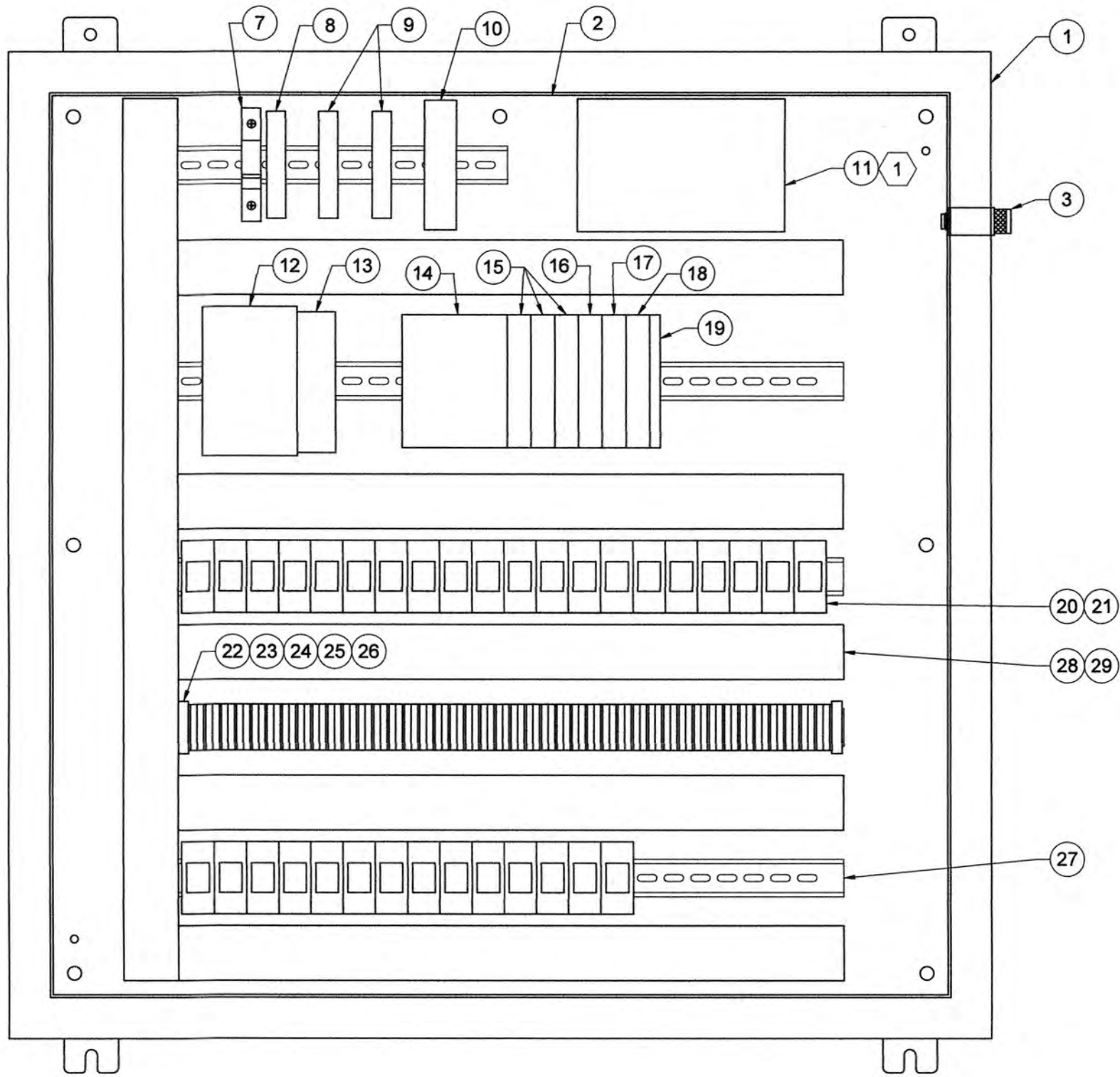
**SITE PLAN
INSETS AND
DETAILS**

Dwg No.: **E-3**

O
N
M
L
K
J
I
H
G
F
E
D
C
B
A



CONTROL PANEL ELEVATION
NOT TO SCALE



CONTROL PANEL - SUB-PANEL LAYOUT
NOT TO SCALE



EA Engineering, Science, and
Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com

DRAWN BY: GA/SCL

PROJECT NUMBER: 6424501

DESIGNED BY: GA/SCL

PROJECT MANAGER: SCL

GENERAL NOTES:

- 1) EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC'S PROJECT ROLE CONSISTED OF STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRICAL DESIGN ONLY.
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- 3) EXISTING CONDITIONS AND PROPOSED BIO-SOLIDS PROJECT DESIGN COMPONENTS WERE PROVIDED TO EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC BY DAVIS BOWEN & FRIEDEL, INC. FOR USE IN THE DESIGN OF THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRIC.

SEAL



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT
THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 20812
EXPIRATION DATE: APRIL 24, 2027

Professional Certification. I hereby certify that
these documents were prepared or approved by
me, and that I am a duly licensed Professional
Engineer in the laws of the State of Maryland.
License No. 31100 Expiration Date: 01-21-27

**DAVIS
BOWEN &
FRIEDEL, INC.**
ARCHITECTS • ENGINEERS • SURVEYORS
BALTIMORE, MARYLAND
410.767.4744
SALES & MARKETING
410.554.1971

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

CONTROL PANEL PARTS LIST

ITEM #	QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION
1	1	HOFFMAN	A36H3612SSLP	ENCLOSURE, NEMA 4X, 36x36x12
2	1	HOFFMAN	A36P36G	BACK PLATE, 33x33
3	1	POLYPHASER	IS-B50LN-C2	ANTENNA SURGE PROTECTION, 50 kA, 125-1000 MHz
4	1	ALLEN-BRADLEY	800FP-P4PN5R	PILOT LIGHT, RED, 22.5mm
5	1	ALLEN-BRADLEY	800FP-SM32PX41	SELECTOR SWITCH, 3 POS, MAINTAINED, NON-ILLUMINATED
6	1	ALLEN-BRADLEY	2711P-T12W21D8S	PANELVIEW PLUS 7 TOUCHSCREEN, 12" 1280x800 18 BIT COLOR, ETHERNET PORT
7	1	ABB	5201-K15	CIRCUIT BREAKER, 1 POLE, 480Y/277 VAC, UL489 LISTED
8	1	PHOENIX CONTACT	2907918	SURGE PROTECTION, TYPE 2/TYPE 3, 120VAC
9	2	PHOENIX CONTACT	2938730	POWER SUPPLY, 24VDC, 2A, MINI-PS-100-240AC/24DC/2
10	1	PHOENIX CONTACT	2891152	INDUSTRIAL ETHERNET SWITCH, FL SWITCH SFN 5TX 5TP RJ45 PORTS
11	1	GE/MDS		MDS TRANSNEXT UNLICENSED RADIO
12	1	PHOENIX CONTACT	2320254	QUINT-UPS 24VDC, 5A, 1.3AH
13	3	PHOENIX CONTACT	2904800	POWER SUPPLY, 24VDC 5A, 120W QUINT 4 PS/1AC/24VDC/5
14	1	ALLEN-BRADLEY	5069-L320ER	COMPACTLOGIX 5380 PROGRAMMABLE CONTROLLER, 2MB, TWO 1GB ETHERNET PORTS
15	3	ALLEN-BRADLEY	5069-1A16	16 POINT 120/240 VAC INPUT MODULE
16	1	ALLEN-BRADLEY	5069-OA16	16 POINT 120/240 VAC OUTPUT MODULE
17	1	ALLEN-BRADLEY	5069-4F8	ANALOG 4-CHANNEL CURRENT/VOLTAGE INPUT MODULE
18	1	ALLEN-BRADLEY	5069-OF8	ANALOG 4-CHANNEL CURRENT/VOLTAGE OUTPUT MODULE
19	1	ALLEN-BRADLEY	1769-ECR	END CAP
20	34	IDEC	RH2B-UAC120V	RELAY
21	34	IDEC	SH2B-05	RELAY SOCKET
22	AS REQUIRED	PHOENIX CONTACT	3004362	TERMINAL BLOCK, 6.2mm WIDE, 30-10AWG, GRAY, UK 5 N
23	AS REQUIRED	PHOENIX CONTACT	0800886	END BRACKET, 9.5mm WIDE, GRAY, E/NS 35 N
24	AS REQUIRED	PHOENIX CONTACT	3003020	END BARRIER, COVER, 1.8mm WIDE, GRAY, D-UK 4/10
25	AS REQUIRED	PHOENIX CONTACT	3004100	TERMINAL FUSE BLOCK, 8.2mm WIDE, 26-10AWG, UK 5-HESI
26	AS REQUIRED	PHOENIX CONTACT	2775184	GROUND TERMINAL BLOCK, 6.2mm WIDE, GREEN-YELLOW, 24-10 AWG, UDK 4-PE
27	AS REQUIRED	ALLEN-BRADLEY	199-DR1	DIN RAIL
28	AS REQUIRED	THOMAS AND BETTS	T1X2HDG	WIREDUCT, 1" X 2", GRAY
29	AS REQUIRED	THOMAS AND BETTS	T1CG	WIREDUCT COVER, 1", GRAY

NOTES

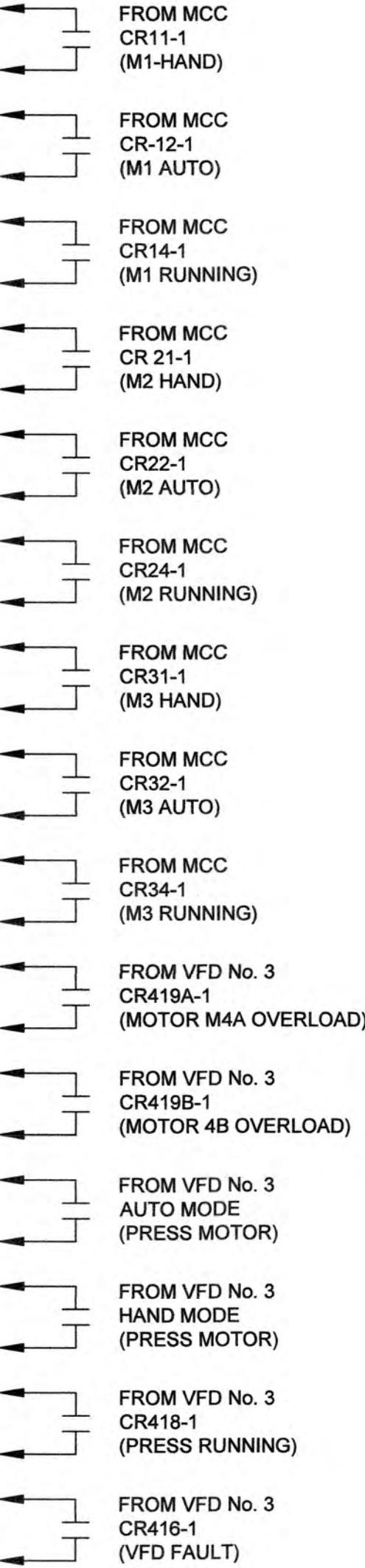
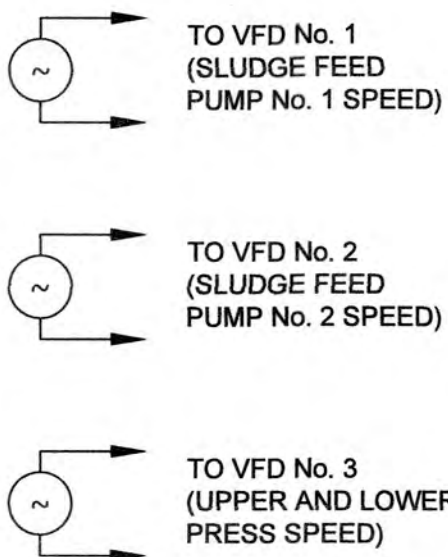
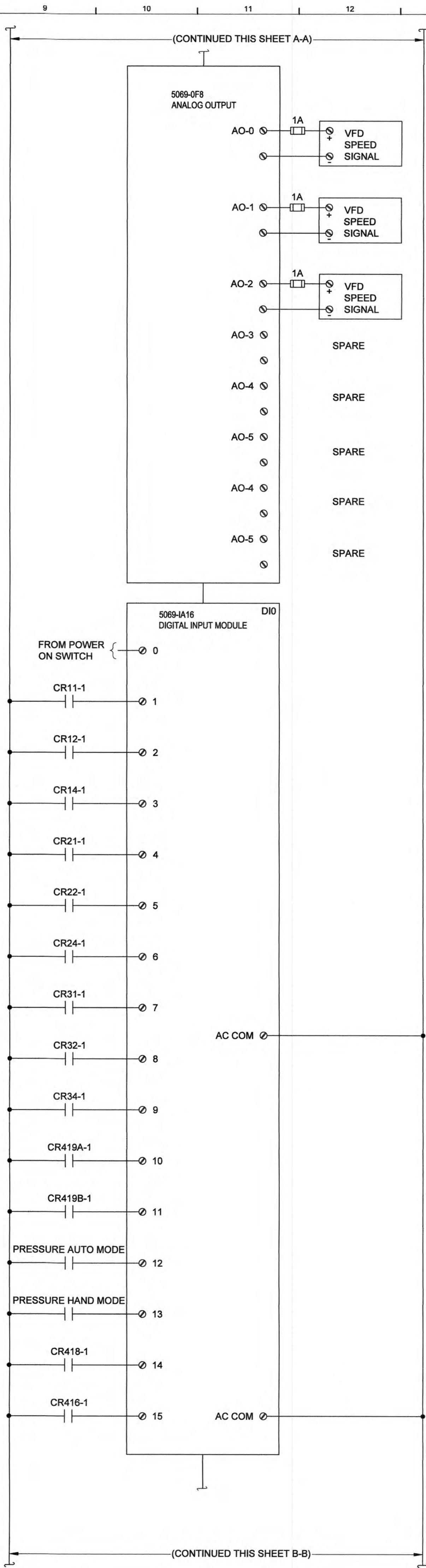
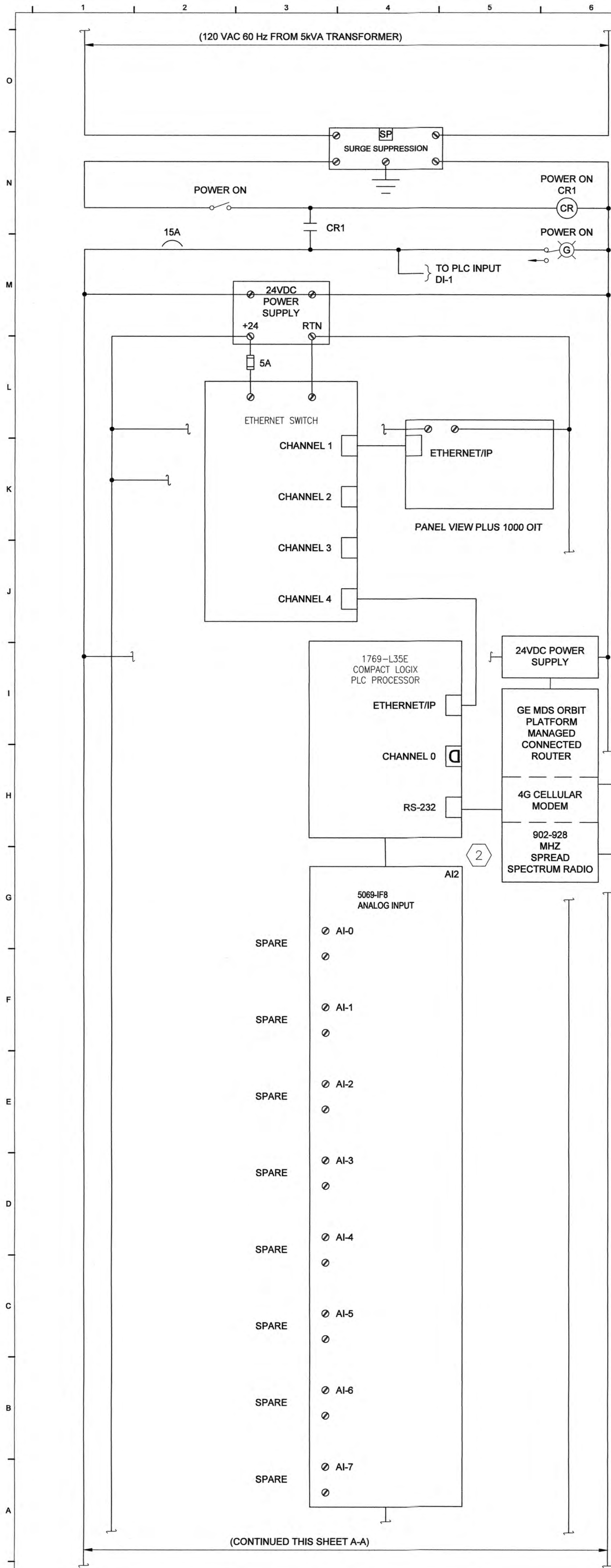
- 1 RADIO SHALL BE COMPATIBLE WITH EXISTING WORCESTER COUNTY SCADA SYSTEM.
- 2 DESIGN USING MOTOR CONTROL CENTER AND SEPARATE CONTROL PANEL SHOWN. BDP'S SINGLE CONTROL CABINET APPROACH IS ACCEPTABLE.

Date: JANUARY 2026
Scale: AS SHOWN
Dwn.By: PLB
Proj.No.: 0085D027

**CONTROL
PANEL**

Dwg.No.:

E-4



EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com

DRAWN BY: GA/SCL

PROJECT NUMBER: 6424501

DESIGNED BY: GA/SCL

PROJECT MANAGER: SCL

GENERAL NOTES:

- EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC'S PROJECT ROLE CONSISTED OF STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRICAL DESIGN ONLY.
- EA'S DRAWING CERTIFICATION IS ONLY INCLUSIVE OF COMPONENTS RELATED TO THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, ELECTRICAL DESIGN.
- EXISTING CONDITIONS AND PROPOSED BIO-SOLIDS PROJECT DESIGN COMPONENTS WERE PROVIDED TO EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC BY DAVIS BOWEN & FRIEDEL, INC. FOR USE IN THE DESIGN OF THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRIC.

SEAL



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20812, EXPIRATION DATE: APRIL 24, 2027.

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer in the State of Maryland. License No. 31100 Expiration Date: 01-21-27

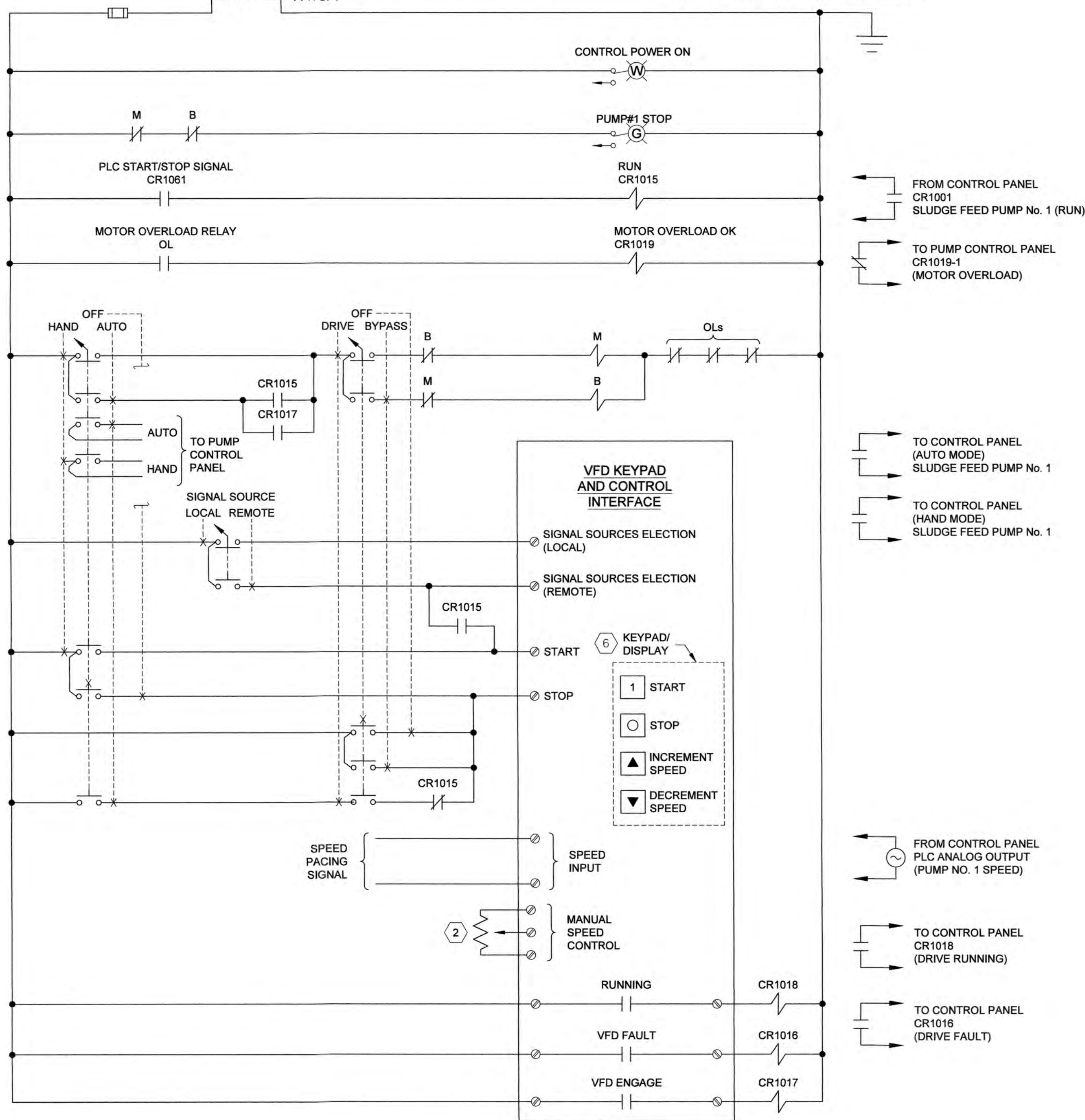
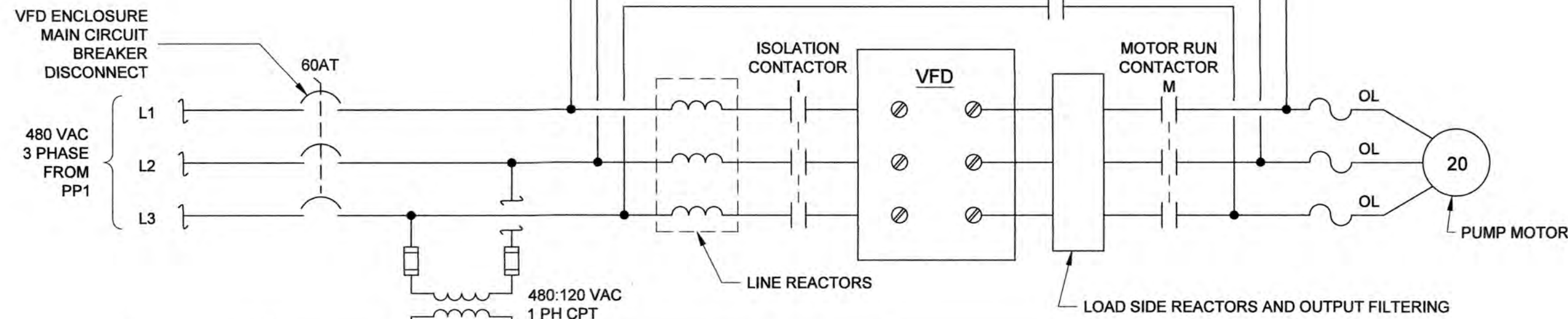
DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS
1107-70-7774
302-423-1441
302-423-0909

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

Date: JANUARY 2026
Scale: AS SHOWN
Dwn.By: PLB
Proj.No.: 0085D027

ELEMENTARIES

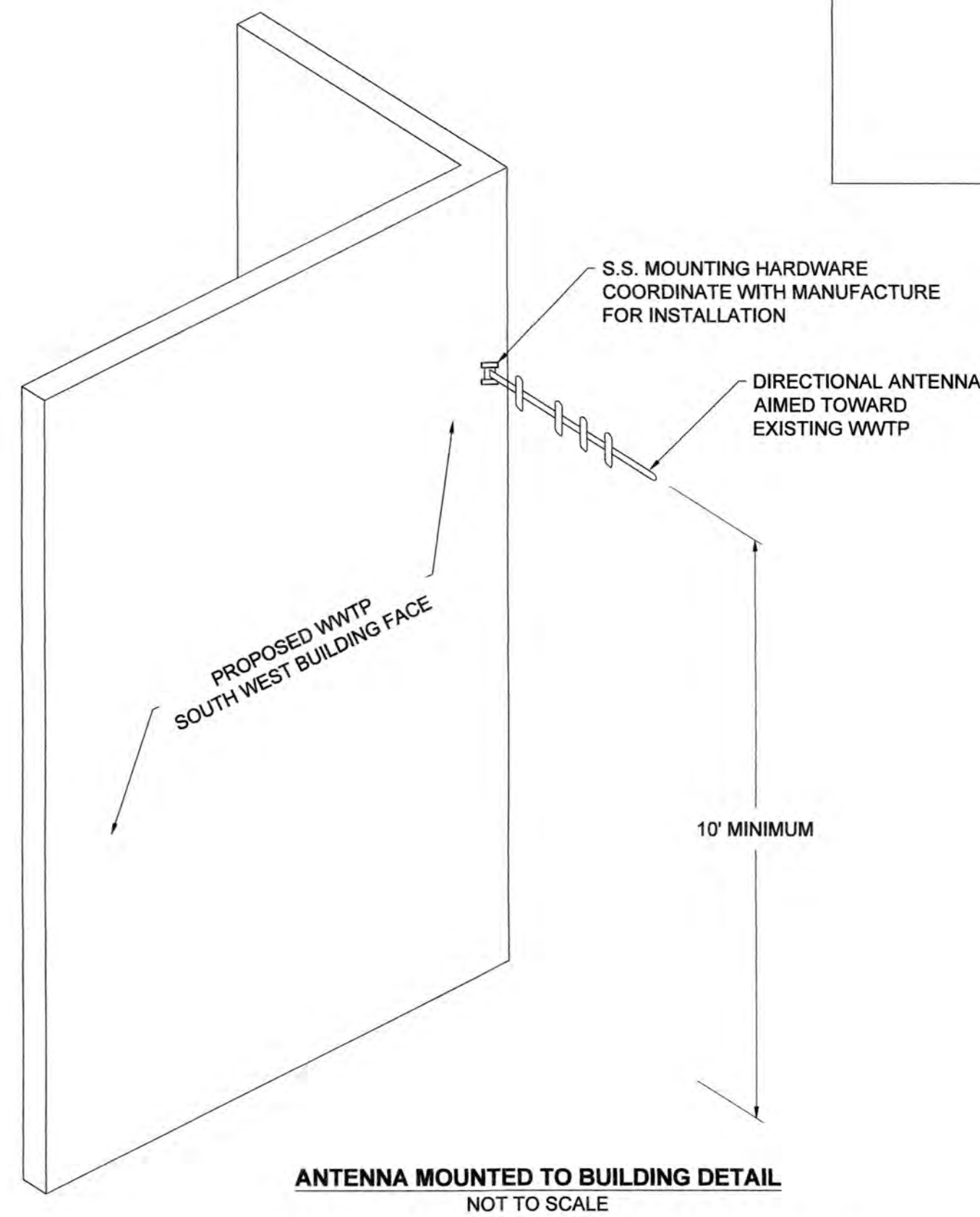
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E-5



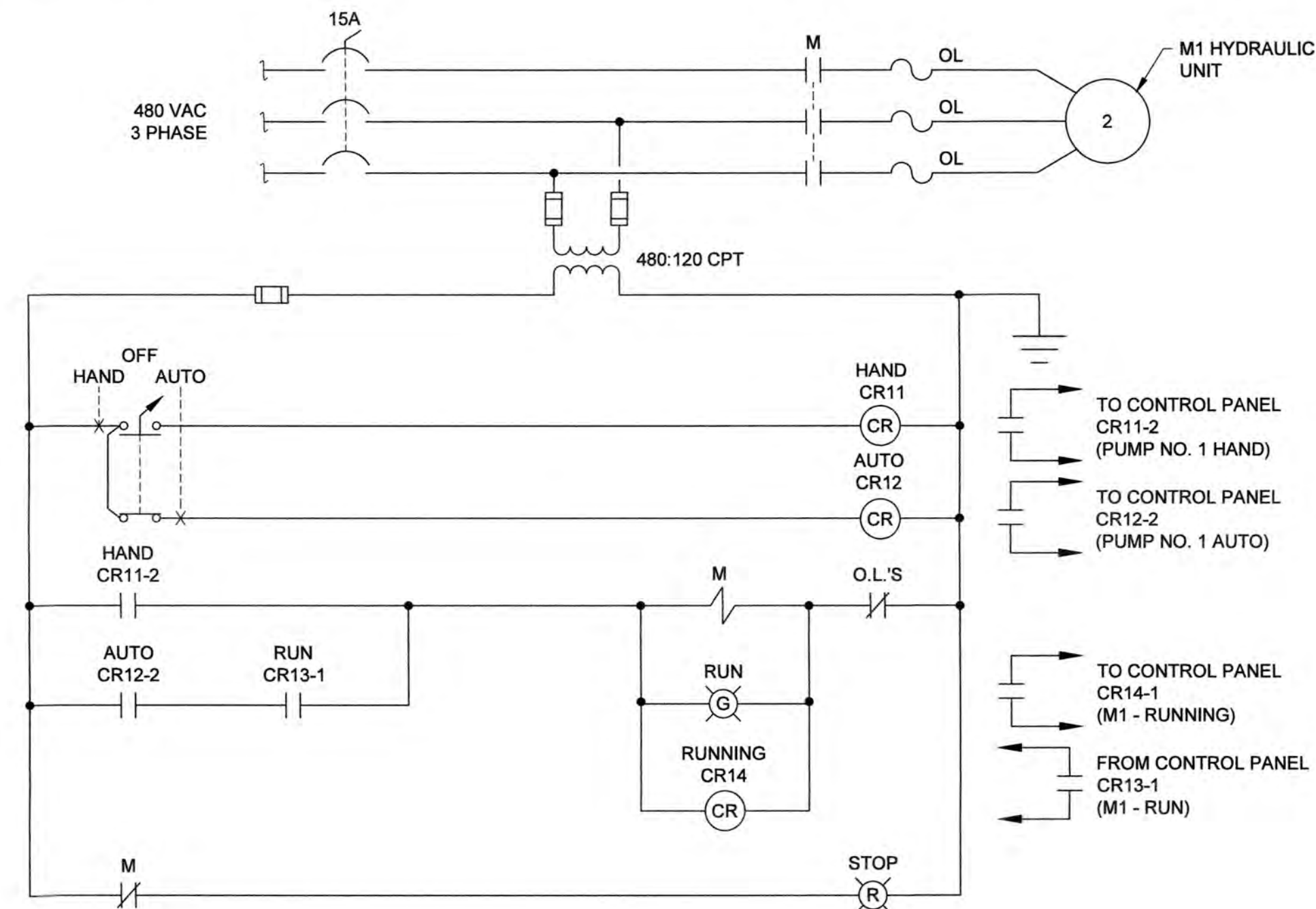
SLUDGE FEED PUMP No. 1 VFD ELEMENTARY
NOT TO SCALE

ELEMENTARY NOTES

- SLUDGE FEED PUMP No. 2 VFD ELEMENTARY SIMILAR, EXCEPT SUBSTITUTE CR1101 FOR CR1001, CR1118 FOR CR1018, CR1116 FOR CR1016, AND CR1119 FOR CR1019. PROVIDE POTENTIOMETER OR SIMILAR SPEED DEVICE.



ANTENNA MOUNTED TO BUILDING DETAIL
NOT TO SCALE



HYDRAULIC UNIT MOTOR - UNIT M1 ELEMENTARY
NOT TO SCALE

NOTES

- ELEMENTARY FOR M2 WW BOOSTER PUMP SIMILAR, EXCEPT SUBSTITUTE CR21 FOR CR11, CR22 FOR CR12, CR23 FOR CR13, CR24 FOR CR14, AND A 10HP MOTOR FOR THE 2HP MOTOR.
- ELEMENTARY FOR M3 DISCHARGE CONVEYOR SIMILAR, EXCEPT SUBSTITUTE CR31 FOR CR11, CR32 FOR CR12, CR33 FOR CR13, CR34 FOR CR14, AND A 5HP MOTOR FOR THE 2HP MOTOR.
- ELEMENTARY FOR M5 GRAVITY SIMILAR, EXCEPT SUBSTITUTE CR51 FOR CR11, CR52 FOR CR12, CR53 FOR CR13, CR54 FOR CR14, AND A 3HP MOTOR FOR THE 2HP MOTOR.
- ELEMENTARY FOR M6 FEEDBOX PADDLE SIMILAR, EXCEPT SUBSTITUTE CR61 FOR CR11, CR62 FOR CR12, CR63 FOR CR13, CR64 FOR CR14, AND A 1/3 HP MOTOR FOR THE 2HP MOTOR.
- ELEMENTARY FOR M7 LOAD OUT CONVEYOR SIMILAR, EXCEPT SUBSTITUTE CR71 FOR CR11, CR72 FOR CR12, CR73 FOR CR13, CR74 FOR CR14, AND A 3HP MOTOR FOR THE 2HP MOTOR.
- ELEMENTARY FOR M8 TRANSFER CONVEYOR #1 SIMILAR, EXCEPT SUBSTITUTE CR81 FOR CR11, CR82 FOR CR12, CR83 FOR CR13, CR84 FOR CR14, AND A 5HP MOTOR FOR THE 2HP MOTOR.
- ELEMENTARY FOR M9 TRANSFER CONVEYOR #2 SIMILAR, EXCEPT SUBSTITUTE CR91 FOR CR11, CR92 FOR CR12, CR93 FOR CR13, CR29 FOR CR14, AND A 5HP MOTOR FOR THE 2HP MOTOR.



EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com

DRAWN BY: GA/SCL
PROJECT NUMBER: 6424501

DESIGNED BY: GA/SCL
PROJECT MANAGER: SCL

GENERAL NOTES:

- EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC'S PROJECT ROLE CONSISTED OF STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND ELECTRICAL DESIGN ONLY.
- EAS DRAWING CERTIFICATION IS ONLY INCLUSIVE OF COMPONENTS RELATED TO THE STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL, ELECTRICAL DESIGN.
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SEAL



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20812, EXPIRATION DATE: APRIL 24, 2027.

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 31100, Expiration Date: 01-21-27

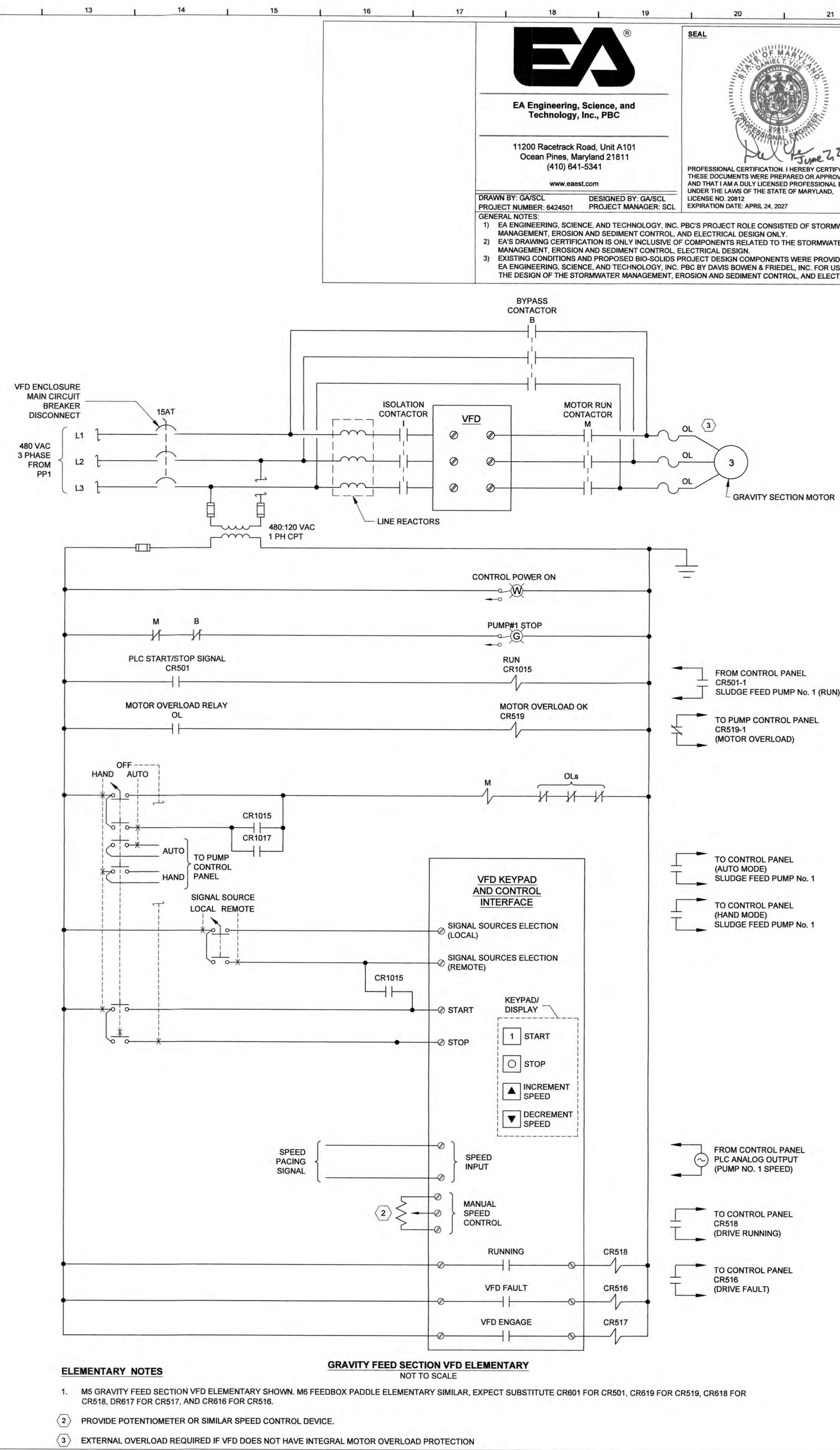
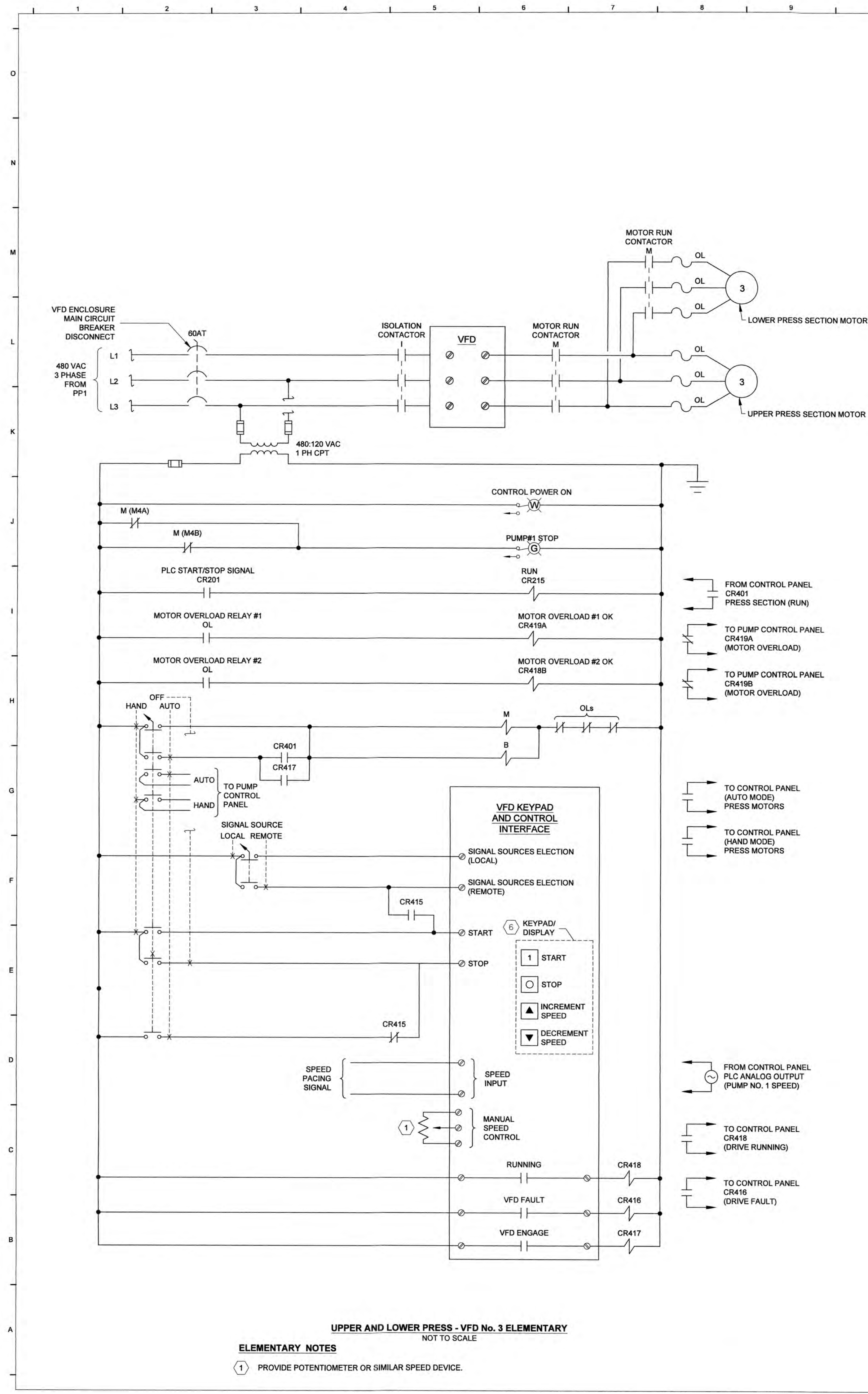
DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS - ENGINEERS - SURVEYORS
MARYLAND LICENSE NO. 31100
410.641.1441

**OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND**

Date: JANUARY 2026
Scale: AS SHOWN
Dwn.By: PLB
Proj.No.: 0085D027

ELEMENTARIES

Dwg.No.:
E-7



EA Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341

www.eaest.com

DRAWN BY: GA/SCL PROJECT NUMBER: 6424501
DESIGNED BY: GA/SCL PROJECT MANAGER: SCL

GENERAL NOTES:

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PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31100, EXPIRATION DATE: APRIL 24, 2027.

DAVIS BOWEN & FRIEDEL, INC.

ARCHITECTS • ENGINEERS • SURVEYORS

110770-0744
110-543-9097

OCEAN PINES BIOSOLIDS DEWATERING

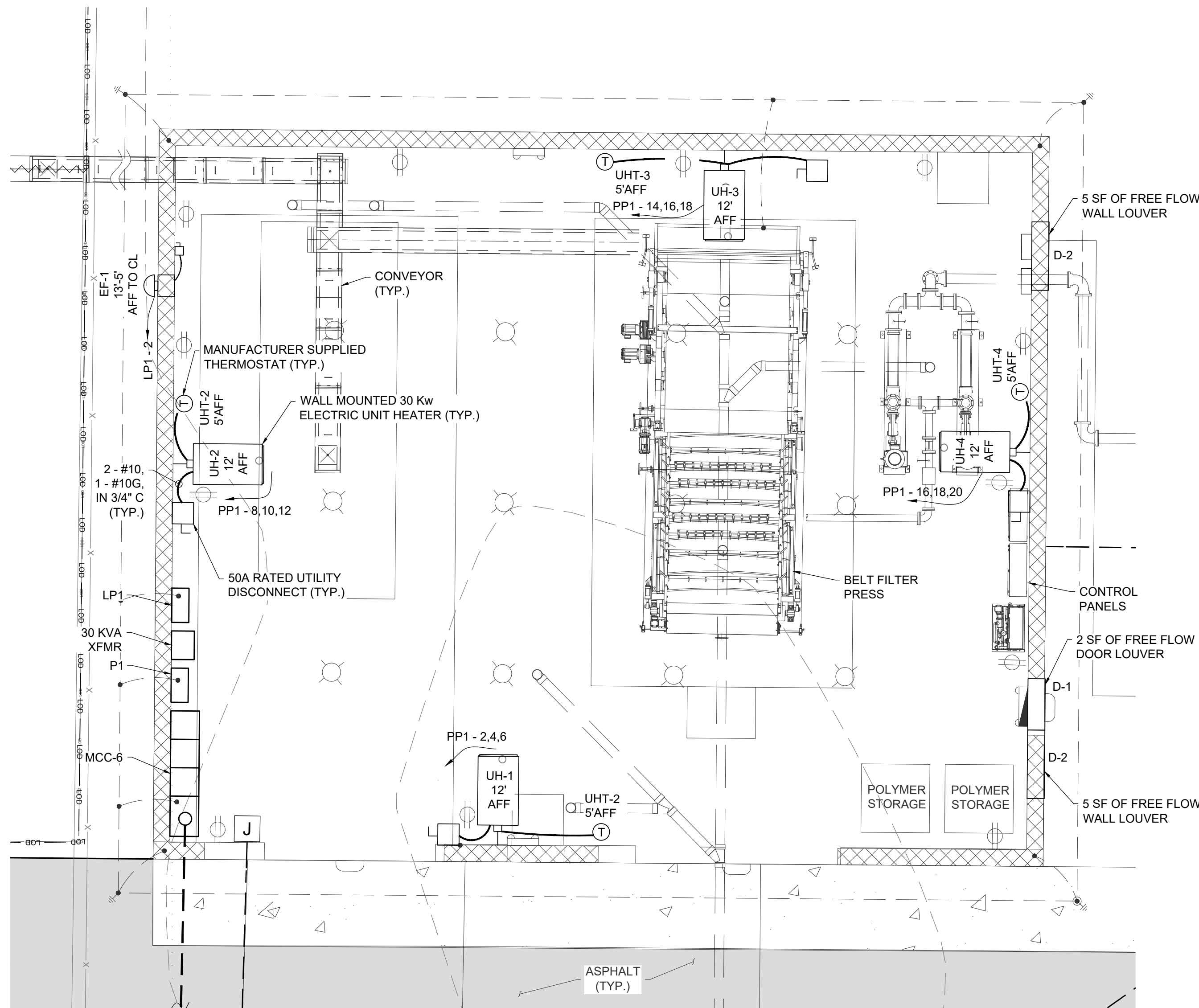
WORCESTER COUNTY COMMISSIONERS

WORCESTER COUNTY, MARYLAND

Date:	JANUARY 2026
Scale:	AS SHOWN
Dwn. By:	PLB
Proj. No.:	0085D027

ELEMENTARIES

Dwg. No.: **E-8**



HVAC PLAN
SCALE: 1" = 5'

OPERATIONS TABLE

SOO #	SERVICE	EQUIPMENT ID	SEQUENCE OF OPERATION
1	VENTILATION	EXHAUST FAN 1	PROVIDE CONTINUOUS OPERATION (24/7/365)
2	HEAT	ELECTRIC UNIT HEATERS 1 TO 4	WHEN SPACE THERMOSTATS UH-1 TO UH-4 DROPS BELOW SET POINT (50 DEGREES ADJUSTABLE) UNIT HEATERS WILL TURN ON. WHEN TEMPERATURES ARE ABOVE SET POINT (50 DEGREES ADJUSTABLE) UNIT HEATERS WILL TURN OFF.

EQUIPMENT TABLE

EQUIPMENT #	SERVICE LOCATION	EQUIPMENT	EQUIPMENT DATA
D-1	BELT FILTER PRESS ROOM	DAYTON DOOR LOUVER, 26 1/8" X 26 1/4", EXTRUDED ALUMINUM, WITH CLEAR ANODIZED FINISH (OR EQUAL)	26"X26" DOOR OPENING WITH 2 3/4 S.F. FREE FLOW AREA, INVERTED V-STYLE BLADES, 45 DEGREE ANGLE
D-2	BELT FILTER PRESS ROOM	DAYTON 45C685 (OR EQUAL)	ROUGH OPENING 36"Hx48"W, MILL FINISH ALUMINUM, 5 SF FREE FLOW AREA, W/ BIRD SCREEN, DRAINABLE.
EF-1	BELT FILTER PRESS ROOM	MAXX AIR 30" HEAVY DUTY IF30 (OR EQUAL)	1/2 HP, 900 RPM, 110/120 VAC, 5,500 CFM, 37.5"H X 37.5" W X 14.1D, GALVANIZED STEEL HOUSING, ALUMINUM SHUTTER
UH-1 TO UH-4	BELT FILTER PRESS ROOM	DAYTON, MODEL 804T08 (OR EQUAL)	WALL R CEILING MOUNTING, 30W, 480V, 3P, PROVIDE MOUNTING BRACKET AND REMOTE THERMOSTAT W/ 24V CONTROLS

EA
Engineering, Science, and Technology, Inc., PBC

11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com

DRAWN BY: GA/SCL
PROJECT NUMBER: 6424501
DESIGNED BY: GA/SCL
PROJECT MANAGER: SCL

SEAL
STATE OF MARYLAND
PROFESSIONAL ENGINEER
55422
06/2/2026
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55422, EXPIRATION DATE: DECEMBER 16, 2027

0 2.5' 5' 10'
GRAPHIC SCALE: 1" = 5'

N

GENERAL MECHANICAL SPECIFICATIONS

- ALL WORK AND EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, ETC. OF ALL AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO: THE INTERNATIONAL MECHANICAL CODE, THE LOCAL FIRE MARSHAL, UNDERWRITERS LABORATORY (UL), IRI, FM, OSHA, AND THE NATIONAL ELECTRICAL CODE (NEC). WHERE CONTRACT DOCUMENT REQUIREMENTS ARE IN EXCESS OF CODE REQUIREMENTS, THE CONTRACT DOCUMENTS SHALL GOVERN. DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY THE ABOVE AUTHORITIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- ALL SPECIFICATIONS AND DRAWINGS, I.E., ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. ANY INFORMATION CONFLICTS WITHIN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
- CONTRACTOR SHALL COORDINATE, PREPARE, AND SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER FOR THEIR APPROVAL. SHOP DRAWINGS TO BE SUBMITTED INCLUDE EXHAUST FANS, UNIT HEATERS, LOUVERS, THERMOSTAT AND ALL ANCILLARY EQUIPMENT NEEDED TO CONSTRUCT TO PROPOSED CONDITIONS. PROVIDE RISES, DROPS, AND OFFSETS AS REQUIRED. BRING AREAS OF POTENTIAL CONFLICT TO THE ENGINEER'S ATTENTION.
- A SET OF MEP RECORD/COORDINATION DRAWINGS SHALL BE MAINTAINED IN THE GENERAL CONTRACTOR'S OFFICE AT THE JOB SITE. ACTUAL LOCATIONS OF ALL EQUIPMENT, PIPING, DUCTWORK, ETC., AND ALL DEVIATIONS OF THE WORK FROM THAT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE MARKED ON THE RECORD/COORDINATION DRAWINGS. EACH TRADE SHALL REVIEW THE COORDINATION DRAWINGS AND RESOLVE ANY POTENTIAL CONFLICTS WITH OTHER TRADES PRIOR TO INSTALLING ANY PORTION OF THEIR WORK. CONTRACTOR SHALL NOT CORE, DRILL, OR CUT CONCRETE SLABS FOR ANY REASON WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE STRUCTURAL ENGINEER AND THE OWNER.
- WORK SHALL BE EXECUTED IN A GOOD WORKMANLIKE MANNER USING MECHANICS SKILLED IN THEIR RESPECTIVE TRADES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING THE WORK UNDER THIS CONTRACT. MAINTAIN THE CONSTRUCTION PREMISES IN A NEAT AND ORDERLY CONDITION AT THE END OF EACH WORKING DAY.
- IN CASES OF DOUBT AS TO THE WORK INTENDED, OR IN THE EVENT OF NEED FOR EXPLANATION THEREOF, THE CONTRACTOR SHALL REQUEST SUPPLEMENTARY INSTRUCTIONS FROM THE ENGINEER. NO CHANGES ARE TO BE MADE TO THE WORK OF THIS CONTRACT WITHOUT PRIOR KNOWLEDGE AND APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL HOLD THE OWNER AND ITS CONSULTANTS HARMLESS AGAINST ALL CLAIMS AND JUDGMENTS ARISING OUT OF THE CONTRACTOR'S PERFORMANCE OF THE WORK OF THIS CONTRACT. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK, WHICH HE EXPECTS ADDITIONAL COMPENSATION FOR BEYOND THE CONTRACT AMOUNT, WITHOUT WRITTEN AUTHORIZATION FROM THE APPROPRIATE AUTHORITY. FAILURE TO OBTAIN SUCH AUTHORIZATION SHALL INVALIDATE ANY CLAIM FOR EXTRA COMPENSATION.
- CONTRACTOR SHALL VERIFY THAT THE LOCATION OF DIFFUSERS, GRILLES, AND REGISTERS SHOWN ON THE DRAWINGS ARE ACCEPTABLE TO THE ARCHITECT PRIOR TO INSTALLATION.
- ALL AUTOMATIC TEMPERATURE CONTROL SYSTEM WORK AND INSPECTION SHALL BE ACCOMPLISHED BY THIS CONTRACTOR. THERMOSTATS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS UNDER THIS CONTRACT. STANDARD MOUNTING HEIGHT TO TOP OF THERMOSTAT IS 48" ABOVE FINISHED FLOOR OR AS INDICATED ON THE MECHANICAL DRAWINGS. DO NOT INSTALL THERMOSTATS NEAR DIMMER SWITCHES. WIRING OF ALL MOTORIZED OPERATORS AND THERMOSTATS (REGARDLESS OF VOLTAGE) ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
- CONTRACTOR SHALL MAKE ALL FINAL EQUIPMENT CONNECTIONS AND PROVIDE THE NECESSARY ADAPTORS, FITTINGS, VALVES, DEVICES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM. COORDINATE REQUIREMENT FOR PROVISION OF MOTOR STARTERS, DISCONNECTS, CONTRACTORS, CONTROL WIRING, ETC. AS REQUIRED FOR PROPER FUNCTIONING SYSTEM WITH DIVISION 16.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL THE HEATING AND VENTILATION SYSTEM SO AS TO MINIMIZE NOISE. NO VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE BUILDING, STRUCTURE, OR OCCUPIED AREAS. THE DECISION OF THE ENGINEER AS TO THE QUIETNESS OF THE SYSTEM AND EQUIPMENT SHALL BE FINAL. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO CORRECT OR REPLACE ANY NOISY SYSTEM OR EQUIPMENT AS REQUIRED. NOISE LEVEL SHALL BE BASED ON MANUFACTURES RECOMMENDATIONS FOR EACH SPECIFIC EQUIPMENTS INTENDED USE AND EXPOSURE TO OPERATORS.
- CONNECTIONS BETWEEN DISSIMILAR PIPING MATERIALS SHALL BE MADE WITH SUITABLE DIELECTRIC INSULATING UNIONS. ISOLATE COPPER PIPING FROM DISSIMILAR METALS, SUCH AS METAL STUDS AND VENT PIPING.
- PROVIDE VALVES AND UNIONS WHERE NEEDED TO PERMIT DISCONNECTIONS OF EACH PIECE OF EQUIPMENT FOR REPAIRS.
- ALL DAMPERS AND EQUIPMENT SHALL BE PROPERLY IDENTIFIED. ALL DAMPERS AND VALVES SHALL HAVE THEIR NORMAL (IN OPERATION) POSITION IDENTIFIED, SUCH AS "NORMALLY OPEN" OR "NORMALLY CLOSED."
- ALL PACKAGED EQUIPMENT SHALL BE INDEPENDENT THIRD PARTY LABELED AS A SYSTEM FOR ITS INTENDED USE BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) IN ACCORDANCE WITH OSHA FEDERAL REGULATIONS 29CFR1910.303 AND .399, AS WELL AS NFPA PAMPHLET NO. 70, AND THE NATIONAL ELECTRICAL CODE (NEC), ARTICLE 90-7.
- CLEAN ALL MECHANICAL EQUIPMENT AND DUCTWORK OF ALL CONSTRUCTION DUST AT PROJECT COMPLETION. REPLACE ALL FILTERS PRIOR TO AIR BALANCING. PROVIDE ONE SPARE SET OF FILTERS FOR EACH PIECE OF EQUIPMENT TO THE OWNER.
- AIR BALANCING SHALL BE PERFORMED BY AN AABC CERTIFIED CONTRACTOR. THIS CONTRACTOR SHALL BE ACCEPTABLE UPON APPROVAL OF THE ENGINEER. GPM'S SHALL BE BALANCED WITHIN 10% OF DESIGN. AFTER ALL AIR SYSTEMS ARE INSTALLED, EACH SUPPLY AIR OUTLET SHALL BE AIR BALANCED TO WITHIN 10% OF THE CFM SHOWN WITH AIR PATTERNS SET AS INDICATED ON DRAWINGS (OR WITHIN 10 CFM WHEN BELOW 100 CFM). FAN RMP'S AND DAMPERS SHALL BE ADJUSTED AND SHEAVES SHALL BE REPLACED AS REQUIRED TO ACHIEVE AIR BALANCE. AABC ASHRAE FORMAT AIR BALANCE REPORTS SHALL BE CERTIFIED BY THE BALANCING AGENCY AND SUBMITTED TO THE ENGINEER. SHOULD THE AIR BALANCE REPORT INDICATE UNACCEPTABLE DUCT LEAKAGE, AS DETERMINED BY THE ENGINEER, THEN DUCT LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE WITH AABC STANDARDS. DUCT SHALL BE RESEALED AND/OR REPAIRED AS REQUIRED TO MEET DESIGN REQUIREMENTS. ALL OR PORTIONS OF THE SYSTEM SHALL BE REBALANCED AS REQUIRED UNTIL ALL SYSTEMS ARE WITHIN THE PERFORMANCE STANDARDS LISTED ABOVE.

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland License No. 31100 Expiration Date: 01-21-27

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS • ENGINEERS • SURVEYORS
BALTIMORE, MARYLAND
410.730.7141

OCEAN PINES BIOSOLIDS
DEWATERING
WORCESTER COUNTY COMMISSIONERS
WORCESTER COUNTY, MARYLAND

Date: JANUARY 2026
Scale: AS SHOWN
Dwn By: PLB
Proj No.: 0085D027

HVAC PLAN
AND NOTES

Dwg No.:

M-1