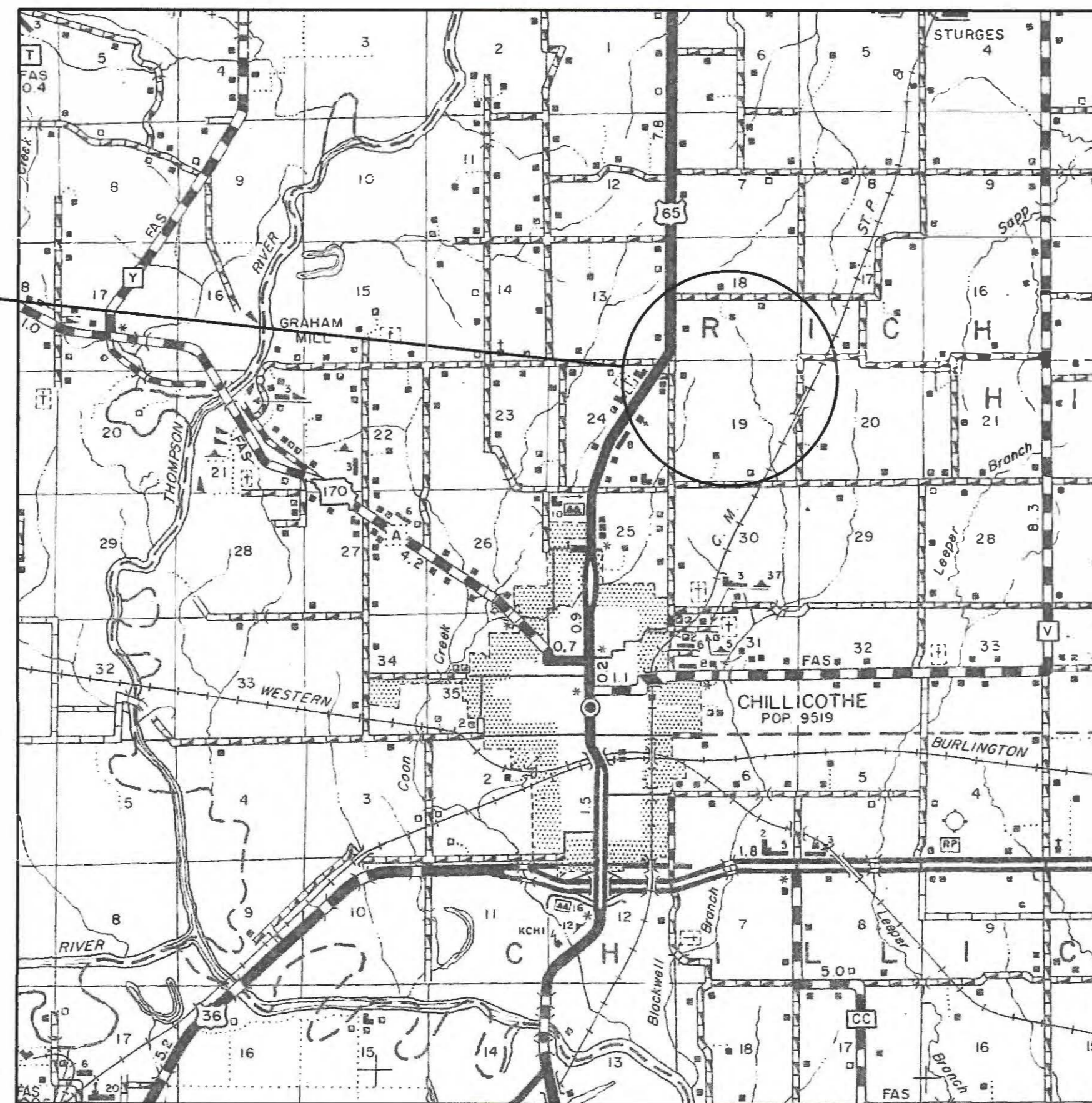
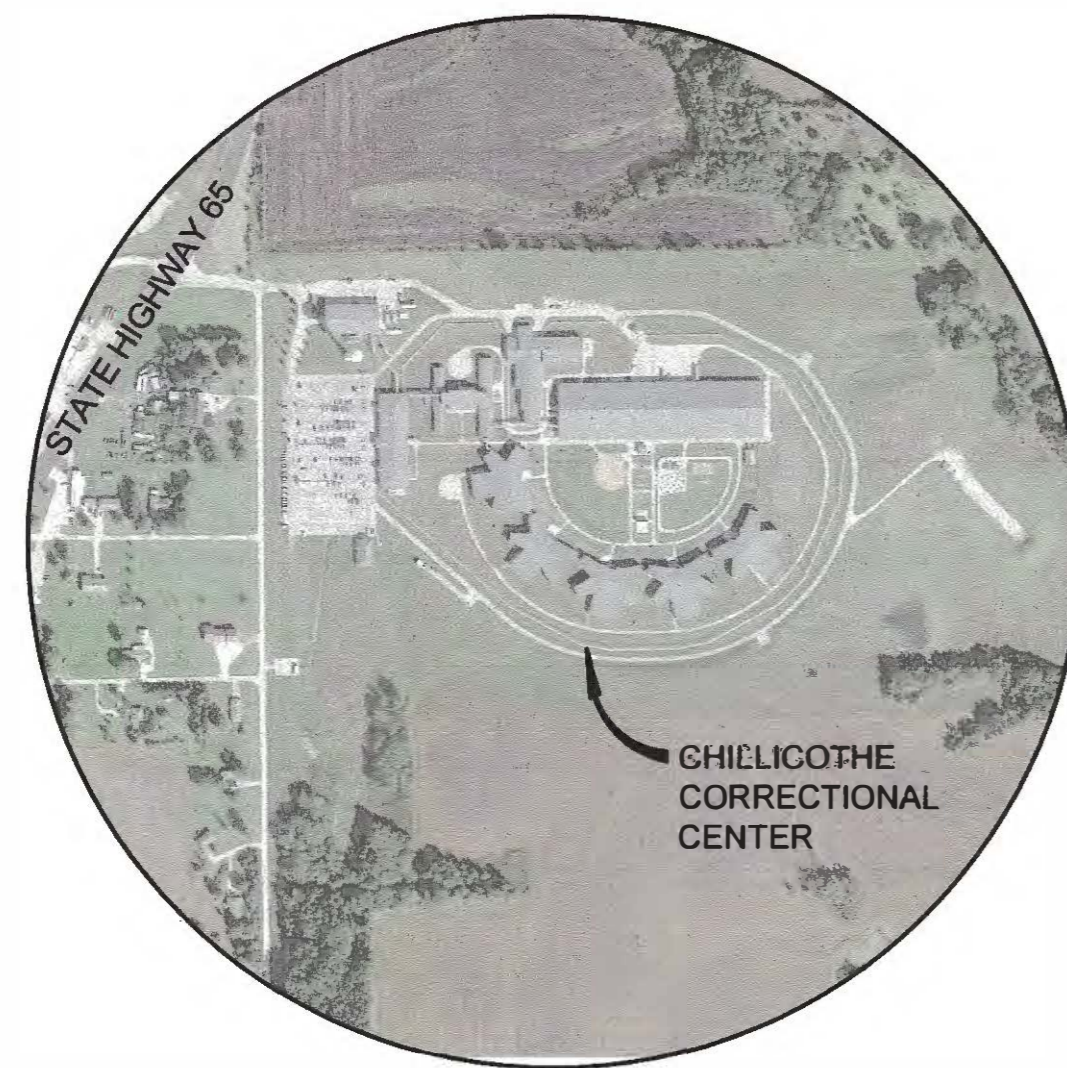


# Replace Sewer Screening System Chillicothe Correctional Center 3151 Litton Road Chillicothe, Missouri



OFFICE LOCATIONS  
HANNIBAL, MO  
JEFFERSON CITY, MO  
BRANSON, MO  
BOONVILLE, MO  
PITTSFIELD, IL



LOCATION MAP

## INDEX OF SHEETS

SHEET NO.	SHEET DESCRIPTION
G-001	COVER SHEET / LOCATION MAP
C-101	EXISTING SITE CONDITIONS / ELECTRICAL SERVICE
C-102	SITE PLAN
A-101	BUILDING DETAILS
A-102	OVERHEAD DOOR DETAILS
M-501	EXISTING SCREEN & NEW DEWATERING SCREW PRESS UNIT DETAILS
M-502	GRINDER STATION DETAILS

OWNER: STATE OF MISSOURI  
MICHAEL L. PARSON, GOVERNOR  
DEPARTMENT OF CORRECTIONS

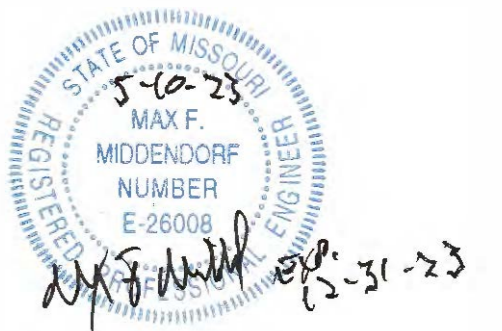
PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES MANAGEMENT,  
DESIGN AND CONSTRUCTION

DESIGNER: MECO ENGINEERING COMPANY INC.

PROJECT NUMBER: C2223-02

SITE NUMBER: 7030  
ASSET NUMBER: 9327030038

MISSOURI STATE CERTIFICATE OF AUTHORITY: 00273655

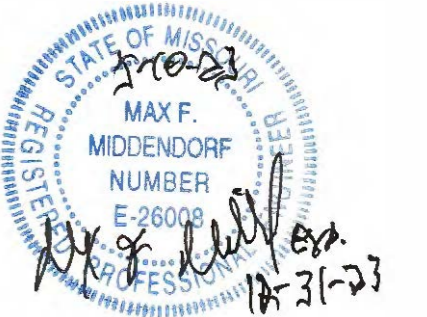


MAX F. MIDDENDORF  
PROFESSIONAL ENGINEER  
LICENSE NO. E-26008

SHEET NUMBER:

# G-001

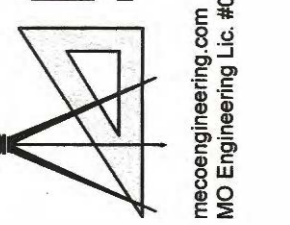
1 OF 7 SHEETS  
MAY 05, 2023



MAX F. MIDDENDORF  
PROFESSIONAL ENGINEER  
LICENSE NO. E-26008

OFFICE LOCATIONS  
HANNIBAL, MO  
JEFFERSON CITY, MO  
BRANSON, MO  
PITTSFIELD, IL

**MECO**  
ENGINEERING CO., INC.



mecoengineering.com  
MO Engineering Lic. #000898 - IL Design Firm #64-001749

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND CONSTRUCTION

DEPARTMENT OF  
CORRECTIONS

REPLACE SEWER  
SCREENING SYSTEM

CHILLICOTHE CORRECTIONAL  
CENTER  
3151 LITTON ROAD  
CHILLICOTHE, MISSOURI

PROJECT # C2223-02  
SITE # 7030  
ASSET # 9327030038

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 5/05/2023

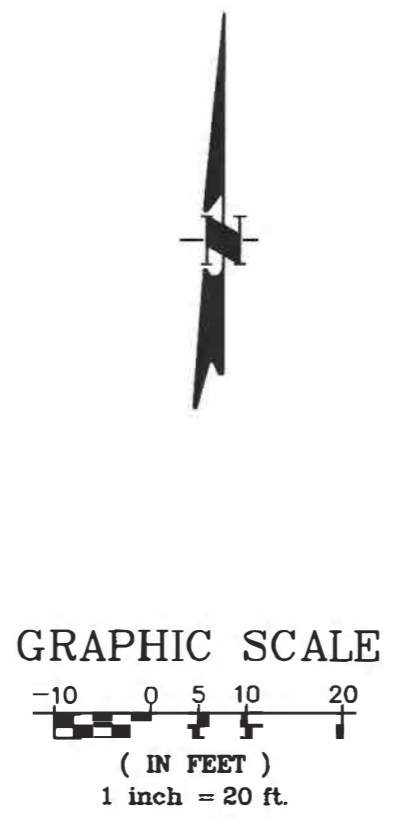
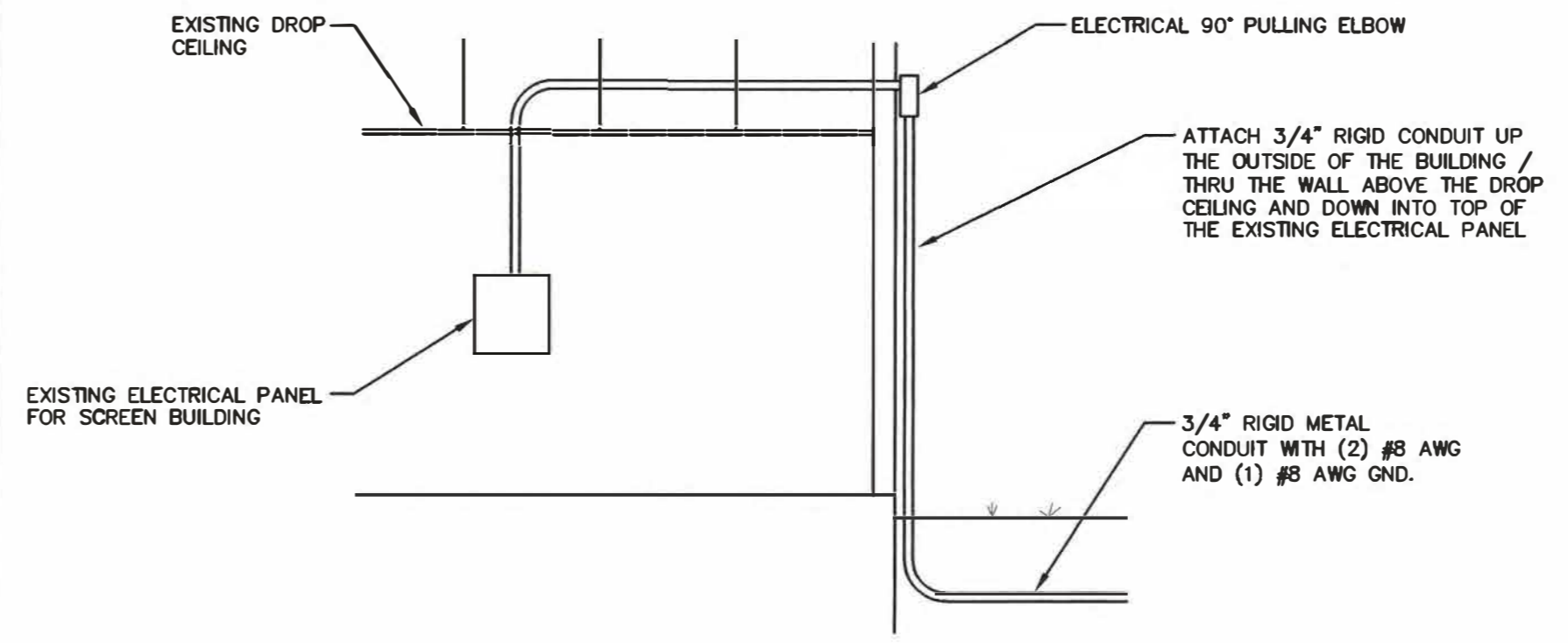
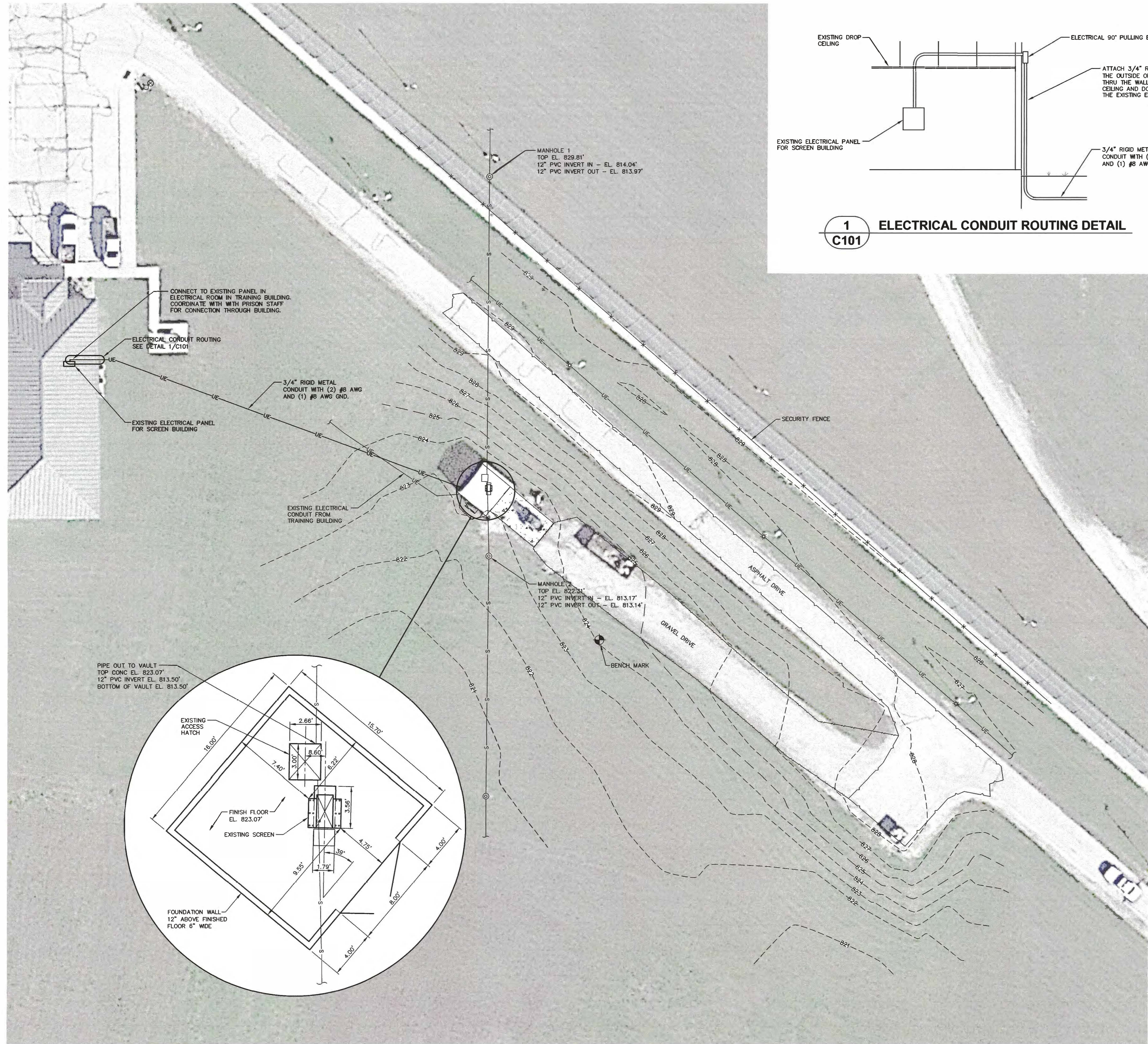
CAD DWG FILE: C-101.DWG  
DRAWN BY: J. LEWIS  
CHECKED BY: C. HUDDLESTON  
DESIGNED BY: B. MARTIN

SHEET TITLE:  
**EXISTING SITE  
CONDITIONS /  
ELECTRICAL SERVICE**

SHEET NUMBER:

**C-101**

SHEET20F7  
MAY 05, 2023



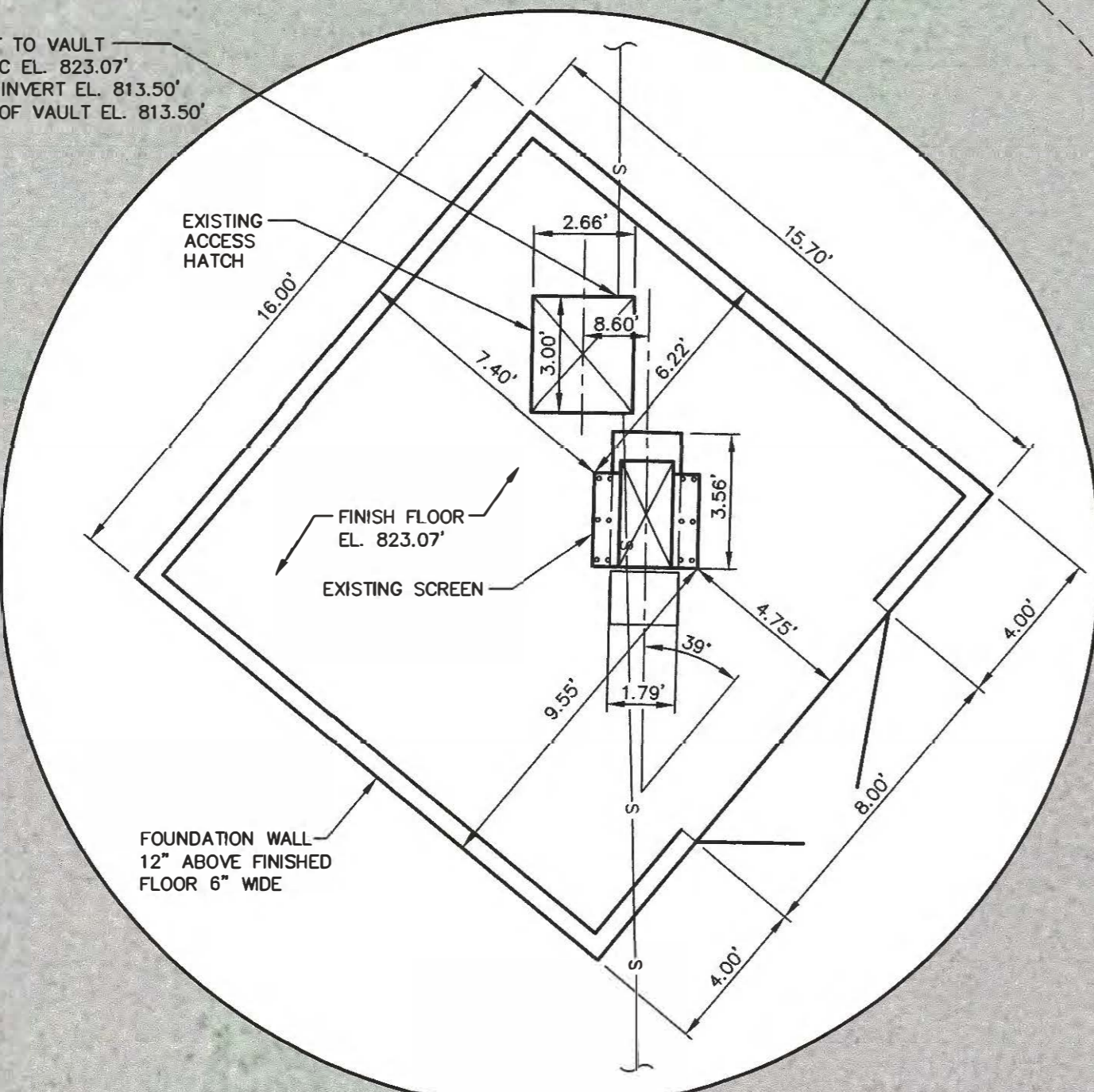
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

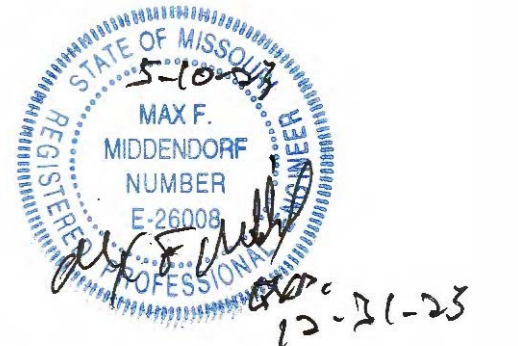
**BENCH MARK INFORMATION**

5/8 INCH REBAR SET  
EL. 824.09'

**LEGEND**

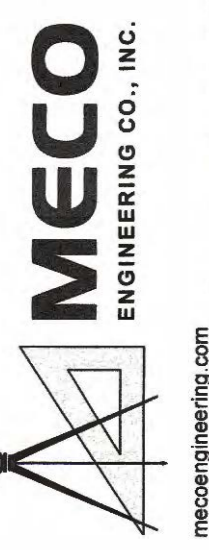
- ⊕ BENCHMARK
- ⊛ LIGHT POLE
- UE— UNDERGROUND ELECTRIC
- S— SANITARY SEWER
- ⊙ MANHOLE EXISTING
- ⊕ FIRE HYDRANT EXISTING
- x— BARBED WIRE SECURITY FENCE
- ▭ EDGE OF ASPHALT
- ▭ EDGE OF GRAVEL
- ▭ EDGE OF CONCRETE
- 670- CONTOUR LINE ELEVATION





MAX F. MIDDENDORF  
PROFESSIONAL ENGINEER  
LICENSE NO. E-26008

OFFICE LOCATIONS  
HANNIBAL, MO  
JEFFERSON CITY, MO  
BRANSON, MO  
PITTSFIELD, IL



OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND CONSTRUCTION

DEPARTMENT OF  
CORRECTIONS

REPLACE SEWER  
SCREENING SYSTEM

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CENTER  
3151 LITTON ROAD  
CHILLICOTHE, MISSOURI

PROJECT # C2223-02  
SITE # 7030  
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REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 5/05/2023

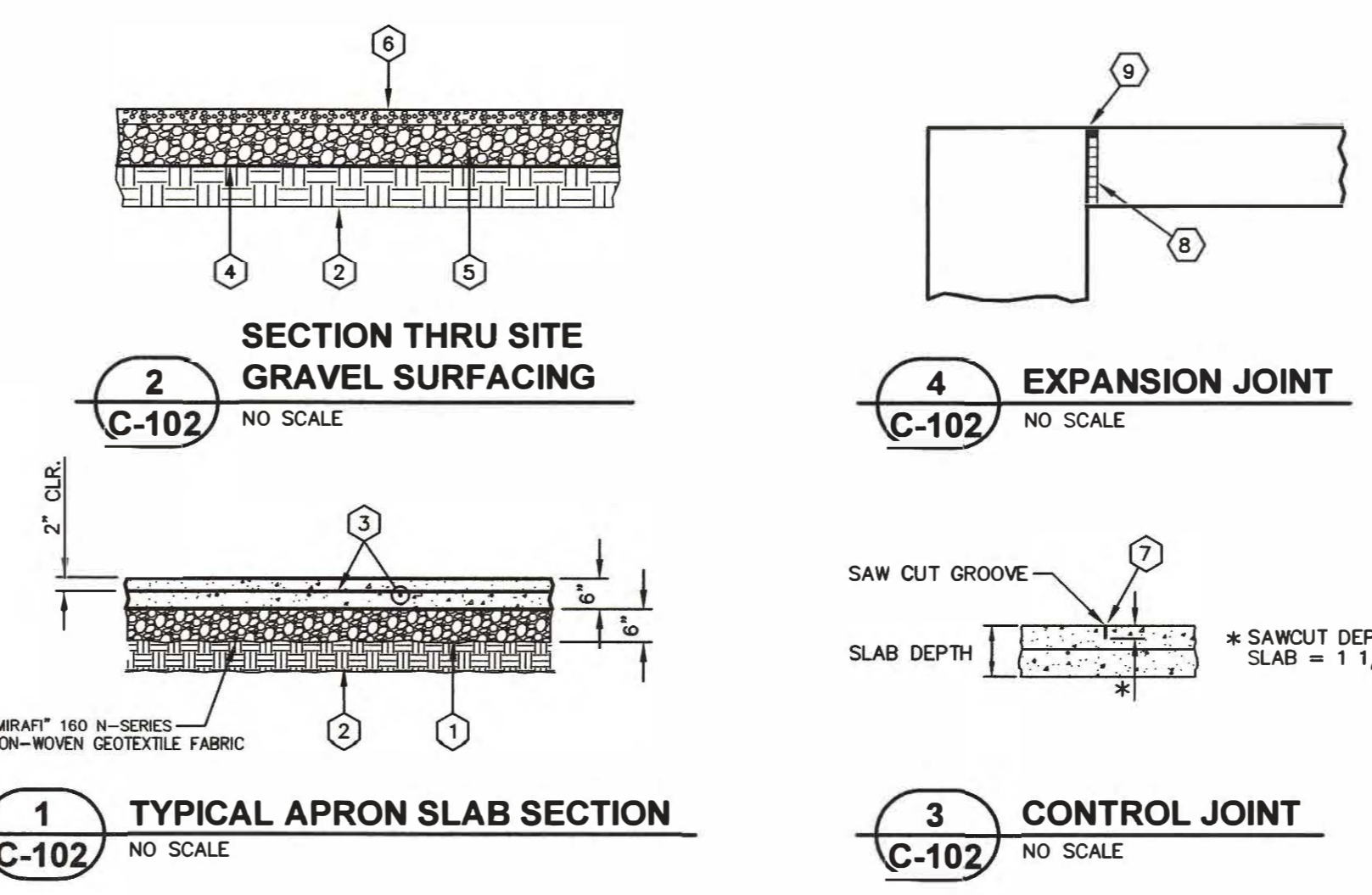
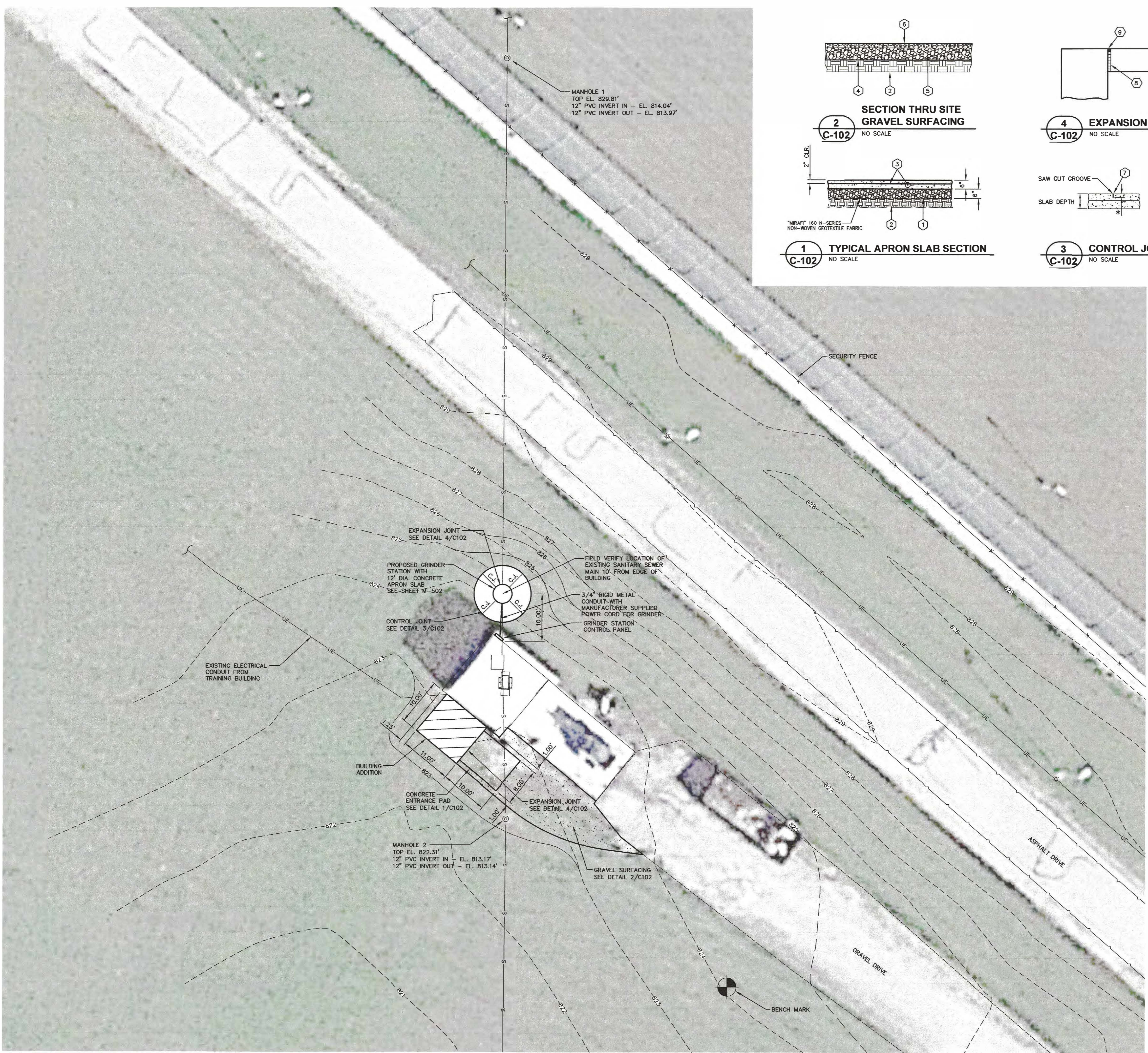
CAD DWG FILE: C-102.DWG  
DRAWN BY: R.HAYES  
CHECKED BY: C.HUDDLESTON  
DESIGNED BY: B.MARTIN

SHEET TITLE:  
SITE PLAN

SHEET NUMBER:

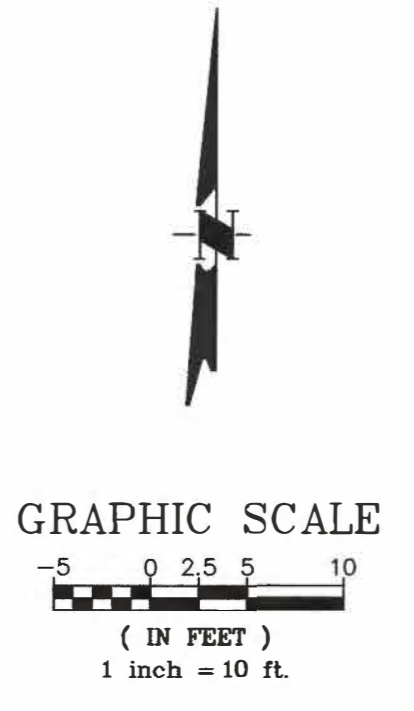
C-102

SHEET30F7  
MAY 05, 2023



- KEY NOTES**
- 1 6" THICK COMPACTED CRUSHED STONE BASE
  - 2 UNDISTURBED OR VIBRATORY COMPACTED BACKFILL
  - 3 #4 BARS @ 12" O.C.
  - 4 "MIRAFI" 160 N-SERIES NON-WOVEN GEOTEXTILE FABRIC
  - 5 PROVIDE 6" OF 3" TO 4" (BOX ROCK) CRUSHED STONE
  - 6 PROVIDE 3" OF 1" MINUS CRUSHED STONE TO BE APPLIED AFTER ALL CONSTRUCTION HAS BEEN COMPLETED
  - 7 "SONNEBORN" NP1 (OR EQUAL) SINGLE-COMPONENT POLYURETHANE SEALANT
  - 8 1/2" EXPANSION JOINT MATERIAL
  - 9 "SONNEBORN" NP1 (OR EQUAL) SINGLE-COMPONENT POLYURETHANE SEALANT (1/2" DEPTH)

NOTE:  
CONTRACTOR WILL NEED TO PROVIDE AND COORDINATE WITH THE PRISON FOR BYPASS PUMPING DURING INSTALLATION OF THE GRINDER STATION. BYPASS PIPING MY ALSO BE CONSIDERED ONCE CONTRACTOR PROVIDES METHOD TO ENGINEER FOR APPROVAL.



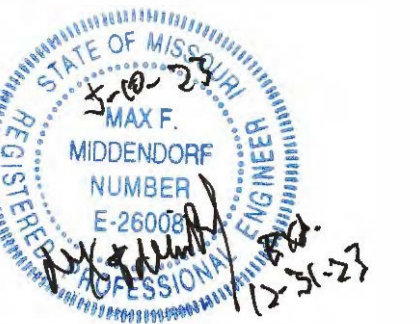
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**BENCH MARK INFORMATION**

5/8 INCH REBAR SET  
EL. 824.09'

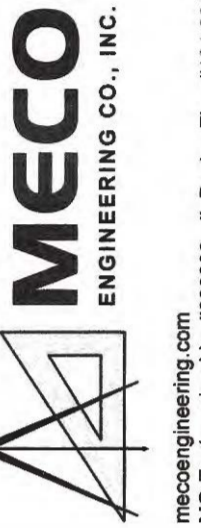
**LEGEND**

- ◆ BENCHMARK
- \* LIGHT POLE
- ue- UNDERGROUND ELECTRIC
- s- SANITARY SEWER
- ⊙ MANHOLE EXISTING
- ⊕ FIRE HYDRANT EXISTING
- x- BARBED WIRE SECURITY FENCE
- ▭ EDGE OF ASPHALT
- ▭ EDGE OF GRAVEL
- ▭ EDGE OF CONCRETE
- 670- CONTOUR LINE ELEVATION



MAX F. MIDDENDORF  
PROFESSIONAL ENGINEER  
LICENSE NO. E-26008

OFFICE LOCATIONS  
HANNIBAL, MO  
JEFFERSON CITY, MO  
BRANSON, MO  
PITTSFIELD, IL



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OFFICE OF ADMINISTRATION  
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DEPARTMENT OF  
CORRECTIONS

REPLACE SEWER  
SCREENING SYSTEM

CHILLICOTHE CORRECTIONAL  
CENTER  
3151 LITTON ROAD  
CHILLICOTHE, MISSOURI

PROJECT # C2223-02  
SITE # 7030  
ASSET # 9327030038

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
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DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 5/05/2023

CAD DWG FILE: A-101.DWG  
DRAWN BY: R.HAYES  
CHECKED BY: C.HUDDLESTON  
DESIGNED BY: B.MARTIN

SHEET TITLE:  
BUILDING DETAILS

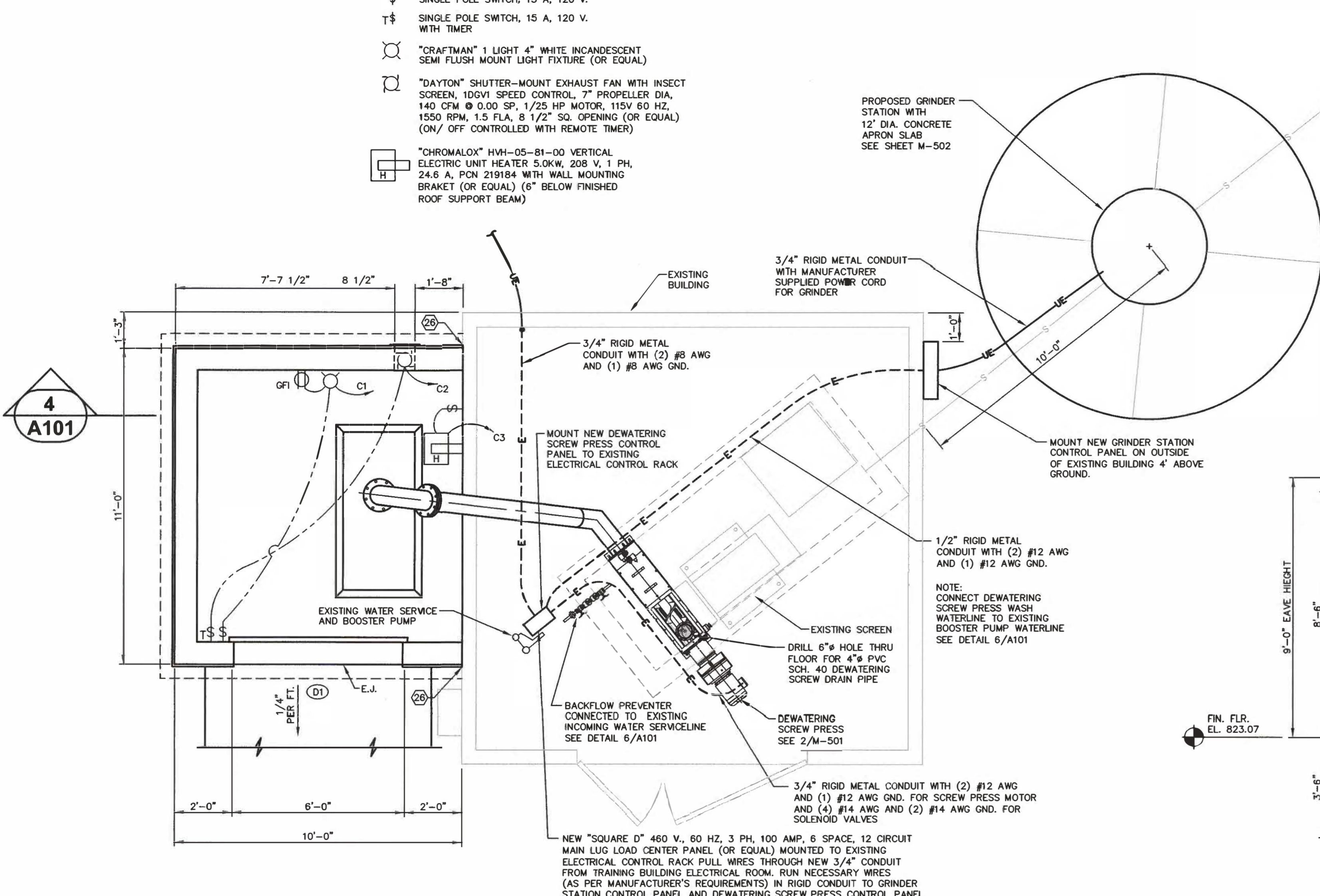
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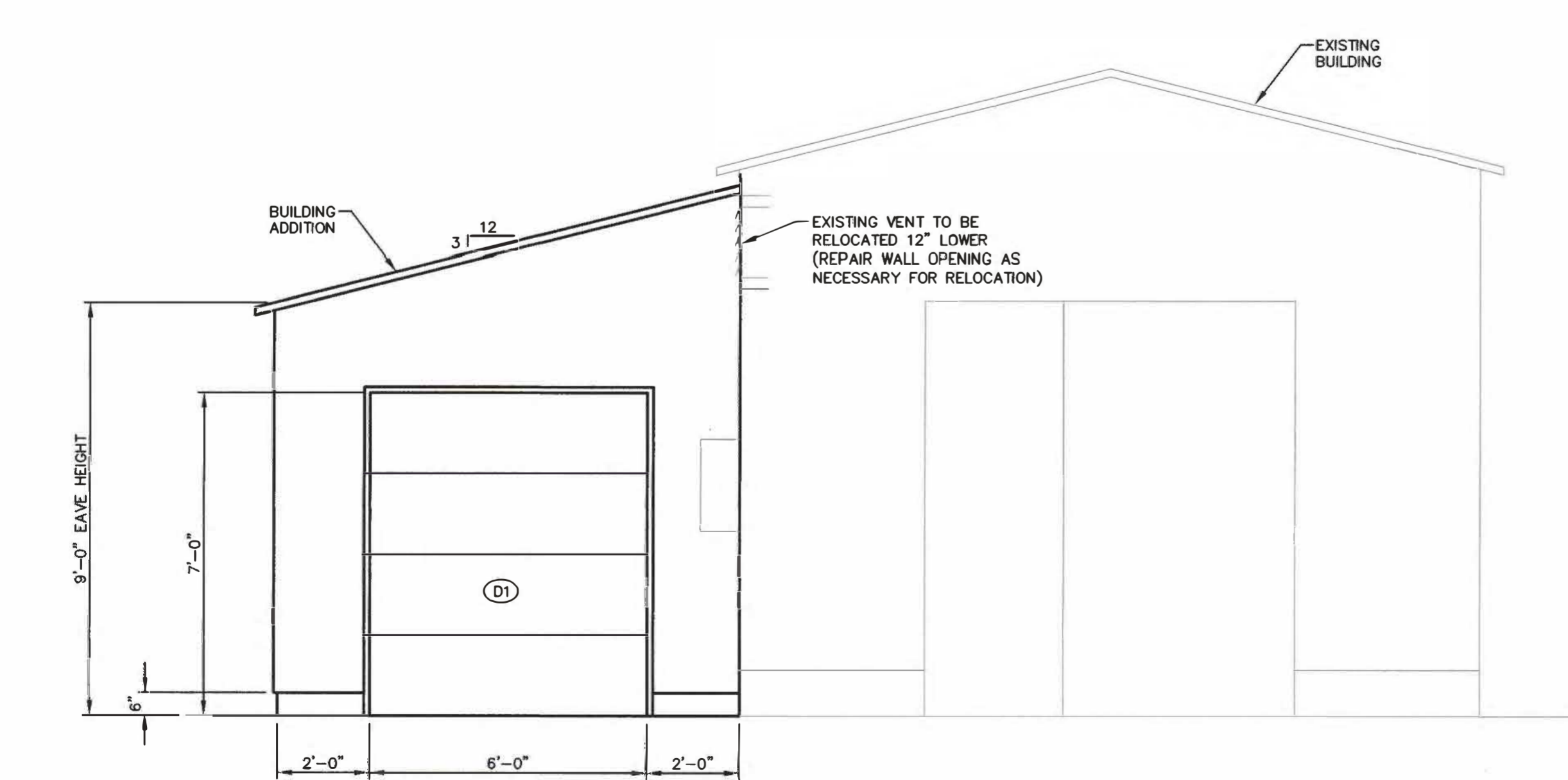
SHEET40F7  
MAY-05-,2023

ELECTRICAL SYMBOLS

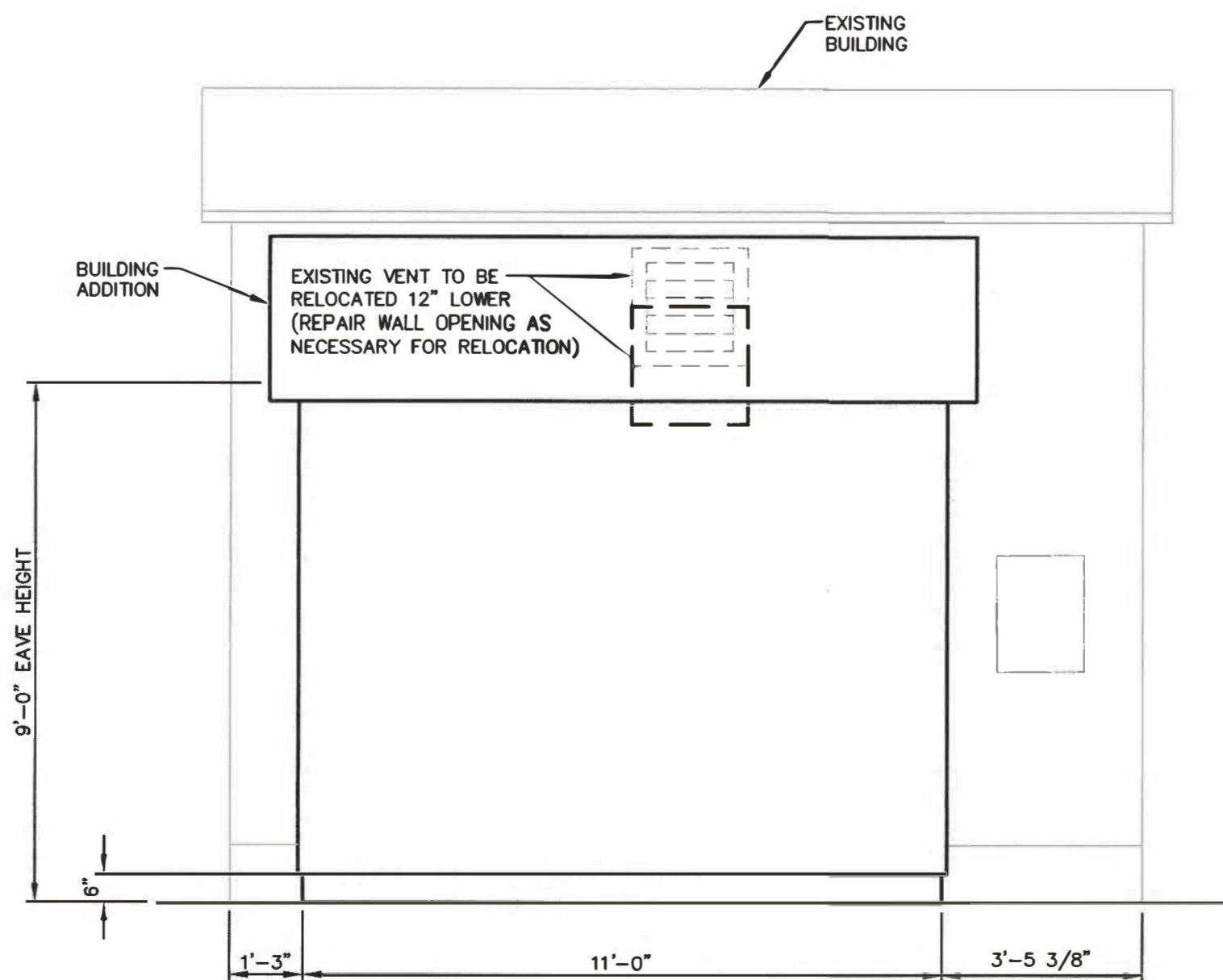
- DUPLEX RECEPTACLE WITH INTERNAL GROUND FAULT PROTECTION, 15 A, 125 VAC (48" ABOVE FINISHED FLOOR)
- SINGLE POLE SWITCH, 15 A, 120 V.
- SINGLE POLE SWITCH, 15 A, 120 V. WITH TIMER
- "CRAFTMAN" 1 LIGHT 4" WHITE INCANDESCENT SEMI FLUSH MOUNT LIGHT FIXTURE (OR EQUAL)
- "DAYTON" SHUTTER-MOUNT EXHAUST FAN WITH INSECT SCREEN, 10GV1 SPEED CONTROL, 7" PROPELLER DIA, 140 CFM @ 0.00 SP, 1/25 HP MOTOR, 115V 60 HZ, 1550 RPM, 1.5 FLA, 8 1/2" SQ. OPENING (OR EQUAL) (ON/ OFF CONTROLLED WITH REMOTE TIMER)
- "CHROMALOX" HWH-05-81-00 VERTICAL ELECTRIC UNIT HEATER 5.0KW, 208 V, 1 PH, 24.6 A, PON 219184 WITH WALL MOUNTING BRACKET (OR EQUAL) (6" BELOW FINISHED ROOF SUPPORT BEAM)



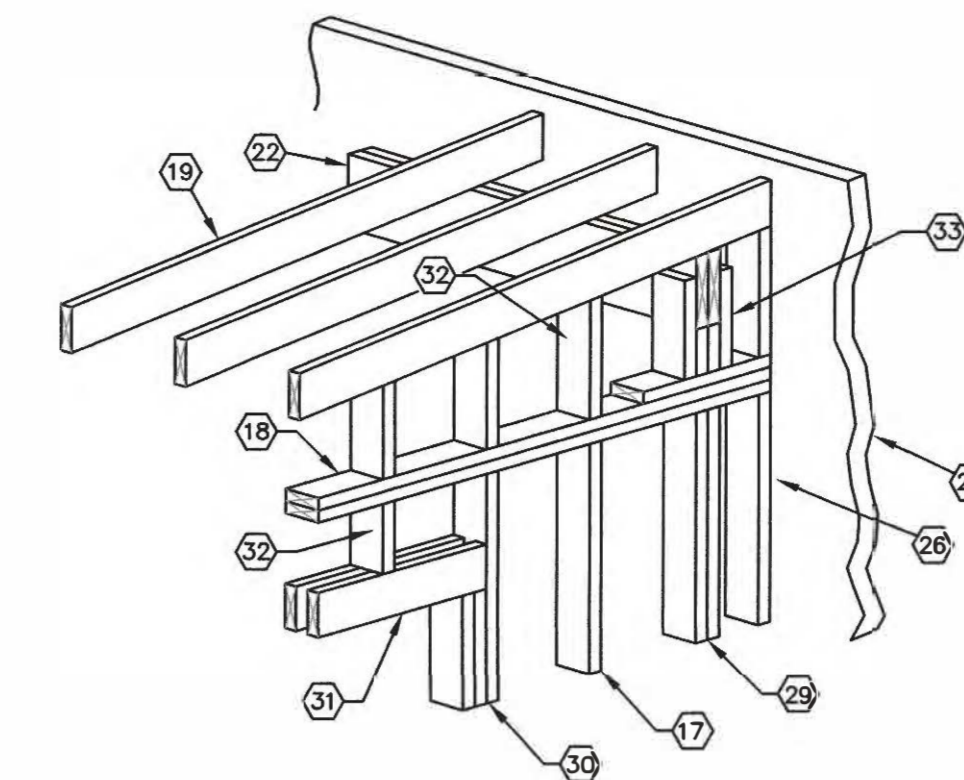
**1 BUILDING PLAN**  
SCALE: 3/8" = 1'-0"



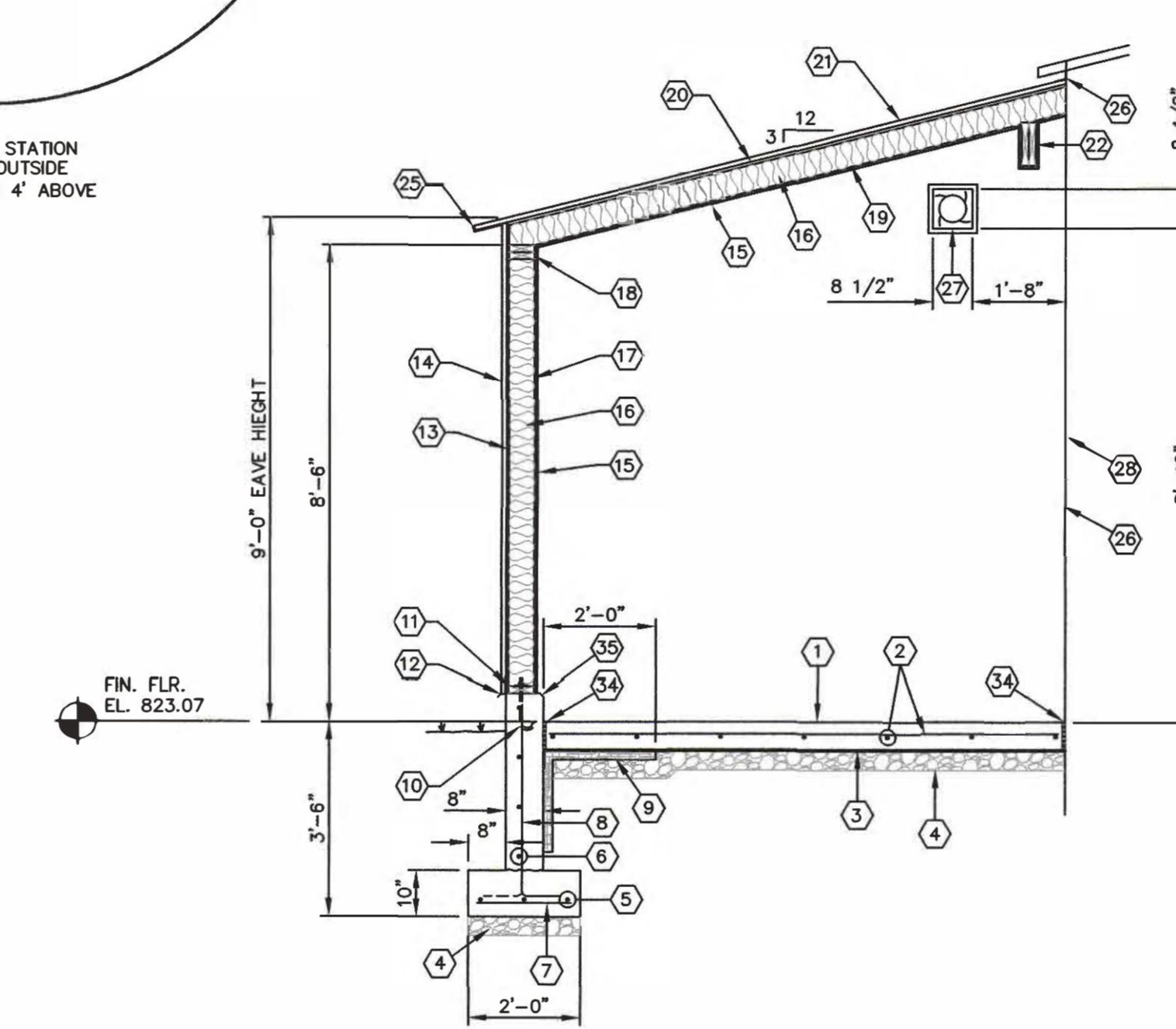
**2 FRONT VIEW**  
SCALE: 3/8" = 1'-0"



**3 SIDE VIEW**  
SCALE: 3/8" = 1'-0"

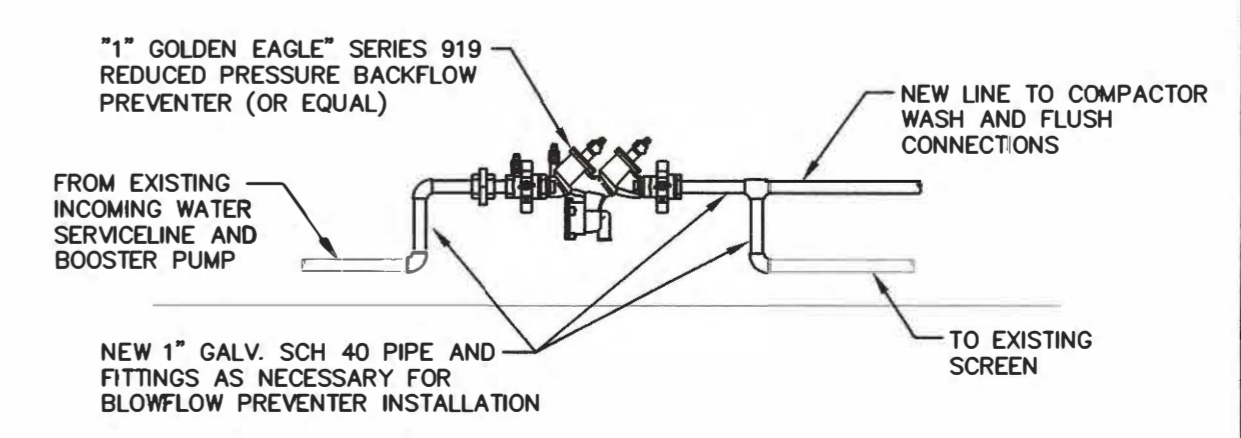


**5 GENERAL ROOF AND WALL FRAMING DETAIL**  
NO SCALE

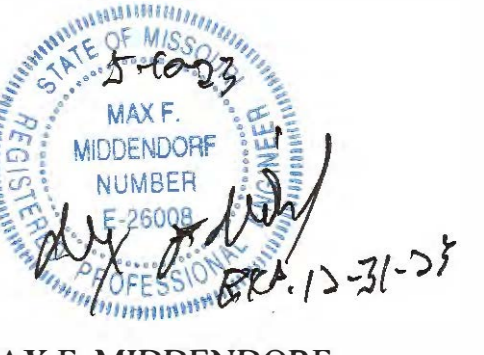


**4 WALL SECTION**  
SCALE: 3/8" = 1'-0"

- KEY NOTES**
- 1 6" THICK CONCRETE SLAB
  - 2 #4 BARS @ 18" O.C.
  - 3 6 MIL. POLY VAPOR BARRIER
  - 4 4" COMPACTED CRUSHED STONE BASE
  - 5 (3) #4 HORIZ. BARS (EQUAL SPACED)
  - 6 (4) #4 HORIZ. BARS (EQUAL SPACED)
  - 7 #4 BARS @ 12" O.C.
  - 8 #4 DWEL BARS WITH STD. HOOK @ 12" O.C. (ALTERNATE HOOK DIRECTIONS)
  - 9 2" THICK RIGID STYROFOAM (R 10.4) SB TYPE EXTRUDED POLYSTYRENE INSULATION AROUND PERIMETER ON EXTERIOR WALL SIDES (DOW CHEMICAL OR EQUAL)
  - 10 3/8" J-BOLTS WITH 3"x3" FLAT WASHER @ 48" O.C. MAX.
  - 11 2x6 TREATED BASE PLATE
  - 12 PREFINISHED DRIP EDGE FLASHING
  - 13 1/2" OSB SHEATHING
  - 14 26 GA. METAL SIDE WALL PANELS
  - 15 1/8" FIBERGLASS GLUED TO 1/2" OSB CEILING AND WALL PANELS
  - 16 5 1/2" OF R-19 MET SPRAY CLOSED CELL POLYETHYLENE INSULATION
  - 17 2x6 WALL STUDS @ 16" O.C.
  - 18 (2) 2x6 TOP PLATE
  - 19 2x6 RAFTERS @ 16" O.C.
  - 20 5/8" OSB SHEATHING
  - 21 26 GA. STANDING SEAM METAL ROOF PANELS
  - 22 (2) 2x10 BEAM
  - 23 PREFINISHED EAVE TRIM
  - 24 PREFINISHED FLASHING
  - 25 SHUTTER-MOUNT EXHAUST FAN
  - 26 EXISTING BUILDING (TO REMAIN)
  - 27 (2) 2x6 COLUMN
  - 28 (1) 2x6 KING STUD AND (2) JACK STUDS
  - 29 (2) 2x6 HEADER WITH FILLER BLOCKING
  - 30 2x6 CRIPPLE STUDS
  - 31 2x6 BEAM SUPPORT POCKET
  - 32 1/2" EXPANSION JOINT
  - 33 3/4" CHAMFER



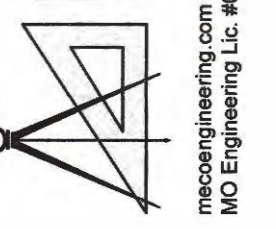
**6 BACKFLOW PREVENTER**  
NO SCALE



MAX F. MIDDENDORF  
PROFESSIONAL ENGINEER  
LICENSE NO. E-26008

OFFICE LOCATIONS  
HANNIBAL, MO  
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BRANSON, MO  
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PITTSFIELD, IL

**MECO**  
ENGINEERING CO., INC.



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MO Engineering, L.C. #003698 - IL Design Firm #184-001749

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DIVISION OF FACILITIES  
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DESIGN AND CONSTRUCTION

DEPARTMENT OF  
CORRECTIONS

REPLACE SEWER  
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CHILLICOTHE CORRECTIONAL  
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PROJECT # C2223-02  
SITE # 7030  
ASSET # 9327030038

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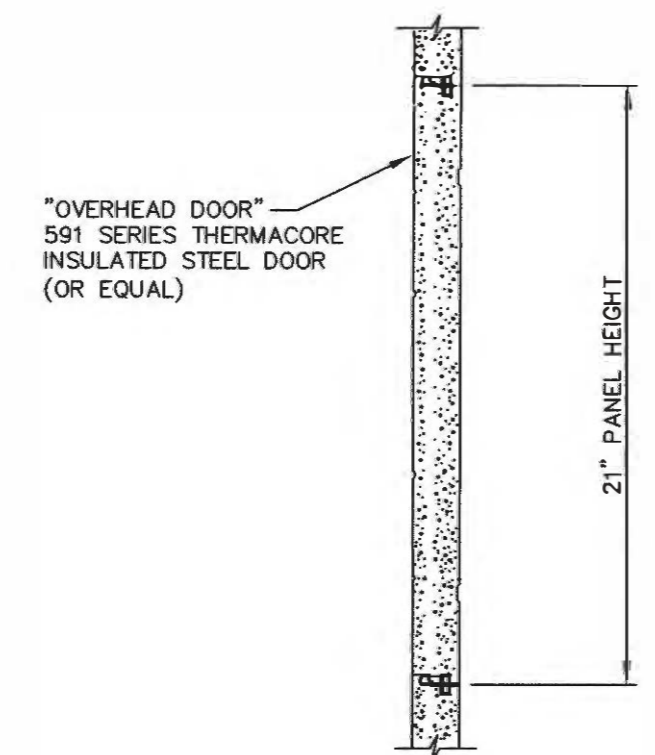
CAD DWG FILE: A-102.DWG  
DRAWN BY: R.HAYES  
CHECKED BY: C.HUDDLESTON  
DESIGNED BY: B.MARTIN

SHEET TITLE:  
**OVERHEAD DOOR  
DETAILS**

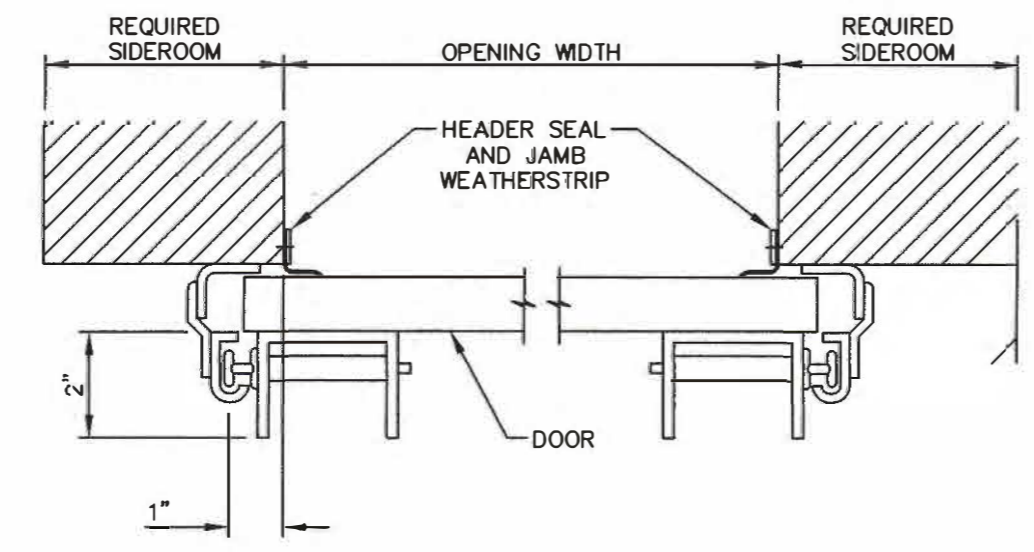
SHEET NUMBER:

**A-102**

SHEETSOFT  
MAY 05, 2023



**4 SECTION B-B**  
NO SCALE  
A102

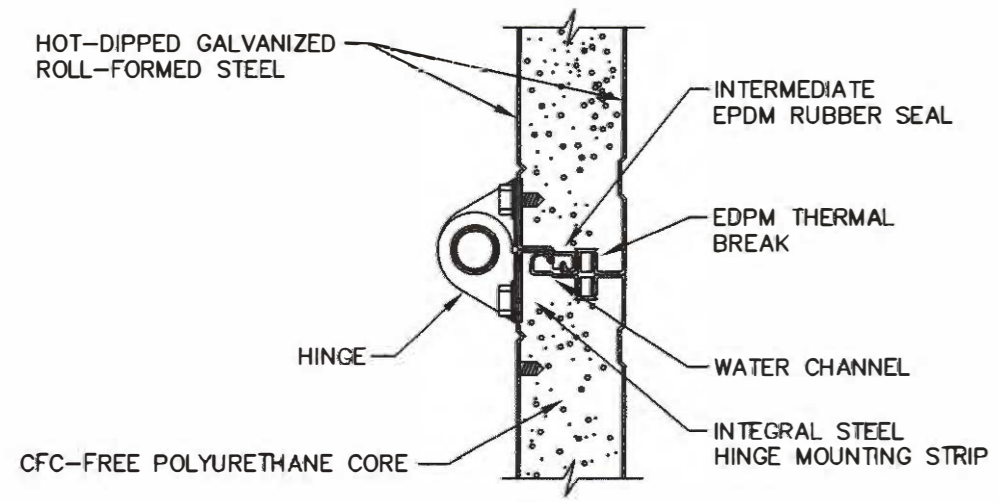


**3 FRAMING / PADS  
JAMB PLAN VIEW**  
NO SCALE  
A102

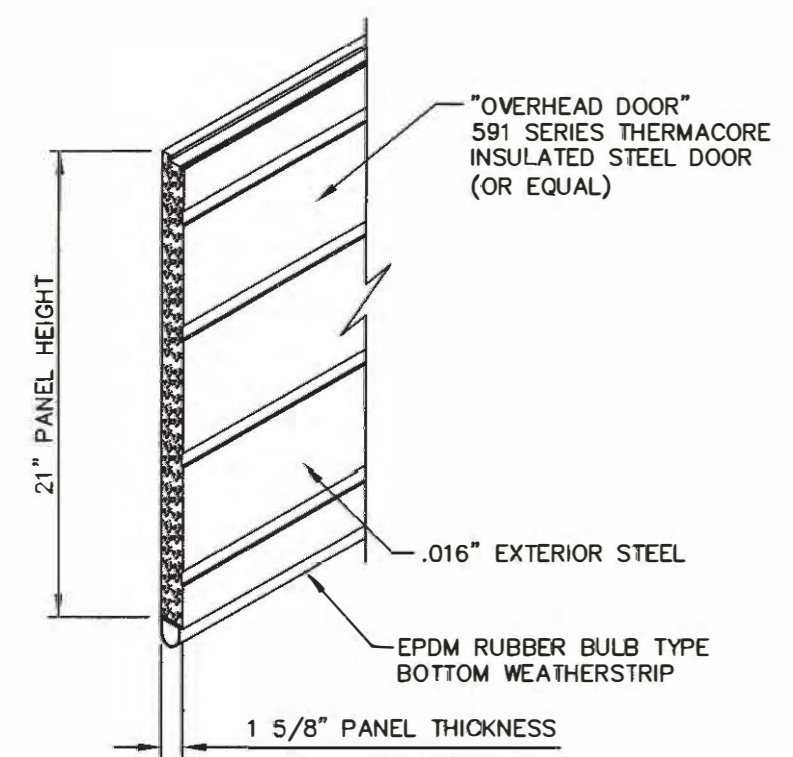
MINIMUM REQUIRED SIDE ROOM	
TRACK TYPE	2" TRACK
STANDARD LIFT	4 1/2"
LIFT CLEARANCE	4 1/2"

**591 SERIES SECTIONAL DOOR INFO.**

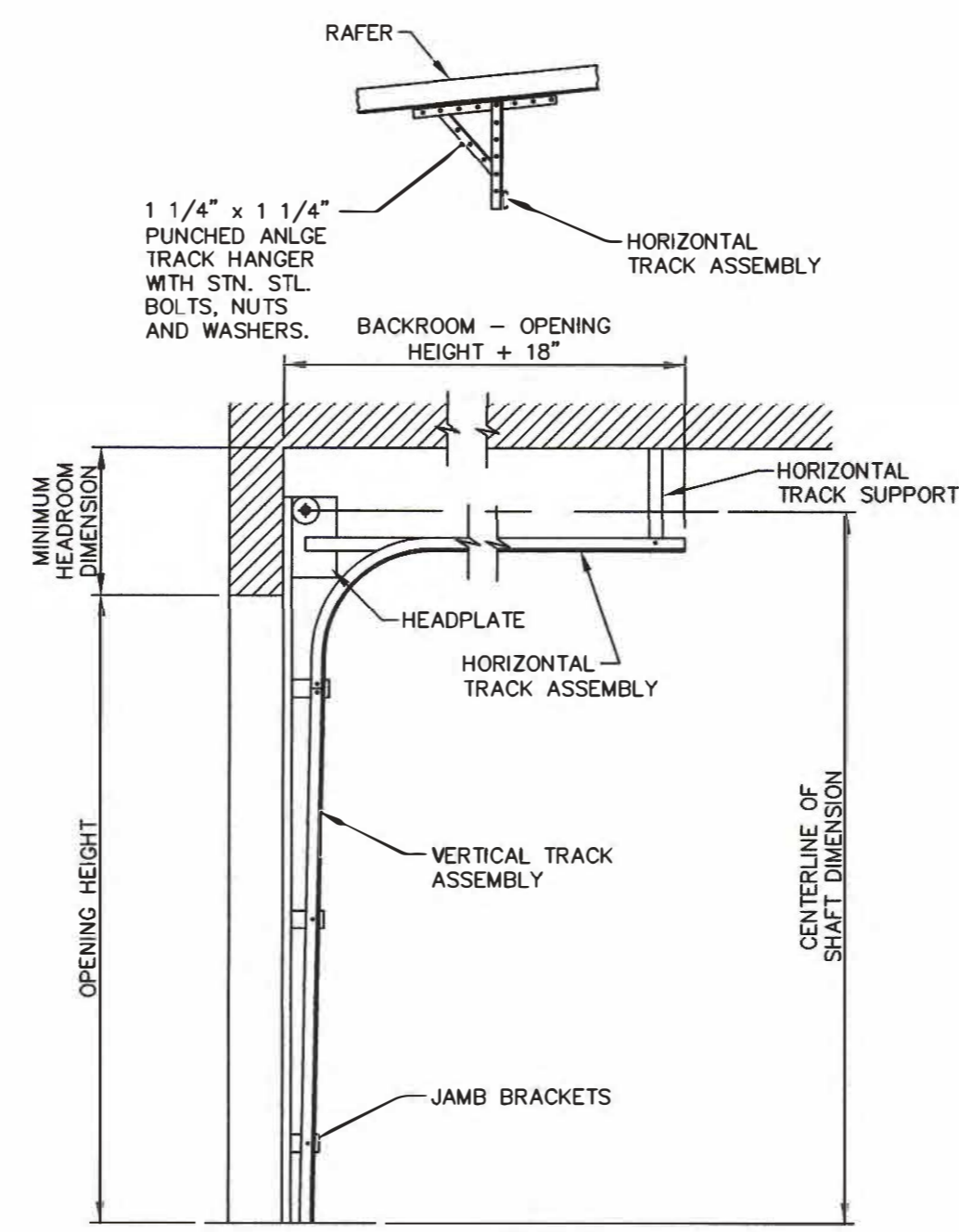
PANEL THICKNESS	1 5/8"
R-VALUE	14.86
U-VALUE	.067
THERMAL BREAK	PVC
INTERIOR STEEL	.015" THICK GALVANIZED
EXTERIOR STEEL	.016" EXTERIOR STEEL
EXTERIOR SURFACE	RIBBED, TEXTURED
FINISH	WHITE EXTERIOR / WHITE INTERIOR
END STILES	16 GAUGE



**2 SECTION A-A**  
NO SCALE  
A102

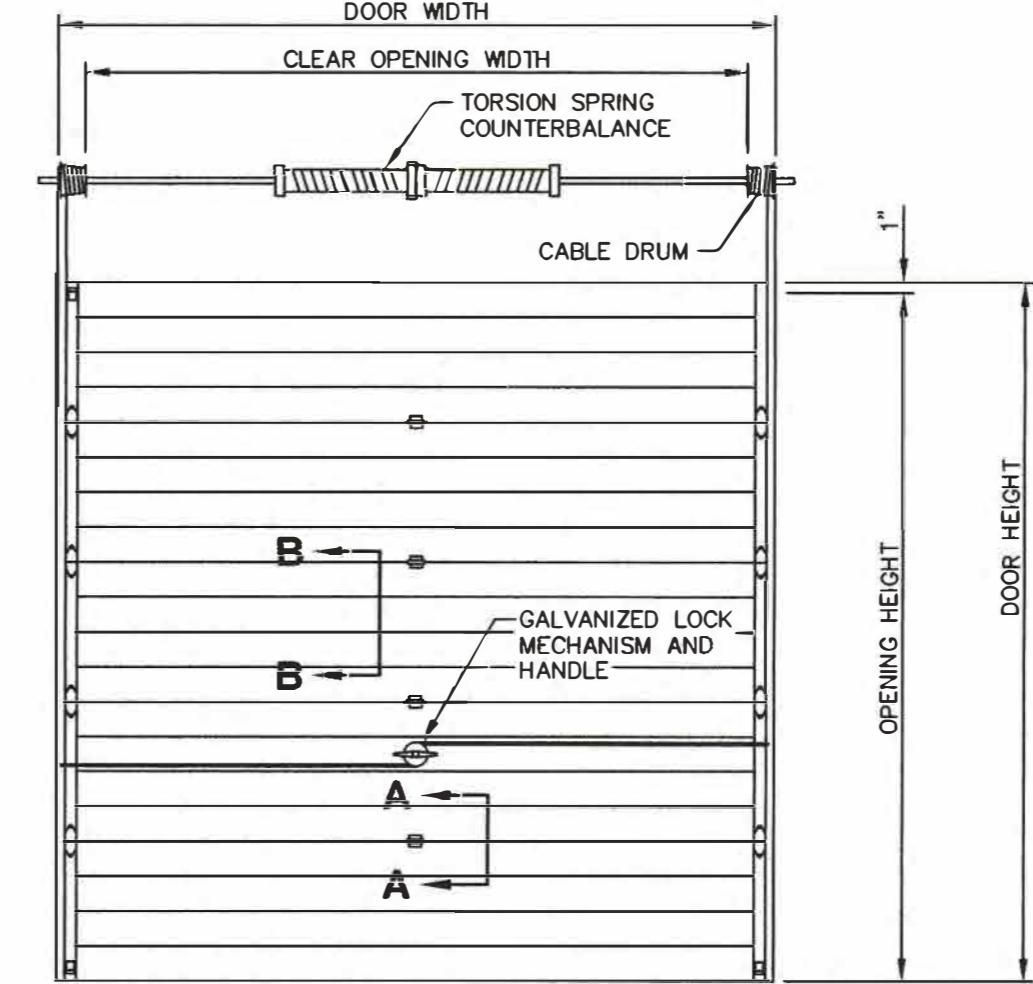


**1 PANEL DETAIL**  
NO SCALE  
A102

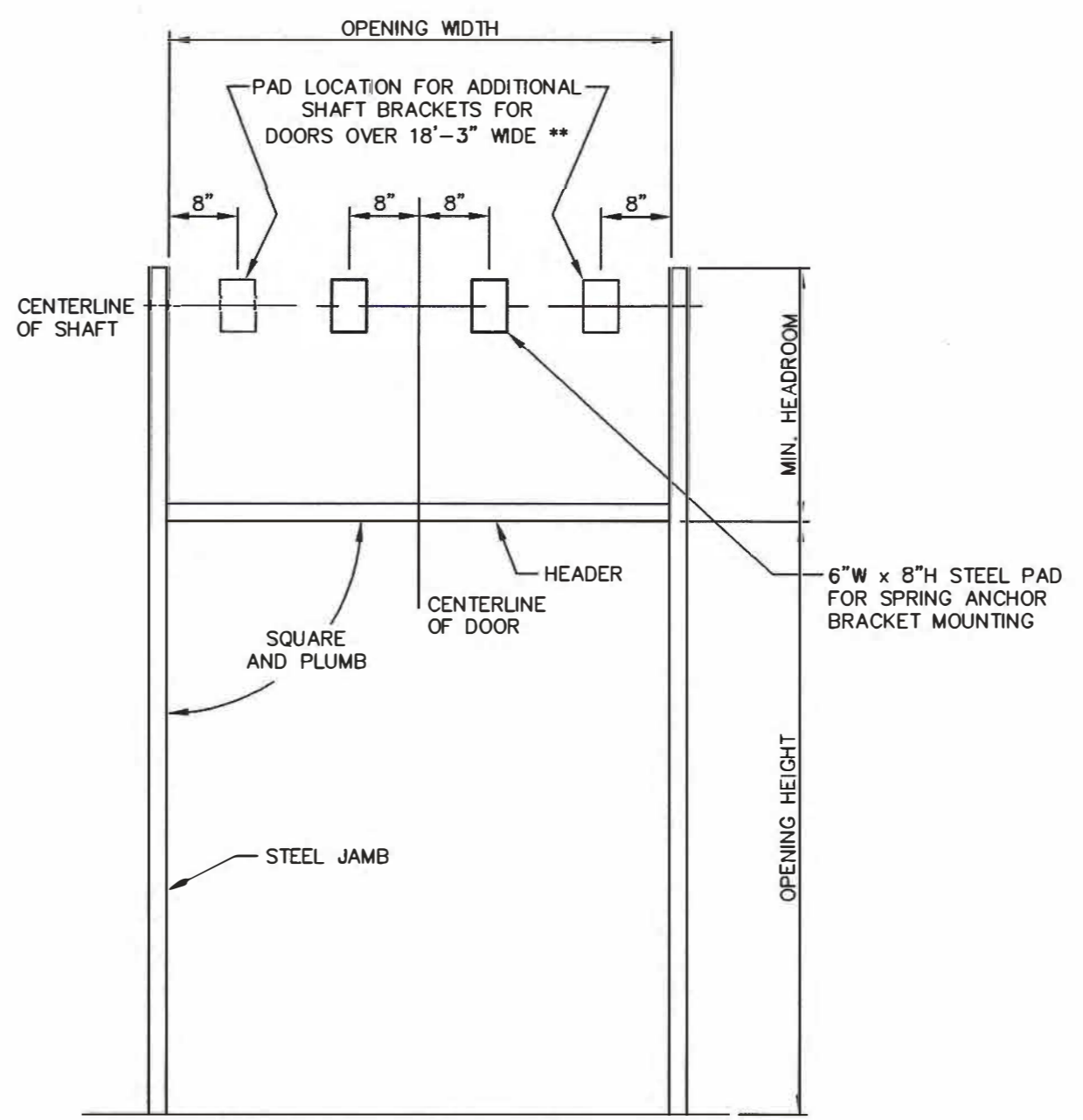


**5 TYPICAL SECTION THRU  
STANDARD LIFT TRACK**  
NO SCALE  
A102

2" TRACK 15" RADIUS	CENTERLINE OF SHAFT	MINIMUM HEADROOM
DOOR HEIGHT THRU 12'-0"	O.H. + 11 5/8"	14 1/4"



**7 INTERIOR ELEVATION**  
NO SCALE  
A102



**6 TRACK / FRAMING  
INTERIOR ELEVATION**  
NO SCALE  
A102

**OVERHEAD DOOR SCHEDULE**

DOOR NO.	TYPE	OPENING SIZE	FINISHED DOOR SIZE	TYPE OF LIFT	OPERATION	SECTIONS GLAZED	SECTIONS HIGH
D1	A	6'-0" W. x 7'-0" T.	6'-2" W. x 7'-2" T.	STANDARD LIFT	MANUAL	0	4



MAX F. MIDDENDORF  
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PITTSFIELD, IL



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MECO Engineering Co., Inc.  
MECO Engineering Co., Inc. Design Firm #164-001749

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DIVISION OF FACILITIES  
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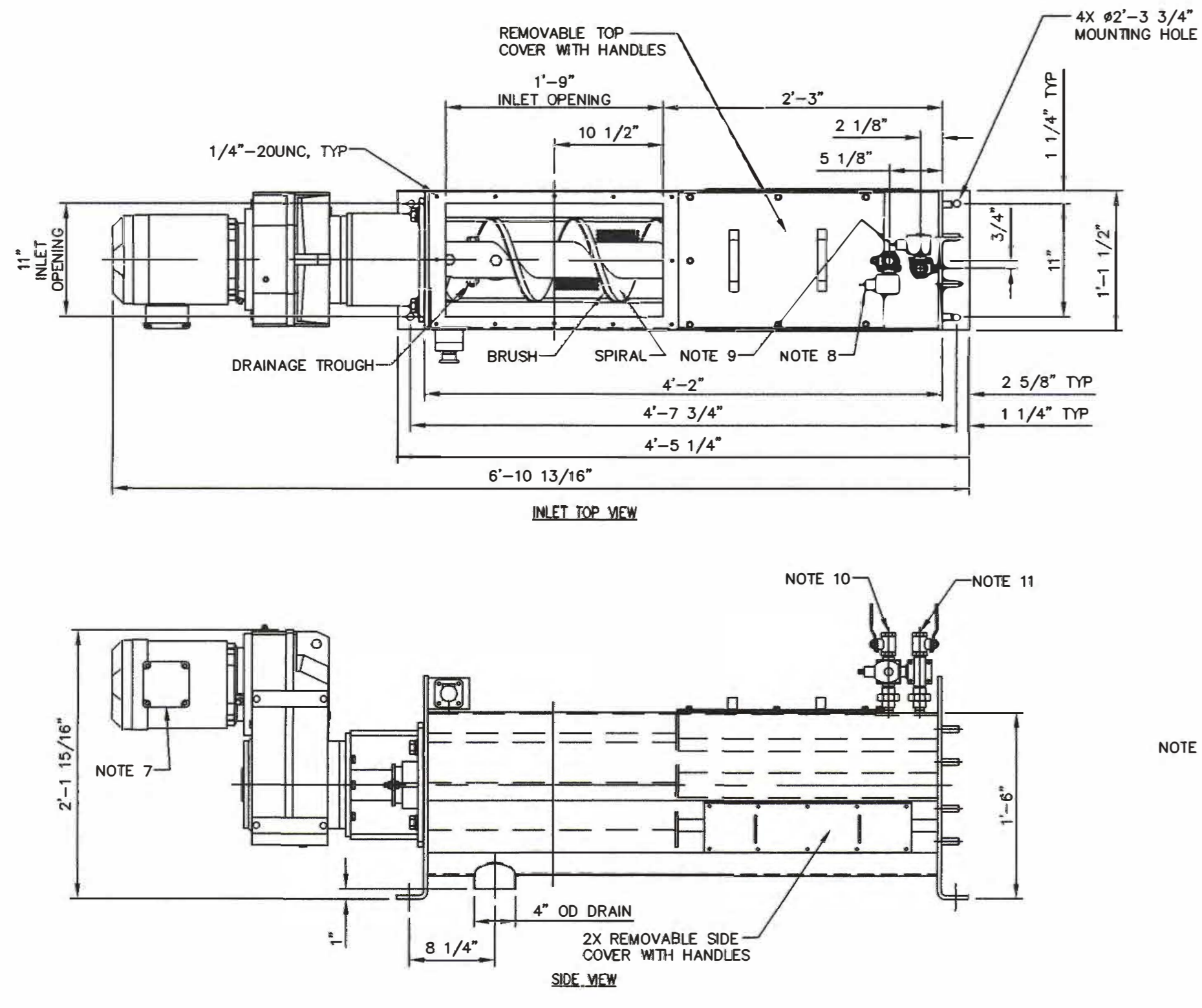
CAD DWG FILE: M-501.DWG  
DRAWN BY: R.HAYES  
CHECKED BY: C.HUDDLESTON  
DESIGNED BY: B.MARTIN

SHEET TITLE:  
EXISTING SCREEN & NEW  
DEWATERING SCREW  
PRESS UNIT DETAILS

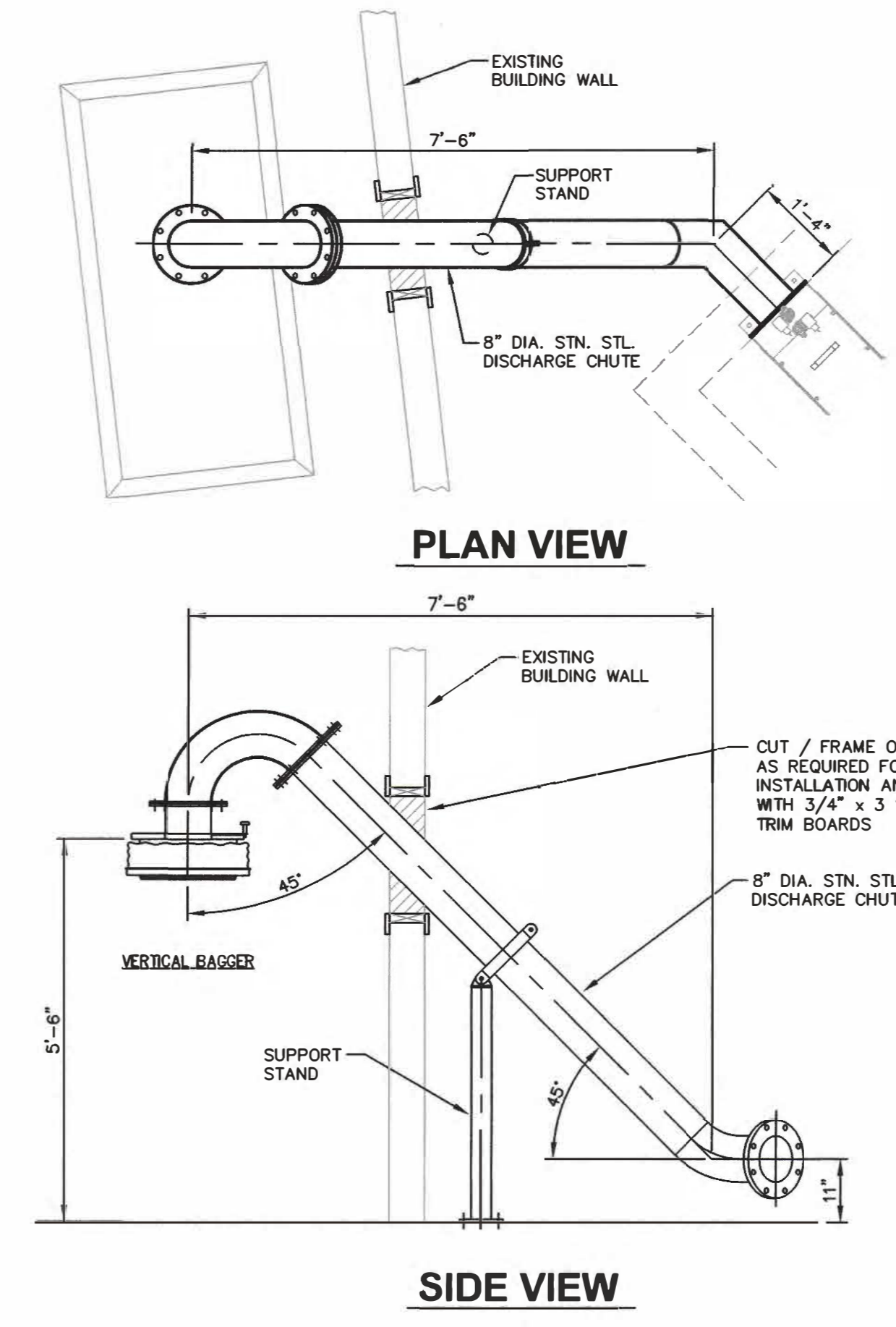
SHEET NUMBER:

M-501

SHEET 6 OF 7  
MAY 05, 2023



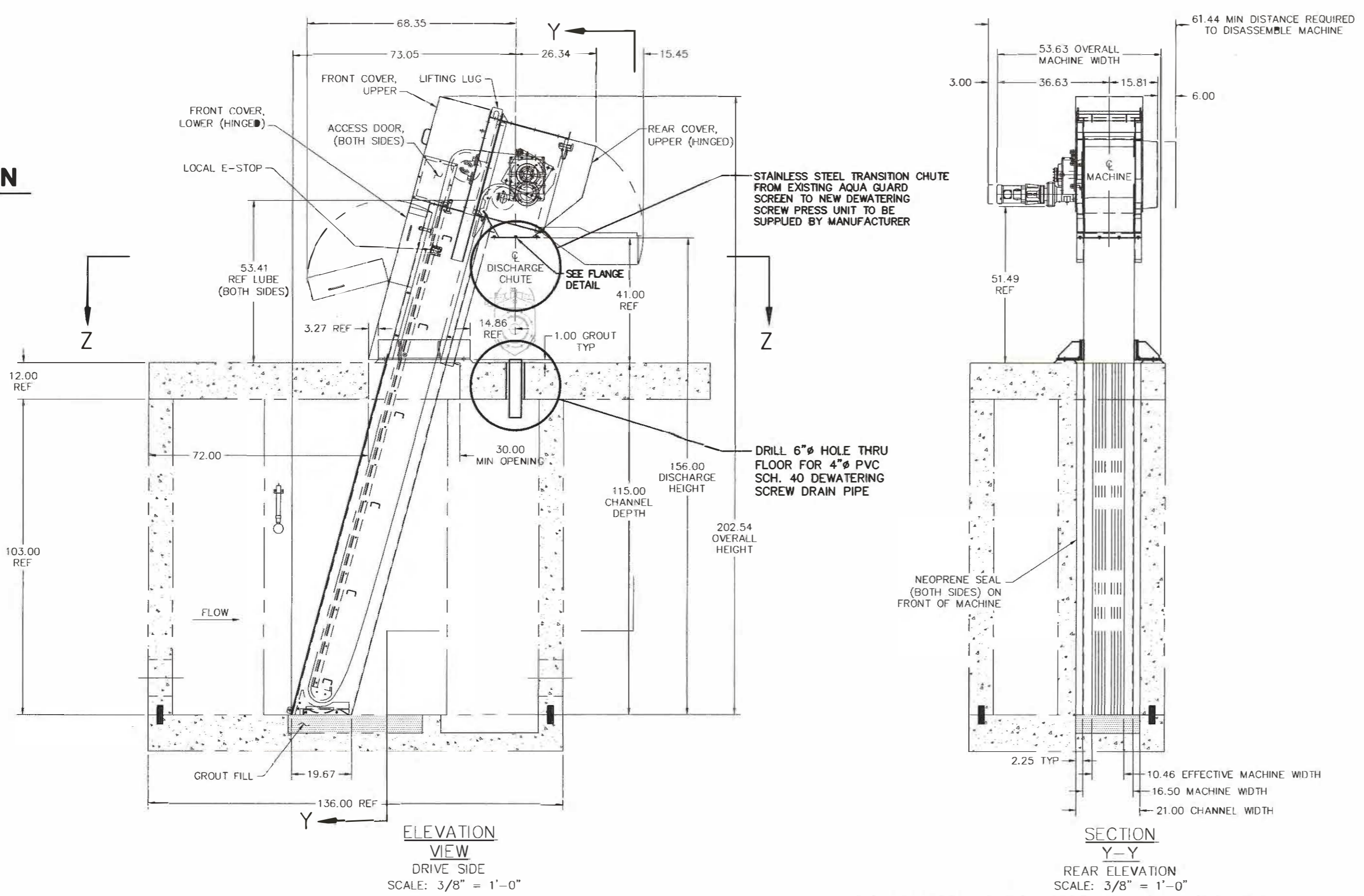
**2**  
M-501  
SCALE: 1" = 1'-0"



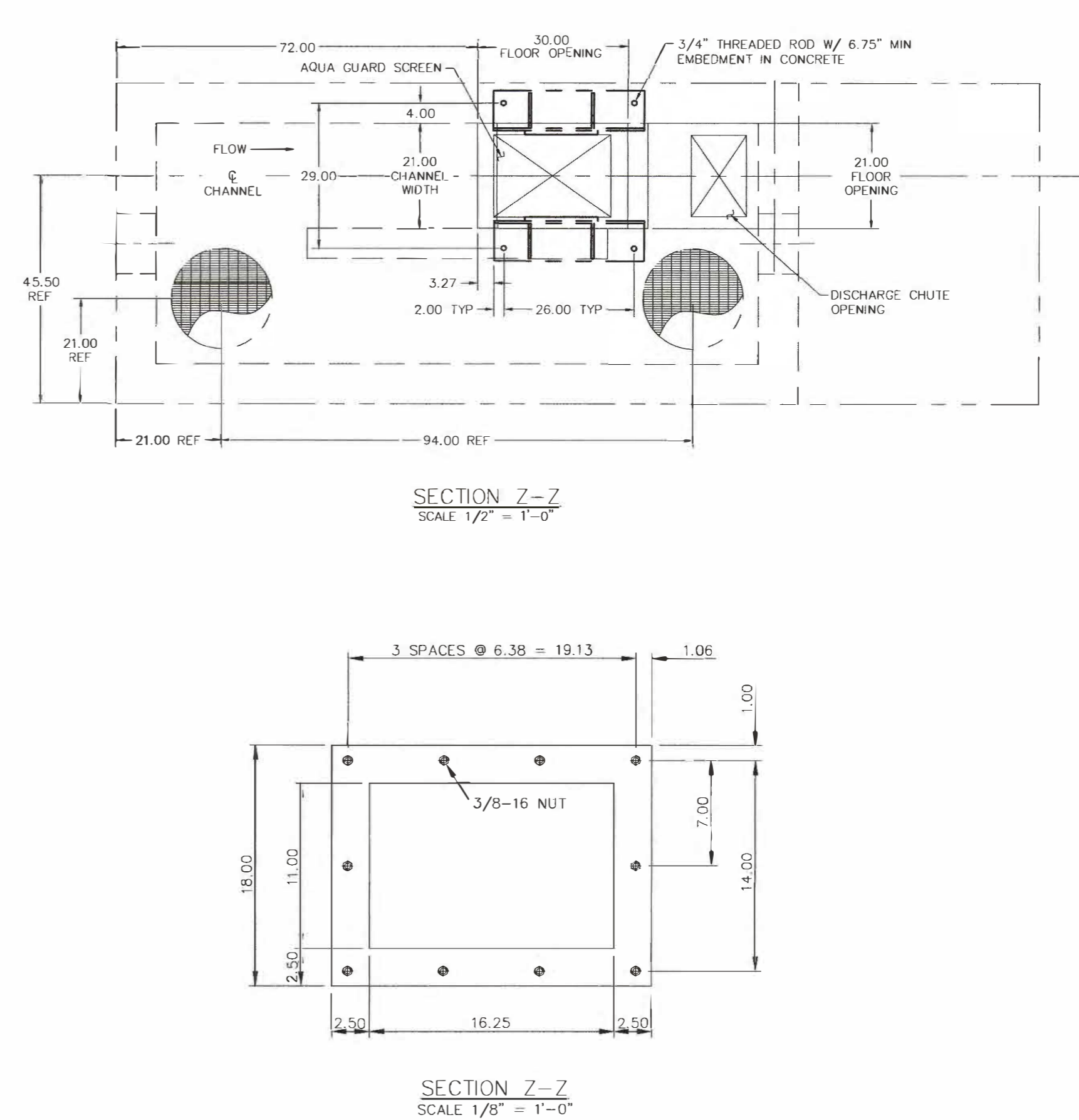
**2**  
M-501  
SCALE: 1/2" = 1'-0"

**REBUILD SERVICE FOR THE EXISTING AQUA GUARD SCREEN**

- PARKSON CERTIFIED ON SITE REBUILD WITH OEM PARTS (OR APPROVED EQUAL)
- SERVICE INCLUDES:
    - A. UPPER GUIDE RAILS
    - B. LOWER GUIDE RAILS
    - C. GUIDE RAIL SPACERS
    - D. FILTER SHAFTS
    - E. SIDE PLATE
    - F. SNAP RINGS
    - G. WASHERS
    - H. CHAINS
  - REBUILD / START-UP ASSISTANCE - INCLUDES:
    - PARKSON (OR APPROVED EQUAL) WILL FURNISH TWO CERTIFIED TECHNICIANS AS REQUIRED TO REBUILD THE UNIT. PROVIDE START-UP AND OPERATOR TRAINING.



**1**  
M-501





MAX F. MIDDENDORF  
PROFESSIONAL ENGINEER  
LICENSE NO. E-26008

OFFICE LOCATIONS  
HANNIBAL, MO  
JEFFERSON CITY, MO  
BRANSON, MO  
PITTSFIELD, IL

**MECO**  
ENGINEERING CO., INC.



meceengineering.com  
MO Engineering Lic. #000898 - IL Design Firm #161-001749

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND CONSTRUCTION

DEPARTMENT OF  
CORRECTIONS

REPLACE SEWER  
SCREENING SYSTEM

CHILLICOTHE CORRECTIONAL  
CENTER  
3151 LITTON ROAD  
CHILLICOTHE, MISSOURI

PROJECT # C2223-02  
SITE # 7030  
ASSET # 9327030038

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 5/05/2023

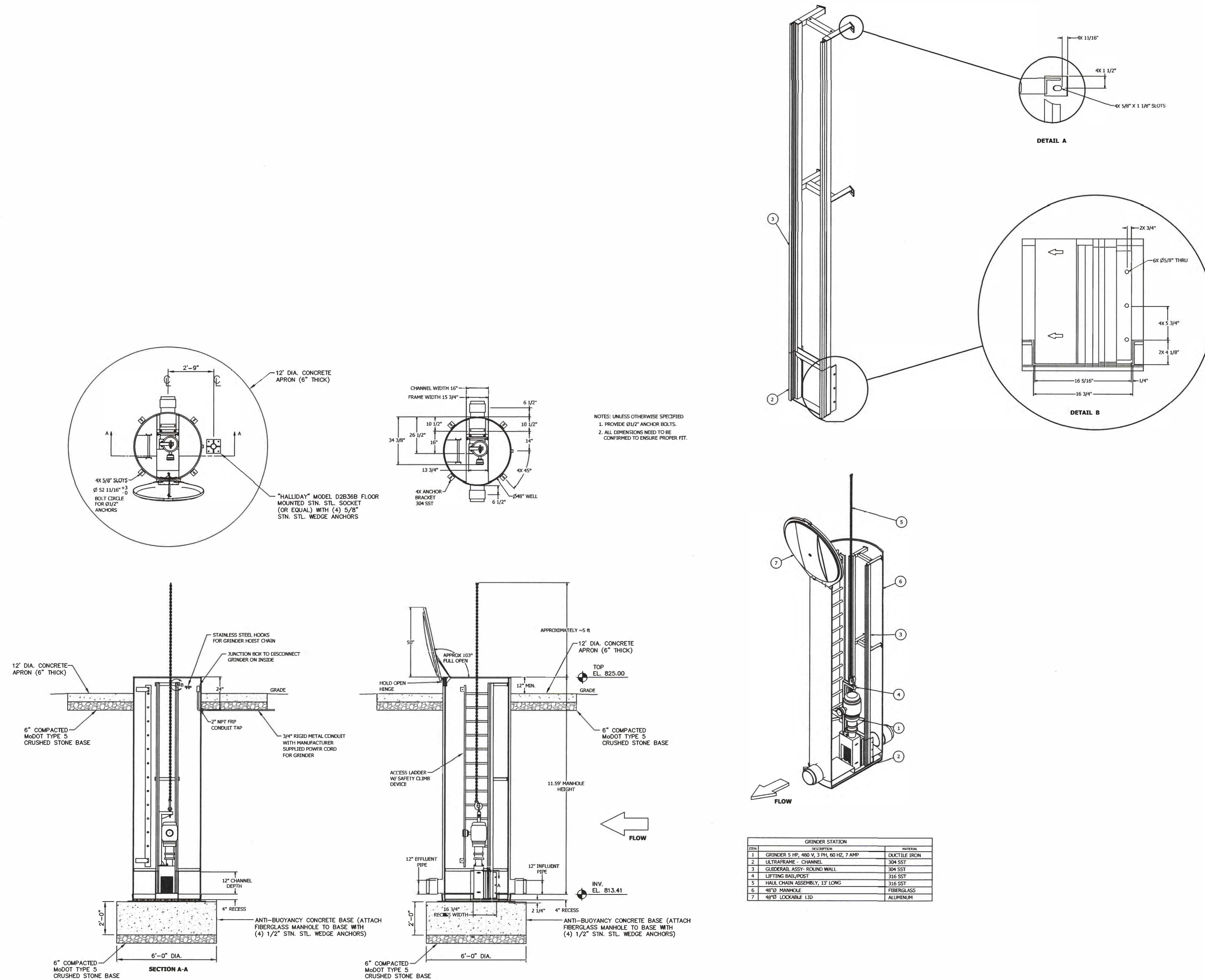
CAD DWG FILE: M-501.DWG  
DRAWN BY: R.HAYES  
CHECKED BY: C.HUDDLESTON  
DESIGNED BY: B.MARTIN

SHEET TITLE:  
**GRINDER STATION  
DETAILS**

SHEET NUMBER:

**M-502**

SHEET70F7  
MAY 05, 2023



**1 GRINDER STATION DETAILS**  
M-502 NO SCALE