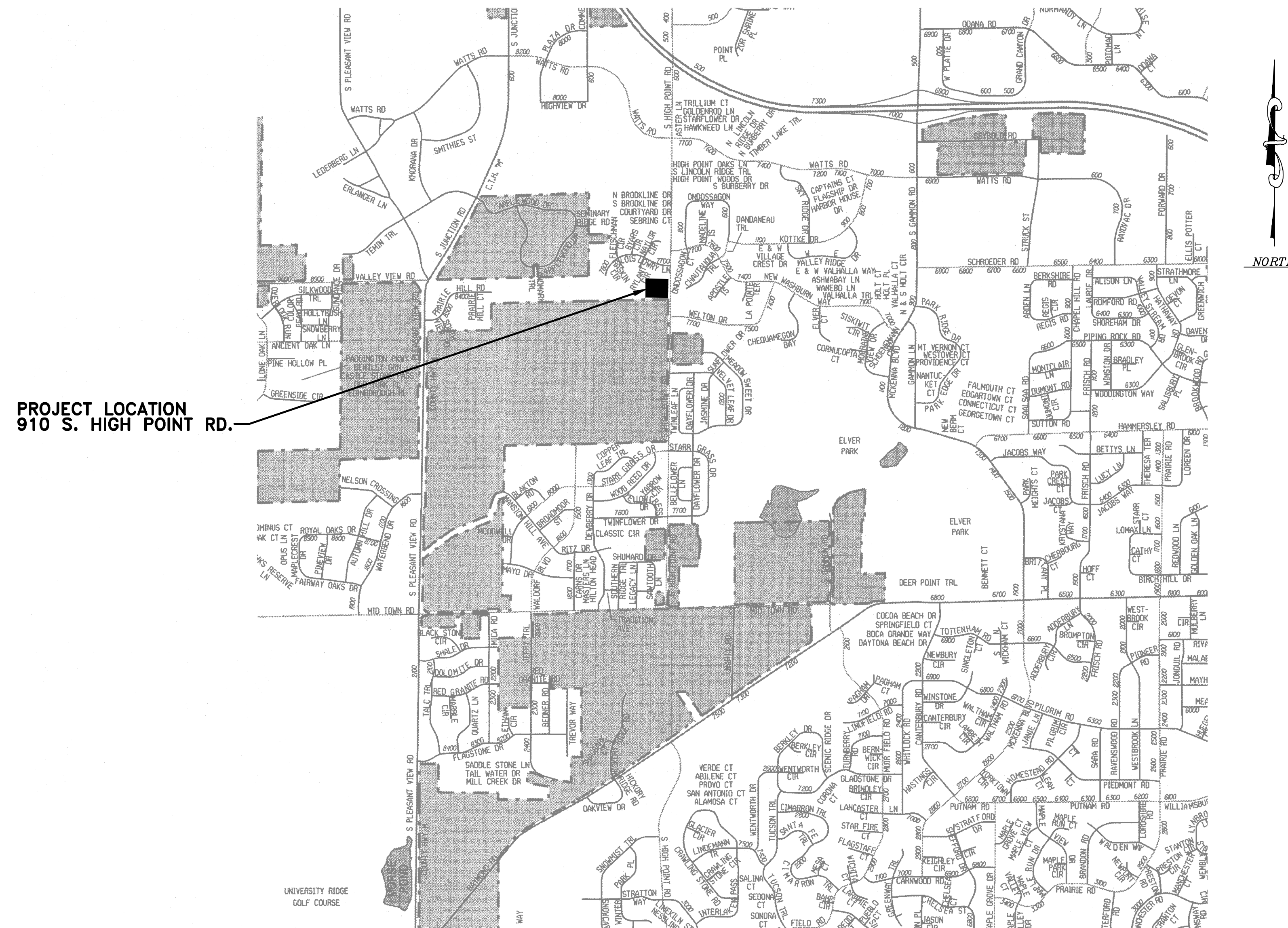


# MADISON WATER UTILITY

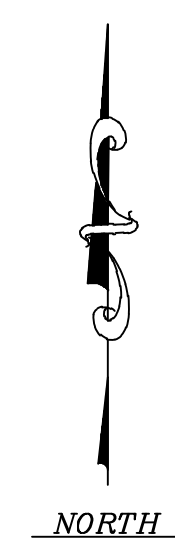
## MADISON, WISCONSIN

### UNIT WELL 26

## GENERATOR ADDITION AND MCC UPGRADES



PROJECT LOCATION  
910 S. HIGH POINT RD.



VICINITY MAP



Madison, Wisconsin  
608.277.1230

Burlington, Wisconsin  
262.763.7834

Crystal Lake, Illinois  
815.459.1260

Grayslake, Illinois  
847.223.5088

Plainfield, Illinois  
815.609.7425

Mokena, Illinois  
708.478.2090

DeKalb, Illinois  
815.787.3111

Chicago, Illinois  
312.578.0050

Itasca, Illinois  
630.773.1870

PROJECT ENGINEER

BAXTER & WOODMAN, INC.  
STATE OF WISCONSIN – PROFESSIONAL DESIGN FIRM  
LICENSE NO. – 484-001 – EXPIRES 1/31/2014

PROJECT NO.: 120581.41 DATE: \_\_\_\_\_

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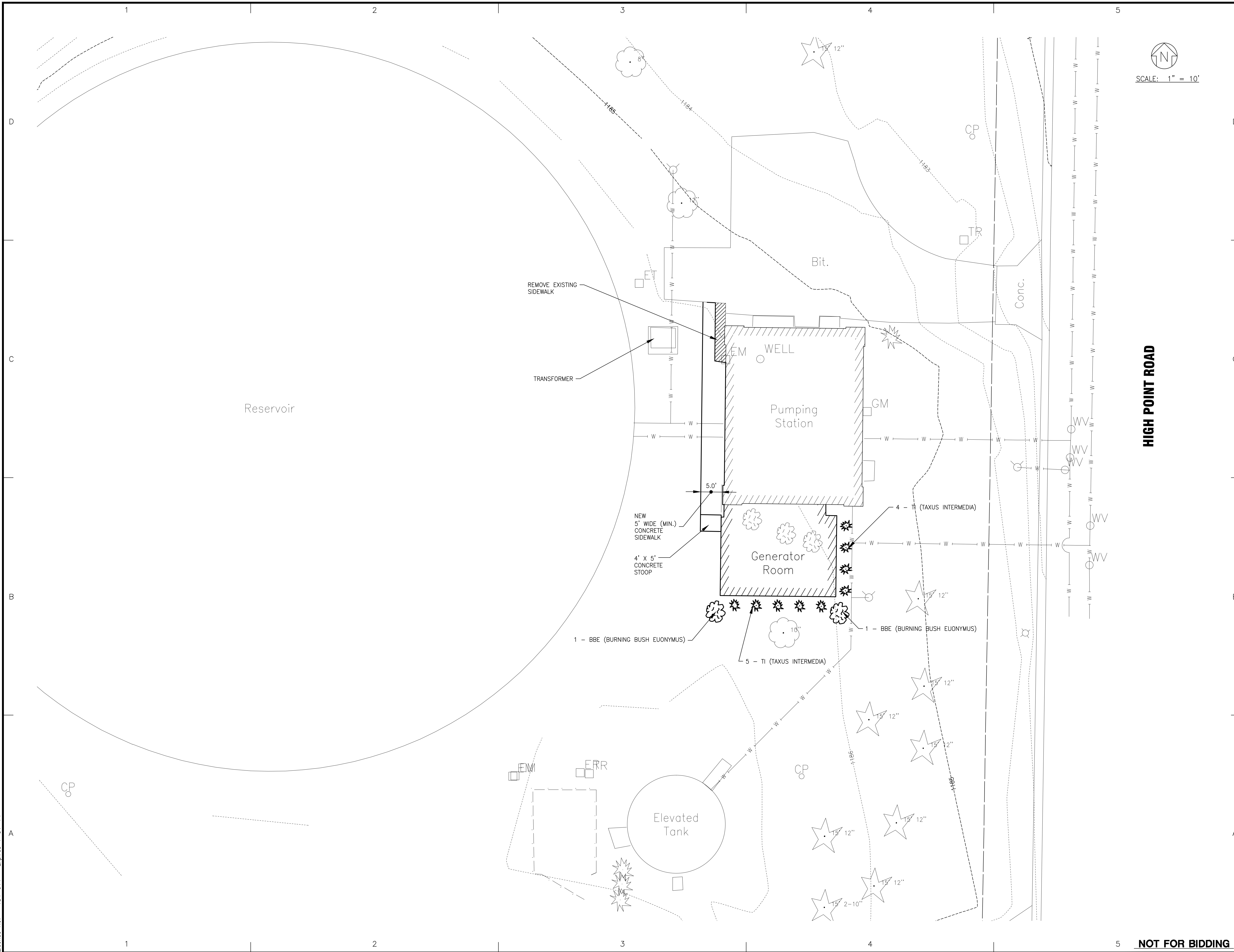


**CALL DIGGERS HOTLINE**  
**1-800-242-8511**  
TOLL FREE

TO OBTAIN LOCATION OF PARTICIPANT'S UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN.  
WIS. STATUTE 182.0175 (1974)  
REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

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I:\BURLINGTON\MADUD\WELL\_26\CADD\DRAWINGS\DWGS\120581\_41-TOPO-C3D 2012.DWG Site Plan  
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SCALE: 1" = 10'

HIGH POINT ROAD



CONSULTANTS

NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

1" 0.5" 0 1" 2" 3"

PLAN SHEET DESIGNATION

COVER	GENERAL
H	HAZARDOUS MATERIALS
C	CIVIL
L	LANDSCAPE
S	STRUCTURAL
A	ARCHITECTURAL
I	INSTRUMENTATION
EQ	EQUIPMENT
F	FIRE PROTECTION
P	PLUMBING
M	MECHANICAL
E	ELECTRICAL
T	TELECOMMUNICATIONS
R	RESOURCE

PROJECT NO:	120581.41
SCALE:	AS NOTED
DRAWING DATE:	
DESIGNED BY:	GDC
DRAWN BY:	TLB
CHECKED BY:	GDC

CLIENT

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

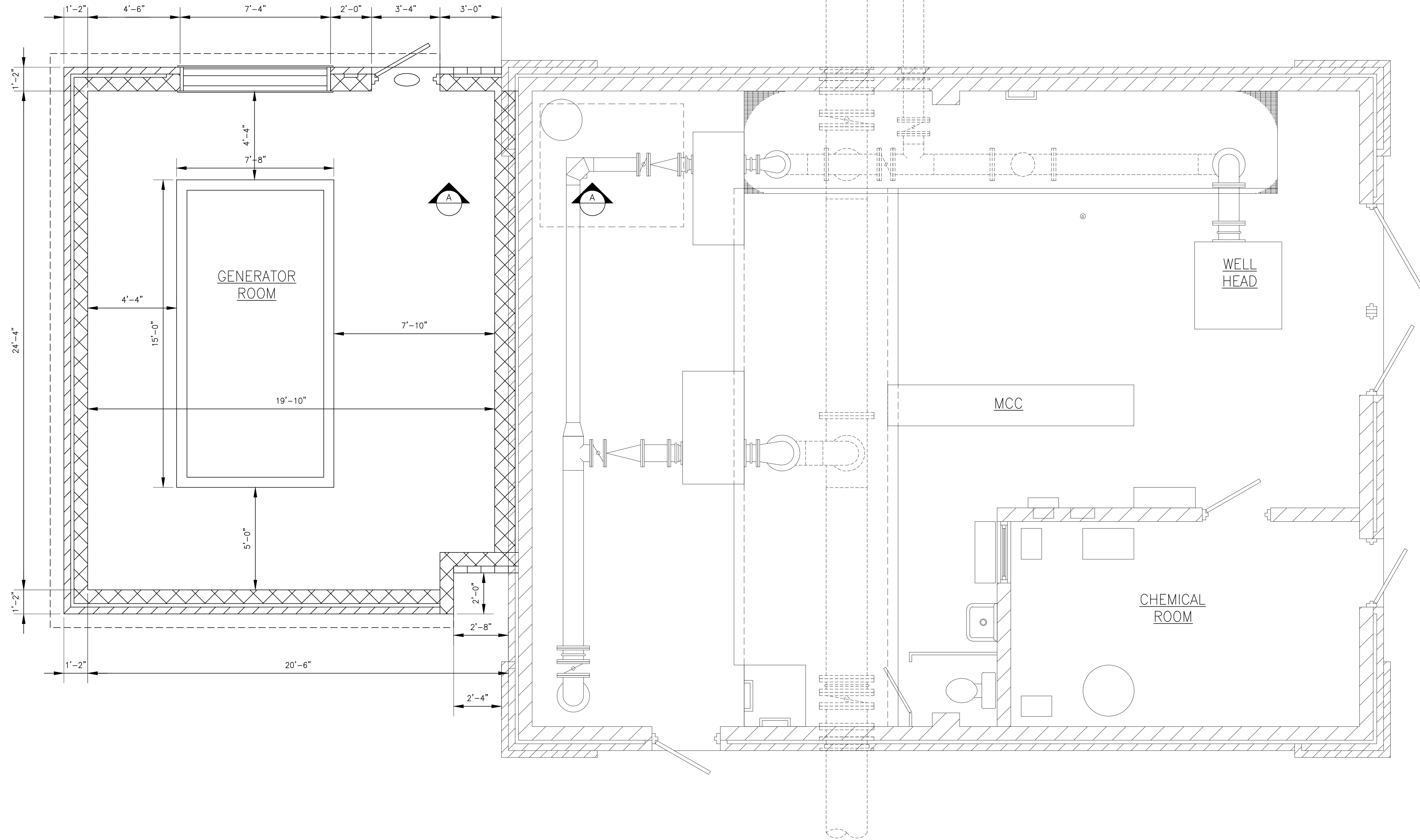
**UNIT WELL 26  
GENERATOR ADDITION**

SHEET TITLE

**EXISTING SITE PLAN**

**C-1**  
2 OF

NOT FOR BIDDING



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

I:\BURLINGTON\MADUD\WELL\_26\CADD\DRAWINGS\DWGS\120581\_41-WELL26-MOD.DWG M-PLAN  
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NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

COVER
H - GENERAL
C - HAZARDOUS MATERIALS
O - CIVIL
L - LANDSCAPE
S - STRUCTURAL
A - ARCHITECTURAL
I - INSTRUMENTATION
E - EQUIPMENT
F - FIRE PROTECTION
P - PLUMBING
M - MECHANICAL
E - ELECTRICAL
T - TELECOMMUNICATIONS
R - RESOURCE

PROJECT NO:	120581.41
SCALE:	AS NOTED
DRAWING DATE:	
DESIGNED BY:	GDG
DRAWN BY:	TLB
CHECKED BY:	GDG

CLIENT  
**MADISON WATER UTILITY  
MADISON, WISCONSIN**

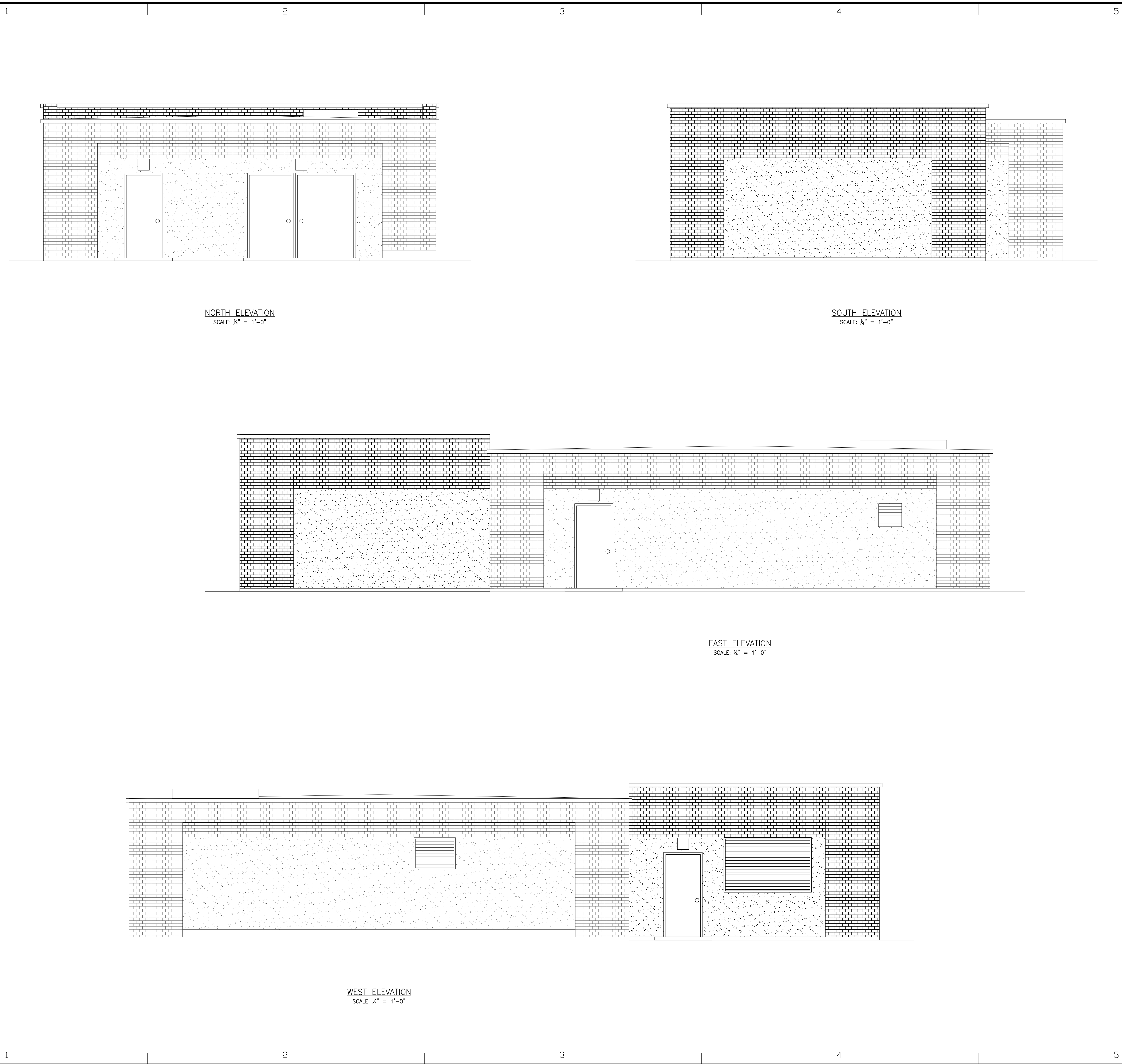
**UNIT WELL 26  
GENERATOR ADDITION**

SHEET TITLE  
**PLAN AND SECTION**

**M-1**  
3 OF

NOT FOR BIDDING

I:\BURLINGTON\MADUD\WELL\_26\CADD\DRAWINGS\DWGS\120581\_41-WELL26-MOD.DWG M-ELEVATIONS  
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NORTH ELEVATION  
SCALE: 1/4" = 1'-0"

SOUTH ELEVATION  
SCALE: 1/4" = 1'-0"

EAST ELEVATION  
SCALE: 1/4" = 1'-0"

WEST ELEVATION  
SCALE: 1/4" = 1'-0"



CONSULTANTS

NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

- PLAN SHEET DESIGNATION
- COVER
  - H - GENERAL
  - HM - HAZARDOUS MATERIALS
  - C - CIVIL
  - L - LANDSCAPE
  - S - STRUCTURAL
  - A - ARCHITECTURAL
  - I - INSTRUMENTATION
  - E - EQUIPMENT
  - FP - FIRE PROTECTION
  - P - PLUMBING
  - M - MECHANICAL
  - E - ELECTRICAL
  - T - TELECOMMUNICATIONS
  - R - RESOURCE

PROJECT NO: 120581.41  
 SCALE: AS NOTED  
 DRAWING DATE:  
 DESIGNED BY: GDG  
 DRAWN BY: TLB  
 CHECKED BY: GDG

CLIENT  
**MADISON WATER UTILITY  
 MADISON, WISCONSIN**

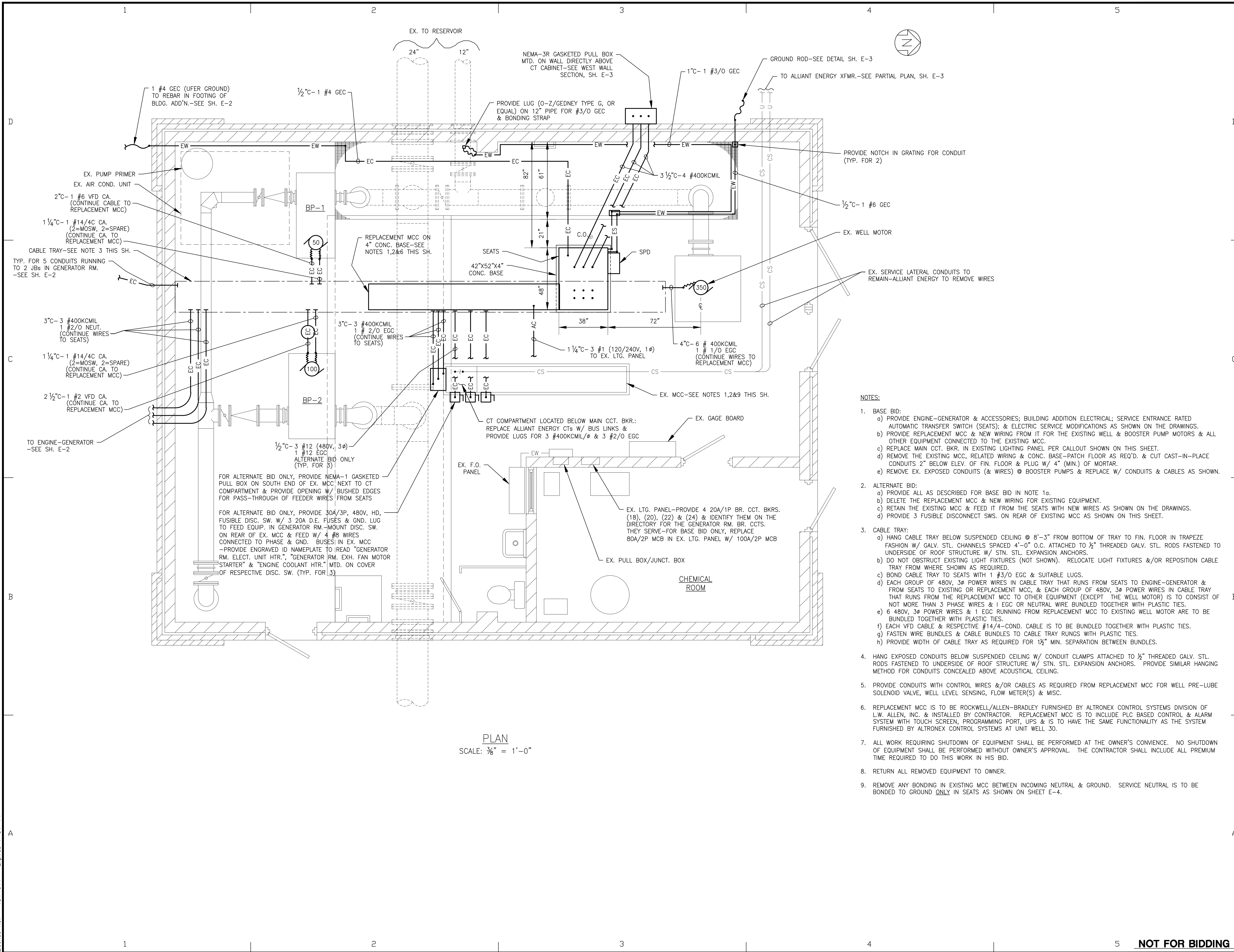
**UNIT WELL 26  
 GENERATOR ADDITION**

SHEET TITLE  
**ELEVATIONS**

**M-2**  
 4 OF

NOT FOR BIDDING

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

- NOTES:**
- BASE BID:
    - PROVIDE ENGINE-GENERATOR & ACCESSORIES; BUILDING ADDITION ELECTRICAL; SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH (SEATS); & ELECTRIC SERVICE MODIFICATIONS AS SHOWN ON THE DRAWINGS.
    - PROVIDE REPLACEMENT MCC & NEW WIRING FROM IT FOR THE EXISTING WELL & BOOSTER PUMP MOTORS & ALL OTHER EQUIPMENT CONNECTED TO THE EXISTING MCC.
    - REPLACE MAIN CCT. BKR. IN EXISTING LIGHTING PANEL PER CALLOUT SHOWN ON THIS SHEET.
    - REMOVE THE EXISTING MCC, RELATED WIRING & CONC. BASE-PATCH FLOOR AS REQ'D. & CUT CAST-IN-PLACE CONDUITS 2" BELOW ELEV. OF FIN. FLOOR & PLUG W/ 4" (MIN.) OF MORTAR.
    - REMOVE EX. EXPOSED CONDUITS (& WIRES) @ BOOSTER PUMPS & REPLACE W/ CONDUITS & CABLES AS SHOWN.
  - ALTERNATE BID:
    - PROVIDE ALL AS DESCRIBED FOR BASE BID IN NOTE 1a.
    - DELETE THE REPLACEMENT MCC & NEW WIRING FOR EXISTING EQUIPMENT.
    - RETAIN THE EXISTING MCC & FEED IT FROM THE SEATS WITH NEW WIRES AS SHOWN ON THE DRAWINGS.
    - PROVIDE 3 FUSIBLE DISCONNECT SWs. ON REAR OF EXISTING MCC AS SHOWN ON THIS SHEET.
  - CABLE TRAY:
    - HANG CABLE TRAY BELOW SUSPENDED CEILING @ 8'-3" FROM BOTTOM OF TRAY TO FIN. FLOOR IN TRAPEZE FASHION W/ GALV. STL. CHANNELS SPACED 4'-0" O.C. ATTACHED TO 1/2" THREADED GALV. STL. RODS FASTENED TO UNDERSIDE OF ROOF STRUCTURE W/ STN. STL. EXPANSION ANCHORS.
    - DO NOT OBSTRUCT EXISTING LIGHT FIXTURES (NOT SHOWN). RELOCATE LIGHT FIXTURES &/OR REPOSITION CABLE TRAY FROM WHERE SHOWN AS REQUIRED.
    - BOND CABLE TRAY TO SEATS WITH 1 #3/0 EGC & SUITABLE LUGS.
    - EACH GROUP OF 480V, 3Ø POWER WIRES IN CABLE TRAY THAT RUNS FROM SEATS TO ENGINE-GENERATOR & FROM SEATS TO EXISTING OR REPLACEMENT MCC, & EACH GROUP OF 480V, 3Ø POWER WIRES IN CABLE TRAY THAT RUNS FROM THE REPLACEMENT MCC TO OTHER EQUIPMENT (EXCEPT THE WELL MOTOR) IS TO CONSIST OF NOT MORE THAN 3 PHASE WIRES & 1 EGC OR NEUTRAL WIRE BUNDLED TOGETHER WITH PLASTIC TIES.
    - 6 480V, 3Ø POWER WIRES & 1 EGC RUNNING FROM REPLACEMENT MCC TO EXISTING WELL MOTOR ARE TO BE BUNDLED TOGETHER WITH PLASTIC TIES.
    - EACH VFD CABLE & RESPECTIVE #14/4-COND. CABLE IS TO BE BUNDLED TOGETHER WITH PLASTIC TIES.
    - FASTEN WIRE BUNDLES & CABLE BUNDLES TO CABLE TRAY RUNGS WITH PLASTIC TIES.
    - PROVIDE WIDTH OF CABLE TRAY AS REQUIRED FOR 1/2" MIN. SEPARATION BETWEEN BUNDLES.
  - HANG EXPOSED CONDUITS BELOW SUSPENDED CEILING W/ CONDUIT CLAMPS ATTACHED TO 1/2" THREADED GALV. STL. RODS FASTENED TO UNDERSIDE OF ROOF STRUCTURE W/ STN. STL. EXPANSION ANCHORS. PROVIDE SIMILAR HANGING METHOD FOR CONDUITS CONCEALED ABOVE ACOUSTICAL CEILING.
  - PROVIDE CONDUITS WITH CONTROL WIRES &/OR CABLES AS REQUIRED FROM REPLACEMENT MCC FOR WELL PRE-LUBE SOLENOID VALVE, WELL LEVEL SENSING, FLOW METER(S) & MISC.
  - REPLACEMENT MCC IS TO BE ROCKWELL/ALLEN-BRADLEY FURNISHED BY ALTRONEX CONTROL SYSTEMS DIVISION OF L.W. ALLEN, INC. & INSTALLED BY CONTRACTOR. REPLACEMENT MCC IS TO INCLUDE PLC BASED CONTROL & ALARM SYSTEM WITH TOUCH SCREEN, PROGRAMMING PORT, UPS & IS TO HAVE THE SAME FUNCTIONALITY AS THE SYSTEM FURNISHED BY ALTRONEX CONTROL SYSTEMS AT UNIT WELL 30.
  - ALL WORK REQUIRING SHUTDOWN OF EQUIPMENT SHALL BE PERFORMED AT THE OWNER'S CONVIENCE. NO SHUTDOWN OF EQUIPMENT SHALL BE PERFORMED WITHOUT OWNER'S APPROVAL. THE CONTRACTOR SHALL INCLUDE ALL PREMIUM TIME REQUIRED TO DO THIS WORK IN HIS BID.
  - RETURN ALL REMOVED EQUIPMENT TO OWNER.
  - REMOVE ANY BONDING IN EXISTING MCC BETWEEN INCOMING NEUTRAL & GROUND. SERVICE NEUTRAL IS TO BE BONDED TO GROUND ONLY IN SEATS AS SHOWN ON SHEET E-4.

**BAXTER  
WOODMAN**  
Consulting Engineers

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CONSULTANTS

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NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

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**PLAN SHEET DESIGNATION**

COVER	
H - GENERAL	
C - HAZARDOUS MATERIALS	
O - CIVIL	
L - LANDSCAPE	
S - STRUCTURAL	
A - ARCHITECTURAL	
I - INSTRUMENTATION	
Q - EQUIPMENT	
F - FIRE PROTECTION	
P - PLUMBING	
M - MECHANICAL	
E - ELECTRICAL	
T - TELECOMMUNICATIONS	
R - RESOURCE	

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PROJECT NO: 120581.41

SCALE: AS NOTED

DRAWING DATE:  

DESIGNED BY: DJM

DRAWN BY: TLB

CHECKED BY: GSW

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CLIENT

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

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**UNIT WELL 26  
GENERATOR ADDITION**

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SHEET TITLE

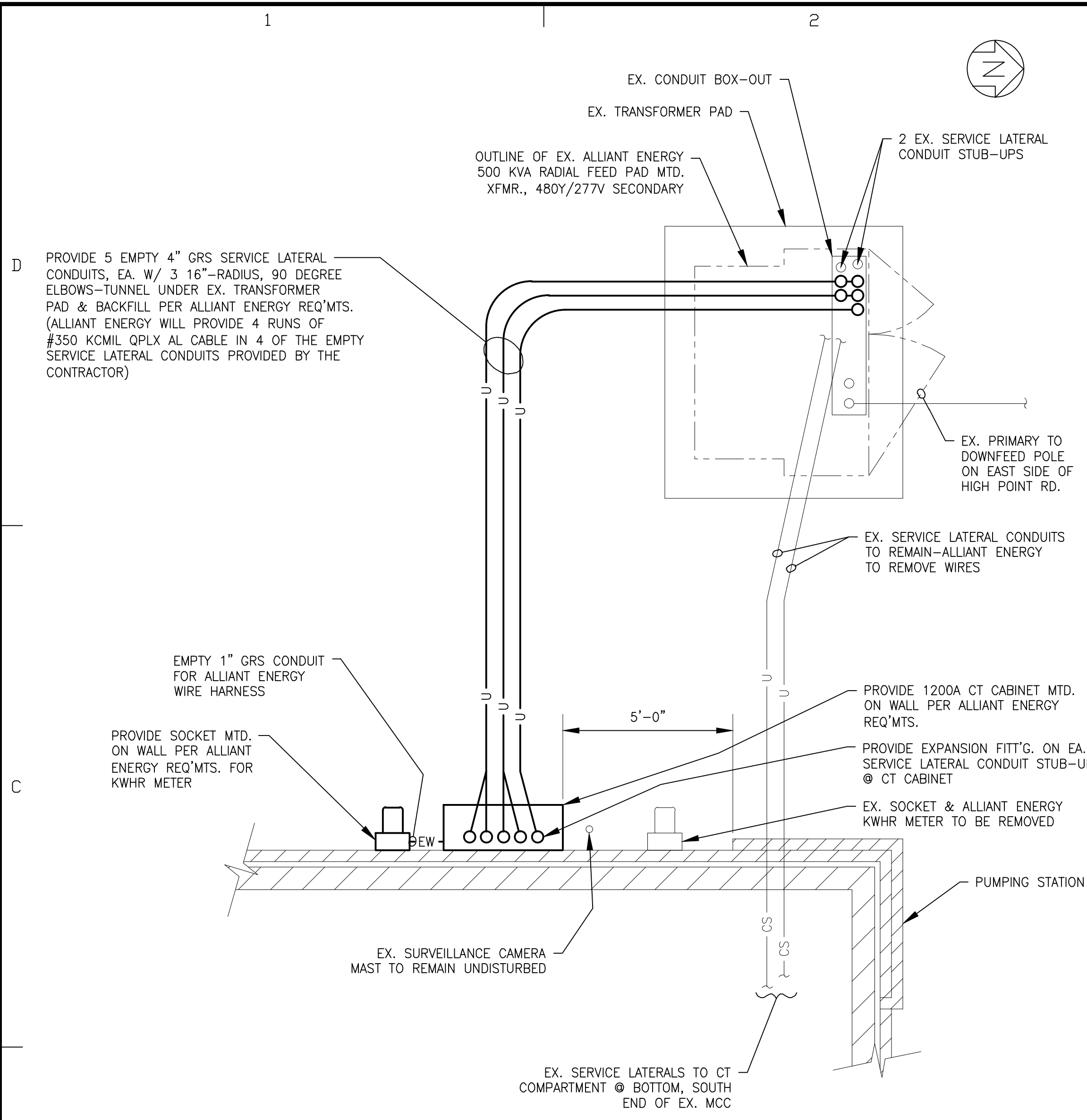
**EXISTING BUILDING  
ELECTRICAL PLAN**

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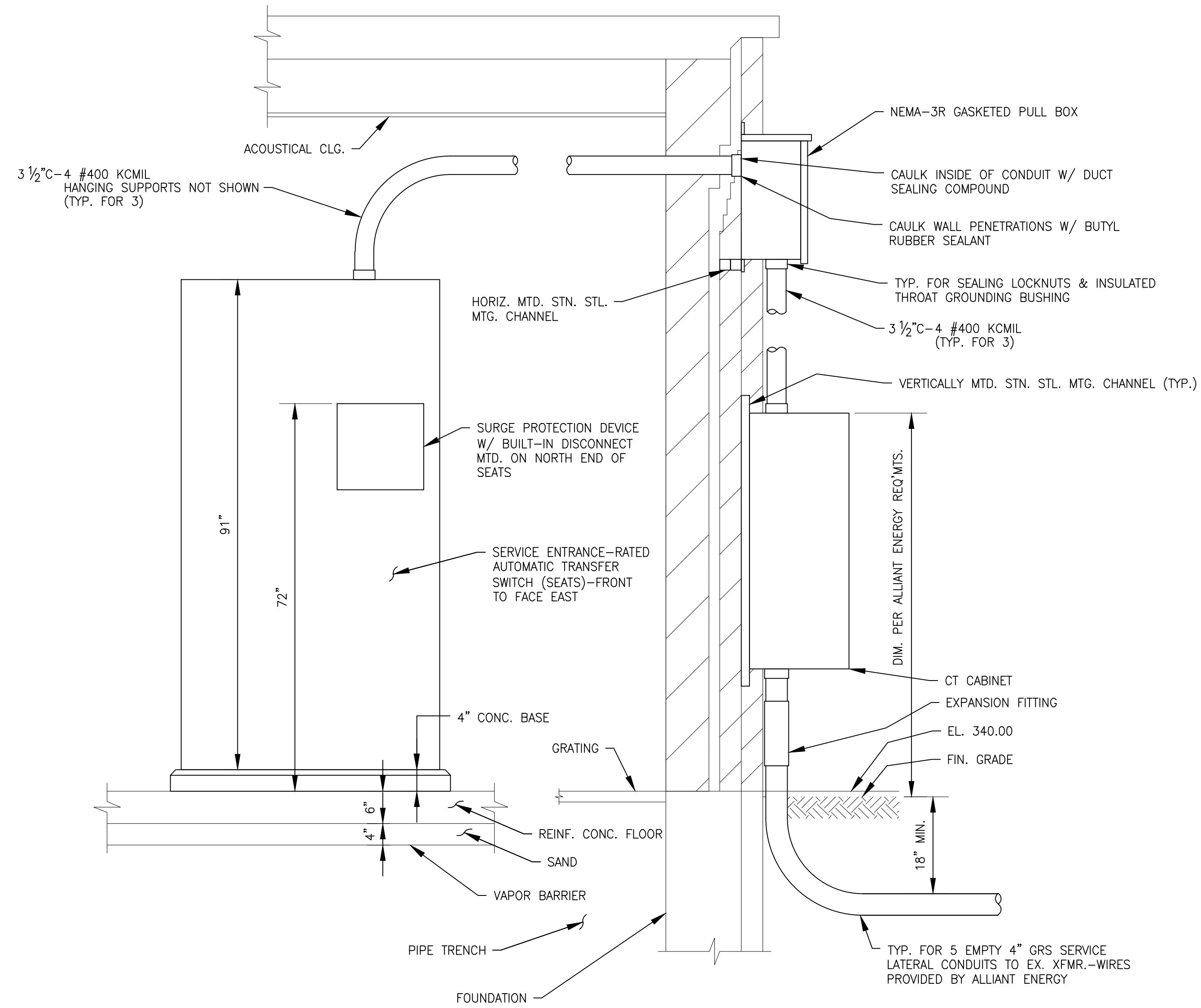
**E-1**  
5 OF



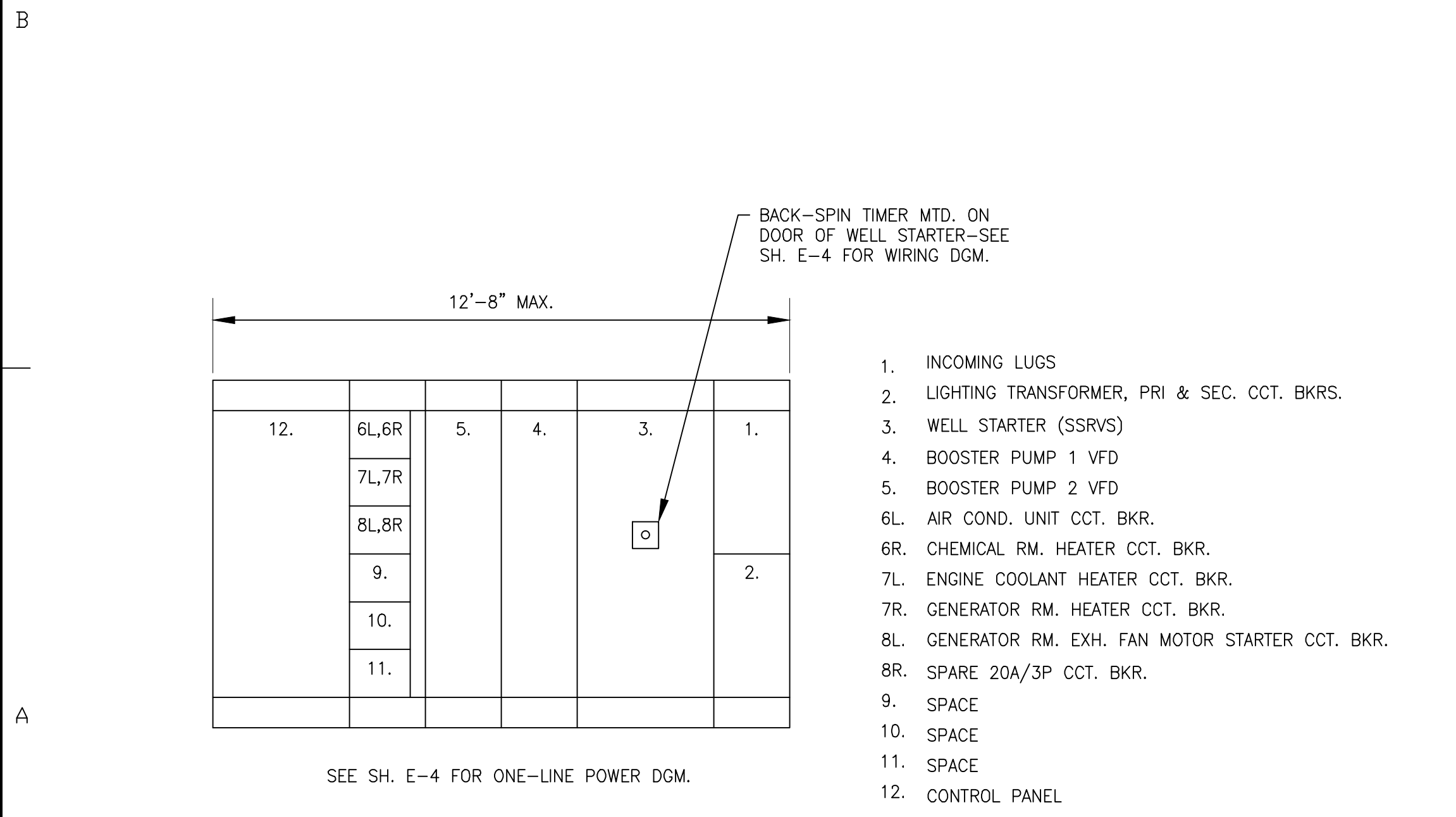
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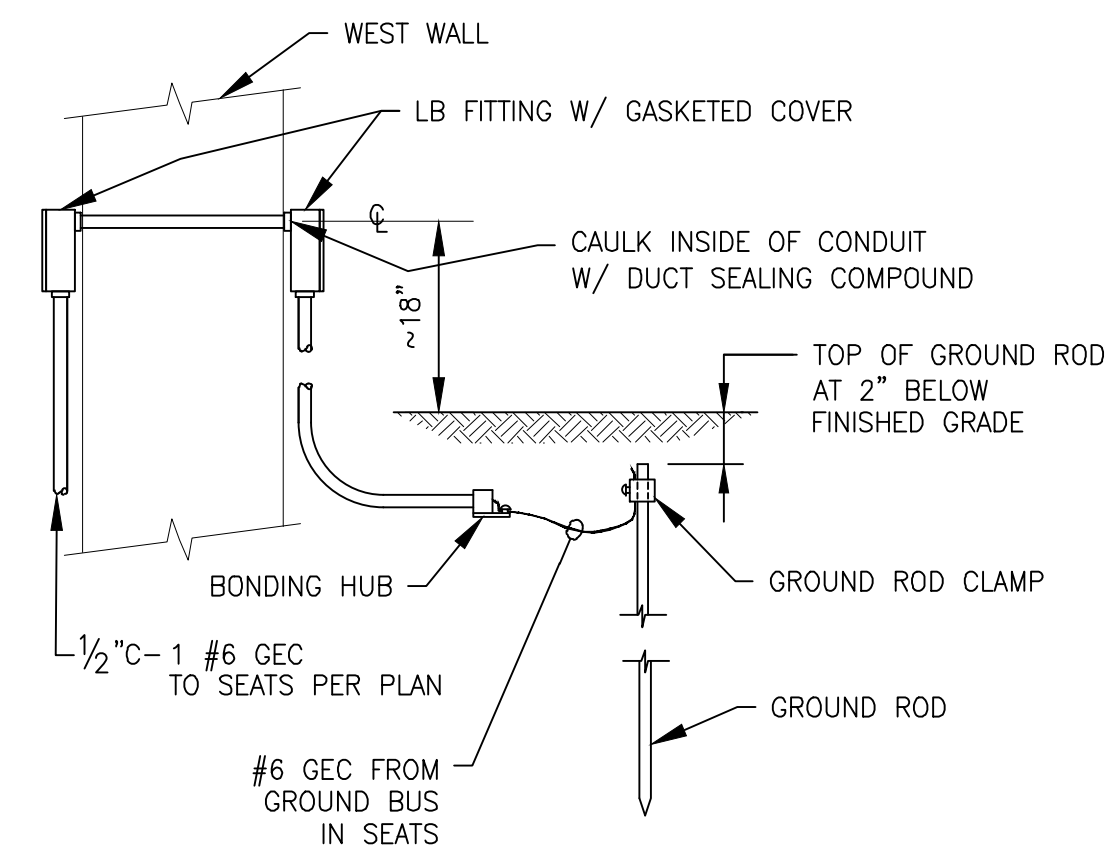
PARTIAL PLAN @ NW CORNER OF PUMPING STATION  
 SCALE: 3/8" = 1'-0"



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



REPLACEMENT MCC LAYOUT  
 NO SCALE



GROUND ROD DETAIL  
 NO SCALE



CONSULTANTS

NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

1" 0.5" 0 1" 2" 3"

PLAN SHEET DESIGNATION

C	COVER
H	HAZARDOUS MATERIALS
M	MECHANICAL
P	PLUMBING
E	ELECTRICAL
T	TELECOMMUNICATIONS
R	RESOURCE

PROJECT NO: 120581.41

SCALE: AS NOTED

DRAWING DATE:      

DESIGNED BY: DJM

DRAWN BY: TLB

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**MADISON WATER UTILITY  
 MADISON, WISCONSIN**

**UNIT WELL 26  
 GENERATOR ADDITION**

SHEET TITLE

**ELECTRICAL DETAILS**

**E-3**  
 7 OF





