

Supreme Court Generator

Missouri Supreme Court State Office Building

Jefferson City, Missouri



OWNER: STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

DESIGNER: MIDWEST ENGINEERING AND DESIGN
3100 BROWN STATION RD, SUITE C
COLUMBIA, MISSOURI 65202

PROJECT NUMBER: O2366-01

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

SITE NUMBER: 1001
ASSET NUMBER: 3101001056

SHEET NUMBER:

G-001

1 OF 10 SHEETS
09-24-2024

SHEET INDEX

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GENERAL CONSTRUCTION NOTES

- 1 THESE DRAWINGS SHALL NOT BE SCALED. REFER TO DIMENSIONS INDICATED OR WHERE NO DIMENSIONS ARE GIVEN, CONTRACTOR SHALL VERIFY THE ACTUAL SIZE AND LOCATION THROUGH FIELD VERIFICATION. THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS WERE DERIVED FROM OBSERVATIONS AND MEASUREMENTS TAKEN DURING SITE VISITS AND FROM ARCHIVE INFORMATION PROVIDED BY THE OWNER AND MAY NOT BE TOTALLY ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ANY CRITICAL DIMENSIONS PRIOR TO BIDDING AND/OR FABRICATION AND INSTALLATION OF THE WORK.
- 2 IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR TO REVIEW THE DRAWINGS TO ASSURE COORDINATION OF ALL WORK AFFECTING EACH TRADE. FAILURE TO REVIEW ALL CONTRACT DOCUMENTS FOR APPLICABLE ITEMS OF WORK SHALL NOT RELIEVE THE RESPONSIBLE PARTY FROM PERFORMING ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS.
- 3 COORDINATION – THE GENERAL CONTRACTOR SHALL COORDINATE REQUIREMENTS OF ALL TRADES TO ALLOW FOR TIMELY INCLUSION IN THE WORK SO AS NOT TO DELAY THE WORK OR THE WORK OF ANY SUBCONTRACTOR.
- 4 PRECAUTIONS – CONTRACTOR SHALL IMMEDIATELY REPORT ANY UNFORESEEN STRUCTURAL CONDITIONS WHICH COULD RESULT IN DAMAGE TO THE STRUCTURE OR INJURY TO ITS OCCUPANTS. REPORT ANY SUCH CONDITION IMMEDIATELY TO THE OWNER AND ENGINEER. TAKE PRECAUTIONS NECESSARY TO PROPERLY SUPPORT THE STRUCTURE AND PROTECT THE OCCUPANTS.
- 5 SITE USAGE – USE OF THE SITE FOR ANY CONSTRUCTION STAGING OR OTHER OPERATIONS SHALL BE COORDINATED WITH THE OWNER AND CONSTRUCTION ADMINISTRATOR. THE CONTRACTOR'S OPERATIONS SHALL NOT OBSTRUCT OR ADVERSELY AFFECT ANY PUBLIC OR ADJACENT OWNER AREAS.
- 6 EXIT ACCESS – MAINTAIN FREE, SAFE, AND APPROVED MEANS OF EGRESS IN AND OUT OF PROJECT LOCATION AND EXISTING OCCUPIED BUILDINGS IN ACCORDANCE WITH REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES.
- 7 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING RED LINE "AS-BUILT" DRAWINGS AT THE END OF THE PROJECT ALONG WITH ALL OPERATING MANUALS OF NEW SYSTEMS INSTALLED.
- 8 ALL MATERIALS MUST BE IN THE CONTRACTORS POSSESSION PRIOR TO ANY UTILITY INTERRUPTIONS.
- 9 CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY UNDERGROUND UTILITIES PRIOR TO EXCAVATION. THE UTILITIES SHOWN ARE A ROUGH ESTIMATE AND SHOULD NOT BE CONSIDERED ACCURATE.

**STATE OF MISSOURI
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**OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION**

**DEPARTMENT OF
Office Of Administration
Facilities Management
Design And Construction**

SUPREME COURT
GENERATOR

SUPREME COURT
STATE OFFICE BUILDING
207 WEST HIGH STREET,
JEFFERSON CITY, MISSOURI

PROJECT # O2366-01
SITE # 1001
FACILITY # 3101001056

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 09/24/2024

CAD DWG FILE: SCBG-e.dwg
DRAWN BY: JJS/SAK
CHECKED BY: JLD
DESIGNED BY: JJS/SAK

SHEET TITLE:

**DRAWING INDEX
AND
LOCATION MAP**

SHEET NUMBER:

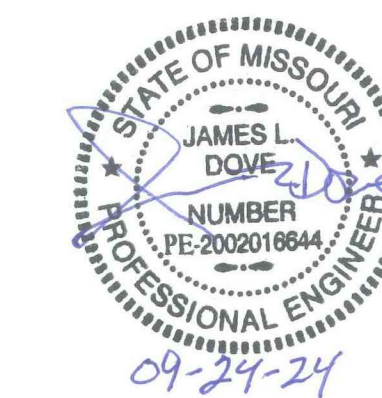
G-002

2 OF 10 SHEETS
09/24/2024



SUPREME COURT STATE OFFICE
BUILDING 207 WEST HIGH STREET
JEFFERSON CITY, MO 65101

1 SUPREME COURT LOCATION MAP
SCALE: NONE



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SHEET TITLE:

EXISTING
UTILITY
SITE PLAN

SHEET NUMBER:

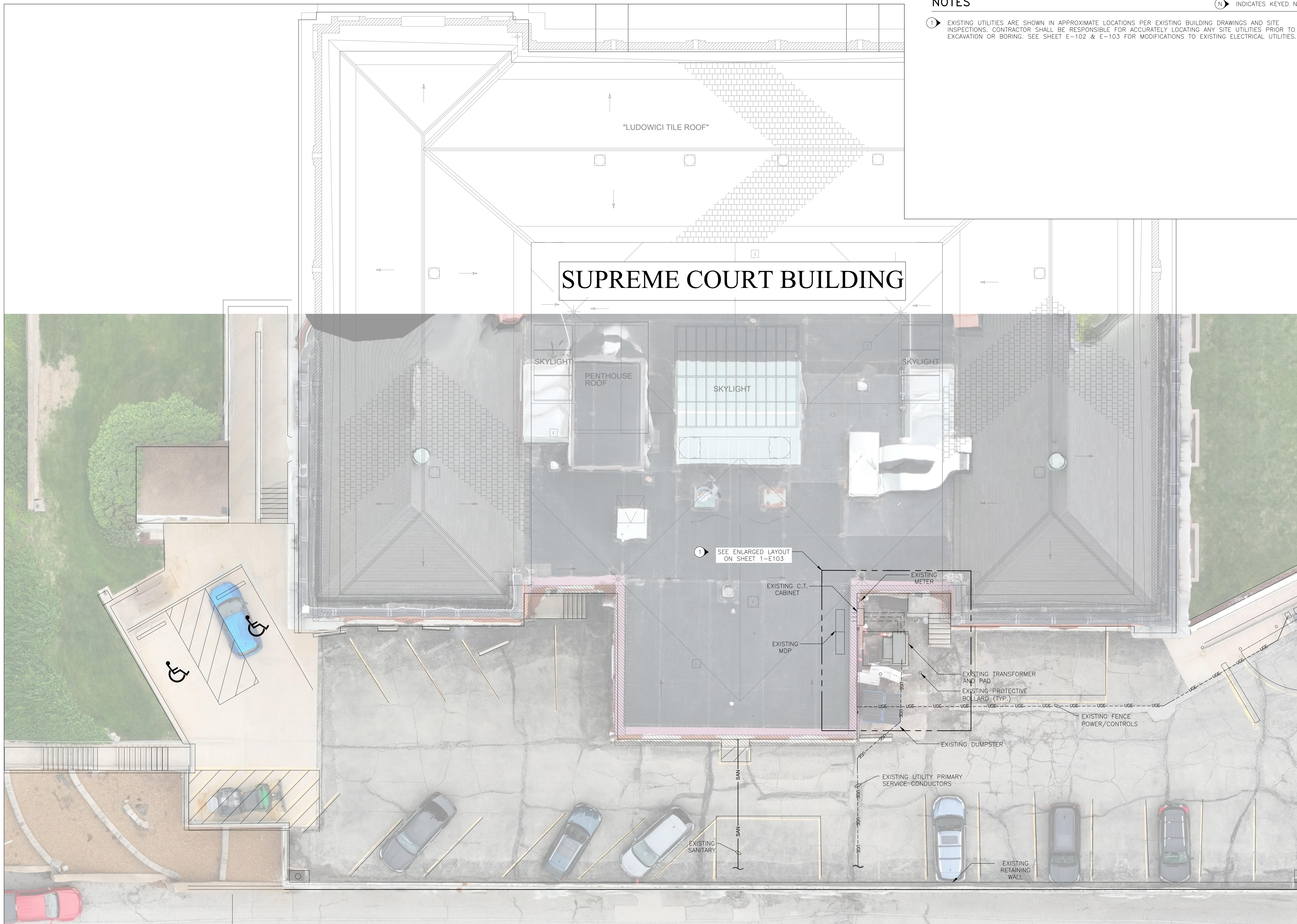
E-101

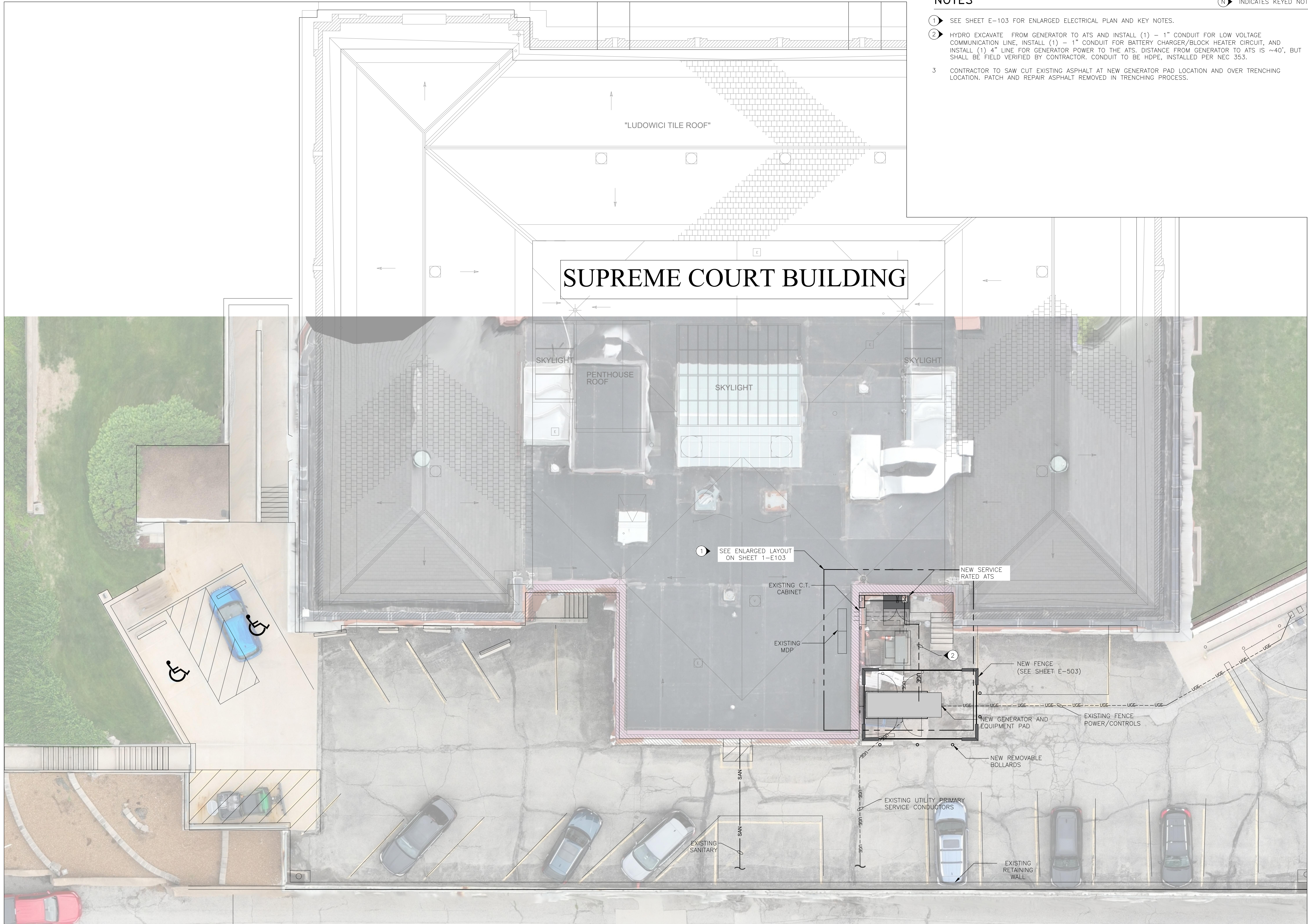
3 OF 10 SHEETS
09/24/2024

NOTES

N INDICATES KEYED NOTES

- 1 EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS PER EXISTING BUILDING DRAWINGS AND SITE INSPECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCURATELY LOCATING ANY SITE UTILITIES PRIOR TO EXCAVATION OR BORING. SEE SHEET E-102 & E-103 FOR MODIFICATIONS TO EXISTING ELECTRICAL UTILITIES.





NOTES

INDICATES KEYED NOTES

- 1 SEE SHEET E-103 FOR ENLARGED ELECTRICAL PLAN AND KEY NOTES.
- 2 HYDRO EXCAVATE FROM GENERATOR TO ATS AND INSTALL (1) - 1" CONDUIT FOR LOW VOLTAGE COMMUNICATION LINE, INSTALL (1) - 1" CONDUIT FOR BATTERY CHARGER/BLOCK HEATER CIRCUIT, AND INSTALL (1) 4" LINE FOR GENERATOR POWER TO THE ATS. DISTANCE FROM GENERATOR TO ATS IS ~40', BUT SHALL BE FIELD VERIFIED BY CONTRACTOR. CONDUIT TO BE HDPE, INSTALLED PER NEC 353.
- 3 CONTRACTOR TO SAW CUT EXISTING ASPHALT AT NEW GENERATOR PAD LOCATION AND OVER TRENCHING LOCATION. PATCH AND REPAIR ASPHALT REMOVED IN TRENCHING PROCESS.

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CAD DWG FILE: SCBG-e.dwg
DRAWN BY: JJS/SAK
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SHEET TITLE:
**NEW
UTILITY
SITE PLAN**

SHEET NUMBER:

E-102

4 OF 10 SHEETS
09/24/2024



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SHEET TITLE:
**ENLARGED
ELECTRICAL
PLAN**

SHEET NUMBER:

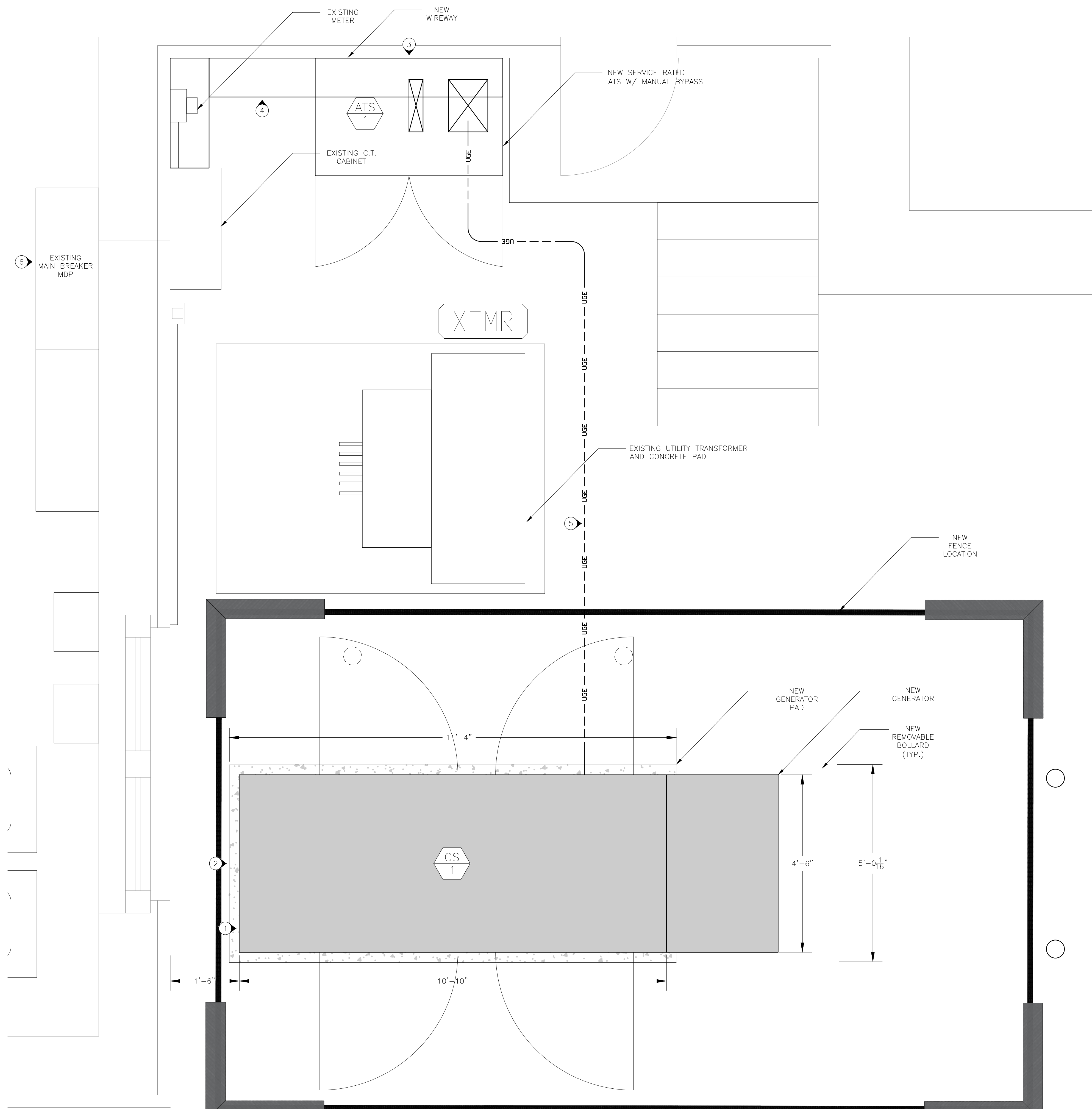
E-103

5 OF 10 SHEETS
09/24/2024

NOTES

(N) INDICATES KEYED NOTES

- 1 INSTALL NEW 200 kW DIESEL GENERATOR GS-1 ON TOP OF A 24 HOUR FUEL TANK.
- 2 INSTALL NEW GENERATOR CONCRETE PAD (12"x12"x5") WITH ~18" CLARENCE FROM BLDG FOUNDATION. NEW PAD IS TO BE SET 6" BELOW GRADE, DUE TO PRIMARY TRANSFORMER CONDUCTORS LOCATED BELOW.
- 3 INSTALL NEW SERVICE RATED NEMA 3R, 600A, 208V, 3Ø, 4W, ATS W/ MANUAL BYPASS. MOUNT WITH 3 FEET WORKING CLEARANCE IN FRONT TO PROVIDE EASY ACCESSIBILITY.
- 4 INSTALL WIREWAY FROM NEW ATS TO EXISTING C.T. CABINET. WIREWAY SHOULD BE INSTALLED TO PROVIDE A WIRE PATHWAY INTO THE BOTTOM OF NEW ATS. WIREWAY WILL SERVE TO ROUTE CONDUCTORS FROM CT TO ATS AND ATS TO MDP IN BASEMENT.
- 5 INSTALL (2) 1" HDPE AND (1) 4" HDPE CONDUITS FROM GENERATOR TO ATS. CONDUIT IS TO BE HYDRO EXCAVATED DUE TO EXISTING UTILITIES IN THE AREA. IN THE 4" CONDUIT INSTALL (2) SETS OF (3)-350 CU THWN, (1) 300 CU THWN, & (1) 2/0 CU THWN GRND. IN THE FIRST 1" CONDUIT INSTALL (6) #14 CU THWN & 1 BELDON 9841 TWISTED, SHIELDED CONDUCTOR FOR REMOTE ANNUNCIATOR, EMERGENCY STOP, AND START/STOP SIGNAL. IN THE SECOND 1" CONDUIT INSTALL (4) #12 CU THWN & (1) #12 CU THWN GRND FOR BATTERY CHARGER & ENGINE BLOCK HEATER.
- 6 REPLACE EXISTING MDP CUTLER HAMMER 1200A (12NES1200T) MAIN BREAKER DIGITRIP RMS 310 RATING PLUG WITH NEW 600A (12NES600T) DIGITRIP 310 RATING PLUG. THE MAIN BREAKER IS NOT REQUIRED TO BE REPLACED, ONLY THE ELECTRONIC TRIP UNIT.
- 7 INSTALL 3/4" EMT CONDUIT FROM PANEL L4 TO ATS FOR (2) 20A 120V CIRCUITS, ONE FOR GENERATOR BATTERY CHARGER AND ONE FOR GENERATOR BLOCK HEATER. INSTALL (4) #12 CU THWN, (1) #12 CU THWN GRND FROM PANEL L4 TO GENERATOR. SEE DETAIL 2 THIS SHEET.
- 8 INSTALL (1) 3/4" EMT CONDUIT FROM ATS TO RM B-25 FOR REMOTE ANNUNCIATOR. INSTALL BELDON 9841 TWISTED, SHIELDED PAIR FOR COMMUNICATIONS AND (2) #14 CU THWN FOR 12/24V DC POWER TO ANNUNCIATOR. SEE DETAIL 2 BELOW FOR POTENTIAL CONDUIT ROUTING. SEE DETAIL 2 THIS SHEET.



1 ENLARGED ELECTRICAL GENERATOR LAYOUT
SCALE: 3/4"=1'-0"

ELECTRICAL LEGEND	
	EXISTING BOLLARD (TO BE REMOVED)
	NEW BOLLARD
	NEW UNDERGROUND ELECTRIC
	ATS BOTTOM CONDUIT ENTRANCE



2 ENLARGED ELECTRICAL FLOOR PLAN
SCALE: 1/8"=1'-0"



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CAD DWG FILE: SCBG-e.dwg
DRAWN BY: JJS/SAK
CHECKED BY: JLD
DESIGNED BY: JJS/SAK

SHEET TITLE:

ELECTRICAL
ELEVATION
PLAN

SHEET NUMBER:

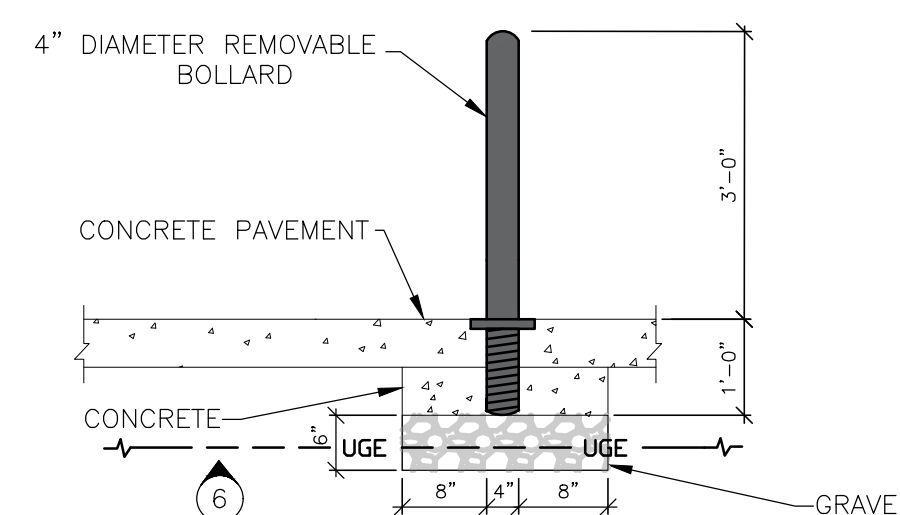
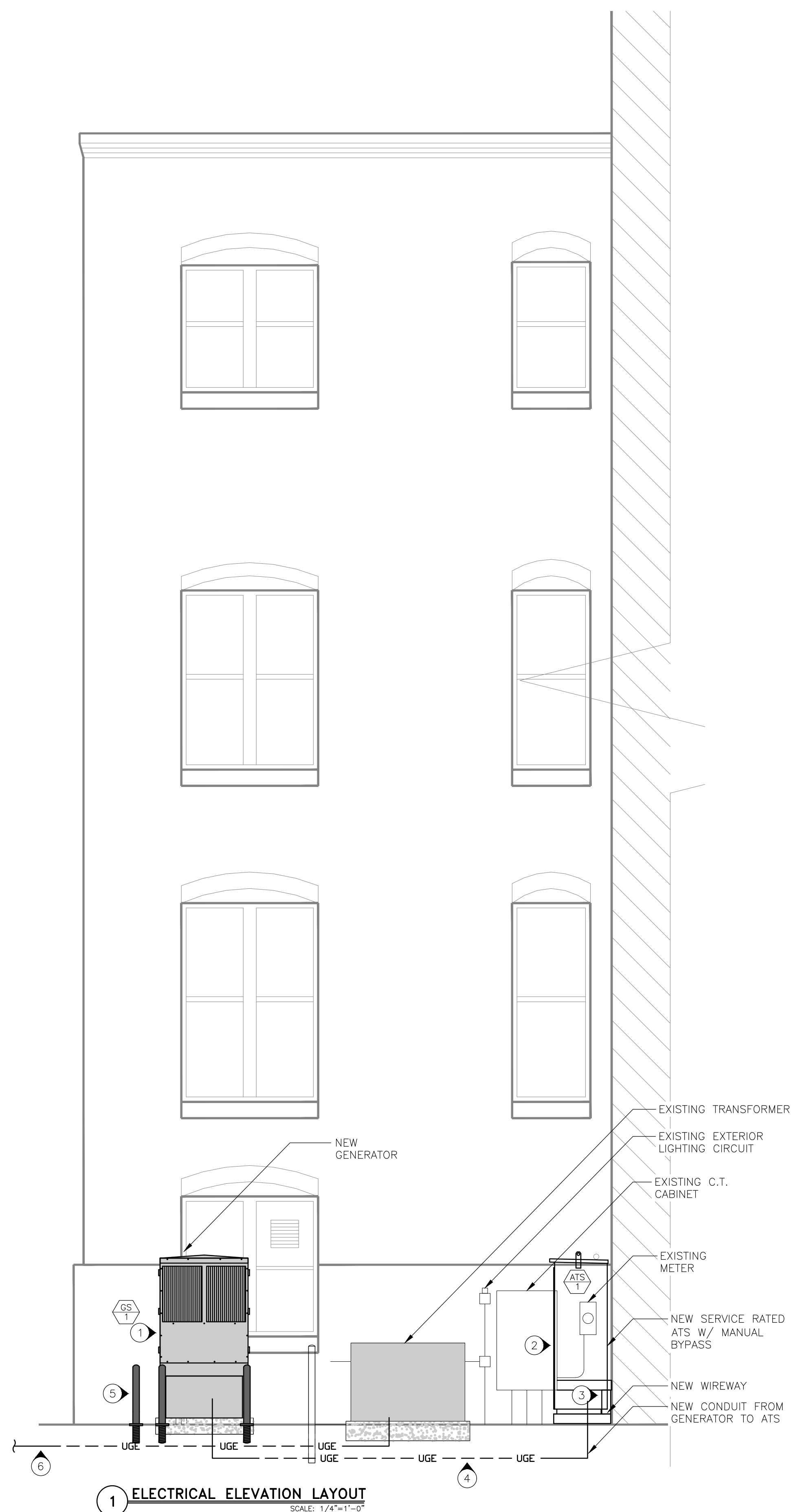
E-201

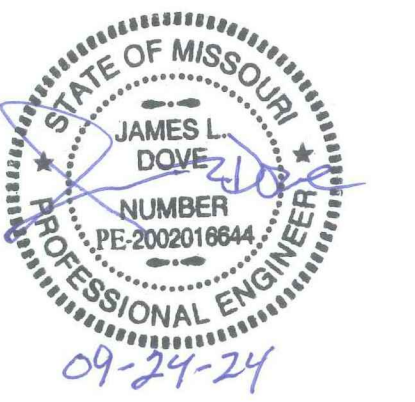
6 OF 10 SHEETS
09/24/2024

NOTES

INDICATES KEYED NOTES

- 1 NEW 200 kW GENERATOR ON TOP OF A 24 HOUR TANK AND GENERATOR PAD. SEE PAD DETAILS BELOW.
- 2 NEW SERVICE RATED NEMA 3R ATS. SWITCH TO BE 600A, 208V, 3Ø, 4W WITH MANUAL BYPASS. MOUNT ON TOP OF WIREWAY THAT INTERCONNECTS IT WITH THE EXISTING CT CABINET. MOUNT SWITCH WITH 3 FEET OF CLEARANCE IN FRONT TO PROVIDE EASY ACCESSIBILITY.
- 3 INSTALL NEW SURFACE MOUNTED GUTTER BETWEEN NEW ATS AND C.T. CABINET. ENSURE GUTTER LANDS BELOW ATS CONDUIT AREA.
- 4 INSTALL (1) - 1" CONDUIT FOR BATTERY CHARGER/BLOCK HEATER CIRCUIT, INSTALL (1) -1" CONDUIT FOR LOW VOLTAGE LINES FROM GENERATOR TO ATS AND REMOTE ANNUNCIATOR, AND (1) 4" LINE FOR GENERATOR POWER TO THE ATS. USE HYDRO EXCAVATION TO TRENCH LINES DUE TO UTILITIES IN THE AREA.
- 5 INSTALL FIVE NEW REMOVABLE BOLLARDS, THREE ON LONG SIDE OF NEW GENERATOR AND TWO IN FRONT OF NEW GENERATOR ON SHORT SIDE. RECOMMEND USING GLOBAL INDUSTRIAL MODEL WB670517 REMOVABLE BOLLARD. SEE BOLLARD DETAIL FOR DIMENSIONS.
- 6 UNDERGROUND UTILITIES APPROXIMATELY TWO FEET BELOW SURFACE. USE CAUTION WHEN INSTALLING BOLLARDS OR EXCAVATING FOR NEW GENERATOR EQUIPMENT PAD.





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DRAWN BY: JJS/SAK
CHECKED BY: JLD
DESIGNED BY: JJS/SAK

SHEET TITLE:

ELECTRICAL
SUPPLEMENTAL
DETAILS

SHEET NUMBER:

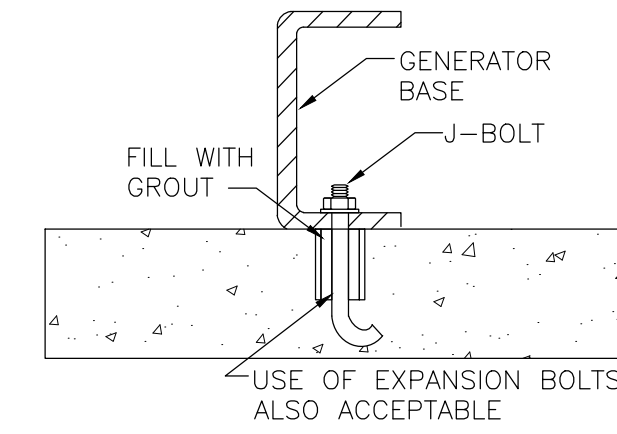
E-501

7 OF 10 SHEETS
09/24/2024

NOTES

(N) INDICATES KEYED NOTES

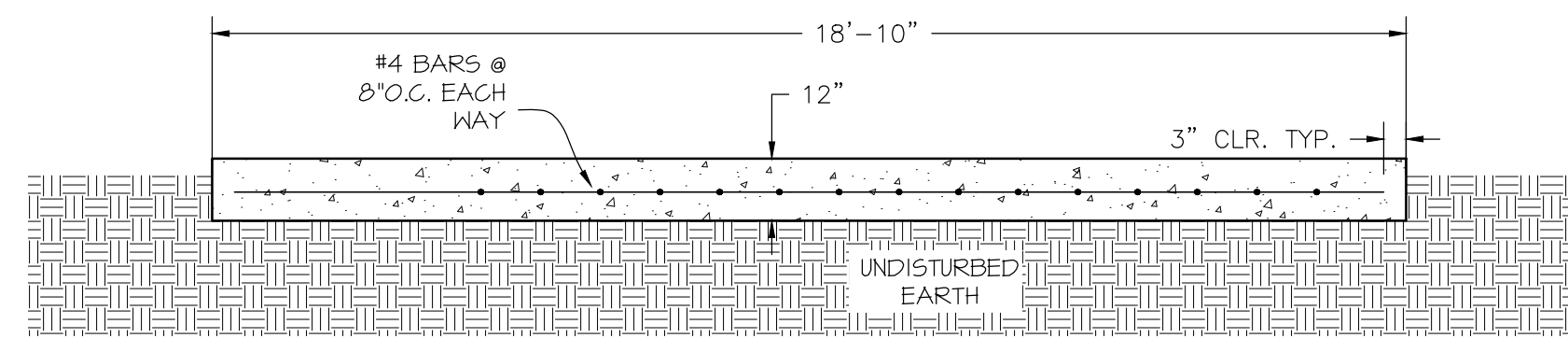
(1) INSTALL A WIREWAY BELOW NEW ATS TO ROUTE WIRE FROM CT CABINET AND TO MDP.



THE SIZE OF THE BOLTS HOLDING THE SUB-BASE TO THE FOUNDATION SHOULD BE SIZED TO FIT THE MOUNTING HOLES GIVEN IN THE INSTALLATION MANUAL.

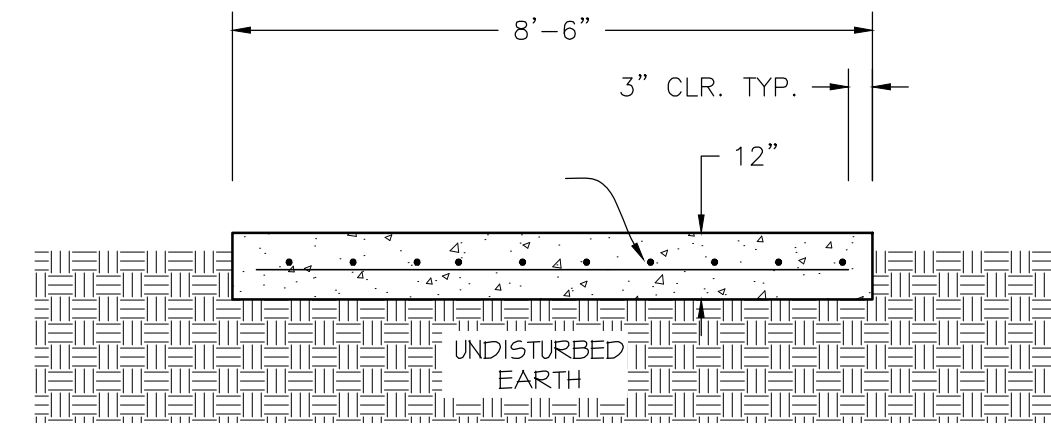
THREE-INCH IRON PIPE SLEEVES SHOULD BE PLACED AROUND THE BOLTS IN THE FOUNDATION TO ALLOW FOR ANY MIS-LOCATION OF THE BOLTS AFTER THE FOUNDATION HARDENS. "J" OR "L" TYPE BOLTS ARE RECOMMENDED FOR THE FOUNDATION BOLTS. AFTER THE FOUNDATION IS CURED AND THE GENERATOR IS LOCATED, THE SLEEVES ARE FILLED WITH GROUT.

COORDINATE WITH INSTALLATION MANUAL ON MOUNTING BOLT LOCATIONS.



FOUNDATION SECTION NOTES:

1. CONCRETE SHALL MEET A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
2. THE NEW CONCRETE GENERATOR PAD SHALL BE PLACED ON COMPACTED SOIL. ANY UNSUITABLE MATERIAL SHALL BE REMOVED.
3. ALLOW 3" CLEAR FROM EDGE OF REINFORCING STEEL TO ANY OPENING OR END OF SLAB.



3 GENERATOR FOUNDATION END SECTION
NO SCALE

4 GENERATOR ANCHORING DETAIL
NO SCALE

2 GENERATOR FOUNDATION SIDE SECTION
NO SCALE

GENERAL NOTES

1. FLOOR MOUNTED ENCLOSURE.
TYPE 3R CONSTRUCTED FROM CODE GAUGE STEEL.
FINISH: TYPE 3R, ANSI 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
TYPE 3RX EXTERIOR CONSTRUCTED FROM CODE GAUGE STAINLESS STEEL.
(R) EXTERIOR CONSTRUCTED FROM TYPE 304 STAINLESS STEEL.
(S) EXTERIOR CONSTRUCTED FROM TYPE 316 STAINLESS STEEL.
2. EXTERIOR DOORS HAVE PADLOCKABLE HANDLES WITH 3-POINT LATCH.
3. DESIGNED FOR FRONT ACCESS ONLY.
4. RECOMMENDED CLEARANCES: FRONT: 38" REAR: NONE.
5. LIFTING PLATES: SECTIONS ARE SUPPLIED WITH LIFTING PLATES. INSPECT PLATES FOR DAMAGE AND TORQUE BOLTS TO 45 FT LBS BEFORE USE. REFER TO ANSI/NEMA PB 2.1 FOR PROPER HANDLING OF EQUIPMENT. AFTER INSTALLATION OF SECTION, REMOVE LIFTING PLATES. REINSTALL BOLTS INTO EXTERIOR HOLES AND TORQUE TO APPROXIMATELY 20 FT LBS.
6. SECTION 1 & SECTION 2 SHIP AS 1 UNIT (NO SHIPPING SPLIT).
7. APPROXIMATE WEIGHT: 2112 LBS
8. CENTER OF GRAVITY

SYSTEM NOTES

1. SYSTEM RATING: 600 AMPS.
SHORT CIRCUIT RATING: 50,000 RMS SYM @ 480V.
2. ALL BUS IS SILVER-PLATED COPPER, BASED ON 1000A PER SQ. IN. DENSITY. THE EMERGENCY SOURCE MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE MARKINGS ON THE TRANSFER SWITCH.
3. GROUND: 20K RATED.
4. NEUTRAL: 100% RATED.
5. APPLICABLE LABEL(S): U.L. 891, SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

TRANSFER SWITCH

1. J FRAME ISOLATION-BYPASS TRANSFER SWITCH.
2. TRANSFER SWITCH RATING: 600 AMPS.
SHORT CIRCUIT RATING WHEN PROTECTED BY A CIRCUIT BREAKER
TIME RESPONSE, MAXIMUM 0.05 SECONDS:
42,000 RMS SYM @ 480V (SWITCHED AND SOLID NEUTRAL).
35,000 RMS SYM @ 480V (OVERLAPPING NEUTRAL).
SPECIFIC BREAKER RATING: 50,000 RMS SYM @ 480V.
3. A FULL RATED NEUTRAL CONNECTION FOR EACH SOURCE AND THE LOAD IS OPTIONAL. WHEN PROVIDED IT IS IN ONE OF THE FOLLOWING FORMATS.
A. SOLID NEUTRAL
B. SWITCHED NEUTRAL POLE
C. OVERLAPPING NEUTRAL POLE
4. UL 1008

TERMINATIONS 600A

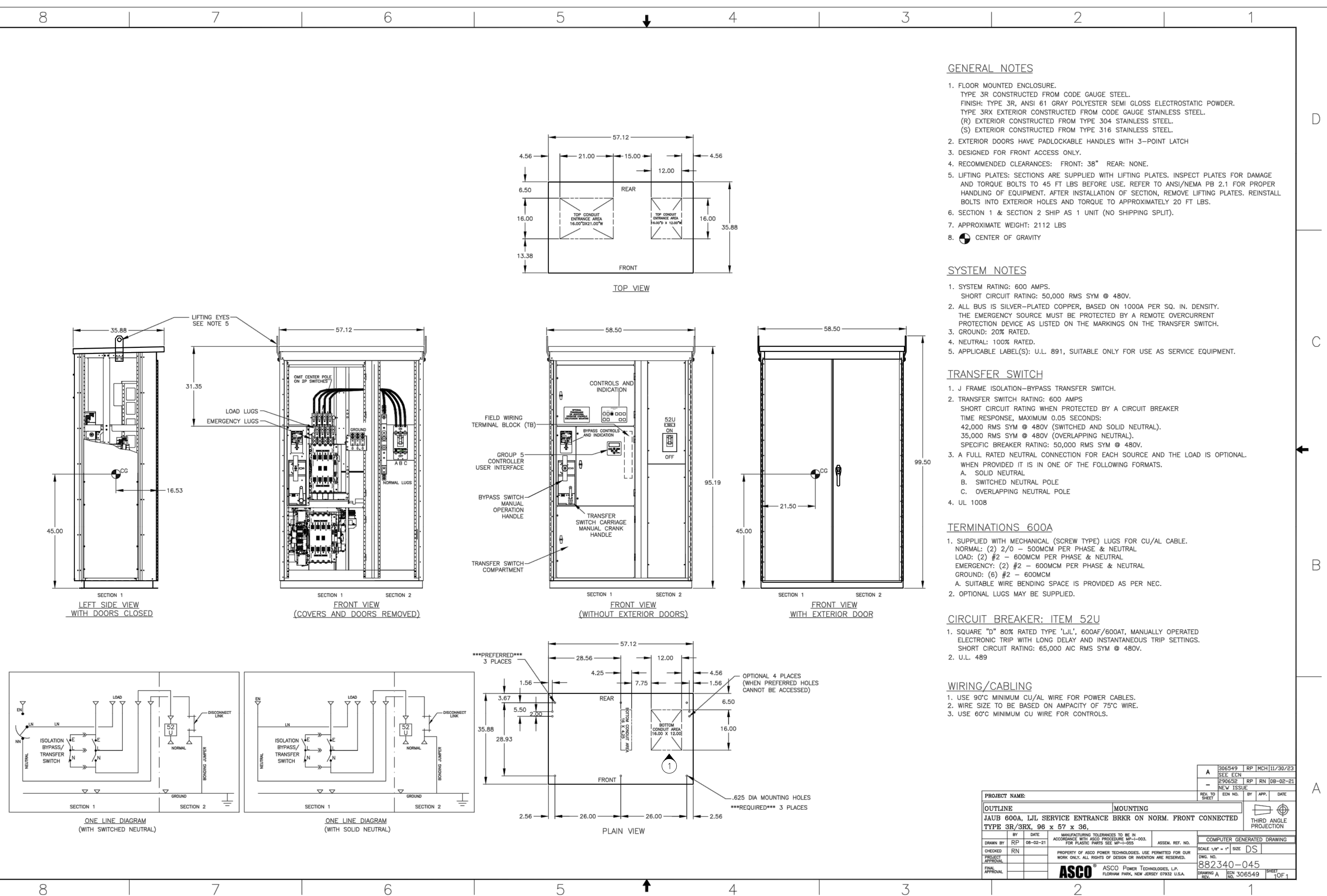
1. SUPPLIED WITH MECHANICAL (SCREW TYPE) LUGS FOR CU/AL CABLE.
NORMAL: (2) 2/0 - 500MCM PER PHASE & NEUTRAL
LOAD: (2) #2 - 600MCM PER PHASE & NEUTRAL
EMERGENCY: (2) #2 - 600MCM PER PHASE & NEUTRAL
GROUND: (6) #2 - 600MCM
A. SUITABLE WIRE BENDING SPACE IS PROVIDED AS PER NEC.
2. OPTIONAL LUGS MAY BE SUPPLIED.

CIRCUIT BREAKER: ITEM 52U

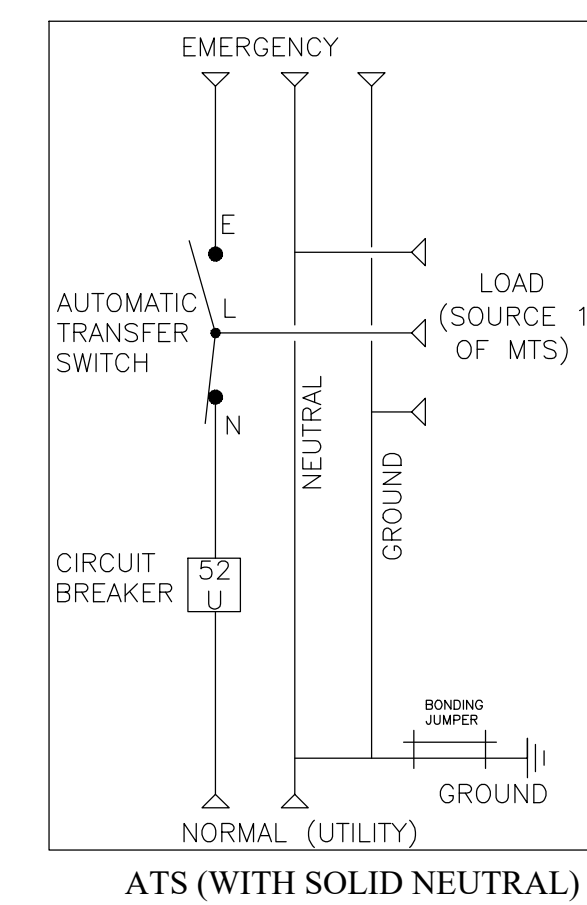
1. SQUARE "D" BOX RATED TYPE "LIL", 600AF/600AT, MANUALLY OPERATED ELECTRONIC TRIP WITH LONG DELAY AND INSTANTANEOUS TRIP SETTINGS.
SHORT CIRCUIT RATING: 65,000 AIC RMS SYM @ 480V.
2. U.L. 489

WIRING/CABLING

1. USE 90°C MINIMUM CU/AL WIRE FOR POWER CABLES.
2. WIRE SIZE TO BE BASED ON AMPACITY OF 75°C WIRE.
3. USE 60°C MINIMUM CU WIRE FOR CONTROLS.

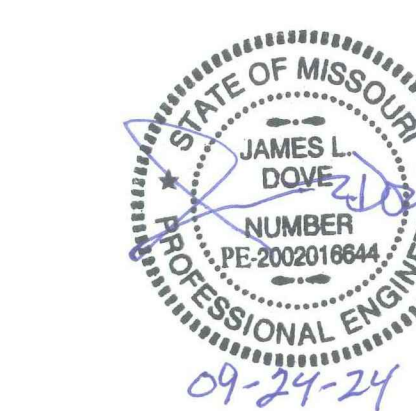


PROJECT NAME:	MOUNTING
OUTLINE:	JALIB 600A LIL SERVICE ENTRANCE BRKR ON NORM. FRONT CONNECTED TYPE 3R/3RX, 96 x 67 x 36.
DATE:	08-22-21
BY:	RN
CHECKED:	RN
DESIGNED:	RN
APPROVED:	RN
SCALE:	1" = 1'-0"
DATE:	08-24-2021
PROJECT:	092340-045
FIGURE:	A
SHEET:	1 OF 1



5 NEW ATS CONFIGURATION
NO SCALE

1 ASCO 600A SERVICE RATED ATS
SCALE: NONE



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E-502
8 OF 10 SHEETS
09/24/2024

NOTES

INDICATES KEYED NOTES

1 BLUE STAR IS THE BASIS OF DESIGN, SEE SPECIFICATIONS FOR SUBSTITUTIONS.

BLUE STAR
Power Systems Inc.

Diesel Product Line

208-600 Volt

PD200-01

60 Hz / 1800 RPM

200 kWe

Standby

Ratings

	240V	208V	240V	480V	600V
Phase	1	3	3	3	3
PF	1.0	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
Generator Model	S4L1D-E41	UCD274J1	UCD274J1	UCD274H	UCD274H
Connection	12 LEAD DD	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
kWe	200	200	200	200	200
AMPS	833	695	602	301	241
Temp Rise	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C

Standard Equipment

Engine	Generator	Additional
- Radiator Cooled Unit Mounted (50°C)	- Brushless Single Bearing	- Single Source Supplier
- Radiator Duct Flange (OPU Only)	- Automatic Voltage Regulator	- UL 2200 & cUL Listed
- Blower Fan & Fan Drive	- ± 1% Voltage Regulation	- CSA Certified
- Starter & Alternator	- 4 Pole, Rotating Field	- Seismic Certified to IBC 2021
- Oil Pump & Filter	- 125°C Standby Temperature Rise	- NFPA 110 / CSA C282 Compliant
- Oil Drain Extension w/ Valve	- 100% of Rated Load - One Step	- Microprocessor Based Digital Control Panel
- Governor - Electronic Isochronous	- 5% Maximum Harmonic Content	- Mounted in NEMA 12 Enclosure
- 12V Battery System & Cables	- NEMA MG 1, IEEE and ANSI	- Base - Formed Steel
- Air Cleaner (Dry Single Stage)	Standards Compliance for	- Main Line Circuit Breaker Mounted & Wired
- Critical Grade Silencer Mounted	Temperature Rise	- Battery Charger 12V 6 Amp
- Flexible Fuel Connector		- Jacket Water Heater -20°F 2000W 240V
- EPA Certified Tier 3		w/ Isolation Valves
		- Vibration Isolation Mounts
		- 2 Year / 2000 Hour Standby Warranty
		- Standard Colors - White / Gray

PD200-01

1 of 4

Diesel Product Line

BLUE STAR
Power Systems Inc.

200 kWe

Application Data

Engine	Perkins	Displacement - Cu. In. (lit)	428 (7.01)
Manufacturer:	Perkins	Displacement - Cu. In. (lit):	428 (7.01)
Model:	1106D-E70TAG5	Bore - in. (cm) x Stroke - in. (cm):	4.13 (10.5) x 5.31 (13.5)
Type:	4-Cycle	Compression Ratio:	18.8:1
Aspiration:	Turbo Charged, CAC	Rated RPM:	1800
Cylinder Arrangement:	6 Cylinder In-line	Max HP Stby (kWm):	315 (235)

Exhaust System Standby

Gas Temp. (Stack): °F (°C)	1,027 (553)
Gas Volume at Stack Temp: CFM (m³/min)	1,353 (38.3)
Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa)	40.0 (10.0)

Cooling System

Ambient Capacity of Radiator: °F (°C)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa)	0.50 (0.12)
Water Pump Flow Rate: GPM (lit/min)	44.9 (170)
Heat Rejection to Coolant: BTU/M (kW)	5,251 (91.9)
Heat Rejection to CAC: BTU/M (kW)	2,709 (47.4)
Heat Radiated to Ambient: BTU/M (kW)	4,020 (70.4)

Air Requirements

Aspirating: CFM (m³/min)	597 (16.9)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	10,161 (288)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m³/min)	Consult Factory For Remote Cooled Applications

Fuel Consumption

At 100% of Power Rating: gal/hr (lit/hr)	14.8 (55.9)
At 75% of Power Rating: gal/hr (lit/hr)	12.3 (46.4)
At 50% of Power Rating: gal/hr (lit/hr)	8.48 (32.1)

Fluids Capacity

Total Oil System: gal (lit)	4.62 (17.5)
Engine Jacket Water Capacity: gal (lit)	2.51 (9.50)
System Coolant Capacity: gal (lit)	5.56 (21.0)

Derivation Factors: Rated Power is available up to 1640h (500h) at ambient temperatures to 122°F (50°C). Consult factory for site conditions above these parameters.

PD200-01

2 of 4

Diesel Product Line

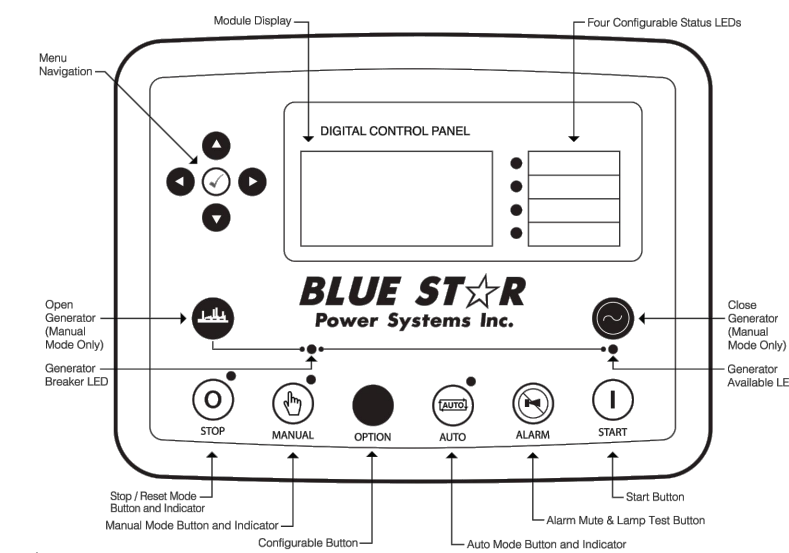
BLUE STAR
Power Systems Inc.

200 kWe

DCP7310 Control Panel

Standard Features

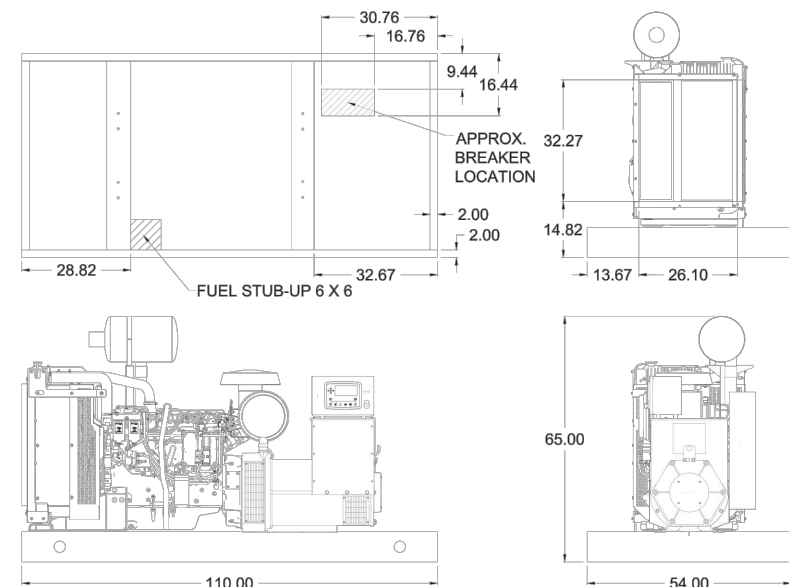
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator Interface
- rULus Listed, CE Approved
- Event Recording
- IP 65 rating (with supplied gasket) offers increased resistance to water ingress
- NFPA 110 Level 1 Compatible



Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	110 x 54 x 65 in	4,150
Level 1	130 x 54 x 74 in	5,025
Level 2	130 x 54 x 74 in	5,075
Level 3	164 x 54 x 74 in	5,300

Please allow 6-12 inches for height of exhaust stack.



	No Load	Full Load
OPU	82 dBA	85 dBA
Level 1	80 dBA	82 dBA
Level 2	75 dBA	78 dBA
Level 3	71 dBA	73 dBA

PD200-01

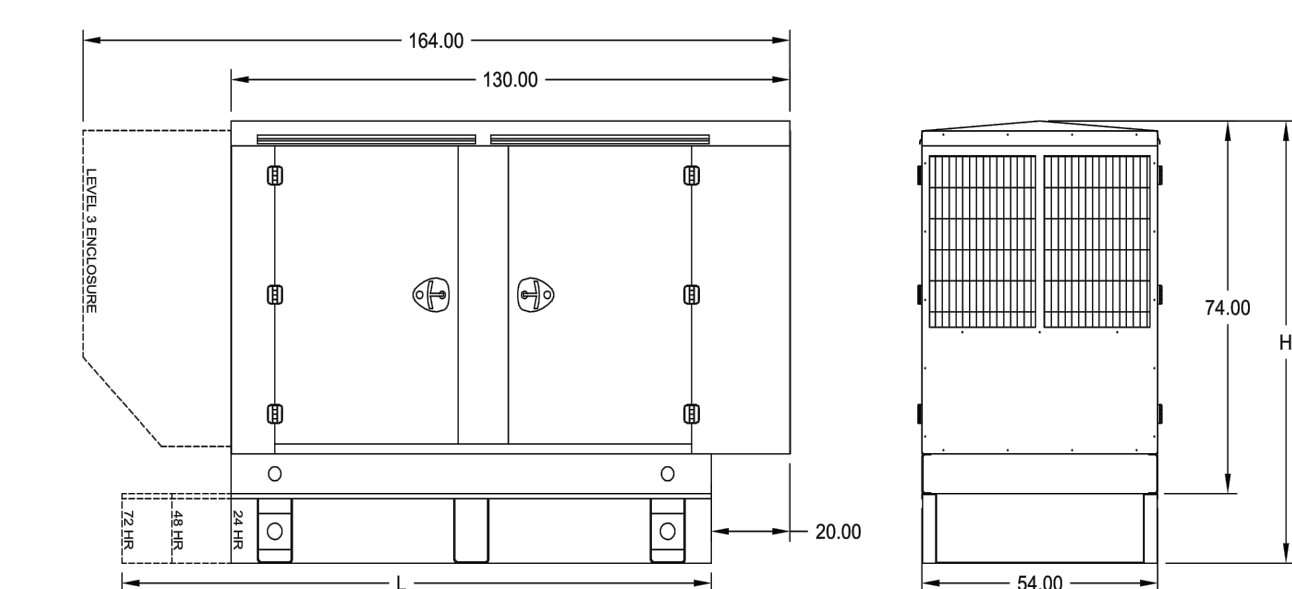
3 of 4

Diesel Product Line

BLUE STAR
Power Systems Inc.

200 kWe

Enclosures & Fuel Tanks



	24 Hour 375 Gallon	48 Hour 750 Gallon	72 Hour 1125 Gallon
L	110.00	144.00	204.00
H	100.00	110.00	110.00

Notes

- All specification sheet dimensions are represented in inches.
- All drawings based on standard 480 volt standby generator. Lengths may vary with other voltages. All drawings and dimensions subject to change without notice.
- All enclosures and fuel tanks are based on the standard unit configuration. Any requested deviation can change dimensions.
- Sound data is measured at 25 feet (7.62 meters) in accordance with ISO 8528-10.
- All materials and specifications subject to change without notice.



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OFFICE OF ADMINISTRATION
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DEPARTMENT OF
Office Of Administration
Facilities Management
Design And Construction

SUPREME COURT
GENERATOR

SUPREME COURT
STATE OFFICE BUILDING
207 WEST HIGH STREET,
JEFFERSON CITY, MISSOURI

PROJECT # O2366-01
SITE # 1001
FACILITY # 3101001056

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 09/24/2024

CAD DWG FILE: SCBG-e.dwg
DRAWN BY: JS/SAK
CHECKED BY: JLD
DESIGNED BY: JS/SAK

SHEET TITLE:

FENCING
DETAILS

SHEET NUMBER:

E-503

9 OF 10 SHEETS
09/24/2024

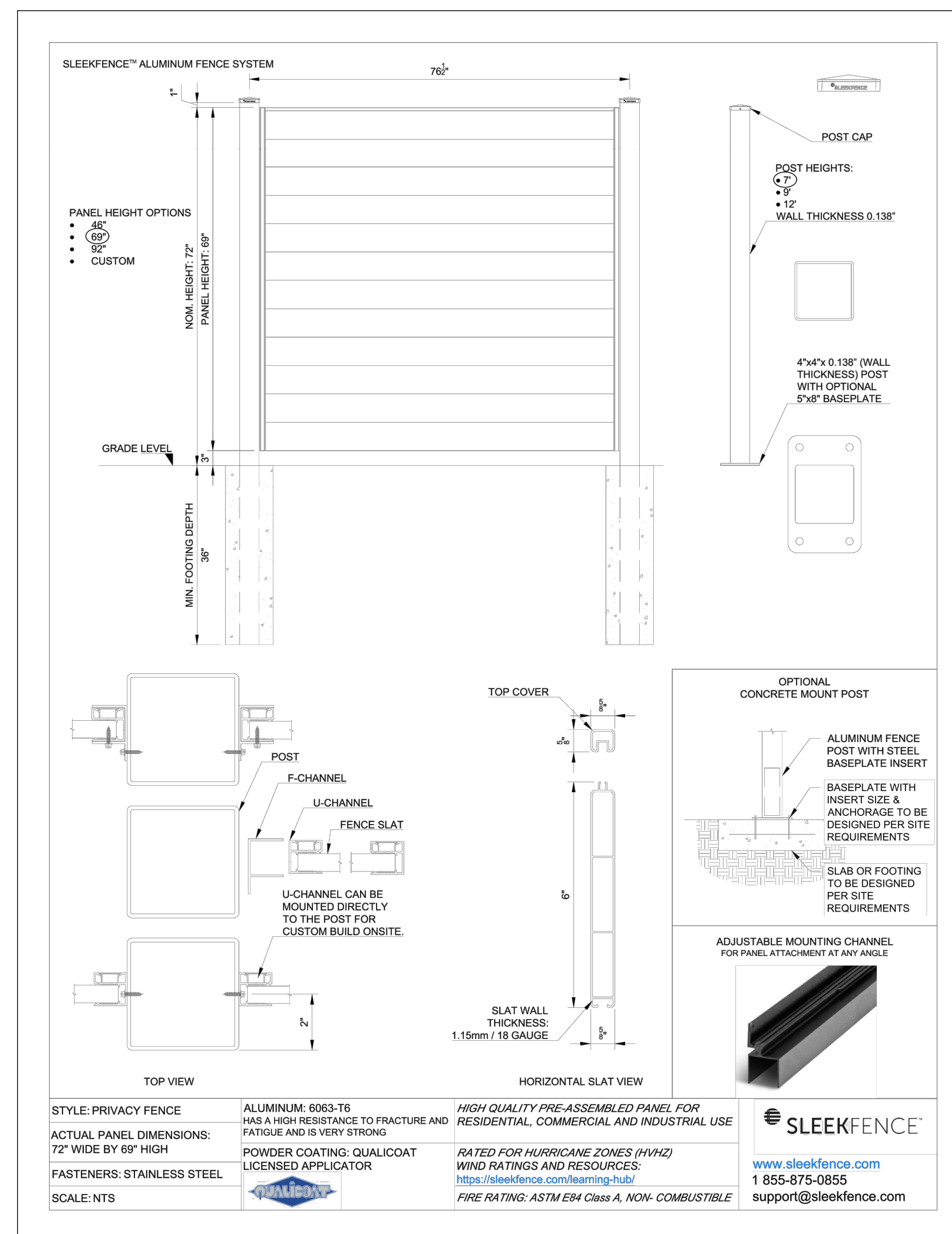
NOTES

(N) INDICATES KEYED NOTES

- 1 CONTRACTOR TO PROVIDE SLEEKFENCE (BASIS OF DESIGN) OR APPROVED EQUAL. INSTALL APPROXIMATELY (11) 69" PRIVACY PANELS. MORE OR LESS PANELS MAY BE REQUIRED DEPENDING ON HOW FENCING IS INSTALLED.
- 2 CONTRACTOR TO INSTALL (18) - 7' FENCE POSTS AND FENCE POST CAPS.
- 3 CONTRACTOR TO INSTALL (2) - 67.5" HIGH PRE-ASSEMBLED PRIVACY GATES.
- 4 CONTRACTOR TO INSTALL (4) STONE CORNER STRUCTURES. MATCH AESTHETIC WITH THE QUOINS ON THE SUPREME COURT BUILDING. SEE IMAGE IN DETAIL 5 FOR REFERENCE.



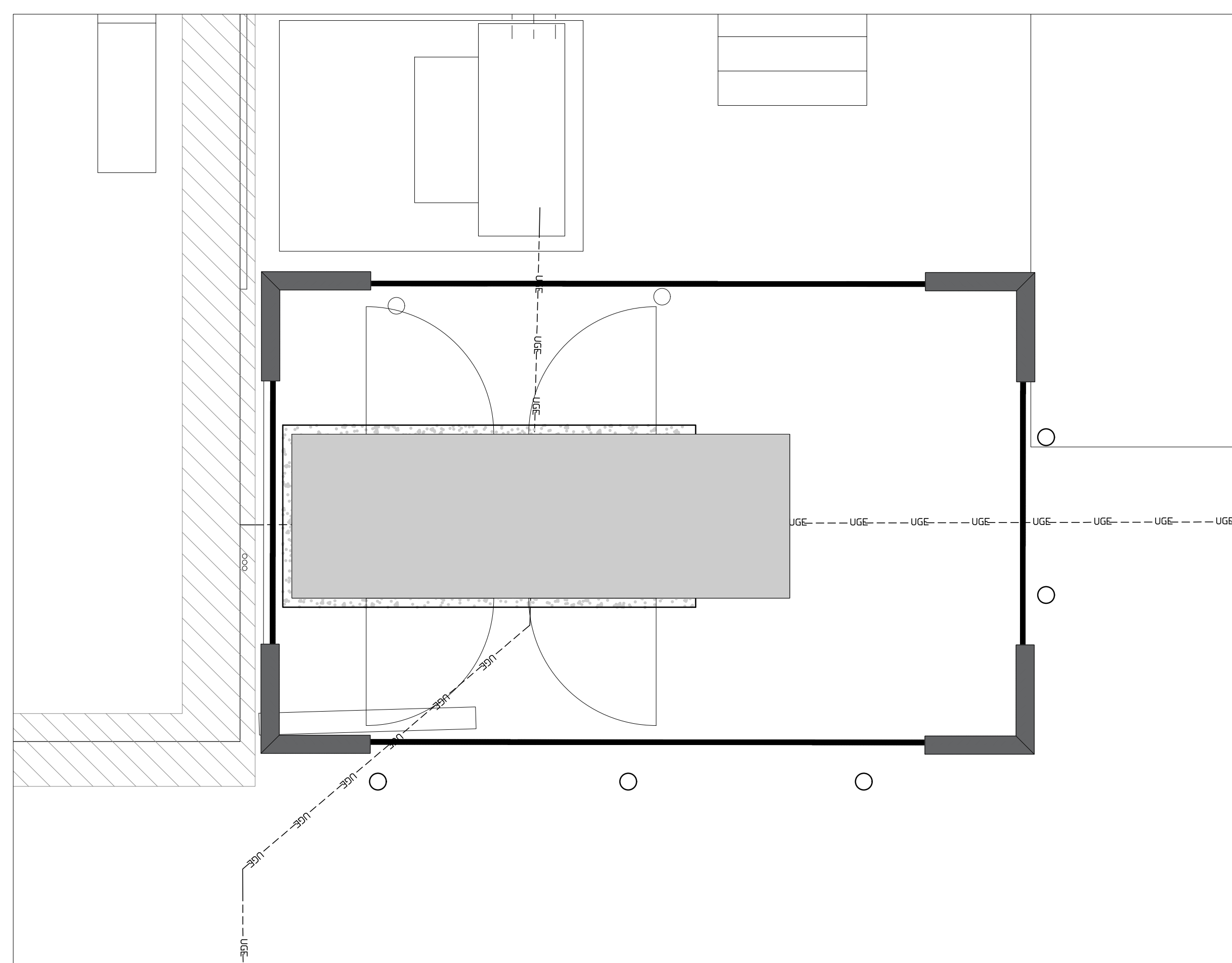
5 SUPREME COURT BUILDING QUOIN
SCALE: NONE



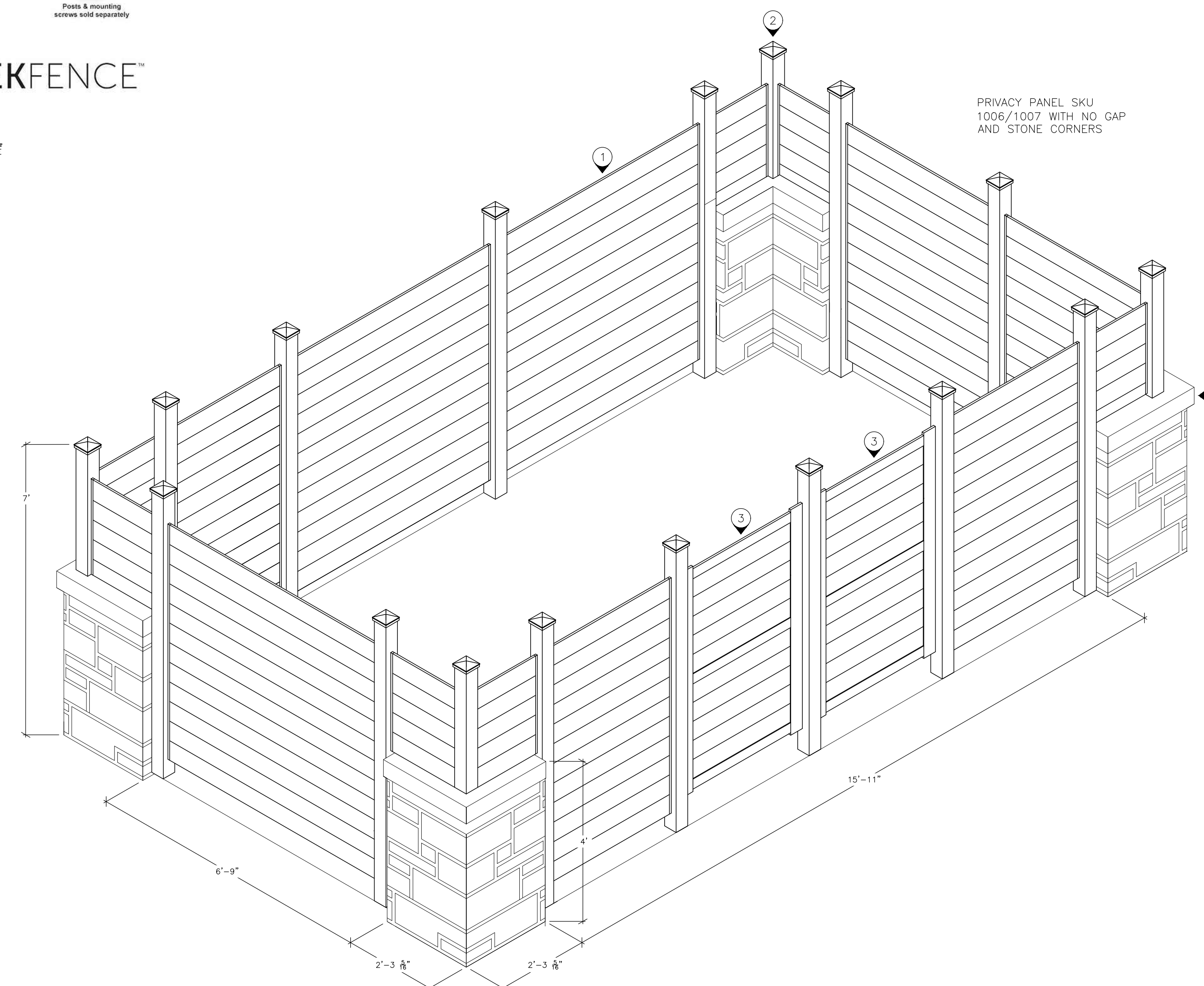
2 SLEEKFENCE ALUMINUM PRIVACY FENCE SYSTEM
SCALE: NONE



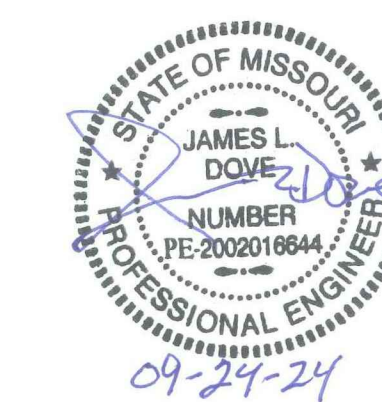
3 SLEEKFENCE DOOR AND LATCH DETAIL
SCALE: NONE



1 ALUMINUM FENCE LOCATION
3/8" = 1'-0"



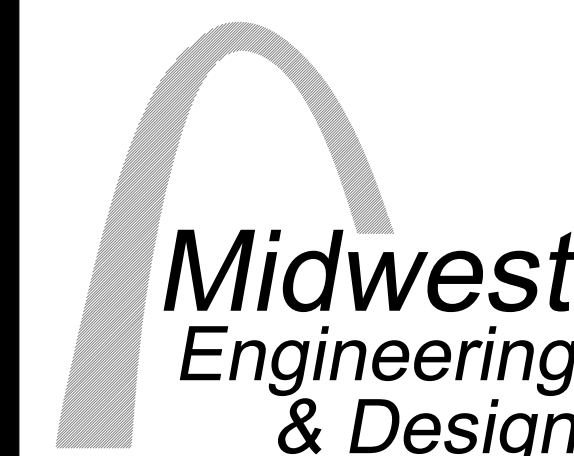
4 ALUMINUM SLAT FENCE WITH STONE CORNERS
1/2" = 1'-0"



NOTES

INDICATES KEYED NOTES

- 1 BLUE STAR AND ASCO WERE USED FOR THE BASIS OF DESIGN, SEE SPECIFICATIONS FOR SUBSTITUTIONS.
- 2 INSTALL A NEW 200KW STANDBY DIESEL GENERATOR WITH 24HR FUEL TANK.
- 3 INSTALL A NEW GENERATOR PAD.
- 4 INSTALL CONDUIT FROM GENERATOR TO NEW ATS, SEE NOTES ON E-201 FOR WIRE AND CONDUIT SIZING.
- 5 INSTALL A NEW 600A, NEMA 3R SERVICE RATED ATS WITH MANUAL BYPASS. INSTALL A NEW GROUND ROD AND BOND GROUND AND NEUTRAL AT THIS POINT.
- 6 INSTALL A NEW SURFACE MOUNTED WIREWAY BETWEEN CT CABINET AND ATS. WIRE WAY IS TO ALLOW THE ROUTING OF OUTPUT OF CT TO UTILITY SIDE OF ATS AND THE OUTPUT OF ATS TO MAIN BREAKER OF MDP. REMOVE ANY EXCESS WIRES FROM CT TO MDP.
- 7 REPLACE EXISTING MDP CUTLER HAMMER 1200A (12NES1200T) MAIN BREAKER DIGITRIP RMS 310 RATING PLUG WITH NEW 600A (12NES600T) DIGITRIP 310 RATING PLUG. THE MAIN BREAKER IS NOT REQUIRED TO BE REPLACED.



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DRAWN BY: JJS/SAK
CHECKED BY: JLD
DESIGNED BY: JJS/SAK

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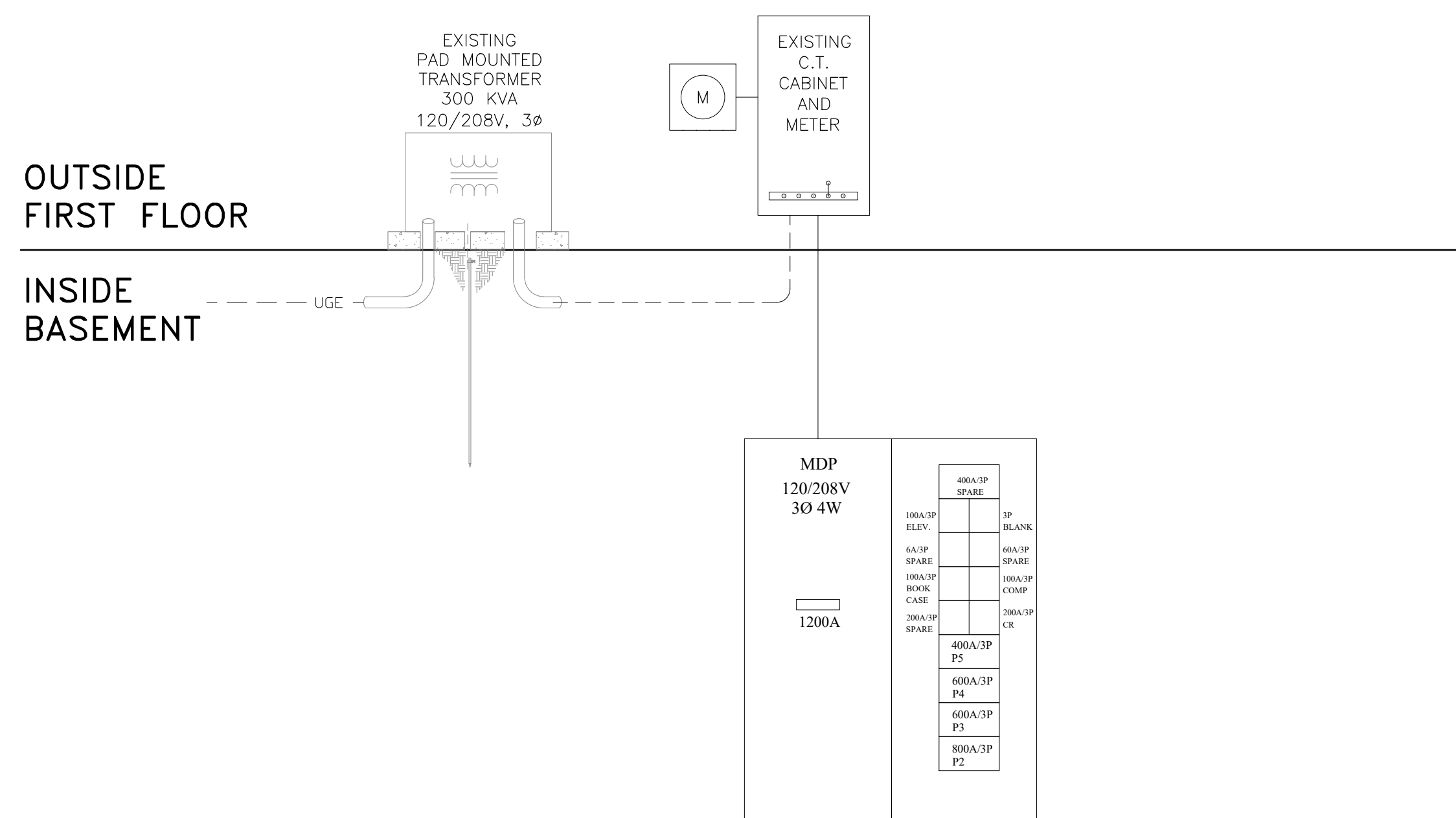
ELECTRICAL
UTILITY
RISER

SHEET NUMBER:

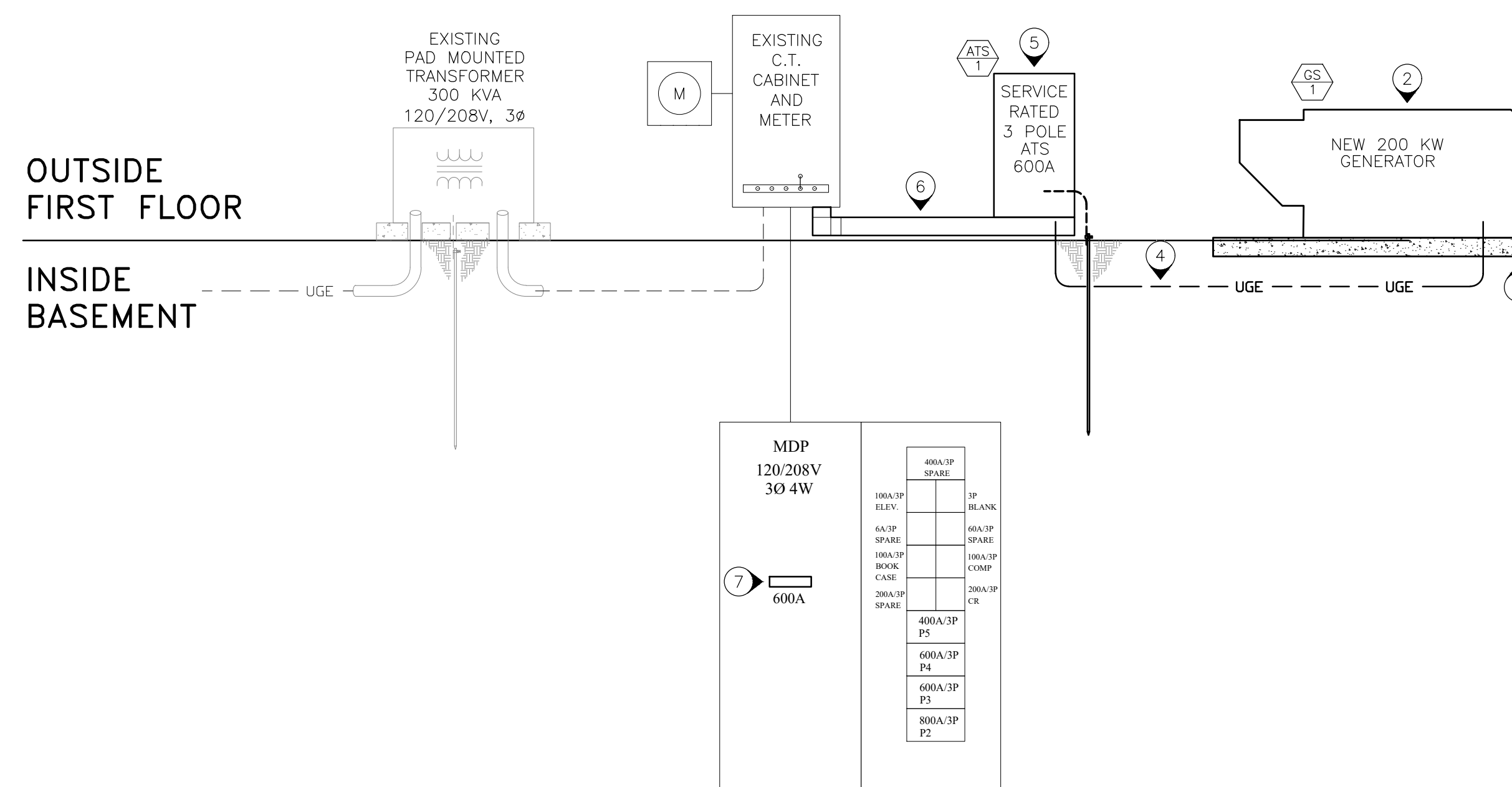
E-601

10 OF 10 SHEETS
09/24/2024

ELECTRICAL DEVICE SCHEDULE				
TAG	MFG	DESCRIPTION	MODEL NUMBER	REMARK
GS 1	BLUE STAR	GENERATOR SET	PD200-01	200KW, 120/208V, 60 HZ, 3 PHASE, 4 WIRE ENGINE: DIESEL MANUFACTURE: PERKINS
RC 1	BLUE STAR	REMOTE CONTROL PANEL	DCP-7310	REMOTE PANEL WITH EVENT LOGGING, FUEL USAGE MONITOR AND LOW FUEL ALARMS, LOAD MONITORING, POWER MONITORING, REMOTE TRANSFER.
ATS 1	ASCO	AUTOMATIC TRANSFER SWITCH	J07AUBA30600N50M	JAUB, L/JL, SERVICE ENTRANCE BRKR ON NORM. FRONT CONNECTED TYPE 3R/3RX 96 x 57 X 36



1 EXISTING 1200A ELECTRICAL RISER (PARTIAL)
NO SCALE



2 MODIFIED 600A ELECTRICAL RISER (PARTIAL)
NO SCALE