PROJECT LOCATION

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



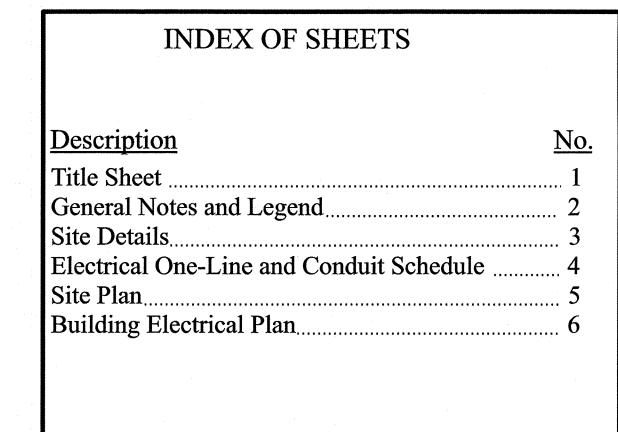
PROSPECT

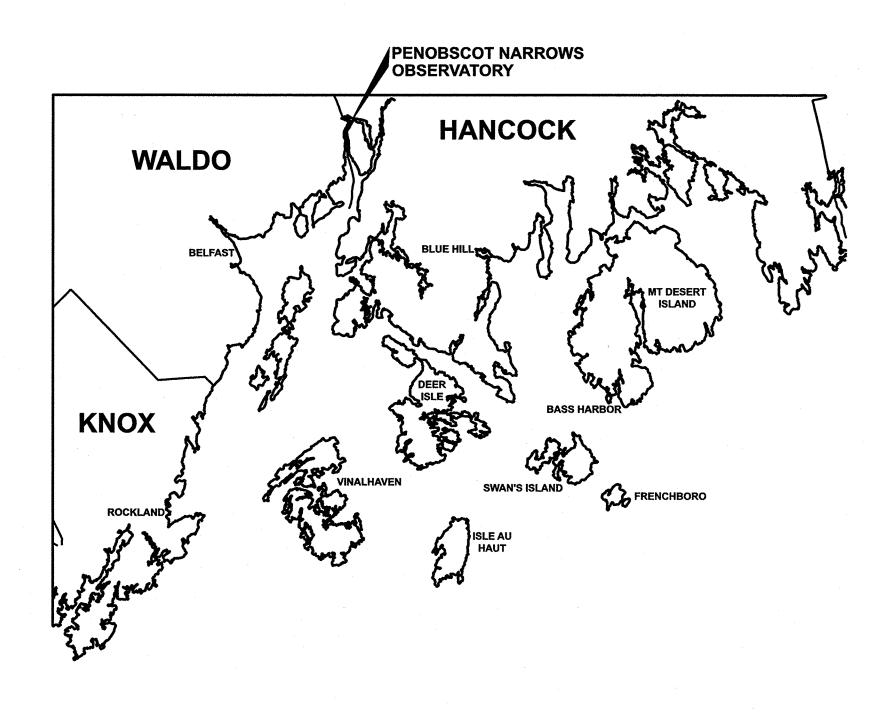
WALDO COUNTY

PENOBSCOT NARROWS OBSERVATORY

GENERATOR REPLACEMENT

WIN: 028892.00







PROJECT LOCATION:	PENOBSCOT NARROWS OBSERVATORY		
		8	
PROGRAM AREA:	REGIONAL	3892.0	
SCOPE OF WORK:	GENERATOR REPLACEMENT	IN 28	



SHEET NUMBER

ELECTRICAL SYMBOL / LEGEND:

NOT ALL SYMBOLS SHOWN MAY BE USED

POWER AND LIGHTING APPURTANCES LEGEND:				
SYMBOL	REFER TO PLANS FOR EXACT QUANTITIES AND LOCATIONS.			
	LED LUMINAIRE AT GENERATOR			
	PANELBOARD (EXISTING)			
□	EMERGENCY 'STOP' PUSH BUTTON (MAINTAINED CONTACT). MOUNT AT 48" AFF MAX.			
₩P GF	DUPLEX CONVENIENCE OUTLET WP - WATER-PROOF, GF - GFCI			
S	SWITCH, SPST WP - WATER-PROOF			
	DUCT BANK- CIRCUITS IN UNDERGROUND CONDUITS			

GENERAL NOTES:

- 1. THE SCOPE OF WORK IS TO PROVIDE ALL LABOR, MATERIALS, SERVICES, SUPPLIES, TOOLS, EQUIPMENT, TRANSPORTATION, AND FACILITIES NECESSARY TO FURNISH AND INSTALL COMPLETE ELECTRICAL WORK AS CALLED FOR ON THE DRAWINGS, SPECIFICATIONS, OR AS MAY REASONABLY BE IMPLIED AS BEING INCIDENTAL TO THIS WORK.
- 2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF WORK. BASIC DESIGN CONCEPTS INDICATED ARE TO BE EITHER FOLLOWED OR BETTERED. WORK IS INTENDED TO INCLUDE ITEMS NECESSARY FOR PROPER OPERATION AND COMPLETION. FIELD VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS.
- 3. EXECUTE ALL WORK IN A NEAT AND WORKMANLIKE MANNER IN CONFORMANCE WITH BEST MODERN TRADE PRACTICE, BY COMPETENT, EXPERIENCED MECHANICS, PRESENTING A NEAT APPEARANCE WHEN COMPLETED. REPLACE WORK NOT APPROVED BY OWNER WITHOUT ADDITIONAL CHARGE.
- 4. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL CODES, REGULATIONS AND REQUIREMENTS OF ALL MUNICIPAL, STATE, FEDERAL AND OTHER PUBLIC OR PRIVATE AUTHORITIES WHICH HAVE JURISDICTION. IN EACH CASE, CODES ARE MINIMUM REQUIREMENTS.
- 5. SHOP DRAWINGS: SUBMIT COMPLETE CATALOG INFORMATION FOR ALL MATERIALS AND EQUIPMENT TO BE PURCHASED AND USED ON THIS PROJECT; AND AS CALLED FOR ON THE DRAWINGS AND SPECIFICATIONS. DO NOT INSTALL MATERIALS OR EQUIPMENT WITHOUT APPROVAL BY THE OWNER. UNAPPROVED MATERIAL ALREADY INSTALLED SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT WITH APPROVED MATERIALS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT APPROVED SUBSTITUTE ITEMS WILL FIT INTO AVAILABLE SPACES AND FOR ANY EXTRA CHARGES BY OTHER TRADES.
- 6. THESE PLANS ARE DEVELOPED FROM VARIOUS RECORD PLANS AND NO SURVEY WAS OBTAINED FOR THIS PROJECT. THERE MAY BE VARIOUS CONDITIONS AT THE SITE WHICH DO NOT SHOW ON THE DRAWINGS OR DIFFER FROM THE CONDITIONS INDICATED ON THE DRAWINGS. IT IS IMPORTANT THAT EACH BIDDER VISIT THE SITE AND CONFIRM THE EXISTING CONDITIONS AND TAKE THESE CONDITIONS INTO CONSIDERATION WHEN PREPARING THE BID. EACH BIDDER SHALL OBTAIN INFORMATION OR MAKE ANY MEASUREMENT DESIRED.
- 7. THE FINISHED INSTALLATION SHALL BE COMPLETE IN EVERY RESPECT AND DETAIL, TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE. THE CONTRACTOR SHALL ALSO PROVIDE TRAINING TO MAINEDOT AND STATE PARK STAFF ON USE OF THE PROPOSED GENERATOR SYSTEM.
- 8. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS.
- 9. THE CONTRACTOR SHALL GUARANTEE THAT MATERIALS, EQUIPMENT AND WORKMANSHIP PROVIDED BY HIM SHALL BE FREE FROM DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK DONE UNDER THIS CONTRACT, AND SHALL REPLACE PARTS FOUND TO BE DEFECTIVE WITHIN THE PERIOD COVERED BY SUCH GUARANTEE, WITHOUT COST TO THE OWNER.
- 10. INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 11. CONTRACTOR TO CONTACT DIG SAFE AT 1-888-DIG-SAFE, PRIOR TO COMMENCING WORK. CONTRACTOR SHALL VERIFY LOCATION OF ALL OVERHEAD AND UNDERGROUND ELECTRIC AND TELEPHONE LINES AND TAKE NECESSARY PRECAUTIONS IN STRICT ACCORDANCE WITH OSHA STANDARDS DURING CONSTRUCTION. CONTRACTOR SHALL CONTACT LOCAL ELECTRICAL, CABLE AND TELEPHONE UTILITIES REGARDING ANY NECESSARY SUPPORT OF ANY UTILITY POLES DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR THE SUPPORT OR TEMPORARY RELOCATION OF ALL UTILITY POLES AFFECTED BY THE CONSTRUCTION.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING BARRIERS TO PREVENT PUBLIC ENTRY TO ANY AREAS OF CONSTRUCTION INCLUDING HOLES TRENCHED, PILES OF FILL MATERIAL, CONSTRUCTION MATERIALS, AND ANY OTHER CONSTRUCTION HAZARDS. BARRIERS SHALL BE PROVIDED AT ALL HOURS AND SHALL CLEARLY INDICATE THE AREA NOT TO BE TRESPASSED.
- 13. REMOVAL OF THE EXISTING GENERATOR SHELTER AND GENERATOR PAD SHALL BE MADE UNDER THE APPROPRIATE RENTAL ITEMS.
- 14. THE GENERATOR FUEL TANK SHALL BE PUMPED EMPTY PRIOR TO REMOVAL.

PAYMENT FOR THE ELECTRICAL AND CONTROL SYSTEM.

15. REMOVAL OF ANY EXISTING ELECTRICAL COMPONENTS SHALL BE INCLUDED IN THE LUMP SUM

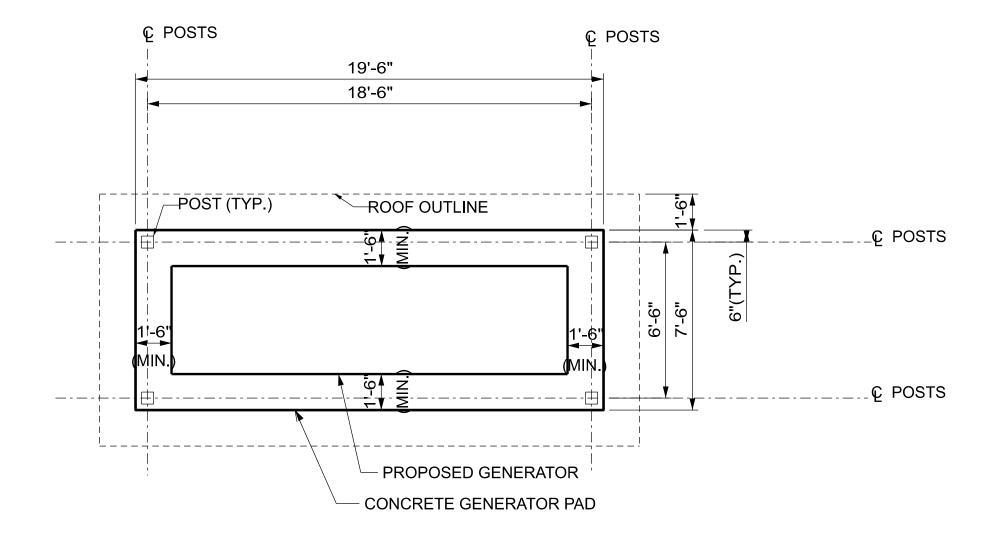
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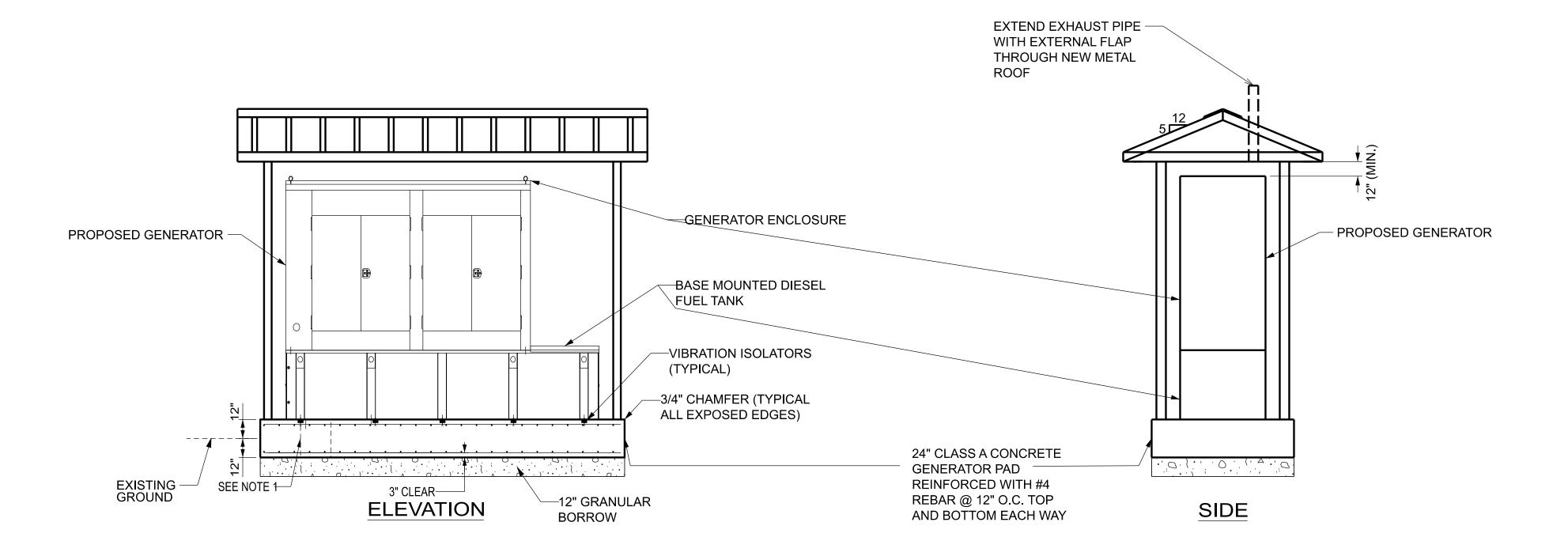
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PLAN



GENERATOR SHELTER 1/4" = 1'-0"

NOTES:

- 1. PROVIDE 24"X24" OPENING IN SLAB AND SLIP JOINT AT CONDUIT TERMINATIONS.
 - 2. ROOF COLOR SHALL MATCH THE EXISTING GENERATOR SHELTER ROOF.
 - 3. PROVIDE GROUND RING AROUND GENERATOR PAD, INSTALL MIN. 2 3/4"X10: GROUND RODS. BOND TO PAD REINFORCEMENT. PROVIDE LEADS AT SLAB OPENING FOR CONNECTION TO GENERATOR FRAME, UTILIZE #2 GROUND.
- GENERATOR PAD DIMENSIONS MAY BE REDUCED BASED ON ACTUAL GENERATOR DIMENSIONS.

3

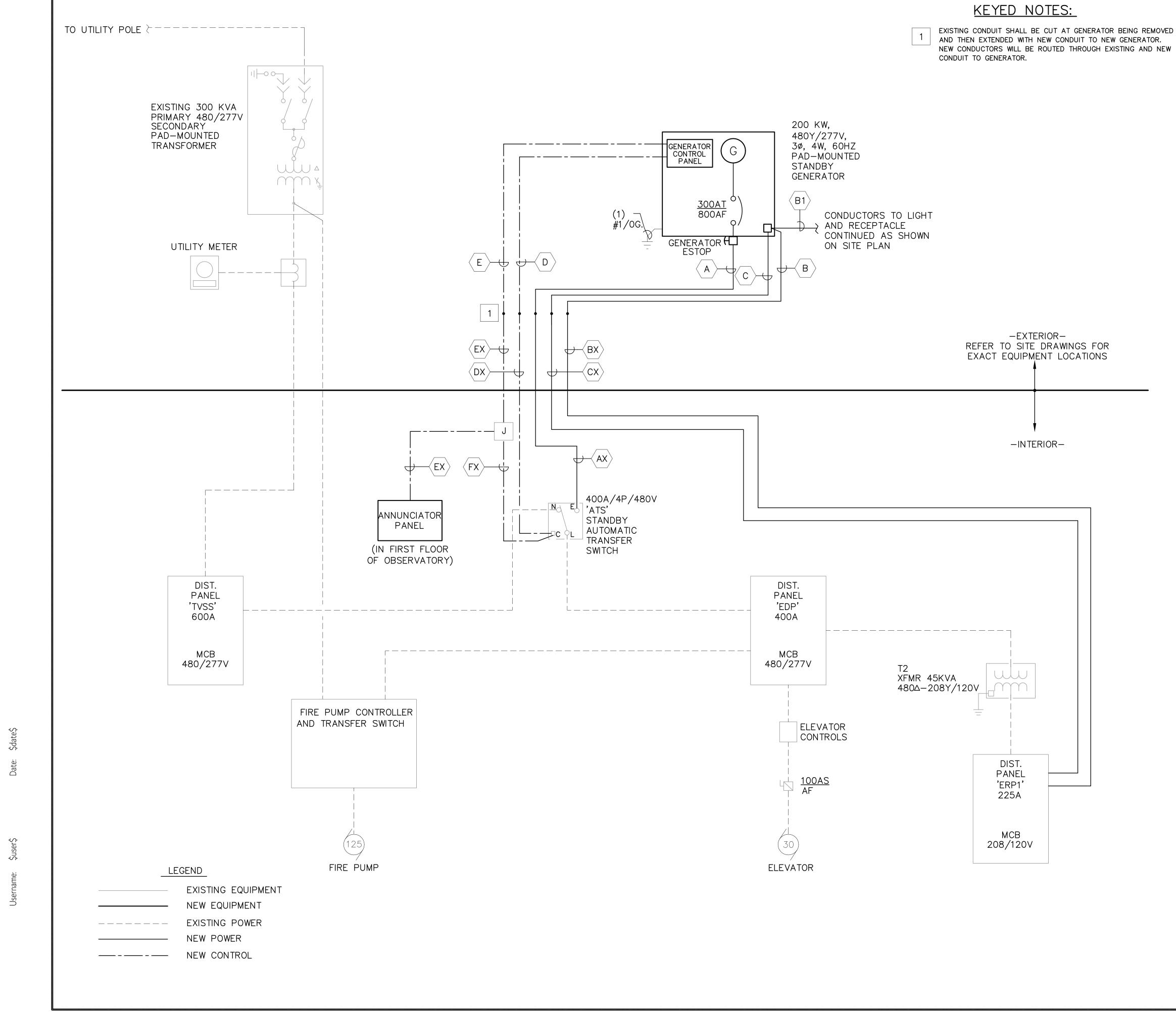
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SHEET NUMBER

PENOBSCOT NARROWS ENERATOR REPLACEMENT

DETAIL

SITE



CONDU	IIT & CON	NDUCTOR SCHEDULE
KEY	CONDUIT SIZE	CIRCUIT CONDUCTORS FOR EQUIPMENT
А	4"	4-600KCMIL & 1#1/0G
AX	EXISTING	
В	1"	2#10, 2#12, #10G
ВХ	EXISTING	
B1	1"	2#12, #12G
С	1"	2#8, #8G
СХ	EXISTING	2#6, #66
D	1"	2#14
DX	EXISTING	Z#14
Е	1"	2#10 17#14 #10@
EX	EXISTING	2#10, 17#14, #10G
FX	EXISTING	3#14

CONDUIT SCHEDULE NOTES:

-EXTERIOR-

-INTERIOR-

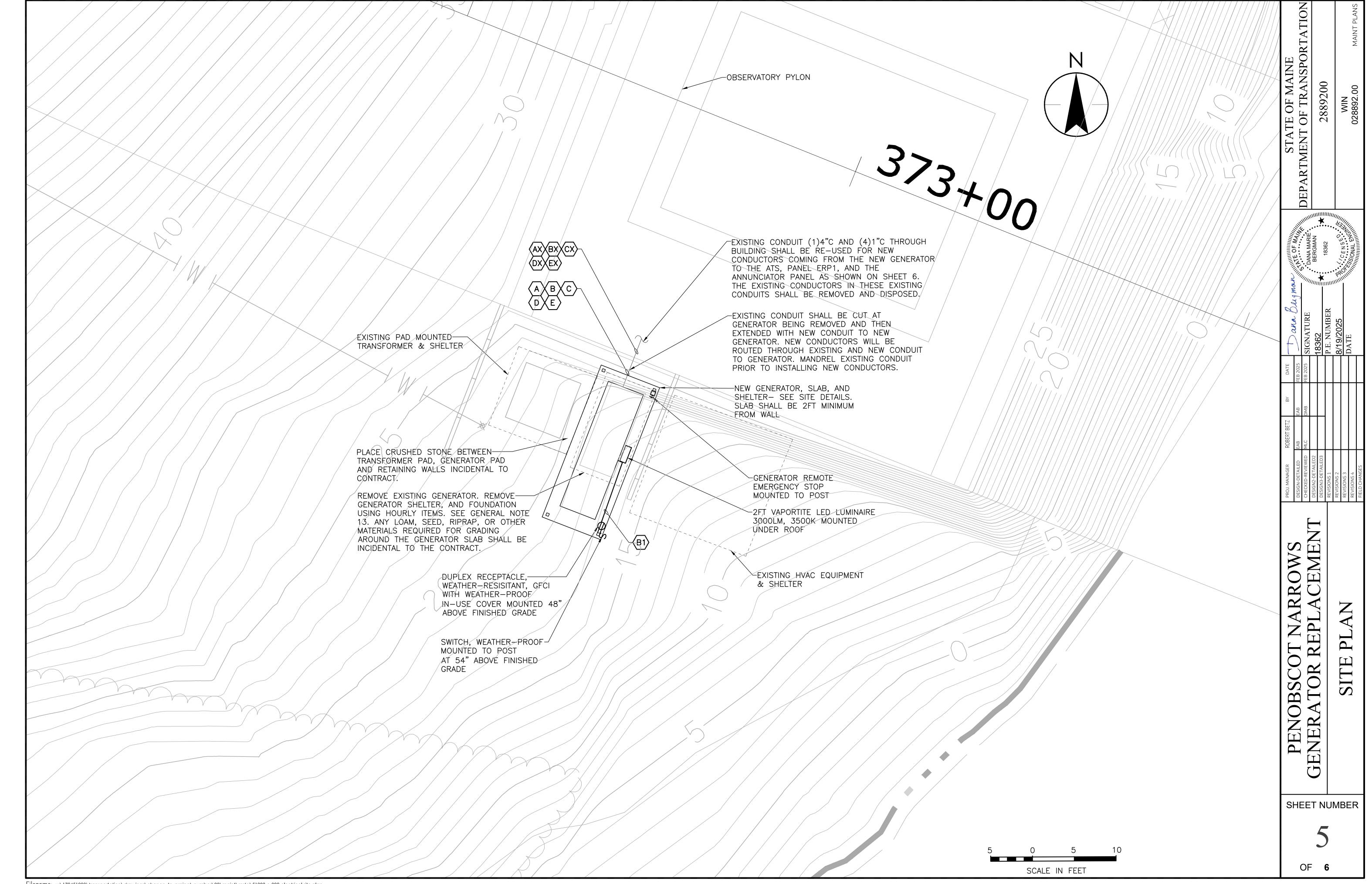
- 1ALL CONDUIT IS SCHEDULE 80 PVC.
- 2 CIRCUIT CONDUCTORS INCLUDING NEUTRAL CONDUCTOR SHALL BE CLEARLY IDENTIFIED BY CORROSION RESISTANT TAGS INDICATING CIRCUIT NUMBER AND PANEL SOURCES.
- 3 MAXIMUM OF 270° IN TOTAL BENDS PERMITTED IN SINGLE RUN OF CONDUIT.

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BUS

SERVICE

PANEL RATING KAIC

WIRING

WIRE

EXISTING

EXISTING

EXISTING

EXISTING

EXISTING

EXISTING

SUPPLY VOLTAGE 208Y/120V

225A

COND

3 PHASE, 4 WIRE

DESCRIPTION

PANEL ERP2

SPARE

TOTAL 2

TOTAL 1+2 CONN. LOAD TOTAL

CONN. AMPERES TOTAL

PROVIDE 'HACR' RATED TYP. BREAKERS FOR MECHANICAL MOTOR LOADS

EST. DEMAND LOAD TOTAL

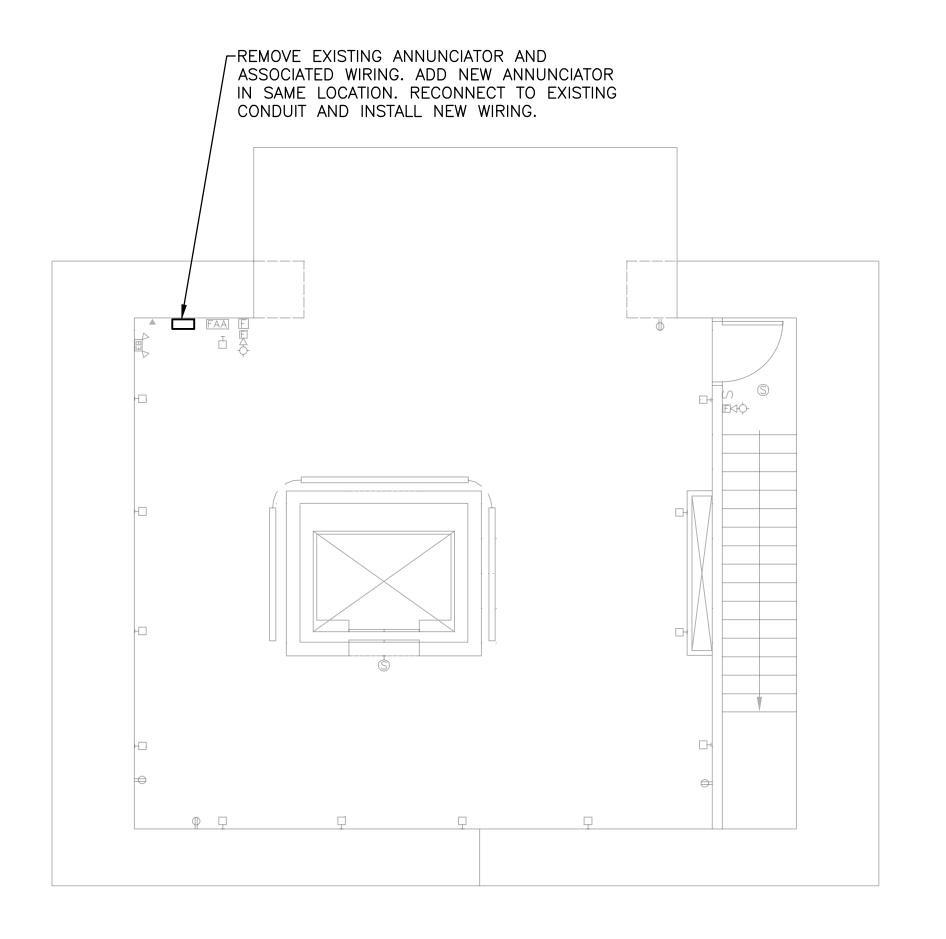
EST. DEMAND AMPERES TOTAL

SUMP PUMP

SUMP PUMP

OBSERVATION DECK PANEL

BEACON TEST RECEPTACLE



ENTRY LEVEL SCALE 1/4" = 1'-0"

ERP1

125A

TOP/BOTTOM

SEE ONE-LINE

SEE ONE-LINE DOOR-IN-DOOR LOCATION

MOUNTING

CODE

LTS

LTS

LTS

RECP

POWR

MECH

MECH

DRAWING No.

DESCRIPTION

FIRE BELL

SUMP PUMP

POWR OVERHEAD DOOR

MAIN LUGS

ENCLOSURE TYPE

OLCP, FAA LIGHTS

PANEL No.

 VA OR W
 BREAKER
 CKT. BUS
 CKT. BREAKER
 VA OR W

 ØA
 ØB
 ØC
 POLE
 A
 NO
 CONN
 NO
 POLE
 A
 ØA
 ØB
 ØC

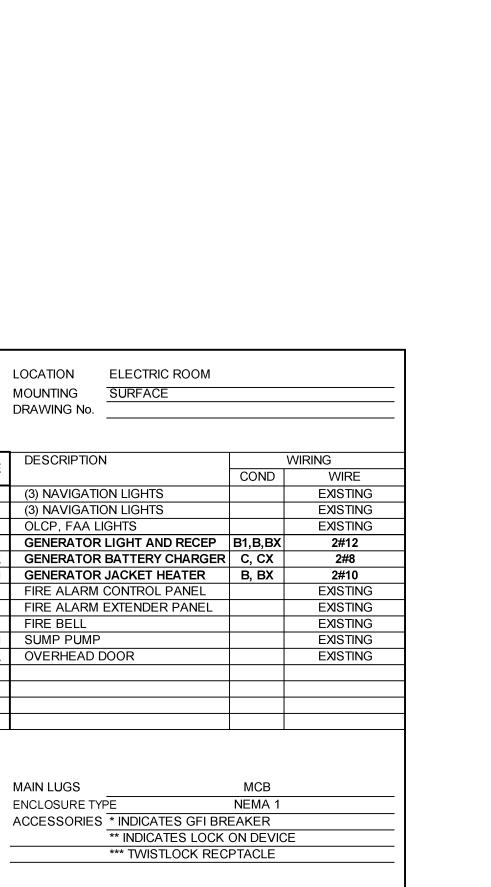
MAIN BREAKER

FEEDER SIZE

PANEL TYPE

SOURCE

FEEDER ENTRANCE



TO ANNUNCIATOR PANEL	AC-1 AC-1
	AX BX CX DX EX EXISTING CONDUIT (1)4"C AND (4)1"C THROUGH BUILDING SHALL BE RE-USED FOR NEW CONDUCTORS COMING FROM THE NEW GENERATOR TO THE ATS, PANEL ERP1, AND THE ANNUNCIATOR PANEL AS SHOWN. THE EXISTING CONDUCTORS IN THESE EXISTING CONDUITS SHALL BE REMOVED AND DISPOSED.

MECHANICAL LEVEL
SCALE 1/4" = 1'-0"

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POWR POWR

POWR

MECH MECH RECP

OF **6**

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NARROWS PLACEMENT

BUILDING

ELECTRIC