





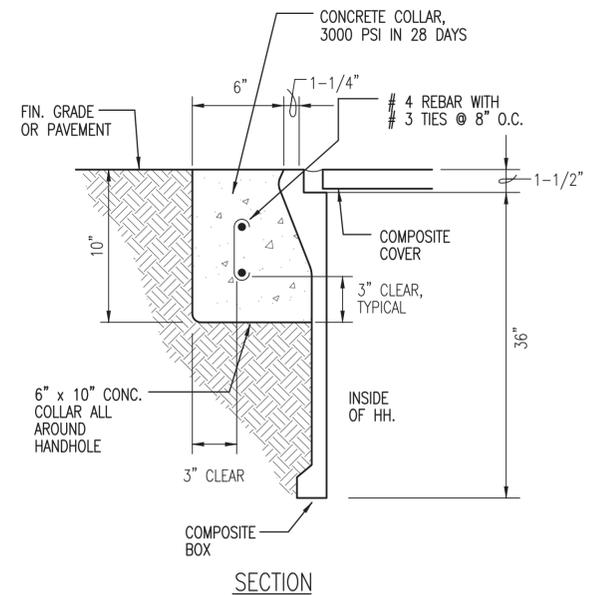


**GENERAL ELECTRICAL NOTES:**

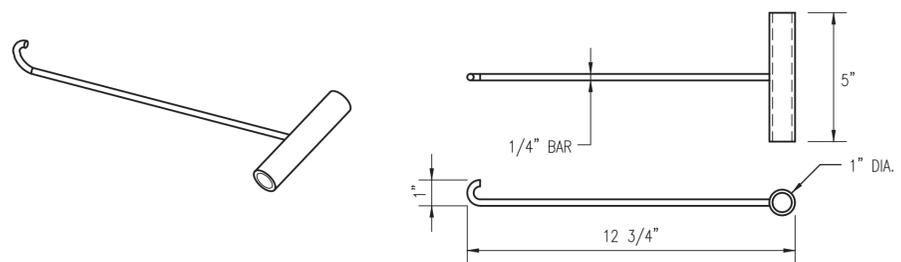
- ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO BIDDING. BID SUBMISSION SHALL BE CONSIDERED AS CONFIRMATION THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS RESOLVED ALL DISCREPANCIES AND QUESTIONS REGARDING THE WORK. NO EXTRA PAYMENT WILL BE GIVEN FOR WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO VISIT THE SITE.
- ALL RACEWAYS SHALL BE UNDERGROUND OR SURFACE MOUNTED UNLESS OTHERWISE NOTED.
- CONDUIT SIZES INDICATED ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSELY OVERSIZED FOR FUTURE CONDUCTORS OR TO AVOID CONDUIT HEATING. CONDUIT SIZES NOT CALLED OUT ON THE DRAWINGS SHALL BE SIZED BY THE CONTRACTOR, BASED ON THE ACTUAL NUMBER OF CONDUCTORS TO BE INSTALLED, USING THE NATIONAL ELECTRICAL CODE AS A GUIDE. IN NO CASE SHALL CONDUIT SIZES BE SMALLER THAN 3/4" DIAMETER.
- ALL WIRING SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER TABLE 250.122 OF THE NATIONAL ELECTRICAL CODE. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LEGS AND SHALL BE ATTACHED TO THE DEVICE, LIGHT FIXTURE, OR EQUIPMENT HOUSING USING A SUITABLE GROUNDING LUG.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
- PROJECT CONDITIONS MAY REQUIRE REARRANGEMENT OF ELECTRICAL WORK, THE CONTRACTOR SHALL INDICATE SUCH CHANGES ON THE AS-BUILT DRAWINGS. WHERE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED METHOD FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION BETWEEN TRADES SHALL NOT BE CONSIDERED A REASON FOR EXTRA COST.
- EXISTING CONDITION SHOWN ON DRAWINGS ARE TAKEN FROM PAST DESIGN DRAWINGS AND VISUAL FIELD INVESTIGATION. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS SHOWN. DEVIATIONS SHALL BE SHOWN ON AS-BUILT DRAWINGS.
- THE CONTRACTOR SHALL PAINT ALL NEW EXPOSED RACEWAYS AND BOXES TO MATCH SURROUNDING FINISH.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.
- ALL MATERIAL, EQUIPMENT, AND WIRING LOCATED OUTDOORS SHALL BE RATED FOR WET LOCATIONS.
- THE CONTRACTOR SHALL LABEL EACH RECEPTACLE WITH PANEL NAME AND CIRCUIT NUMBER. USE ADHESIVE LABELS - BLACK LETTERING ON CLEAR BACKGROUND.
- THE CONTRACTOR SHALL FILL-IN THE PANEL SCHEDULES OF ELECTRIC PANEL USING A TYPEWRITER. PROVIDE CIRCUIT DESCRIPTIONS BASED ON PANEL SCHEDULE DESCRIPTIONS FOR NEW CIRCUITS.
- ALL MULTIWIRED BRANCH CIRCUITS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 210.4. ALL CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS.

**ELECTRICAL SYMBOL LIST**

EXISTING	NEW	DESCRIPTION
ⓔ	ⓔ	EQUIPMENT CONNECTION.
	ⓐ	GENERATOR CONNECTION.
		EQUIPMENT DISCONNECT SWITCH, HORSEPOWER RATED.
		ELECTRIC PANEL.
		TELEPHONE CABINET.
		ELECTRICAL EQUIPMENT.
		METER SOCKET.
		RACEWAY, CONCEALED BELOW FINISH FLOOR, NUMBER OF HASHMARKS INDICATE NUMBER OF WIRES WITHIN.
		FLEXIBLE RACEWAY.
		ARROW, HOMERUN TO PANEL OR CABINET.
		RACEWAY, STUBBED AND CAPPED.
		ELECTRICAL NOTE INDICATOR.
		DUCT SECTION INDICATOR.
		DETAIL INDICATOR UPPER HALF: DETAIL NUMBER. LOWER HALF: SHEET NUMBER, DETAIL LOCATION.
	EHH	INDICATES ELECTRIC HANDHOLE.

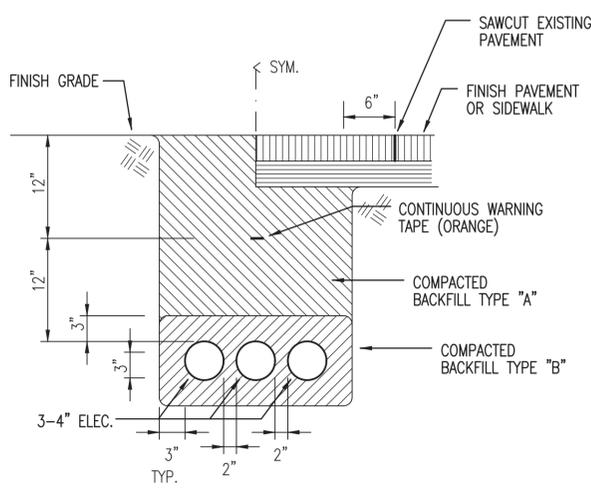


**A1** DETAIL - PULLBOX COLLAR  
NOT TO SCALE



**B2** DETAIL - LIFTING HOOK FOR PULLBOX COVER  
NOT TO SCALE

- NOTES:**
- BACKFILL MATERIAL TYPE "A" BLACK OR BEACH SAND, EARTH AND GRAVEL MIXTURE. IF EARTH & GRAVEL MIXTURE, ROCK SIZE SHALL BE 1-INCH OR SMALLER AND SHALL NOT CONTAIN MORE THAN 50% ROCK PARTICLES BY VOLUME. THIS FILL SHALL BE USED OVER CONCRETE ENCASED DUCTS AND OVER DIRECT BURIED DUCTS AND CABLES AFTER BACKFILL TYPE "B" HAS BEEN PLACED IN ACCORDANCE WITH DRAWINGS.
  - BACKFILL MATERIAL TYPE "B" BLACK OR BEACH SAND, EARTH AND GRAVEL MIXTURE. IF EARTH & GRAVEL MIXTURE MUST PASS A 1/2-INCH SCREEN AND CONTAIN NOT MORE THAN 20% ROCK PARTICLES BY VOLUME. THIS FILL SHALL BE ALL AROUND DIRECT BURIED CONDUITS AND CABLES AS SHOWN ON DRAWINGS.
  - ALL DUCTS SHALL BE PVC SCHEDULE 80.
  - PROVIDE DETECTABLE DUCT WARNING TAPE 12" BELOW FINISH GRADE OR PAVEMENT DIRECTLY ABOVE DUCTS.
  - TUNNEL UNDER EXISTING CONCRETE WALKWAYS TO INSTALL NEW DUCTLINE. DO NOT CUT SIDEWALKS.



DUCT SECTION **A**

**NOTE:**  
PROVIDE ENGRAVED DESIGNATION ON COVER:  
"ELEC" - ELECTRIC

PROVIDE WITH CONCRETE COLLAR  
**A1**  
E-001

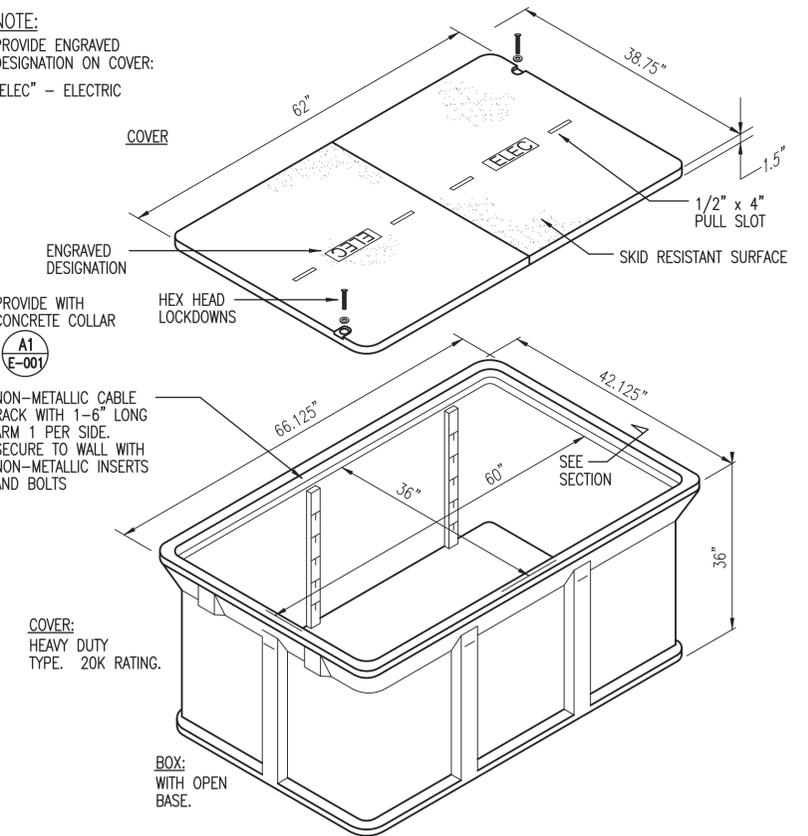
NON-METALLIC CABLE RACK WITH 1-6" LONG ARM 1 PER SIDE. SECURE TO WALL WITH NON-METALLIC INSERTS AND BOLTS

COVER:  
HEAVY DUTY TYPE. 20K RATING.

**NOTES:**

- HANDHOLE SHALL BE SET ON 6" COMPACTED ROCK OR SAND SUBBASE TO INSURE UNIFORM DISTRIBUTION OF PRESSURE ON FLOOR. SUBBASE SHALL EXTEND BEYOND FOOTPRINT OF HANDHOLE PER MANUFACTURER'S RECOMMENDATION TO MINIMIZE HANDHOLE FROM SINKING AND KEEPING SIDES OF HANDHOLE FROM BUCKLING.
- PROVIDE ONE COVER LIFTING HOOK AND DELIVER TO USER. SEE DETAIL: B2/E-001.
- PROVIDE DUCT SEAL - 1" OVERLAP AT DUCT ENTRY AND 1" DEEP INSIDE OF DUCT.
- HANDHOLE SHALL BE INSTALLED 1" ABOVE FINISH GRADE ALL AROUND, EXCEPT AT WALKWAYS WHERE THEY SHALL BE FLUSH WITH WALKWAY.
- PROVIDE END BELLS FOR ALL DUCT ENTRIES.
- HANDHOLE SHALL BE BY ARMORCAST, STRONGWELL, QUAZITE OR APPROVED EQUAL WITH WALKWAY.
- PROVIDE TWO (2) HEX HEAD SOCKETS FOR REMOVAL OF COVER AND DELIVER TO USER.

**A4** 3' x 5' 20K RATED HANDHOLE  
NOT TO SCALE



Signature: *Brian Itozaki*  
8/14/2024  
Expiration Date of the License

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	DESCRIPTION
8/14/2023	ADDENDUM 1

DEPARTMENT OF DEFENSE  
DESIGN AND PROJECT MANAGEMENT BRANCH  
PEARL CITY, OAHU

HAWAII ARMY NATIONAL GUARD  
PEARL CITY BLDG. 00001  
PEARL CITY BLDG. 00001  
PEARL CITY BLDG. 00001  
PEARL CITY BLDG. 00001

STATE OF HAWAII  
FACILITY MANAGEMENT OFFICE

PEARL CITY CONSTRUCTION OF  
STAND-BY EMERGENCY GENERATOR INSTALLATIONS

SYMBOL LIST, GENERAL NOTES

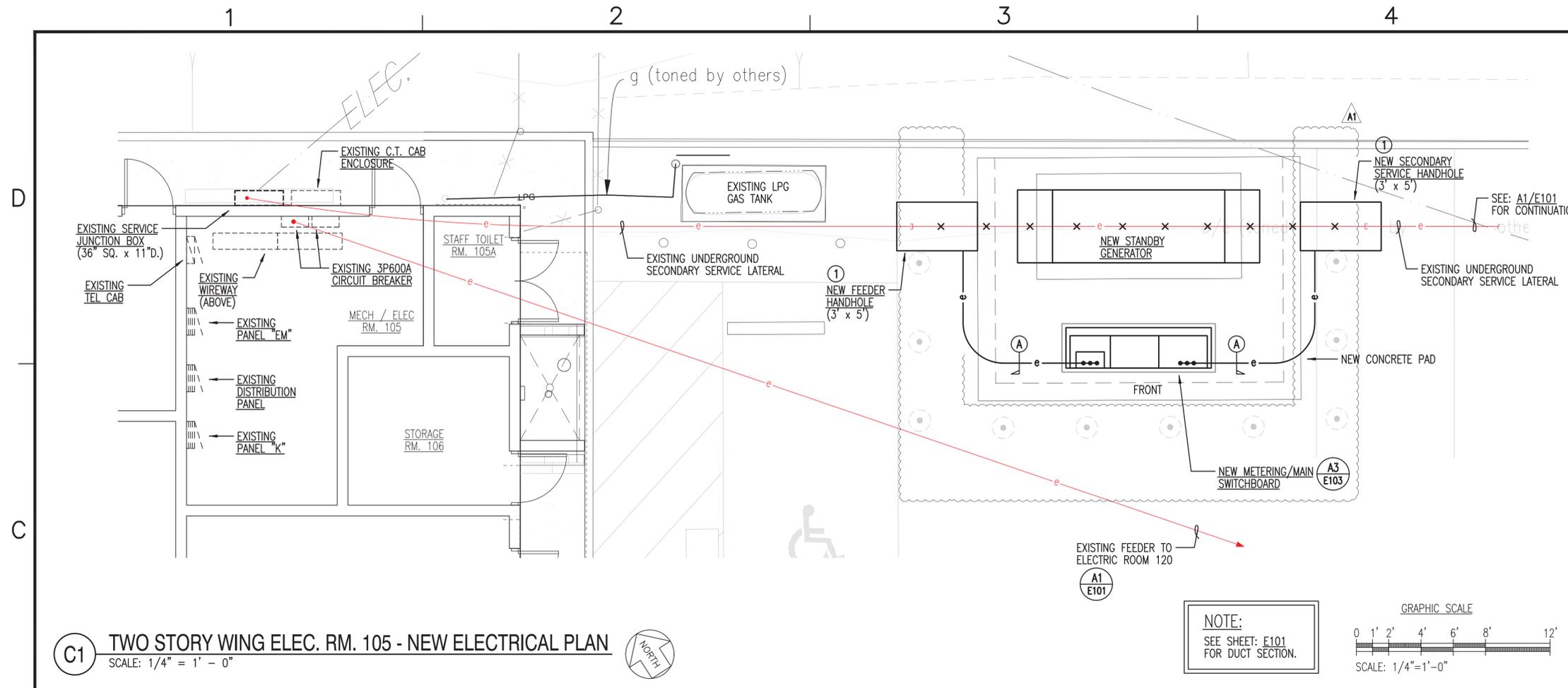
SCALE: AS NOTED

STATE JOB NO. PEARL CITY CA-202004-C2

FEDERAL PROJECT NO. 15180044

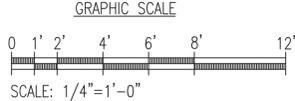
SHEET 8 OF 19

**E001**



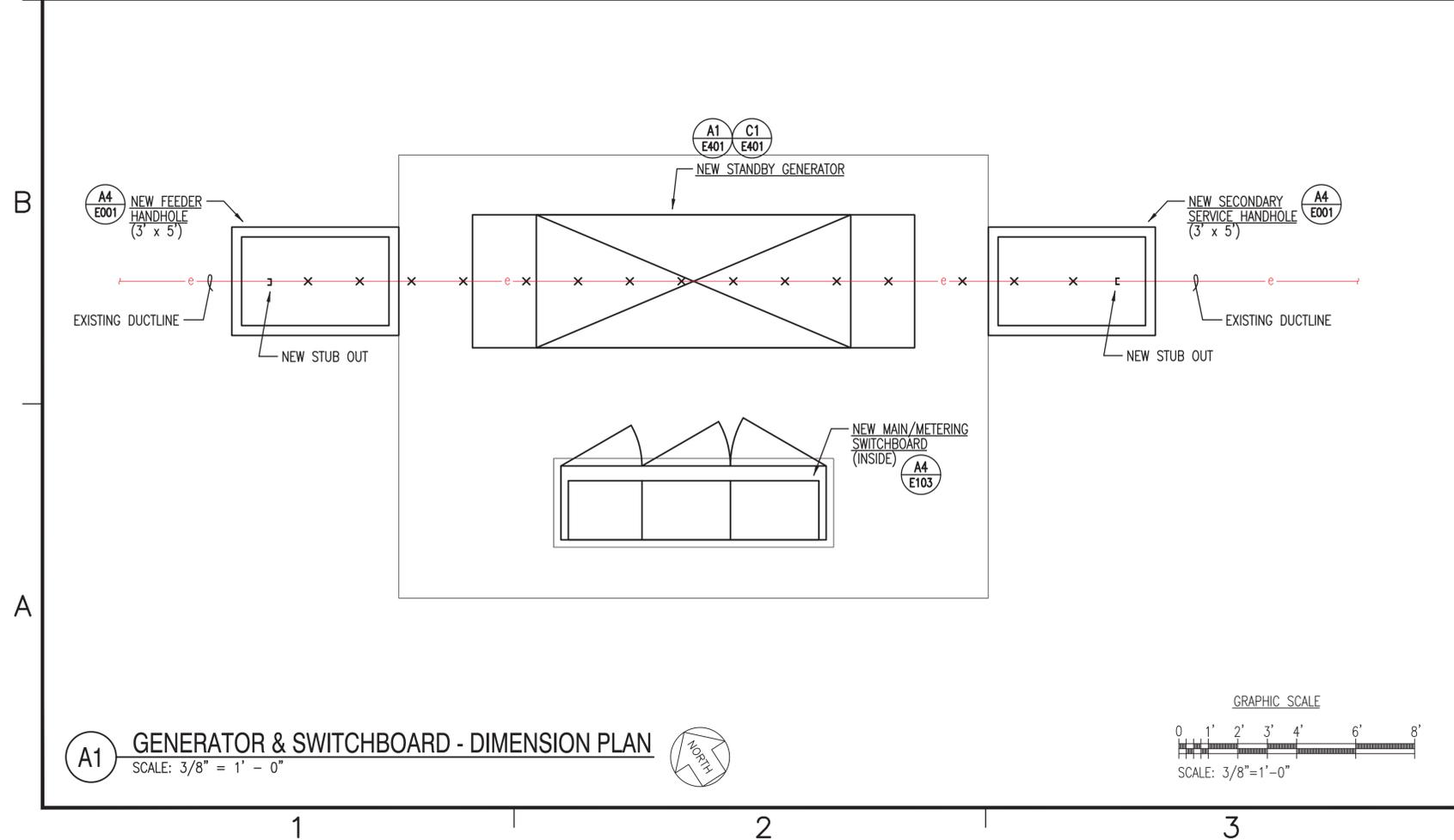
**C1** TWO STORY WING ELEC. RM. 105 - NEW ELECTRICAL PLAN  
SCALE: 1/4" = 1' - 0"

**NOTE:**  
SEE SHEET: E101  
FOR DUCT SECTION.

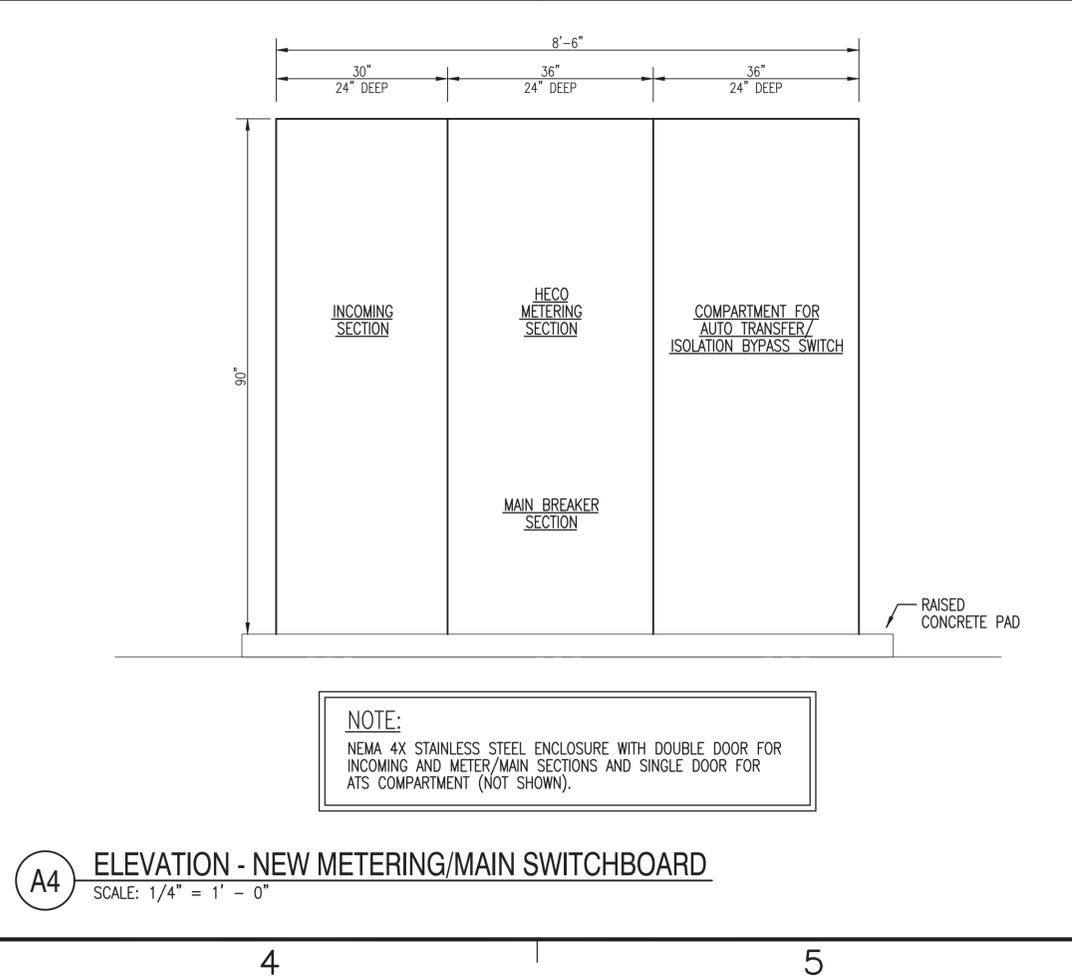
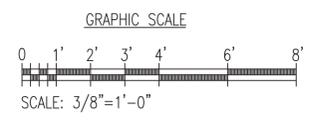


**ELECTRICAL NOTES: NEW WORK**

- ① VERIFY LOCATION OF EXISTING SECONDARY SERVICE DUCTLINE. INTERCEPT DUCTLINE WITH NEW HANDHOLE. CONSTRUCT NEW HANDHOLES OVER EXISTING DUCTLINE.



**A1** GENERATOR & SWITCHBOARD - DIMENSION PLAN  
SCALE: 3/8" = 1' - 0"



**A4** ELEVATION - NEW METERING/MAIN SWITCHBOARD  
SCALE: 1/4" = 1' - 0"



**BRIAN T. ITOZAKI**  
LICENSED PROFESSIONAL ENGINEER  
No. 9058-E  
HAWAII, U.S.A.

*Brian T. Itozaki*  
Signature  
8/14/2024  
Expiration Date of the License

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SYMBOL	DESCRIPTION	DATE	APPR.
A1	DESCRIPTION	8/14/2023	

DEPARTMENT OF DEFENSE  
 HAWAII ARMY NATIONAL GUARD  
 FACILITY MANAGEMENT OFFICE  
 PEARL CITY BLDG. 00001

DESIGN AND PROJECT MANAGEMENT BRANCH  
 PEARL CITY, OAHU  
**PEARL CITY CONSTRUCTION OF  
 STAND-BY EMERGENCY GENERATOR INSTALLATIONS**  
 TWO STORY WING ELEC. RM. 105 - NEW ELECTRICAL PLAN

SUBMITTAL DATE: 06/16/23  
 DES: SM    DRW: KN    CHK: BI

SCALE: AS NOTED

STATE JOB NO. PEARL CITY CA-202004-C2  
 FEDERAL PROJECT NO. 15180044  
 SHEET 11 OF 19

E103