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EROSION AND SEDIMENT CONTROL NOTES

- 1. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTHWORK IS INITIATED.
- 2. EROSION CONTROL MEASURES MUST BE CHECKED AND REPAIRED AS NECESSARY, FOR EXAMPLE, WEEKLY IN DRY PERIODS AND WITHIN 24 HOURS AFTER RAINFALL OF 0.25 INCHES OR GREATER WITHIN A 24-HOUR PERIOD. DURING PROLONGED RAINFALL, DAILY CHECK IS NECESSARY. THE RECORDS OF CHECKS AND REPAIRS MUST BE MAINTAINED.
- 3. TEMPORARY STABILIZATION IS REQUIRED ON DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHEN THE DISTURBED AREA WILL NOT BE WORKED FOR 14 CONSECUTIVE DAYS OR MORE.
- 4. DISTURBED AREAS MUST BE PERMANENTLY STABILIZED USING VEGETATIVE COVERING, PAVEMENT, OR EQUIVALENT SURFACE TREATMENT, PRIOR TO REMOVING EROSION AND SEDIMENT CONTROL MEASURES. TRAPPED SEDIMENT AND AREAS OF DISTURBED SOIL WHICH RESULT FROM THE REMOVAL OF THE TEMPORARY MEASURES MUST BE IMMEDIATELY AND PERMANENTLY STABILIZED.
- 5. PERIMETER CONTROLS ARE REQUIRED DOWNSLOPE OF ALL DISTURBED AREAS.
- 6. PRESERVE EXISTING VEGETATION. CLEARLY MARK THE AREAS TO BE PRESERVED.
- 7. SEDIMENT BARRIERS
 - FILTER SOCK MUST BE USED TO PROTECT DISTURBED OR DENUDED AREAS THAT ARE NOT SCHEDULED FOR ACTIVE WORK WITHIN 24 HOURS. THE FILTER SOCK MUST BE PROVIDED WITHIN THE DISTURBED OR DENUDED AREAS.
- 7. INLET PROTECTION
 - STORM DRAIN INLETS ON-SITE AND THOSE OFF-SITE WHICH MAY RECEIVE RUN-OFF FROM THE SITE MUST USE AN INLET PROTECTION DEVICE.
 - SEDIMENT LEVELS MAY NOT EXCEED ONE THIRD OF THE HEIGHT OF A SEDIMENT BARRIER OR INLET PROTECTION DEVICE ALONG THE LENGTH OF THE SEDIMENT BARRIER OF THE INLET PROTECTION DEVICE.
 - SEDIMENT BARRIERS AND INLET PROTECTION DEVICES MUST BE UNCLOGGED AND CLEANED WHEN PERFORMANCE IS COMPROMISED.
 - TORN, WEATHERED OR SAGGING SEDIMENT BARRIERS OR INLET PROTECTION DEVICES MUST BE REPAIRED OR REPLACED IMMEDIATELY.
- 8. TRACKING CONTROL
 - MINIMIZE SEDIMENT TRACK-OUT ONTO OFF-SITE STREETS, OTHER PAVED AREAS, AND SIDEWALK FROM VEHICLES EXITING THE CONSTRUCTION SITE BY RESTRICTING VEHICLES TRAFFIC TO PROPERLY DESIGNATED AREAS AND USING ADDITIONAL CONTROLS TO REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXITING THE SITE.
 - VEHICULAR PARKING AND MOVEMENTS ON PROJECT SITES MUST BE CONFINED TO PAVED SURFACES OR PREDEFINED PARKING AREAS AND VEHICLE PATHS, WHICH MUST BE MARKED WITH FLAGS OR BOUNDARY FENCING.
 - POLLUTANTS AND MATERIALS THAT ARE DROPPED, WASHED, TRACKED, SPILLED, OR OTHERWISE DISCHARGED FROM A PROJECT SITE TO OFF-SITE STREETS, OTHER PAVED AREAS, SIDEWALKS OR THE DRAINAGE SYSTEM MUST BE CLEANED USING DRY METHODS SUCH AS SWEEPING OR VACUUMING BY THE END OF EACH WORK DAY.
 - WASHING POLLUTANTS AND MATERIALS THAT ARE DISCHARGED FROM THE PROJECT SITE TO THE DRAINAGE SYSTEM DRAIN INLETS IS PROHIBITED.
- 9. THE STABILIZED AREAS MUST BE MAINTAINED AND EROSION CONTROL MEASURES REMOVED AFTER THE DISTURBED SITE IS PERMANENTLY STABILIZED.
- 10. CONTRACTOR AND SUBCONTRACTORS MUST BE TRAINED ON THE BEST MANAGEMENT PRACTICES.
- 11. CONSTRUCT FACILITIES TO RETAIN ON-SITE WASTEWATER SUCH AS WASH WATER AFTER CLEANING CONCRETE TRUCKS.
- 12. STORM WATER FLOWING TOWARD THE CONSTRUCTION AREA MUST BE DIVERTED BY USING APPROPRIATE CONTROL MEASURES AS PRACTICAL.
- 13. THE FINAL LIFT OF EACH DAYS WORK MUST BE COMPACTED TO PREVENT EROSION OF FILL MATERIALS.
- 14. VEGETATION, DEMOLITION MATERIALS AND CONSTRUCTION WASTES MUST BE PROPERLY DISPOSED OF OFF-SITE.
- 15. FILTER SOCK OR OTHER EROSION CONTROL BARRIERS MUST BE CLEARED OF SILT IMMEDIATELY FOLLOWING THE END OF RAINFALL THAT CAUSES SILT BUILDUP ON THE FABRIC.
- 16. PRIOR TO A LARGE STORM EVENT, DISTURBED EARTH MUST BE ROLLED TO SEAL THE SURFACE AND REDUCE SOIL EROSION.
- 17. LIQUIDS AND HAZARDOUS MATERIALS MUST BE STORED OVER A ROOFED SECONDARY CONTAINMENT. THE CONTAINMENT VOLUME MUST BE EQUAL TO THE LARGEST CONTAINER VOLUME. SECONDARY CONTAINMENT MUST BE LOCATED AT LEAST 50 FEET AWAY FROM DRAIN INLETS AND RECEIVING WATERS.

GOOD HOUSEKEEPING BMPS

- 1. STREET SWEEPING AND VACUUMING. POLLUTANTS DISCHARGED FROM THE CONSTRUCTION SITE TO OFF-SITE AREAS MUST BE SWEEPED OR VACUUMED EACH DAY BEFORE LEAVING THE JOB SITE.
- 2. MATERIALS DELIVERY, STORAGE AND USE MANAGEMENT. PREVENT, REDUCE, OR ELIMINATE THE DISCHARGE OF POLLUTANTS FROM MATERIAL DELIVERY, STORAGE, AND USE TO THE STORM WATER SYSTEM OR WATERCOURSES BY MINIMIZING THE STORAGE OF HAZARDOUS MATERIALS ON-SITE, STORING MATERIALS IN A DESIGNATED AREA, AND INSTALLING SECONDARY CONTAINMENT. CONSTRUCTION MATERIALS, WASTE, TOXIC AND HAZARDOUS SUBSTANCES, STOCKPILES AND OTHER SOURCES OF POLLUTION MUST NOT BE STORED IN BUFFER AREAS, NEAR AREAS OF CONCENTRATED FLOW, OR AREAS ABUTTING THE EXISTING DRAINAGE SYSTEM, RECEIVING WATERS, OR DRAINAGE IMPROVEMENTS THAT DISCHARGE OFF-SITE. PRIMARY AND SECONDARY CONTAINMENT CONTROLS AND COVERS MUST BE IMPLEMENTED TO THE MAXIMUM EXTENT PRACTICABLE. IN THE EVENT THAT HAZARDOUS MATERIALS ARE DISCHARGED TO THE DRAINAGE SYSTEM, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE CONTRACTING OFFICER'S REPRESENTATIVE (COR).
- 3. SPILL PREVENTION AND CONTROL. CREATE AND IMPLEMENT SPILL PREVENTION AND RESPONSE PLANS TO ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO THE DRAINAGE SYSTEM AND RECEIVING WATERS FROM LEAKS AND SPILLS BY REDUCING THE CHANCE FOR SPILLS, ABSORBING, CONTAINING, AND CLEANING UP SPILLS AND PROPERLY DISPOSING OF SPILL MATERIALS. AT A MINIMUM, ALL PROJECTS MUST CLEANUP ALL LEAKS AND SPILLS IMMEDIATELY.
- 4. VEHICLE AND EQUIPMENT CLEANING. ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT CLEANING OPERATIONS BY USING OFF-SITE FACILITIES WHEN FEASIBLE, WASHING IN DESIGNATED, CONTAINED AREAS ONLY, AND ELIMINATING DISCHARGES TO THE STORM DRAIN SYSTEM BY EVAPORATING AND/OR TREATING WASH WATER, OR INFILTRATING WASH WATER FOR EXTERIOR CLEANING ACTIVITIES THAT USE WATER ONLY.
- 5. VEHICLE AND EQUIPMENT FUELING. PREVENT FUEL SPILLS AND LEAKS BY USING OFF-SITE FACILITIES, FUELING ONLY IN DESIGNATED AREAS, ENCLOSING OR COVERING STORED FUEL, AND IMPLEMENTING SPILL CONTROLS SUCH AS SECONDARY CONTAINMENT AND ACTIVE MEASURES USING SPILL RESPONSE KITS.
- 6. VEHICLE AND EQUIPMENT MAINTENANCE. ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT MAINTENANCE OPERATIONS BY USING OFF-SITE FACILITIES WHEN FEASIBLE, PERFORMING WORK IN DESIGNATED AREAS ONLY, USING SPILL PADS UNDER VEHICLES AND EQUIPMENT, CHECKING FOR LEAKS AND SPILLS, AND CONTAINING AND CLEANING UP SPILLS IMMEDIATELY.
- 7. SOLID WASTE MANAGEMENT. PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO THE LAND, GROUNDWATER, AND IN STORM WATER FROM SOLID WASTE OR CONSTRUCTION AND DEMOLITION WASTE BY PROVIDING DESIGNATED WASTE COLLECTION AREAS, COLLECT SITE TRASH DAILY, AND ENSURING THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF ONLY AT AUTHORIZED DISPOSAL AREAS.
- 8. SANITARY/SEPTIC WASTE MANAGEMENT. TEMPORARY AND PORTABLE SANITARY AND SEPTIC WASTE SYSTEMS MUST BE MOUNTED OR STAKED IN, WELL-MAINTAINED AND SCHEDULED FOR REGULAR WASTE DISPOSAL AND SERVICING. SOURCES OF SANITARY AND/OR SEPTIC WASTE MUST NOT BE STORED NEAR THE DRAINAGE SYSTEM OR RECEIVING WATERS.
- 9. STOCKPILE MANAGEMENT. STOCKPILES MUST NOT BE LOCATED IN DRAINAGE WAYS, WITHIN 50 FEET FROM AREAS OF CONCENTRATED FLOWS. FILTER SOCKS MUST BE USED AROUND THE BASE OF ALL STOCKPILES. STOCKPILES MUST NOT EXCEED 15 FEET IN HEIGHT. STOCKPILES GREATER THAN 15 FEET IN HEIGHT MUST REQUIRE 8 FOOT WIDE BENCHING. STOCKPILES MUST BE COVERED WITH PLASTIC SHEETING OR A COMPARABLE MATERIAL IF THEY WILL NOT BE ACTIVELY USED WITHIN 7 DAYS.
- 10. LIQUID WASTE MANAGEMENT. LIQUID WASTE MUST BE CONTAINED IN A CONTROLLED AREA SUCH AS A HOLDING PIT, SEDIMENT BASIN, ROLL-OFF BIN, OR PORTABLE TANK OF SUFFICIENT VOLUME AND TO CONTAIN THE LIQUID WASTES GENERATED. CONTAINMENT AREAS OR DEVICES MUST BE IMPERMEABLE AND LEAK FREE AND MUST NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS.
- 11. CONCRETE WASTE MANAGEMENT. PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFF-SITE OR PERFORMING ON-SITE WASHOUT IN A DESIGNATED AREA CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. PLASTIC LINING MATERIAL MUST BE A MINIMUM OF 10 MILLIMETER POLYETHYLENE SHEETING AND MUST BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. CONTAINMENT AREAS OR DEVICES MUST NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75 PERCENT FULL. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE MUST BE BROKEN UP, REMOVED, AND DISPOSED OF AS SOLID WASTES.

EROSION AND SEDIMENT CONTROL PLAN SCHEDULE AND RAIN RESPONSE PLAN

PROJECT SEQUENCE:

- 1. INSTALL PERIMETER CONTROLS, INLET PROTECTION, AND CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF THESE BMPS.
- 2. GRADE THE SITE. RELOCATE, RECONSTRUCT AND MAINTAIN BMPS AS NEEDED TO KEEP THEM EFFECTIVE AT ALL TIMES. INITIATE TEMPORARY STABILIZATION IMMEDIATELY ONCE GRADING IS COMPLETED.
- 3. PROCEED WITH CONSTRUCTION WITH LEAST POSSIBLE DISTURBANCE OF VEGETATIVE AREAS AND TEMPORARY STRUCTURES.
- 4. PRACTICE GOOD HOUSEKEEPING MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.

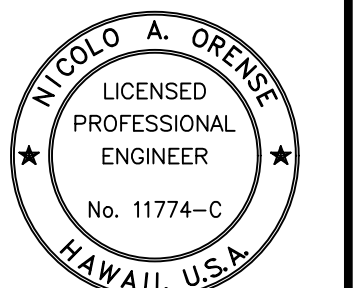
RAIN RESPONSE PLAN:

THE FOLLOWING WILL BE PERFORMED WHEN HEAVY RAINS, TROPICAL STORM OR HURRICANE IS IMMINENT OR IS FORECASTED IN THE NEXT 48 HOURS:

- 1. TEMPORARY SUSPENSION OF ACTIVE GRADING.
- 2. INSPECT ALL PERIMETER CONTROLS, AND INLET PROTECTION DEVICES, AND MAINTAIN AS NEEDED. REINSTALL ANY PERIMETER CONTROLS THAT WERE REMOVED DUE TO ACTIVE WORK IN THE AREA. IF A SEVERE STORM IS EXPECTED, REMOVE INLET PROTECTION DEVICES TO PREVENT FLOODING ON SURROUNDING STREETS.
- 3. PLACE SPILL PANS OR OIL-ONLY SPILL PADS UNDER CONSTRUCTION VEHICLES TO PREVENT RUN-OFF FROM CONTACTING ANY SPILLED PETROLEUM PRODUCTS. PROPERLY DISPOSE OF ANY ACCUMULATED OILY WATER AFTER THE RAIN EVENT.
- 4. RE-INSPECT AFTER THE APPROACHING HEAVY RAINS, TROPICAL STORM OR HURRICANE AND REPLACE OR MAINTAIN BMPS AS NEEDED.



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Signature: *Nicolò A. Orense* 04/02/2024 Expiration Date

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SYN	DESCRIPTION	DATE	REVISION

SUBMITTAL PHASE

DES	CP	DRW	RAI	CHK	NO

STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
KAPOLEI, OAHU
DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
HAWAII ARMY NATIONAL GUARD
KALAELOA MAUKA BUILDINGS
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
EROSION AND SEDIMENT CONTROL NOTES

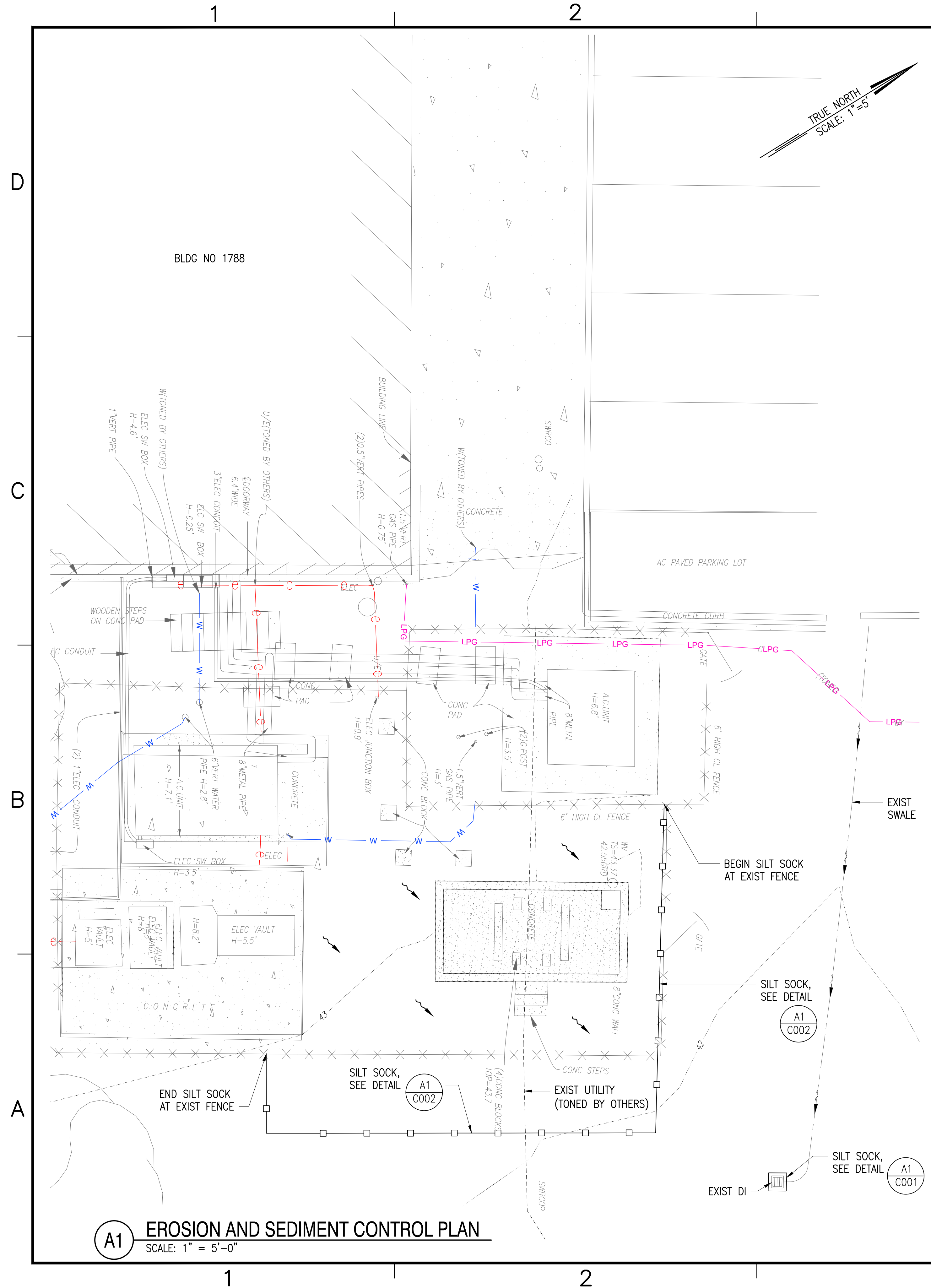
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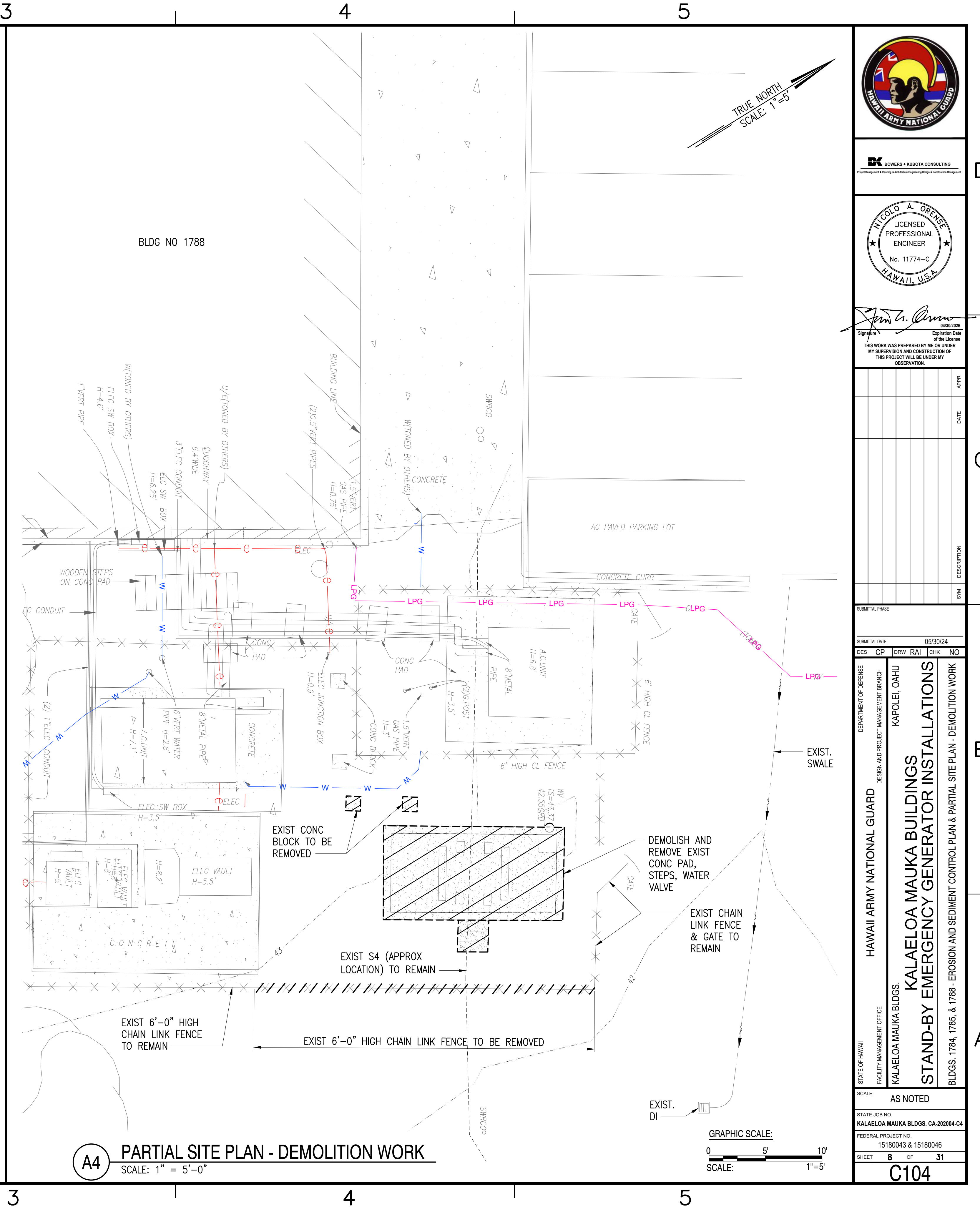
FEDERAL PROJECT NO. 15180043 & 15180046

SHEET 4 OF 31

C003



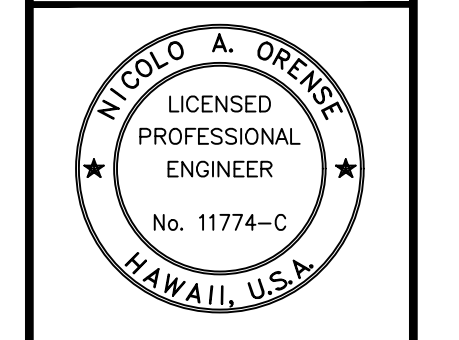
A1 EROSION AND SEDIMENT CONTROL PLAN
SCALE: 1" = 5'-0"



A4 PARTIAL SITE PLAN - DEMOLITION WORK
SCALE: 1" = 5'-0"



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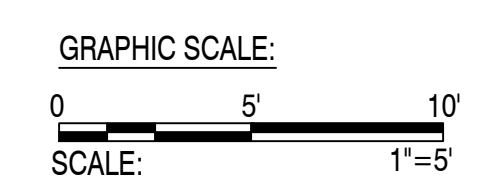
Nicola A. Orense
Signature
6/4/2024
Expiration Date
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SYMBOL	DESCRIPTION	DATE	PREPARED BY

DATE: 05/30/24
DESIGNER: CP
DRAWN: RAJ
CHECKED: NO

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU
HAWAII ARMY NATIONAL GUARD
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDG. 1784, 1785, & 1788 - EROSION AND SEDIMENT CONTROL PLAN & PARTIAL SITE PLAN - DEMOLITION WORK

SCALE: AS NOTED
STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 8 OF 31
C104



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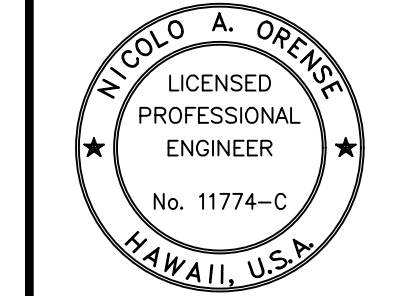
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Signature: Nicolò A. Orense, 04/30/2024 Expiration Date

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SYN	DESCRIPTION	DATE	APPR

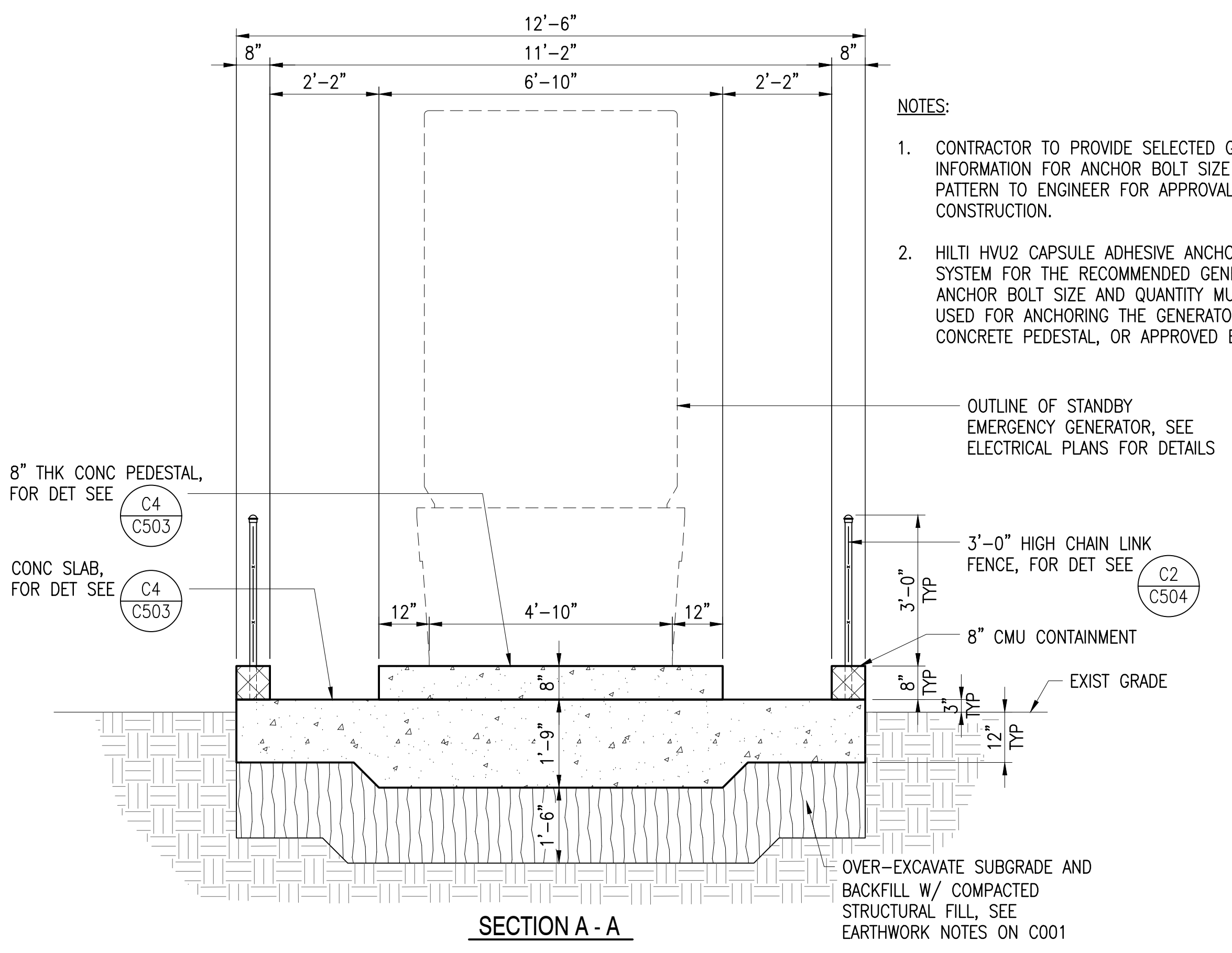
SUBMITTAL PHASE				
DES	CP	DRW	RAI	CHK
SUBMITTAL DATE: 05/30/24				

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU
HAWAII ARMY NATIONAL GUARD
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KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDGS. 1784, 1785, & 1788 - CONCRETE PAD DETAILS

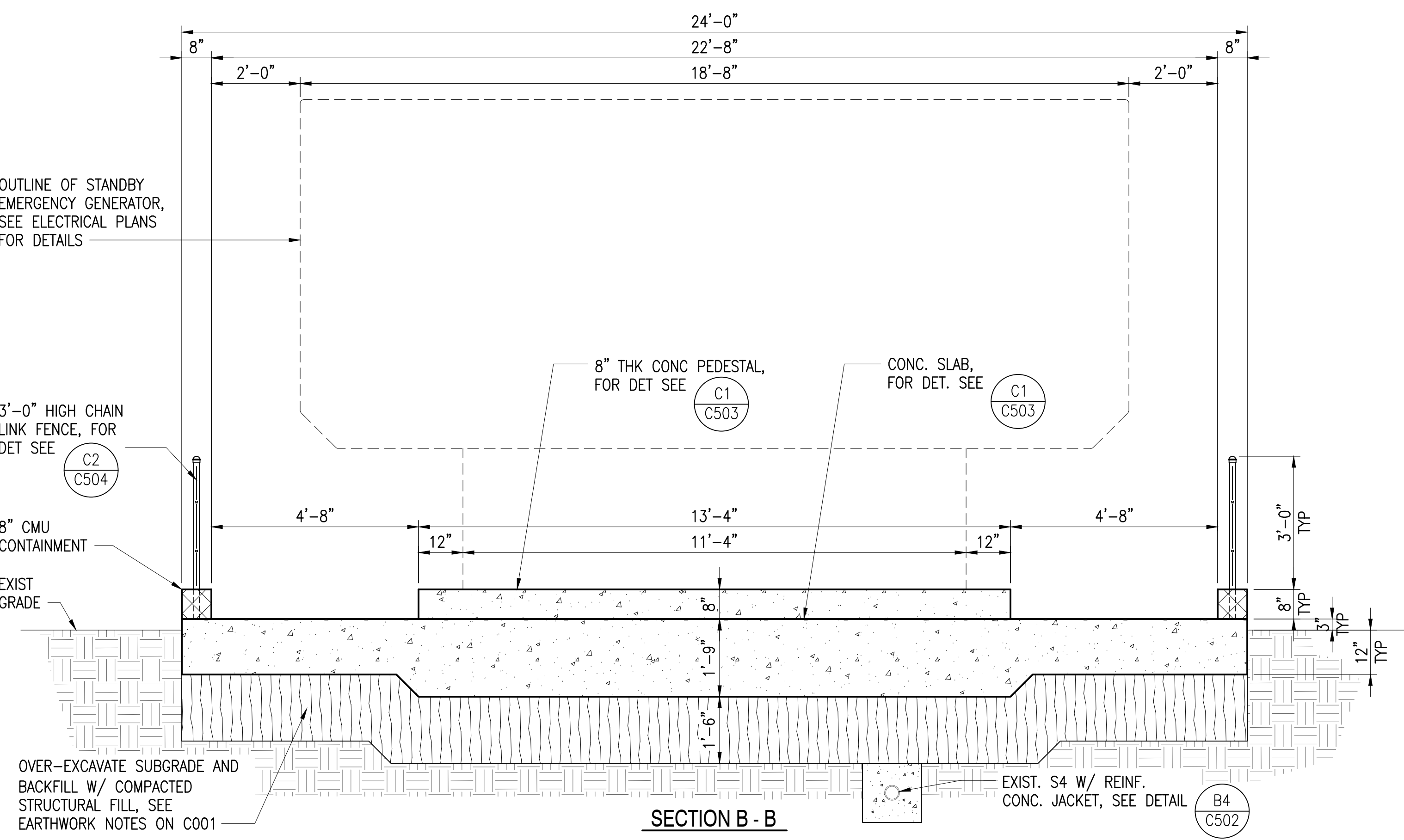
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FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 11 OF 31
C502

NOTES:

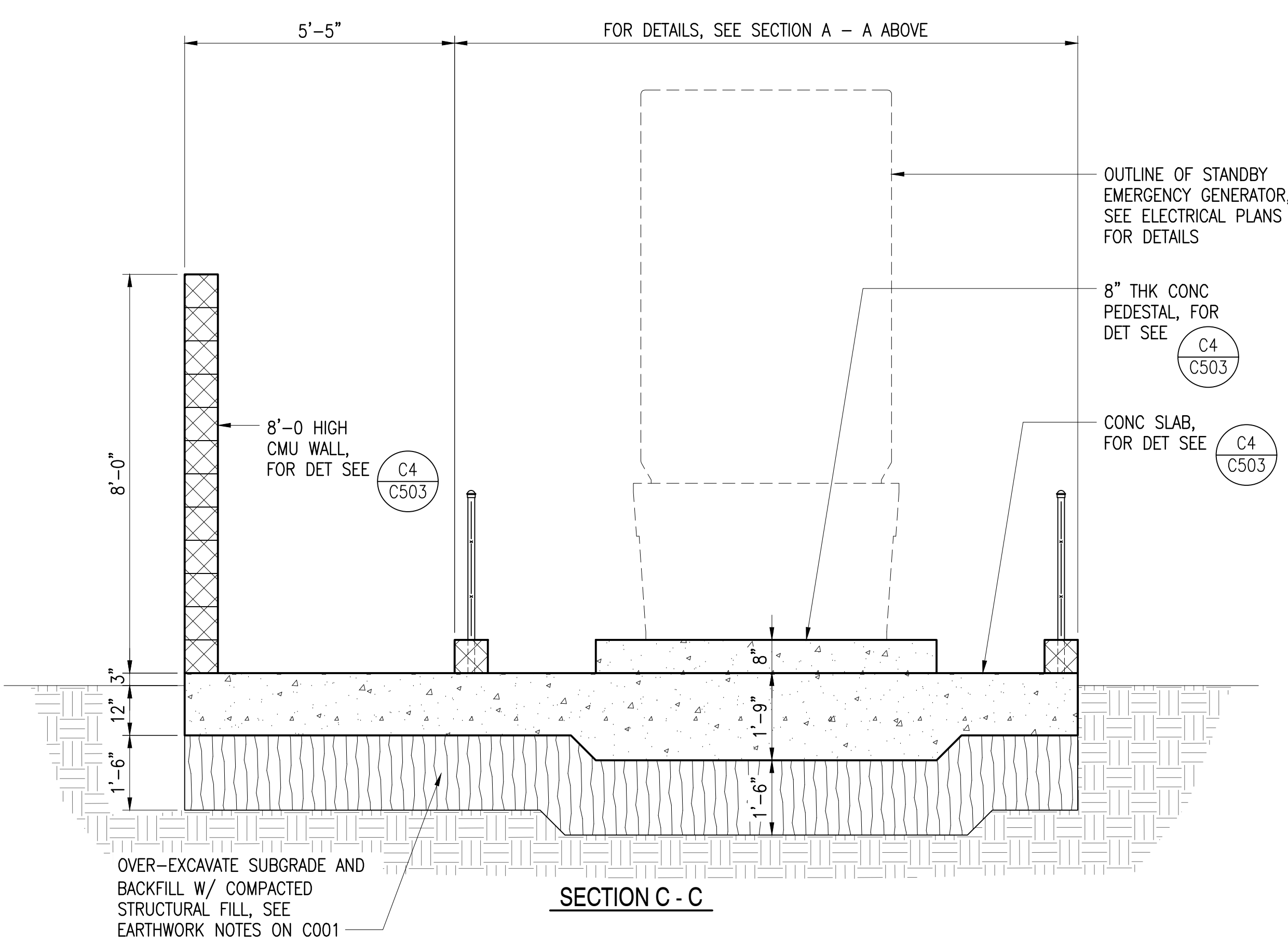
1. CONTRACTOR TO PROVIDE SELECTED GENERATOR INFORMATION FOR ANCHOR BOLT SIZE AND PATTERN TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. HILTI HVU2 CAPSULE ADHESIVE ANCHORING SYSTEM FOR THE RECOMMENDED GENERATOR ANCHOR BOLT SIZE AND QUANTITY MUST BE USED FOR ANCHORING THE GENERATOR TO THE CONCRETE PEDESTAL, OR APPROVED EQUAL.



SECTION A - A

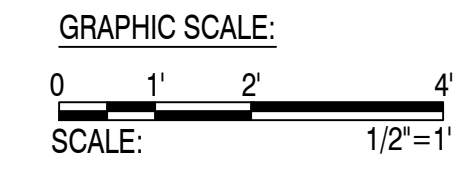


SECTION B - B



SECTION C - C

A3 CONCRETE PAD DETAIL
SCALE: 1/2" = 1'-0"



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NICOLO A. ORENSE
 LICENSED PROFESSIONAL ENGINEER
 No. 11774-C
 HAWAII, U.S.A.

Tim G. Orense
 Signature

6/30/2024
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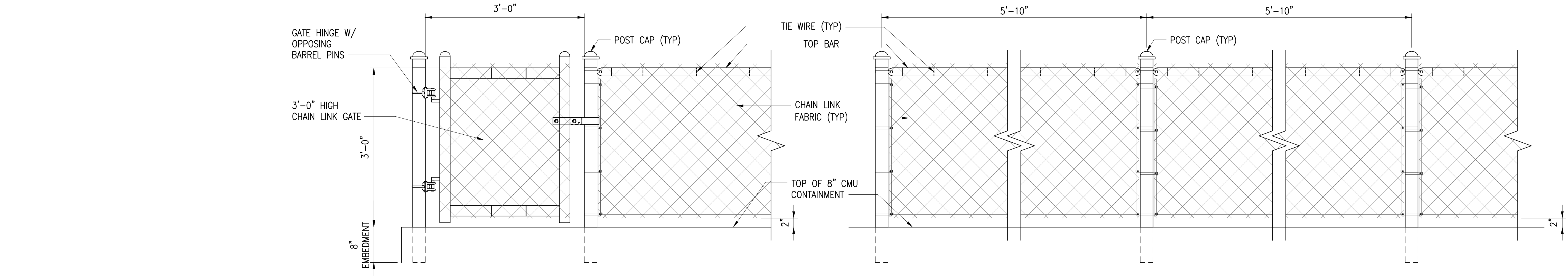
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B

B

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AT CHAIN LINK GATE

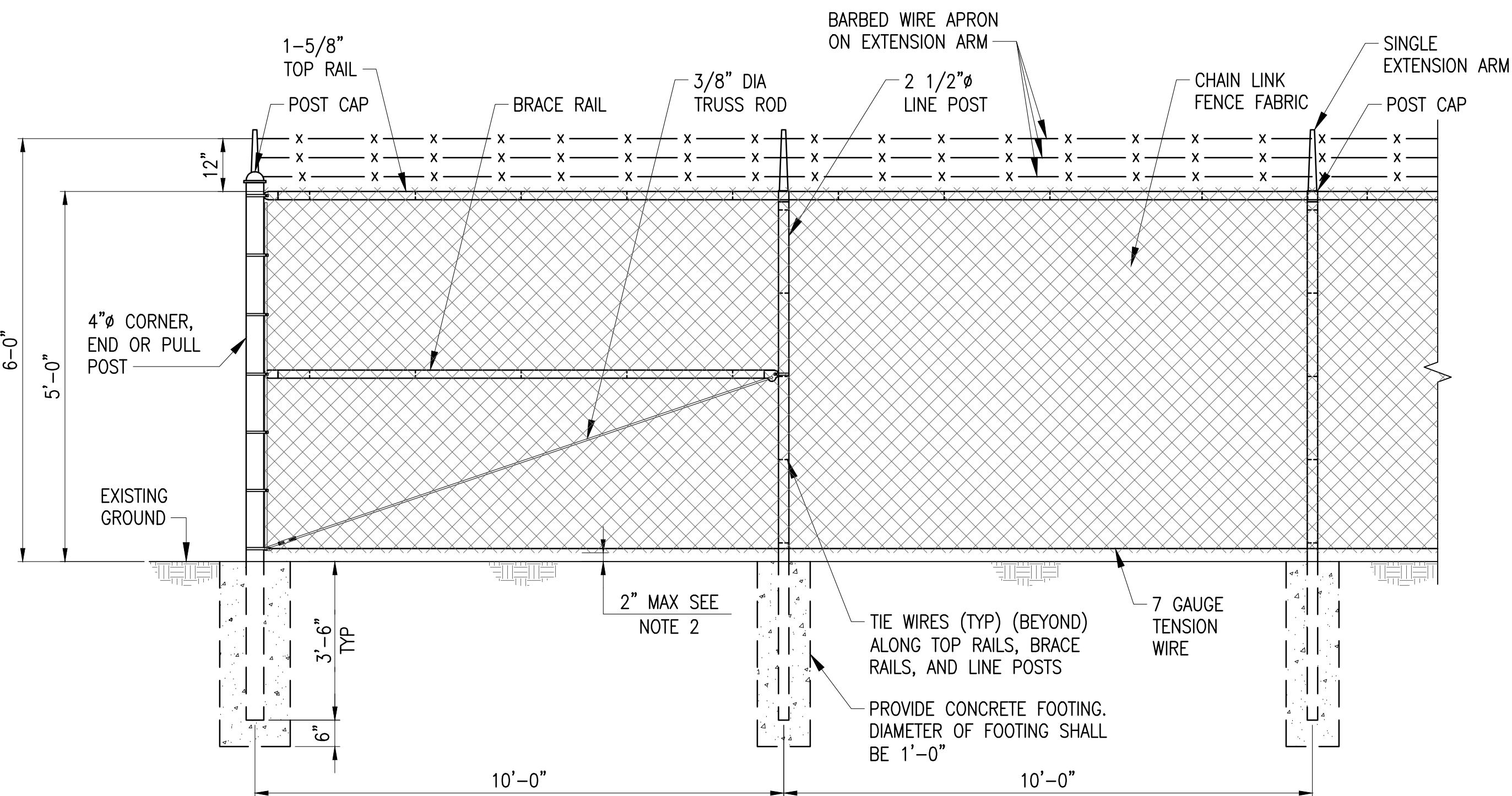
AT CHAIN LINK FENCE

C2 3'-0" HIGH CHAIN LINK GATE AND FENCE DETAILS
 SCALE: 1/2" = 1'-0"

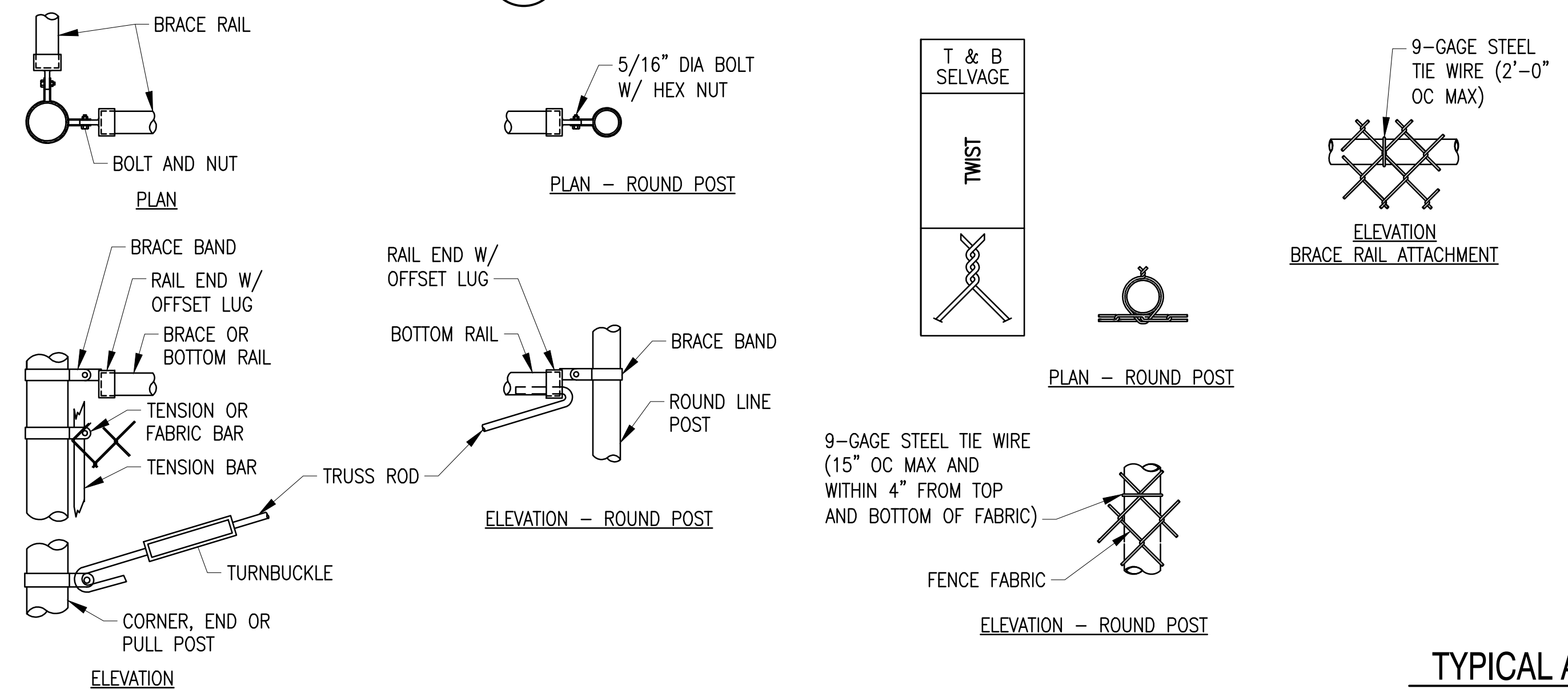
- NOTES:**
- SEE BELOW FOR TYPICAL ACCESSORY DETAILS AND CHAIN LINK FENCE NOTES.

NOTES:

- POST AND BRACES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE. SIZES SPECIFIED ARE OUTSIDE DIAMETER.
- ALL FENCING MATERIAL SHALL BE ZINC COATED STEEL.
- TOP RAIL COUPLINGS SHALL BE LOCATED WITHIN 6" OF LINE POSTS.
- TOP OF CONCRETE FOOTING SHALL BE CROWNED TO SHED WATER.
- TOP AND BOTTOM SELVAGES SHALL BE TWISTED AND BARBED FINISH.



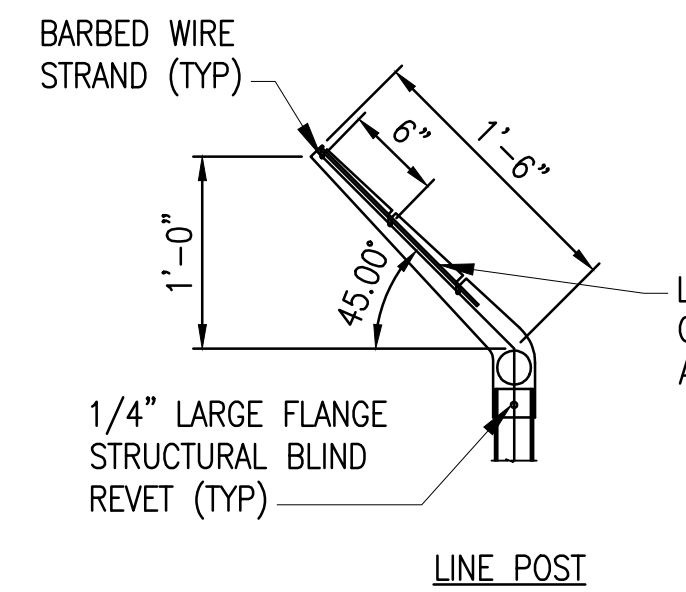
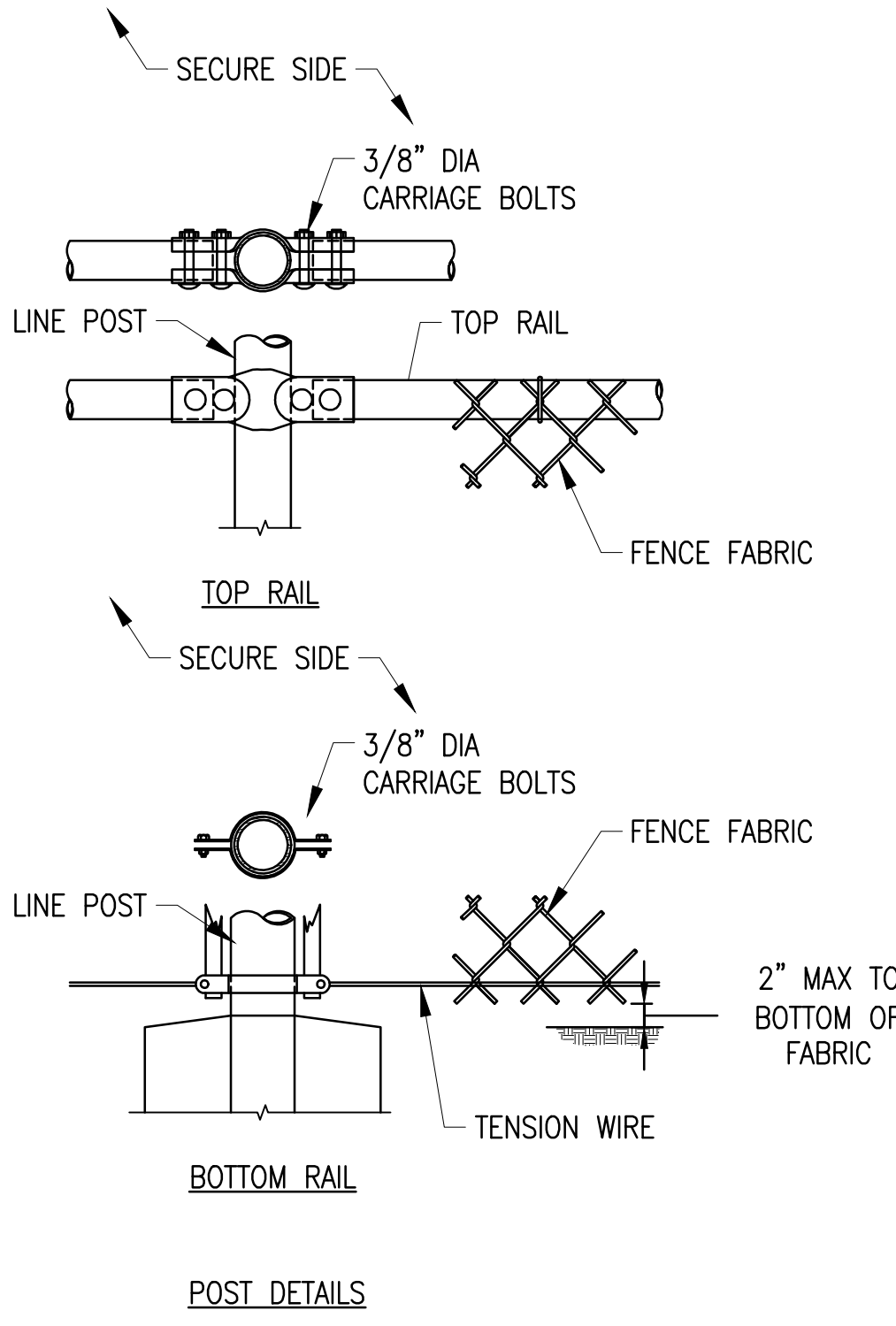
B1 6'-0" HIGH CHAIN LINK FENCE DETAIL
 NTS



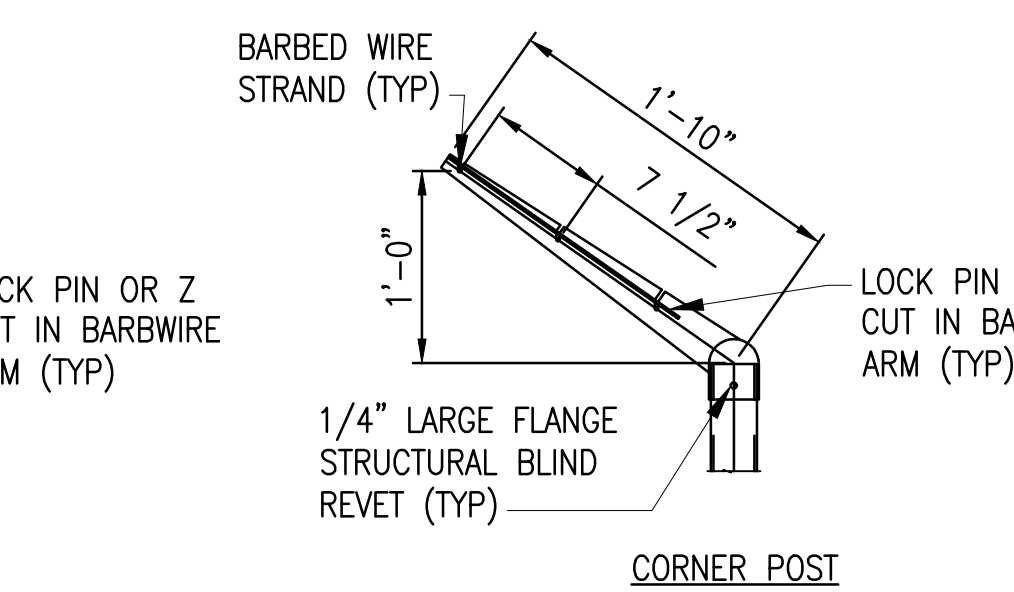
TYPICAL ACCESSORY DETAILS
 NTS

NOTES:

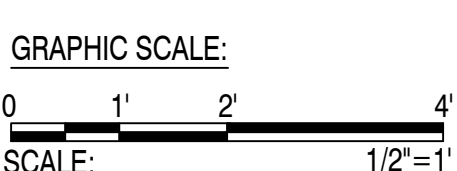
- STANDARD SIZES AND WEIGHTS OF MATERIALS IN ACCORDANCE WITH FEDERAL SPECIFICATIONS RR-F-191/GEN, RR-F-191/1, RR-F-191/2, RR-F-191/3, RR-F-191/4, AND AS INDICATED.
- FABRIC: FS RR-F-191/1; TYPE 1, ZINC-COATED STEEL, 9-GAUGE STEEL WIRE, WOVEN IN 2" MESH, TWISTED AND BARBED AT BOTH SELVAGES.
- POSTS: LINE POSTS, END POSTS, CORNER POSTS, AND PULL POSTS: FS RR-F-191/3., ZINC-COATED STEEL PIPE, CLASS 1, GRADE A. BRACES TO BE CLASS 1, ZINC COATED STEEL PIPE, GRADE A. FOR 3'-0" HIGH AND 6'-0" HIGH FENCE: LINE POST - 2 1/2" OD; CORNER, END, AND PULL POSTS - 4" OD, 2.5" OD (3" HIGH CLF); RAILS AND BRACES - 1 5/8" OD.
- CONCRETE: ASTM C 94, USING 3/4" MAX SIZED AGGREGATE, 4,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.
- FENCE POSTS AND RAILS TO BE PLUMB AND LEVEL. SPACING OF POSTS: 10'-0" ON CENTER MAX. INSTALL POST CAPS AS RECOMMENDED BY THE MANUFACTURERS.



EXTENSION ARM DETAILS



CORNER POST



DATE	DESCRIPTION	BY	CHK

SUBMITAL DATE: 05/30/24
 DES: CP | DRW: RAI | CHK: NO

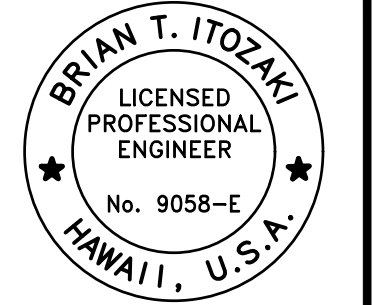
DEPARTMENT OF DEFENSE
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 DESIGN AND PROJECT MANAGEMENT BRANCH
 KAPOLEI, OAHU
 FACILITY MANAGEMENT OFFICE
 KALAELOA MAUKA BLDGS.
 KALAELOA MAUKA BLDGS. CA-202004-C4
 STAND-BY EMERGENCY GENERATOR INSTALLATIONS
 CHAIN-LINK FENCE DETAILS

SCALE: AS NOTED
 STATE JOB NO.: KALAELOA MAUKA BLDGS. CA-202004-C4
 FEDERAL PROJECT NO.: 15180043 & 15180046
 SHEET 13 OF 31
C504

GENERAL ELECTRICAL NOTES:

1. 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.
2. ALL NEW RACEWAYS AND OUTLETS SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
3. CONDUIT SIZES INDICATED ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSELY OVSIZED 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. THE CONTRACTOR SHALL PAINT ALL NEW EXPOSED RACEWAYS AND BOXES TO MATCH SURROUNDING FINISH.
9. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.
10. ALL MATERIAL, EQUIPMENT, AND WIRING LOCATED OUTDOORS SHALL BE RATED FOR WET LOCATIONS.
11. 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.
12. ALL MULTIWIRED BRANCH CIRCUITS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 210.4. ALL CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS.
13. THE CONTRACTOR SHALL PROVIDE TEMPORARY STANDBY ELECTRICAL POWER FOR ANY AND ALL SERVICE OUTAGES EXCEEDING TWO (2) HOURS.

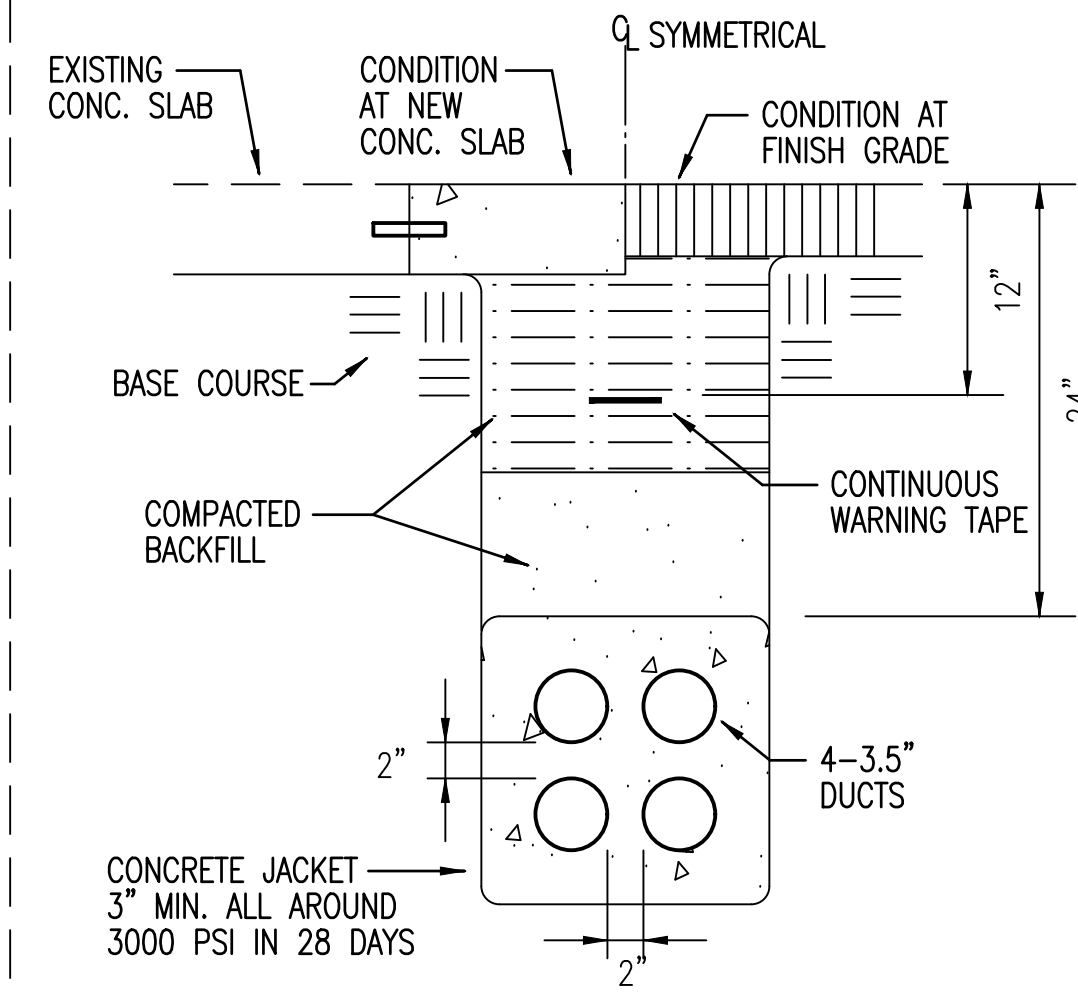
ELECTRICAL SYMBOL LIST		
EXISTING	NEW	DESCRIPTION
	⊖	EQUIPMENT CONNECTION.
	⊙	GENERATOR CONNECTION.
	⊖⊕	ENGINE GENERATOR CONNECTION.
	⊞	ELECTRICAL EQUIPMENT.
	⊞	METER SOCKET.
---	---e---	RACEWAY, CONCEALED BELOW FINISH FLOOR, NUMBER OF HASHMARKS INDICATE NUMBER OF WIRES WITHIN.
---	---	EXPOSED RACEWAY.
---	---	FLEXIBLE RACEWAY.
	---	ARROW, HOMERUN TO PANEL OR CABINET.
---	---	RACEWAY, STUBBED AND CAPPED.
	●	STUB-UP LOCATION
②	②	ELECTRICAL NOTE INDICATOR.
	A	DUCT SECTION INDICATOR.
	②	DETAIL INDICATOR
		UPPER HALF: DETAIL NUMBER. LOWER HALF: SHEET NUMBER, DETAIL LOCATION.



Brian T. Itozaki
 Signature
 04/28/2024
 Expiration Date
 of the License
 MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

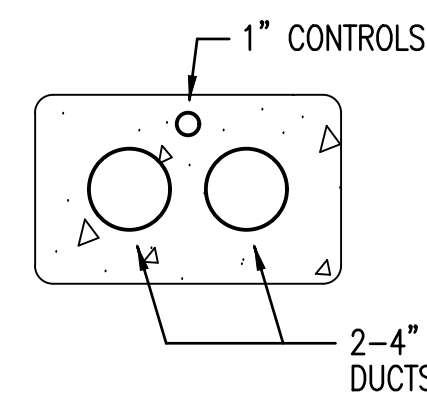
NOTES:

1. 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 IN ACCORDANCE WITH DRAWINGS.
2. ALL DUCTS SHALL BE PVC SCHEDULE 40.
3. PROVIDE DETECTABLE DUCT WARNING TAPE 12" BELOW FINISH GRADE OR PAVEMENT DIRECTLY ABOVE DUCTS.
4. PROVIDE SMOOTH TRANSITION BETWEEN NEW AND EXISTING PAVEMENT SURFACES.
5. TUNNEL UNDER EXISTING CONCRETE WALKWAYS TO INSTALL NEW DUCTLINE. DO NOT CUT SIDEWALKS.
6. PROVIDE AC SEALER AT SAWCUT TRANSITION BETWEEN NEW AND EXISTING AC. SEALER SHALL BE PER NEW AC MATERIAL REQUIREMENTS.



DUCT SECTION (A)

SAME COVER AS SECTION (A)



DUCT SECTION (B)

SUBMITTAL PHASE

SUBMITTAL DATE: 05/30/24

DES: SM DRW: KN CHK: SM

DEPARTMENT OF DEFENSE

HAWAII ARMY NATIONAL GUARD

DESIGN AND PROJECT MANAGEMENT BRANCH

KAPOLEI, OAHU

STATE OF HAWAII

FACILITY MANAGEMENT OFFICE

KALAELOA MAUKA BLDGS.

STAND-BY EMERGENCY GENERATOR INSTALLATIONS

SYMBOL LIST, GENERAL NOTES

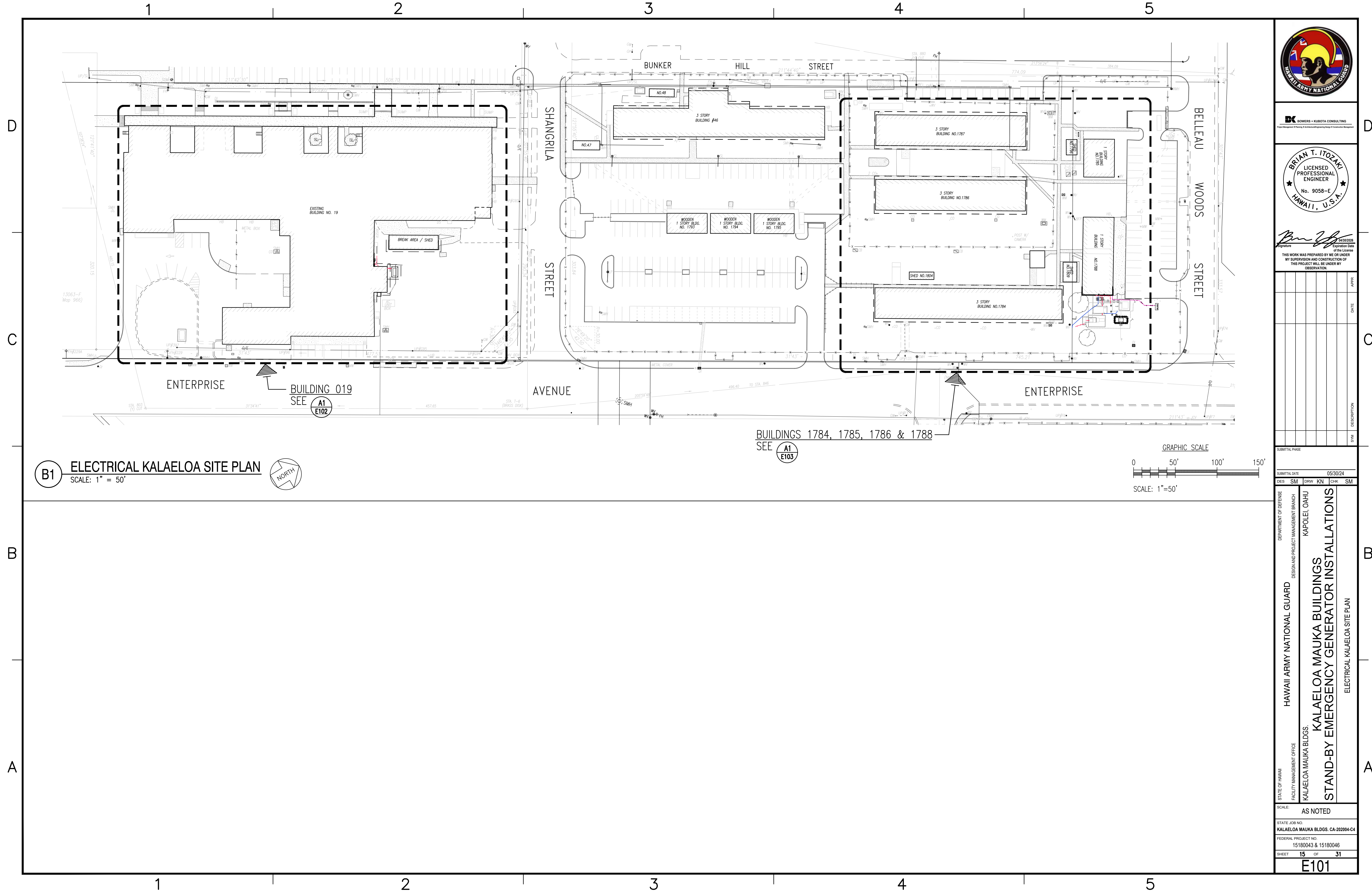
SCALE: AS NOTED

STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4

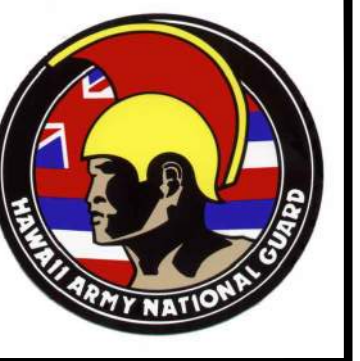
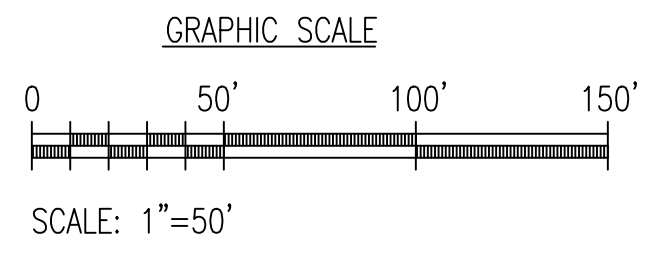
FEDERAL PROJECT NO. 15180043 & 15180046

SHEET 14 OF 31

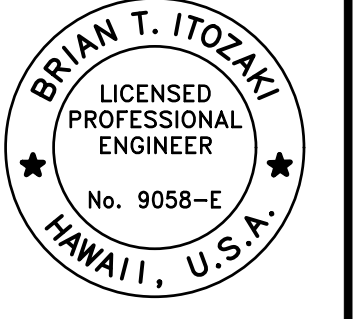
E001



B1 ELECTRICAL KALAELOA SITE PLAN
 SCALE: 1" = 50'



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 Signature
 5/30/24
 Expiration Date
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SYMBOL	DESCRIPTION	DATE	APPROVED

SUBMITTAL PHASE: 05/30/24
 DES: SM | DRW: KN | CHK: SM

STATE OF HAWAII
 FACILITY MANAGEMENT OFFICE
 KALAELOA MAUKA BLDGS.
 DEPARTMENT OF DEFENSE
 DESIGN AND PROJECT MANAGEMENT BRANCH
 KAPOLEI, OAHU
**KALAELOA MAUKA BLDGS.
 STAND-BY EMERGENCY GENERATOR INSTALLATIONS**
 ELECTRICAL KALAELOA SITE PLAN

SCALE: AS NOTED
 STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
 FEDERAL PROJECT NO. 15180043 & 15180046
 SHEET 15 OF 31
E101

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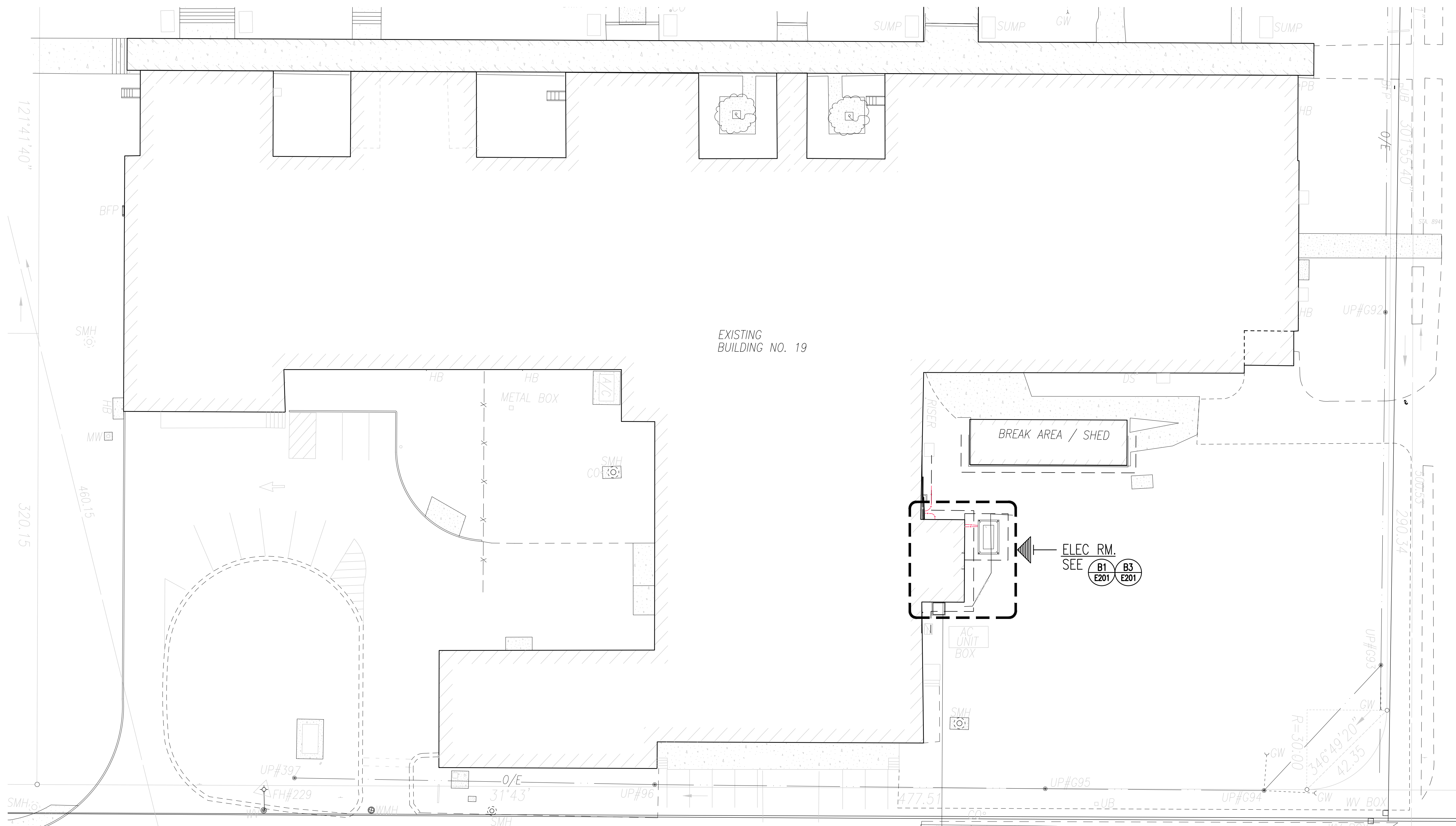
A

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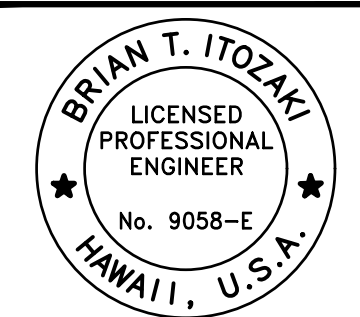
EXISTING BUILDING NO. 19

SHANGRILA STREET

ENTERPRISE AVENUE



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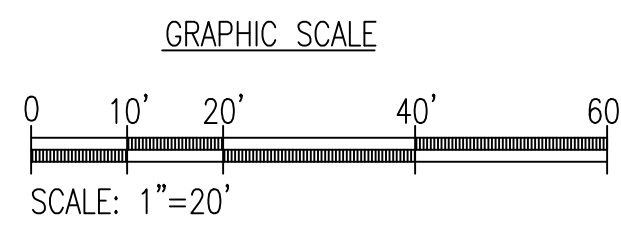
DATE	DESCRIPTION	BY

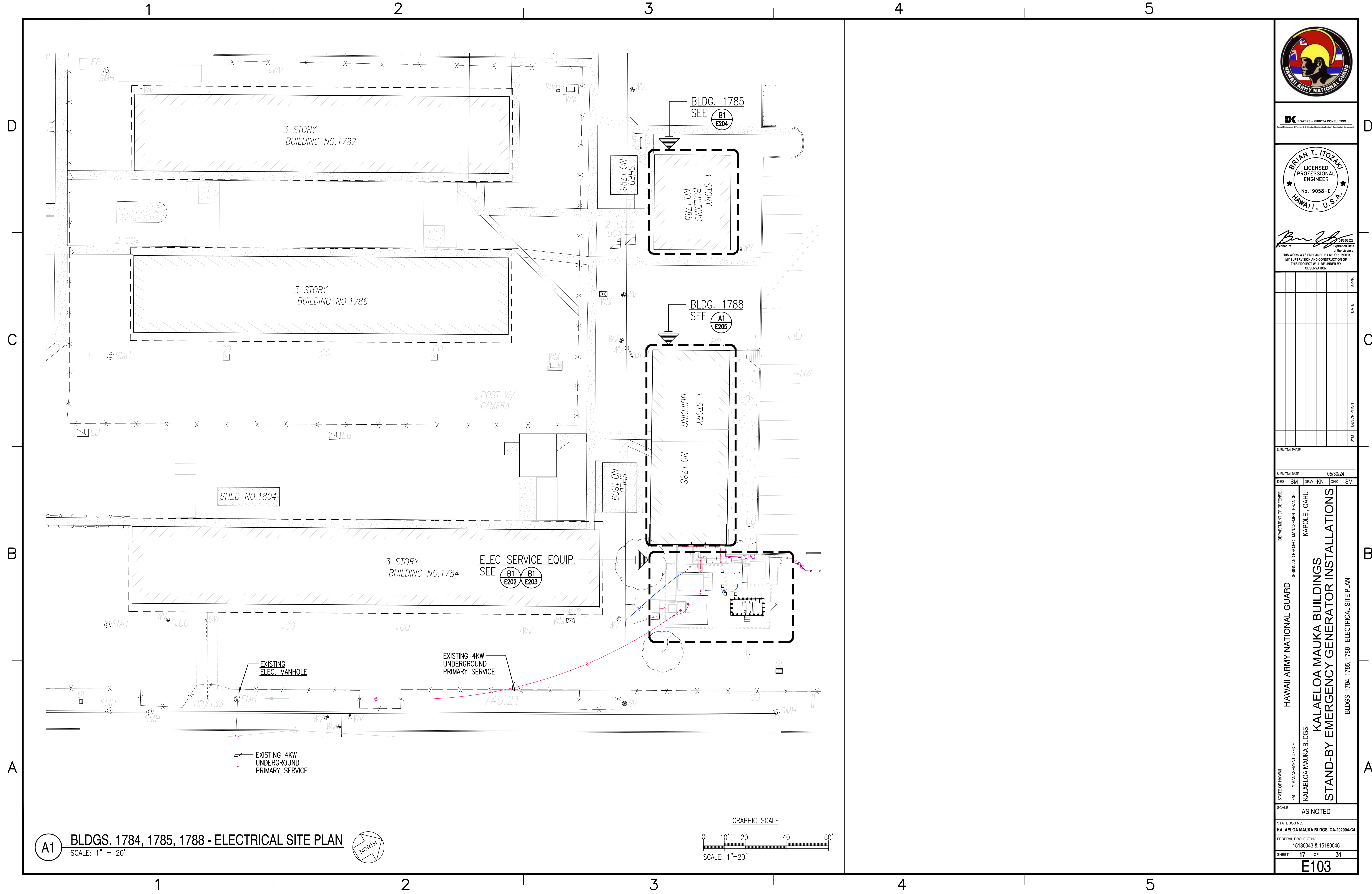
DES	SM	DRW	KN	CHK	SM
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DEPARTMENT OF DEFENSE
 HAWAII ARMY NATIONAL GUARD
 DESIGN AND PROJECT MANAGEMENT BRANCH
 KAPOLEI, OAHU
 KALAELOA MAUKA BLDGS.
 KALAELOA MAUKA BLDGS.
 STAND-BY EMERGENCY GENERATOR INSTALLATIONS
 BLDG. 19 - ELECTRICAL SITE PLAN

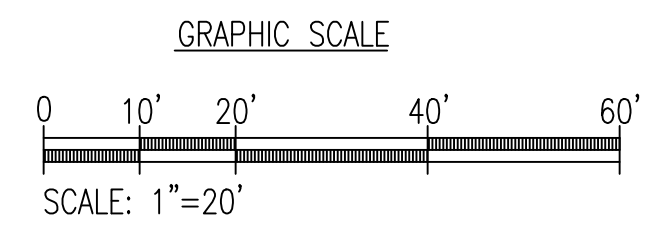
SCALE: AS NOTED
 STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
 FEDERAL PROJECT NO. 15180043 & 15180046
 SHEET 16 OF 31
E102

A1 BLDG. 19 - ELECTRICAL SITE PLAN
 SCALE: 1" = 20'

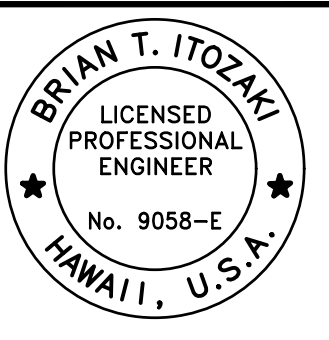




A1 BLDGS. 1784, 1785, 1788 - ELECTRICAL SITE PLAN
 SCALE: 1" = 20'



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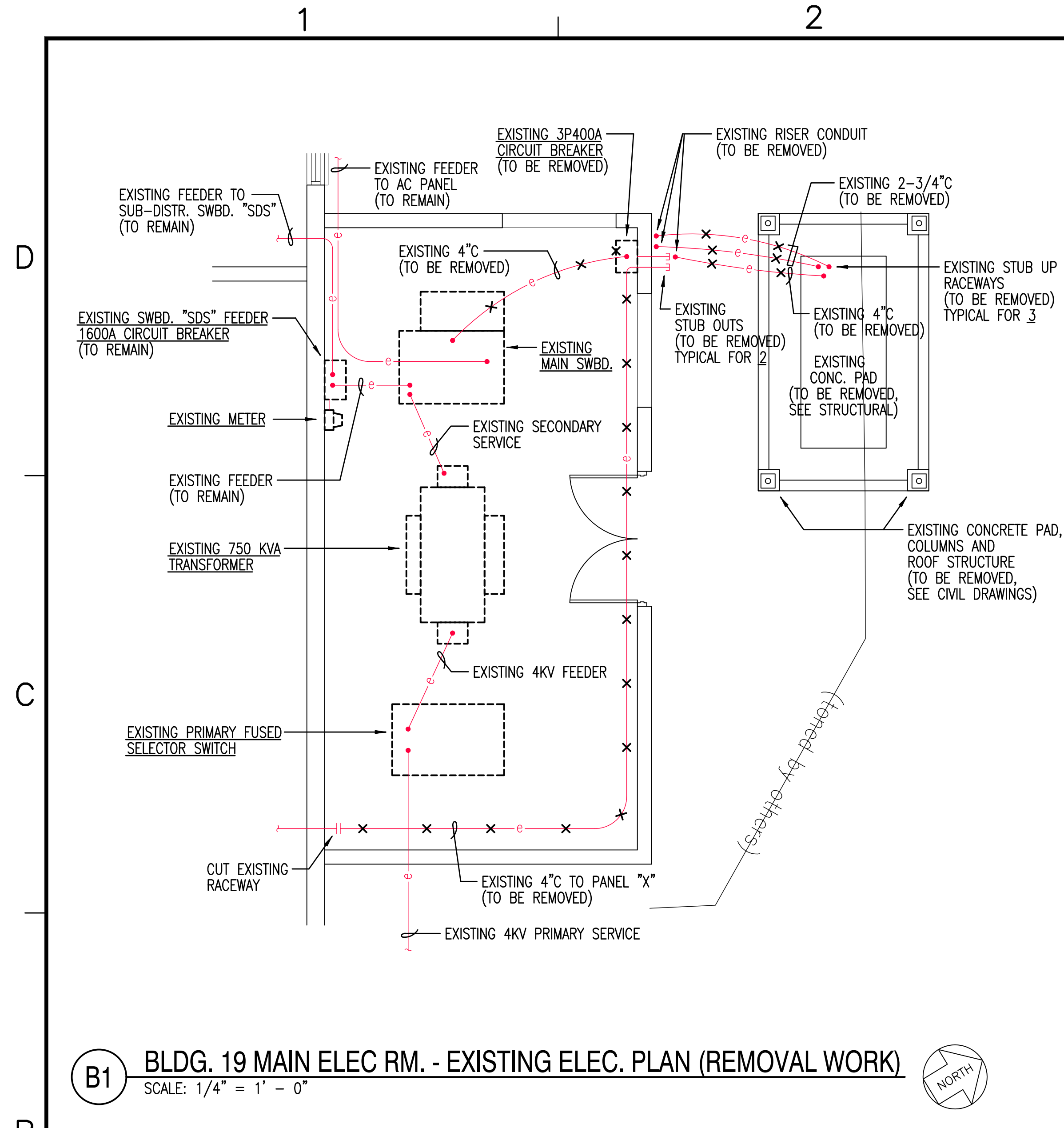
Brian T. Itozaki
 Signature
 8/4/2024
 Expiration Date
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SYN	DESCRIPTION	DATE	APPR

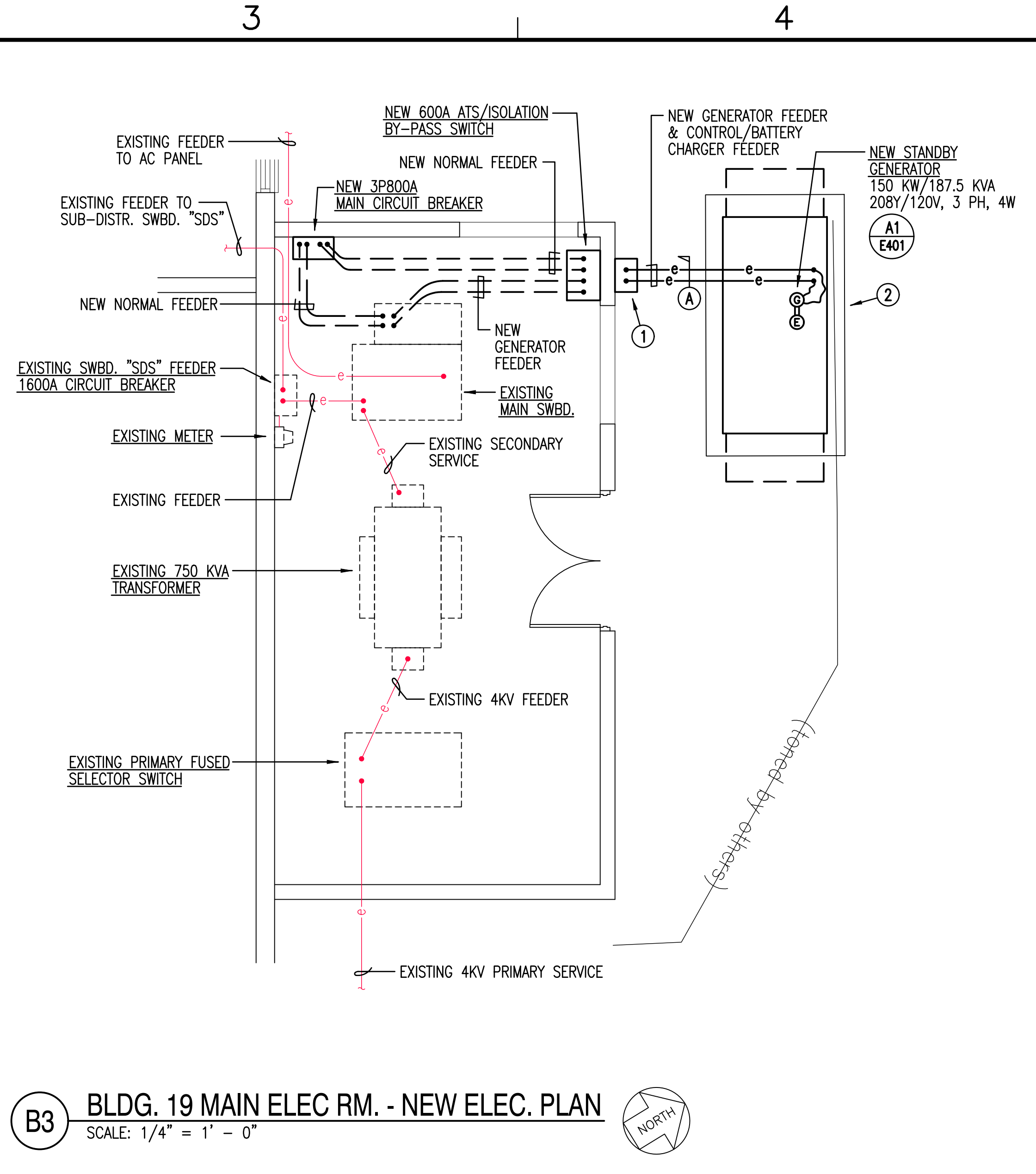
DES	SM	DRW	KN	CHK	SM
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DEPARTMENT OF DEFENSE
 DESIGN AND PROJECT MANAGEMENT BRANCH
 KAPOLEI, OAHU
 HAWAII ARMY NATIONAL GUARD
 KALAELOA MAUKA BLDGS.
 KALAELOA MAUKA BLDGS.
 STAND-BY EMERGENCY GENERATOR INSTALLATIONS
 BLDGS. 1784, 1785, 1788 - ELECTRICAL SITE PLAN

SCALE: AS NOTED
 STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
 FEDERAL PROJECT NO. 15180043 & 15180046
 SHEET 17 OF 31
E103



B1 BLDG. 19 MAIN ELEC RM. - EXISTING ELEC. PLAN (REMOVAL WORK)
SCALE: 1/4" = 1' - 0"



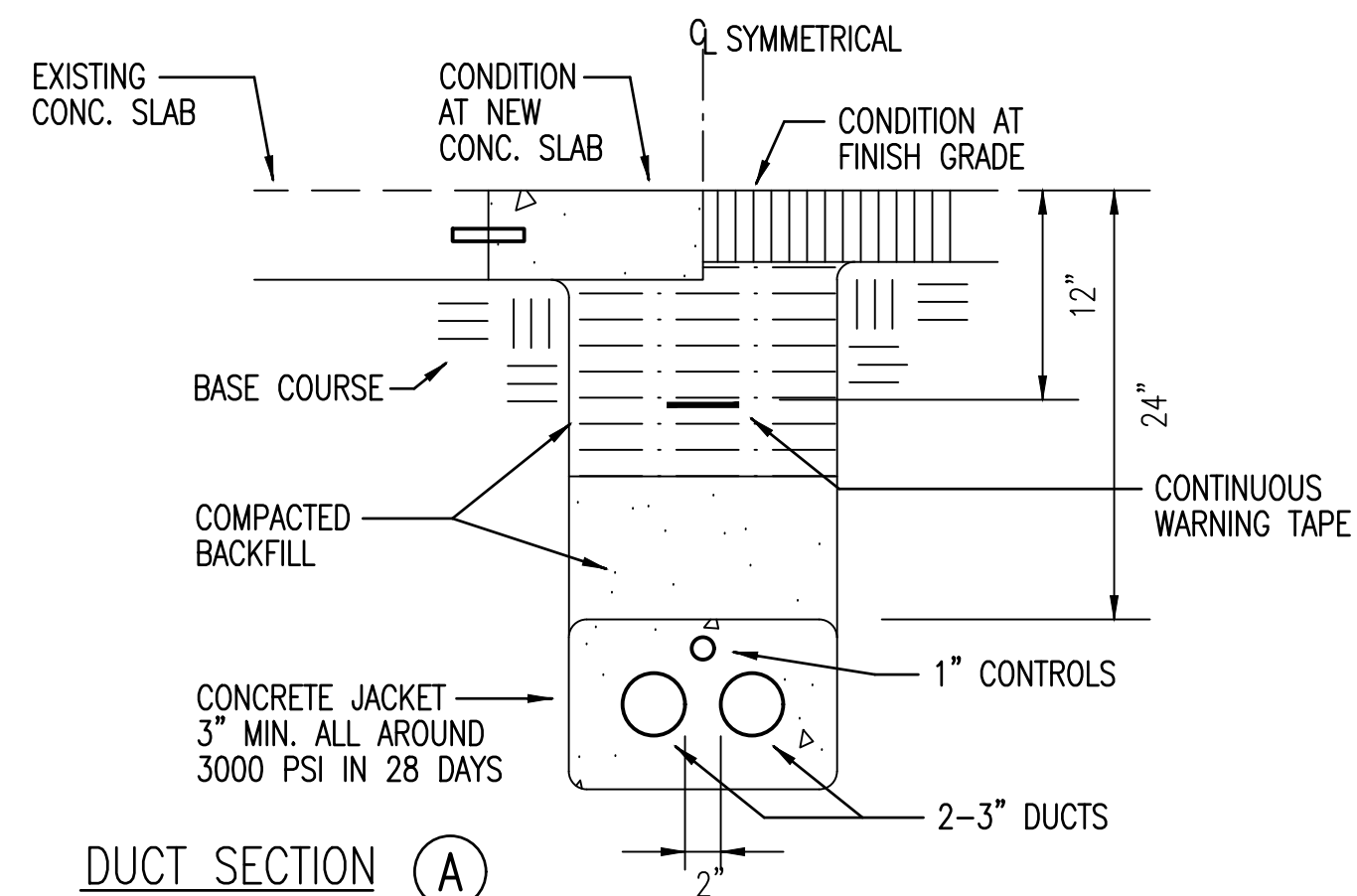
B3 BLDG. 19 MAIN ELEC RM. - NEW ELEC. PLAN
SCALE: 1/4" = 1' - 0"

ELECTRICAL NOTES: NEW WORK

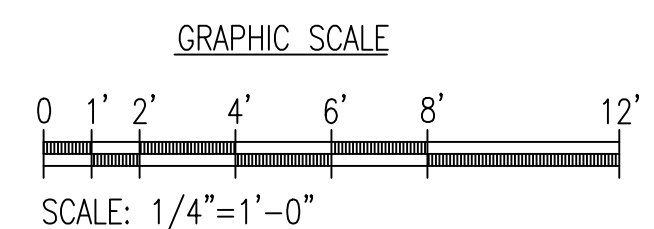
- ① PROVIDE NEW WALL MOUNTED CAST METAL JUNCTION BOX, 18" SQ. x 12"D.
- ② VERIFY STUB UP LOCATION WITH NEW GENERATOR SHOP DRAWING.


NOTES:

1. 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 IN ACCORDANCE WITH DRAWINGS.
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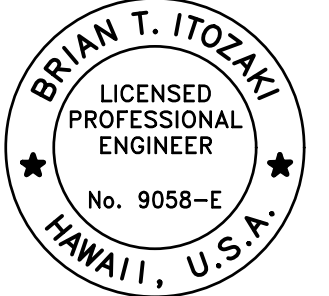


DUCT SECTION (A)





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SYMBOL	DESCRIPTION	DATE	APPROVE

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU

HAWAII ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS.
**KALAELOA MAUKA BUILDINGS
STAND-BY EMERGENCY GENERATOR INSTALLATIONS**
BLDG. 19 MAIN ELEC RM. - ELEC. PLANS (EXISTING/REMOVAL & NEW WORK)

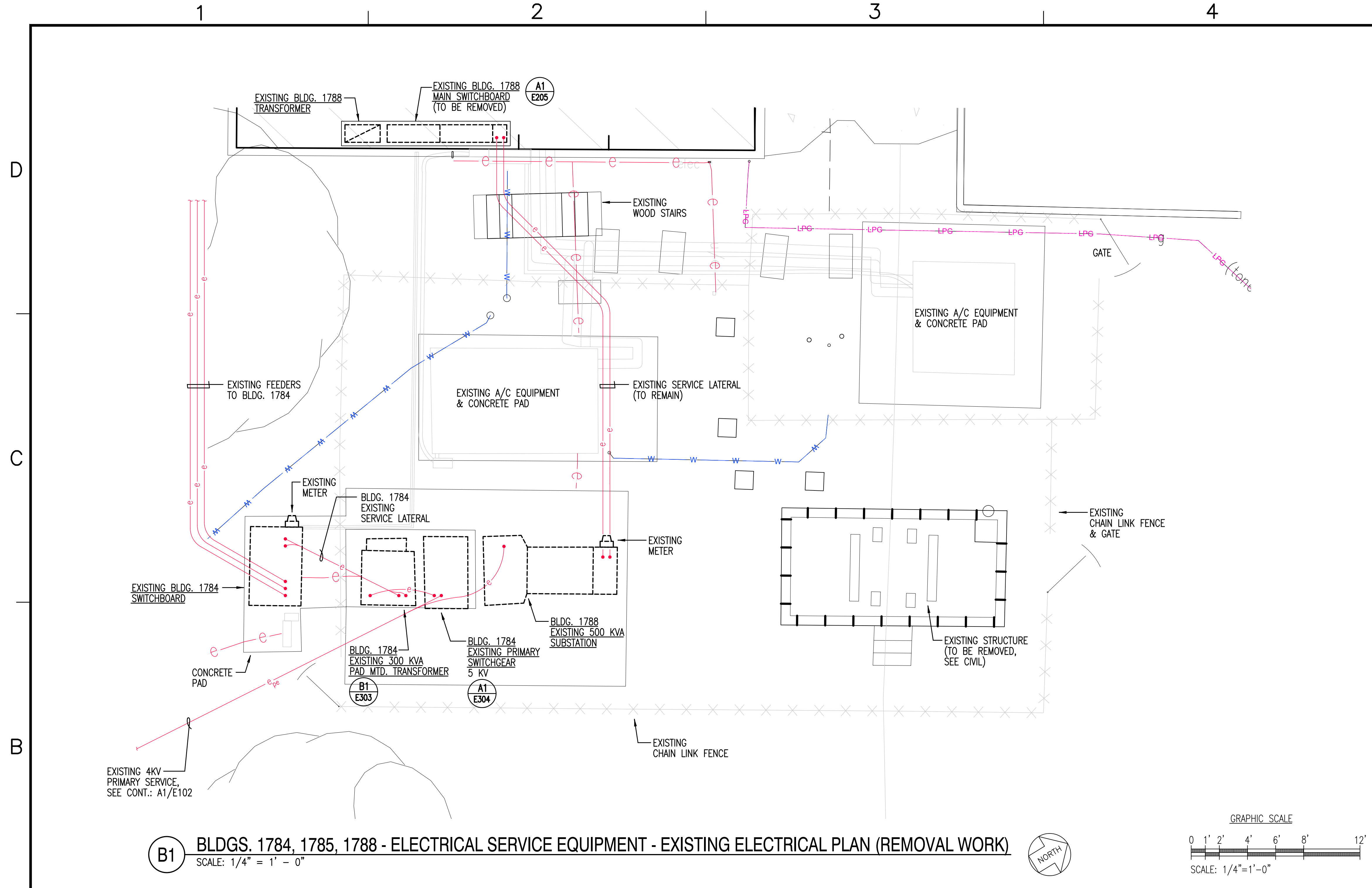
STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS. CA-202004-C4

SCALE: AS NOTED

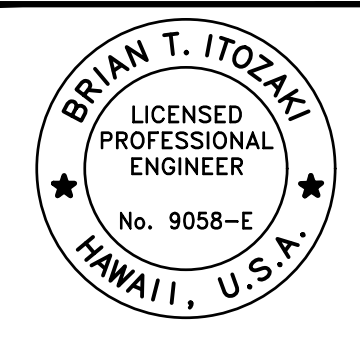
FEDERAL PROJECT NO.
15180043 & 15180046

SHEET **18** OF **31**

E201



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DATE	DESCRIPTION

SUBMITTAL DATE: 05/30/24
 DES: SM DRW: KN CHK: SM

DEPARTMENT OF DEFENSE
 HAWAII ARMY NATIONAL GUARD
 DESIGN AND PROJECT MANAGEMENT BRANCH
 KAPOLEI, OAHU
 KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
 BLDGS. 1784, 1785, 1788 - ELECTRICAL SERVICE EQUIPMENT - EXISTING ELECTRICAL PLAN

SCALE: AS NOTED
 STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
 FEDERAL PROJECT NO. 15180043 & 15180046
 SHEET **19** OF **31**
E202

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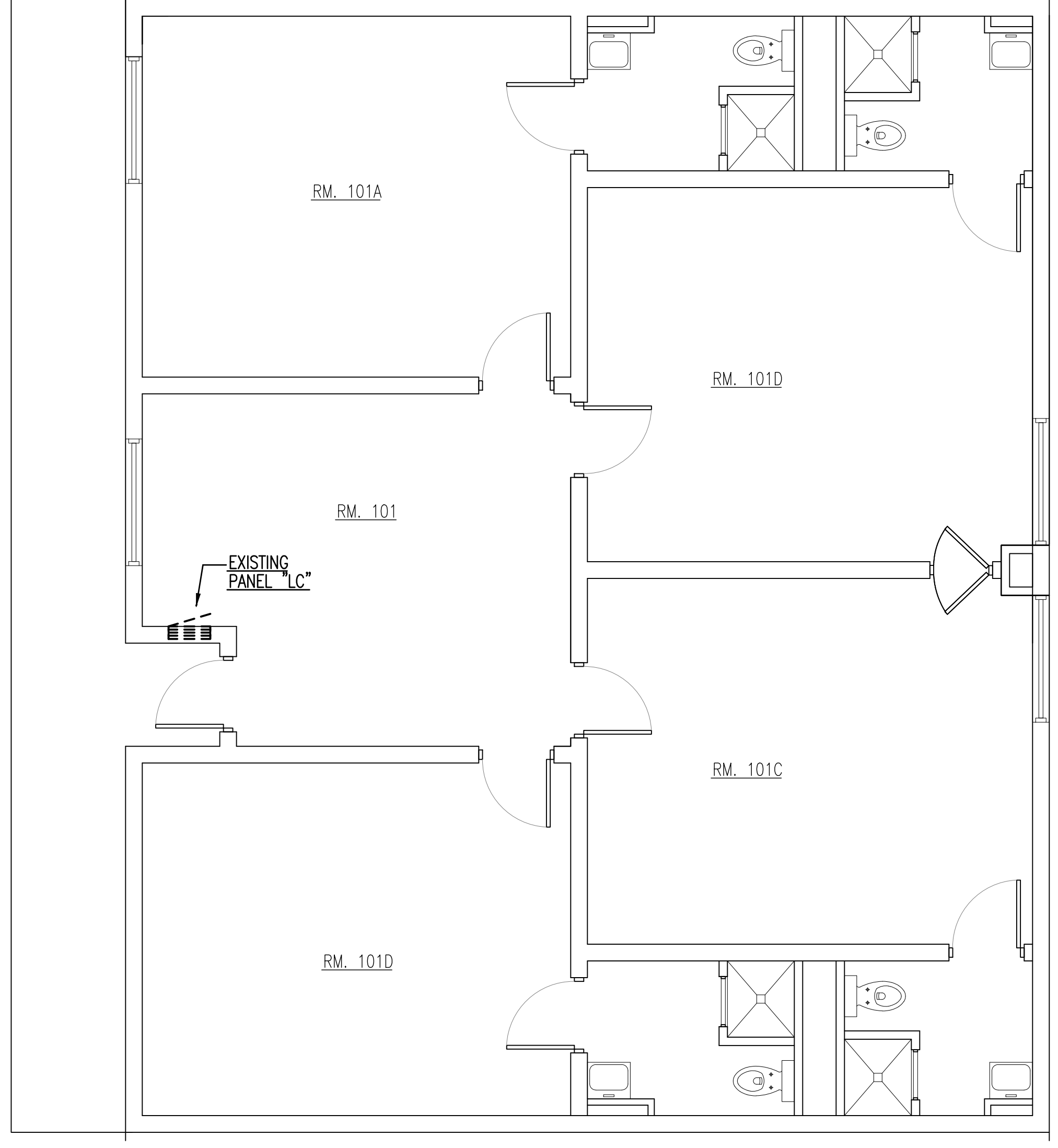
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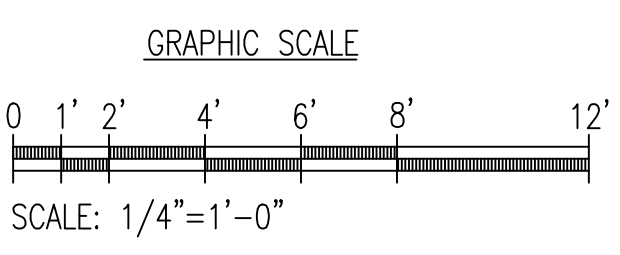
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B1 BLDG. 1785 - EXISTING ELECTRICAL PLAN
 SCALE: 1/4" = 1' - 0"



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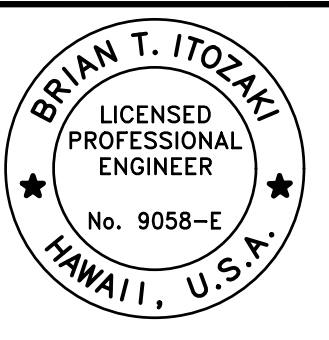
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Brian T. Itozaki
 Signature 04/30/2024
 Expiration Date

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SYN	DESCRIPTION	DATE	APPR

SUBMITTAL PHASE

SUBMITTAL DATE: 05/30/24

DES	SM	DRW	KN	CHK	SM
-----	----	-----	----	-----	----

DEPARTMENT OF DEFENSE
 DESIGN AND PROJECT MANAGEMENT BRANCH
 HAWAII ARMY NATIONAL GUARD
 KAPOLEI, OAHU
 KALAELOA MAUKA BLDGS.
 KALAELOA MAUKA BLDGS.
 STAND-BY EMERGENCY GENERATOR INSTALLATIONS
 BLDG. 1785 - EXISTING ELECTRICAL PLAN

SCALE: AS NOTED

STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4

FEDERAL PROJECT NO. 15180043 & 15180046

SHEET 21 OF 31

E204

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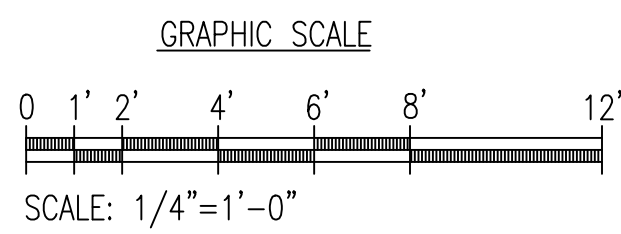
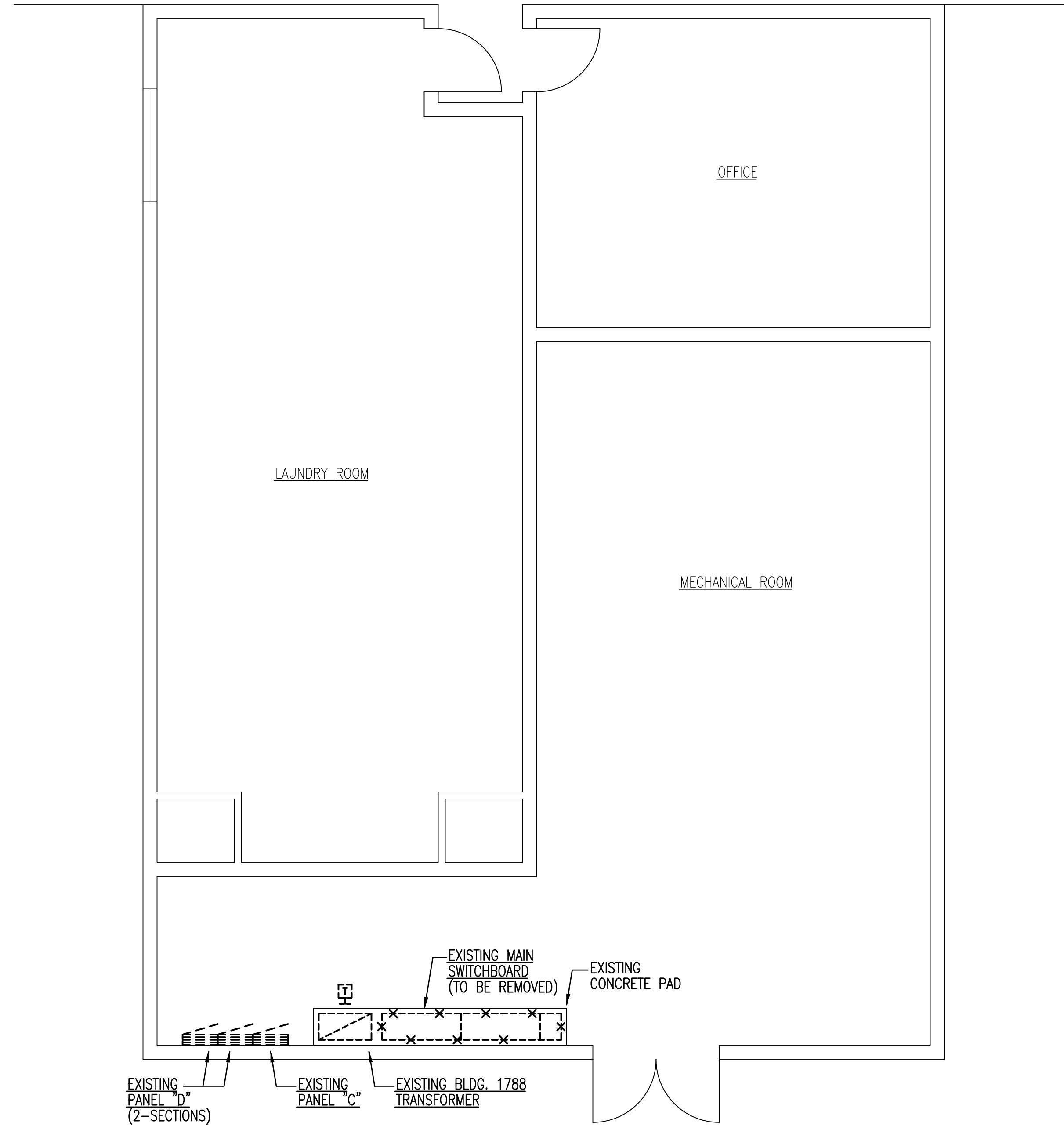
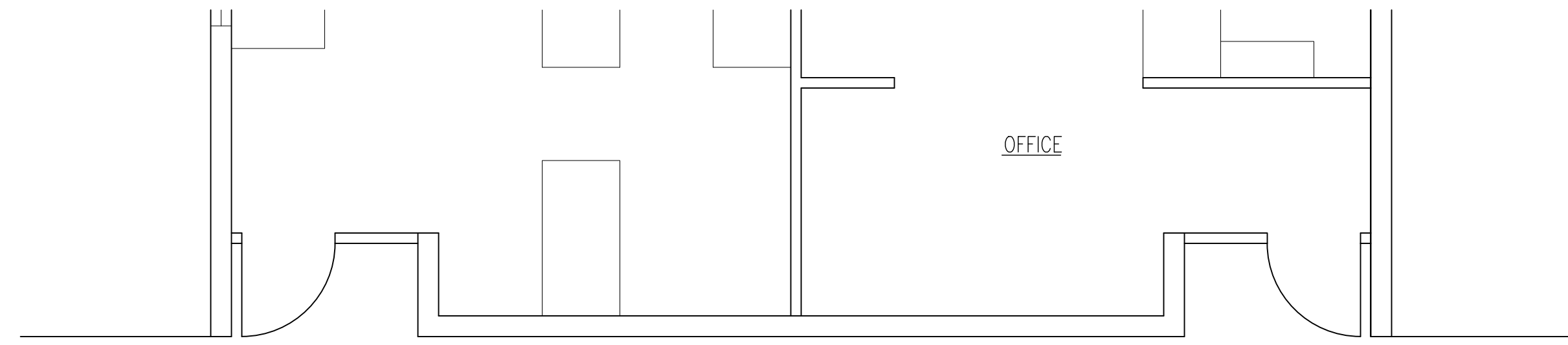
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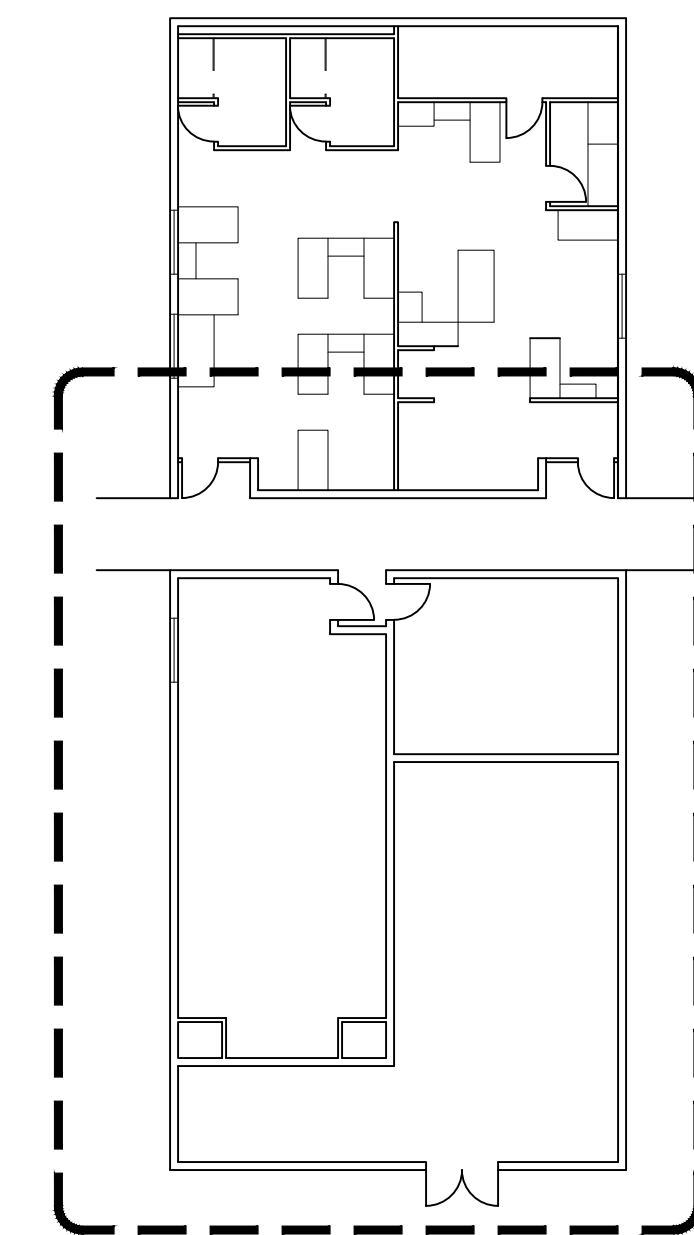
C

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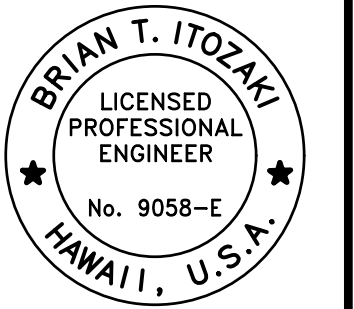
A1 BLDG. 1788 - PARTIAL EXISTING ELECTRICAL PLAN
SCALE: 1/4" = 1' - 0"



BLDG. 1788 - KEY PLAN
NOT TO SCALE



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Signature
04/30/2024
Expiration Date

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SYN	DESCRIPTION	DATE	APPR

SUBMITTAL PHASE

SUBMITTAL DATE 05/30/24

DES	SM	DRW	KN	CHK	SM
-----	----	-----	----	-----	----

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU
HAWAII ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDG. 1788 - PARTIAL EXISTING ELECTRICAL PLAN

SCALE: AS NOTED

STATE JOB NO.

KALAELOA MAUKA BLDGS. CA-202004-C4

FEDERAL PROJECT NO.

15180043 & 15180046

SHEET 22 OF 31

E205

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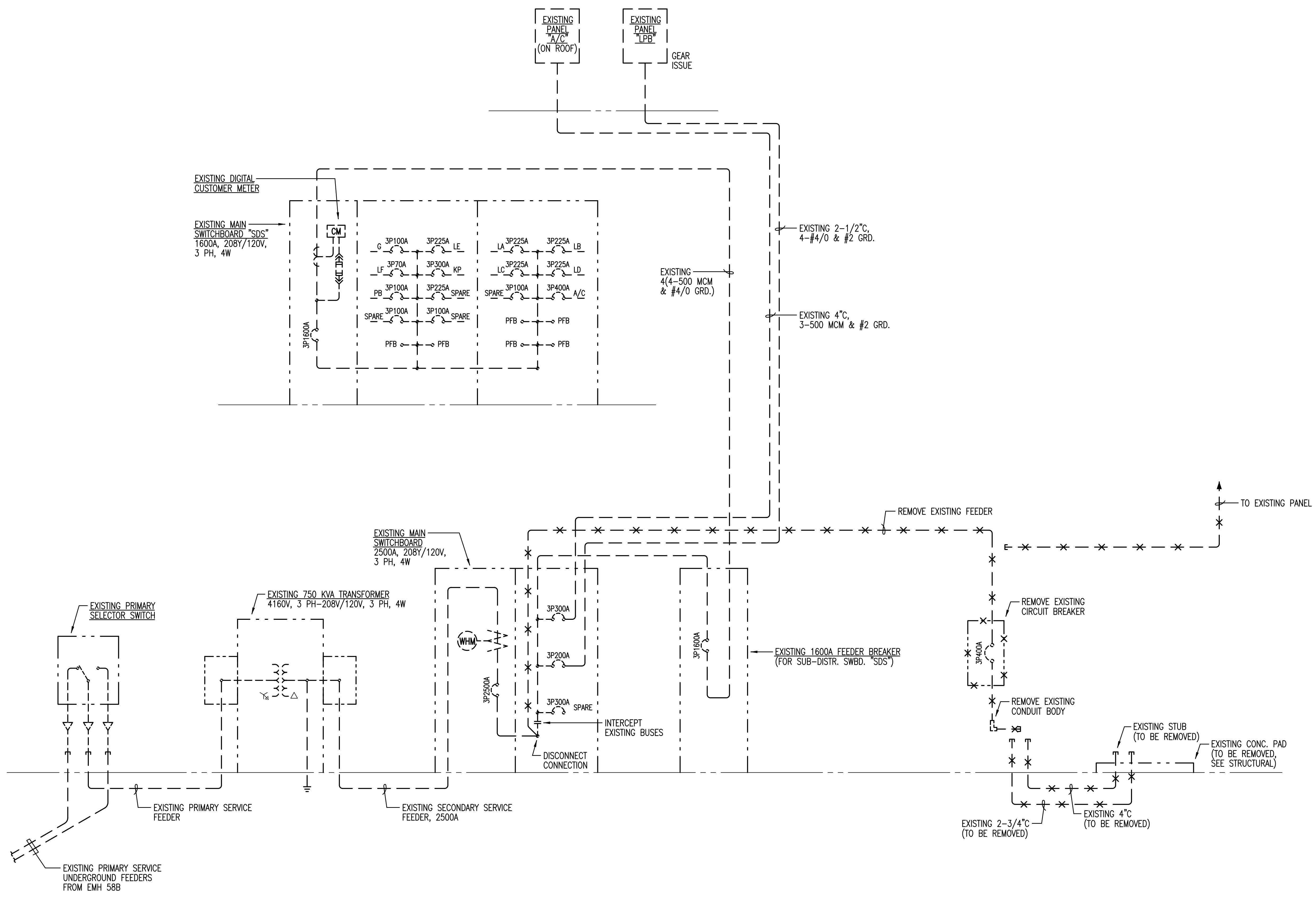
1 2 3 4 5

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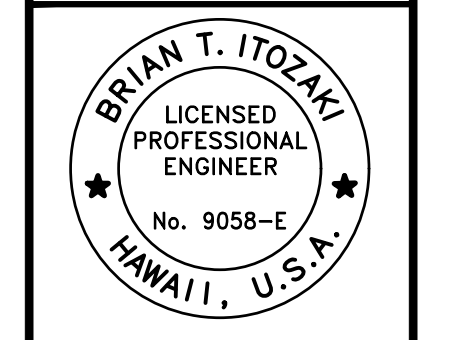


A1 BLDG. 19 - EXISTING ONE LINE DIAGRAM (REMOVAL WORK)
NOT TO SCALE

- NOTES:**
- DASHED LINES (---) INDICATE EXISTING CONDITION.
 - DASHED LINES W/X'S (***) INDICATE REMOVAL WORK.



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04/29/2024
Expiration Date
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SYMBOL	DESCRIPTION	DATE	APPROVE

SUBMITTAL PHASE: 05/30/24

DES	SM	DRW	KN	CHK	SM

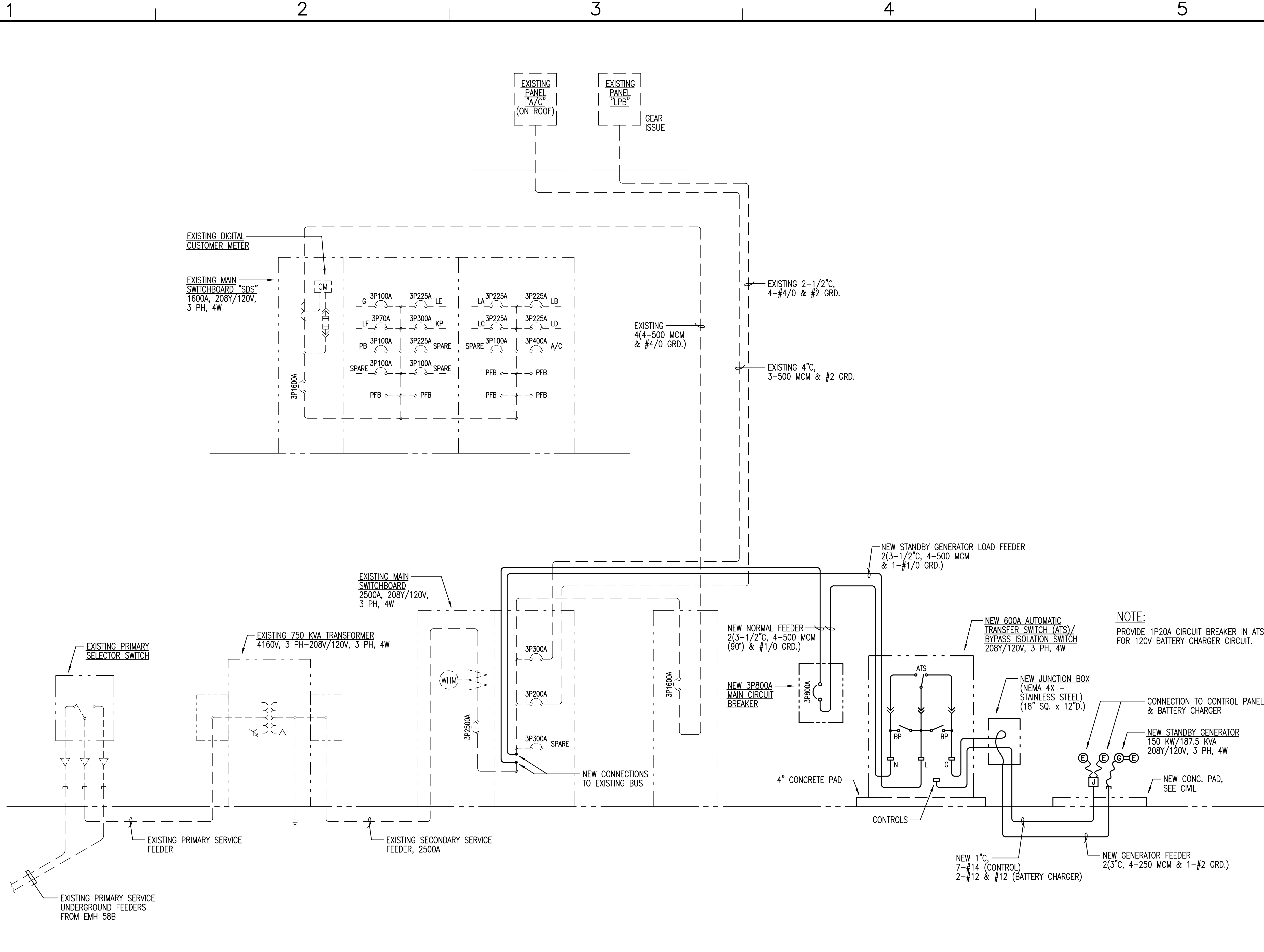
DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU
HAWAII ARMY NATIONAL GUARD
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDG. 19 - EXISTING ONE LINE DIAGRAM (REMOVAL WORK)

SCALE: AS NOTED

STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 23 OF 31

E301

1 2 3 4 5

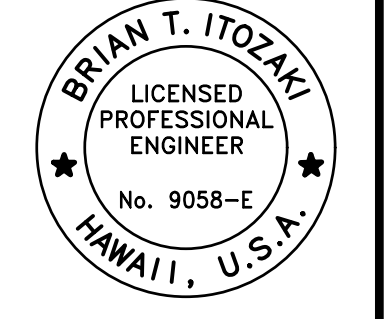


A1 BLDG. 19 - NEW ONE LINE DIAGRAM
NOT TO SCALE

- NOTES:**
1. DASHED LINES (- - -) INDICATE EXISTING CONDITION.
 2. SOLID LINES (—) AND DOTTED LINES (···) INDICATE NEW WORK.



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Brian Itozaki
Signature
8/4/2024
Expiration Date
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

DATE	DESCRIPTION

DES	SM	DRW	KN	CHK	SM
-----	----	-----	----	-----	----

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU
HAWAII ARMY NATIONAL GUARD
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDG. 19 - NEW ONE LINE DIAGRAM

SCALE: AS NOTED
STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 24 OF 31
E302

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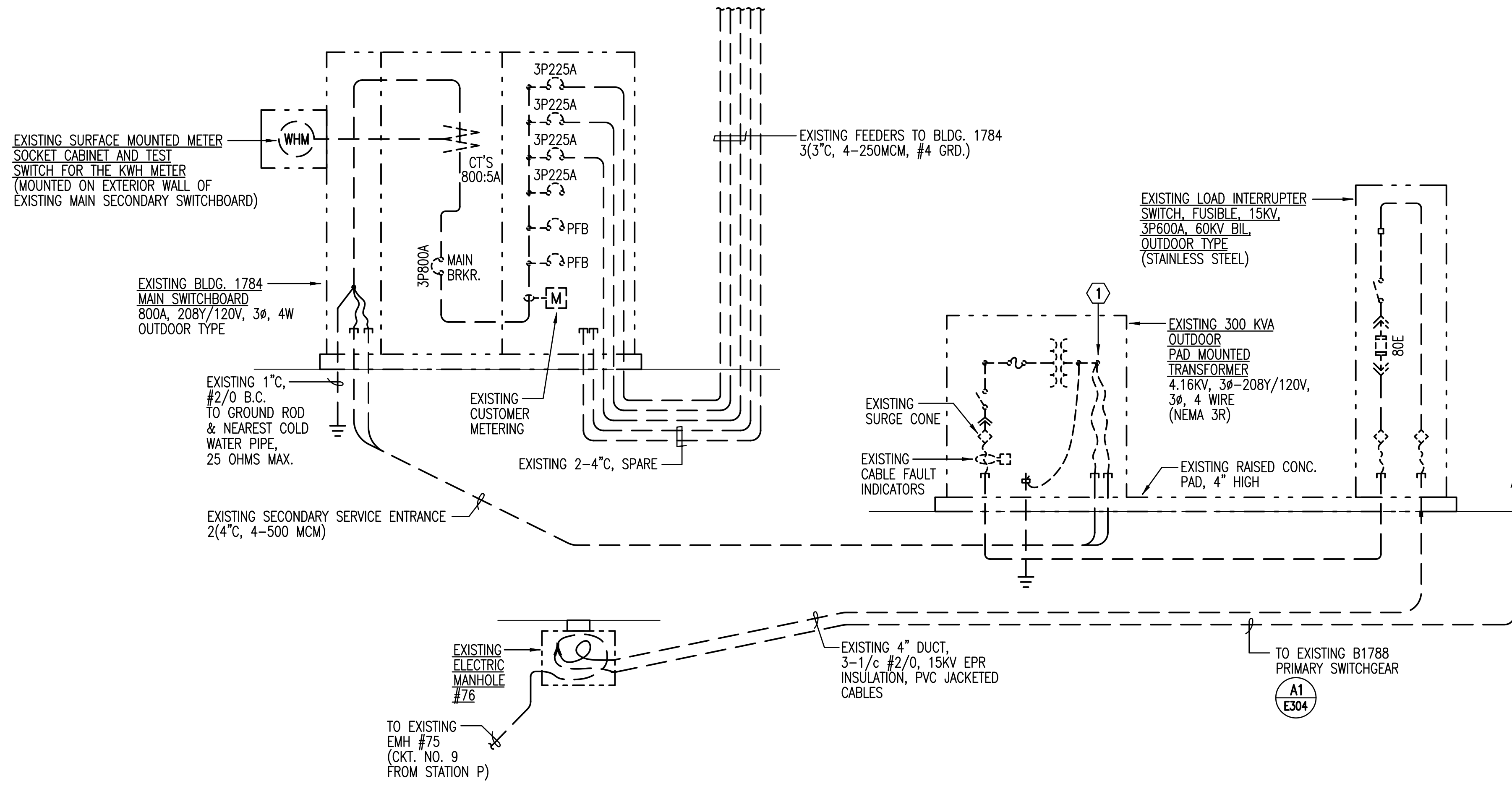
5

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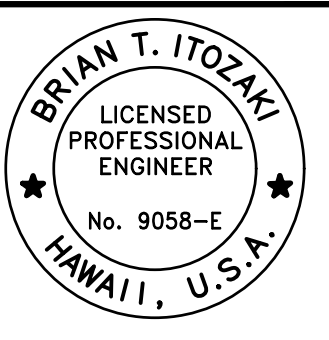
B1 BLDG. 1784 - EXISTING ONE LINE DIAGRAM (REMOVAL WORK)
NOT TO SCALE

ELECTRICAL NOTES: EXISTING/REMOVAL WORK

- ① DISCONNECT EXISTING SECONDARY SERVICE CABLES.



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Signature
04/20/2024
Expiration Date
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DATE	DESCRIPTION

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU

STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS.
**KALAELOA MAUKA BUILDINGS
STAND-BY EMERGENCY GENERATOR INSTALLATIONS**
BLDG. 1784 - EXISTING ONE LINE DIAGRAM (REMOVAL WORK)

SCALE: AS NOTED
STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 25 OF 31

E303

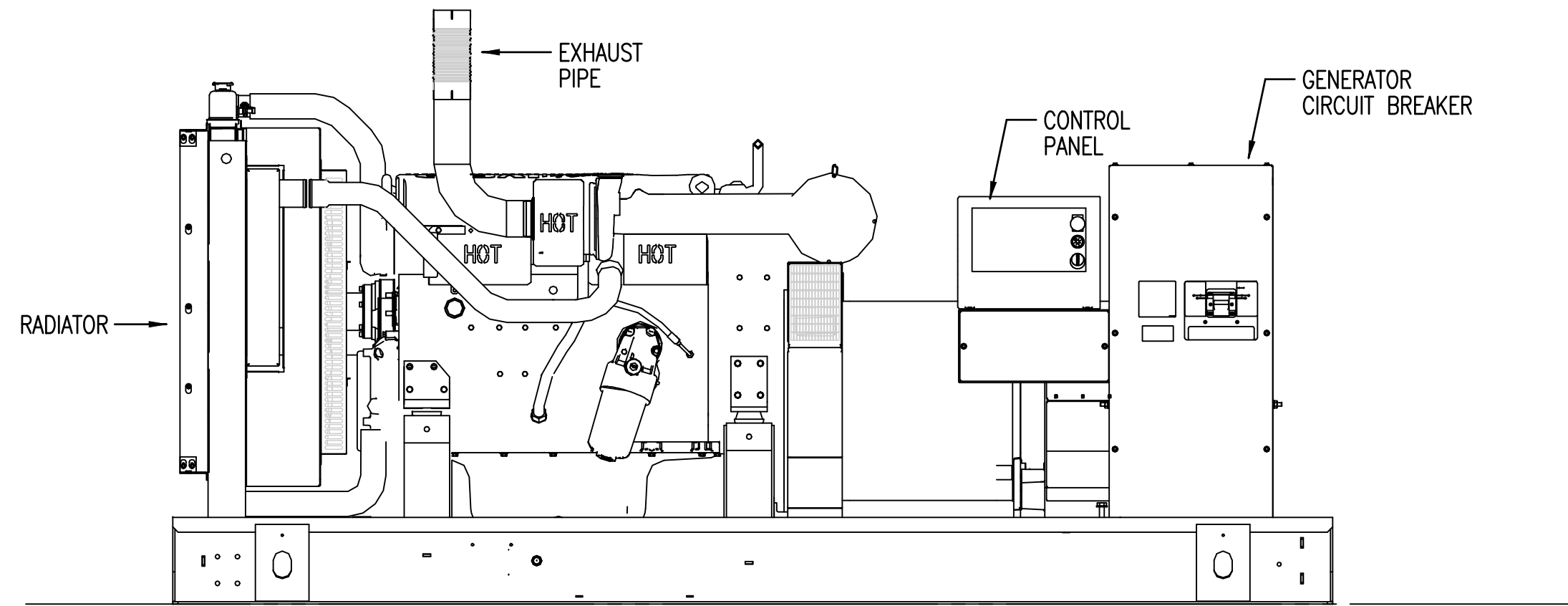
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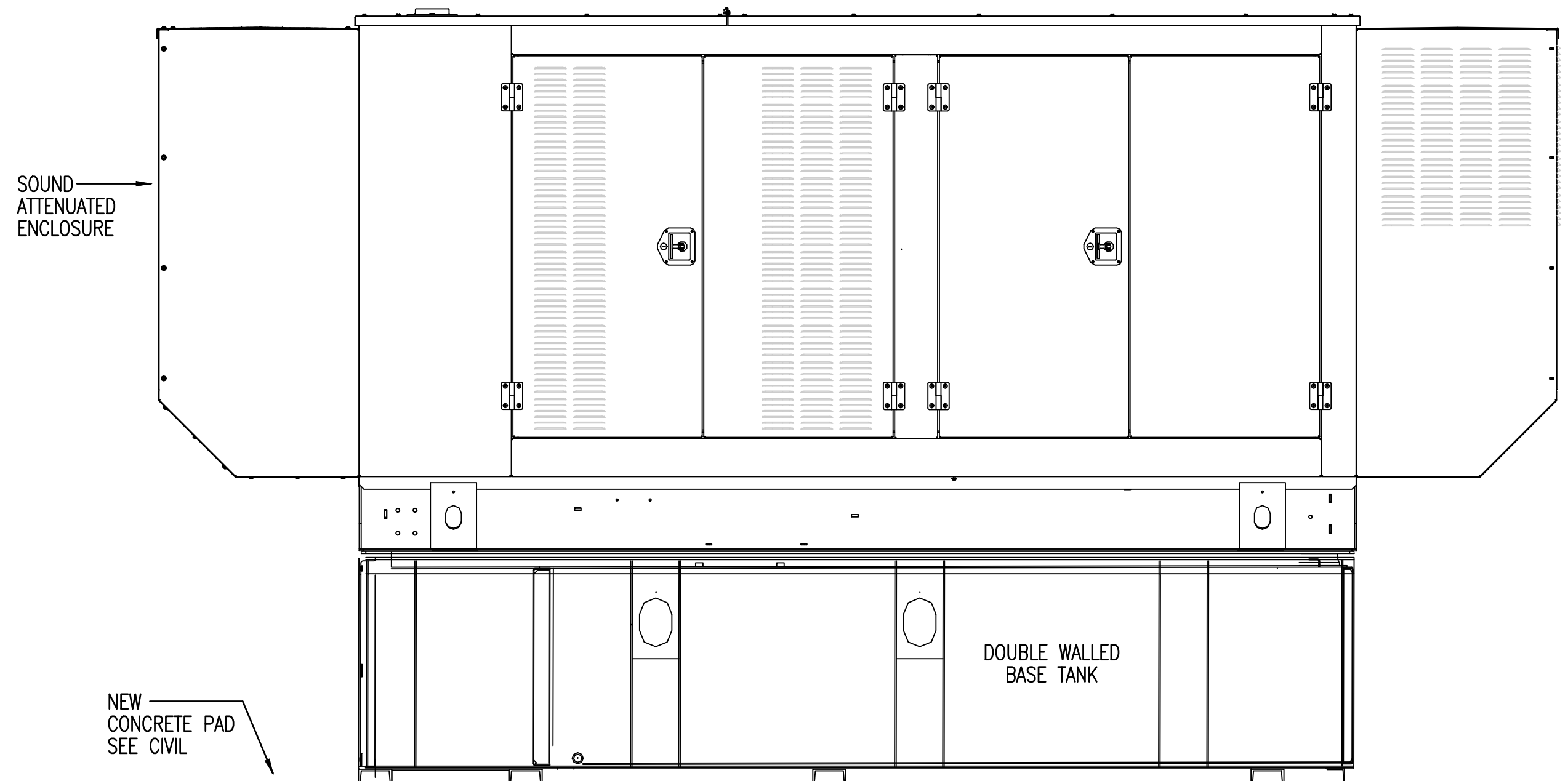
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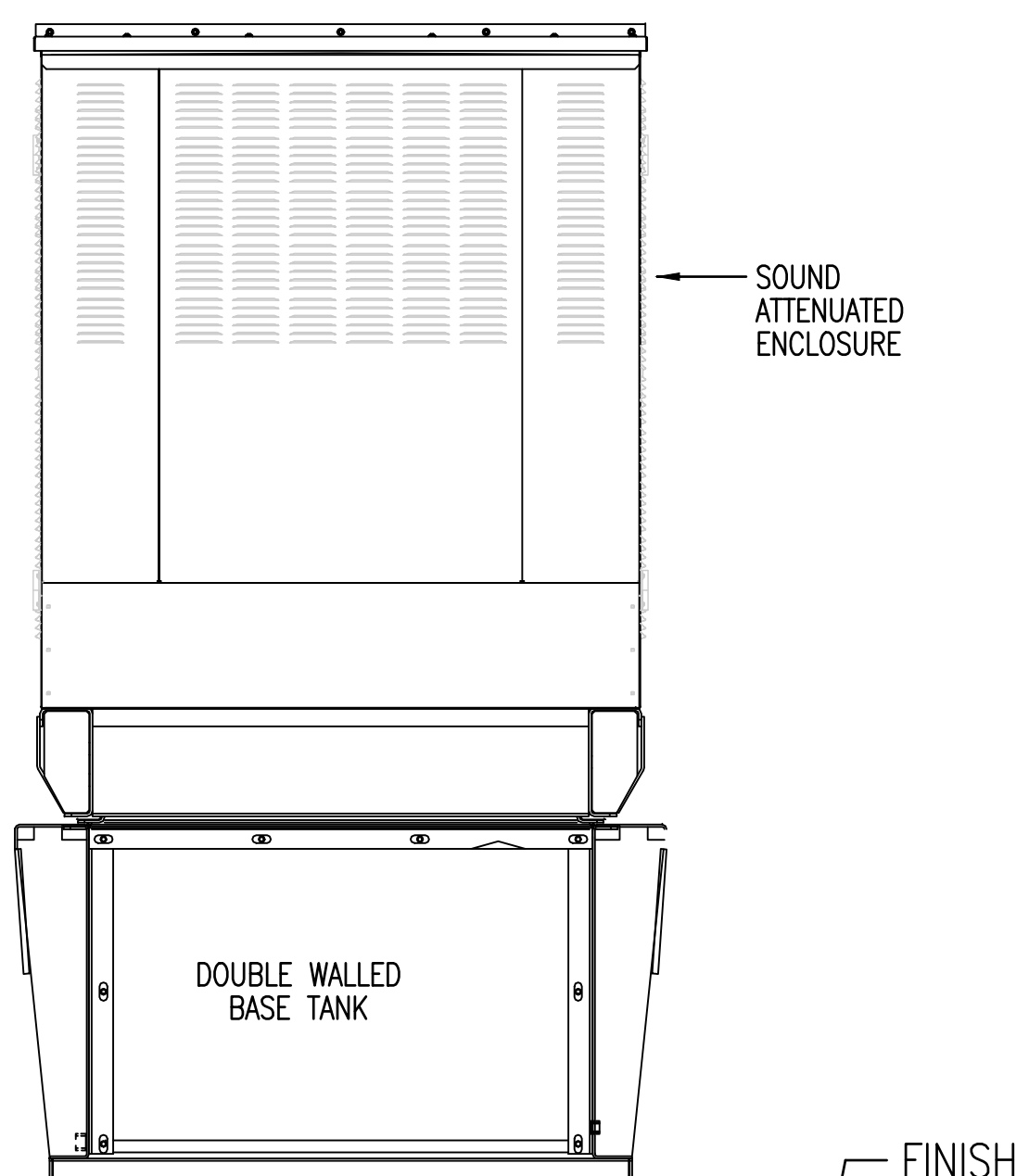
5



C1 ELEVATION - GENERATOR ONLY (NO BASE TANK & ENCLOSURE SHOWN)
NOT TO SCALE



SIDE ELEVATION

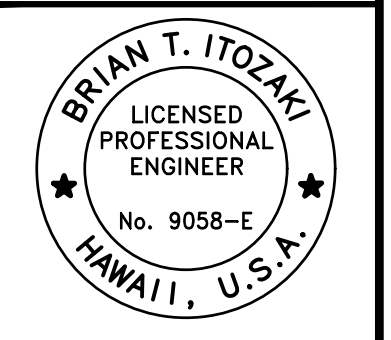


FRONT ELEVATION

A1 ELEVATION - BASE TANK AND SOUND ATTENUATED ENCLOSURE
NOT TO SCALE



BOWERS • KUBOTA CONSULTING
Project Management • Planning • Architecture/Engineering Design • Construction Management



Brian T. Itozaki
Signature
04/30/2024
Expiration Date
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

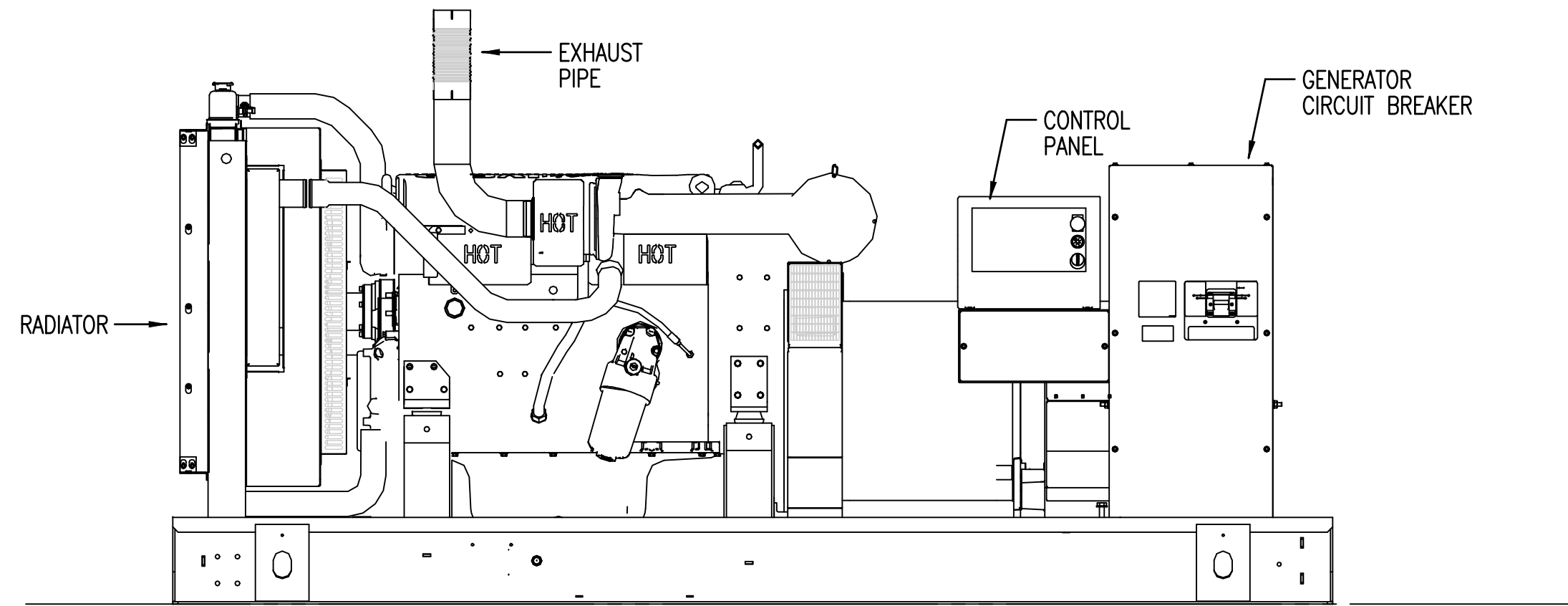
SYN	DESCRIPTION	DATE	APPR

SUBMITTAL DATE: 05/30/24			
DES	SM	DRW	CHK

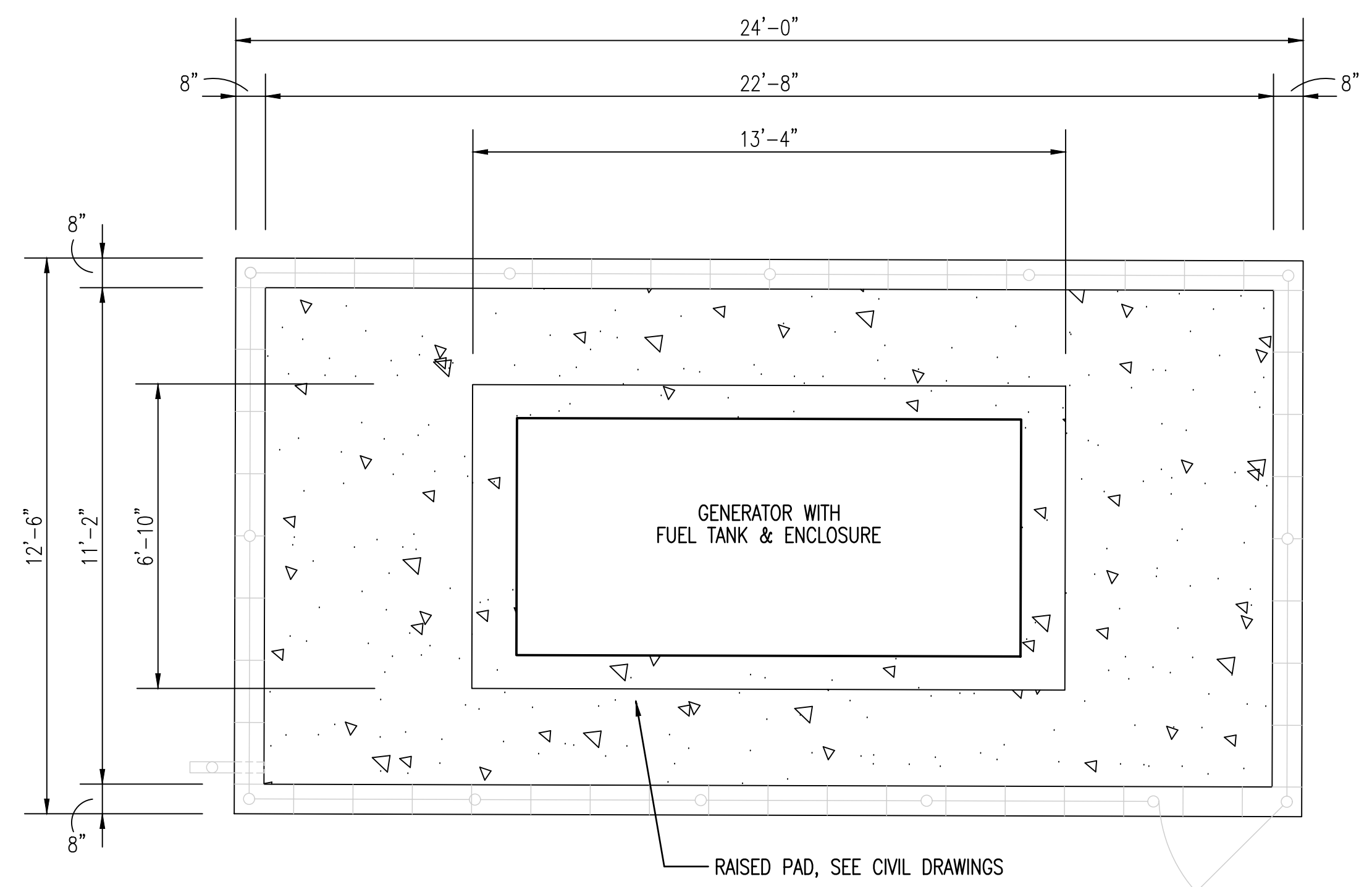
STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDG. 19 - GENERATOR DETAILS

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU

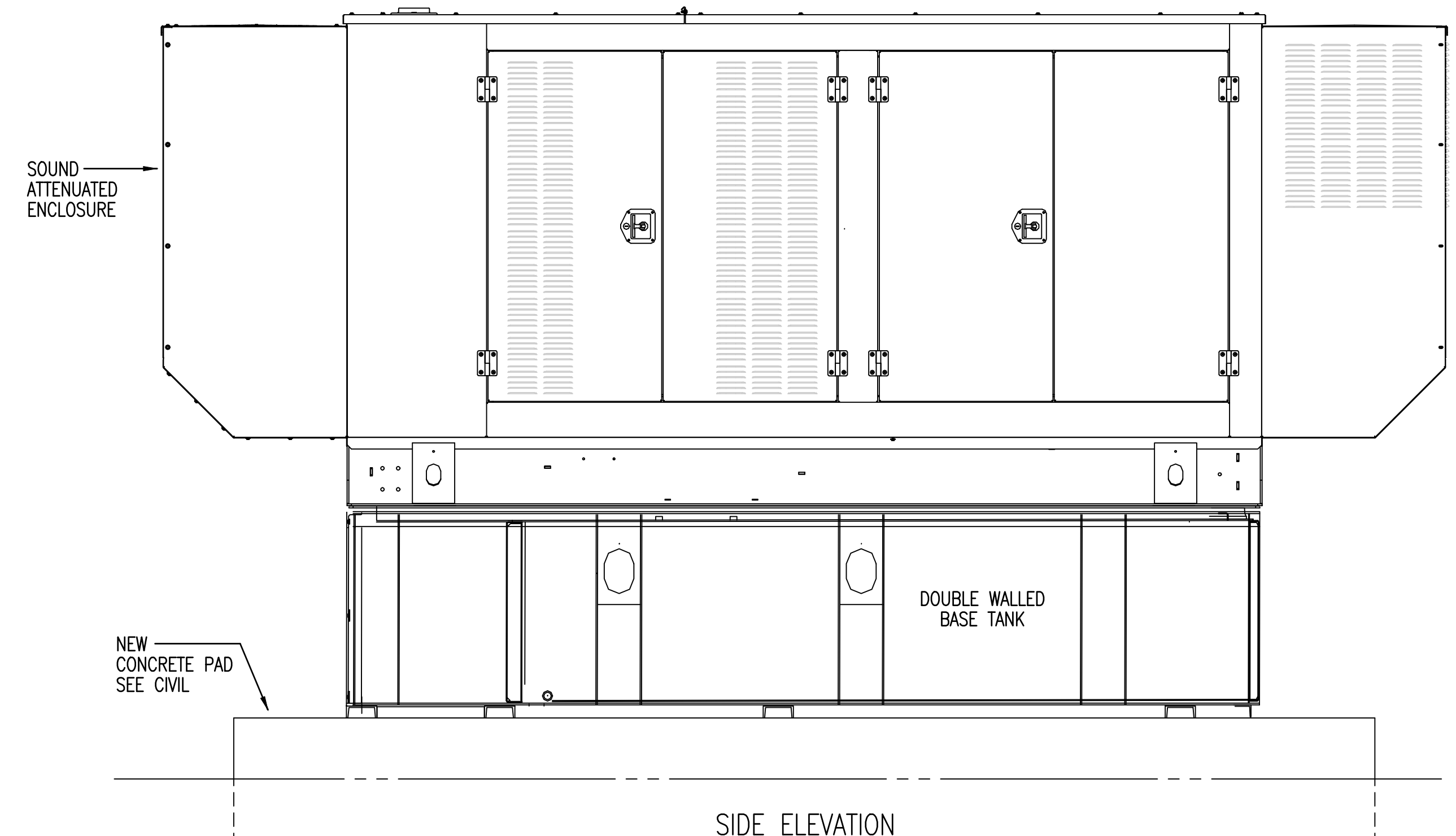
SCALE: AS NOTED
STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 29 OF 31
E401



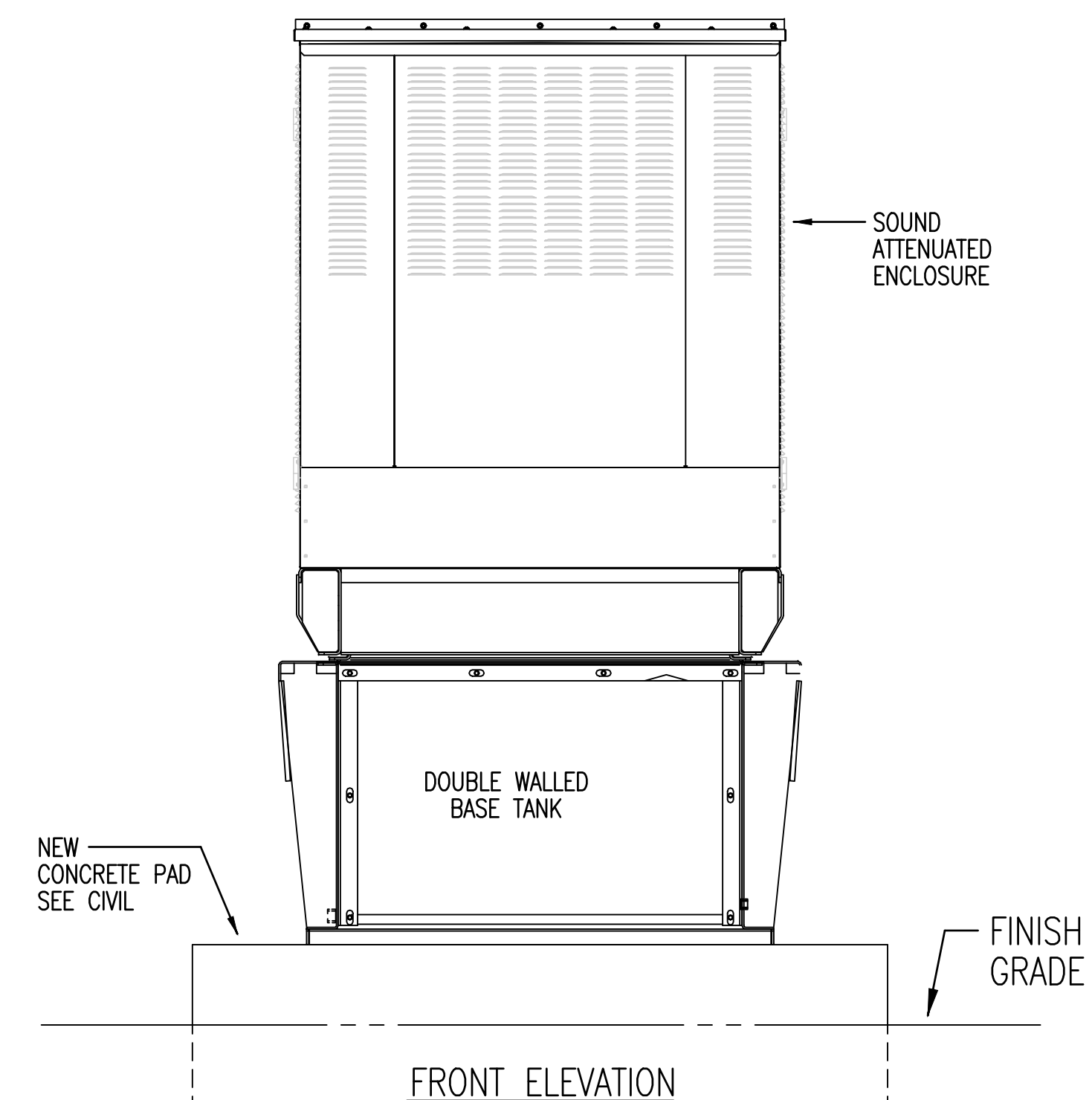
C1 ELEVATION - GENERATOR ONLY (NO BASE TANK & ENCLOSURE SHOWN)
NOT TO SCALE



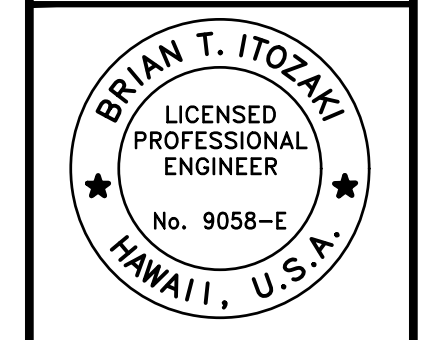
C3 PLAN - GENERATOR & ENCLOSURE WITH CONCRETE PAD
NOT TO SCALE



A1 ELEVATION - BASE TANK AND SOUND ATTENUATED ENCLOSURE
NOT TO SCALE



BK BOWERS • KUBOTA CONSULTING
Project Management • Planning • Architecture/Engineering Design • Construction Management



Brian T. Itozaki
Signature
04/30/2024
Expiration Date
of the License
MY SUPERVISION AND CONSTRUCTION OF
THIS PROJECT WILL BE UNDER MY
OBSERVATION.

SYN	DESCRIPTION	DATE	APPR

DES	SM	DRW	KN	CHK	SM

DEPARTMENT OF DEFENSE
DESIGN AND PROJECT MANAGEMENT BRANCH
KAPOLEI, OAHU
HAWAII ARMY NATIONAL GUARD
STATE OF HAWAII
FACILITY MANAGEMENT OFFICE
KALAELOA MAUKA BLDGS.
KALAELOA MAUKA BLDGS.
STAND-BY EMERGENCY GENERATOR INSTALLATIONS
BLDGS. 1785, 1786, 1788 & 1787 - GENERATOR DETAILS

SCALE: AS NOTED
STATE JOB NO. KALAELOA MAUKA BLDGS. CA-202004-C4
FEDERAL PROJECT NO. 15180043 & 15180046
SHEET 31 OF 31
E403