

GENERAL NOTES

SCALE: N.T.S.

GENERAL NOTES

- 1. SURVEY PROVIDED BY MARTINEZ COUCH & ASSOCIATES, LLC. 1084 CROMWELL AVENUE, SUITE A-2 ROCKY HILL, CT 06067
2. ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND WERE OBTAINED UTILIZING RTK GPS METHODS, OBSERVATIONS MADE ON 05/20/2020.
3. THE GEOTECHNICAL ENGINEERING REPORT, PREPARED BY: CDM SMITH, 1515 POYDRAS STREET, SUITE 1000, NEW ORLEANS, LOUISIANA 70112, DATED MAY 19, 2021 IS PROVIDED AS A SEPARATE DOCUMENT.
4. REMOVE/DISPOSE OF ANY UNSUITABLE MATERIAL FROM OPERATION, FURNISH AND COMPACT REPLACEMENT BACKFILL MATERIAL AS SPECIFIED AND IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
5. OBTAIN ALL NECESSARY PERMITS AND INSURANCE REQUIRED FOR THE PROJECT.
6. FIELD VERIFY THE LOCATIONS AND ELEVATIONS SHOWN PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. EXISTING VEGETATION, TREES, OR OTHER IMPROVEMENTS ARE NOT SHOWN IN ALL INSTANCES AND WHAT IS SHOWN MAY HAVE CHANGED SINCE DRAWING PREPARATION. VISIT THE SITE AND ACCESS ALL ASPECTS OF THE WORK THAT AFFECT BIDS PRIOR TO SUBMISSION.
8. COORDINATE ALL CONSTRUCTION WITH OTHER CONSTRUCTION.
9. PROVIDE AND MAINTAIN EROSION CONTROLS DURING AND FOLLOWING CONSTRUCTION UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED TO AVOID ADVERSE ENVIRONMENTAL IMPACTS TO OFF-SITE PROPERTY AND DRAINAGE SYSTEMS, AS DEFINED BY STORMWATER GENERAL PERMIT.
10. INSTALL ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
11. NOTIFY LOUISIANA ONE CALL AND THE CONTRACTING OFFICER A MINIMUM OF 48 HOURS, PRIOR TO INITIATING ANY EXCAVATION ACTIVITIES, OR AS SPECIFIED BY THE UTILITIES COMPANIES AND THE PERMITS OBTAINED FOR THE WORK.
12. GIVE THE CONTRACTING OFFICER TWENTY FOUR (24) HOURS NOTICE OF ALL MEETINGS AND/OR TESTING MEASURES RELATED TO PROJECT.
13. MOUNT AND ERECT CONSTRUCTION WARNING SIGNS BEFORE CONSTRUCTION COMMENCES. FOLLOW THE STANDARDS SET FORTH BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND LOUISIANA DEPARTMENT OF TRANSPORTATION STANDARDS.
14. CLEARLY IDENTIFY THE AREA OF CONSTRUCTION AND SAFELY ROUTE ALL VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE CONSTRUCTION AREA. CLEARLY MARK THE CONSTRUCTION AREA FOR DURATION OF CONSTRUCTION.
15. IF ENCOUNTERED, COMPLETE WORK ON OR TO ASBESTOS CONCRETE (AC) PIPE IN ACCORDANCE WITH ALL STATE AND FEDERAL REGULATIONS. FILL ALL AC PIPE TO BE TAKEN OUT OF SERVICE WITH GROUT OR FLOWABLE FILL AND ABANDON IN PLACE.
16. VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. SPACE FENCE POSTS AS NEEDED TO AVOID UNDERGROUND UTILITIES. SOFT DIG OR HAND DIG IN AREAS WITH CONGESTED UTILITY CORRIDORS. SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE RELOCATION, IMMEDIATELY NOTIFY THE RESPONSIBLE UTILITY COMPANY AND THE CONTRACTING OFFICER.
17. PROTECT EXISTING UTILITIES, SURVEY MARKERS, MONUMENTS, ETC. DURING CONSTRUCTION. RESTORE/REPLACE ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES.
18. GOVERNMENT WILL RELOCATE DUMPSTERS AS NEEDED FOR CONSTRUCTION. IDENTIFY DUMPSTERS TO BE MOVED AND NOTIFY GOVERNMENT WITH MINIMUM OF 14 DAYS NOTICE.

DEMOLITION NOTES

- COMPLY WITH ALL CODES REGULATING DEMOLITION WORK. PUT UP BARRIERS AND WARNING LIGHTS, AS MAY BE NECESSARY OR REQUIRED BY CODE, TO PROTECT AND PREVENT UNAUTHORIZED PERSONNEL FROM ENTERING THE DEMOLITION WORK AREA. ALL DEMOLITION OPERATIONS MUST COMPLY WITH THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) INSOFAR AS THEY APPLY TO DEMOLITION WORK TO BE PERFORMED UNDER THIS CONTRACT.
1. ALL THE EXISTING FACILITIES TO REMAIN IN SERVICE AND MUST BE ACCESSIBLE FOR DURATION OF CONSTRUCTION.
2. INSTALL TEMPORARY PROTECTIVE DEVICES ADJACENT TO THE DEMOLITION WORK, AS REQUIRED FOR PROTECTION OF PERSONNEL, EXISTING ADJACENT BUILDINGS, STRUCTURES AND EQUIPMENT AGAINST DUST AND/OR FALLING OR FLYING DEBRIS. ANY DAMAGE TO EXISTING STRUCTURES, FACILITIES AND/OR EQUIPMENT RESULTING FROM DEMOLITION WORK REPAIR AT NO COST TO THE GOVERNMENT.
3. HAUL AWAY AND DISPOSE OF ALL DEBRIS, STUMPS AND MATERIALS GENERATED BY PROJECT DEMOLITION AND OBTAIN DISPOSAL AREAS. TAKE EVERY PRECAUTION TO PREVENT SPILLAGE OF MATERIALS BEING HAULED. IMMEDIATELY CLEAN UP ANY SPILLAGE WHICH OCCURS.
4. MAINTAIN NEATNESS OF THE SITE AND IMPLEMENT GOOD HOUSEKEEPING MEASURES. TOOLS, SCAFFOLDING AND OTHER DEMOLITION EQUIPMENT MUST BE KEPT IN A NEAT AND ORDERLY ARRANGEMENT. AT THE CONCLUSION OF THE DEMOLITION OPERATIONS, THE ENTIRE WORK AREA MUST BE LEFT IN AS CLEAN A CONDITION AS REQUIRED FOR SUBSEQUENT WORK OR USE.
5. FOR AREAS OF THE BASE WITH LARGE AMOUNTS OF UNDERGROUND UTILITIES, THE CONTRACTOR MUST UTILIZE METHODS DURING TRENCHING AND FENCE POST DIGGING OPERATIONS TO "SOFT" LOCATE UTILITIES.
6. SCHEDULE CLEARING AND GRADING WORK FOR CLEAR ZONES AND UTILITY TRENCHING SUCH THAT THERE IS NOT MORE THAN 5 DAYS BETWEEN GROUND DISTURBANCE AND SEEDING. IF THIS CRITERIA IS NOT MET, PROVIDE SILT FENCING AT THE LIMITS OF DISTURBANCE.

GRADING NOTES

- 1. GROUND SURFACE PREPARATION: REMOVE VEGETATION INCLUDING GRASS, ROOTS AND SURFACE ORGANICS, DEBRIS, UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACEMENT OF FILLS. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE.
2. REMOVE AND BACKFILL WITH PUMPED RIVER SAND, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY. DO NOT PLACE BACKFILL OR FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN OR CONTAIN FROST OR ICE.
3. MOISTURE CONTROL: WHERE SUB-GRADE OR LAYER OF SOIL MATERIAL MUST BE MOISTURE CONDITIONED BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUB-GRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY OR RELATIVE DRY DENSITY FOR EACH AREA CLASSIFICATION.
4. SPREAD SOIL MATERIAL THAT HAS BEEN REMOVED BECAUSE IT IS TOO WET TO PERMIT COMPACTION. ASSIST DRYING BY DISCING, HARROWING OR PULVERIZING UNTIL MOISTURE CONTENT IS REDUCED TO A SATISFACTORY VALUE.
5. PLACE BACKFILL AND FILL MATERIAL IN LAYERS NOT MORE THAN 12 INCHES OF LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND NOT MORE THAN 6 INCHES OF LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS.
6. COMPACT SUB-GRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. ALL AREAS UNDER PROPOSED PAVEMENTS, STRUCTURES AND BUILDINGS MUST BE COMPACTED TO A MINIMUM OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OR AS OTHERWISE STATED IN THE SPECIFICATIONS.
7. QUALITY CONTROL TESTING DURING CONSTRUCTION: ALLOW GEOTECHNICAL ENGINEER TO INSPECT AND APPROVE EACH SUB-GRADE AND BACKFILL OR FILL LAYER BEFORE FURTHER BACKFILL OR CONSTRUCTION WORK IS PERFORMED. PERFORM TESTING AT THE FREQUENCY SPECIFIED IN SECTION 31 00 00, BUT IN NO CASE SHALL BE LESS THAN 1 TEST PER LIFT.

EROSION CONTROL NOTES

- 1. STABILIZE SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IF NECESSARY, INSTALL TEMPORARY SLOPE DRAINS AND/OR BERMS UNTIL THE SLOPE IS BROUGHT TO GRADE.
2. INITIATE STABILIZATION MEASURES AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
2.1. WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
2.2. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. INSPECT ALL SEDIMENT AND EROSION CONTROL DEVICES EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER. IF SITE INSPECTIONS IDENTIFY BMPs THAT ARE DAMAGED OR ARE NOT OPERATING EFFECTIVELY, PERFORM MAINTENANCE AS SOON AS PRACTICAL OR AS REASONABLY POSSIBLE AND BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. CLEAN, GRADE, AND STABILIZE ALL DISTURBED AREAS WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY. IF WATER IS ENCOUNTERED WHILE TRENCHING, FILTER THE WATER TO REMOVE ANY SEDIMENTS BEFORE PUMPING BACK INTO ANY WATERS OF THE STATE.
5. PROPERLY MAINTAIN ALL EROSION CONTROL DEVICES DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. REMOVE ALL TEMPORARY CONTROL DEVICES ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
6. TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. REMOVE MUD/SOIL FROM PAVEMENT DAILY.
7. PROVIDE TEMPORARY DIVERSION BERMS AND/OR DITCHES AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
8. FLAG OR OTHERWISE CLEARLY MARK IN THE FIELD ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS. INSTALL A DOUBLE ROW OF SILT FENCE IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. MAINTAIN A 10-FOOT BUFFER BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
9. PREVENT LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
10. RETAIN A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
11. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
12. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
13. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. TREAT WASH WATERS IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPs (SEDIMENT BASIN, FILTER BAG, ETC.).
15. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
15a. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
15b. WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
15c. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
15d. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
16. IF EXISTING BMPs NEED TO BE MODIFIED OR IF ADDITIONAL BMPs ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT LOUISIANA'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPs MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

PHASING NOTES

- 1. CONDUCT PRE-CONSTRUCTION CONFERENCE.
2. STAKE LIMITS OF CONSTRUCTION AND INSTALL TREE BARRICADES.
3. INSTALL AND INSPECT EROSION AND SEDIMENTATION CONTROLS PRIOR TO BEGINNING ANY OTHER DISTURBANCE ACTIVITIES.
4. CONSTRUCT IMPROVEMENTS.
5. REMOVE ALL SEDIMENTS FROM THE STORM WATER SYSTEM AS NEEDED AND FINALIZE STABILITY OF ALL DISTURBED AREAS.
6. PROVIDE AS-BUILT DRAWINGS AND ANY APPLICABLE CERTIFICATIONS A MINIMUM OF TWO WEEKS PRIOR TO REQUESTING FINAL INSPECTION AND CERTIFICATE OF OCCUPANCY.
7. REMOVE ALL SEDIMENTATION CONTROL DEVICES AND TREE PROTECTION BARRIERS AND GIRDLES.

UTILITY NOTES

- 1. ALL MANHOLES, INLETS AND CLEANOUTS SUBJECT TO VEHICULAR LOADING, INCLUDING THOSE AREAS REQUIRING FUTURE MAINTENANCE, MUST HAVE TRAFFIC BEARING RINGS, COVERS, GRATES, ETC.
2. THE EXISTENCE, SIZE AND/OR LOCATION OF UTILITIES ARE NOT GUARANTEED. FIELD VERIFY THE SIZE, MATERIAL, AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
3. IN AREAS WHERE FENCING NEEDS TO BE TEMPORARILY RELOCATED TO ALLOW FOR CONSTRUCTION, FENCING MUST BE REINSTALLED AS SOON AS POSSIBLE AND SITE MUST BE SECURED AT THE END OF EACH DAY.

PAVING AND DRAINAGE NOTES

- 1. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ANY DEVIATION FROM THE APPROVED CONSTRUCTION DOCUMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR ENTITY RESPONSIBLE FOR THE INSTALLATION TO UPDATE/REPLACE ANY DEFICIENT MATERIAL/EQUIPMENT NECESSARY TO BRING THE FINAL PRODUCT TO THE STANDARDS OF THE PERMITTED CONSTRUCTION DOCUMENTS.
2. ESTABLISH AND MAINTAIN ALL CONSTRUCTION LINES AND GRADES.
3. COORDINATE ALL NOTIFICATIONS AND UTILITY LOCATION EFFORTS WITH THE UTILITY OWNERS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
4. SEED AND MULCH OR SOD ALL AREAS DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH THESE CONSTRUCTION PLANS AND PROJECT SPECIFICATIONS.
5. ENSURE THE TRENCH SAFETY SYSTEM IS COMPLIANT WITH EM385-1-1.
6. ENSURE THE LAYDOWN AREA IS RESTORED TO EXISTING OR BETTER CONDITIONS.
7. INSTALL AND MAINTAIN SEDIMENT AND EROSION CONTROL MEASURES DURING CONSTRUCTION.
8. ADHERE TO ALL NOTES PROVIDED IN THESE CONSTRUCTION DRAWINGS.

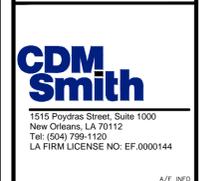
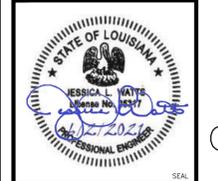
SIGNAGE AND PAVEMENT MARKING NOTES

- 1. ALL SIGNS MUST MEET LOUISIANA DEPARTMENT OF TRANSPORTATION STANDARDS FOR ENGINEERING GRADE SIGN FACES IN REFLECTIVITY.
2. ALL SIGNS MUST BE ON A TEN-FOOT (10') POLE A MINIMUM SEVEN FEET (7') FROM THE GROUND WITH BREAKAWAY INSTALLATION PER L&DOT REQUIREMENTS.
3. ALL SIGNS MUST BE SIZED IN ACCORDANCE WITH MOST RECENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
4. WHERE APPLICABLE, STOP LINES MUST BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE.
5. TYPICAL PARKING STRIPES MUST BE 4 INCHES WIDE AND WHITE.
6. DOUBLE SOLID YELLOW LINES MUST BE 6" WIDE EACH, SEPARATED BY 4".
7. ALL CROSS-WALK MARKINGS MUST BE WHITE.
8. PAVEMENT MARKINGS MUST CONFORM TO THE MOST RECENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND SPECIFICATION SECTION 32 17 23.
9. ALL PARKING STALLS MUST BE 18' DEEP AND MARKED FULL DEPTH.
10. ALL STRIPING MUST BE 18" O.C. AND 45 DEGREES TO DIRECTION OF TRAFFIC.

TREE PROTECTION AND MITIGATION PLAN NOTES

- 1. PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITIES ON-SITE, ERECT TREE PROTECTION BARRICADES AS SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS. UNLESS OTHERWISE NOTED NO ACTIVITY IS ALLOWED WITHIN THE CANOPY PROTECTION ZONE OF ANY PROTECTED TREE. THE AREAS WITHIN THE TREE BARRICADE MUST NOT BE USED FOR THE STORAGE OF CONSTRUCTION MATERIALS OR WASTE OF ANY KIND. IMPLEMENT THE FOLLOWING MEASURES TO ENSURE THE PROTECTION OF ALL TREES NOT PERMITTED FOR REMOVAL:
1.1. PROTECT THE CANOPY PROTECTION ZONE OF EACH PROTECTED TREE DURING CONSTRUCTION ACTIVITIES AND MAINTAIN PROTECTION ZONES DURING AND AFTER DEVELOPMENT IN A NATURAL STATE.
1.2. THERE MUST BE NO IMPERVIOUS AREA OR GRADE CHANGE WITHIN THE CRITICAL PROTECTION ZONE OF THE TREE.
1.3. SKINNING, BARKING, BUMPING AND THE LIKE ARE NOT PERMITTED.
1.4. HAND CLEARING IS REQUIRED WHEN THE REMOVAL OF DEBRIS AND NOXIOUS OR INVASIVE VEGETATION IS REQUIRED.
1.5. CONSTRUCT PROTECTIVE BARRICADES AS SHOWN ON THE CONSTRUCTION DOCUMENTS.
2. IN ADDITION TO CONSTRUCTING THE TREE BARRICADE AS DEPICTED ON SHEET CUS00 IMPLEMENT THE FOLLOWING PROTECTIVE MEASURES WHEN WORK IS REQUIRED TO BE PERFORMED WITHIN THE CANOPY PROTECTION ZONE OF ANY PROTECTED TREE:
2.1. PLACE A PROTECTIVE GIRDLE ENCIROILING THE TRUNK TO A HEIGHT OF 5 FEET. CONSTRUCT THE PROTECTIVE GIRDLE OF 2X4 STUDS SPACED NO MORE THAN 2 INCHES APART AND WIRED VERTICALLY NO MORE THAN 12 INCHES APART. PLACE A LAYER OF BURLAP BETWEEN THE 2X4 PROTECTIVE GIRDLE AND THE TRUNK OF THE TREE. PHYSICAL CONNECTION OF THE PROTECTIVE GIRDLE TO THE TREE VIA NAILS, SCREWS OR OTHER SIMILAR MEASURES WILL NOT BE PERMITTED. TREE BARRICADES MAY BE REMOVED AS NECESSARY TO PERFORM REQUIRED ACTIVITIES DURING THE COURSE OF THIS PROJECT, HOWEVER PROTECTIVE GIRDLES MUST REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.
2.2. WHEN ACTIVITIES ARE REQUIRED TO BE PERFORMED WITHIN THE CANOPY PROTECTION ZONE OF ANY PROTECTED TREE, PROVIDE AT A MINIMUM, IN ADDITION TO THE OPERATOR, 1 PERSON PER VEHICLE OR MACHINERY WORKING WITHIN THE CANOPY PROTECTION ZONE TO ACT SOLELY AS AN OBSERVER TO PREVENT CONTACT BETWEEN MACHINERY AND TREES.
3. CONSULT A CERTIFIED ARBORIST TO IMPLEMENT ROOT PRUNING AS NEEDED TO PROTECT THE ROOT SYSTEMS OF PROTECTED TREES.
4. PROTECT ALL TREES NOT SPECIFICALLY DESIGNATED FOR REMOVAL.

Table with columns: DATE, DESCRIPTION, S/N



APPROVED: [Signature]
FIR COMMANDER NAFAC

Table with columns: Satisfactory to, Date, DES, KSL, Draw, VCS, CHK, JLW, PM/DM, SARAH REED, BRANCH MANAGER, CHIEF, ENO/ARCH, FIRE PROTECTION

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
GENERAL NOTES
SCALE: AS NOTED
PROJECT NO.: 1641213
CONSTR. CONTR. NO. N62470-15-D-4002
NAFAC DRAWING NO. 15160852
SHEET 3 OF 78
GI002
DRAWNFORM REVISION: 23 AUGUST 2020

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SYMBOLS LEGEND

EXISTING	NEW

GRAPHICS LEGEND

EXISTING	NEW

ABBREVIATIONS LEGEND

AC	ASPHALTIC CONCRETE	MH	MANHOLE
ALO	APPROXIMATE LOCATION OF	MIN.	MINIMUM
B/C	BOTTOM OF CURB	MP	MATCH PAVEMENT
BL	BREAKLINE	MUTCD	MANUAL OF UNIFORM
BLDG	BUILDING	NAS	NAVAL CONTROL DEVICES
BP	BASE PROTECTION	NAS	NAVAL AIR STATION
BMP	BEST MANAGEMENT PRACTICES	NTS	NOT TO SCALE
CL	CENTERLINE	OC	ON CENTER
C.B.	CATCH BASIN	OD	OUTSIDE DIAMETER
C.B.S.	CONCRETE BLOCK STRUCTURE	O/H	OVERHEAD
CMP	CORRUGATED METAL PIPE	OWS	OIL/WATER SEPARATOR
CN	CURVE NUMBER	PCC	PORTLAND CEMENT CONCRETE
C.O.	CLEANOUT	PIV	POST INDICATOR VALVE
COMM	COMMUNICATIONS	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
Ø	DIAMETER	R	RADIUS
ECP	ENTRY CONTROL POINT	RD	ROAD DRAIN
EP or E/P	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
EX.	EXISTING	SAN	SANITARY SEWER
FFE	FINISHED FLOOR ELEVATION	SF	SQUARE FEET
F.W.	FIRE WELL	STD.	STANDARD
GALV.	GALVANIZED	TBM	TEMPORARY BENCHMARK
GEN.	GENERATOR	T/C	TOP OF CURB
GND	GROUND	TS	TRANSFER SWITCH
GSE	GROUND SUPPORT EQUIPMENT	TYP.	TYPICAL
GV	GATE VALVE	U/G	UNDERGROUND
HB	HAYBALES	UG	UNDERGROUND
HDD	HORIZONTAL DIRECTIONAL DRILL	UCC	UNDERGROUND
HGL	HYDRAULIC GRADE LINE		COMMUNICATIONS
INV	INVERT	UGE	UNDERGROUND ELECTRIC
JRB	JOINT RESERVE BASE	WWF	WELDED WIRE FABRIC
LDD	LIMITS OF DISTURBANCE	WL	WATER LINE
MAX	MAXIMUM	XFMR	TRANSFORMER
MECH	MECHANICAL EQUIPMENT		
MG	MATCH GRADE		

ANNOTATION SYMBOLS LEGEND

PLAN NORTH

NORTH ARROW

DWG SCALE INDICATOR

DETAIL CALLOUT INDICATOR

DRAWING TITLE INDICATOR

REVISION CLOUD AND NUMBER INDICATOR

LINETYPE LEGEND

EXISTING	NEW

STORM WATER POLLUTION PREVENTION PLAN

GENERAL

THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN, OF WHICH IMPLEMENTATION OF IS THE CONTRACTOR'S RESPONSIBILITY, CONTAINS REFERENCES TO THE DESIGN STANDARDS AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1. CONTROLS

1.A. EROSION AND SEDIMENT CONTROLS:

IN THE EROSION CONTROL PLAN, DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THE CONTRACTOR'S PROPOSED CONSTRUCTION PLAN. THE FOLLOWING RECOMMENDED GUIDELINES ARE BASED ON THE CONSTRUCTION PLANS. WHERE FOLLOWING THE EROSION CONTROL PLAN OUTLINED IN THESE CONSTRUCTION PLANS, THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE EROSION CONTROL PLAN, SUBJECT TO APPROVAL OF THE CONSTRUCTION MANAGER. AS WORK PROGRESSES, MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES. FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING TO THE EXTENT NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

1.A.1 STABILIZATION PRACTICES:

IN THE EROSION CONTROL PLAN, DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 14 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. INCLUDE AT LEAST THE FOLLOWING STABILIZATION PRACTICES, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

TEMPORARY:

- * SEED/MULCH IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.

PERMANENT:

- * CONCRETE OR ASPHALT SURFACE.
- * SEED/MULCH OR SOD IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.

1.A.2 STRUCTURAL PRACTICES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. FURNISH AND INSTALL SEDIMENT CONTROLS IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. INCLUDE AT LEAST THE FOLLOWING STRUCTURAL PRACTICES, UNLESS OTHERWISE APPROVED BY THE CONSTRUCTION MANAGER.

TEMPORARY:

- * SILT FENCE IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.
- * SYNTHETIC BALES IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.

1.B OTHER CONTROLS

1.B.1 WASTE DISPOSAL:

IN THE EROSION CONTROL PLAN, DESCRIBE THE METHODS PROPOSED TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. INCLUDE AT LEAST THE FOLLOWING PROPOSED METHODS, UNLESS OTHERWISE APPROVED BY THE CONTRACT MANAGER:

- * LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION SERVICES.
- * DISPOSAL OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER AND PER APPLICABLE UFC AND NAVFAC SE REQUIREMENTS.
- * DISPOSAL OF SOLID WASTE MATERIALS, INCLUDING BUILDING AND CONSTRUCTION MATERIALS, OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS OR WETLANDS.

1.B.2 OFF-SITE VEHICLE TRACKING AND DUST CONTROL:

IN THE EROSION CONTROL PLAN, DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENT AND THE GENERATION OF DUST. INCLUDE AT LEAST THE FOLLOWING PROPOSED METHODS, UNLESS OTHERWISE APPROVED BY THE CONSTRUCTION MANAGER.

- * COVERING LOADED HAUL TRUCKS.
- * REMOVING EXCESS DIRT FROM ROADS DAILY.
- * STABILIZING CONSTRUCTION ENTRANCES.

1.B.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS:

IN THE EROSION CONTROL PLAN, DESCRIBE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

1.B.4 FERTILIZERS AND PESTICIDES:

IN THE EROSION CONTROL PLAN, PROVIDE A LIST OF TOXIC SUBSTANCES LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

1.B.5 EROSION CONTROL MATERIAL MUST CONFORM TO THE FOLLOWING:

EROSION CONTROL BLANKET:
100 PERCENT AGRICULTURAL STRAW OR 70 PERCENT AGRICULTURAL STRAW/30 PERCENT COCONUT FIBER MATRIX STITCHED WITH A DEGRADABLE NETTING, DESIGNED TO DEGRADE WITHIN 12 TO 18 MONTHS.

EROSION CONTROL FABRIC:
FABRIC MUST BE KNITTED CONSTRUCTION OF POLYPROPYLENE YARN WITH UNIFORM MESH OPENINGS 1/2 TO 1 INCH SQUARE WITH STRIPS OF BIODEGRADABLE PAPER. FILLER PAPER STRIPS MUST HAVE A MINIMUM LIFE OF 6 MONTHS.

EROSION CONTROL NET:
NET MUST BE HEAVY, TWISTED JUTE MESH, WEIGHING APPROXIMATELY 1.22 POUNDS PER LINEAR YARD AND 4 FEET WIDE WITH MESH OPENINGS OF APPROXIMATELY 1 INCH SQUARE.

HYDROPHILIC COLLOIDS:
HYDROPHILIC COLLOIDS MUST BE PHYSIOLOGICALLY HARMLESS TO PLANT AND ANIMAL LIFE WITHOUT PHYTOTOXIC AGENTS. COLLOIDS MUST BE NATURALLY OCCURRING, SILICATE POWDER BASED, AND MUST FORM A WATER INSOLUBLE MEMBRANE AFTER CURING. COLLOIDS MUST RESIST MOLD GROWTH.

EROSION CONTROL MATERIAL ANCHORS:
EROSION CONTROL ANCHORS MUST BE AS RECOMMENDED BY THE MANUFACTURER.

2. MAINTENANCE

IN THE EROSION CONTROL PLAN, PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. AT A MINIMUM, COMPLY WITH THE FOLLOWING MAINTENANCE REQUIREMENTS:

- * SILT FENCE: MAINTAIN REGULARLY. ANTICIPATE REPLACING SILT FENCE ON 12 MONTH INTERVALS - SOONER IF SEDIMENT BUILDUP REACHES HALFWAY UP FENCING OR HIGHER.

3. INSPECTIONS

QUALIFIED PERSONNEL MUST INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY, INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, CONDUCT INSPECTIONS AT LEAST ONCE EVERY MONTH. INSPECT AND CERTIFY THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

- * POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.
- * POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM WATER SYSTEMS.
- * DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- * AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- * STRUCTURAL CONTROLS.
- * LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE CONSTRUCTION MANAGER.

4. NON-STORMWATER DISCHARGE

IN THE CONTRACTOR'S EROSION CONTROL PLAN, IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES.

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES: KSL | DRW: VCS | CHK: JLW

PM/DM: SARAH REED

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST

117 SOUTH AND CENTRAL

NAVAL AIR STATION JRB @ BELLE CHASSE

NEW ORLEANS, LA

DISTRIBUTION SWITCHGEAR ECIP

SYMBOLS, LEGENDS AND ABBREVIATIONS

SCALE: AS NOTED

PROJECT NO.: 1641213

CONSTR. CONTR. NO. N62470-15-D-4002

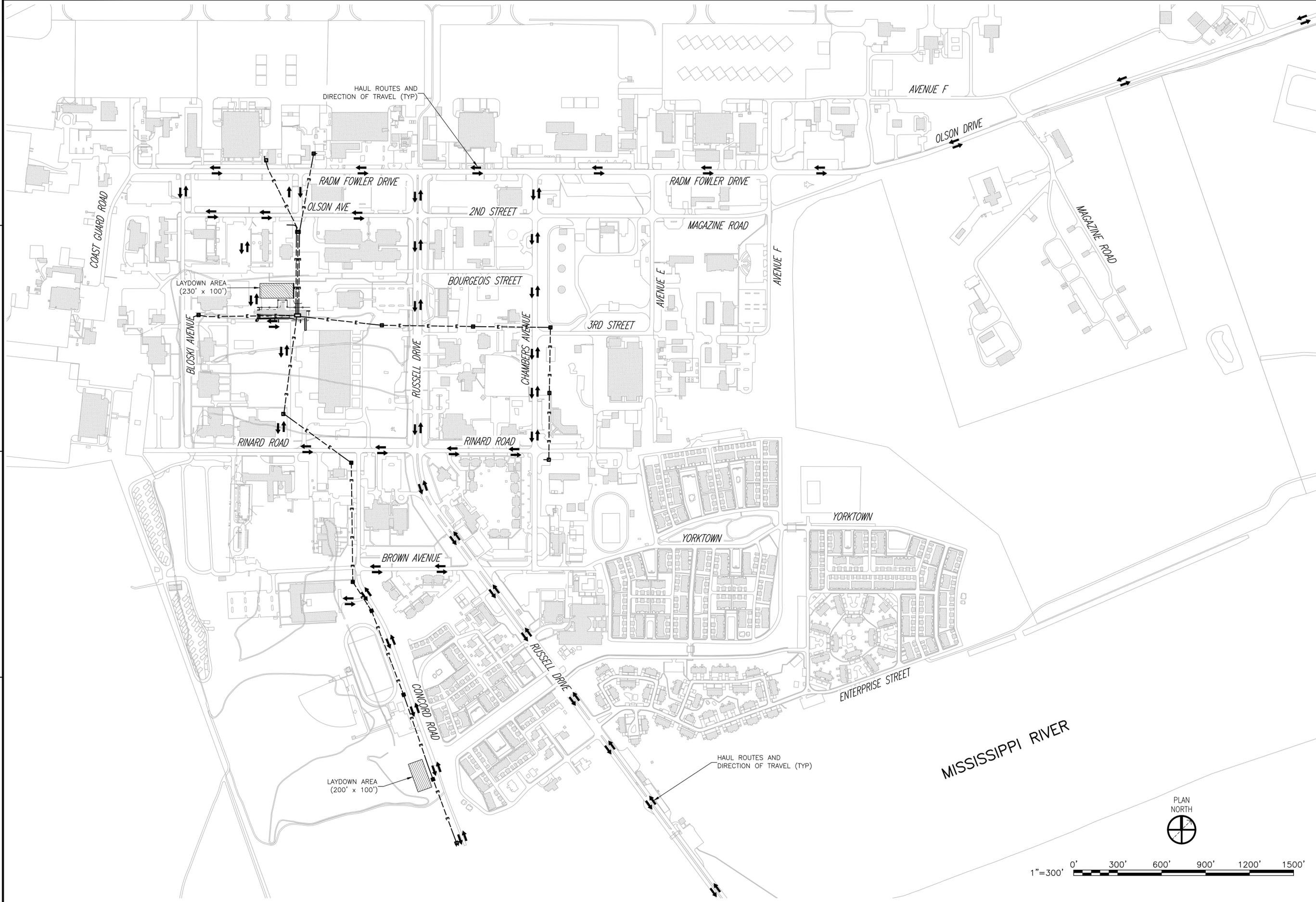
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SHEET 4 OF 76

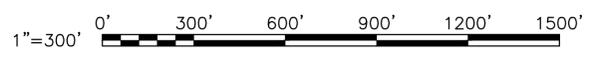
G1003

DRAWFORM REVISION: 23 AUGUST 2020

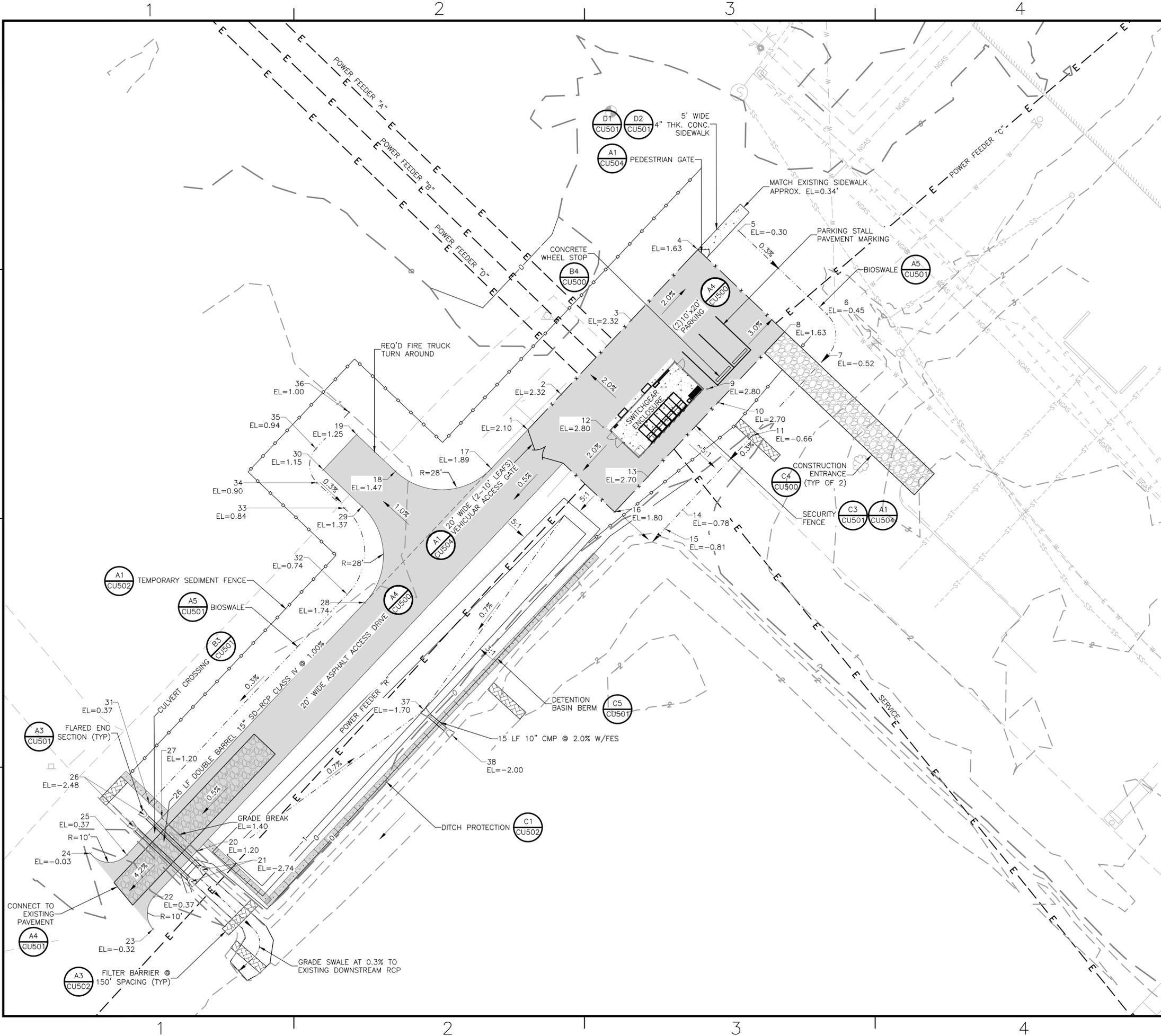
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DATE	APPR
DESCRIPTION	SW
 	
 1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF.0000144	
APPROVED	A/E INFO
FIR COMMANDER NAVFAC ACTIVITY	
SATISFACTORY TO	DATE
DES KSL	DRW VCS
CHK JLW	
PM/DM	SARAH REED
BRANCH MANAGER CHIEF ENG/ARCH FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP OVERALL FEEDER, HAUL ROUTES AND CONTRACTOR LAYDOWN AREAS MAP	
SCALE:	1" = 300'
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160854
SHEET	5 OF 76
G1004 <small>DRAWFORM REVISION: 23 AUGUST 2020</small>	



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GENERAL SHEET NOTES

- SURVEY ALL CONDUIT ROUTES WITH GROUND PENETRATING RADAR (GPR) PRIOR TO EXCAVATION AND/OR DIRECTIONAL BORING. MARK AND POTHOLE ALL EXISTING UTILITIES FOR ALL LOCATIONS CONDUIT PATH CROSSES THE EXISTING UTILITIES.

POINT TABLE

POINT NO	NORTHING	EASTING	DESCRIPTION
1	484233.82	3696433.84	EDGE OF PAVEMENT/FENCE CORNER
2	484248.35	3696447.59	EDGE OF PAVEMENT
3	484278.97	3696476.54	EDGE OF PAVEMENT
4	484308.03	3696504.03	EDGE OF PAVEMENT/FENCE CORNER
5	484315.76	3696520.86	SWALE
6	484281.45	3696557.26	SWALE
7	484264.48	3696557.76	SWALE
8	484274.15	3696539.86	EDGE OF PAVEMENT/FENCE CORNER
9	484250.58	3696507.93	SSMB1 FOUNDATION
10	484245.08	3696512.37	EDGE OF PAVEMENT
11	484231.54	3696526.69	SWALE
12	484234.88	3696464.86	SSMB1 FOUNDATION
13	484214.47	3696483.41	EDGE OF PAVEMENT
14	484200.87	3696497.79	SWALE
15	484193.04	3696490.40	SWALE (MATCH EXISTING)
16	484199.94	3696469.67	EDGE OF PAVEMENT/FENCE CORNER
17	484217.84	3696418.73	EDGE OF PAVEMENT
18	484216.73	3696379.14	EDGE OF PAVEMENT
19	484231.85	3696363.16	EDGE OF PAVEMENT
20	484060.27	3696297.23	EDGE OF PAVEMENT
21	484052.59	3696299.54	(2) FLARED END SECTIONS (INV)
22	484041.47	3696279.46	EDGE OF PAVEMENT
23	484028.18	3696279.07	EDGE OF PAVEMENT (MATCH EXISTING)
24	484059.33	3696253.26	EDGE OF PAVEMENT (MATCH EXISTING)
25	484058.76	3696268.28	EDGE OF PAVEMENT
26	484070.45	3696270.85	(2) FLARED END SECTIONS (INV)
27	484074.01	3696282.70	EDGE OF PAVEMENT
28	484162.62	3696366.51	EDGE OF PAVEMENT
29	484202.20	3696365.40	EDGE OF PAVEMENT
30	484217.32	3696349.42	EDGE OF PAVEMENT
31	484079.94	3696277.53	SWALE
32	484166.02	3696359.22	SWALE
33	484201.54	3696358.11	SWALE
34	484211.95	3696346.91	SWALE
35	484226.02	3696346.34	SWALE
36	484241.03	3696360.05	SWALE
37	484118.43	3696390.95	FLARED END SECTION
38	484108.05	3696402.59	FLARED END SECTION

DATE	DESCRIPTION	BY	APPR

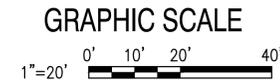
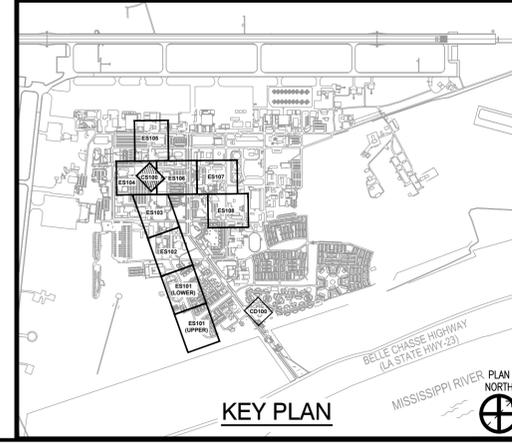


APPROVED: _____
 FOR COMMANDER NAFAC

SATISFACTORY TO DATE: _____
 DES: JRA | DW: VCS | CHK: JLW
 PM/DM: SARAH REED
 BRANCH MANAGER: _____
 CHIEF ENG/ARCH: _____
 FIRE PROTECTION: _____

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 NAVAL AIR STATION JACKSONVILLE, FLORIDA
 NAVAL AIR STATION JRB @ BELLE CHASSE
 NEW ORLEANS, LA

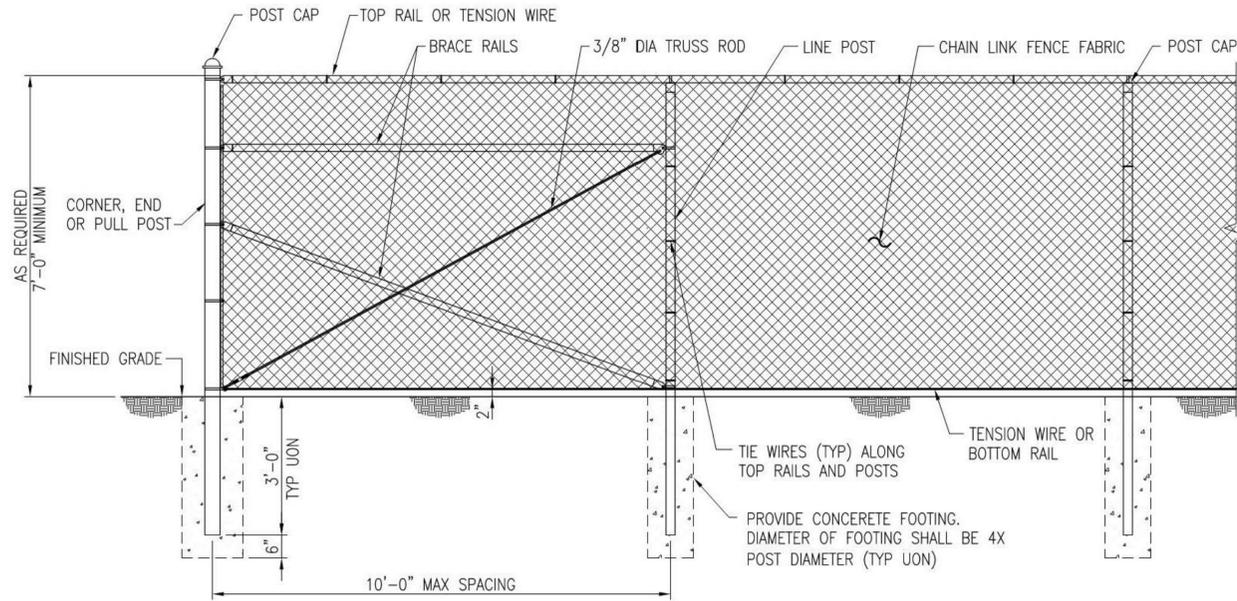
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
 DISTRIBUTION SWITCHGEAR ECIP
 CONTROL HOUSE SITE GRADING PLAN
 SSMB1



SCALE: 1" = 20'
 EPROJCT NO.: 1641213
 CONSTR. CONTR. NO.: N62470-15-D-4002
 NAFAC DRAWING NO.: 15160857
 SHEET 8 OF 76
CS100
DRAWING REVISION: 25 AUGUST 2020

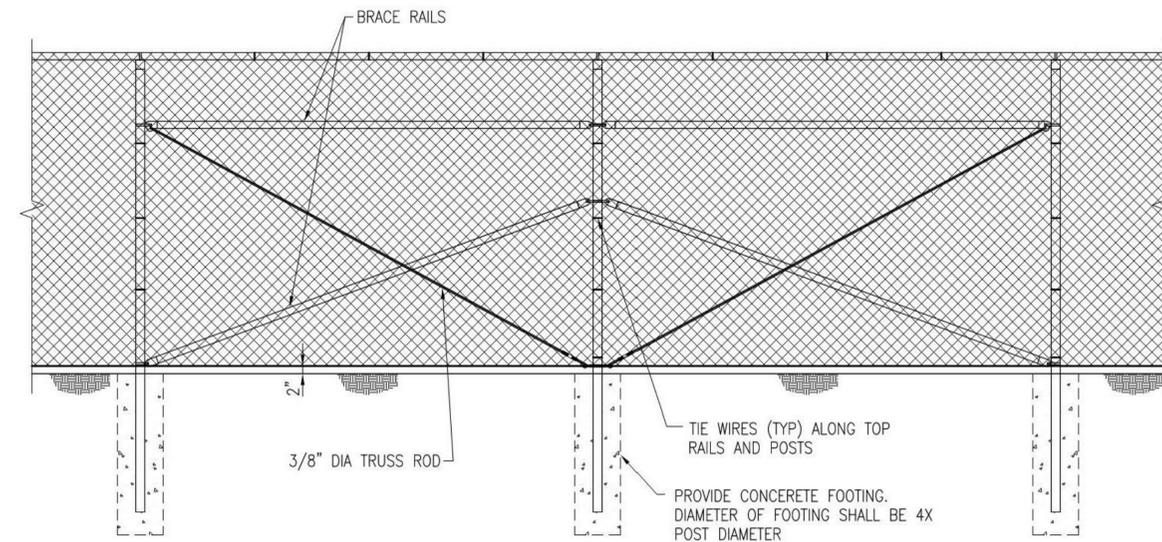
READY TO ADVERTISE

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TYPICAL FENCE AND CORNER PANEL ELEVATION

SCALE: 1" = 1'-0"

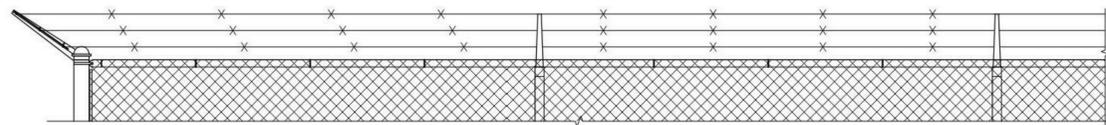


TYPICAL FENCE AND BRACED PANEL ELEVATION

SCALE: 1" = 1'-0"

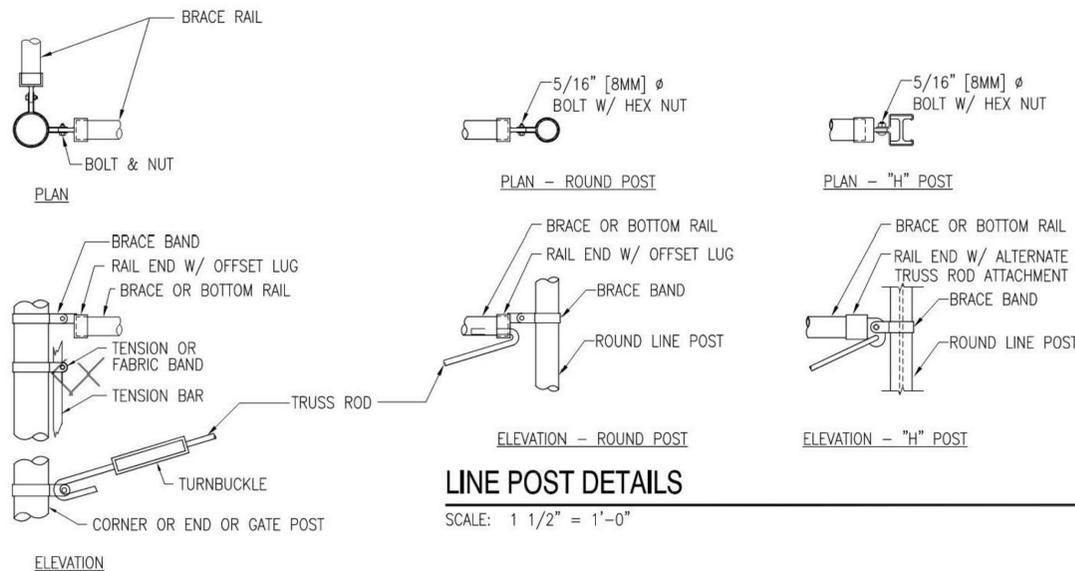
NOTE (1): A BOTTOM RAIL CAN BE ADDED FOR SECURITY, IT SHALL BE INSTALLED APPROX 3" ABOVE GRADE (A MINIMUM OF 2" AND A MAXIMUM OF 4"). HARDWARE SHALL BE WELDED OR SHOT NAILED TO POSTS AND RAILS IN ORDER TO SECURE IN PLACE. ATTACH FABRIC TO NEW BOTTOM RAIL TO ELIMINATE POSSIBILITY OF PEELING UP FABRIC.

NOTE (2): SOME LOCATIONS MAY REQUIRE 8' OF FABRIC.



TYPICAL 3 STRAND BARBED WIRE AND SINGLE EXTENSION ARM CONFIGURATION

SCALE: 1" = 1'-0"

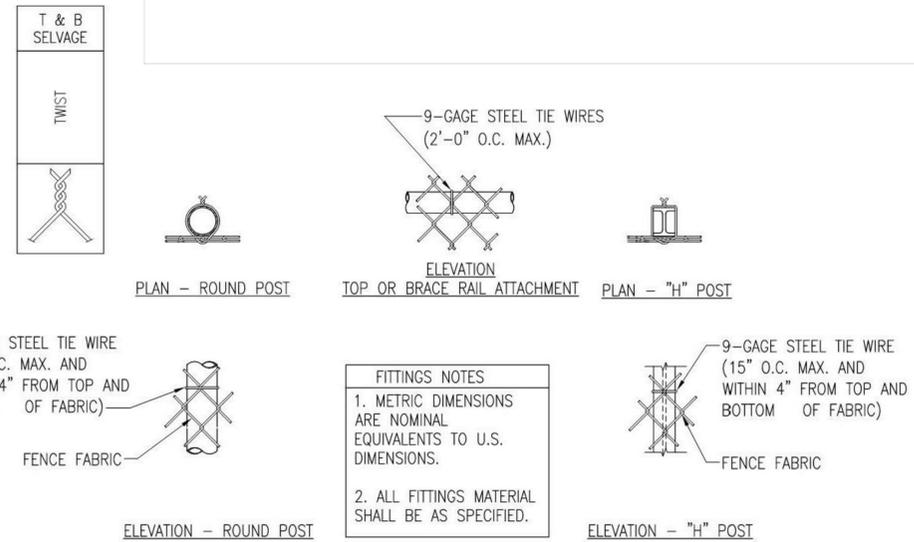


LINE POST DETAILS

SCALE: 1 1/2" = 1'-0"

CORNER OR END POSTS

SCALE: 1 1/2" = 1'-0"



FITTINGS NOTES
 1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
 2. ALL FITTINGS MATERIAL SHALL BE AS SPECIFIED.

DATE	APPR
DESCRIPTION	DATE
DATE	APPR
DATE	APPR
DATE	APPR

CDM Smith
 1515 Poydras Street, Suite 1000
 New Orleans, LA 70112
 Tel: (504) 799-1120
 LA FIRM LICENSE NO: EF-0000144

APPROVED	A/E: INF3
FIR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: JRA	DRW: VCS
CHK: JLW	
PM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 NAVAL AIR STATION JACKSONVILLE, FLORIDA
 UP SOUTH AND CENTRAL
 NAVAL AIR STATION JRB @ BELLE CHASSE
 NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
 UFC 700 CHAIN LINK FENCE AND DETAILS

GRAPHIC SCALES

SCALE: AS NOTED

PROJECT NO.: 1641213

CONSTR. CONTR. NO.: N62470-15-D-4002

NAFAC DRAWING NO.: 15160861

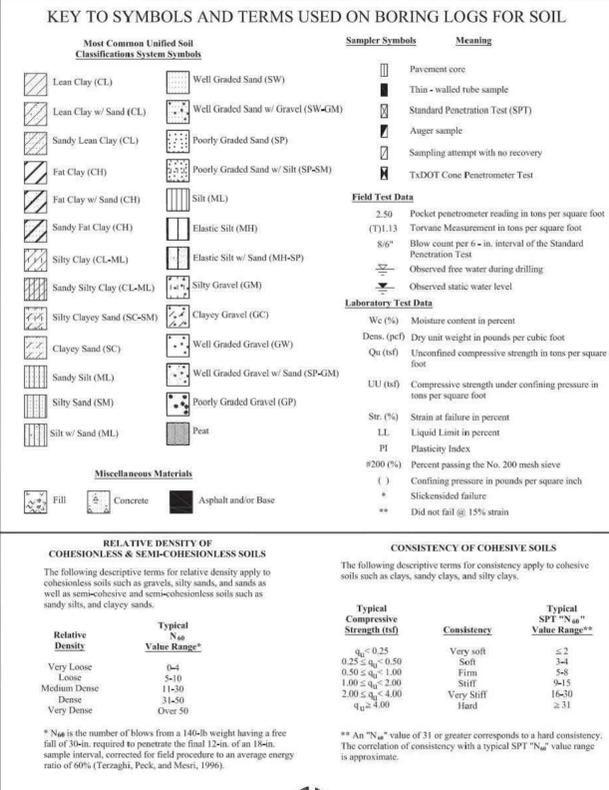
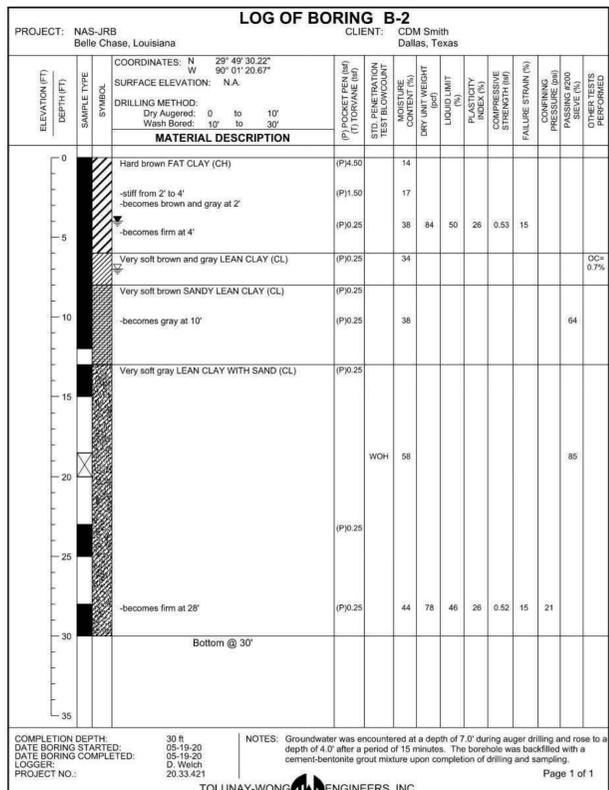
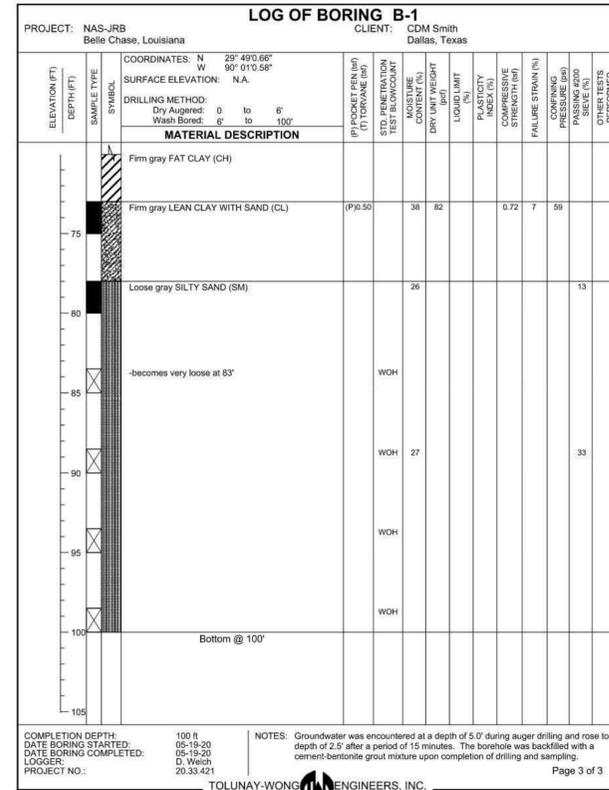
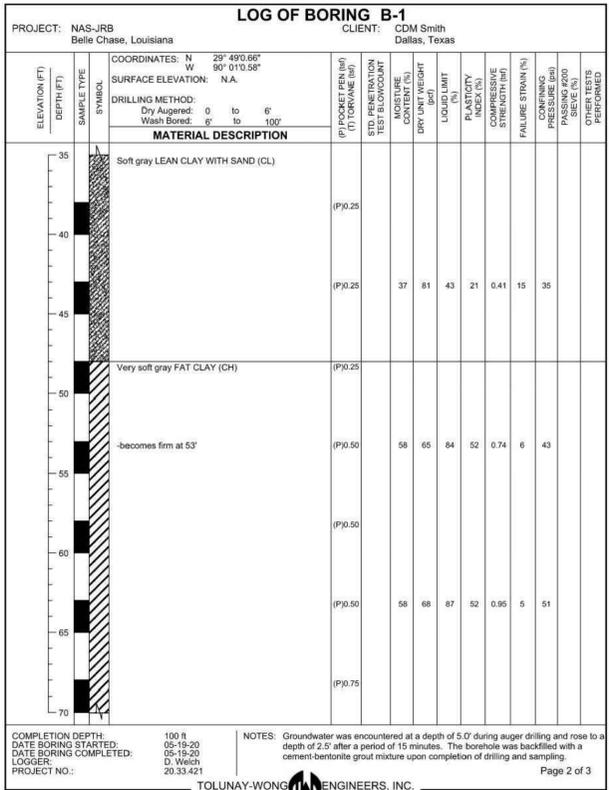
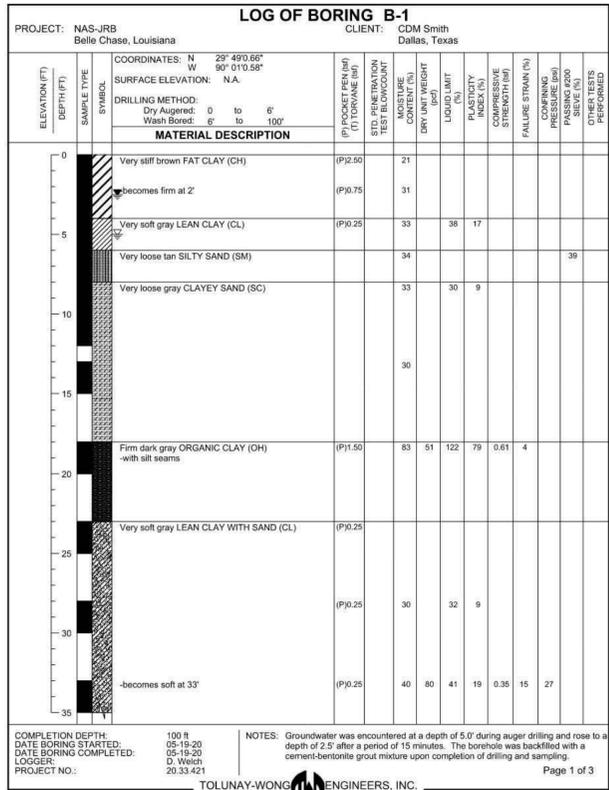
SHEET 12 OF 76

CU503

DRAWING REVISION: 23 AUGUST 2020

(A1) UFC - 700 CHAIN LINK FENCE AND DETAILS
 Scale: As Shown

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APPROVED: [Signature]

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DESCRIPTION: [Description]

SW: [SW]

NAFAC

STATE OF LOUISIANA

JEFFREY DONOVAN VAN PELT
License No. 42770
PROFESSIONAL ENGINEER
CIVIL ENGINEERING
2-21

CDM Smith

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LA FIRM LICENSE NO: EF.0000144

A/E INFO

APPROVED: [Signature]

DATE: [Date]

ACTIVITY: [Activity]

BRANCH MANAGER: SARAH REED

CHIEF ENG/ARCH: [Name]

FIRE PROTECTION: [Name]

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JACKSONVILLE, FLORIDA
NEW ORLEANS, LA

NAVAL AIR STATION JRB @ BELLE CHASSE

DISTRIBUTION SWITCHGEAR ECIP

BORING PROFILES #1 AND #2

SCALE: AS NOTED

PROJECT NO.: 1641213

CONSTR. CONTR. NO.: N62470-15-D-4002

NAVFAC DRAWING NO.: 15160864

SHEET 15 OF 76

BB101

DRWFORM REVISION: 23 AUGUST 2020

THE BORINGS SHOWN WERE OBTAINED AS PART OF THE GEOTECHNICAL INVESTIGATION FOR THE PROJECT AND INCLUDED IN THE GEOTECHNICAL REPORT DATED MAY 19, 2021.

SCHEDULES OF SPECIAL INSPECTIONS NOTES

- THIS DRAWING IS PROVIDED TO OUTLINE THE MINIMUM LEVEL OF SPECIAL INSPECTIONS DURING CONSTRUCTION TO ENSURE CONFORMANCE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. A STATEMENT OF SPECIAL INSPECTIONS WILL BE PREPARED BY A REGISTERED DESIGN PROFESSIONAL AND SUBMITTED WITH THE BUILDING PERMIT APPLICATION.
- SPECIAL INSPECTIONS WILL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (IBC).
- IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, THE OWNER WILL PROVIDE A SPECIAL INSPECTOR (AN APPROVED AGENCY OR AGENCIES, INDEPENDENT FROM THE CONTRACTOR AND EMPLOYING QUALIFIED PERSONNEL) TO PERFORM SPECIAL INSPECTIONS IDENTIFIED IN THE STATEMENT OF SPECIAL INSPECTIONS. THE SPECIAL INSPECTOR WILL FURNISH INSPECTION REPORTS TO THE ENGINEER AND BUILDING OFFICIAL.
- SPECIAL INSPECTIONS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR QUALITY CONTROL OF THE WORK OR FOR CONFORMANCE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. DETECTION, OR FAILURE TO DETECT, DEFECTS IN THE WORK DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO CORRECT ALL DEFECTS IN THE WORK, WHETHER DETECTED OR NOT, AND OF RESPONSIBILITY FOR CONFORMANCE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- REMOVE AND REPLACE, OR REPAIR, DEFECTS IN THE WORK AND WORK NOT IN CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR MUST BEAR THE COSTS FOR THE INSPECTION OF ANY REPLACED OR REPAIRED PORTIONS OF THE WORK. SEE GENERAL CONDITIONS IN THE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON RESTORATION AND REPAIR.
- CONTRACTOR MUST COOPERATE WITH SPECIAL INSPECTIONS BY PROVIDING SUFFICIENT NOTICE FOR THE SCHEDULING OF PERSONNEL AND BY ALLOWING FREE AND SAFE ACCESS TO THE WORK FOR OBSERVATION, VERIFICATION, SAMPLING AND INSPECTION. PROVIDE AND PERMIT THE USE OF LADDERS, SCAFFOLDING, INCIDENTAL EQUIPMENT, AND SAFETY EQUIPMENT AS MAY BE REQUIRED TO CONDUCT SPECIAL INSPECTIONS. ALL SUCH PROVISIONS FOR FREE AND SAFE ACCESS AND EQUIPMENT MUST BE SAFE, IN GOOD WORKING CONDITION, AND ERECTED, MAINTAINED, AND HANDLED BY QUALIFIED PERSONNEL.
- SPECIAL INSPECTIONS DO NOT APPLY TO CONTRACTOR'S EQUIPMENT, TEMPORARY STRUCTURES USED FOR CONSTRUCTION, MEANS AND METHODS OF CONSTRUCTION, OR SITE SAFETY. CONTRACTOR IS RESPONSIBLE FOR ADEQUACY AND SAFETY OF EQUIPMENT, TEMPORARY STRUCTURES USED FOR CONSTRUCTION, MEANS AND METHODS OF CONSTRUCTION AND SITE SAFETY.

TABLE 1 - REQUIRED VERIFICATION AND INSPECTION OF SOILS (IBC, TABLE 1705.6)

VERIFICATION AND INSPECTION	IBC REFERENCE	INSPECTION FREQUENCY		REFERENCE STANDARD	REMARKS
		CONTINUOUS	PERIODIC		
VERIFY MATERIALS BELOW ALL FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	1705.6		X	CONTRACT DOCUMENTS AND GEOTECHNICAL REPORT	REFER TO THE FOLLOWING TABLES FOR ADDITIONAL RELATED SPECIAL INSPECTIONS
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	1705.6		X		
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	1705.6		X		
VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	1705.6	X			
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	1705.6		X		

TABLE 2 - REQUIRED VERIFICATION AND INSPECTION OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS (IBC, TABLE 1705.8)

SYSTEM OR MATERIAL	IBC REFERENCE	INSPECTION FREQUENCY		REFERENCE STANDARD
		CONTINUOUS	PERIODIC	
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT	1705.8	X		CONTRACT DOCUMENTS AND GEOTECHNICAL REPORT
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, LENGTHS, EMBEDMENT INTO ROCK (IF APPLICABLE), AND ADEQUATE END BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES PLACED.		X		
FOR CONCRETE ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH IBC SECTION 1705.3				

TABLE 3 - REQUIRED SPECIAL INSPECTIONS FOR WIND RESISTANCE (IBC, SECTION 1705.11)

SYSTEM OR MATERIAL	IBC REFERENCE	INSPECTION FREQUENCY		REFERENCE STANDARD
		CONTINUOUS	PERIODIC	
THE STATEMENT OF SPECIAL INSPECTIONS WILL INCLUDE WIND REQUIREMENTS FOR STRUCTURES CONSTRUCTED IN THE FOLLOWING AREAS: a. IN WIND EXPOSURE CATEGORY B, WHERE THE 3-SECOND-GUST BASIC WIND SPEED IS 120 MILES PER HOUR (MPH) (52.8M/S) OR GREATER b. IN WIND EXPOSURE CATEGORY C OR D, WHERE THE 3-SECOND-GUST BASIC WIND SPEED IS 110 MPH (49 M/S) OR GREATER	1705.11		X	CONTRACT DOCUMENTS
WIND FORCE-RESISTING SYSTEM CONNECTION TO THE FOUNDATION			X	
FABRICATION AND INSTALLATION OF SYSTEMS OR COMPONENTS REQUIRED TO MEET THE IMPACT-RESISTANCE REQUIREMENTS OF IBC SECTION 1609.2				

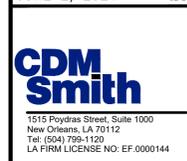
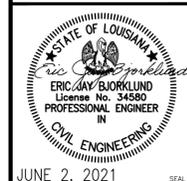
TABLE 4 - REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION (IBC, TABLE 1705.3)

VERIFICATION AND INSPECTION	IBC REFERENCE	INSPECTION FREQUENCY		REFERENCE STANDARD
		CONTINUOUS	PERIODIC	
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	1908.4		X	ACI 318: CHAPTERS 20, 25.2, 25.3, 26.6.1-26.6.3
REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 b. INSPECT SINGLE-PASS FILLET WELDS, MAX 5/16" c. INSPECT ALL OTHER WELDS			X	ACI 318: CHAPTERS 26.6.4 AWS D1.4
INSPECTION OF ANCHORS CAST IN CONCRETE			X	ACI 318: CHAPTER 17.8.2
VERIFYING USE OF REQUIRED DESIGN MIX	1904.1 1904.2 1908.2 1908.3		X	ACI 318: CHAPTERS 19, 26.4.3, 26.4.4
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	1908.10	X		ACI 318: CHAPTERS 26.5, 26.12 ASTM C172 ASTM C31
INSPECTION OF CONCRETE PLACEMENT	1908.6 1908.7 1908.8	X		ACI 318: CHAPTER 26.5
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	1908.9		X	ACI 318: CHAPTERS 26.5.3-26.5.5
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED			X	ACI 318: CHAPTER 26.11.1.2(b)
REQUIRED VERIFICATION AND INSPECTION OF POST INSTALLED CONCRETE ANCHORS				
INSPECTION OF MECHANICAL ANCHORS INSTALLED IN HARDENED CONCRETE (EXPANSION ANCHORS AND UNDERCUT ANCHORS)			X	ACI 318: CHAPTER 17.8.2
VERIFICATION AND INSPECTION OF ADHESIVE ANCHORS AND DOWELS INSTALLED IN HARDENED CONCRETE. ANCHOR PRODUCT NAME, TYPE, DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, HOLE PREPARATION AND SURFACE ROUGHNESS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE		X		PER ICC TEST REPORT FOR SPECIFIC ANCHOR.
ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS			X	ACI 318: CHAPTER 17.8.2.4
MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE			X	ACI 318: CHAPTER 17.8.2

TABLE 5 - REQUIRED SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE (IBC, SECTION 1705.12)

SYSTEM OR MATERIAL	IBC REFERENCE	INSPECTION FREQUENCY		REFERENCE STANDARD
		CONTINUOUS	PERIODIC	
DESIGNATED SEISMIC SYSTEMS. VERIFY THAT THE LABEL, ANCHORAGE OR MOUNTING CONFORMS TO THE CERTIFICATE OF COMPLIANCE	1705.12 1705.12.4 1705.13.3	X		MANUFACTURER'S CERTIFICATE OF COMPLIANCE REPORTS
MECHANICAL AND ELECTRICAL COMPONENTS: a. DURING ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS b. DURING ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT c. DURING THE INSTALLATION AND ANCHORAGE OF VIBRATION ISOLATION SYSTEMS WHERE THE APPROVED CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 1/4 INCH (6.4MM) OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT	1705.12 1705.12.6 1705.12 1705.12.6.1 1705.12 1705.12.6.2 1705.12 1705.12.6.5		X	

DATE	
DESCRIPTION	
SW	



APPROVED	
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES: RC	CHK: EJB
FW/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTH
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
STRUCTURAL SPECIAL INSPECTIONS

SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAFAC DRAWING NO.:	15160866
SHEET	17 OF 76
S-002	

FILE NAME: C:\pwworking\johnsona\15160866-5-002.dwg LAYOUT NAME: S-002 PLOTTED: Tuesday, May 25, 2021 9:53am USER: johnsona5

1

2

3

4

5

GENERAL SHEET NOTES

- * COORDINATE WITH CONTROL HOUSE REQUIREMENTS AND MANUFACTURER. DO NOT CONSTRUCT FOUNDATION SLAB AND PILES UNTIL CONTROL HOUSE SUBMITTAL HAS BEEN APPROVED BY ENGINEER.

DATE	DESCRIPTION	SW	APPR



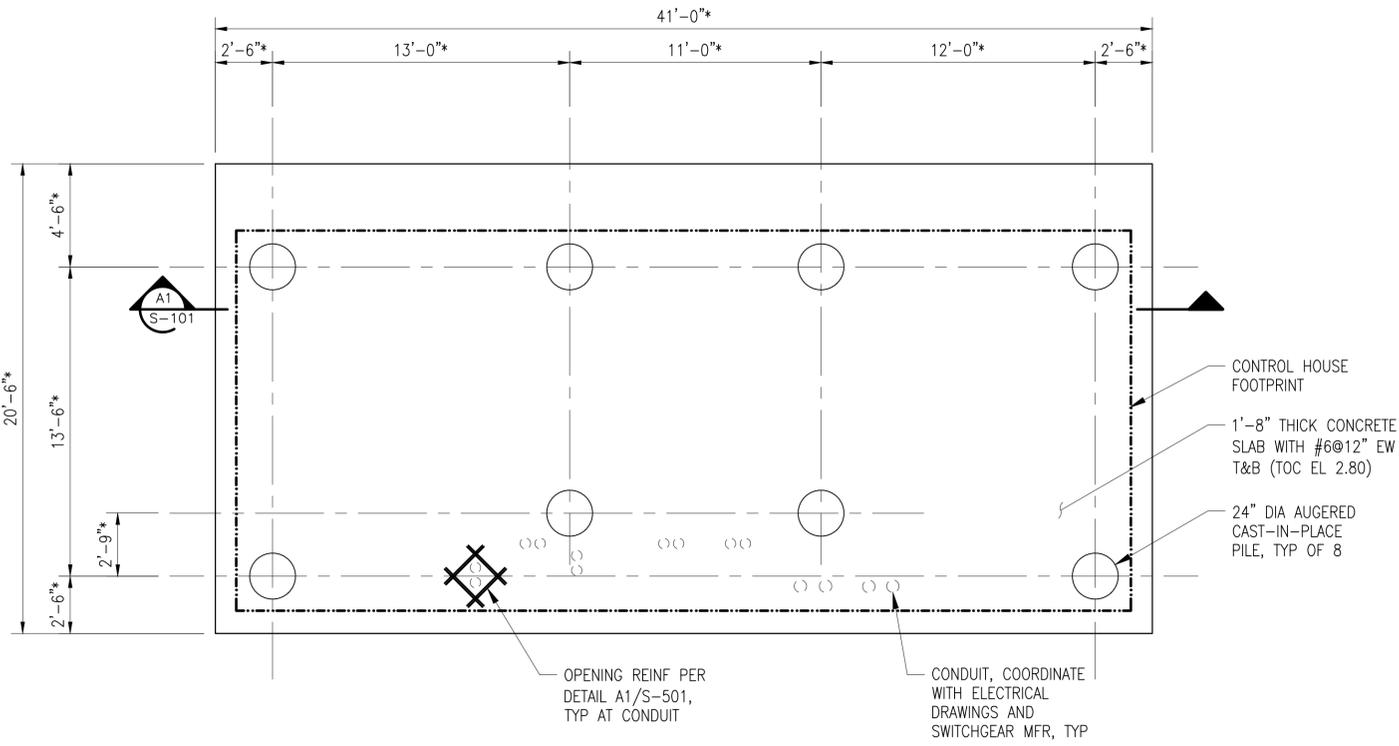
CDM Smith
 1515 Poydras Street, Suite 1000
 New Orleans, LA 70112
 Tel: (504) 729-1120
 LA FIRM LICENSE NO: EF-0000144

APPROVED	A/E INFO
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES RC	DRW ASJ
CHK EJB	
FM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

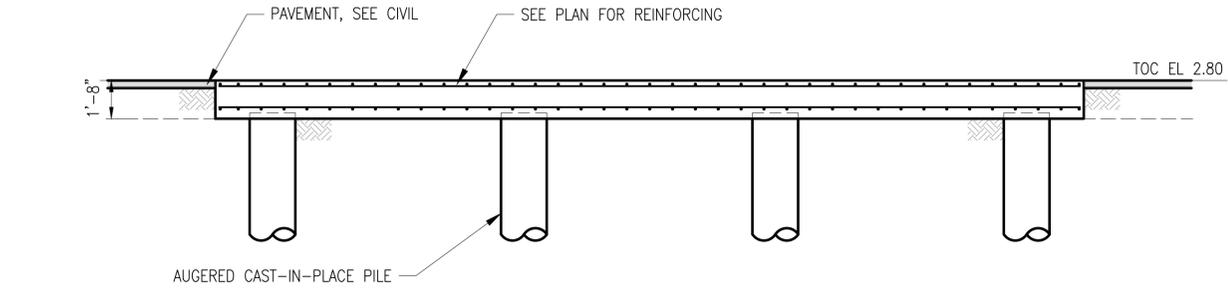
DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 NAVAL AIR STATION JRB @ BELLE CHASSE
 JACKSONVILLE, FLORIDA
 NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
 STRUCTURAL PLAN AND SECTION

SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160867
SHEET	18 OF 76

S-101
DRAWING REVISION: 25 AUGUST 2020



C1 PLAN
 Scale: 1/4"=1'-0"



A1 SECTION
 Scale: 1/4"=1'-0"

GRAPHIC SCALE



FILE NAME: C:\pwworking\johnsona\15160867-S-101.dwg LAYOUT NAME: S-101 PLOTTED: Tuesday, May 25, 2021 9:56am USER: JohnsonAS

ACTIVE FIRE SAFETY FEATURES:

AUTOMATIC SPRINKLER SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-7.2.1.1) - NOT PROVIDED

LOCATION OF FIRE DEPARTMENT CONNECTIONS: NOT APPLICABLE

LOCATIONS OF POST INDICATOR VALVES (PIVS) AND OTHER CONTROL OR ISOLATION VALVES: SECTIONAL VALVES SUCH THAT NOT MORE THAN A COMBINED TOTAL OF FIVE HYDRANTS OR THE SERVICE LATERALS TO NOT MORE THAN THREE SEPARATE BUILDINGS ARE OUT OF SERVICE DUE TO A SINGLE BREAK REQUIRED (UFC 3-600-01, SECTION 9-3.4.3) - NOT APPLICABLE DUE TO NOT MODIFYING WATER DISTRIBUTION SYSTEM
CONTROL VALVE ON EACH SERVICE LATERAL, DOWNSTREAM OF THE CONNECTION TO THE SERVICE MAIN REQUIRED (UFC 3-600-01, SECTION 9-3.4.2) - NOT APPLICABLE
SECTIONAL VALVES ON SERVICE MAINS TO BE KEY-OPERATED REQUIRED (UFC 3-600-01, SECTION 9-3.4.4) - NOT APPLICABLE
PIV LOCATED NOT LESS THAN 12000 mm FROM THE BUILDING SERVED REQUIRED (NFPA 24, SECTION 6.2.9) - NOT APPLICABLE

ANALYSIS OF AUTOMATIC SPRINKLER AND SUPPRESSION SYSTEMS AND PROTECTED AREAS: NOT APPLICABLE

FIRE PUMP: NOT REQUIRED (UFC 3-600-01, SECTION 9-5) - NOT PROVIDED

WATER SPRAY SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-8) - NOT PROVIDED

FOAM SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-9.1.1) - NOT PROVIDED

STANDPIPE SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-10.2) - NOT PROVIDED

DRY CHEMICAL EXTINGUISHING SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-11) - NOT PROVIDED

WET CHEMICAL EXTINGUISHING SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-12) - NOT PROVIDED

CLEAN AGENT FIRE EXTINGUISHING SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-13) - NOT PROVIDED

WATER MIST FIRE PROTECTION SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-14) - NOT PROVIDED

CARBON DIOXIDE SYSTEMS: NOT REQUIRED (UFC 3-600-01, SECTION 9-15) - NOT PROVIDED

HALON 1301 SYSTEMS: NOT PERMITTED (UFC 3-600-01, SECTION 9-16.1) - NOT PROVIDED

PORTABLE FIRE EXTINGUISHERS: NOT REQUIRED (UFC 3-600-01, SECTION 9-17.1, NFPA 101, SECTION 40.3.5, AND UFC 3-520-05, SECTION 2-6.2) - NOT PROVIDED

FIRE ALARM SYSTEM: NOT REQUIRED (UFC 3-600-01, SECTION 9-18.1, UFC 3-520-05, SECTION 2-6, AND NFPA 101, SECTION 40.3.4.1) - PROVIDED AS REQUESTED BY PPI 18

MASS NOTIFICATION SYSTEM: NOT REQUIRED (UFC 4-010-01, SECTION 1-6.1) - NOT PROVIDED

CONNECTION TO AND DISCRPTION OF BASE FIRE ALARM REPORTING SYSTEM: REQUIRED (UFC 3-600-01, SECTIONS 9-18.3) - PROVIDED VIA MONACO TRANSCEIVER (BT-X). THESE SYSTEMS WILL REPORT TO MONACO HEAD-END RECEIVING STATIONS (D-21) ON BASE.

SMOKE DETECTION: AREA SMOKE DETECTION NOT PERMITTED (UFC 3-600-01, SECTION 9-18.5.1.1) - NOT PROVIDED
SMOKE DETECTOR ABOVE FIRE ALARM CONTROL UNIT, NOTIFICATION APPLIANCE CIRCUIT POWER EXTENDERS, AND SUPERVISING STATION TRANSMITTING EQUIPMENT REQUIRED (NFPA 72, SECTION 10.4.4) - PROVIDED
DUCT SMOKE DETECTION ON AIR HANDLING UNITS GREATER THAN 2,000 cfm SUPPLY AIR CAPACITY REQUIRED (NFPA 90A, SECTION 6.4.2.1(1)) - NOT APPLICABLE

CARBON MONOXIDE DETECTION: NOT REQUIRED (UFC 3-600-01, SECTION 9-19.1.1) - NOT PROVIDED

SMOKE MANAGEMENT OR CONTROL METHODS: EMERGENCY EXHAUST SYSTEM TO CONTAIN AND DIRECTLY EXHAUST SMOKE AND GASES FROM BATTERY STORAGE AND CHARGING ROOM REQUIRED (UFC 3-520-05, SECTION 2-3.2.2.1) - PROVIDED

SECURITY AND ANTITERRORISM REQUIREMENTS: IN-BUILDING MASS NOTIFICATION SYSTEM NOT REQUIRED (UFC 4-010-01, SECTION 1-6.1) - NOT PROVIDED

ILLUMINATION OF MEANS OF EGRESS: REQUIRED (NFPA 101, SECTIONS 40.2.8 AND 7.8.1.2) - PROVIDED

EMERGENCY LIGHTING: NOT REQUIRED (NFPA 101, SECTION 40.2.9.2(1)) - PROVIDED

MARKING OF MEANS OF EGRESS: REQUIRED (NFPA 101, SECTIONS 40.2.10 AND 7.10) - PROVIDED

PASSIVE FIRE SAFETY FEATURES:

FIRE BARRIER AND OCCUPANCY SEPARATION: NOT APPLICABLE

PROTECTION OF HAZARDOUS AREAS: 2-HOUR FIRE BARRIER SEPARATING STATIONARY STORAGE BATTERY SYSTEMS NOT REQUIRED (UFC 3-520-05, SECTION 2-2.2, NFPA 1, SECTION 52.1.7, AND NFPA 855, SECTION 4.3.6) - NOT PROVIDED AS BATTERY SYSTEM IS IN SAME ROOM AS EQUIPMENT SERVED

PROTECTION OF HORIZONTAL AND VERTICAL PENETRATIONS: NOT APPLICABLE

BUILDING SEPARATION AND EXPOSURE PROTECTION: BUILDING PROTECTION NOT REQUIRED AS BUILDING IS AT LEAST 10 ft FROM IMAGINARY LOT LINES (IBC, TABLE 602) - NOT PROVIDED

EXIT ACCESS CORRIDORS: SEPARATION NOT REQUIRED (NFPA 101, SECTION 40.3.6) - NOT PROVIDED

FIRE RESISTIVE REQUIREMENTS: FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (IBC, TABLES 601 & 602)
PRIMARY STRUCTURAL FRAME 0-HOUR REQUIRED - PROVIDED
BEARING WALLS - EXTERIOR 0-HOUR REQUIRED - PROVIDED
BEARING WALLS - INTERIOR 0-HOUR REQUIRED - PROVIDED
NON BEARING WALLS - EXTERIOR 0-HOUR REQUIRED - PROVIDED
NON BEARING WALLS - INTERIOR 0-HOUR REQUIRED - PROVIDED
FLOOR CONSTRUCTION AND SECONDARY MEMBERS 0-HOUR REQUIRED - PROVIDED
ROOF CONSTRUCTION AND SECONDARY MEMBERS 0-HOUR REQUIRED - PROVIDED

INTERIOR FINISH: INTERIOR FINISH REQUIREMENTS PER OCCUPANCY CLASSIFICATION (NFPA 101, SECTION 40.3.3) - PROVIDED

OCCUPANCY TYPE	INTERIOR WALL AND CEILING FINISHES IN EXITS AND EXIT ACCESS CORRIDORS	INTERIOR WALL AND CEILING FINISHES IN OTHER AREAS	INTERIOR FLOOR FINISHES IN EXIT ENCLOSURES	INTERIOR FLOOR FINISHES IN OTHER AREAS
SPECIAL-PURPOSE INDUSTRIAL	CLASS A OR B (EXIT ENCLOSURES ONLY)	CLASS A, B, OR C	CLASS I OR II	NO REQUIREMENT

MEANS OF EGRESS:

OCCUPANT LOAD: CALCULATED OCCUPANT LOAD PER OCCUPANCY CLASSIFICATION AND USE (NFPA 101, TABLE 7.3.1.2 AND UFC 3-600-01, TABLE 10-1) - PROVIDED

USE	OCCUPANT LOAD FACTOR	GROSS OR NET AREA
MECHANICAL, ELECTRICAL, OTHER BUILDING EQUIPMENT	500 ft² PER PERSON	GROSS
IT EQUIPMENT ROOM	300 ft² PER PERSON	GROSS
SPECIAL-PURPOSE INDUSTRIAL	NA	NA

NA: NOT APPLICABLE. THE OCCUPANT LOAD IS THE MAXIMUM PROBABLE NUMBER OF OCCUPANTS PRESENT AT ANY TIME.

TOTAL BUILDING OCCUPANT LOAD:
FIRST FLOOR OCCUPANT LOAD: 2
TOTAL OCCUPANT LOAD: 2

NUMBER OF EXITS: TWO BUILDING EXITS REQUIRED (NFPA 101, SECTIONS 40.2.4.1.1 AND 7.4.1.2(1)) - TWO PROVIDED

ARRANGEMENT OF EXITS: WHERE TWO EXITS OR EXIT ACCESS DOORWAYS ARE REQUIRED, EXITS OR EXIT ACCESS DOORWAYS SEPARATED BY NOT LESS THAN ONE-HALF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE AREA SERVED REQUIRED (NFPA 101, SECTION 7.5.1.3.2) - PROVIDED

MEANS OF EGRESS SIZING: CALCULATED MEANS OF EGRESS COMPONENTS SIZING REQUIREMENTS PER COMPONENT REQUIRED (NFPA 101, TABLES 7.3.3.1 AND 7.2.5.3(a) AND SECTIONS 7.2.1.2.3.2, 7.2.2.2.1.2(A), 7.2.2.2.1.2(B), 7.2.6.4.2, AND 7.3.4) - PROVIDED

COMPONENT	SIZING FACTOR - LOW/ORDINARY HAZARD	MINIMUM SIZE
STAIRWAYS (49 OCCUPANTS OR LESS)	0.3 INCHES PER PERSON	36 INCHES
STAIRWAYS (50 OCCUPANTS OR MORE)	0.3 INCHES PER PERSON	44 INCHES
RAMP	0.2 INCHES PER PERSON	44 INCHES
PASSAGEWAYS	0.2 INCHES PER PERSON	36 INCHES
DOORS	0.2 INCHES PER PERSON	32 INCHES

STAIRWAY DIMENSIONAL REQUIREMENTS: NOT APPLICABLE

RAMP REQUIREMENTS: NOT APPLICABLE

HANDRAIL REQUIREMENTS: NOT APPLICABLE

GUARD REQUIREMENTS: NOT APPLICABLE

MAXIMUM TRAVEL DISTANCE: ALLOWABLE TRAVEL DISTANCE
SPECIAL-PURPOSE 300 ft (NFPA 101, TABLE 40.2.6.1) INDUSTRIAL
ACTUAL SPECIAL-PURPOSE REFER TO LIFE SAFETY PLANS INDUSTRIAL

COMMON PATH OF TRAVEL: ALLOWABLE COMMON PATH OF TRAVEL
SPECIAL-PURPOSE 50 ft (NFPA 101, TABLE 40.2.5.1) INDUSTRIAL
ACTUAL SPECIAL-PURPOSE REFER TO LIFE SAFETY PLANS INDUSTRIAL

DEAD-END CORRIDORS: ALLOWABLE DEAD-END CORRIDORS
SPECIAL-PURPOSE 50 ft (NFPA 101, TABLE 40.2.5.1) INDUSTRIAL
ACTUAL SPECIAL-PURPOSE REFER TO LIFE SAFETY PLANS INDUSTRIAL

- OPTION BID ITEMS**
SEE SPECIFICATIONS
- ADD FIRE ALARM SYSTEM.
 - ADD REDUNDANT HVAC UNIT.
 - ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
 - ADD AMI METERING SYSTEM.
 - ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 - ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 - ADD DEMOLITION OF EXISTING SWITCHYARD.

POOLE FIRE PROTECTION
19910 West 161st Street
Olathe, KS 66062
www.poolefire.com
913.829.8650 office 913.829.8690 fax

NO.	DATE	DESCRIPTION



CDM Smith
1515 Poydras Street, Suite 1000
New Orleans, LA 70112
Tel: (504) 799-1120
LA FIRM LICENSE NO: EF-0000144

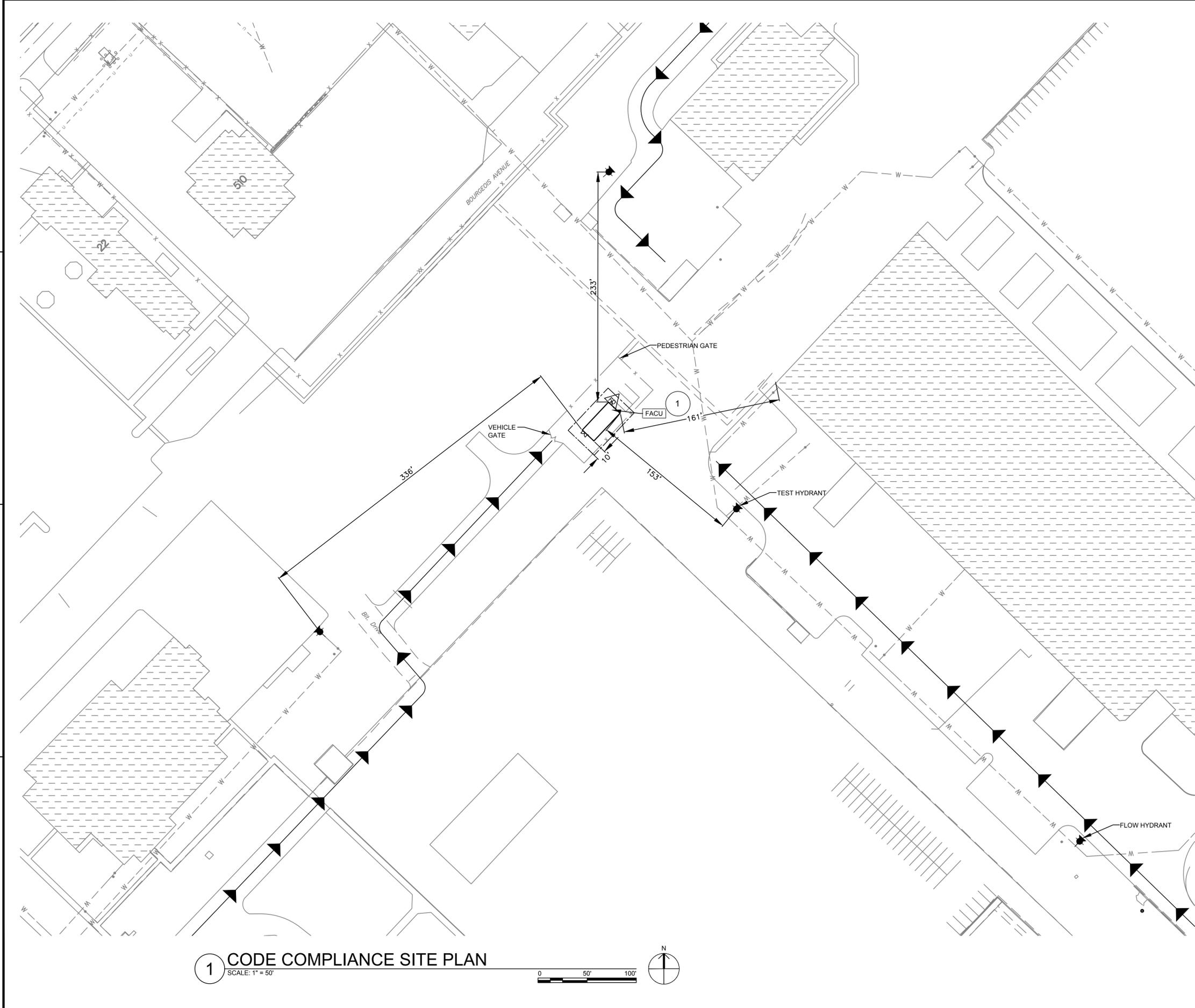
APPROVED: _____
FOR COMMANDER NAFAC: _____
ACTIVITY: _____
SATISFACTORY TO: _____ DATE: _____
DES: SARJ DRAW: SARJ CHK: BJA
PM/DM: SARAH REED
BRANCH MANAGER: _____
CHIEF ENG/ARCH: _____
FIRE PROTECTION: _____

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JACKSONVILLE, FLORIDA
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
LIFE SAFETY CODE NARRATIVE

SCALE: AS NOTED
EPROJCT NO.: 1641213
CONSTR. CONTR. NO. N62470-15-D-4002
NAFAC DRAWING NO. 15160870
SHEET 21 OF 76

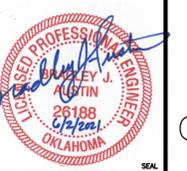
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FILE NAME: \\pca\data\Projects\F-100\F-100.dwg LAYOUT NAME: CODE COMPLIANCE SITE PLAN PLOTTED: Wednesday, May 26, 2021 3:28pm USER: ZPharis



LIFE SAFETY LEGEND	
SYMBOL	DESCRIPTION
	FIRE HYDRANT
	FIRE DEPARTMENT ACCESS
	IMAGINARY LOT LINE
	FIRE ALARM CONTROL UNIT
	FIRE DEPARTMENT MAIN POINT OF ACCESS
	WATER LINE
	FENCE

DATE	DESCRIPTION	BY

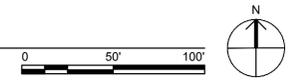


APPROVED
FIR COMMANDER NAFAC
ACTIVITY
SATISFACTORY TO DATE
DES: SAE/DRW SAE/CHK BJA
PM/DM SARAH REED
BRANCH MANAGER
CHIEF ENG/ARCH
FIRE PROTECTION

- OPTION BID ITEMS**
SEE SPECIFICATIONS
1. ADD FIRE ALARM SYSTEM.
 2. ADD REDUNDANT HVAC UNIT.
 3. ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
 4. ADD AMI METERING SYSTEM.
 5. ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 6. ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 7. ADD DEMOLITION OF EXISTING SWITCHYARD.

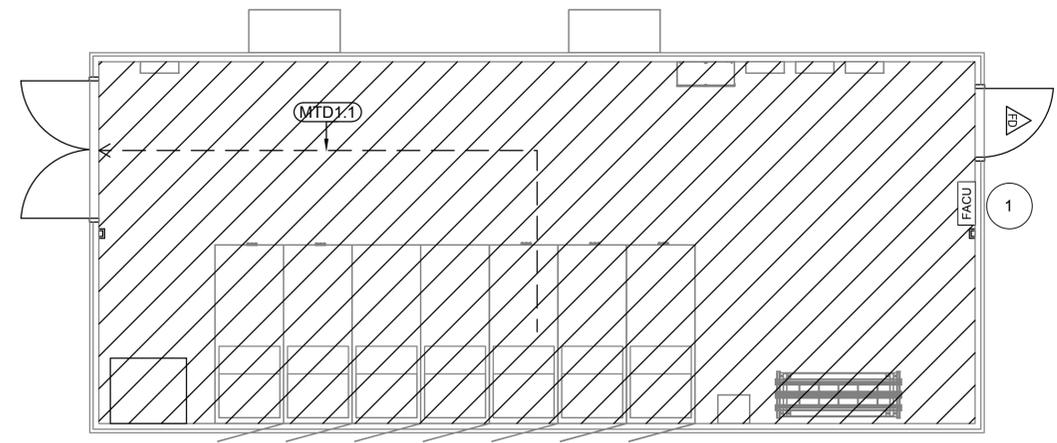
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JACKSONVILLE FLORIDA
NEW ORLEANS, LA
NAVAL AIR STATION JRB @ BELLE CHASSE
DISTRIBUTION SWITCHGEAR ECIP
CODE COMPLIANCE SITE PLAN

1 CODE COMPLIANCE SITE PLAN
SCALE: 1" = 50'

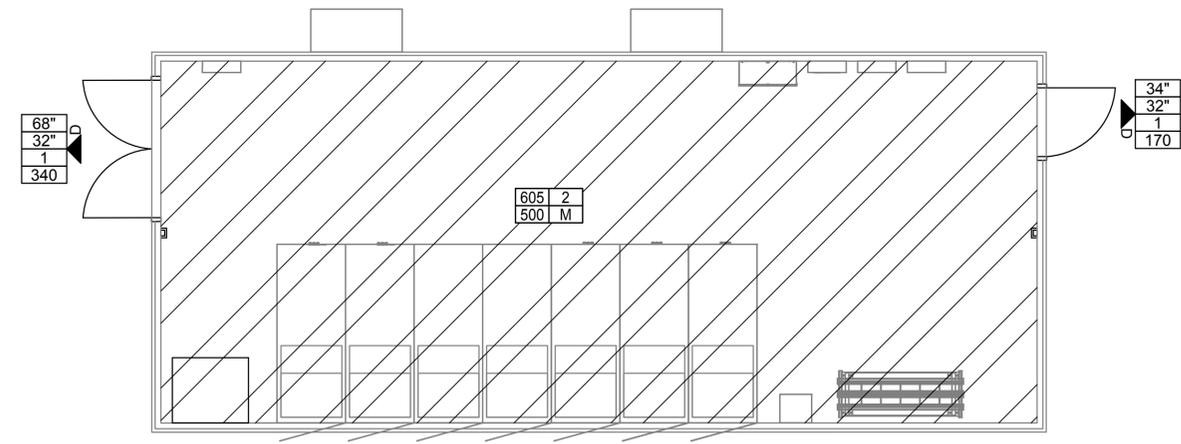
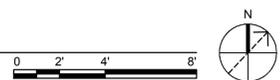


Pool Fire Protection
19910 West 161st Street
Olathe, KS 66062
www.poolfire.com
913.829.8650 office 913.829.8690 fax

SCALE:	AS NOTED
EPROJCT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160871
SHEET	22 OF 76
F-100	



1 LIFE SAFETY FLOOR PLAN
SCALE: 1/4" = 1'-0"



2 LIFE SAFETY OCCUPANT LOADING FLOOR PLAN
SCALE: 1/4" = 1'-0"



EGRESS PATH SCHEDULE			
TAG ABBREVIATIONS:			
MTD: MAXIMUM TRAVEL DISTANCE			
CPT: COMMON PATH OF TRAVEL			
DEC: DEAD END CORRIDOR			
TAG	ACTUAL LENGTH	OCCUPANCY	MAXIMUM ALLOWABLE LENGTH
MTD1.1	27'-1"	SPI	300'-0"

OCCUPANCY CLASSIFICATION LEGEND	
	SPECIAL-PURPOSE INDUSTRIAL (MODERATE-HAZARD FACTORY INDUSTRIAL GROUP F-1)

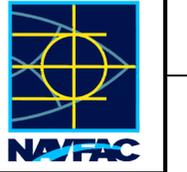
OCCUPANCY USE LEGEND		
HATCH	USE	DESCRIPTION
	M	MECH, ELEC, OTHER BUILDING EQUIP SPACES (500 FT ² /PERSON, GROSS)

LIFE SAFETY LEGEND	
SYMBOL	DESCRIPTION
	PATH OF EGRESS
	PATH OF EGRESS IDENTIFIER
	FIRE ALARM CONTROL UNIT
	FIRE DEPARTMENT MAIN POINT OF ACCESS

OCCUPANCY TAG	
A	AREA (FT ²)
B	OCCUPANT LOAD FACTOR (FT ² / PERSON)
C	OCCUPANT LOAD
D	OCCUPANCY USE

EGRESS CAPACITY TAG	
#	ACTUAL CLEAR WIDTH (IN.)
#	REQUIRED CLEAR WIDTH (IN.)
#	ACTUAL EGRESS
#	MAXIMUM EGRESS CAPACITY
▲	EGRESS COMPONENT (D) DOOR (S) STAIRWAY

DATE	DESCRIPTION



APPROVED

FOR COMMANDER NAFAC

SATISFACTORY TO	DATE
DES	SAB
DRW	SAB
CHK	BJA

BRANCH MANAGER SARAH REED
CHIEF ENG/ARCH
FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
117 SOUTH AND CENTRAL
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA

- OPTION BID ITEMS**
SEE SPECIFICATIONS
- ADD FIRE ALARM SYSTEM.
 - ADD REDUNDANT HVAC UNIT.
 - ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
 - ADD AMI METERING SYSTEM.
 - ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 - ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 - ADD DEMOLITION OF EXISTING SWITCHYARD.



Pool Fire Protection
19910 West 161st Street
Olathe, KS 66062
www.poolfire.com
913.829.8650 office 913.829.8690 fax

SCALE:	AS NOTED
EPROJCT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAFAC DRAWING NO.:	15160872
SHEET	23 OF 76

F-101

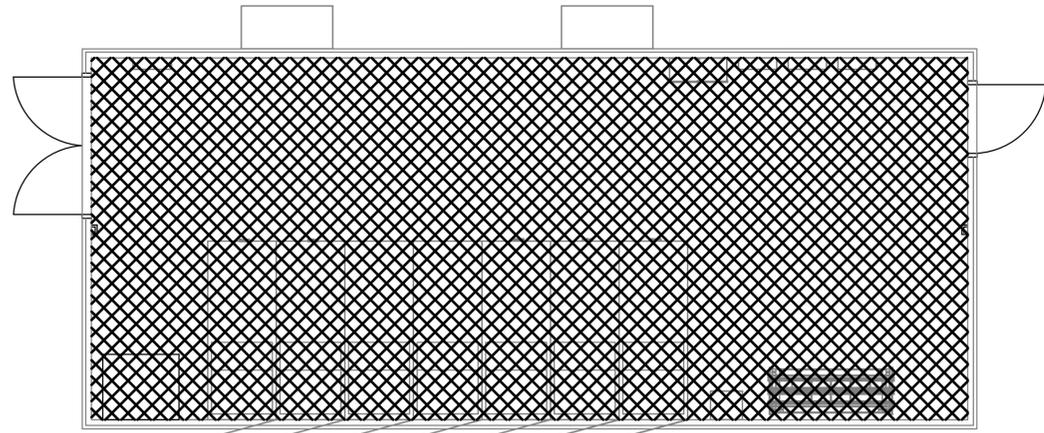
DRAWING REVISION: 25 AUGUST 2020

READY TO ADVERTISE

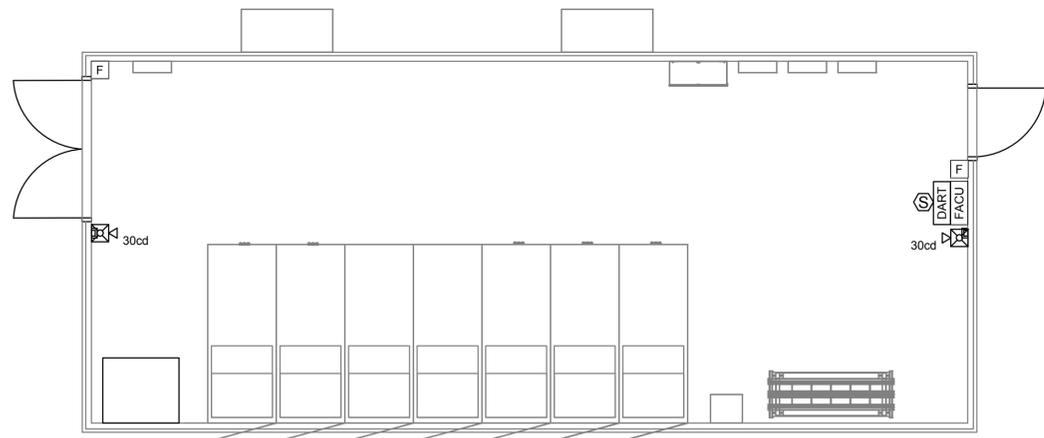
FILE NAME: \\pca\data\Projects\PROJ2020\01\CAD\F-101.dwg LAYOUT NAME: LIFE SHEET PLANS PLOTTED: Wednesday, May 26, 2021 - 3:28pm USER: ZParks

**FIRE ALARM AUDIBILITY
LEGEND**

91dB AMBIENT SPL
106dB MINIMUM ALARM SPL



1 FIRE ALARM AUDIBILITY PLAN
SCALE: 1/4" = 1'-0"



2 FIRE ALARM PLAN
SCALE: 1/4" = 1'-0"



- OPTION BID ITEMS**
SEE SPECIFICATIONS
1. ADD FIRE ALARM SYSTEM.
 2. ADD REDUNDANT HVAC UNIT.
 3. ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
 4. ADD AMI METERING SYSTEM.
 5. ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 6. ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 7. ADD DEMOLITION OF EXISTING SWITCHYARD.

APPR	DATE	DESCRIPTION	SWR




CDM Smith
1515 Poydras Street, Suite 1000
New Orleans, LA 70112
Tel: (504) 799-1120
LA FIRM LICENSE NO: EF.0000144

APPROVED
FOR COMMANDER NAFAC

ACTIVITY

SATISFACTORY TO DATE

DES	SAB	DRW	SAB	CHK	BJA
PM/DM	SARAH REED				
BRANCH MANAGER					
CHIEF ENG/ARCH					
FIRE PROTECTION					

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
117 SOUTH AND CENTRAL
NAVAL AIR STATION JACKSONVILLE FLORIDA
NEW ORLEANS, LA
NAVAL AIR STATION JRB @ BELLE CHASSE
DISTRIBUTION SWITCHGEAR ECIP
FIRE ALARM PLAN

SCALE: AS NOTED
EPROJCT NO.: 1641213
CONSTR. CONTR. NO. N62470-15-D-4002
NAFAC DRAWING NO. 15160874
SHEET 25 OF 76

POOLE FIRE PROTECTION
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FA101

DRAWFORM REVISION: 23 AUGUST 2020

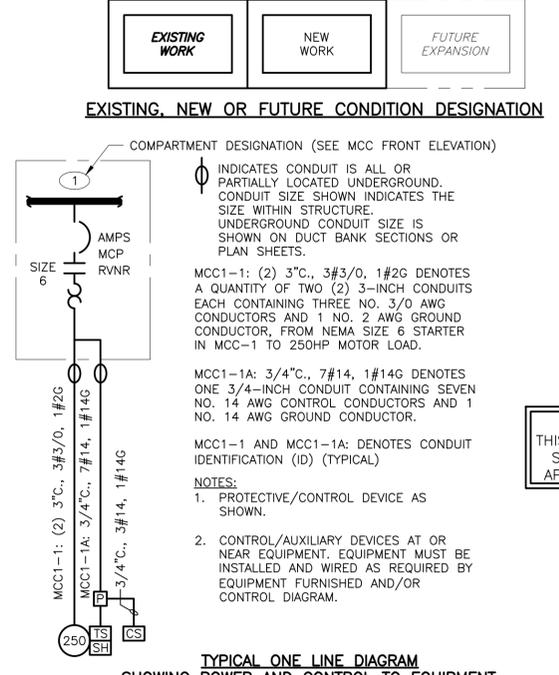
FILE NAME: \\pca\data\Projects\PT002202\01\CAD\FA101.dwg LAYOUT NAME: FIRE ALARM PLAN PLOTTED: Wednesday, May 26, 2021 - 3:28pm USER: ZParks

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
	CS	MEDIUM VOLTAGE DRAWOUT TYPE POWER CIRCUIT BREAKER CS=CONTROL SWITCH
	CB	LOW VOLTAGE AIR OR MOLDED CASE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED.
	AMPS TYPE	COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE NOTED: * FVR - FULL VOLTAGE REVERSING RVNR - REDUCED VOLTAGE NON-REVERSING RVAT - REDUCED VOLTAGE AUTOTRANSFORMER RVSS - REDUCED VOLTAGE SOLID STATE 2S1W - TWO SPEED, ONE WINDING 2S2W - TWO SPEED, TWO WINDING (DIAGRAMMATICALLY SHOWN, CONTRACTOR MUST FIELD LOCATE)
		NON-FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE * AMPERE RATING NOTED IF OTHER THAN 30A (DIAGRAMMATICALLY SHOWN, CONTRACTOR MUST FIELD LOCATE)
	F	FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE, * AMPERE RATING AND FUSE SIZE AS NOTED * AMPERE RATING NOTED IF OTHER THAN 30A FUSE RATING (DIAGRAMMATICALLY SHOWN, CONTRACTOR MUST FIELD LOCATE)
	P	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD HEATER, 1 POLE UNLESS OTHERWISE NOTED "P" INDICATES WITH PILOT LIGHT "2" INDICATES TWO POLE (DIAGRAMMATICALLY SHOWN, CONTRACTOR MUST FIELD LOCATE)
		DRAWOUT TYPE EQUIPMENT OR DEVICE
		MEDIUM VOLTAGE CABLE TERMINATION
		MEDIUM VOLTAGE AIR INTERRUPTER SWITCH
		MEDIUM VOLTAGE FUSED AIR INTERRUPTER SWITCH * FUSE RATING
		MEDIUM VOLTAGE FUSED MOTOR CONTROLLER
	T	TRANSFORMER, RATINGS AND CONNECTIONS AS NOTED, UNLESS OTHERWISE NOTED ON THE SINGLE LINE DIAGRAMS. ALL DRY TYPE TRANSFORMERS SERVICING ADMINISTRATIVE AND LABORATORY SPACES SHALL HAVE A K FACTOR OF 4. ISOLATION TRANSFORMERS MUST HAVE A K-20 RATING
	A TO 5	CURRENT TRANSFORMER * QUANTITY A = PRIMARY AMPERES
	V TO 120	POTENTIAL TRANSFORMER * QUANTITY V = PRIMARY VOLTAGE
	G	GENERATOR, RATINGS AND CONNECTIONS AS NOTED
		AUTOMATIC OR MANUAL TRANSFER SWITCH NO.1 (ATS-1), (MTS-1) "N" INDICATES NORMAL OR PREFERRED SOURCE "S" INDICATES STANDBY OR ALTERNATE SOURCE 100A INDICATES CONTINUOUS CURRENT RATING
		VARIABLE SPEED DRIVE CONTROLLER * D.C. = D.C. DRIVE CONTROLLER SCR = SILICON CONTROLLED RECTIFIER VFD = VARIABLE FREQUENCY DRIVE
	#KW	UNIT HEATER - ELECTRIC HEATING COIL AND FAN # - RATING
	U	UNIT HEATER - GAS FIRED, STEAM OR WATER HEATING COIL AND FAN
	M	MOTOR, NUMERAL INDICATES HORSEPOWER
	VS	VOLTMETER WITH SWITCH, 3 PHASE
	AS	AMMETER WITH SWITCH, 3 PHASE

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
		METER * WM - WATTMETER WHM - WATTHOUR METER WHDM - WATTHOUR DEMAND METER WHDR - WATTHOUR DEMAND RECORDER PF - POWER FACTOR METER DMU - DIGITAL METERING UNIT
		TRANSDUCER AX - CURRENT TRANSDUCER WX - WATT TRANSDUCER WHX - WATTHOUR TRANSDUCER
		RELAY, NO. AS INDICATED 25 - SYNCHRONISM CHECK RELAY 27 - UNDERVOLTAGE RELAY 32 - DIRECTIONAL POWER RELAY 38 - BEARING PROTECTIVE DEVICE 40 - LOSS OF EXCITATION RELAY 42 - RUNNING CONTACTOR/PILOT RELAY 46 - REVERSE PHASE/PHASE BALANCE/CURRENT RELAY 47 - PHASE SEQUENCE VOLTAGE RELAY 49 - MACHINE OR TRANSFORMER THERMAL RELAY 50/51 - INSTANTANEOUS/TIME OVERCURRENT RELAY 50G - INSTANTANEOUS GROUND 51 - TIME OVERCURRENT RELAY 51G - TIME OVERCURRENT RELAY, GROUNDING RESISTOR TYPE 51N - TIME OVERCURRENT RELAY, RESIDUAL TYPE 51V - TIME OVERCURRENT RELAY WITH VOLTAGE RESTRAINT 51X - AUXILIARY RELAY (TRIPS CB AND ALARMS) 59 - OVERVOLTAGE RELAY 60 - NEGATIVE SEQUENCE VOLTAGE RELAY 62 - TIME DELAY RELAY 63 - OVERPRESSURE RELAY 64 - GENERATOR FIELD GROUND RELAY 67 - AC DIRECTIONAL OVERCURRENT RELAY 74 - ALARM LATCHING RELAY 83 - AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY 86 - LOCKING-OUT RELAY 87 - DIFFERENTIAL PROTECTIVE RELAY 9 - SUFFIX INDICATES "BUS" G - SUFFIX INDICATES "GENERATOR" GF - GROUND FAULT ST - SHUNT TRIP T - SUFFIX INDICATES "TRANSFORMER" X - SUFFIX INDICATES "AUXILIARY"
		SPECIAL CAPACITOR * SC - SURGE CAPACITOR PF - POWER FACTOR CORRECTION CAPACITOR
		TUNED POWER FACTOR CORRECTION CAPACITOR
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY OPEN
	ES	EMERGENCY STOP PUSHBUTTON WITH RED MUSHROOM HEAD OPERATOR (MAINTAINED CONTACT)
	PBL	START-STOP PUSHBUTTON CONTROL STATION (MOMENTARY CONTACT) WITH LOCKOUT DEVICE ON STOP
	PBM	START-STOP PUSHBUTTON CONTROL STATION, MAINTAINED CONTACT WITH LOCKOUT DEVICE ON STOP
	S/S	OFF/ON SELECTOR SWITCH
	LR	LOCAL/REMOTE SELECTOR SWITCH
		3 POSITION SELECTOR SWITCH, MAINTAINED CONTACT O-OPEN X-CLOSED
		NAMEPLATE (A/B/C) HOA - HAND/OFF/AUTO HOR - HAND/OFF/REMOTE LOR - LOCAL/OFF/REMOTE RSL - RAISE/STOP/LOWER TOA - TEST/OFF/AUTO
	GD/VF	GAS DETECTOR / VENTILATION FAILURE ALARM # INDICATES TYPE OF UNIT 1=MASTER, 2=REMOTE
		MOTOR STARTER COIL, NUMBER AS INDICATED TO DENOTE INTERLOCKING ONLY
		CONTROL RELAY COIL, NUMBER AS INDICATED

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
		PILOT LIGHT, COLOR AS NOTED * R - RED G - GREEN B - BLUE W - WHITE A - AMBER
		PILOT LIGHT, PUSH-TO-TEST TYPE, COLOR AS NOTED ABOVE.
		TIME DELAY RELAY RANGE AS NOTED SETPOINT AS NOTED # NUMBER AS INDICATED * TDE - TIME DELAY AFTER ENERGIZATION * TDD - TIME DELAY AFTER DE-ENERGIZATION OFF DELAY
		NOC - NORMALLY OPEN, TIMED CLOSING WHEN ENERGIZED
		NCTO - NORMALLY CLOSED, TIMED OPENING WHEN ENERGIZED
		NOTO - NORMALLY OPEN, TIMED OPENING WHEN DE-ENERGIZED
		NCTC - NORMALLY CLOSED, TIMED CLOSING WHEN DE-ENERGIZED
	LS	LIQUID LEVEL (FLOAT) SWITCH * INDICATES INSTRUMENT TYPE DEFINED ON LOOP SHEETS OR P & ID ## INDICATES LOOP NO.
		NORMALLY OPEN, CLOSING ON RISING LEVEL
		NORMALLY CLOSED, OPENS ON RISING LEVEL
	PS	PRESSURE OR VACUUM SWITCH NORMALLY OPEN, CLOSING ON RISING PRESSURE NORMALLY CLOSED, OPENS ON RISING PRESSURE NORMALLY CLOSED, OPENS ON DROPPING PRESSURE
	TS	TEMPERATURE SWITCH OR THERMOSTAT NORMALLY OPEN, CLOSING ON RISING TEMPERATURE NORMALLY OPEN, CLOSING ON DROPPING TEMPERATURE NORMALLY CLOSED, OPENS ON RISING TEMPERATURE NORMALLY CLOSED, OPENS ON DROPPING TEMPERATURE
	FS	FLOW SWITCH (AIR, WATER, ETC.) NORMALLY OPEN, CLOSING ON INCREASED FLOW NORMALLY CLOSED, OPENS ON INCREASED FLOW
	ZS	POSITION (LIMIT) SWITCH NORMALLY OPEN NORMALLY OPEN - HELD CLOSED NORMALLY CLOSED NORMALLY CLOSED - HELD OPEN
	WS	TORQUE SWITCH NORMALLY OPEN, CLOSING ON HIGH TORQUE NORMALLY CLOSED, OPENS ON HIGH TORQUE
		CONDUCTORS OR CONDUITS CROSSING PATHS BUT NOT CONNECTED
		CONDUCTORS ELECTRICALLY CONNECTED
	S	SOLENOID VALVE

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
	LA	LIGHTNING ARRESTER
		GROUND OR GROUND ROD
	30A	FUSE, AMPERE RATING AS NOTED
	HTR	STRIP HEATER OR HEATING ELEMENT
		INDUCTOR
	TG	TACHOMETER GENERATOR
		CONTACT, NORMALLY OPEN (NO)
		CONTACT, NORMALLY CLOSED (NC)
		OVERLOAD RELAY HEATER
	K	* K = KEY INTERLOCK
	E	* E = ELECTRICAL INTERLOCK
	TB	TERMINAL OR TEST BLOCK
	RTD	RESISTANCE TEMPERATURE DETECTOR
	VE	VIBRATION DETECTOR
	DM	DAMPER MOTOR
	ETM	ELAPSED TIME METER
	M	MOTOR OPERATED VALVE OR GATE
		INDICATES LIMITS OF ELECTRICAL EQUIPMENT OR WIRING ENCLOSURE



NOTES:

- IN GENERAL CONDUIT ROUTING FOR EQUIPMENT AND DEVICES IS NOT SHOWN ON THE PLANS. THE CONTRACTOR MUST BE RESPONSIBLE FOR ROUTING ALL CONDUITS WHICH SHALL INCLUDE CONDUITS SHOWN ON ONE-LINE AND RISER DIAGRAMS AND HOME-RUNS SHOWN ON PLAN DRAWINGS. REFER TO SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
- THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUITS REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.
- SWITCHGEAR AND MOTOR CONTROL CENTER COMPARTMENT DESIGNATIONS AS INDICATED BELOW:
BLANK: NOT INTENDED FOR USE. PLATE ONLY
SPACE: EQUIPPED WITH REQUIRED BUS AND HARDWARE FOR THE FUTURE ADDITION OF BREAKERS AND/OR STARTERS WITHIN THE SIZE AND RANGE SHOWN
SPARE: CONTAINS A COMPLETELY INSTALLED BREAKER AND/OR STARTER OF SIZE AND TYPE INDICATED FOR FUTURE USE.
- INTERPRETATION OF ELECTRICAL DRAWINGS: CIRCUIT IDENTIFICATION, ROUTING, AND SIZES OF CONDUITS AND WIRES ARE SHOWN ON THE FOLLOWING DRAWINGS:
A. ONE LINE POWER DIAGRAMS: POWER, CONTROL AND SIGNAL WIRING REQUIREMENTS FOR ELECTRICAL DISTRIBUTION EQUIPMENT AND UTILIZATION EQUIPMENT POWERED FROM SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS AND MAJOR POWER DISTRIBUTION PANELBOARDS ARE TYPICALLY SHOWN ON THE ONE LINE DIAGRAMS. THE PARAMETERS IDENTIFIED ON THE ONE LINE DIAGRAMS ARE: CIRCUIT IDENTIFICATION, CIRCUIT ORIGIN AND DESTINATION, CONDUIT SIZE, WIRE SIZE AND QUANTITY FOR COMPLETE CIRCUIT LENGTH, AND AUXILIARY DEVICES ASSOCIATED WITH THE CONTROL/PROTECTION OF THE POWERED EQUIPMENT, AND SIZE OF THE GROUNDING ELECTRODE CONDUCTORS.
B. INSTRUMENTATION AND CONTROL RISER DIAGRAMS: POWER, CONTROL, SIGNAL AND DATA HIGHWAY WIRING REQUIREMENTS FOR INSTRUMENTS AND CONTROL DEVICES CONTROLLED/MONITORED FROM INSTRUMENTATION AND CONTROL PANELS SUCH AS RTUS, PLCs, TERMINAL CABINETS, AND REMOTE I/O PANELS ARE TYPICALLY SHOWN ON THE INSTRUMENTATION AND CONTROL ONE LINE DIAGRAMS. THE PARAMETERS IDENTIFIED ON THE ONE LINE DIAGRAMS ARE: CIRCUIT IDENTIFICATION, CIRCUIT ORIGIN AND DESTINATION, CONDUIT SIZE, WIRE SIZE AND QUANTITY AND TYPE FOR COMPLETE CIRCUIT LENGTH, AND AUXILIARY DEVICES ASSOCIATED WITH THE CONTROL/PROTECTION OF THE POWERED EQUIPMENT.
C. FLOOR PLANS: FOR DETERMINING THE LENGTH OF CIRCUITS LOCATED WITHIN STRUCTURES, FLOOR PLANS SHOW THE LOCATION OF ELECTRICAL DISTRIBUTION EQUIPMENT, CONTROL PANELS, UTILIZATION EQUIPMENT, INSTRUMENTS, ANCILLARY EQUIPMENT AND DEVICES AND THE ANTICIPATED PENETRATION LOCATIONS WHERE CONDUITS EXIT/ENTER THE STRUCTURE. HOMERUNS MAY ALSO BE SHOWN FROM MISCELLANEOUS EQUIPMENT NOT SHOWN ON A ONE LINE OR RISER DIAGRAM.
D. SITE PLANS: FOR DETERMINING THE LENGTH OF CIRCUITS EXTERIOR TO STRUCTURES AND TO IDENTIFY THE SPECIFIC REQUIREMENTS OF THE UNDERGROUND CONDUITS OR DUCT BANKS, SITE PLANS SHOW THE GENERAL ROUTING OF UNDERGROUND CONDUITS AND DUCT BANKS WITH SECTIONS INDICATING THE CONDUIT SIZE, ARRANGEMENT AND CIRCUIT ROUTING.
E. NOTE THAT CONDUIT SIZE WITHIN THE STRUCTURE IS INDICATED ON ONE-LINE DIAGRAM AND UNDERGROUND SIZE IS INDICATED ON DUCT BANK SECTIONS.

GENERAL NOTE
THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

APPROVED: [Signature]

DATE: []

DESCRIPTION: []

SCALE: AS NOTED

PROJECT NO.: 1641213

CONSTR. CONTR. NO.: N62470-15-D-4002

NAVFAC DRAWING NO.: 15160875

SHEET 26 OF 76

E-001

DRAWING REVISION: 25 AUGUST 2020

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SYMBOL	DESCRIPTION
	LIGHTING FIXTURE "A" - FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "B" - CONTROLLED BY SWITCH "B" "3" - CIRCUIT NUMBER
	LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
	WALL MOUNTED TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
	CROSS HATCH INDICATES LIGHTING FIXTURE THAT IS UNSWITCHED AND MUST REMAIN ON AT ALL TIMES. NOTATIONS SAME AS ABOVE.
	SHADED AREA INDICATES LIGHTING FIXTURE THAT IS EQUIPPED WITH EMERGENCY BACKUP POWER SOURCE. NOTATIONS SAME AS ABOVE.
	POLE MOUNTED AREA TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
	POLE MOUNTED ROADWAY TYPE LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LAMP HEADS "EM" - FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "3" - SUPERVISORY CIRCUIT + - FIXTURE TAG #
	REMOTE EMERGENCY ADJUSTABLE WALL LIGHTING FIXTURE WITH TWO LAMP HEADS "R-2" - FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) + - HOME RUN TO BATTERY UNIT INDICATED. CONDUIT MUST BE 3/4" AND CONTAIN (2) NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND (1) NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE INDICATED.
	COMBINATION BATTERY UNIT AND EXIT SIGN. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN.
	CEILING MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE. WHEN USED, ARROW INDICATES DIRECTION OF EGRESS. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN. (DOUBLE FACE DOUBLE CHEVRONS SHOWN)
	WALL MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE. WHEN USED, ARROW INDICATES DIRECTION OF EGRESS. FILLED QUADRANT REPRESENTS FACE SIDE OF SIGN.
	REMOTE EMERGENCY CEILING LIGHTING FIXTURE. "RH-3" - FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE) "3" - SUPERVISORY CIRCUIT + - HOME RUN TO BATTERY UNIT INDICATED. CONDUIT SHALL BE 3/4" AND CONTAIN 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE INDICATED.
	HOME RUN TO DESIGNATED EQUIPMENT. BRANCH CIRCUIT CONDUIT WITH 2 NO. 12 AWG BRANCH CIRCUIT CONDUCTORS AND 1 NO. 12 AWG GROUND CONDUCTOR UNLESS OTHERWISE NOTED. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. FOR MINIMUM SIZE CONDUIT REFER TO THE SPECIFICATIONS.
	CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING.
	CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
	CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
	"X" INDICATES EXPLOSION PROOF CONDUIT SEAL FITTING.
	CONCRETE ENCASED DUCTBANK. WIDTH VARIES, SEE DUCTBANK SECTION/DETAILS FOR REQUIREMENTS AND WIDTH
	CONDUIT STUBBED OUT AND CAPPED
	DENOTES A QUANTITY OF TWO (2) 3-INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR.
	DENOTES A QUANTITY OF TWO (2) INSTRUMENT CABLES. EACH CABLE TO CONSIST OF TWO NO. 16 AWG CONDUCTORS TWISTED TOGETHER AND COVERED WITH A METALLIC SHIELD AND AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
	SAME AS ABOVE EXCEPT CABLE TO CONSIST OF THREE NO. 16 AWG CONDUCTORS TWISTED, SHIELDED AND COVERED WITH AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
	THREE 4-INCH CONDUITS
	FLEXIBLE METAL CONDUIT "WHIP" (3/4", 2#12, 1#12G UNLESS OTHERWISE NOTED) FOR LIQUID TIGHT MOTOR CONNECTIONS
	"X" INDICATES CONDUIT SEAL FITTING IN OTHER THAN CODE REQUIRED LOCATIONS.
	INDICATES MOTOR STARTER AND/OR MOTOR CONTROL EQUIPMENT WITHIN THE ENCLOSURE.

SYMBOL	DESCRIPTION
	SINGLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED.
	DOUBLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED.
	THREE WAY SWITCH "c" INDICATES FIXTURES CONTROLLED.
	FOUR WAY SWITCH "o" INDICATES FIXTURES CONTROLLED.
	DIMMER SWITCH "o" INDICATES FIXTURES CONTROLLED
	SINGLE POLE SWITCH "OS" INDICATES A PASSIVE INFRARED OCCUPANCY SENSOR
	DOUBLE POLE SWITCH "OS" INDICATES PROGRAMMABLE OCCUPANCY SENSOR CAPABLE OF INBOARD/OUTBOARD SWITCHING
	SINGLE POLE SWITCH "DT" INDICATES DUAL TECHNOLOGY PROGRAMMABLE OCCUPANCY SENSOR CAPABLE OF SENSING MOTION AND SOUND
	LIGHTING CONTACTOR WITH NUMBER OF POLES AS INDICATED
	TIME SWITCH
	PUSH BUTTON STATION
	INDICATES ALL LIGHTING FIXTURES WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS MUST BE TYPE "A" UNLESS OTHERWISE NOTED. SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
	LIGHTING PANELBOARD (LP-#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	POWER PANELBOARD (PP-#) OR DISTRIBUTION PANELBOARD (DP-#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	LIGHTING CONTACTOR PANELBOARD (LCP-#) SHOWN ON PLAN PER ACTUAL PANEL DIMENSIONS
	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W * GFCI - GROUND FAULT CIRCUIT INTERRUPTER TYPE WP - WEATHERPROOF XP - EXPLOSION PROOF T - TRANSIENT VOLTAGE SURGE SUPPRESSOR IC - ISOLATED GROUND 4 - CIRCUIT NUMBER
	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W MOUNTED ABOVE COUNTER-TOP OR 42" AFF * NOTATIONS SAME AS ABOVE
	SPECIAL PURPOSE RECEPTACLE * - VOLT RATING "3" - NUMBER OF POLES "60" - AMPERE RATING "4W" - 4 WIRES IN ADDITION TO GROUND
	MULTI-OUTLET ASSEMBLY, SYMBOL DENOTES RECEPTACLE TYPE
	FLUSH FLOOR OUTLET BOX WITH TYPE OUTLET INDICATED
	UNDER FLOOR DUCT SYSTEM WITH TYPE OUTLETS INDICATED
	THREE CELL UNDER FLOOR DUCT SYSTEM JUNCTION BOX
	JUNCTION BOX
	PULL BOX
	TERMINAL CABINET
	OCCUPANCY SENSOR
	PHOTOCELL
	EMERGENCY EYEWASH/SHOWER ALARM STATION WITH FLOW SWITCH(ES)
	INDICATED EQUIPMENT AND MATERIALS TO BE DEMOLISHED
	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS MUST BE OF NEMA 12 CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS MUST BE OF NEMA 4X CONSTRUCTION (OR GASKETED AND SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS MUST BE OF NEMA 4X CONSTRUCTION (OR CORROSION RESISTANT CONSTRUCTION SUITABLE FOR USE IN A WET LOCATION WHERE NEMA STANDARDS DO NOT APPLY) UNLESS OTHERWISE NOTED.
	INDICATES THAT ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE ROOM OR AREA IN WHICH THIS NOTATION APPEARS MUST CONFORM TO N.E.C. REQUIREMENTS FOR THE HAZARDOUS AREA CLASSIFICATION SHOWN.

SYMBOL	DESCRIPTION
	GROUND SYSTEM GRID OR LOOP, 36" BELOW FINISHED GRADE UNLESS OTHERWISE NOTED.
	EXOTHERMIC WELD CONNECTION
	3/4" x 10'-0" GROUND ROD, UNLESS SPECIFIED OTHERWISE.
	GROUND ROD TEST WELL STATION (SEE DETAIL SHEET FOR REQUIREMENTS)
COMMUNICATION SYSTEMS	
	TELEPHONE OUTLET FOR DESK TYPE HANDSET K = KEY SYSTEM
	TELEPHONE OUTLET FOR WALL TYPE HANDSET (MOUNT UP 4'-6") K = KEY SYSTEM
	PAGE/PARTY TELEPHONE OUTLET FOR DESK TYPE HANDSET
	PAGE/PARTY TELEPHONE OUTLET FOR WALL TYPE HANDSET, MOUNT UP 4'-6"
	PAGING SPEAKER, WALL MOUNTED H = HORN TYPE W = WIDE ANGLE TYPE
	PAGING SPEAKER, WALL MOUNTED, BI-DIRECTIONAL, HORN TYPE W = WIDE ANGLE TYPE
	PAGING SPEAKER, FLUSH MOUNTED CEILING TYPE
	PAGING SPEAKER, SURFACE MOUNTED CEILING TYPE
	REMOTE WALL MOUNTED VOLUME CONTROL FOR CEILING SPEAKER, MOUNT UP 5'-0"
	YAGI ANTENNA PROVIDED BY DIVISION 27
	OMNI-DIRECTIONAL ANTENNA PROVIDED BY DIVISION 26
	"C" - DATA INPUT/OUTPUT CABLE OUTLET "P" - PROCESS COMPUTER SYSTEM (CAT6 RJ-45 JACK)
	GAS DETECTOR/VENTILATION FAILURE ALARM, # INDICATES TYPE OF UNIT. 1 = MASTER, 2 = REMOTE
	GAS DETECTION/VENTILATION FAILURE WEATHERPROOF DUAL-LITE BEACON MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
	GAS DETECTION/VENTILATION FAILURE HORN/STROBE MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
	GAS DETECTION/VENTILATION FAILURE STROBE, MOUNT TOP OF DEVICE UP 6'-8" A.F.F.
SECURITY SYSTEMS	
	SECURITY ALARM CONTROL PANEL
	SECURITY ALARM DOOR SWITCH
	SECURITY ALARM KEY PAD
	SECURITY SYSTEM CARD ACCESS READER
	SECURITY ALARM WINDOW SWITCH
	SECURITY ALARM MOTION DETECTOR
	CLOSED CIRCUIT TV CAMERA
	PAN, TILT, ZOOM CAMERA LENS CONTROLS
	GLASS BREAK DETECTOR
FIRE ALARM SYSTEMS	
	FIRE ALARM HEAT DETECTOR 135 FIXED TEMPERATURE UNLESS OTHERWISE NOTED. "200" = 200 FIXED TEMPERATURE "R" - FIXED TEMPERATURE RATE-OF-RISE TYPE
	FIRE ALARM SMOKE DETECTOR PHOTOELECTRIC TYPE UNLESS OTHERWISE NOTED. "T" - IONIZATION TYPE.
	FIRE ALARM DUCT SMOKE DETECTOR
	FIRE ALARM CONTROL PANEL
	FIRE ALARM VENTILATION PANEL WITH GRAPHIC PANEL
	REMOTE FIRE ALARM ANNUCIATOR PANEL

SYMBOL	DESCRIPTION
	FIRE ALARM MASTER BOX
	FIRE ALARM HORN, MOUNT UP 7'-6"
	FIRE ALARM STROBE, MOUNT UP 6'-8" 15 = CANDELA RATING
	FIRE ALARM HORN AND STROBE LIGHT COMBINATION, MOUNT UP 6'-8" 15 = CANDELA RATING
	FIRE ALARM MANUAL PULL STATION, MOUNT UP 4'-0"
	SPRINKLER VALVE SUPERVISORY SWITCH
	SPRINKLER FLOW ALARM SWITCH
	FIRE ALARM BELL
	WEATHERPROOF HI-INTENSITY FIRE ALARM STROBE LIGHT WITH HORN
	PASSIVE INFRARED DETECTOR
	SMOKE BEAM DETECTOR (RECEIVER)
	SMOKE BEAM DETECTOR (TRANSMITTER)
	FIRE ALARM SMOKE DETECTOR REMOTE INDICATOR AND TEST SWITCH

ABBREVIATIONS (CONTINUED)	
ELEV	ELEVATION
EM	EMERGENCY
ENCL	ENCLOSURE OR ENCLOSED
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING
FO	FIBER OPTIC
FU	FUSE
GCP	GENERATOR CONTROL PANEL
GEN	GENERATOR
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
HACR	HEATING & AIR CONDITIONING RATED
HH	HANDHOLE
HT	HEIGHT
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HZ	HERTZ
ID	IDENTIFICATION
INSTR	INSTRUMENT
K	KILO (PREFIX)
kcmil	1000 CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LA	LIGHTNING ARRESTER
LTG	LIGHTING
LP	LIGHTING PANEL
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
PB	PULL BOX
PCP	PUMP CONTROL PANEL
PH	PHASE
PMH	POWER MANHOLE
PNL	PANEL OR PANELBOARD
PR	PAIR
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH/CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
CWS	CONDUIT WALL SEAL
DC	DIRECT CURRENT
DIA	DIAMETER
DMU	DIGITAL METERING UNIT
DN	DOWN
EC	EMPTY CONDUIT
ELEC	ELECTRICAL

ABBREVIATIONS	
A	AMPS
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AIC	AMPERE INTERRUPTING CAPACITY
AMP	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
CB	CIRCUIT BREAKER
CGD	COMBUSTIBLE GAS DETECTOR
CKT	CIRCUIT
CLB	CURRENT LIMITING BREAKER
CLF	CURRENT LIMITING FUSE
CP	CONTROL PANEL
CPT	POTENTIAL TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH/CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
CWS	CONDUIT WALL SEAL
DC	DIRECT CURRENT
DIA	DIAMETER
DMU	DIGITAL METERING UNIT
DN	DOWN
EC	EMPTY CONDUIT
ELEC	ELECTRICAL

SHEET NO. WHERE DETAIL IS DRAWN

SYMBOL WHERE THERE IS A DETAIL

DETAIL
1/4" = 1'-0"

SHEET NO. WHERE THERE IS A DETAIL

SYMBOL WHERE DETAIL IS DRAWN

DETAIL SYMBOL

SHEET NO. WHERE SECTION IS DRAWN

SYMBOL WHERE THERE IS A SECTION

SECTION
1/4" = 1'-0"

SHEET NO. WHERE SECTION IS TAKEN

SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL

GENERAL NOTE
THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

STATE OF LOUISIANA
PROFESSIONAL ENGINEER
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JUNE 2, 2021

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
SOUTHEAST
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA

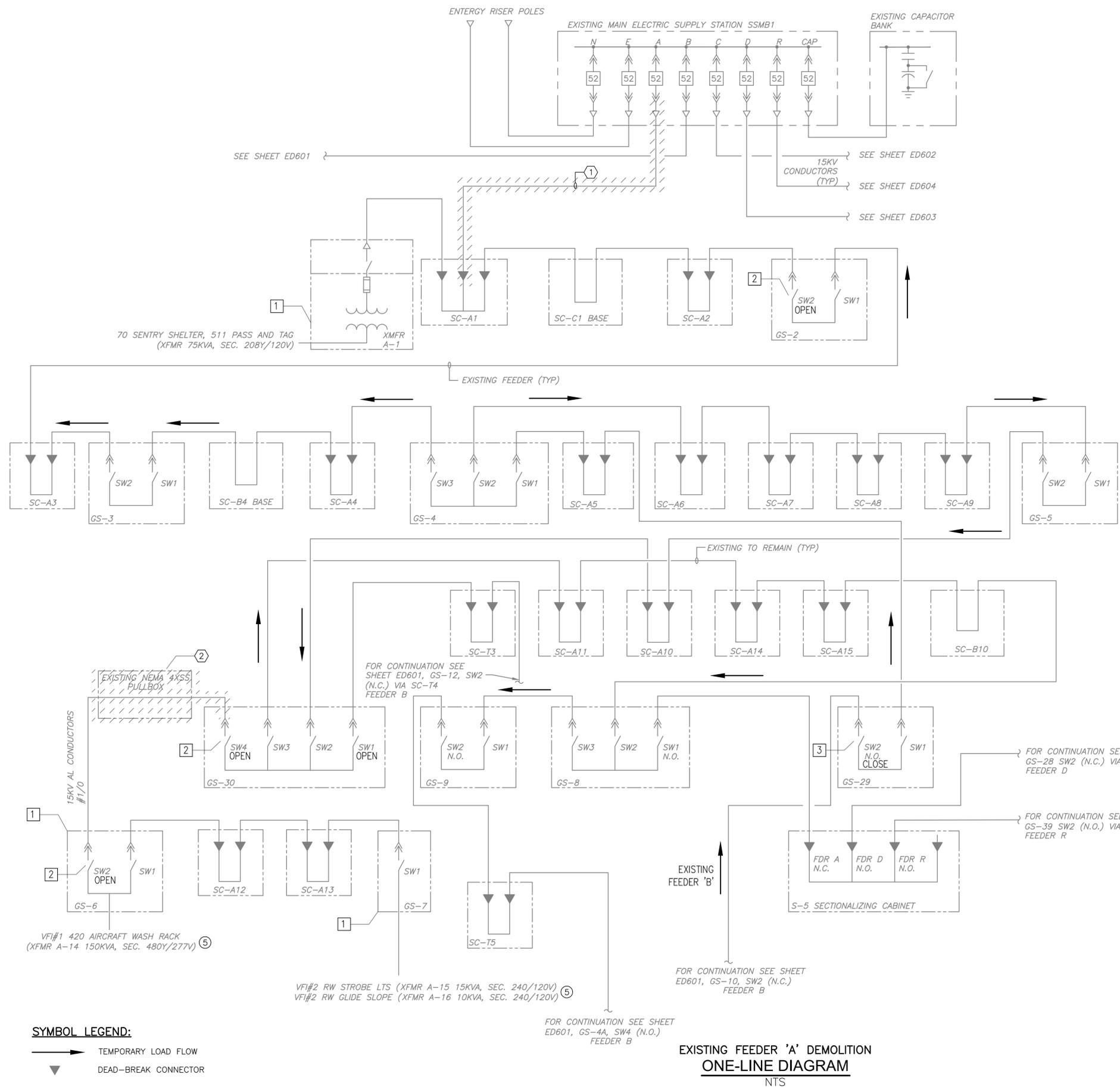
DISTRIBUTION SWITCHGEAR ECIP

ELECTRICAL LEGEND II

SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160876
SHEET 27 OF 78	
E-002	

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: C:\pwworking\15160876\15160876.dwg LAYOUT NAME: PLOT PLOTTED: Friday, May 28, 2021 10:26am USER: handleykg



GENERAL ELECTRICAL NOTES:

- THIS DRAWING REPRESENTS THE LATEST DOCUMENTED INFORMATION AVAILABLE ON THE EXISTING SYSTEM. HOWEVER, UNDOCUMENTED CHANGES MAY EXIST. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM ACCORDING TO THE INTENT OF THE CONTRACT DRAWINGS. REFERENCE CONTRACT NO. N69450-08-D-1295 ELECTRICAL FEEDER REPAIR AS-BUILT DRAWINGS FOR ADDITIONAL INFORMATION.
- EQUIPMENT CONNECTIONS AT THE NAVAL AIR STATION JRB AT BELLE CHASSE MAY REQUIRE TEMPORARY OR PARTIAL SHUTDOWNS. THE CONTRACTOR MUST MAKE EVERY EFFORT NECESSARY TO MINIMIZE THE SHUTDOWN TIME AND COORDINATE WITH THE CONTRACTING OFFICER PRIOR TO ATTEMPTING ANY SUCH POWER INTERRUPTIONS. FULL OR PARTIAL SHUTDOWNS MUST BE LIMITED TO THE CONSTRAINTS SPECIFIED UNDER SECTION 01 35 26. WHEN REQUIRED BY THE CONTRACTING OFFICER, THE CONTRACTOR MUST RESTORE POWER AND OPERATIONS DURING ANY SHUTDOWN.
- THE CONTRACTING OFFICER MUST BE NOTIFIED 45 CALENDAR DAYS IN ADVANCE OF WORK REQUIRING POWER INTERRUPTIONS. POWER SHUTDOWNS AND SWITCHOVERS MUST BE REQUESTED IN WRITING TO THE CONTRACTING OFFICER FOR APPROVAL. MANDATORY SHUTDOWN MEETINGS BETWEEN THE CONTRACTOR AND CONTRACTING OFFICER MUST BE HELD TO REVIEW EACH OUTAGE REQUEST PRIOR TO APPROVAL OF ANY OUTAGE.
- DURING SHUTDOWNS, SWITCH-OVERS, TESTING, START-UP, ETC., THE CONTRACTOR MUST HAVE THE MANPOWER, EQUIPMENT AND MANUFACTURER'S REPRESENTATIVES REQUIRED TO MAKE ANY NECESSARY ADJUSTMENTS, REPAIRS, RESTORATION OF POWER, TRAINING, ETC. IN ORDER TO KEEP THE BASE OPERATIONAL.
- THERE MUST BE NO SHUTDOWNS PERFORMED UNTIL ELECTRICAL EQUIPMENT IS APPROVED AND HAS BEEN DELIVERED TO THE PROJECT SITE AND INSTALLED TO THE GREATEST EXTENT POSSIBLE.
- THE INTENT OF THE SUGGESTED CONSTRUCTION SEQUENCING NOTED HEREIN AND AFTER IS TO ASSIST THE CONTRACTOR IN PERFORMING HIS OR HER DUTIES AND IS PROVIDED ONLY AS INFORMATION TO THE CONTRACTOR. THE CONTRACTOR MUST REMAIN RESPONSIBLE FOR MEANS, METHODS, SEQUENCES, PROCEDURE AND TECHNIQUES OF CONSTRUCTION AS REQUIRED BY THE CONTRACT DOCUMENTS.
- THE CONTRACTING OFFICER RETAINS THE RIGHT TO KEEP ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRES REMOVED FROM THE EXISTING INSTALLATION. MOVE EQUIPMENT TO DESIGNATED STORAGE LOCATION ONSITE. CONTRACTOR IS RESPONSIBLE FOR OFFSITE DISPOSAL OF UNWANTED MATERIAL.
- IN AREAS INVOLVING DEMOLITION, EQUIPMENT, UNUSED WIRING, UNUSED CONDUIT, PULLBOXES, AND SUPPORT MATERIAL MARKED FOR DEMOLITION MUST BE COMPLETELY REMOVED. THE AREAS MUST BE CLEANED OF DEMOLITION DEBRIS.

KEY NOTES:

- PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO FIELD INVESTIGATE THE TEMPORARY POWER REQUIREMENTS OF THE FACILITIES NOTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. PROVIDE THE NECESSARY TEMPORARY INFRASTRUCTURE REQUIRED TO KEEP THE IDENTIFIED FACILITY OPERATIONAL. THE INSTALLATION MUST CONFORM TO APPLICABLE REQUIREMENTS OF THE NEC. REMOVE TEMPORARY POWER SOURCE PROVISIONS ONCE THE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- CHANGE STATUS OF SWITCH AS INDICATED. RESTORE SWITCH CONFIGURATION UNDER SUPERVISION OF THE CONTRACTING OFFICER ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- CHANGE STATUS OF SWITCH AS INDICATED. MAJORITY OF THE FEEDER 'A' SYSTEM IS TEMPORARILY POWERED BY EXISTING FEEDER 'B' (APPROXIMATELY 47 AMPS OF ADDITIONAL LOAD FLOW ON FEEDER 'B' RESULTING IN A FEEDER 'B' LOAD FLOW OF 120 AMPS). TIE-IN NEW FEEDERS AS SHOWN ON SHEET E-602. RESTORE SWITCH CONFIGURATION UNDER SUPERVISION OF THE CONTRACTING OFFICER ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED.

DEMOLITION NOTES:

- REMOVE EXISTING (3) 15KV, ALUMINUM CONDUCTORS WITH 1/3 SHIELD CABLE INSTALLED IN 5" SCH 80 HDPE CONDUITS TO THE GREATEST EXTENT POSSIBLE.
- DISCONNECT GS-30 SWITCH 4 TO GS-6 FEEDER. PULL FEEDER BACK TO EXISTING NEMA 4XSS PULLBOX. REMOVE EXISTING NEMA 4XSS PULLBOX AND PROVIDE SECTIONALIZING CABINET IN APPROXIMATELY THE SAME LOCATION. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO PROTECT THE GS-30 TO GS-6 FEEDER FOR REUSE AS SHOWN ON SHEET E-602.

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ADD FIRE ALARM SYSTEM
- ADD REDUNDANT HVAC UNIT
- ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ADD AMI METERING SYSTEM.
- ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ADD DEMOLITION OF EXISTING SWITCHYARD.

SYMBOL LEGEND:

→ TEMPORARY LOAD FLOW

▼ DEAD-BREAK CONNECTOR

EXISTING FEEDER 'A' DEMOLITION ONE-LINE DIAGRAM
NTS

APPROVED	DATE	APP'R
DATE	DATE	DATE
DESCRIPTION	DESCRIPTION	DESCRIPTION
SW	SW	SW

STATE OF LOUISIANA
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LA FIRM LICENSE NO: EF-0000144

APPROVED

FIR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES: MGH | DRW: NRM | CHK: ISP

PM/DM: SARAH REED

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
117 SOUTH AND CENTRAL
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA

DISTRIBUTION SWITCHGEAR ECIP
FEEDER 'A' DEMOLITION ONE-LINE DIAGRAM

SCALE: AS NOTED
PROJECT NO.: 1641213
CONSTR. CONTR. NO. N62470-15-D-4002
NAVFAC DRAWING NO. 15160878
SHEET 29 OF 76
ED600
DRAWN/REVISED: 23 AUGUST 2020

DEMOLITION NOTES:

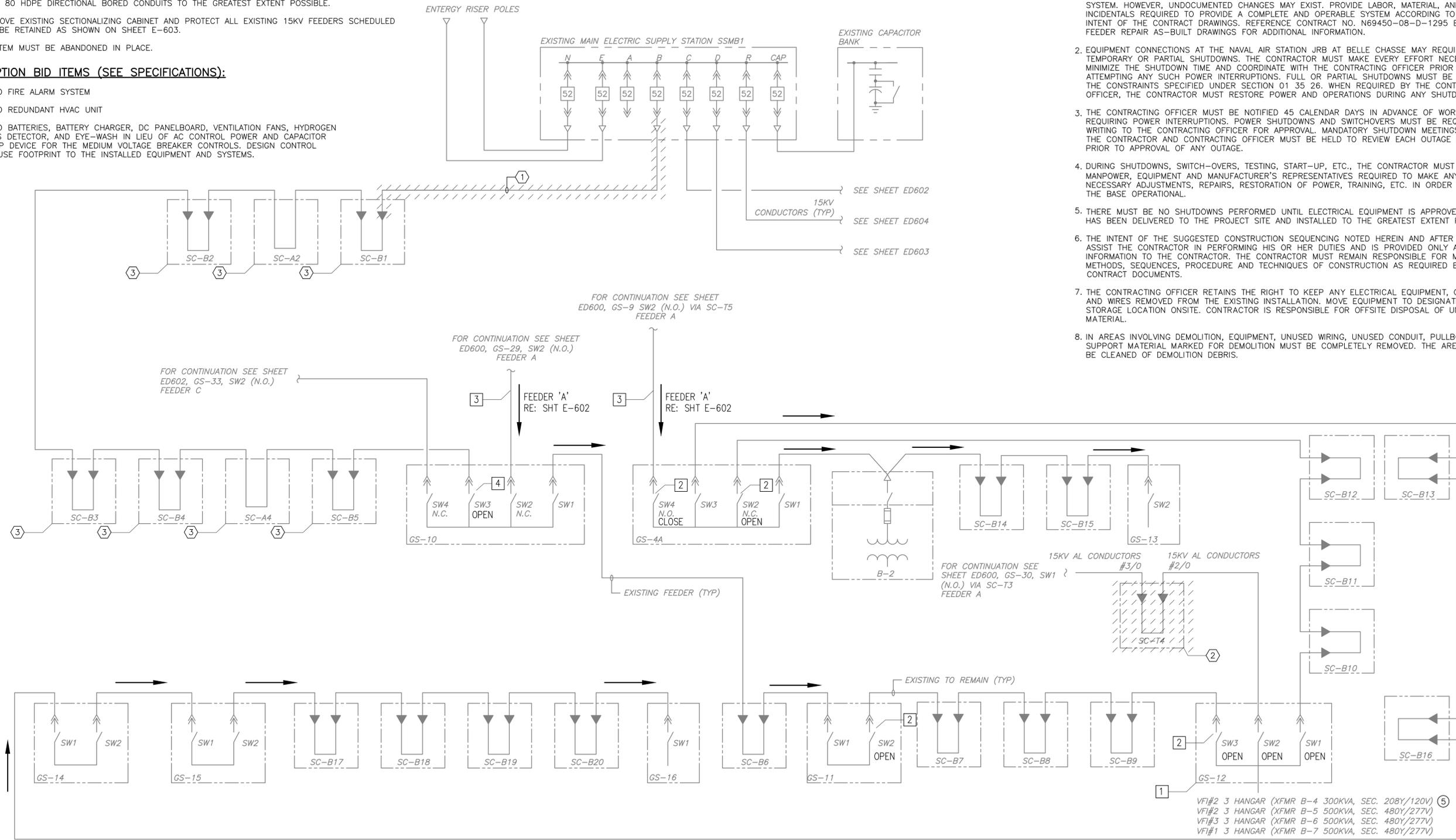
- ① REMOVE EXISTING (3) 15KV, ALUMINUM CONDUCTORS WITH 1/3 SHIELD CABLE INSTALLED IN 5" SCH 80 HDPE DIRECTIONAL BORED CONDUITS TO THE GREATEST EXTENT POSSIBLE.
- ② REMOVE EXISTING SECTIONALIZING CABINET AND PROTECT ALL EXISTING 15KV FEEDERS SCHEDULED TO BE RETAINED AS SHOWN ON SHEET E-603.
- ③ SYSTEM MUST BE ABANDONED IN PLACE.

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.

GENERAL ELECTRICAL NOTES:

1. THIS DRAWING REPRESENTS THE LATEST DOCUMENTED INFORMATION AVAILABLE ON THE EXISTING SYSTEM. HOWEVER, UNDOCUMENTED CHANGES MAY EXIST. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM ACCORDING TO THE INTENT OF THE CONTRACT DRAWINGS. REFERENCE CONTRACT NO. N69450-08-D-1295 ELECTRICAL FEEDER REPAIR AS-BUILT DRAWINGS FOR ADDITIONAL INFORMATION.
2. EQUIPMENT CONNECTIONS AT THE NAVAL AIR STATION JRB AT BELLE CHASSE MAY REQUIRE TEMPORARY OR PARTIAL SHUTDOWNS. THE CONTRACTOR MUST MAKE EVERY EFFORT NECESSARY TO MINIMIZE THE SHUTDOWN TIME AND COORDINATE WITH THE CONTRACTING OFFICER PRIOR TO ATTEMPTING ANY SUCH POWER INTERRUPTIONS. FULL OR PARTIAL SHUTDOWNS MUST BE LIMITED TO THE CONSTRAINTS SPECIFIED UNDER SECTION 01 35 26. WHEN REQUIRED BY THE CONTRACTING OFFICER, THE CONTRACTOR MUST RESTORE POWER AND OPERATIONS DURING ANY SHUTDOWN.
3. THE CONTRACTING OFFICER MUST BE NOTIFIED 45 CALENDAR DAYS IN ADVANCE OF WORK REQUIRING POWER INTERRUPTIONS. POWER SHUTDOWNS AND SWITCHOVERS MUST BE REQUESTED IN WRITING TO THE CONTRACTING OFFICER FOR APPROVAL. MANDATORY SHUTDOWN MEETINGS BETWEEN THE CONTRACTOR AND CONTRACTING OFFICER MUST BE HELD TO REVIEW EACH OUTAGE REQUEST PRIOR TO APPROVAL OF ANY OUTAGE.
4. DURING SHUTDOWNS, SWITCH-OVERS, TESTING, START-UP, ETC., THE CONTRACTOR MUST HAVE THE MANPOWER, EQUIPMENT AND MANUFACTURER'S REPRESENTATIVES REQUIRED TO MAKE ANY NECESSARY ADJUSTMENTS, REPAIRS, RESTORATION OF POWER, TRAINING, ETC. IN ORDER TO KEEP THE BASE OPERATIONAL.
5. THERE MUST BE NO SHUTDOWNS PERFORMED UNTIL ELECTRICAL EQUIPMENT IS APPROVED AND HAS BEEN DELIVERED TO THE PROJECT SITE AND INSTALLED TO THE GREATEST EXTENT POSSIBLE.
6. THE INTENT OF THE SUGGESTED CONSTRUCTION SEQUENCING NOTED HEREIN AND AFTER IS TO ASSIST THE CONTRACTOR IN PERFORMING HIS OR HER DUTIES AND IS PROVIDED ONLY AS INFORMATION TO THE CONTRACTOR. THE CONTRACTOR MUST REMAIN RESPONSIBLE FOR MEANS, METHODS, SEQUENCES, PROCEDURE AND TECHNIQUES OF CONSTRUCTION AS REQUIRED BY THE CONTRACT DOCUMENTS.
7. THE CONTRACTING OFFICER RETAINS THE RIGHT TO KEEP ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRES REMOVED FROM THE EXISTING INSTALLATION. MOVE EQUIPMENT TO DESIGNATED STORAGE LOCATION ONSITE. CONTRACTOR IS RESPONSIBLE FOR OFFSITE DISPOSAL OF UNWANTED MATERIAL.
8. IN AREAS INVOLVING DEMOLITION, EQUIPMENT, UNUSED WIRING, UNUSED CONDUIT, PULLBOXES, AND SUPPORT MATERIAL MARKED FOR DEMOLITION MUST BE COMPLETELY REMOVED. THE AREAS MUST BE CLEANED OF DEMOLITION DEBRIS.



FEEDER 'B' DEMOLITION ONE-LINE DIAGRAM
NTS

OPTION BID ITEMS CONT. (SEE SPECIFICATIONS):

- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

SYMBOL LEGEND:

- TEMPORARY LOAD FLOW
- ▼ DEAD-BREAK CONNECTOR

KEY NOTES:

- ① PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO FIELD INVESTIGATE THE TEMPORARY POWER REQUIREMENTS OF THE FACILITIES NOTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. PROVIDE THE NECESSARY TEMPORARY INFRASTRUCTURE REQUIRED TO KEEP THE IDENTIFIED FACILITY OPERATIONAL. THE INSTALLATION MUST CONFORM TO APPLICABLE REQUIREMENTS OF THE NEC. REMOVE TEMPORARY POWER SOURCE PROVISIONS ONCE THE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- ② CHANGE STATUS OF SWITCH AS INDICATED. RESTORE SWITCH CONFIGURATION UNDER SUPERVISION OF THE CONTRACTING OFFICER ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- ③ CHANGE STATUS OF GS-29 SWITCH 2 AND GS-9 SWITCH 2 UPSTREAM AS INDICATED. THE SYSTEM IS POWERED TEMPORARILY BY NEW FEEDER 'A' (APPROXIMATELY 52 AMPS OF ADDITIONAL FEEDER 'B' LOAD FLOW ON FEEDER 'A' RESULTING IN A TEMPORARY FEEDER 'A' LOAD FLOW OF 115 AMPS). TIE-IN NEW FEEDERS AS SHOWN ON SHEET E-603. RESTORE SWITCH CONFIGURATION UNDER SUPERVISION OF THE CONTRACTING OFFICER ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- ④ PROVIDE PAD LOCK APPROVED BY THE CONTRACTING OFFICER. CHANGE SWITCH POSITION ON GAS SWITCH (GS) AND LOCK OPEN. SWITCH REMAINS IN OPEN POSITION AFTER CONSTRUCTION ACTIVITIES ARE CONCLUDED.

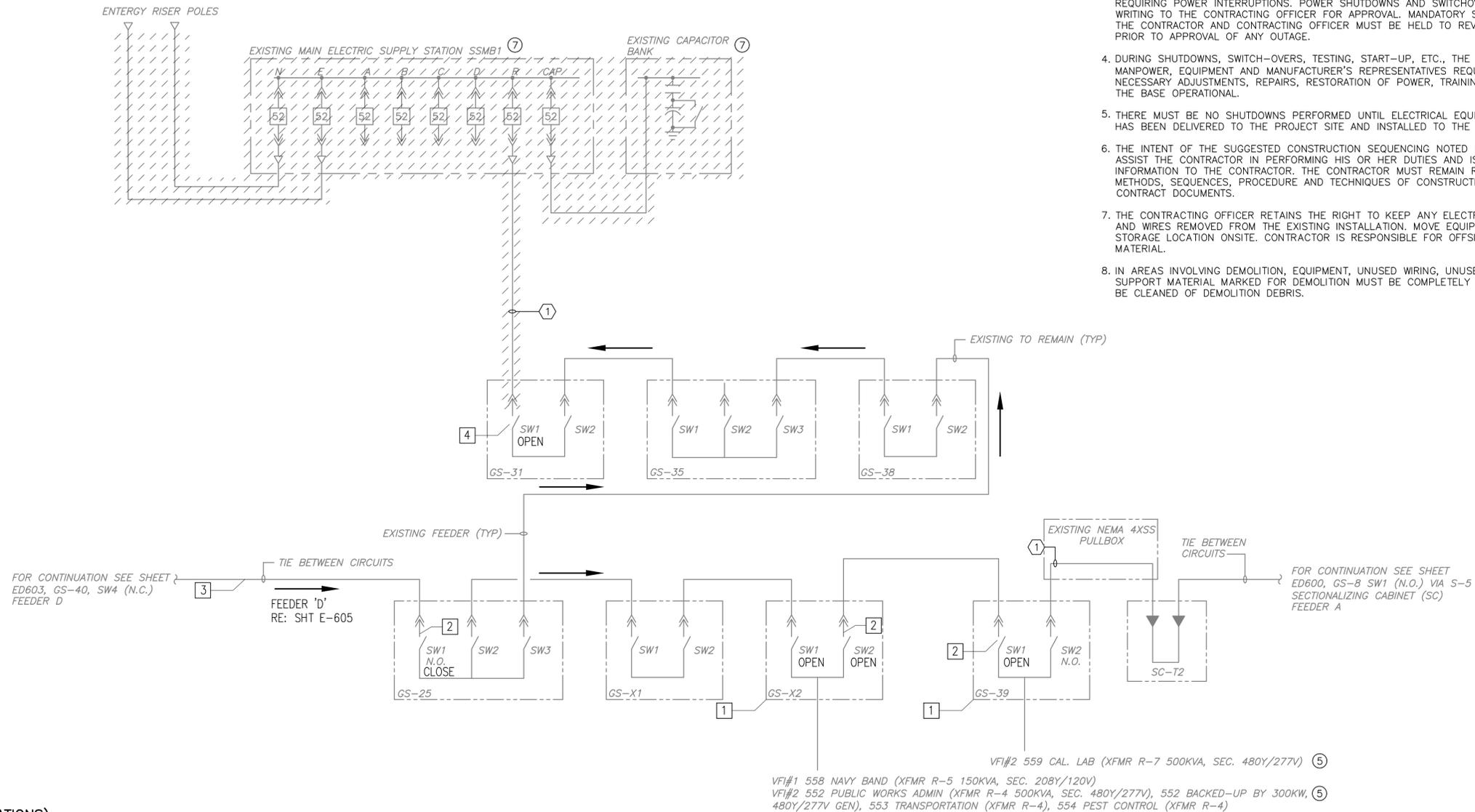
	
	
<p>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF 0000144</p>	
<p>APPROVED: _____ FOR COMMANDER NAVFAC</p>	
<p>ACTIVITY: _____</p>	
<p>SATISFACTORY TO: _____ DATE: _____</p>	
<p>DES: MGH DRW: NRM CHK: ISP</p>	
<p>PM/DM: SARAH REED</p>	
<p>BRANCH MANAGER: _____</p>	
<p>CHIEF ENG/ARCH: _____</p>	
<p>FIRE PROTECTION: _____</p>	
<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST 117 SOUTH AND CENTRAL NAVAL AIR STATION JACKSONVILLE FLORIDA NEW ORLEANS, LA</p>	
<p>DISTRIBUTION SWITCHGEAR ECIP FEEDER 'B' DEMOLITION ONE-LINE DIAGRAM</p>	
<p>SCALE: AS NOTED PROJECT NO.: 1641213 CONSTR. CONTR. NO.: N62470-15-D-4002 NAVFAC DRAWING NO.: 15160879 SHEET 30 OF 78</p>	
<p>ED601</p>	
<p><small>DRAWFORM REVISION: 23 AUGUST 2020</small></p>	

DEMOLITION NOTES:

- ① REMOVE CONNECTION FROM GS-39 AND PULLBACK FEEDER TO THIS LOCATION AND SPLICE THE EXISTING (3) 15KV, ALUMINUM CONDUCTORS WITH 1/3 SHIELD CABLE TO THE FEEDER SCHEDULED ON SHEET E-606.

GENERAL ELECTRICAL NOTES:

1. THIS DRAWING REPRESENTS THE LATEST DOCUMENTED INFORMATION AVAILABLE ON THE EXISTING SYSTEM. HOWEVER, UNDOCUMENTED CHANGES MAY EXIST. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM ACCORDING TO THE INTENT OF THE CONTRACT DRAWINGS. REFERENCE CONTRACT NO. N69450-08-D-1295 ELECTRICAL FEEDER REPAIR AS-BUILT DRAWINGS FOR ADDITIONAL INFORMATION.
2. EQUIPMENT CONNECTIONS AT THE NAVAL AIR STATION JRB AT BELLE CHASSE MAY REQUIRE TEMPORARY OR PARTIAL SHUTDOWNS. THE CONTRACTOR MUST MAKE EVERY EFFORT NECESSARY TO MINIMIZE THE SHUTDOWN TIME AND COORDINATE WITH THE CONTRACTING OFFICER PRIOR TO ATTEMPTING ANY SUCH POWER INTERRUPTIONS. FULL OR PARTIAL SHUTDOWNS MUST BE LIMITED TO THE CONSTRAINTS SPECIFIED UNDER SECTION 01 35 26. WHEN REQUIRED BY THE CONTRACTING OFFICER, THE CONTRACTOR MUST RESTORE POWER AND OPERATIONS DURING ANY SHUTDOWN.
3. THE CONTRACTING OFFICER MUST BE NOTIFIED 45 CALENDAR DAYS IN ADVANCE OF WORK REQUIRING POWER INTERRUPTIONS. POWER SHUTDOWNS AND SWITCHOVERS MUST BE REQUESTED IN WRITING TO THE CONTRACTING OFFICER FOR APPROVAL. MANDATORY SHUTDOWN MEETINGS BETWEEN THE CONTRACTOR AND CONTRACTING OFFICER MUST BE HELD TO REVIEW EACH OUTAGE REQUEST PRIOR TO APPROVAL OF ANY OUTAGE.
4. DURING SHUTDOWNS, SWITCH-OVERS, TESTING, START-UP, ETC., THE CONTRACTOR MUST HAVE THE MANPOWER, EQUIPMENT AND MANUFACTURER'S REPRESENTATIVES REQUIRED TO MAKE ANY NECESSARY ADJUSTMENTS, REPAIRS, RESTORATION OF POWER, TRAINING, ETC. IN ORDER TO KEEP THE BASE OPERATIONAL.
5. THERE MUST BE NO SHUTDOWNS PERFORMED UNTIL ELECTRICAL EQUIPMENT IS APPROVED AND HAS BEEN DELIVERED TO THE PROJECT SITE AND INSTALLED TO THE GREATEST EXTENT POSSIBLE.
6. THE INTENT OF THE SUGGESTED CONSTRUCTION SEQUENCING NOTED HEREIN AND AFTER IS TO ASSIST THE CONTRACTOR IN PERFORMING HIS OR HER DUTIES AND IS PROVIDED ONLY AS INFORMATION TO THE CONTRACTOR. THE CONTRACTOR MUST REMAIN RESPONSIBLE FOR MEANS, METHODS, SEQUENCES, PROCEDURE AND TECHNIQUES OF CONSTRUCTION AS REQUIRED BY THE CONTRACT DOCUMENTS.
7. THE CONTRACTING OFFICER RETAINS THE RIGHT TO KEEP ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRES REMOVED FROM THE EXISTING INSTALLATION. MOVE EQUIPMENT TO DESIGNATED STORAGE LOCATION ONSITE. CONTRACTOR IS RESPONSIBLE FOR OFFSITE DISPOSAL OF UNWANTED MATERIAL.
8. IN AREAS INVOLVING DEMOLITION, EQUIPMENT, UNUSED WIRING, UNUSED CONDUIT, PULLBOXES, AND SUPPORT MATERIAL MARKED FOR DEMOLITION MUST BE COMPLETELY REMOVED. THE AREAS MUST BE CLEANED OF DEMOLITION DEBRIS.



**FEEDER 'R' DEMOLITION
ONE-LINE DIAGRAM**
NTS

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

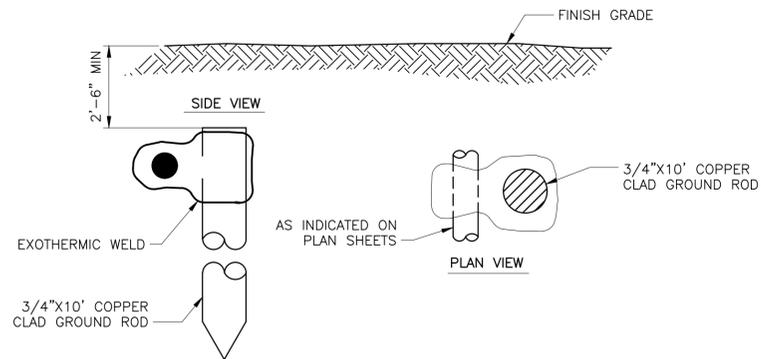
SYMBOL LEGEND:

- TEMPORARY LOAD FLOW
- ▼ DEAD-BREAK CONNECTOR

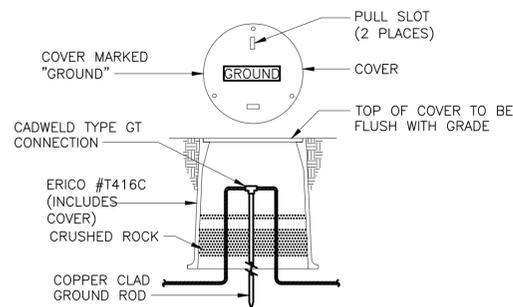
KEY NOTES:

- ① PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO FIELD INVESTIGATE THE TEMPORARY POWER REQUIREMENTS OF THE FACILITIES NOTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. PROVIDE THE NECESSARY TEMPORARY INFRASTRUCTURE REQUIRED TO KEEP THE IDENTIFIED FACILITY OPERATIONAL. THE INSTALLATION MUST CONFORM TO APPLICABLE REQUIREMENTS OF THE NEC. REMOVE TEMPORARY POWER SOURCE PROVISIONS ONCE THE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- ② CHANGE STATUS OF SWITCH AS INDICATED. RESTORE SWITCH CONFIGURATION UNDER SUPERVISION OF THE CONTRACTING OFFICER ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- ③ THE SYSTEM IS POWERED TEMPORARILY BY NEW FEEDER 'D' (APPROXIMATELY 56 AMPS OF ADDITIONAL FEEDER 'R' LOAD FLOW ON FEEDER 'D' RESULTING IN A TEMPORARY FEEDER 'D' LOAD FLOW OF 135 AMPS). TIE-IN NEW FEEDERS AS SHOWN ON SHEET E-606. RESTORE SWITCH CONFIGURATION UNDER SUPERVISION OF THE CONTRACTING OFFICER ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED.
- ④ PROVIDE PAD LOCK APPROVED BY THE CONTRACTING OFFICER. CHANGE SWITCH POSITION ON GAS SWITCH (GS) AND LOCK OPEN. SWITCH REMAINS IN OPEN POSITION AFTER CONSTRUCTION ACTIVITIES ARE CONCLUDED.

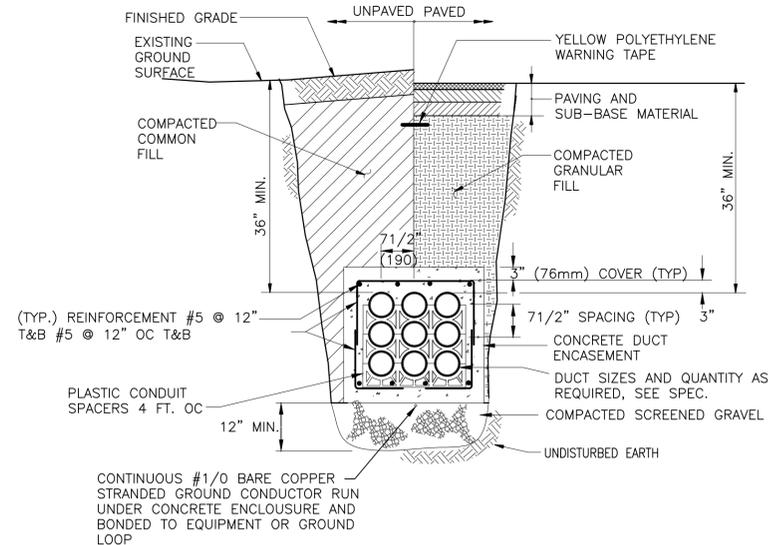
	APPR
	DATE
	DESCRIPTION
	SW
	
	
	
<small>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144</small>	
A/E INF3	
APPROVED	
FIR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES: MGH	DRW: NRM
CHK: ISP	ISP: SARAH REED
PM/DM	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE, FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP FEEDER 'R' DEMOLITION ONE-LINE DIAGRAM	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160882	
SHEET 33 OF 78	
ED604 <small>DRAWING REVISION: 25 AUGUST 2020</small>	



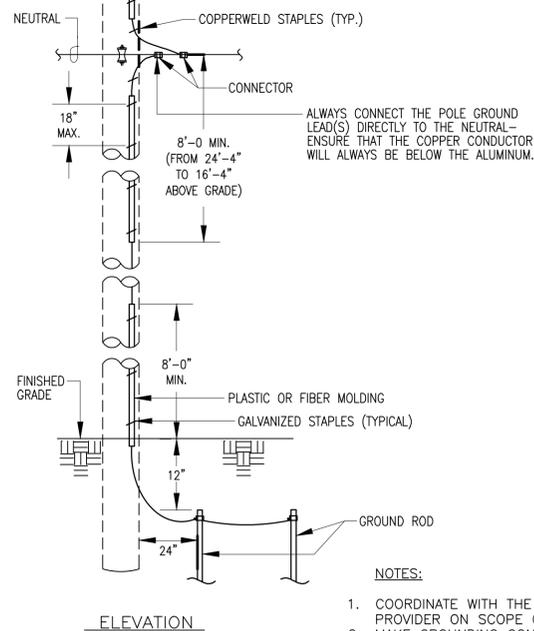
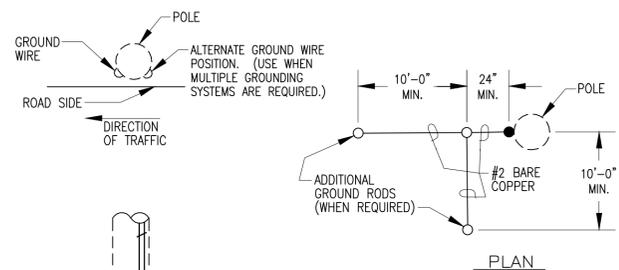
GROUND GRID CONNECTION TO GROUND ROD
DETAIL A
 N.T.S.



GROUND ROD TEST WELL
DETAIL B
 N.T.S.

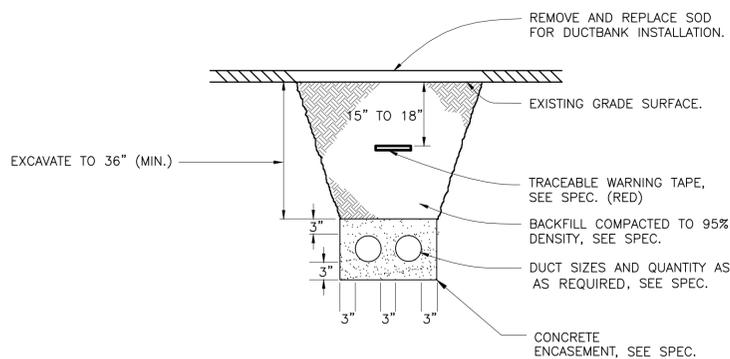


UNDERGROUND POWER DUCT BANK
DETAIL C
 N.T.S.

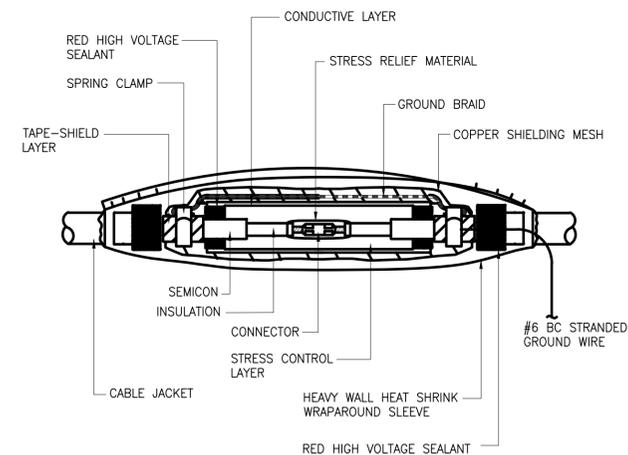


- NOTES:**
- COORDINATE WITH THE ELECTRIC UTILITY PROVIDER ON SCOPE OF RESPONSIBILITY. MAKE GROUNDING POLE CONNECTIONS TO ALL EQUIPMENT ON POLE AS REQUIRED BY IEEE C2 AND THE UTILITY PROVIDER.
 - PROVIDE GROUND RODS WHEN REQUIRED BY ENTERGY. OBTAIN RESISTANCE VALUES AS REQUIRED BY IEEE C2.

RISER POLE GROUND
DETAIL D
 N.T.S.



DUCT BANK 5KV-35KV FEEDER
DETAIL E
 N.T.S.



- NOTES:**
- CABLE SPLICE SHALL BE RATED FOR 15KV.

MEDIUM VOLTAGE 15KV SPLICE
DETAIL F
 N.T.S.

DATE	APPR
DESCRIPTION	DATE
SYN	DATE
CDM Smith 1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144	
APPROVED	A/E INFO
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH	DRAW: NRM
CHK: ISP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST	NAVAL AIR STATION JACKSONVILLE, FLORIDA
NAVAL AIR STATION JRB @ BELLE CHASSE	NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP	
ELECTRICAL STANDARD DETAILS I	
SCALE: AS NOTED	
EPROJCT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAFAC DRAWING NO. 15160884	
SHEET 35 OF 78	
E-500	
<small>DRAWN/REVISED: 23 AUGUST 2020</small>	

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D

C

B

A

D

C

B

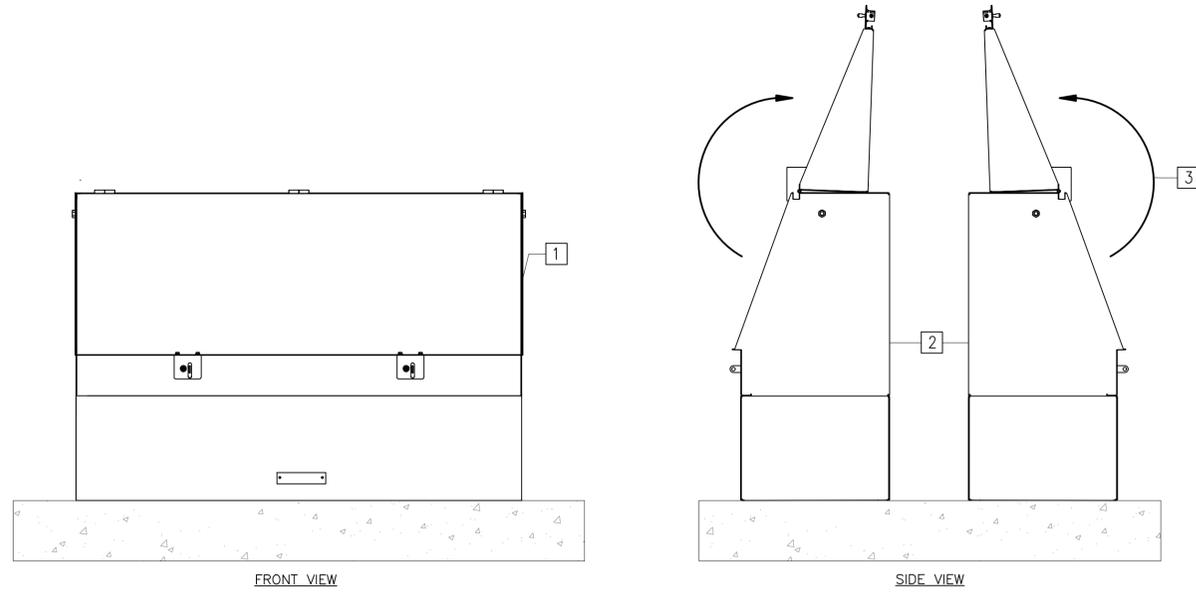
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GENERAL ELECTRICAL NOTES:

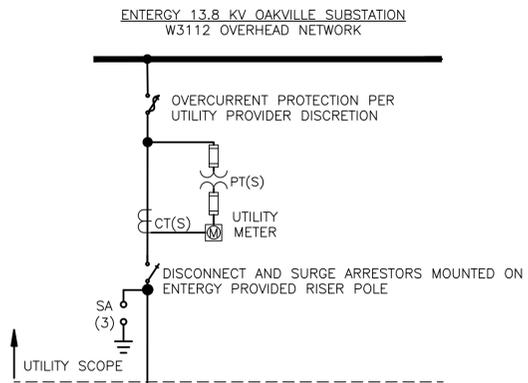
- 1. ELECTRICAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL LAYOUT OF WORK TO BE INSTALLED UNDER THIS CONTRACT WITHOUT ATTEMPTING TO SHOW EVERY DETAIL. FURNISH LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DOCUMENTS.
- 2. CONTRACTOR'S WORK MUST INCLUDE COMPLETE TESTING OF EQUIPMENT AND WIRING INCLUDING MAKING MINOR CORRECTIONS, CHANGES, OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT.
- 3. PROVIDE A DETECTABLE TRACER PER SECTION 33 05 23.13..

KEY NOTES:

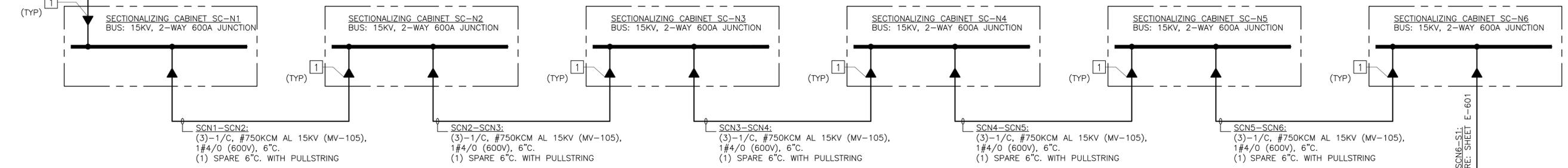
- 1 SUBMIT PRODUCT DATA AND INSTALLATION DETAILS OF EQUIPMENT IN ACCORDANCE WITH SECTION 01 33 00. REFERENCE SHEET EP505 FOR ADDITIONAL REQUIREMENTS.
- 2 PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO FIELD INVESTIGATE AND ADJUST DISTANCE BETWEEN CABINETS ON COMMON EQUIPMENT PAD TO BEST SUIT FIELD CONDITIONS.
- 3 TOP-HINGED, DIAGONALLY-CUT, REMOVABLE COVER FOR EASY OPENING WITH DOOR STOP TO PREVENT ACCIDENTAL CLOSING.



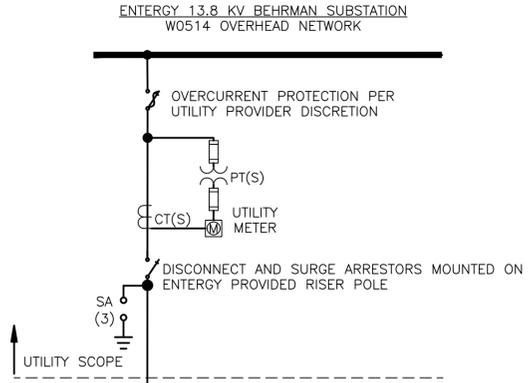
TYPICAL 2-WAY 600A SECTIONALIZING CABINET (SC)
ELEVATION
NTS



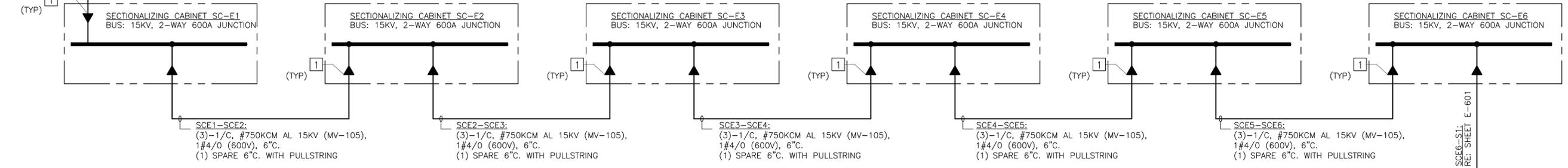
ENTERGY 13.8 KV OAKVILLE SUBSTATION
W3112 OVERHEAD NETWORK



UTILITY NORMAL SERVICE
ONE-LINE DIAGRAM
NTS



ENTERGY 13.8 KV BEHRMAN SUBSTATION
W0514 OVERHEAD NETWORK

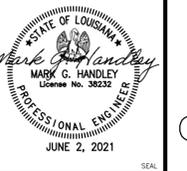
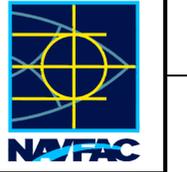


UTILITY BACKUP SERVICE
ONE-LINE DIAGRAM
NTS

COLU-SLI
REF: SHEET E-601
NORMAL SERVICE
REFERENCE SHEET
E-601

COLU-SLI
REF: SHEET E-601
EMERGENCY SERVICE
REFERENCE SHEET
E-601

DATE	APPR
DESCRIPTION	SNV



APPROVED	DATE	
FOR COMMANDER NAVFAC		
ACTIVITY		
SATISFACTORY TO	DATE	
DES: MGH	DRW: NRM	CHK: ISP
PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JACKSONVILLE FLORIDA
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA

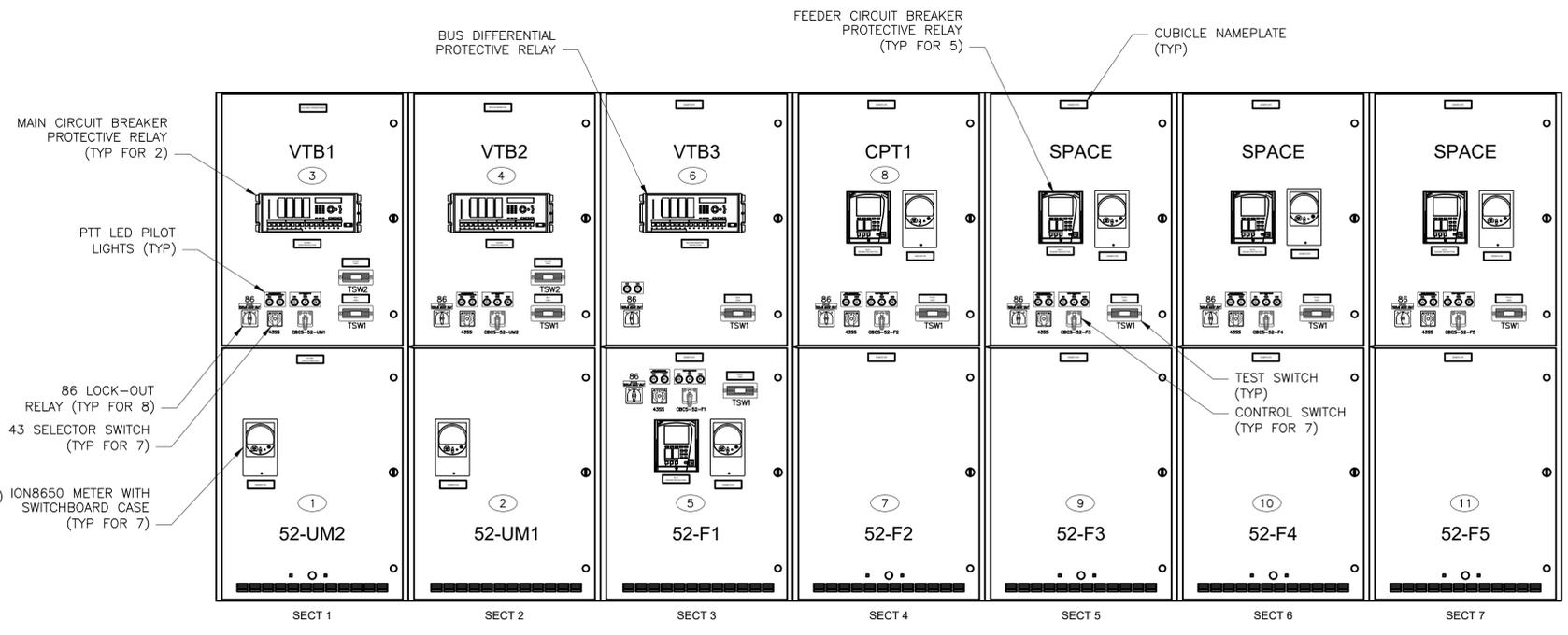
DISTRIBUTION SWITCHGEAR ECIP
UTILITY ONE-LINE DIAGRAM

SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160885
SHEET	36 OF 78
E-600	

DRAWING REVISION: 25 AUGUST 2020

READY TO ADVERTISE

FILE NAME: C:\p\m\p1\Yanabing\191675\24942E-600.dwg LAYOUT NAME: PLOT PLOTTED: Friday, May 28, 2021 4:30pm USER: HandleyMG



MAIN ELECTRIC SUPPLY STATION S1
ELEVATION
NTS

- GENERAL ELECTRICAL NOTES:**
- ELECTRICAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL LAYOUT OF WORK TO BE INSTALLED UNDER THIS CONTRACT WITHOUT ATTEMPTING TO SHOW EVERY DETAIL. FURNISH LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DOCUMENTS.
 - CONTRACTOR'S WORK MUST INCLUDE COMPLETE TESTING OF EQUIPMENT AND WIRING INCLUDING MAKING MINOR CORRECTIONS, CHANGES, OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT. WORKMANSHIP MUST BE OF THE HIGHEST QUALITY; SUBSTANDARD WORK WILL BE REJECTED.
 - REFERENCE SHEETS EI600 THRU EI607 FOR CIRCUIT BREAKER CONTROL SCHEMATICS.
 - REFERENCE SHEET SERIES EI608 FOR ANSI FUNCTION DIAGRAM.
 - PROVIDE A DETECTABLE TRACER WIRE PER SECTION 33 05 23.13.

- KEY NOTES:**
- PROVIDE MIMIC BUS ON SWITCHGEAR.

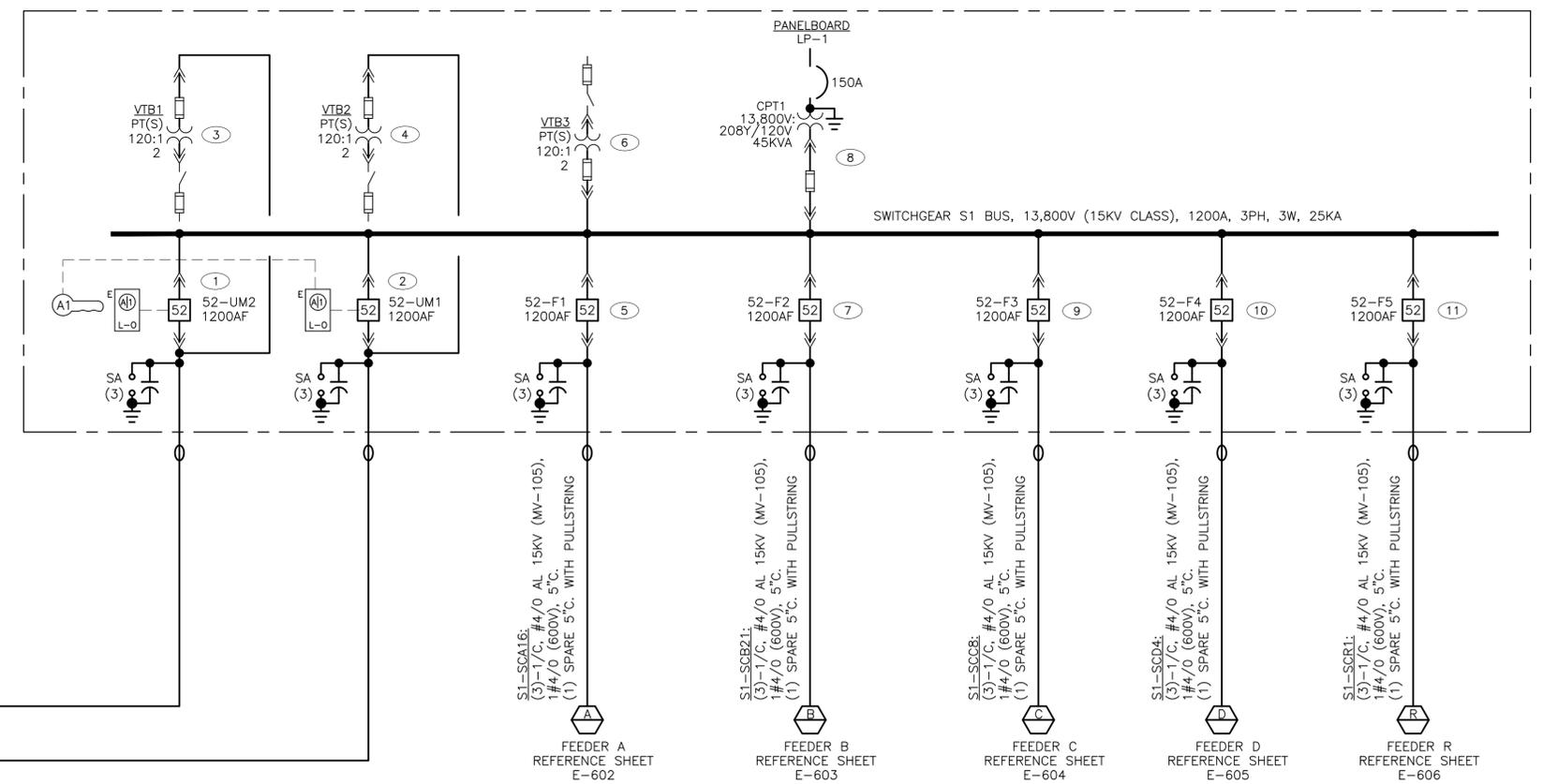
- OPTION BID ITEMS (SEE SPECIFICATIONS):**
- ADD FIRE ALARM SYSTEM
 - ADD REDUNDANT HVAC UNIT
 - ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
 - ADD AMI METERING SYSTEM.
 - ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 - ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 - ADD DEMOLITION OF EXISTING SWITCHYARD.

INCOMING NORMAL (ENTERGY OAKVILLE, W3112) REFERENCE SHEET E-600

INCOMING EMERGENCY (ENTERGY BERHMAN, W0514) REFERENCE SHEET E-600

SCN6-S1:
(3)-1/C, #750KCM AL 15KV (WV-105),
1#4/0 (600V), 6°C,
(1) SPARE 6°C, WITH PULLSTRING

SCE6-S1:
(3)-1/C, #750KCM AL 15KV (WV-105),
1#4/0 (600V), 6°C,
(1) SPARE 6°C, WITH PULLSTRING



MAIN ELECTRIC SUPPLY STATION S1
ONE-LINE DIAGRAM
NTS

SYMBOL LEGEND:

KIRK-KEY INTERLOCK
 L-O = LOCKED OPEN.

- OPERATION NOTES:**
- INITIAL STATUS:
- NORMAL MAIN CIRCUIT BREAKER 52-UM1 IS CLOSED AND KEY A1 IS TRAPPED
 - EMERGENCY CIRCUIT BREAKER 52-UM2 IS LOCKED OPENED
- TO TRANSFER LOAD FROM 52-UM1 TO 52-UM2:
- OPEN MAIN CIRCUIT BREAKER ON 52-UM1
 - TURN KEY A1 IN INTERLOCK ON 52-UM1 TO LOCK OPEN
 - KEY A1 IN 52-UM1 IS NOW FREE
 - INSERT KEY A1 IN INTERLOCK ON 52-UM2 AND TURN TO UNLOCK
 - KEY A1 IS NOW TRAPPED
 - CLOSE 52-UM2
 - REVERSE SEQUENCE TO RESTORE SERVICE.

APPROVED	DATE	APP'R
FOR COMMANDER NAVFAC		
SATISFACTORY TO	DATE	
DES: MGH	DRW: NRM	CHK: ISP
PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND	
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST	NAVAL AIR STATION JACKSONVILLE FLORIDA	
NAVAL AIR STATION JRB @ BELLE CHASSE	NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP		
SWITCHING STATION ONE-LINE DIAGRAM		
SCALE:	AS NOTED	
PROJECT NO.:	1641213	
CONSTR. CONTR. NO.:	N62470-15-D-4002	
NAVFAC DRAWING NO.:	15160886	
SHEET	37	OF 78
E-601		
DRAWN/REVISION: 25 AUGUST 2020		

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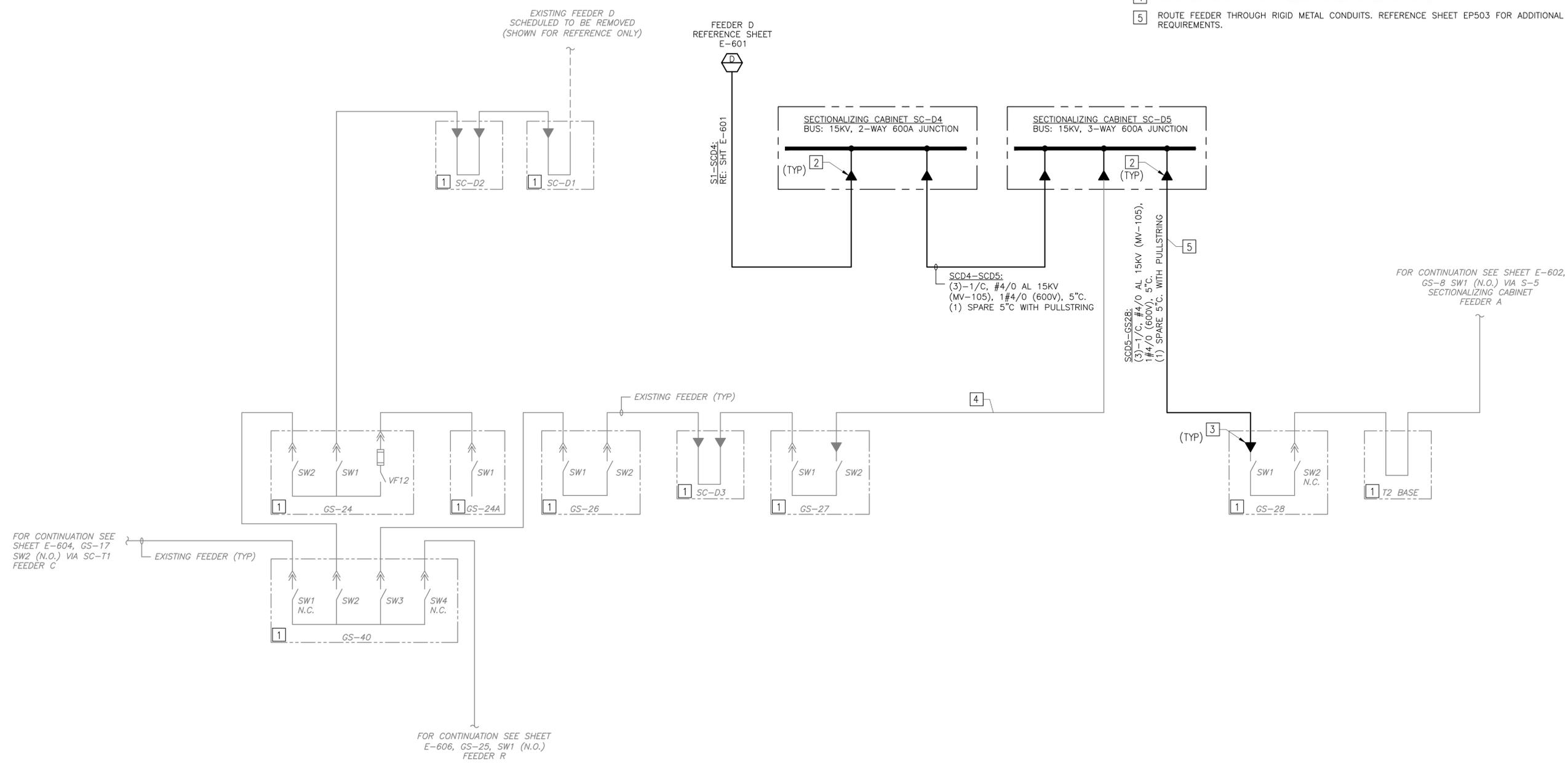
5

GENERAL ELECTRICAL NOTES:

- 1. THIS DRAWING REPRESENTS THE LATEST DOCUMENTED INFORMATION AVAILABLE ON THE EXISTING SYSTEM. HOWEVER, UNDOCUMENTED CHANGES MAY EXIST. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM ACCORDING TO THE INTENT OF THE CONTRACT DRAWINGS. REFERENCE CONTRACT NO. N69450-08-D-1295 ELECTRICAL FEEDER REPAIR AS-BUILT DRAWINGS FOR ADDITIONAL INFORMATION.
- 2. REPLACE NAMEPLATES ON EXISTING SWITCH COMPARTMENTS WITH NEW NAMEPLATES.
- 3. PROVIDE A DETECTABLE TRACER WIRE PER SECTION 33 05 23.13.

KEY NOTES:

- 1 EQUIPMENT SHOWN IS EXISTING TO REMAIN. NOT EVERY EXISTING FEED TO OTHER EQUIPMENT IS SHOWN FOR CLARITY.
- 2 PROVIDE 15 KV CLASS SEPARABLE 600A DEADBREAK ELBOW COMPATIBLE WITH THE SECTIONALIZING CABINET BUSHINGS.
- 3 PROVIDE 15 KV CLASS SEPARABLE 600A DEADBREAK ELBOW COMPATIBLE WITH THE EXISTING GAS SWITCH BUSHINGS.
- 4 RECONNECT EXISTING 15KV FEEDER TO SECTIONALIZING CABINET.
- 5 ROUTE FEEDER THROUGH RIGID METAL CONDUITS. REFERENCE SHEET EP503 FOR ADDITIONAL REQUIREMENTS.



FEEDER 'D' MODIFICATION ONE-LINE DIAGRAM
NTS

	APPR
	DATE
	DESCRIPTION
	SW
	
	
	
<small>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144</small>	
A/E INFO	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	MCH NRM CHK ISP
PM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST <small>117 SOUTH AND CENTRAL</small> JACKSONVILLE, FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP FEEDER 'D' MODIFICATION ONE-LINE DIAGRAM	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160890	
SHEET 41	OF 76
E-605	
<small>DRAWNFORM REVISION: 25 AUGUST 2020</small>	

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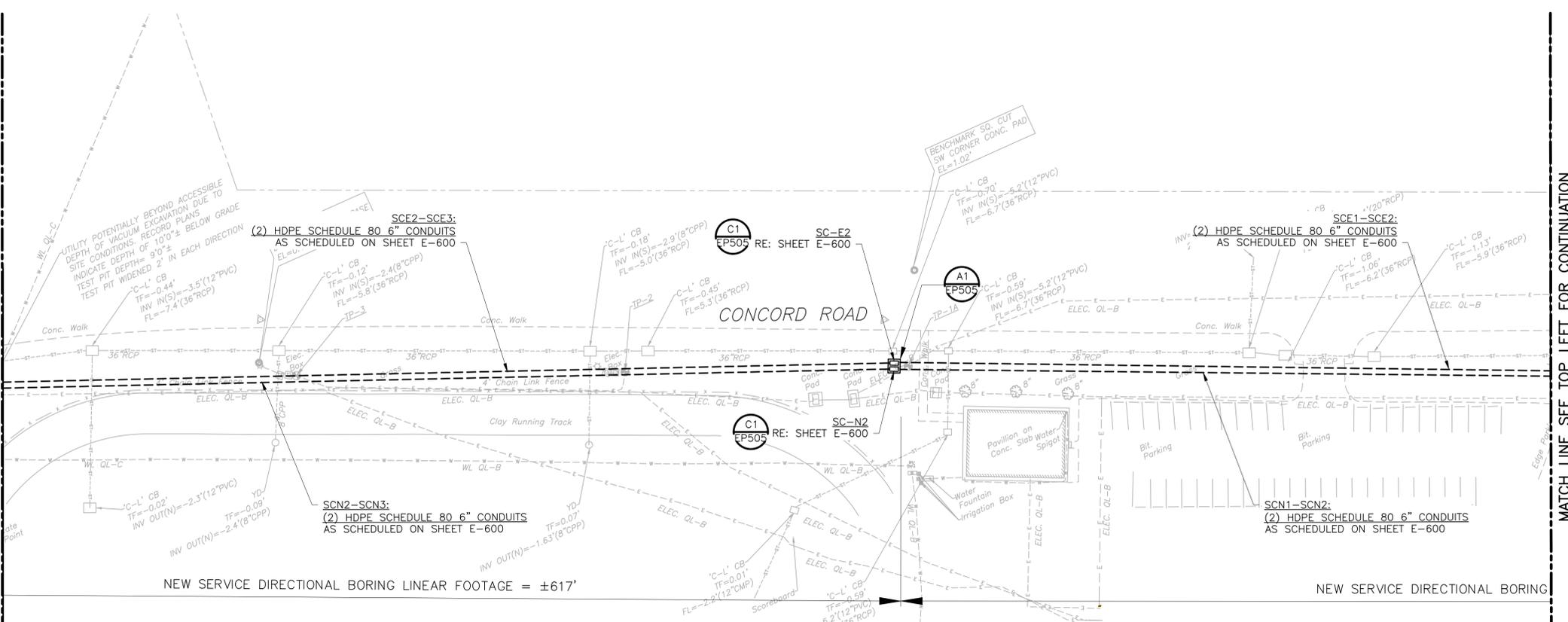
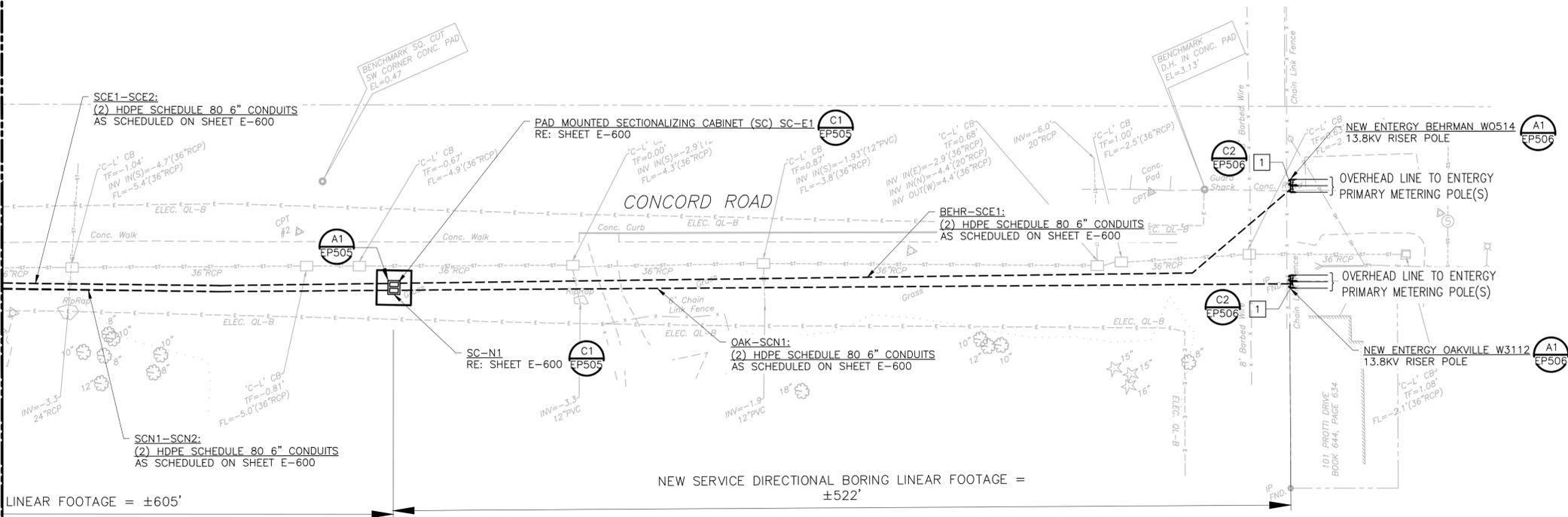
MATCH LINE SEE BOTTOM RIGHT FOR CONTINUATION

MATCH LINE SEE SHEET ES102 FOR CONTINUATION

MATCH LINE SEE TOP LEFT FOR CONTINUATION

- GENERAL ELECTRICAL NOTES:**
- LOCATIONS AND DIRECTIONAL BORING LINEAR FOOTAGE LENGTH OF UNDERGROUND CONDUITS SHOWN ARE PRELIMINARY AND MUST BE CONFIRMED/MODIFIED BASED ON CONTRACTORS HORIZONTAL DIRECTIONAL DRILLING DESIGN AND CALCULATIONS.
 - FOR OPEN CUT OR HDD PIT LOCATION SURFACE TO BE RESTORED TO PRE-EXISTING CONDITIONS.
 - LIMITED OPEN CUT INSTALLATION ALLOWED WITH APPROVAL FROM CONTRACTING OFFICER. OPEN CUT INSTALLATION MUST BE PERFORMED IN ACCORDANCE WITH DETAIL E ON SHEET E-500.

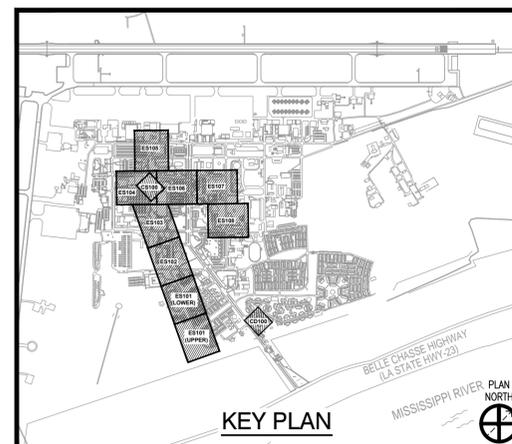
- KEY NOTES:**
- VERIFY COMPLETE ELECTRICAL SERVICE INSTALLATION WITH THE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION ACTIVITIES. FIELD VERIFY THE RISER POLE LOCATIONS AND NOTIFY THE CONTRACTING OFFICER OF CONFLICTS ARISING FROM ALTERNATE POLE LOCATIONS.



SYMBOL LEGEND:

- UNDERGROUND SERVICE CONDUITS
- ENTERGY RISER POLE

FEEDER ROUTING I
PLAN
 1" = 40'



APPROVED	DATE	APP'R
FOR COMMANDER NAVFAC		
ACTIVITY		
SATISFACTORY TO DATE		
DES: MGH	DRW: NRM	CHK: ISP
PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND	
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST	NAVAL AIR STATION JACKSONVILLE FLORIDA	
NAVAL AIR STATION JRB @ BELLE CHASSE	NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP		
FEEDER ROUTING PLAN I		
SCALE:	AS NOTED	
PROJECT NO.:	1641213	
CONSTR. CONTR. NO.:	N62470-15-D-4002	
NAVFAC DRAWING NO.:	15160893	
SHEET	44	OF 76
ES101		
DRAWING REVISION: 23 AUGUST 2020		

READY TO ADVERTISE

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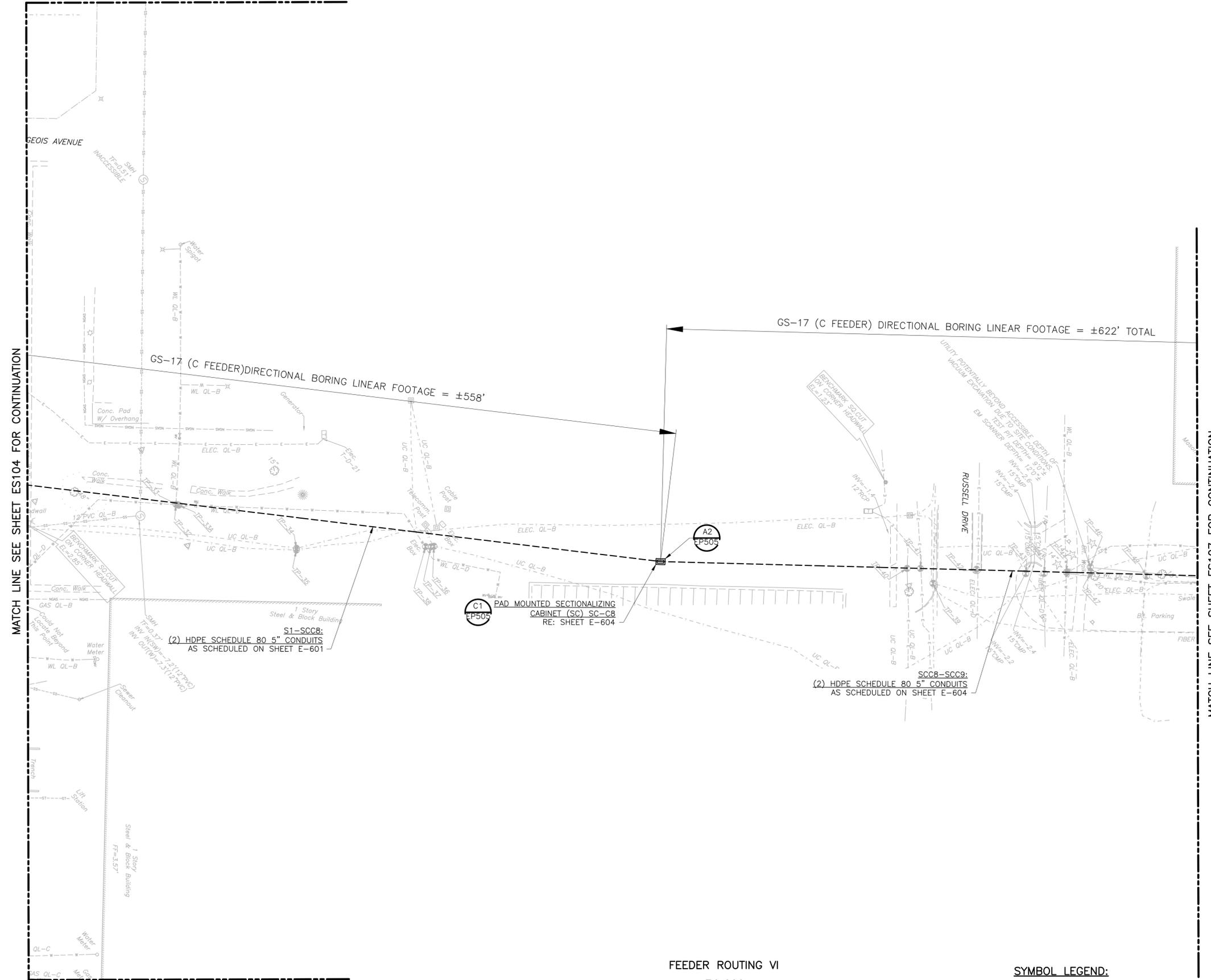
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MATCH LINE SEE SHEET ES105 FOR CONTINUATION

MATCH LINE SEE SHEET ES104 FOR CONTINUATION

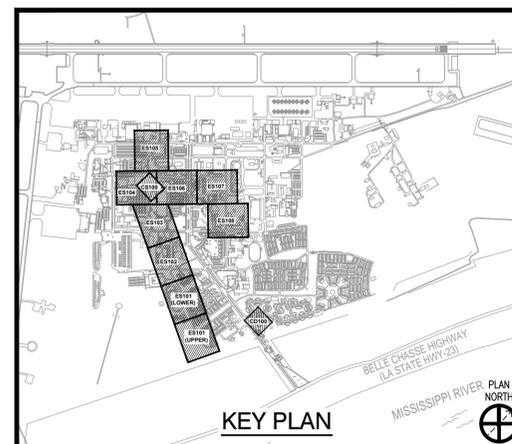
MATCH LINE SEE SHEET ES103 FOR CONTINUATION

- GENERAL ELECTRICAL NOTES:**
- LOCATIONS AND DIRECTIONAL BORING LINEAR FOOTAGE LENGTH OF UNDERGROUND CONDUITS SHOWN ARE PRELIMINARY AND MUST BE CONFIRMED/MODIFIED BASED ON CONTRACTORS HORIZONTAL DIRECTIONAL DRILLING DESIGN AND CALCULATIONS.
 - FOR OPEN CUT OR HDD PIT LOCATION SURFACE TO BE RESTORED TO PRE-EXISTING CONDITIONS.
 - LIMITED OPEN CUT INSTALLATION ALLOWED WITH APPROVAL FROM CONTRACTING OFFICER. OPEN CUT INSTALLATION MUST BE PERFORMED IN ACCORDANCE WITH DETAIL E ON SHEET E-500.



FEEDER ROUTING VI
PLAN
 1" = 40'

SYMBOL LEGEND:
 - - - - - UNDERGROUND FEEDER CONDUITS



APPROVED	DATE	APP'R
DESCRIPTION	DATE	APP'R
SYN	DATE	APP'R
1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144 A/E: NFM		
APPROVED	DATE	APP'R
ACTIVITY	DATE	APP'R
SATISFACTORY TO	DATE	APP'R
DES: MGH	DRW: NRM	CHK: ISP
PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND	NEW ORLEANS, LA	
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST	NAVAL AIR STATION JACKSONVILLE FLORIDA	
NAVAL AIR STATION JRB @ BELLE CHASSE	NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP FEEDER ROUTING PLAN VI		
SCALE:	AS NOTED	
PROJECT NO.:	1641213	
CONSTR. CONTR. NO.:	N62470-15-D-4002	
NAVFAC DRAWING NO.:	15160898	
SHEET	49	OF 76
ES106		
DRAWN/REVISED: 23 AUGUST 2020		

READY TO ADVERTISE

FILE NAME: C:\p\m\p1\handley\g197675\2449425-106.dwg LAYOUT NAME: plot PLOTTED: Friday, May 28, 2021 3:46pm USER: HandleyMG

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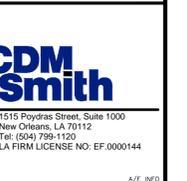
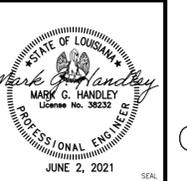
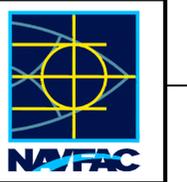
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GENERAL ELECTRICAL NOTES:

1. LOCATIONS AND DIRECTIONAL BORING LINEAR FOOTAGE LENGTH OF UNDERGROUND CONDUITS SHOWN ARE PRELIMINARY AND MUST BE CONFIRMED/MODIFIED BASED ON CONTRACTORS HORIZONTAL DIRECTIONAL DRILLING DESIGN AND CALCULATIONS.
2. FOR OPEN CUT OR HDD PIT LOCATION SURFACE TO BE RESTORED TO PRE-EXISTING CONDITIONS.
3. LIMITED OPEN CUT INSTALLATION ALLOWED WITH APPROVAL FROM CONTRACTING OFFICER. OPEN CUT INSTALLATION MUST BE PERFORMED IN ACCORDANCE WITH DETAIL E ON SHEET E-500.

DATE	DESCRIPTION	BY	APPR

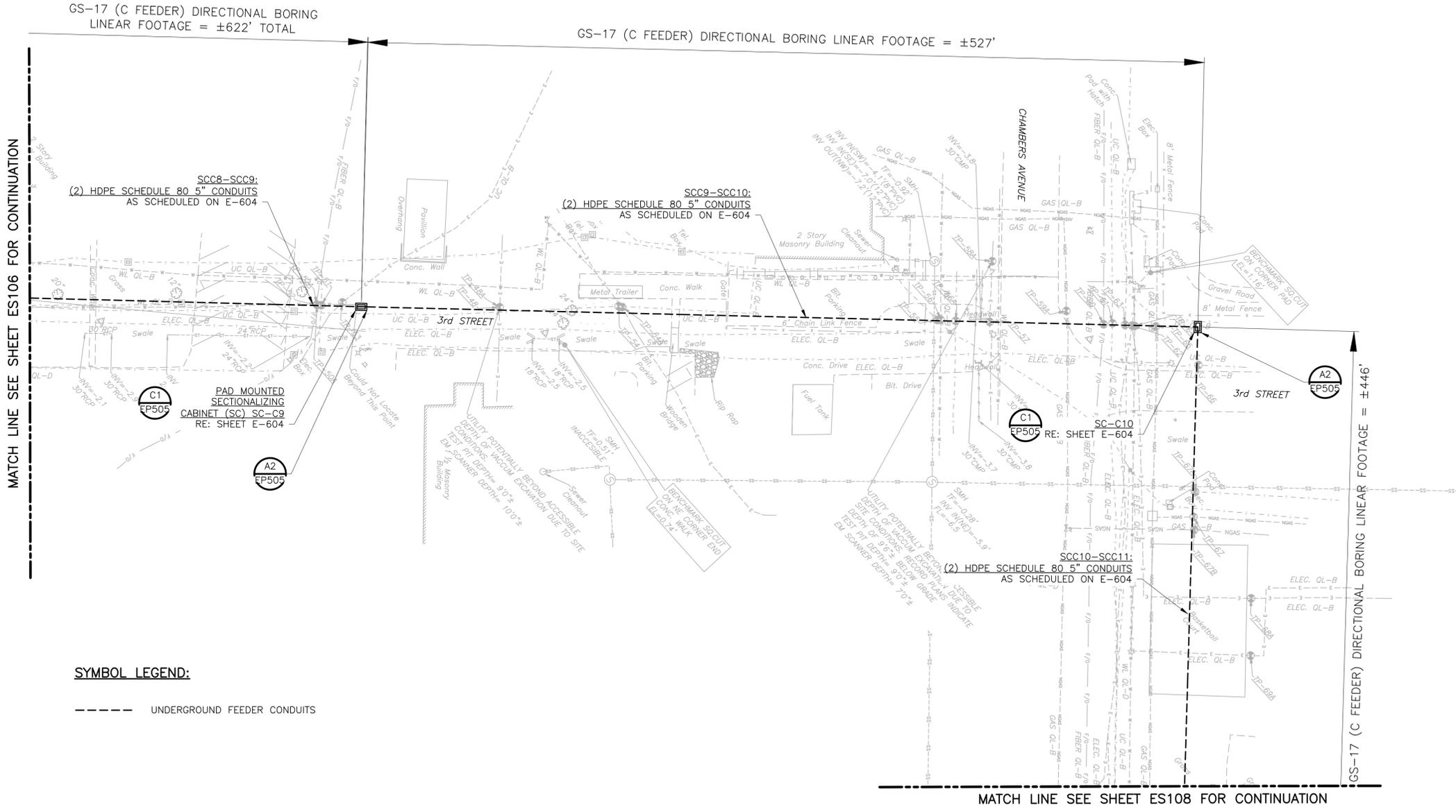


APPROVED	A/E INFO
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES: MGH	DRAW: NRM
CHK: ISP	
PM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 NAVAL AIR STATION JRB @ BELLE CHASSE
 NEW ORLEANS, LA

SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160899
SHEET	50 OF 76
ES107	

DRAWN/REVISED: 23 AUGUST 2020



MATCH LINE SEE SHEET ES106 FOR CONTINUATION

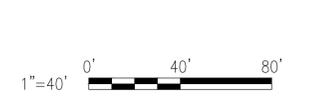
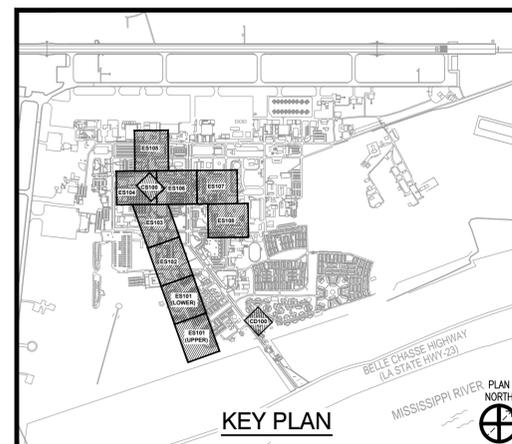
GS-17 (C FEEDER) DIRECTIONAL BORING LINEAR FOOTAGE = ±446'

MATCH LINE SEE SHEET ES108 FOR CONTINUATION

SYMBOL LEGEND:

--- UNDERGROUND FEEDER CONDUITS

FEEDER ROUTING VII
PLAN
 1" = 40'



READY TO ADVERTISE

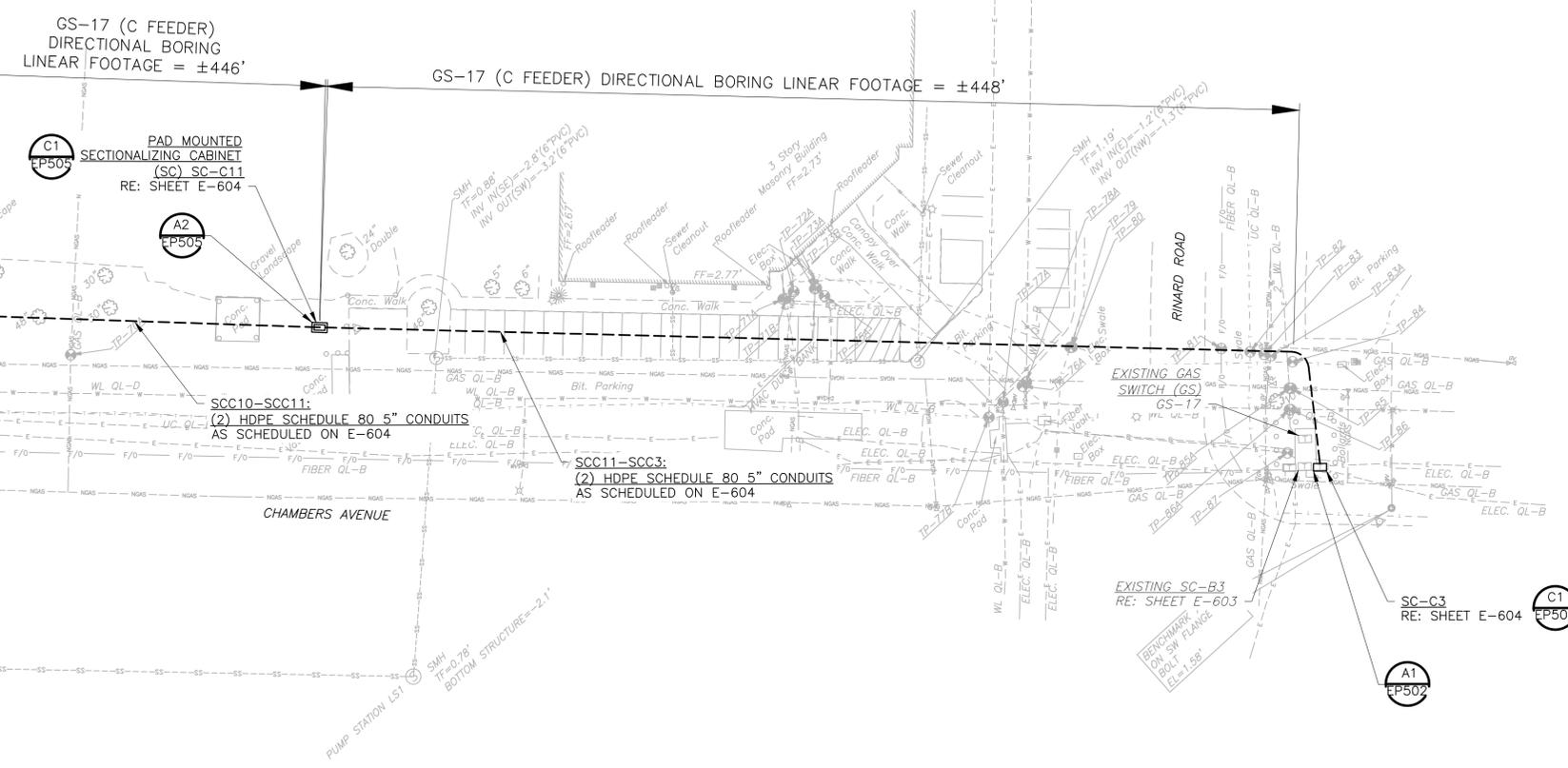
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D
C
B
A

1 2 3 4 5

MATCH LINE SEE SHEET ES107 FOR CONTINUATION



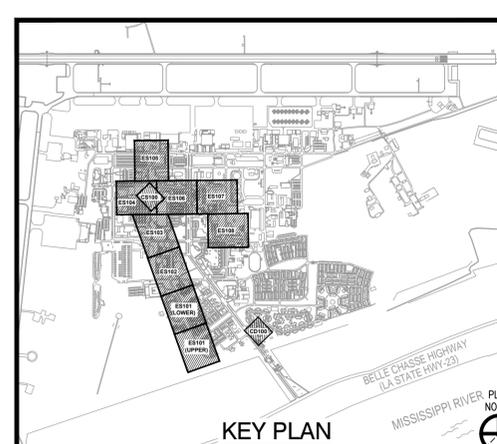
SYMBOL LEGEND:

----- UNDERGROUND FEEDER CONDUITS

FEEDER ROUTING VIII

PLAN

1" = 40'



1"=40' 0' 40' 80'



- GENERAL ELECTRICAL NOTES:**
1. LOCATIONS AND DIRECTIONAL BORING LINEAR FOOTAGE LENGTH OF UNDERGROUND CONDUITS SHOWN ARE PRELIMINARY AND MUST BE CONFIRMED/MODIFIED BASED ON CONTRACTORS HORIZONTAL DIRECTIONAL DRILLING DESIGN AND CALCULATIONS.
 2. FOR OPEN CUT OR HDD PIT LOCATION SURFACE TO BE RESTORED TO PRE-EXISTING CONDITIONS.
 3. LIMITED OPEN CUT INSTALLATION ALLOWED WITH APPROVAL FROM CONTRACTING OFFICER. OPEN CUT INSTALLATION MUST BE PERFORMED IN ACCORDANCE WITH DETAIL E ON SHEET E-500.

APPR	DATE
DESCRIPTION	DATE
SYN	DATE

CDM Smith

1515 Poydras Street, Suite 1000
New Orleans, LA 70112
Tel: (504) 799-1120
LA FIRM LICENSE NO: EF.0000144

APPROVED

FIR COMMANDER NAFAC

ACTIVITY

SATISFACTORY TO DATE

DES: MGH | DRW: NRM | CHK: ISP

PM/DM: SARAH REED

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

COMMAND

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST

NAVAL AIR STATION JACKSONVILLE FLORIDA

NEW ORLEANS, LA

NAVAL AIR STATION JRB @ BELLE CHASSE

DISTRIBUTION SWITCHGEAR ECIP

FEEDER ROUTING PLAN VIII

SCALE: AS NOTED

PROJECT NO.: 1641213

CONSTR. CONTR. NO. N62470-15-D-4002

NAFAC DRAWING NO. 15160900

SHEET 51 OF 76

ES108

DRAWFORM REVISION: 23 AUGUST 2020

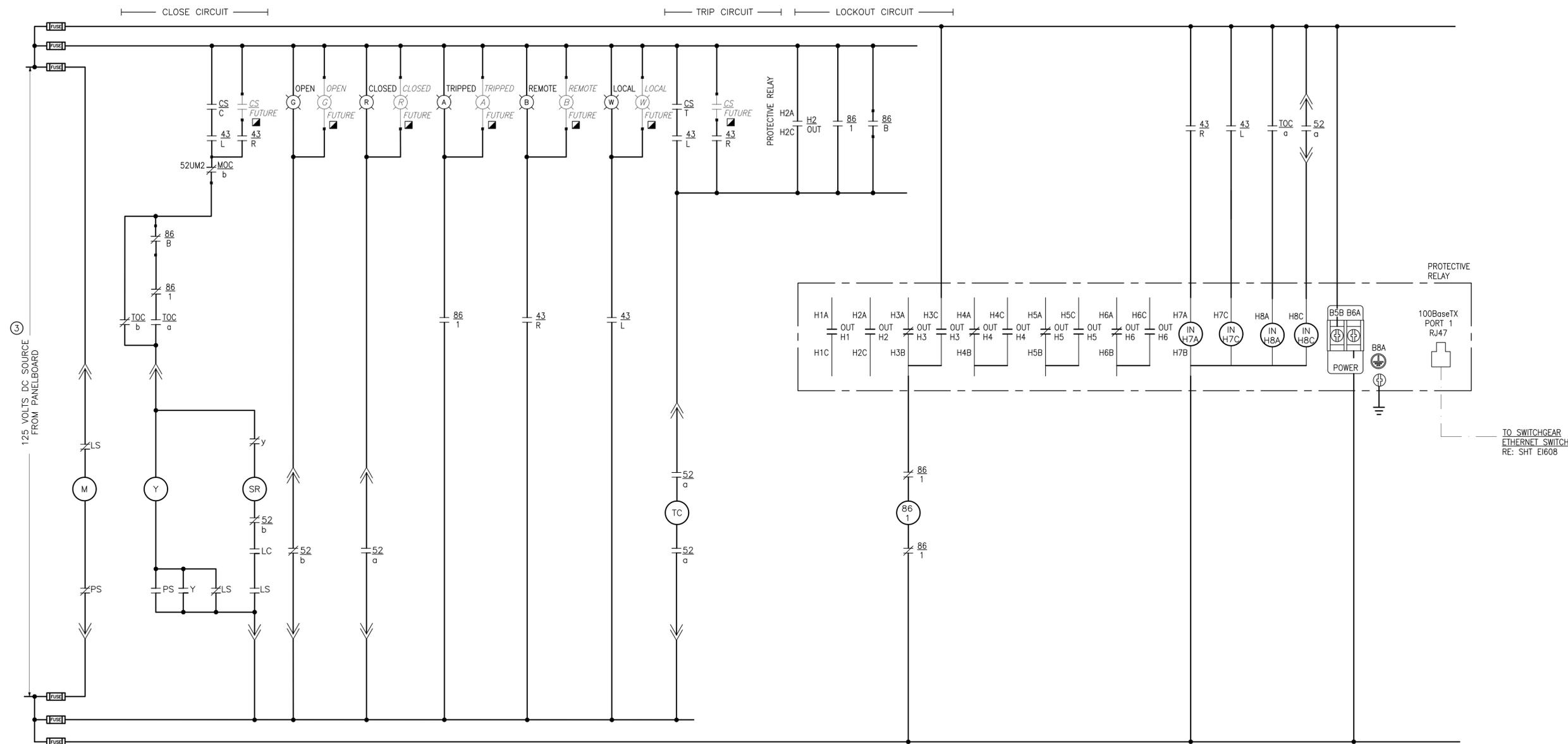
1 2 3 4 5

READY TO ADVERTISE

SCHEMATIC LEGEND
 ■ EXTERNAL DEVICE TERMINAL CONNECTIONS
 ■ DEVICE LOCATED IN FIELD
 (G) PUSH-TO-TEST LED PILOT LIGHT

GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



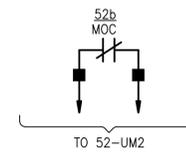
MEDIUM VOLTAGE MAIN BREAKER 52-UM1 CONTROL

SCHEMATIC

NTS

LEGEND

- CS/C - BREAKER CLOSING SWITCH
- CS/T - BREAKER TRIP SWITCH
- 52Y - ANTI-PUMPING RELAY
- 52SR - SPRING RELEASE COIL (CLOSING)
- 52M - SPRING CHARGE MOTOR
- 52TC - TRIP COIL
- LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
- LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
- MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
- TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
- 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN



OPTION BID ITEMS (SEE SPECIFICATIONS):

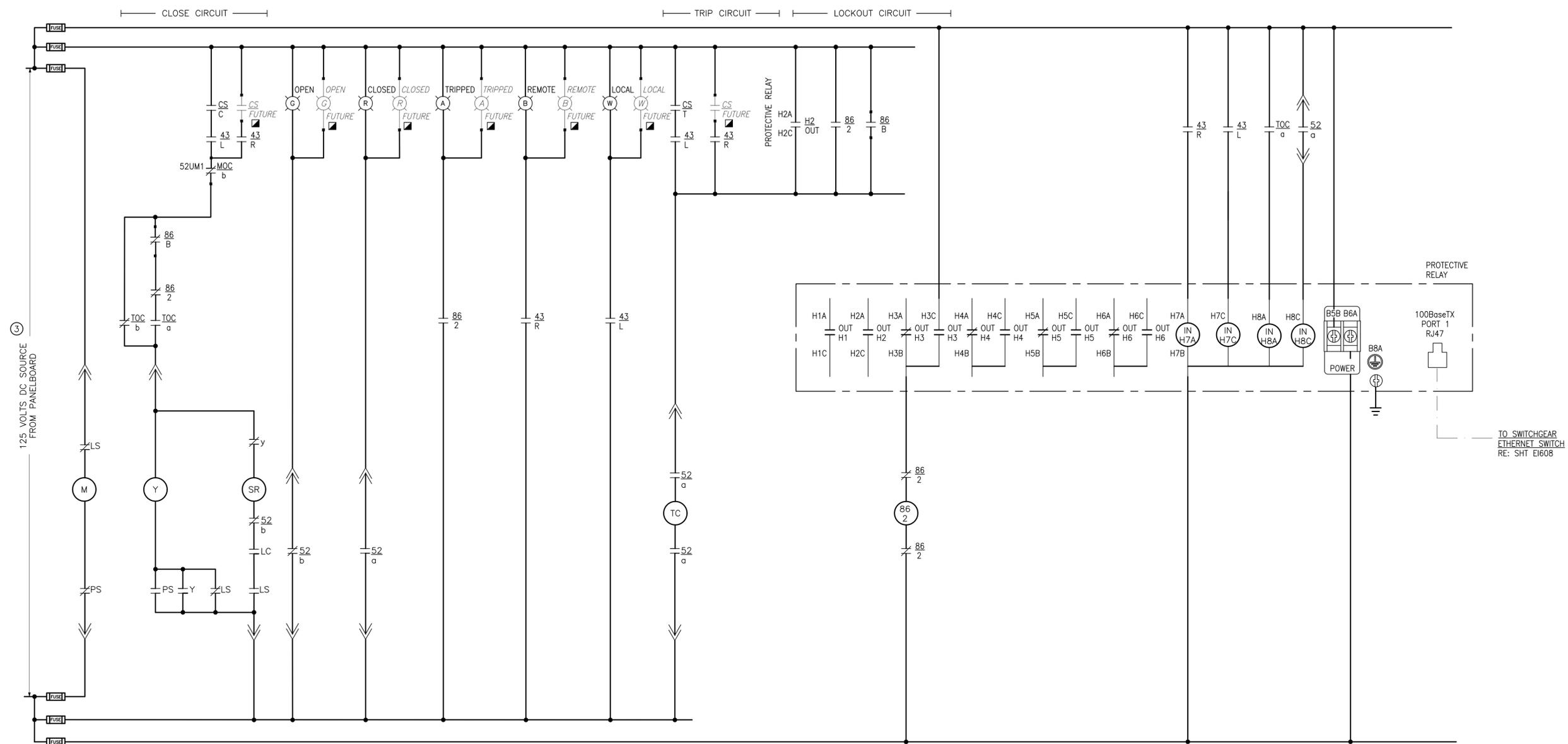
1. ADD FIRE ALARM SYSTEM
2. ADD REDUNDANT HVAC UNIT
3. ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
4. ADD AMI METERING SYSTEM.
5. ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
6. ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
7. ADD DEMOLITION OF EXISTING SWITCHYARD.

APPR	DATE
DESCRIPTION	SYN
   1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF.0000144 A/E INFO	
APPROVED	
FIR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH	DRW: NRM
CHK: HSP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP MAIN BREAKER 52-UM1 SCHEMATIC	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAFAC DRAWING NO. 15160901	
SHEET 52 OF 78	
E1600	
DRAWFORM REVISION: 25 AUGUST 2020	

SCHEMATIC LEGEND
 ■ EXTERNAL DEVICE TERMINAL CONNECTIONS
 ■ DEVICE LOCATED IN FIELD
 (G) PUSH-TO-TEST LED PILOT LIGHT

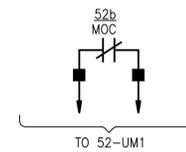
GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



MEDIUM VOLTAGE MAIN BREAKER 52-UM2 CONTROL
SCHEMATIC
 NTS

LEGEND
 CS/C - BREAKER CLOSING SWITCH
 CS/T - BREAKER TRIP SWITCH
 52Y - ANTI-PUMPING RELAY
 52SR - SPRING RELEASE COIL (CLOSING)
 52M - SPRING CHARGE MOTOR
 52TC - TRIP COIL
 LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
 LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
 LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
 PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
 PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
 MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
 MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
 TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
 TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN



OPTION BID ITEMS (SEE SPECIFICATIONS):

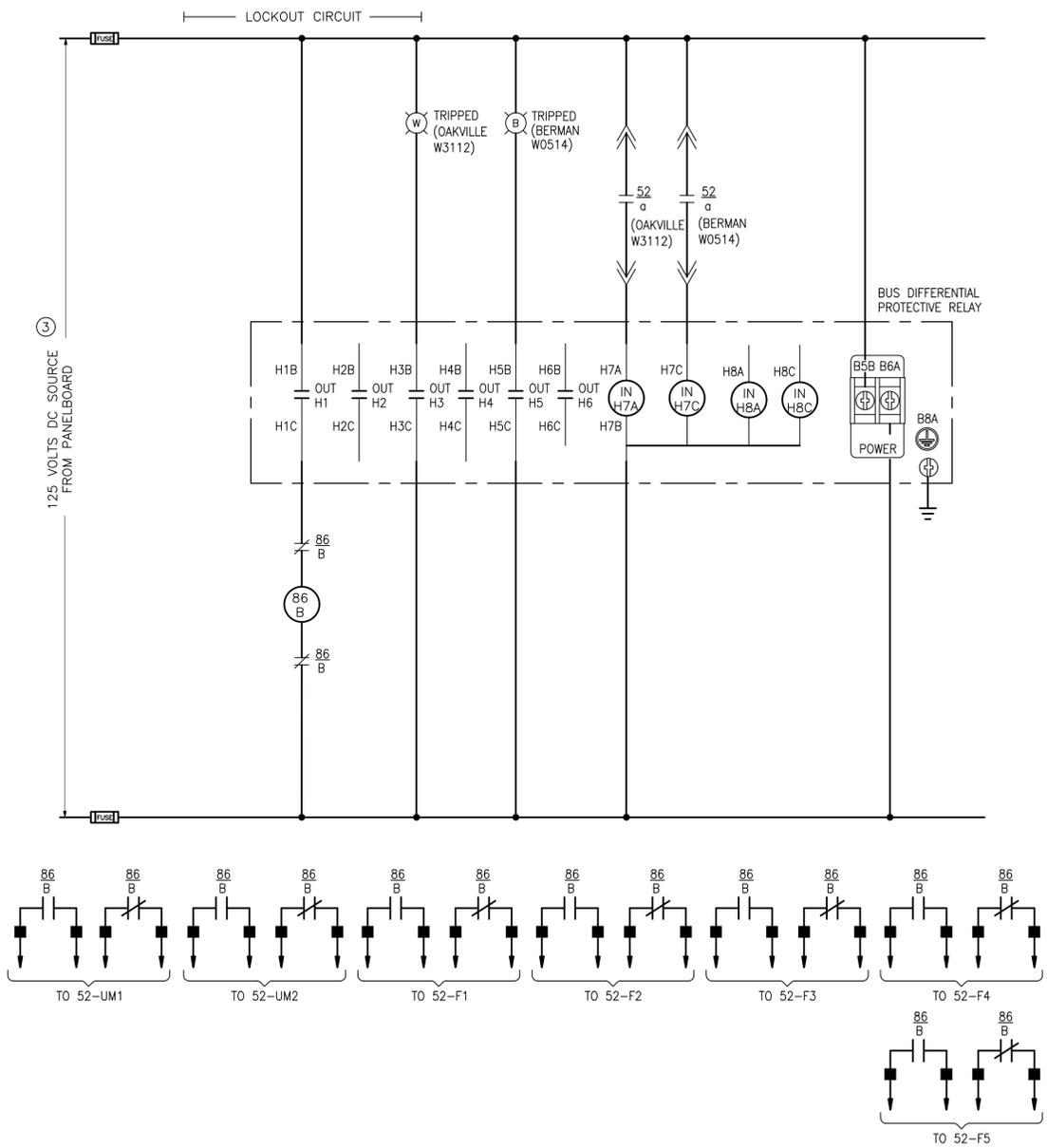
1. ADD FIRE ALARM SYSTEM
2. ADD REDUNDANT HVAC UNIT
3. ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKERS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
4. ADD AMI METERING SYSTEM.
5. ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
6. ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
7. ADD DEMOLITION OF EXISTING SWITCHYARD.

APPROVED	DATE	APP'R
DESCRIPTION	DATE	APP'R
SYMBOL	DATE	APP'R
   1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144 A/E INFO		
APPROVED: _____ FIR COMMANDER NAFAC ACTIVITY: _____ SATISFACTORY TO: _____ DATE: _____ DES: MGH DRW: NRM CHK: HSP PM/DM: SARAH REED BRANCH MANAGER: _____ CHIEF ENG/ARCH: _____ FIRE PROTECTION: _____		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP MAIN BREAKER 52-UM2 SCHEMATIC		
SCALE: AS NOTED PROJECT NO.: 1641213 CONSTR. CONTR. NO.: N62470-15-D-4002 NAFAC DRAWING NO.: 15160902 SHEET 53 OF 78 E1601 DRAWFORM REVISION: 25 AUGUST 2020		

FILE NAME: C:\p\m\c1\Yandberg\197675\24942E-601.dwg LAYOUT NAME: PLOT PLOTTED: Friday, May 28, 2021 - 4:51pm USER: HandleyMG

FILE NAME: C:\pwworking\197675\44942E1-602.dwg LAYOUT NAME: PLOT PLOTTED: Friday, May 28, 2021 - 4:52pm USER: HandleyMG

SCHEMATIC LEGEND
 ■ EXTERNAL DEVICE TERMINAL CONNECTIONS
 ■ DEVICE LOCATED IN FIELD
 (G) PUSH-TO-TEST LED PILOT LIGHT



SSMB1 SWITCHGEAR S-1 BUS DIFFERENTIAL CONTROL
SCHEMATIC
 NTS

GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR ZONE SELECTION OF THE MAINS ASSIGNING THE CORRECT CURRENT VALUES TO THE APPROPRIATE DIFFERENTIAL ELEMENTS.
3. ETHERNET POWER SUPPLY, FUSES, AND APPURTENANCES NOT SHOWN FOR CLARITY.

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

APPROVED	DATE
FOR COMMANDER NAVFAC	DESCRIPTION
ACTIVITY	SW
SATISFACTORY TO	DATE
DES: MGH DRW: NRM CHK: ISP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP DIFFERENTIAL PROTECTION SCHEMATIC	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160903	
SHEET 54 OF 76	
E1602	
DRAWNFORM REVISION: 25 AUGUST 2020	

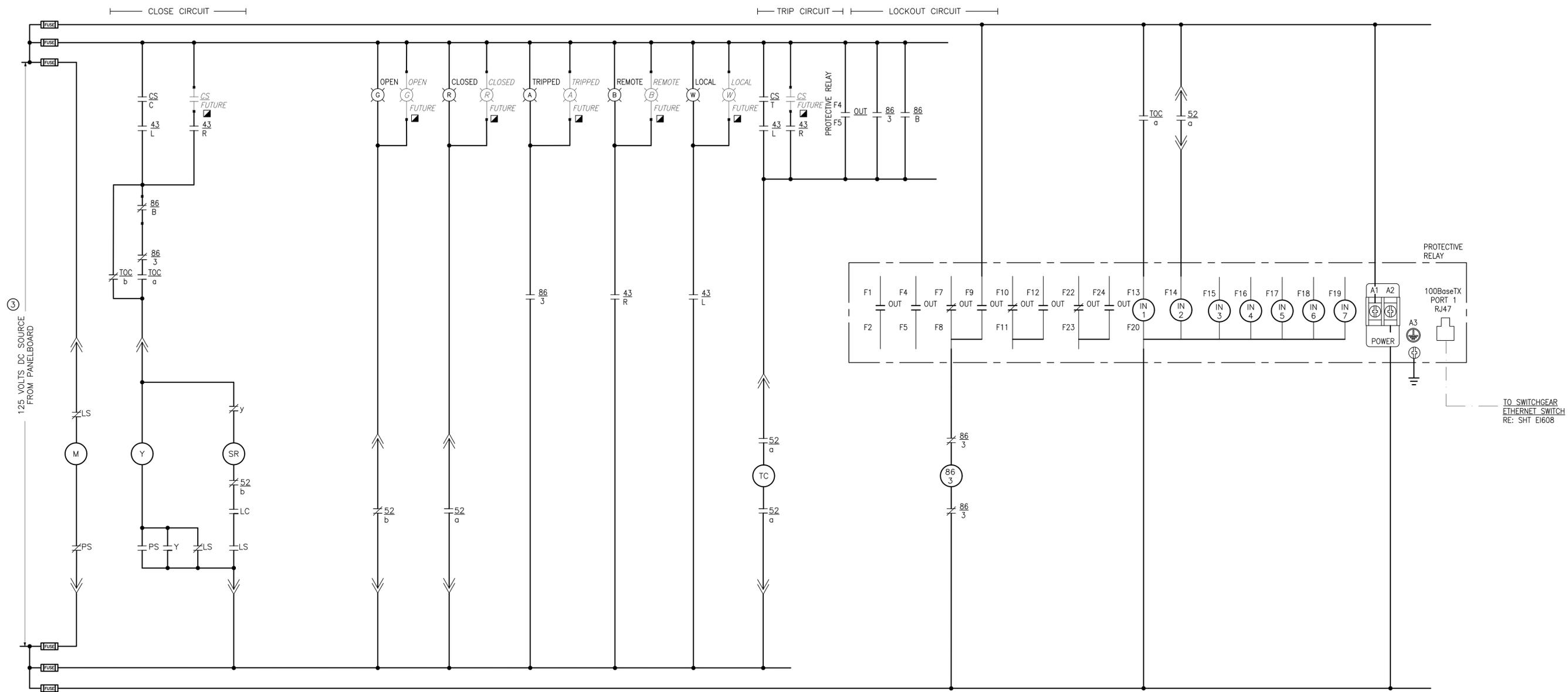
1 2 3 4 5

SCHEMATIC LEGEND

- EXTERNAL DEVICE TERMINAL CONNECTIONS
- ▣ DEVICE LOCATED IN FIELD
- ⊙ PUSH-TO-TEST LED PILOT LIGHT

GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



FEEDER BREAKER 52-F1 CONTROL SCHEMATIC
NTS

LEGEND

- CS/C - BREAKER CLOSING SWITCH
- CS/T - BREAKER TRIP SWITCH
- 52Y - ANTI-PUMPING RELAY
- 52SR - SPRING RELEASE COIL (CLOSING)
- 52SM - SPRING CHARGE MOTOR
- 52TC - TRIP COIL
- LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
- LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
- MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
- TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
- 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN

OPTION BID ITEMS (SEE SPECIFICATIONS):

- 1 ADD FIRE ALARM SYSTEM
- 2 ADD REDUNDANT HVAC UNIT
- 3 ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKERS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- 4 ADD AMI METERING SYSTEM.
- 5 ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- 6 ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- 7 ADD DEMOLITION OF EXISTING SWITCHYARD.

APPROVED	DATE	APP'R
ACTIVITY	DESCRIPTION	DATE
SATISFACTORY TO	DATE	
DES: MGH	DRW: NRM	CHK: ISP
PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND	
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST	NAVAL AIR STATION JACKSONVILLE FLORIDA	
NAVAL AIR STATION JRB @ BELLE CHASSE	NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP		
FEEDER BREAKER 52-F1 SCHEMATIC		
SCALE:	AS NOTED	
PROJECT NO.:	1641213	
CONSTR. CONTR. NO.:	N62470-15-D-4002	
NAVFAC DRAWING NO.:	15160904	
SHEET	55	OF 76
E1603		
DRAWING REVISION: 25 AUGUST 2020		

1 2 3 4 5

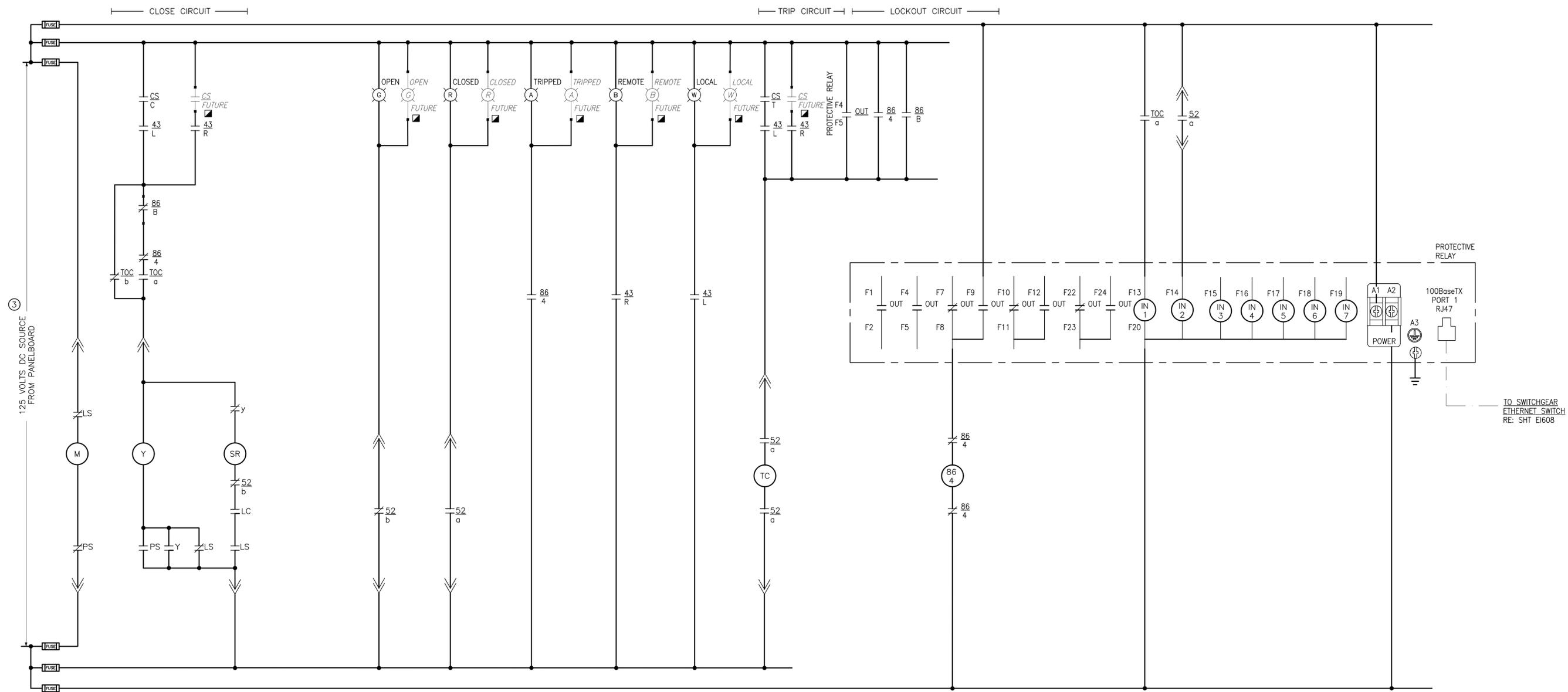
1 2 3 4 5

SCHEMATIC LEGEND

- EXTERNAL DEVICE TERMINAL CONNECTIONS
- ▣ DEVICE LOCATED IN FIELD
- ⊙ PUSH-TO-TEST LED PILOT LIGHT

GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



FEEDER BREAKER 52-F2 CONTROL SCHEMATIC
NTS

LEGEND

- CS/C - BREAKER CLOSING SWITCH
- CS/T - BREAKER TRIP SWITCH
- 52Y - ANTI-PUMPING RELAY
- 52SR - SPRING RELEASE COIL (CLOSING)
- 52M - SPRING CHARGE MOTOR
- 52TC - TRIP COIL
- LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
- LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
- MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
- TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
- 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

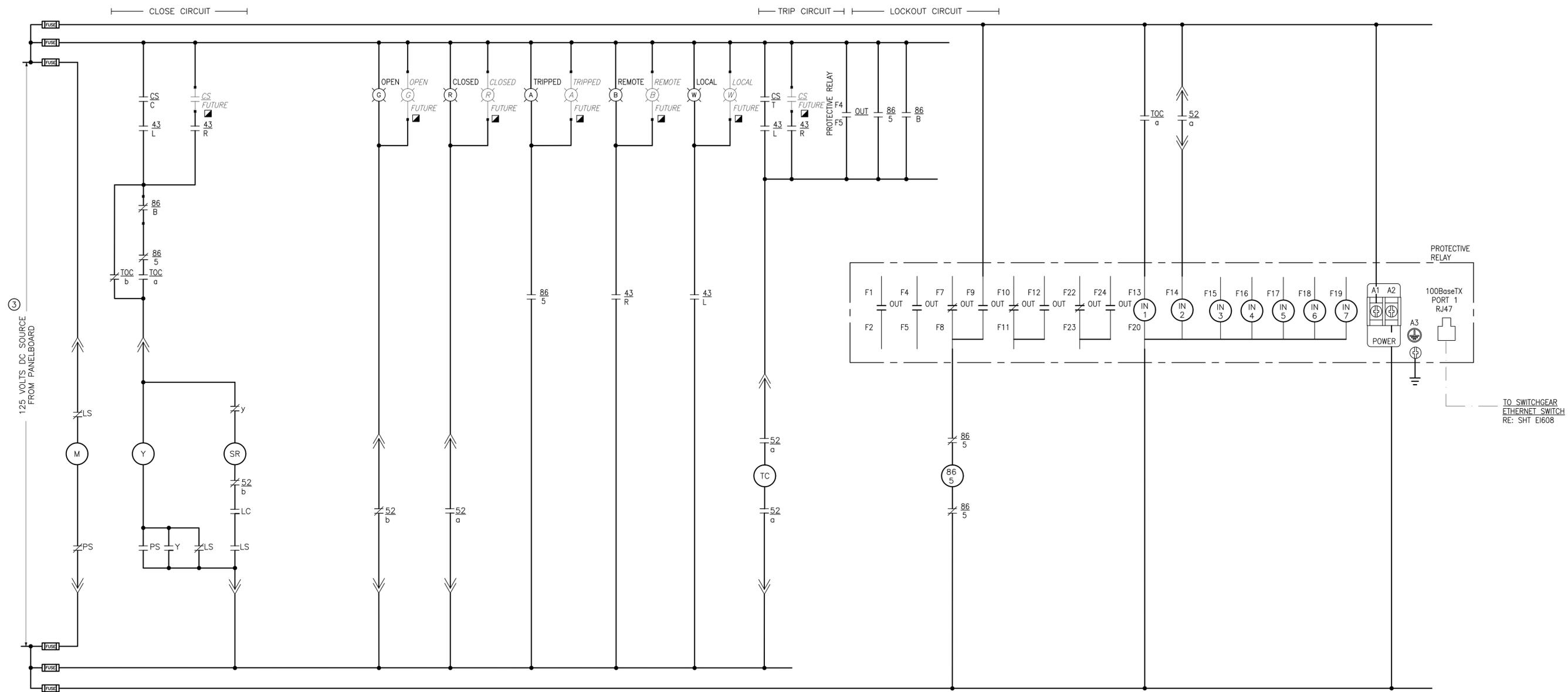
APPROVED	DATE	APP'R
DESCRIPTION	DATE	APP'R
SYMBOL	DATE	APP'R
   1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144 A/E INFO		
APPROVED FOR COMMANDER NAVFAC ACTIVITY SATISFACTORY TO DATE DES: MGH DRW: NRM CHK: ISP PM/DM: SARAH REED BRANCH MANAGER CHIEF ENG/ARCH FIRE PROTECTION DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP FEEDER BREAKER 52-F2 SCHEMATIC		
SCALE: AS NOTED	PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	NAVFAC DRAWING NO. 15160905	
SHEET 56 OF 76	DATE: 25 AUGUST 2020	
E1604		

1 2 3 4 5

1 2 3 4 5

SCHEMATIC LEGEND
 ■ EXTERNAL DEVICE TERMINAL CONNECTIONS
 ■ DEVICE LOCATED IN FIELD
 (G) PUSH-TO-TEST LED PILOT LIGHT

GENERAL ELECTRICAL NOTES:
 1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
 2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



FEEDER BREAKER 52-F3 CONTROL SCHEMATIC
 NTS

LEGEND
 CS/C - BREAKER CLOSING SWITCH
 CS/T - BREAKER TRIP SWITCH
 52Y - ANTI-PUMPING RELAY
 52SR - SPRING RELEASE COIL (CLOSING)
 52M - SPRING CHARGE MOTOR
 52TC - TRIP COIL
 LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
 LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
 LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
 PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
 PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
 MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
 MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
 TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
 TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN

OPTION BID ITEMS (SEE SPECIFICATIONS):
 ① ADD FIRE ALARM SYSTEM
 ② ADD REDUNDANT HVAC UNIT
 ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
 ④ ADD AMI METERING SYSTEM.
 ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

APPROVED	DATE
DESCRIPTION	DATE
SYN	DATE
1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144 A/E INF3	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH	DRW: NRM
CHK: ISP	
PM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA FT SOUTH AND CENTRAL NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP FEEDER BREAKER 52-F3 SCHEMATIC	
SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160906
SHEET	57 OF 78
E1605 <small>DRAWN/REVISED: 25 AUGUST 2020</small>	

1 2 3 4 5

1

2

3

4

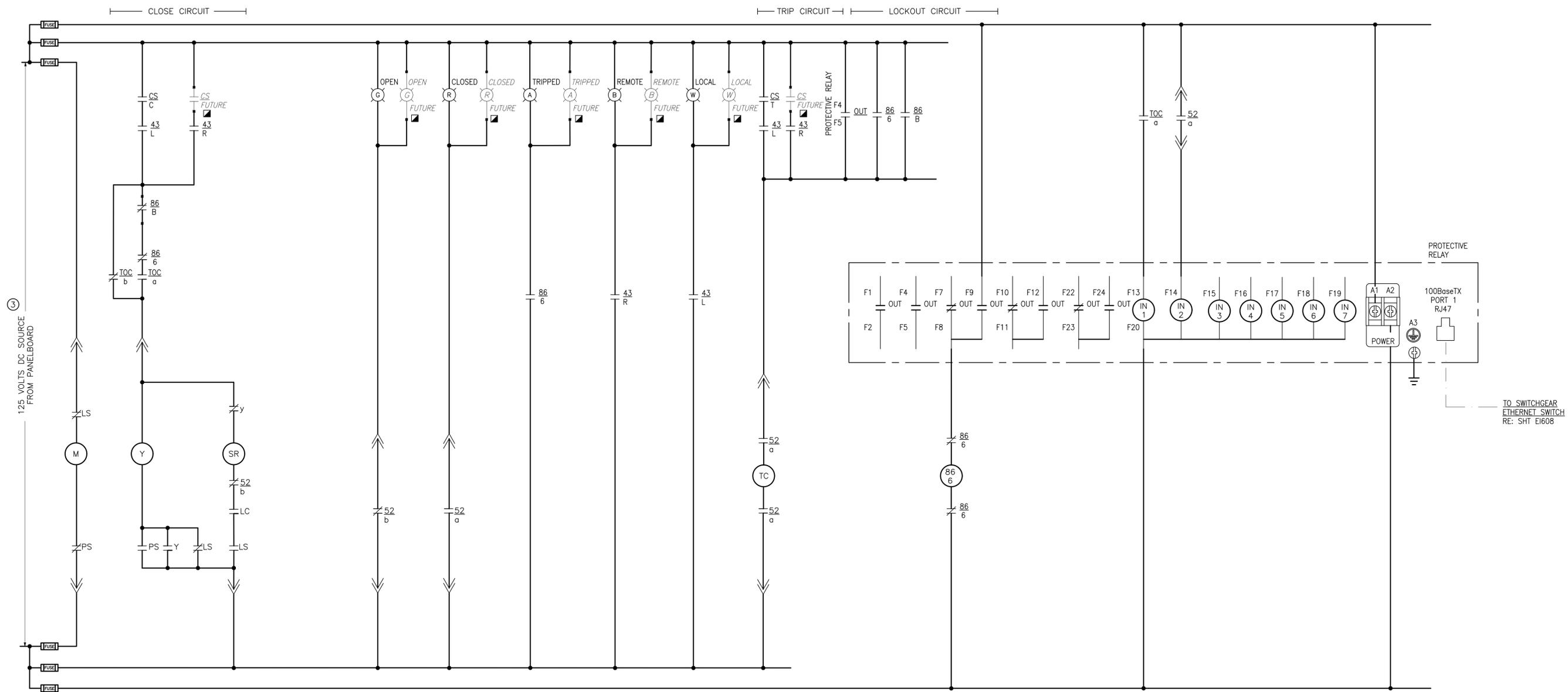
5

SCHEMATIC LEGEND

- EXTERNAL DEVICE TERMINAL CONNECTIONS
- DEVICE LOCATED IN FIELD
- ⊙ PUSH-TO-TEST LED PILOT LIGHT

GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



**FEEDER BREAKER 52-F4 CONTROL
SCHEMATIC**
NTS

- LEGEND**
- CS/C - BREAKER CLOSING SWITCH
 - CS/T - BREAKER TRIP SWITCH
 - 52Y - ANTI-PUMPING RELAY
 - 52SR - SPRING RELEASE COIL (CLOSING)
 - 52M - SPRING CHARGE MOTOR
 - 52TC - TRIP COIL
 - LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
 - LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
 - LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
 - PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
 - PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
 - MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
 - MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
 - TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
 - TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
 - 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
 - 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKERS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

<p>APPROVED</p> <p>FOR COMMANDER NAVFAC</p> <p>ACTIVITY</p> <p>SATISFACTORY TO DATE</p> <p>DES: MGH DRW: NRM CHK: ISP</p> <p>PM/DM: SARAH REED</p> <p>BRANCH MANAGER</p> <p>CHIEF ENG/ARCH</p> <p>FIRE PROTECTION</p> <p>NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA</p> <p>SCALE: AS NOTED</p> <p>PROJECT NO.: 1641213</p> <p>CONSTR. CONTR. NO.: N62470-15-D-4002</p> <p>NAVFAC DRAWING NO.: 15160907</p> <p>SHEET 58 OF 76</p> <p>E1606</p> <p>DRAWN/REVISED: 25 AUGUST 2020</p>	<p>APPR</p> <p>DATE</p> <p>DESCRIPTION</p> <p>SYN</p>    <p>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144</p> <p>A/E INFO</p> <p>TO SWITCHGEAR ETHERNET SWITCH RE: SHT E1608</p> <p>DISTRIBUTION SWITCHGEAR ECIP</p> <p>FEEDER BREAKER 52-F4 SCHEMATIC</p>
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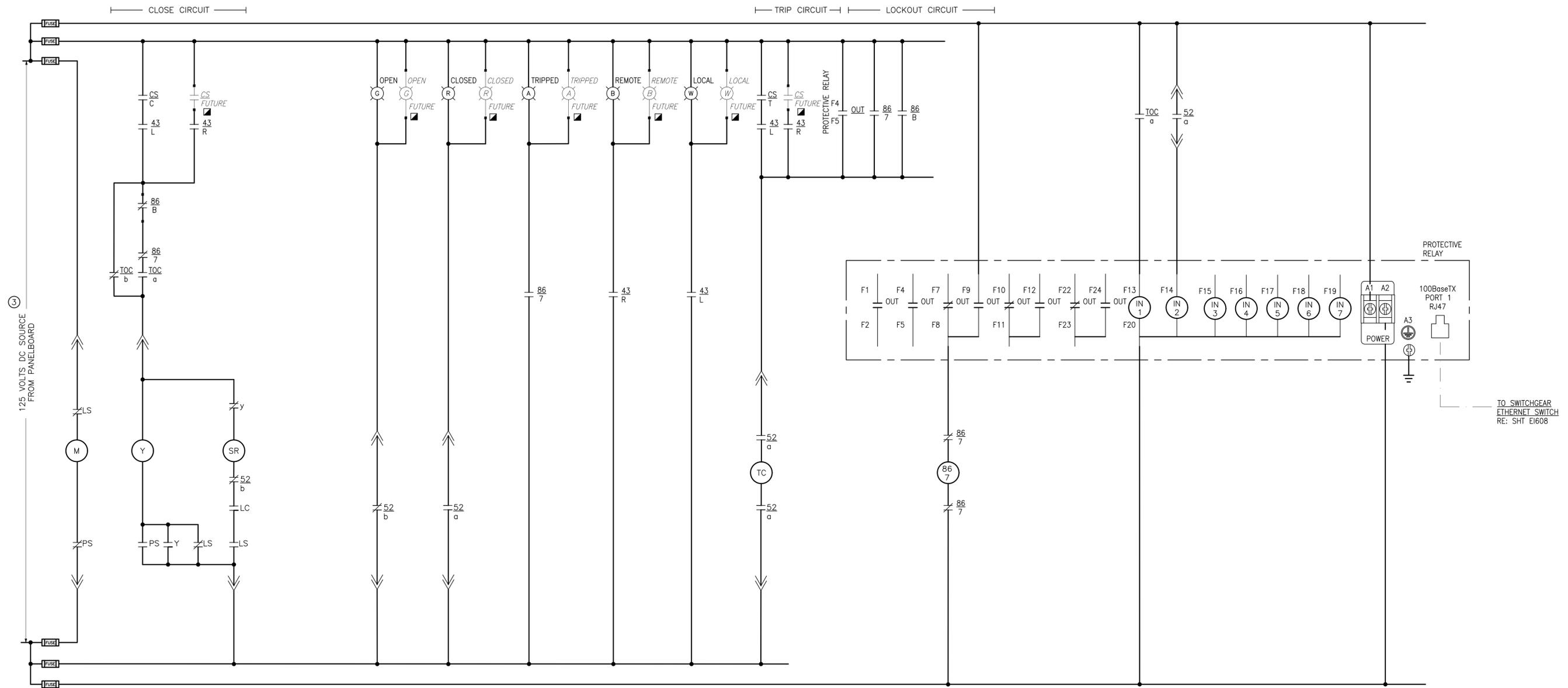
FILE NAME: C:\pwr_cit\Yanbing\1917675\24942E1-606.dwg LAYOUT NAME: PLOT PLOTTED: Friday, May 28, 2021 - 4:54pm USER: HandleyMG

SCHEMATIC LEGEND

- EXTERNAL DEVICE TERMINAL CONNECTIONS
- ▣ DEVICE LOCATED IN FIELD
- ⊙ PUSH-TO-TEST LED PILOT LIGHT

GENERAL ELECTRICAL NOTES:

1. THE CONTROL DIAGRAMS, ALONG WITH ANY WRITTEN OPERATIONAL DESCRIPTIONS PRESENT THE INTENDED FUNCTIONS OF THE OVERALL SYSTEM BUT DO NOT SUPERCEDE MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE LABOR, MATERIAL, AND INCIDENTALS REQUIRED FOR THE PROGRAMMING OF THE ANSI FUNCTIONS SHOWN ON THE ONE-LINE DIAGRAM AND COORDINATION STUDY. THE PROGRAMMING MUST INCLUDE LOGIC FUNCTIONS REQUIRED FOR CONTROLLING THE CIRCUIT BREAKER PER THE SWITCHGEAR SUPPLIER'S RECOMMENDATIONS.



FEEDER BREAKER 52-F5 CONTROL SCHEMATIC
NTS

LEGEND

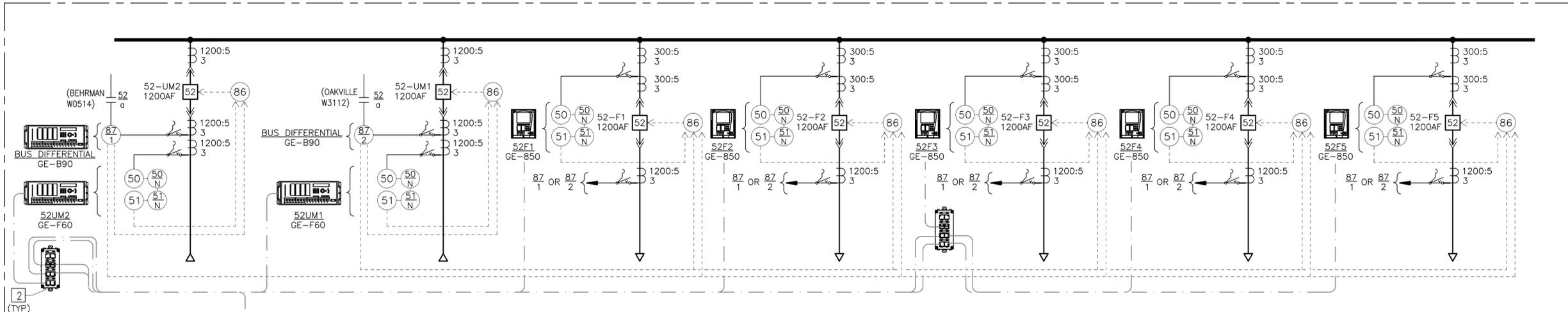
- CS/C - BREAKER CLOSING SWITCH
- CS/T - BREAKER TRIP SWITCH
- 52Y - ANTI-PUMPING RELAY
- 52SR - SPRING RELEASE COIL (CLOSING)
- 52M - SPRING CHARGE MOTOR
- 52TC - TRIP COIL
- LS1/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- LS2/aa - OPEN UNTIL SPRINGS ARE FULLY CHARGED
- LS2/bb - CLOSED UNTIL SPRINGS ARE FULLY CHARGED
- PS1 - OPEN IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- PS2 - CLOSED IN ALL EXCEPT BETWEEN TEST AND CONNECTED POSITIONS
- MOC/a - OPEN WHEN CIRCUIT BREAKER IS OPEN
- MOC/b - CLOSED WHEN CIRCUIT BREAKER IS OPEN
- TOC/a - OPENS WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- TOC/b - CLOSED WHEN CIRCUIT BREAKER NOT IN CONNECTED POSITION
- 52a - CIRCUIT BREAKER AUX. SWITCH CONTACT OPEN WHEN BREAKER IS OPEN
- 52b - CIRCUIT BREAKER AUX. SWITCH CONTACT CLOSED WHEN BREAKER IS OPEN

OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

	APPR
	DATE
	DESCRIPTION
	S/N
  	
1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF 0000144 A/E INFO	
APPROVED	
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES: MGH DRW: NRM CHK: ISP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP FEEDER BREAKER 52-F5 SCHEMATIC	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160908	
SHEET 59 OF 76	
E1607	
DRAWN/REVISION: 25 AUGUST 2020	

SSMB1 SWITCHGEAR S-1
BUS: 13,800V (15KV CLASS), 1200A, 3PH, 3W, 25KA

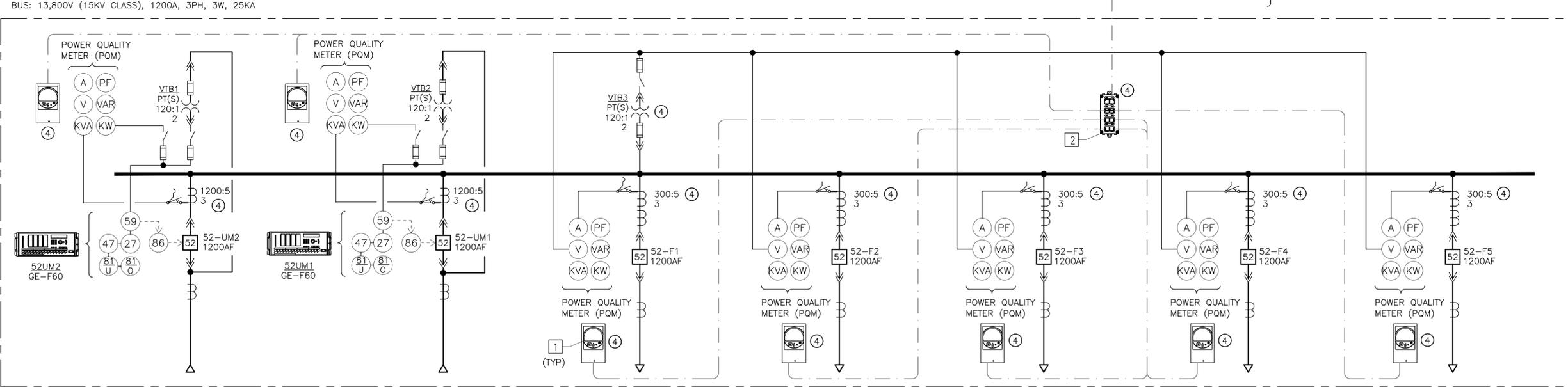


ANSI STANDARD DEVICE DESIGNATION:
50-INSTANTANEOUS OVERCURRENT RELAY
51-AC TIME OVERCURRENT RELAY
52-AC CIRCUIT BREAKER
86-LOCKING OUT RELAY
87/1-BUS DIFFERENTIAL PROTECTIVE RELAY ZONE 1
87/2-BUS DIFFERENTIAL PROTECTIVE RELAY ZONE 2

MAIN ELECTRIC SUPPLY STATION CONTROL HOUSE (SSMB1) METAL-CLAD SWITCHGEAR S-1 DIFFERENTIAL, MAIN, AND FEEDER PROTECTION
ANSI FUNCTION DIAGRAM
NTS

- OPTION BID ITEMS (SEE SPECIFICATIONS):**
- ADD FIRE ALARM SYSTEM
 - ADD REDUNDANT HVAC UNIT
 - ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.

SSMB1 SWITCHGEAR S-1
BUS: 13,800V (15KV CLASS), 1200A, 3PH, 3W, 25KA



ANSI STANDARD DEVICE DESIGNATION:
27-UNDERVOLTAGE RELAY
47-PHASE-SEQUENCE RELAY
52-AC CIRCUIT BREAKER
59-OVERVOLTAGE RELAY
81U-UNDER FREQUENCY RELAY
81O-OVER FREQUENCY RELAY
86-LOCKING OUT RELAY

MAIN ELECTRIC SUPPLY STATION CONTROL HOUSE (SSMB1) METAL-CLAD SWITCHGEAR UNDERVOLTAGE, OVERVOLTAGE, UNDER-FREQUENCY, OVER-FREQUENCY, AND PHASE SEQUENCE PROTECTION
ANSI FUNCTION DIAGRAM
NTS

- GENERAL ELECTRICAL NOTES:**
- ELECTRICAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL LAYOUT OF WORK TO BE INSTALLED UNDER THIS CONTRACT WITHOUT ATTEMPTING TO SHOW EVERY DETAIL. FURNISH LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DOCUMENTS.
 - CONTRACTOR'S WORK MUST INCLUDE COMPLETE TESTING OF EQUIPMENT AND WIRING INCLUDING MAKING MINOR CORRECTIONS, CHANGES, OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT. WORKMANSHIP MUST BE OF THE HIGHEST QUALITY; SUBSTANDARD WORK WILL BE REJECTED.
 - PROTECTIVE RELAYS ARE BASED ON GE MULTILIN F60, B90, AND 850 SERIES.

DEVICE LEGEND:

PROTECTIVE RELAY OR ION8650 POWER QUALITY METER (PQM) TEST SWITCH (TS) ETHERNET SWITCH ETHERNET

- OPTION BID ITEMS CONT. (SEE SPECIFICATIONS):**
- ADD AMI METERING SYSTEM.
 - ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
 - ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
 - ADD DEMOLITION OF EXISTING SWITCHYARD.

- KEY NOTES:**
- POWER SUPPLY FROM CIRCUIT BREAKER CONTROL CIRCUIT. PROVIDE FUSE(S) AND APPURTENANCES AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM.
 - POWER SUPPLY FROM DIFFERENTIAL CONTROL CIRCUIT. PROVIDE FUSE(S) AND APPURTENANCES AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM.

DATE	APPR
DESCRIPTION	SW
<p>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144</p>	
APPROVED	A/E INFO
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES: MGH	DRAW: NRM
CHK: ISP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP SWITCHING STATION ANSI DIAGRAMS	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAFAC DRAWING NO. 15160909	
SHEET 60 OF 76	
E1608 <small>DRAWFORM REVISION: 25 AUGUST 2020</small>	

OPTION BID ITEMS CONT. (SEE SPECIFICATIONS):

- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

GENERAL ELECTRICAL NOTES:

- 1. THIS DRAWING PROVIDES AN OVERVIEW OF THE NETWORK DESIGN AT NAS JRB BELLE CHASSE AND REPRESENTS THE LATEST DOCUMENTED INFORMATION AVAILABLE ON THE EXISTING SYSTEM. HOWEVER, UNDOCUMENTED CHANGES MAY EXIST THAT MAY REQUIRE FIELD INVESTIGATION. PROVIDE THE NECESSARY CHANGES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM. THE INFORMATION PRESENTED HEREIN IS BASED ON AS-BUILT DRAWINGS PROVIDED BY THE CONTRACTING OFFICER AND NOTED AS SCHNEIDER ELECTRIC ORDER NUMBER: 28942955-014.

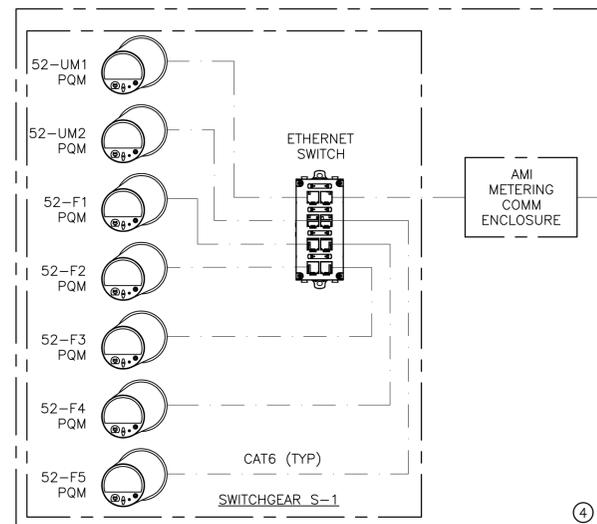
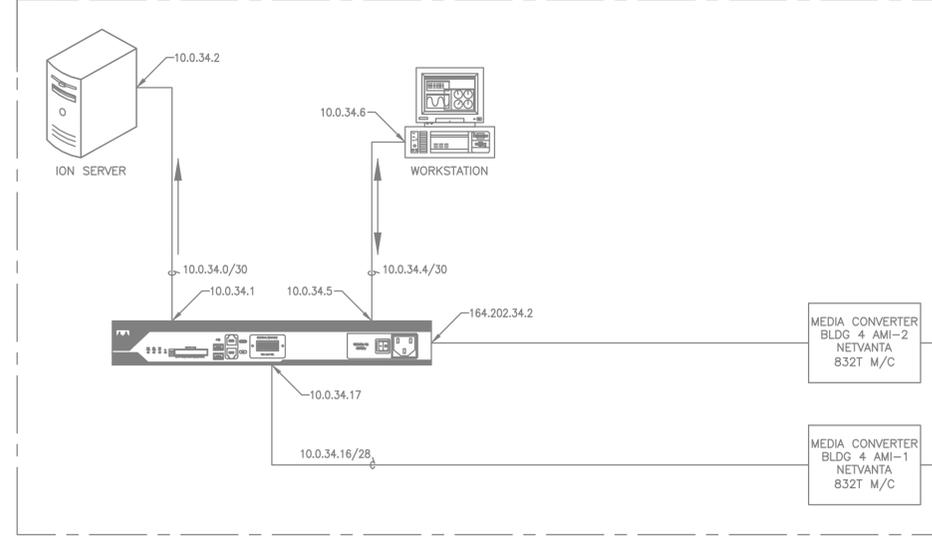
KEY NOTES:

- 1. PROVIDE LABOR, MATERIAL, PROGRAMMING AND INCIDENTALS REQUIRED TO MODIFY THE EXISTING DAS NETWORK CONFIGURATION TO INCORPORATE METERING DEVICES SHOWN HEREIN FOR A FULLY FUNCTIONAL SYSTEM.

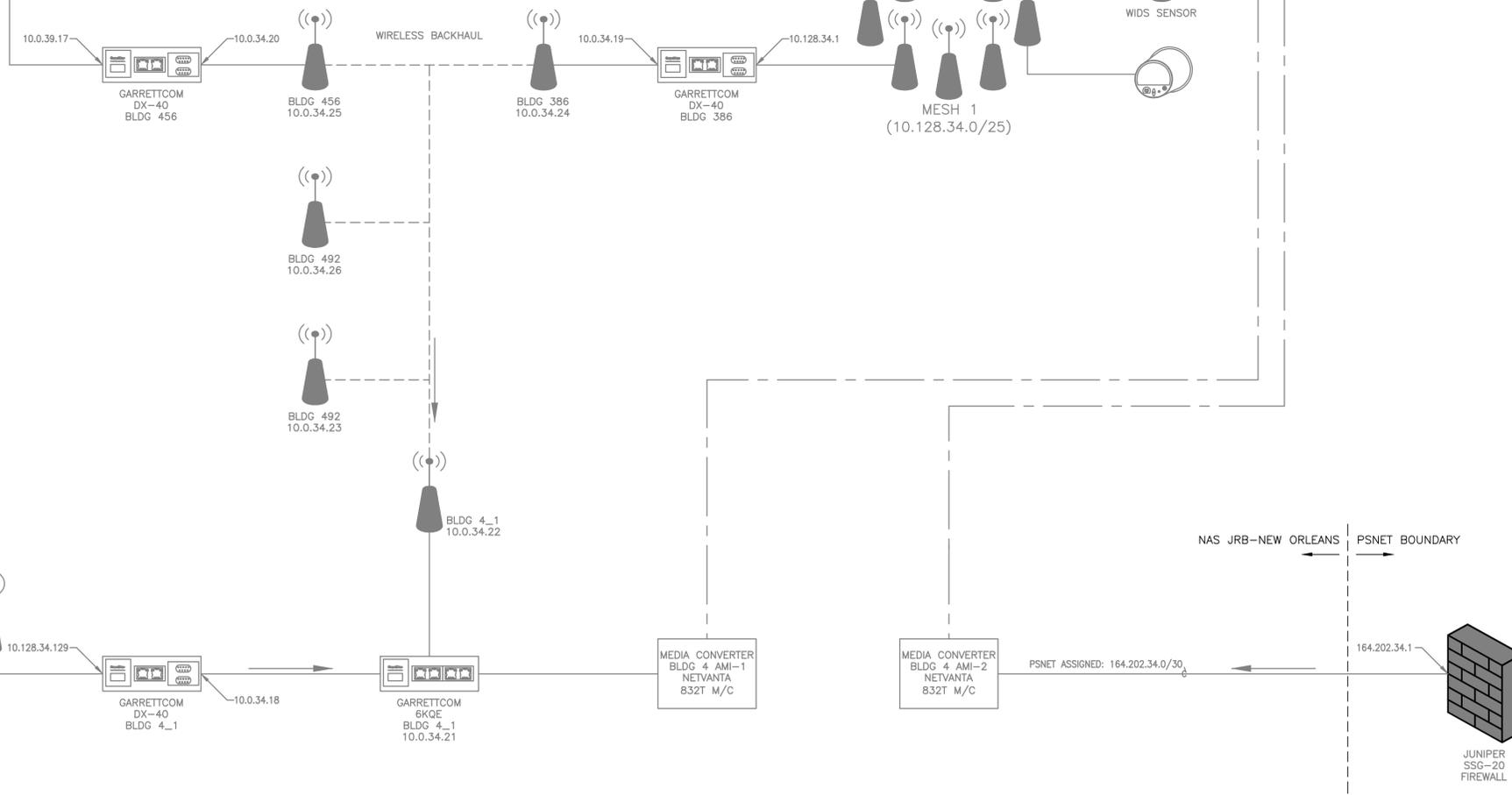
OPTION BID ITEMS (SEE SPECIFICATIONS):

- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.

BLDG 552 PUBLIC WORKS SCADA ROOM

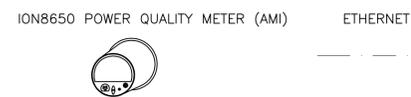


MAIN ELECTRIC SUPPLY STATION
CONTROL HOUSE SSMB1



**NETWORK
DIAGRAM**
NTS

DEVICE LEGEND:



APPROVED	DATE
DESCRIPTION	DATE
SYMBOL	DATE
1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144 A/E INFO	
APPROVED	DATE
FIR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH DRW: NRM CHK: ISP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP NETWORK DIAGRAM	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160910	
SHEET 61 OF 76	
E1609 DRAWFORM REVISION: 25 AUGUST 2020	

OPTION BID ITEMS (SEE SPECIFICATIONS):

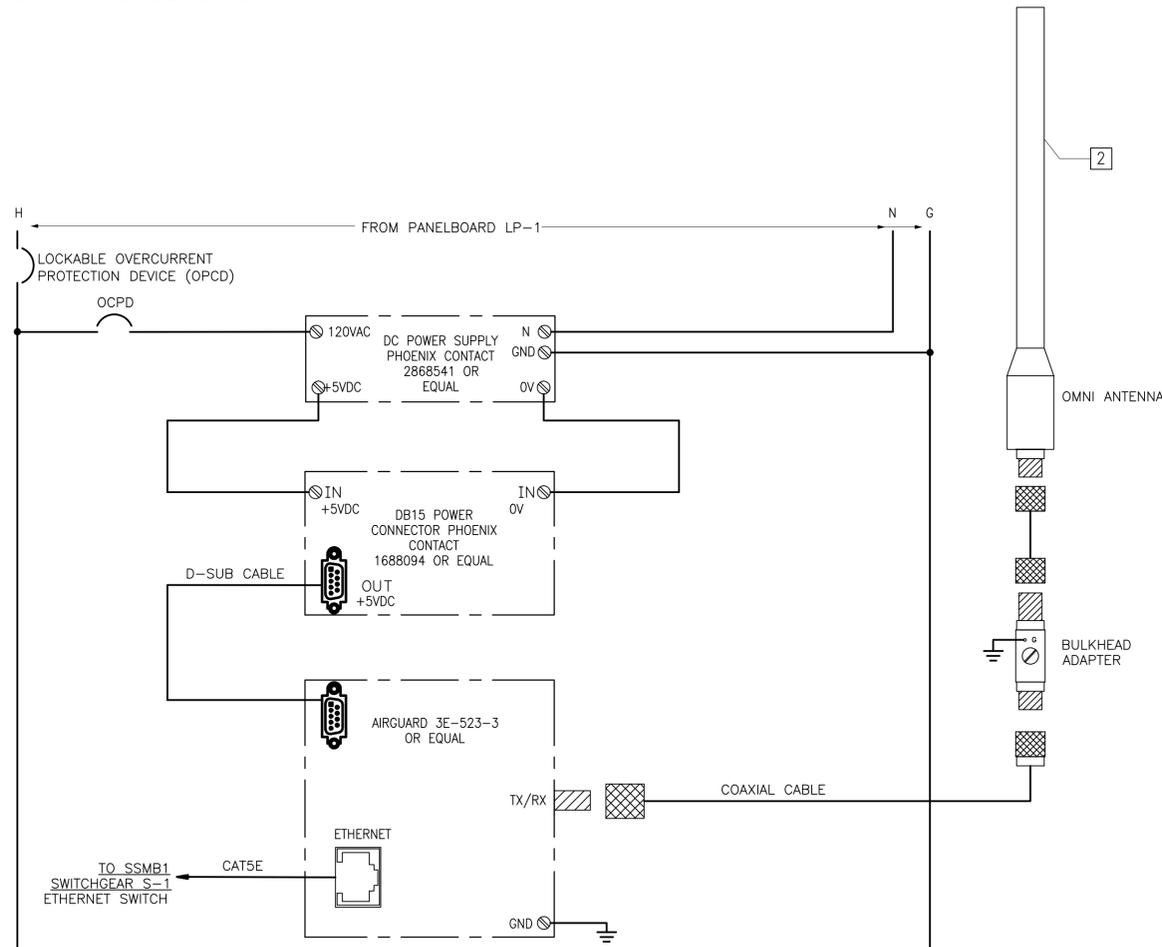
- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

GENERAL ELECTRICAL NOTES:

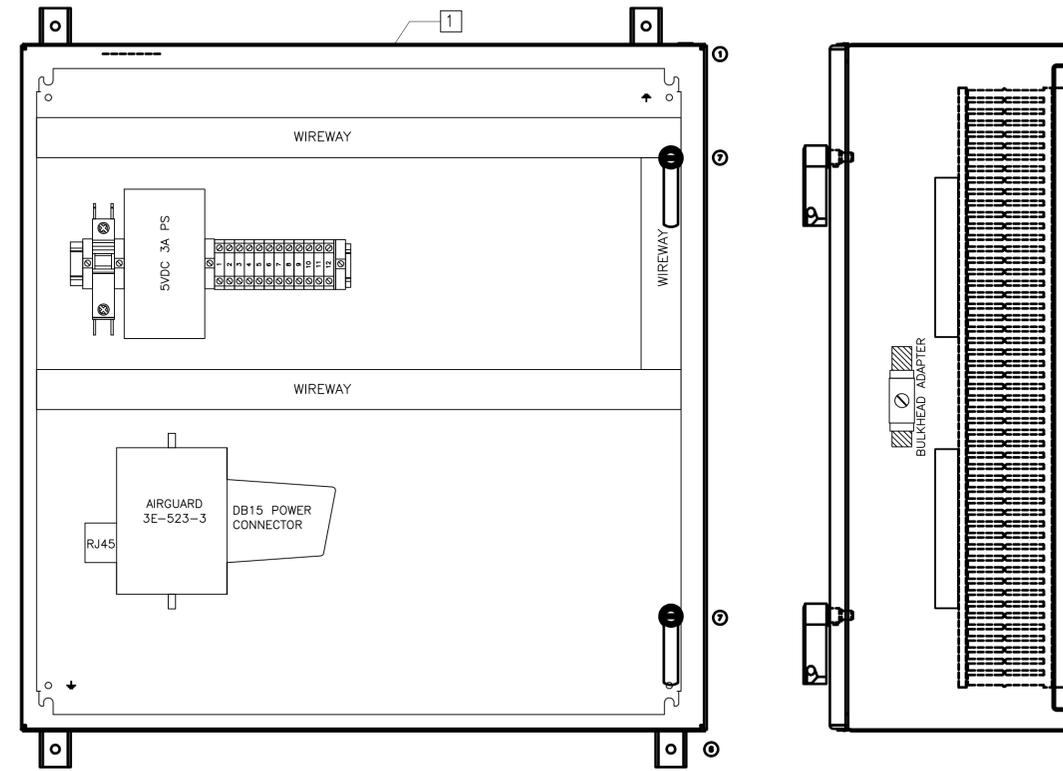
1. THIS DRAWING PROVIDES GUIDANCE TO SHOW DESIGN INTENT AND DOES NOT SUPERCEDE ANY MANUFACTURER RECOMMENDATIONS NOR DOES IT REFLECT EVERY COMPONENT REQUIRED FOR A FULLY FUNCTIONAL SYSTEM FOR THE NETWORK DIAGRAM SHOWN ON SHEET EI609.
2. CONTROL PANELS MUST BE ASSEMBLED IN UL-508A CERTIFIED SHOP AND SHIPPED TO THE JOBSITE AS A SINGLE UNIT. PANELS MUST BE LISTED AS UL-508A.

KEY NOTES:

- ① ENCLOSED NEMA 12 TYPE FRONT ACCESSIBLE CONTROL PANEL.
- ② PROVIDE OMNI DIRECTIONAL ANTENNA ON CONTROL HOUSE EXTERIOR. LOCATE TO BEST SUIT FIELD CONDITIONS AND NETWORK CONNECTIVITY.



AMI METERING COMM ENCLOSURE ④
SCHEMATIC
NTS



FRONT VIEW WITH INTERIOR BACK PLATE

SIDE VIEW WITH INTERIOR BACK PLATE

AMI METERING COMM NEMA 12 ENCLOSURE INTERIOR ④
ELEVATION
NTS

APPR	DATE
DESCRIPTION	DATE
SYN	DATE



APPROVED

FOR COMMANDER NAFAC

ACTIVITY

SATISFACTORY TO DATE

DES: MGH | DRW: NRM | CHK: ISP

PM/DM: SARAH REED

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST

NAVAL AIR STATION JACKSONVILLE FLORIDA

NAVAL AIR STATION JRB @ BELLE CHASSE

NEW ORLEANS, LA

DISTRIBUTION SWITCHGEAR ECIP

AMI COMM ENCLOSURE SCHEMATIC AND ELEVATION

SCALE: AS NOTED

PROJECT NO.: 1641213

CONSTR. CONTR. NO. N62470-15-D-4002

NAFAC DRAWING NO. 15160911

SHEET 62 OF 76

EI610

DRAWFORM REVISION: 23 AUGUST 2020

OPTION BID ITEMS (SEE SPECIFICATIONS):

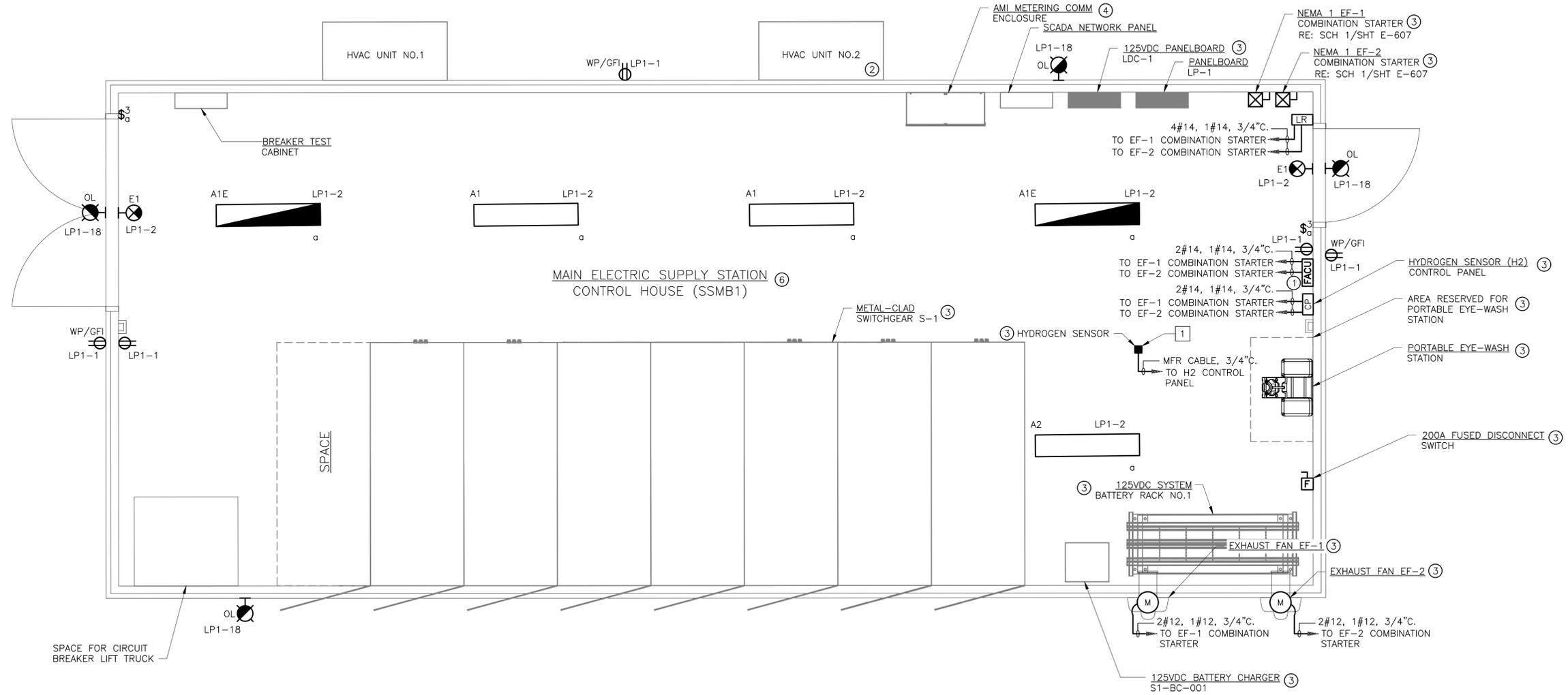
- ① ADD FIRE ALARM SYSTEM
- ② ADD REDUNDANT HVAC UNIT
- ③ ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- ④ ADD AMI METERING SYSTEM.
- ⑤ ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- ⑥ ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- ⑦ ADD DEMOLITION OF EXISTING SWITCHYARD.

GENERAL ELECTRICAL NOTES:

1. REFERENCE PANELBOARD SCHEDULE(S) FOR CONDUIT AND WIRING NOT SHOWN ON THIS SHEET.
2. ALL EMERGENCY BATTERY UNITS AND EXIT LIGHTS MUST BE CONNECTED TO CONSTANT HOT AHEAD OF ANY SWITCHING.

KEY NOTES:

- ① INSTALL H2 SENSOR PER MANUFACTURER'S RECOMMENDATION. ADJUST LOCATION AS REQUIRED.



MAIN ELECTRIC SUPPLY STATION CONTROL HOUSE (SSMB1) LIGHTING, RECEPTACLE, AND EXHAUST FANS

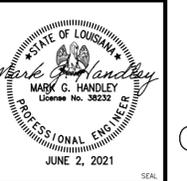
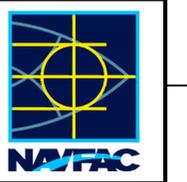
PLAN

1/2" = 1'-0"

1/2"=1'-0" 0' 1' 2' 4'



REV	DATE	DESCRIPTION



CDM Smith
 1515 Poydras Street, Suite 1000
 New Orleans, LA 70112
 Tel: (504) 799-1120
 LA FIRM LICENSE NO: EF.0000144

APPROVED	DATE
PER COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH	CHK: ISP
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 1ST SOUTH AND CENTRAL
 NAVAL AIR STATION JRB @ BELLE CHASSE
 NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
 SSMB1 CONTROL HOUSE LIGHTING PLAN

SCALE:	AS NOTED
EPROJCT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160912
SHEET	63 OF 76
EL100	

DRAWFORM REVISION: 25 AUGUST 2020

READY TO ADVERTISE

KEY NOTES:

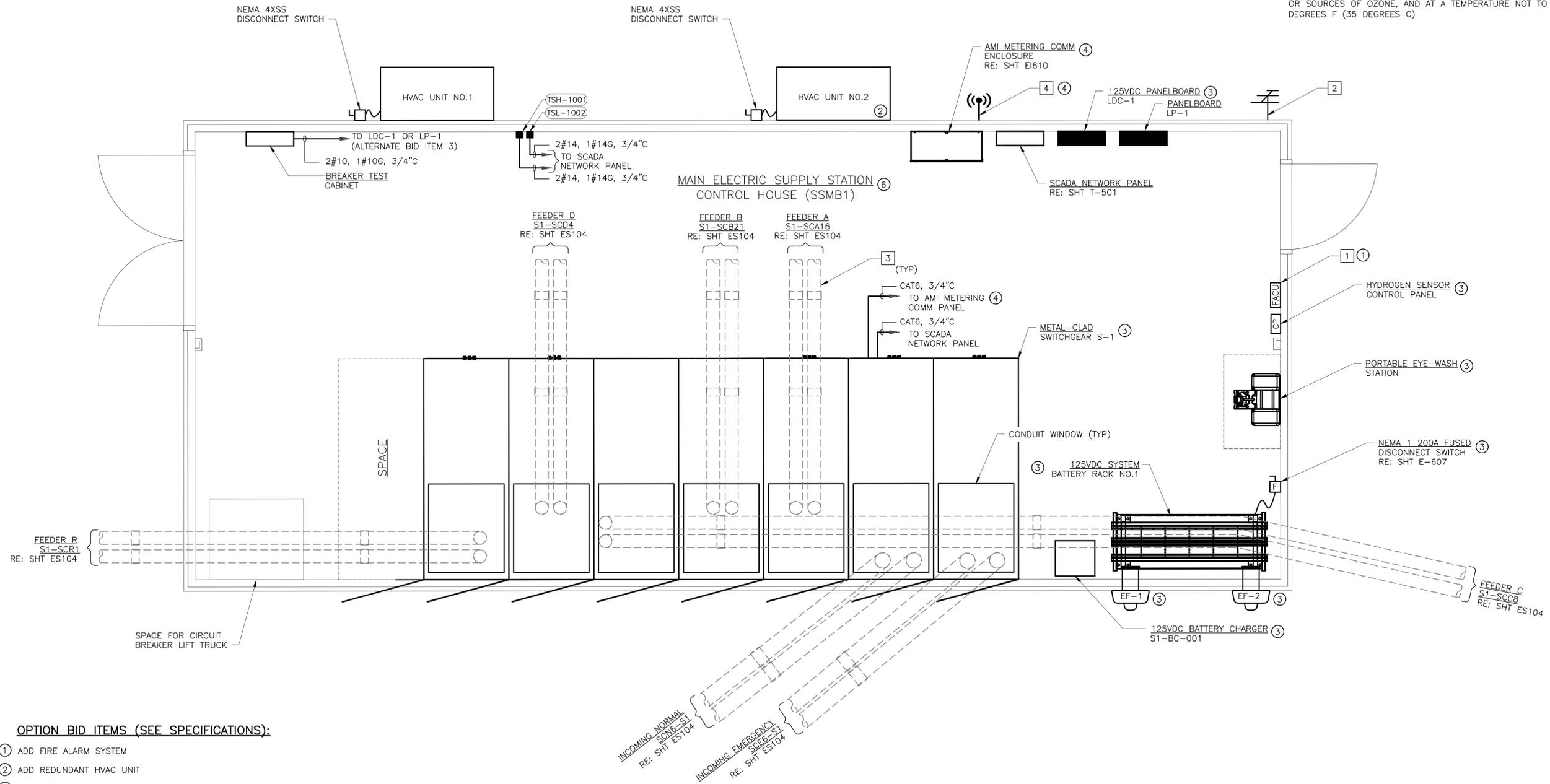
- 1 REFERENCE SHEET FA001 AND FA101 FOR FIRE ALARM REQUIREMENTS.
- 2 REFERENCE SHEET T-501 FOR YAGI ANTENNA REQUIREMENTS.
- 3 FIELD LOCATE CONDUITS TO SUIT EQUIPMENT FURNISHED. CAP SPARE CONDUITS FOR FUTURE USE.
- 4 FIELD LOCATE OMNI-DIRECTIONAL ANTENNA AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM AS SHOWN ON SHEET EI609.

GENERAL ELECTRICAL NOTES:

1. FINAL ELECTRICAL EQUIPMENT LAYOUT MUST BE COORDINATED WITH ENCLOSURE MANUFACTURER.
2. REFERENCE SHEET EL100 FOR RECEPTACLE AND LIGHTING PLAN.
3. REFERENCE SHEET E-607 FOR CONDUIT AND WIRING NOT SHOWN ON THIS SHEET.
4. MANUFACTURER OF THE COORDINATION ELECTRICAL HOUSE MUST PROVIDE A GROUND RING ON THE INTERIOR OF THE ELECTRICAL COORDINATED HOUSE AND BOND ELECTRICAL EQUIPMENT AS REQUIRED BY THE NEC. REFERENCE SHEET EG100 FOR ADDITIONAL GROUNDING REQUIREMENTS.

GENERAL ELECTRICAL NOTES CONT.:

5. PROVIDE A NON-CONDUCTIVE ELASTOMER COMPOUND RUBBER FLOOR MAT EXTENDING THE FULL LENGTH AND PLACED IN FRONT OF THE MV SWITCHGEAR, PANELBOARDS, AND BATTERY RACKS. MATS MUST BE IN ACCORDANCE WITH ASTM D178 SPECIFICATION, TYPE II, CLASS 2, 1/4" THICK MINIMUM, 36" WIDE WITH CORRUGATED SURFACE AND MUST BE BRAIDED CONTINUOUSLY ON THE BACK.
MATS MUST HAVE THE FOLLOWING RATINGS:
5.1 VOLTAGE PHASE-TO-PHASE: 17,000V RMS.
5.2 AC PROOF TEST VOLTAGE: 20,000V RMS.
5.3 DC PROOF TEST VOLTAGE: 50,000V AVERAGE.
TYPE II MATS MUST BE OZONE, FLAME AND OIL-RESISTANT.
PROVIDE MATS IN ONE CONTINUOUS PIECE. WHERE EQUIPMENT FACES EACH OTHER AND IS LESS THAN 6 FEET APART, PROVIDE ONE WIDTH OF MAT. MATS MUST BE STORED WITHOUT DISTORTION, FREE FROM DIRECT SUNLIGHT OR SOURCES OF OZONE, AND AT A TEMPERATURE NOT TO EXCEED 95 DEGREES F (35 DEGREES C)



OPTION BID ITEMS (SEE SPECIFICATIONS):

- 1 ADD FIRE ALARM SYSTEM
- 2 ADD REDUNDANT HVAC UNIT
- 3 ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- 4 ADD AMI METERING SYSTEM.
- 5 ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- 6 ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- 7 ADD DEMOLITION OF EXISTING SWITCHYARD.

MAIN ELECTRIC SUPPLY STATION CONTROL HOUSE (SSMB1) POWER

PLAN
1/2" = 1'-0"

1/2"=1'-0" 0' 1' 2' 4'



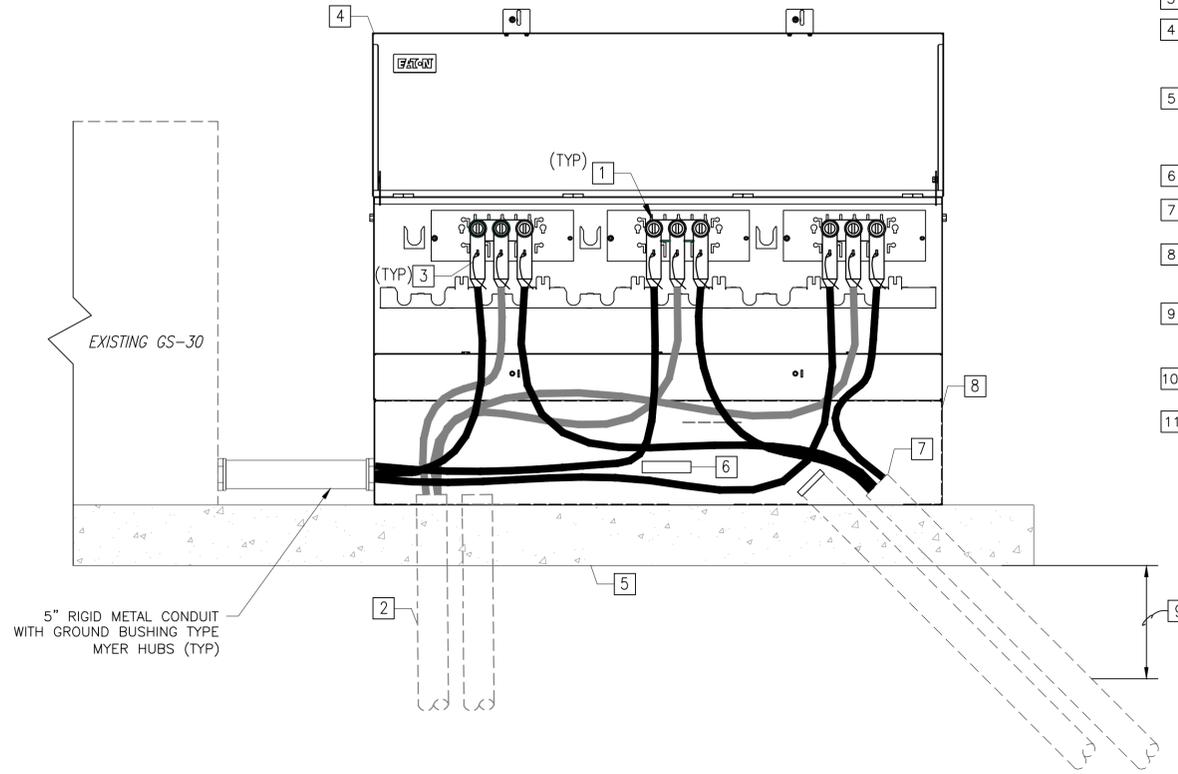
   <small>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144</small>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td>FOR COMMANDER NAVFAC</td> <td></td> </tr> <tr> <td>SATISFACTORY TO</td> <td>DATE</td> </tr> <tr> <td>DES: MGH</td> <td>CHK: ISP</td> </tr> <tr> <td>PM/DM: SARAH REED</td> <td></td> </tr> <tr> <td>BRANCH MANAGER</td> <td></td> </tr> <tr> <td>CHIEF ENG/ARCH</td> <td></td> </tr> <tr> <td>FIRE PROTECTION</td> <td></td> </tr> </table>	APPROVED	DATE	FOR COMMANDER NAVFAC		SATISFACTORY TO	DATE	DES: MGH	CHK: ISP	PM/DM: SARAH REED		BRANCH MANAGER		CHIEF ENG/ARCH		FIRE PROTECTION	
APPROVED	DATE																
FOR COMMANDER NAVFAC																	
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DES: MGH	CHK: ISP																
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FIRE PROTECTION																	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP SSMB1 CONTROL HOUSE POWER PLAN																	
SCALE: AS NOTED PROJECT NO.: 1641213 CONSTR. CONTR. NO.: N62470-15-D-4002 NAVFAC DRAWING NO.: 15160913 SHEET 64 OF 78 EP100 <small>DRAWN/REVISED: 23 AUGUST 2020</small>																	



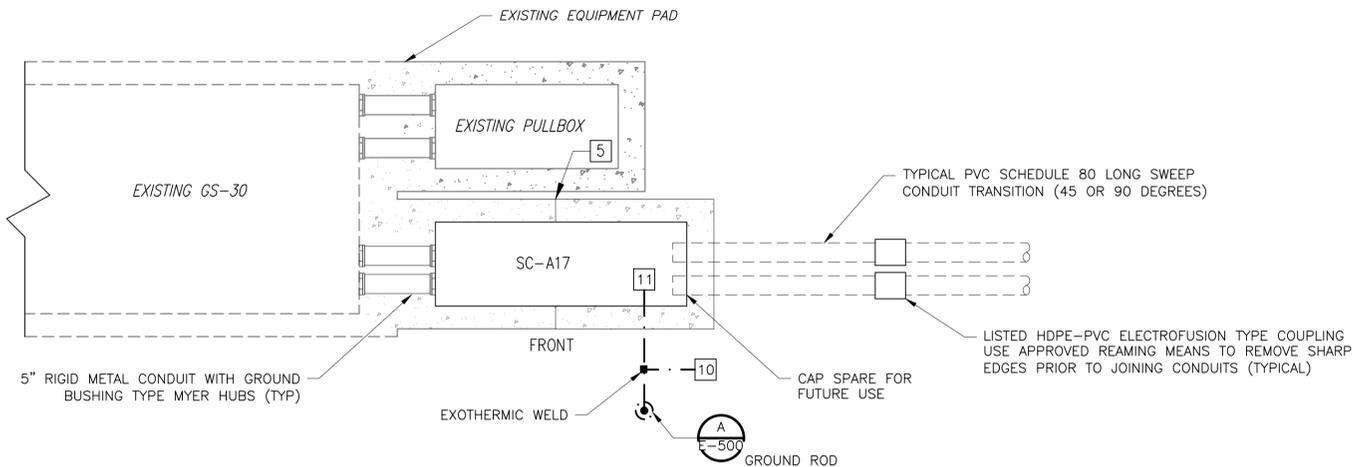
EXISTING GAS SWITCH GS-30 INTERIOR PHOTOGRAPH
NTS



EXISTING NEMA 4XSS PULLBOX DESIGNATED AS 'SWITCH #4 TO GS-6' ADJACENT TO GS-30 PHOTOGRAPH
NTS



C1 SECTIONALIZING CABINET SC-A17 FRONT ELEVATION DETAIL
Scale: N.T.S.



NOTE: BEND RADIUS NOT TO EXCEED MANUFACTURERS RECOMMENDATION AND 5% OVALIZATION

A1 SECTIONALIZING CABINET SC-A17 PLAN VIEW DETAIL
Scale: N.T.S.

KEY NOTES:

- 1 600 AMP DEAD BREAK ELBOW.
- 2 PROTECT EXISTING FEEDERS AND CONNECT TO SECTIONALIZING CABINET.
- 3 CONNECT DEAD BREAK ELBOW DRAIN WIRE TAB TO GROUND.
- 4 MUNSELL GREEN POWDER-COATED STAINLESS STEEL THREE-PHASE SECTIONALIZING CABINET WITH 15KV 3-WAY 600A JUNCTIONS W/ U-STRAPS. CABINET DIMENSIONS 84"W x 30"H x 22"D.
- 5 PROVIDE CONCRETE PAD EXTENSION AS REQUIRED FOR MOUNTING EQUIPMENT PER DETAIL A3/ S-501. MATCH THICKNESS OF EXISTING PAD. PROVIDE 24" LONG NO. 4 REBAR DOWELED INTO EXISTING PAD 12" ON CENTER WITH 4" EMBED.
- 6 PROVIDE NAMEPLATE FOR CABINET.
- 7 USE APPROVED REAMING MEANS TO REMOVE SHARP EDGES AND INSTALL APPROVED ADAPTER WITH INSULATED BUSHING PRIOR TO PULLING CONDUCTORS.
- 8 PROVIDE MUNSELL GREEN POWDER-COATED STAINLESS STEEL BASE EXTENSION TO RAISE PAD MOUNTED SECTIONALIZING CABINET FOR SUITABLE CABLE COMPARTMENT.
- 9 CONDUIT INSTALLED UNDER PAVEMENT COVERED AREAS MUST BE INSTALLED MINIMUM 48" BELOW GRADE. PROVIDE SUBSURFACE SURVEY. MINIMUM DEPTH MUST MEET IEEE STD C2-2017 TABLE 352-1.
- 10 FIELD LOCATE EXISTING GROUNDING SYSTEM AND BOND #1/0 BARE COPPER CONDUCTOR TO GROUNDING SYSTEM.
- 11 BOND EQUIPMENT ENCLOSURE TO THE GROUND SYSTEM WITH #1/0 BARE COPPER CONDUCTOR.

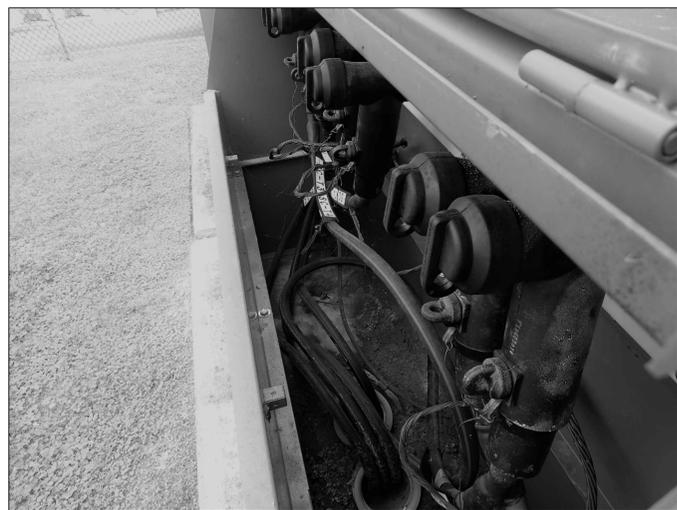
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	DATE
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1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144	
A/E INFO	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	MCH NRM CHK ISP
PM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST 15TH AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP SECTIONALIZING CABINET SC-A17	
SCALE: AS NOTED	
EPROJCT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160914	
SHEET 65 OF 76	
EP500 <small>DRAWFORM REVISION: 23 AUGUST 2020</small>	

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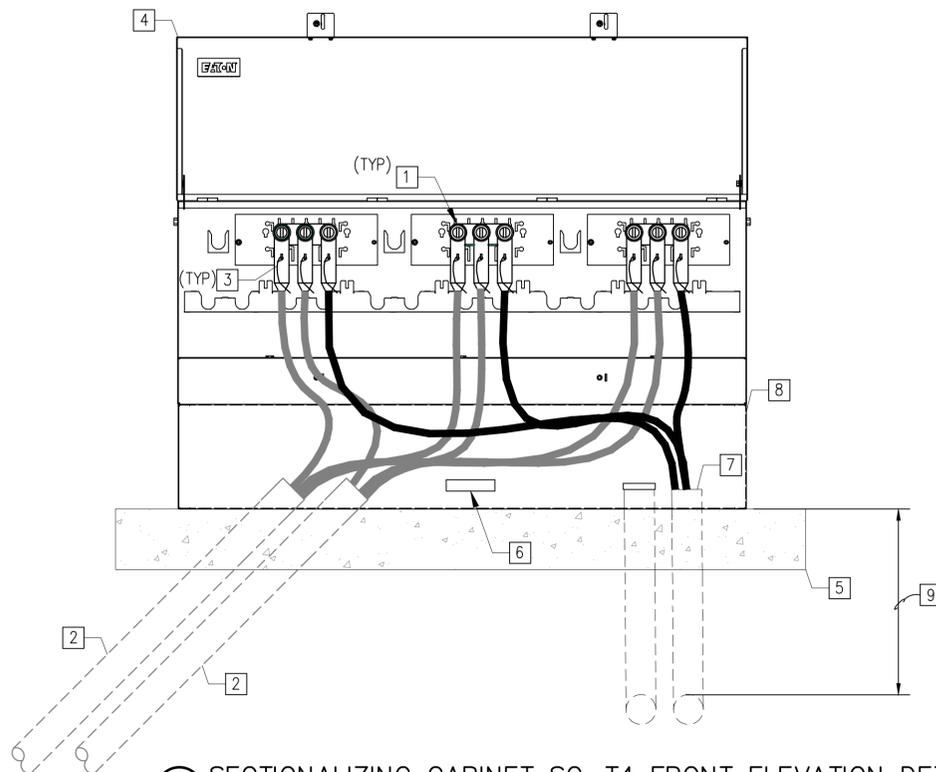
REMOVE EXISTING SECTIONALIZING CABINET SC-T4 AND REPLACE WITH SECTIONALIZING CABINET SHOWN ON THIS SHEET



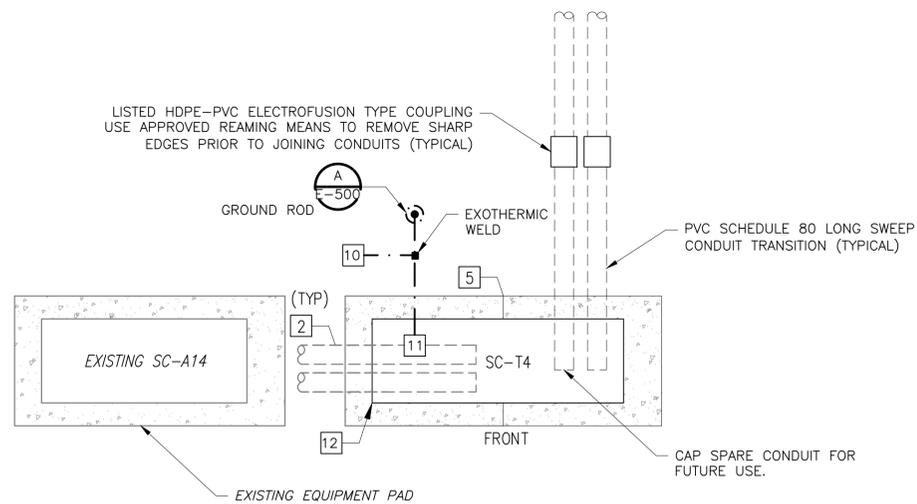
EXISTING SECTIONALIZING CABINET SC-T4 EXTERIOR PHOTOGRAPH
NTS



EXISTING SECTIONALIZING CABINET SC-T4 INTERIOR PHOTOGRAPH
NTS



C1 SECTIONALIZING CABINET SC-T4 FRONT ELEVATION DETAIL
Scale: N.T.S.



NOTE: BEND RADIUS NOT TO EXCEED MANUFACTURERS RECOMMENDATION AND 5% OVALIZATION

A1 SECTIONALIZING CABINET SC-T4 PLAN VIEW DETAIL
Scale: N.T.S.

KEY NOTES:

- 1 600 AMP DEAD BREAK ELBOW.
- 2 PROTECT EXISTING FEEDERS AND CONNECT TO SECTIONALIZING CABINET.
- 3 CONNECT DEAD BREAK ELBOW DRAIN WIRE TAB TO GROUND.
- 4 MUNSELL GREEN POWDER-COATED STAINLESS STEEL THREE-PHASE SECTIONALIZING CABINET WITH 15KV 3-WAY 600A JUNCTIONS W/ U-STRAPS. CABINET DIMENSIONS 84"W x 30"H x 22"D.
- 5 PROVIDE CONCRETE PAD EXTENSION AS REQUIRED FOR MOUNTING EQUIPMENT PER DETAIL A3/ S-501. MATCH THICKNESS OF EXISTING PAD. PROVIDE 24" LONG NO. 4 REBAR DOWELED INTO EXISTING PAD 12" ON CENTER WITH 4" EMBED.
- 6 PROVIDE NAMEPLATE FOR CABINET.
- 7 USE APPROVED REAMING MEANS TO REMOVE SHARP EDGES AND INSTALL APPROVED ADAPTER WITH INSULATED BUSHING PRIOR TO PULLING CONDUCTORS.
- 8 PROVIDE MUNSELL GREEN POWDER-COATED STAINLESS STEEL BASE EXTENSION TO RAISE PAD MOUNTED SECTIONALIZING CABINET FOR SUITABLE CABLE COMPARTMENT.
- 9 CONDUIT INSTALLED UNDER PAVEMENT COVERED AREAS MUST BE INSTALLED MINIMUM 48" BELOW GRADE. PROVIDE SUBSURFACE SURVEY. MINIMUM DEPTH MUST MEET IEEE STD C2-2017 TABLE 352-1.
- 10 FIELD LOCATE EXISTING GROUNDING SYSTEM AND BOND #1/0 BARE COPPER CONDUCTOR TO GROUNDING SYSTEM.
- 11 BOND EQUIPMENT ENCLOSURE TO THE GROUND SYSTEM WITH #1/0 BARE COPPER CONDUCTOR.
- 12 UNDER CONTRACTING OFFICER'S APPROVAL THE ORIENTATION OF THE CABINET MAY BE ROTATED 90 DEGREES IF FIELD CONDITIONS ARE PROHIBITIVE FOR THE INSTALLATION CONFIGURATION SHOWN.

APPROVED	DATE	APP'R
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ACTIVITY		
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PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA DISTRIBUTION SWITCHGEAR ECIP SECTIONALIZING CABINET SC-T4		
SCALE:	AS NOTED	
EPROJCT NO.:	1641213	
CONSTR. CONTR. NO.	N62470-15-D-4002	
NAVFAC DRAWING NO.	15160915	
SHEET	66	OF 76
EP501		
DRAWFORM REVISION: 25 AUGUST 2020		

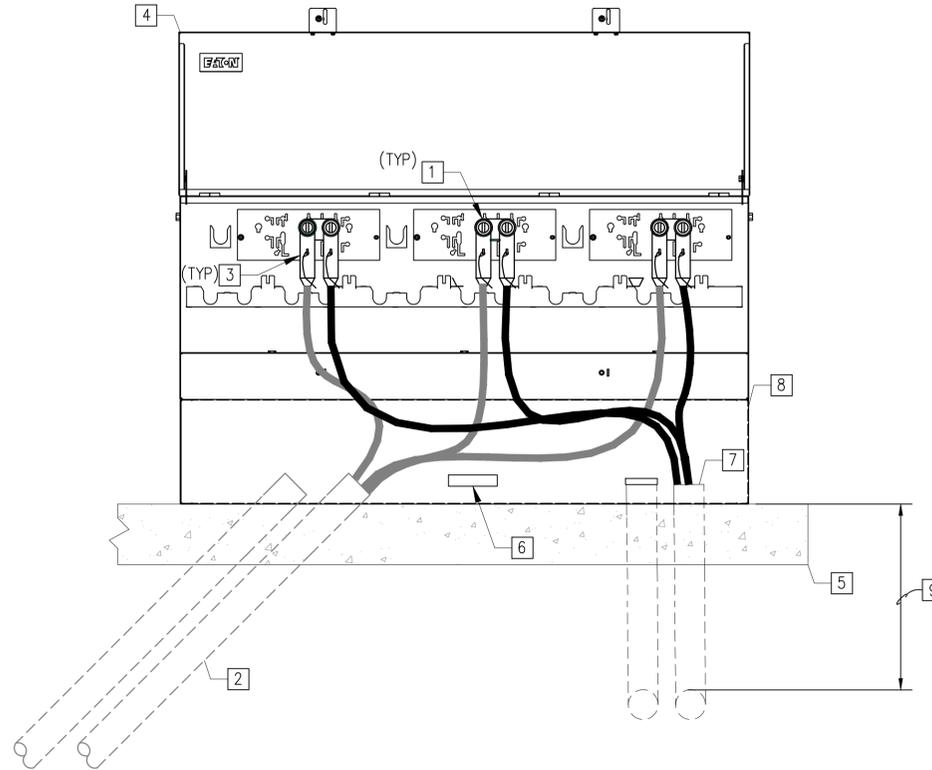


EXISTING SECTIONALIZING CABINET SC-C3 INTERIOR PHOTOGRAPH
NTS

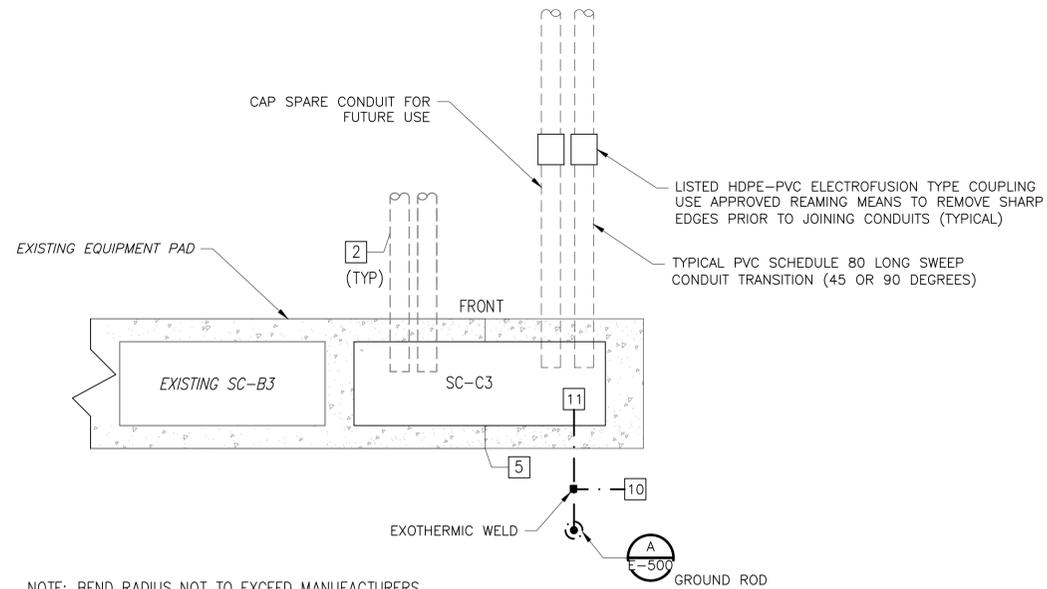


EXISTING SECTIONALIZING CABINET SC-C3 PHOTOGRAPH
NTS

REMOVE EXISTING EQUIPMENT AS SCHEDULED ON SHEET ED602 AND REPLACE WITH SECTIONALIZING CABINET SHOWN ON THIS SHEET



C1 SECTIONALIZING CABINET SC-C3 FRONT ELEVATION DETAIL
Scale: N.T.S.



NOTE: BEND RADIUS NOT TO EXCEED MANUFACTURERS RECOMMENDATION AND 5% OVALIZATION

A1 SECTIONALIZING CABINET SC-C3 PLAN VIEW DETAIL
Scale: N.T.S.

ES108

KEY NOTES:

- 1 600 AMP DEAD BREAK ELBOW.
- 2 PROTECT EXISTING FEEDERS AND CONNECT TO SECTIONALIZING CABINET.
- 3 CONNECT DEAD BREAK ELBOW DRAIN WIRE TAB TO GROUND.
- 4 MUNSELL GREEN POWDER-COATED STAINLESS STEEL THREE-PHASE SECTIONALIZING CABINET WITH 15KV 2-WAY 600A JUNCTIONS W/ U-STRAPS. CABINET DIMENSIONS 84"W x 30"H x 22"D.
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- 11 BOND EQUIPMENT ENCLOSURE TO THE GROUND SYSTEM WITH #1/0 BARE COPPER CONDUCTOR.

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1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF 0000144	
A/E INFO	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES	DRW
MCH	ISP
PM/DM SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP SECTIONALIZING CABINET SC-C3	
SCALE: AS NOTED	
PROJECT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160916	
SHEET 67 OF 76	
EP502 <small>DRAWFORM REVISION: 25 AUGUST 2020</small>	



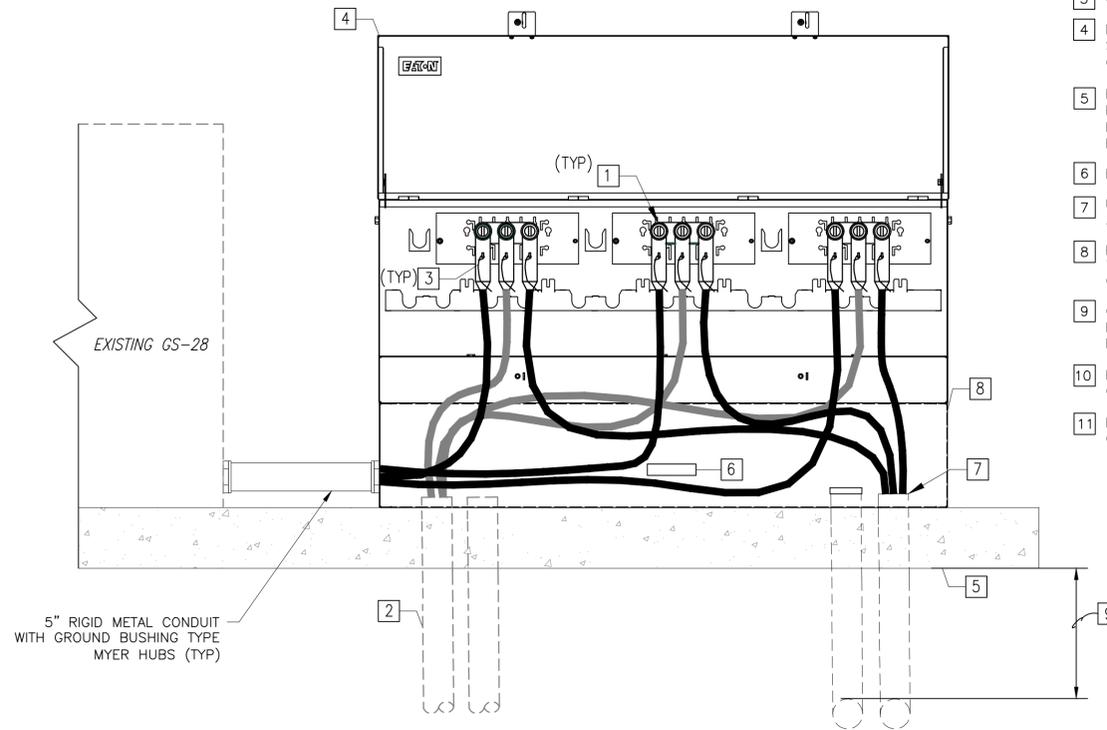
EXISTING GAS SWITCH GS-28 INTERIOR PHOTOGRAPH

NTS



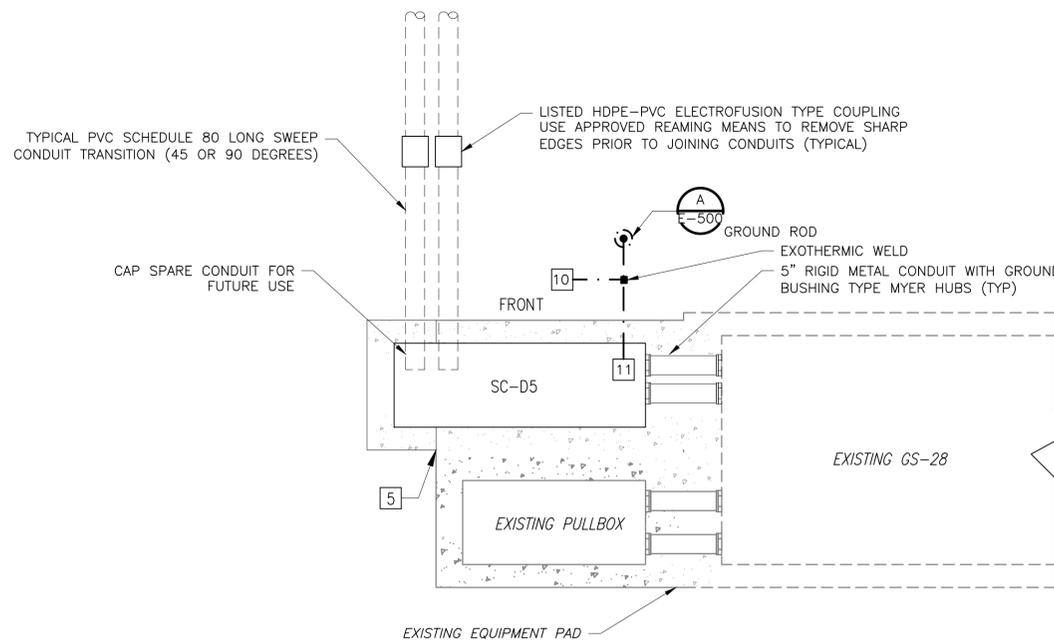
EXISTING NEMA 4XSS PULLBOX DESIGNATED AS 'SWITCH #1 FROM GS-27' ADJACENT TO GS-28 PHOTOGRAPH

NTS



C1 SECTIONALIZING CABINET SC-D5 FRONT ELEVATION DETAIL

Scale: N.T.S.



NOTE: BEND RADIUS NOT TO EXCEED MANUFACTURERS RECOMMENDATION AND 5% OVALIZATION

A1 SECTIONALIZING CABINET SC-D5 PLAN VIEW DETAIL

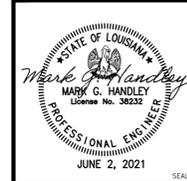
Scale: N.T.S.

ES105

KEY NOTES:

- 1 600 AMP DEAD BREAK ELBOW.
- 2 PROTECT EXISTING FEEDERS AND CONNECT TO SECTIONALIZING CABINET.
- 3 CONNECT DEAD BREAK ELBOW DRAIN WIRE TAB TO GROUND.
- 4 MUNSELL GREEN POWDER-COATED STAINLESS STEEL THREE-PHASE SECTIONALIZING CABINET WITH 15KV 3-WAY 600A JUNCTIONS W/ U-STRAPS. CABINET DIMENSIONS 84"W x 30"H x 22"D.
- 5 PROVIDE CONCRETE PAD EXTENSION AS REQUIRED FOR MOUNTING EQUIPMENT PER DETAIL A3/ S-501. MATCH THICKNESS OF EXISTING PAD. PROVIDE 24" LONG NO. 4 REBAR DOWELED INTO EXISTING PAD 12" ON CENTER WITH 4" EMBED.
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- 9 CONDUIT INSTALLED UNDER PAVEMENT COVERED AREAS MUST BE INSTALLED MINIMUM 48" BELOW GRADE. PROVIDE SUBSURFACE SURVEY. MINIMUM DEPTH MUST MEET IEEE STD C2-2017 TABLE 352-1.
- 10 FIELD LOCATE EXISTING GROUNDING SYSTEM AND BOND #1/0 BARE COPPER CONDUCTOR TO GROUNDING SYSTEM.
- 11 BOND EQUIPMENT ENCLOSURE TO THE GROUND SYSTEM WITH #1/0 BARE COPPER CONDUCTOR.

NO.	DESCRIPTION	DATE	APPR.



CDM Smith
 1515 Poydras Street, Suite 1000
 New Orleans, LA 70112
 Tel: (504) 799-1120
 LA FIRM LICENSE NO: EF-0000144

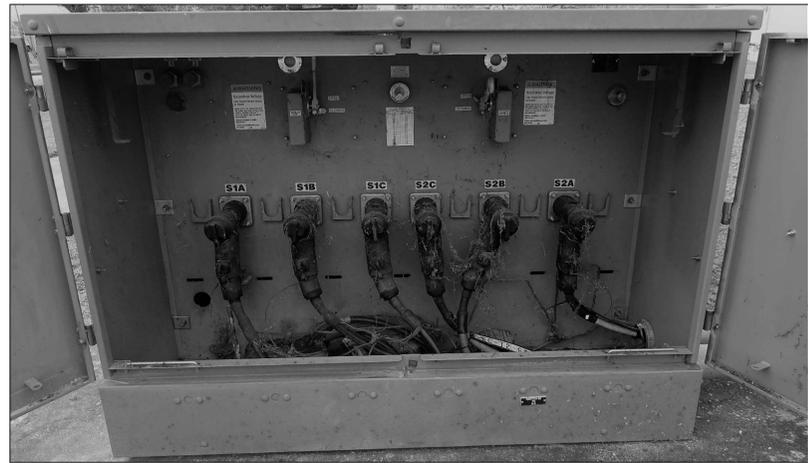
APPROVED	A/E: NTS
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH	DRW: NRM
CHK: ISP	
PM/DM: SARAH REED	
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 NAVAL AIR STATION JACKSONVILLE, FLORIDA
 NAVAL AIR STATION JRB @ BELLE CHASSE
 NEW ORLEANS, LA
 DISTRIBUTION SWITCHGEAR ECIP
 SECTIONALIZING CABINET SC-D5

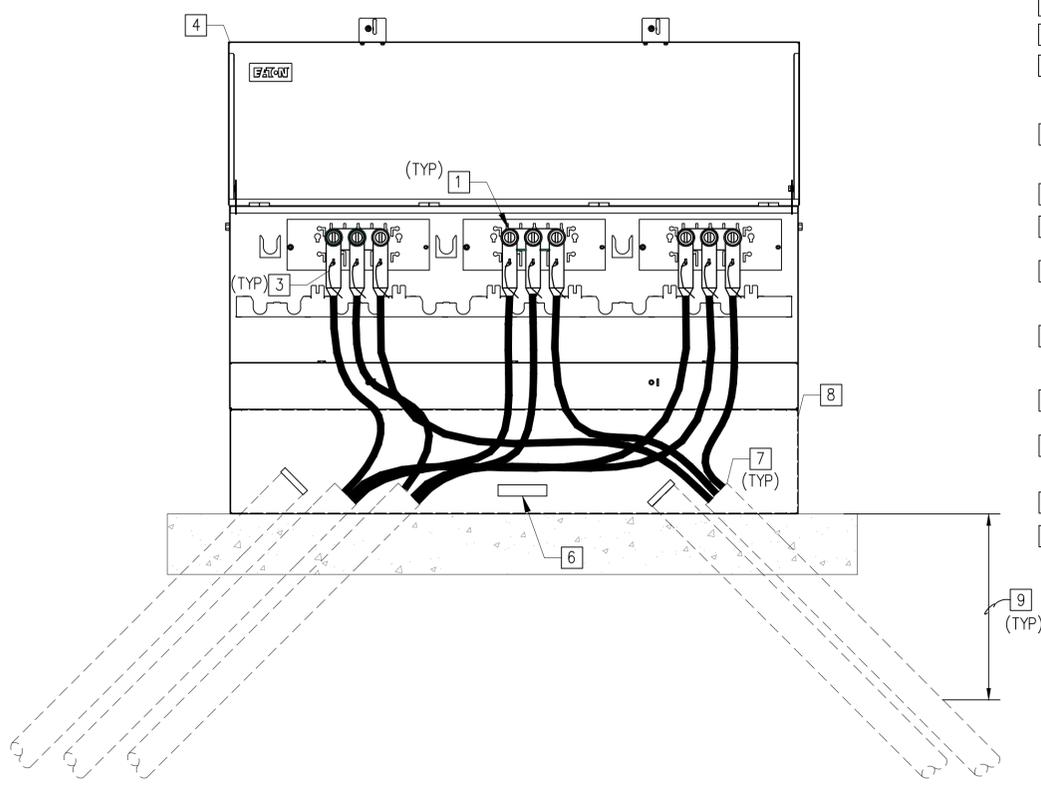
SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.:	N62470-15-D-4002
NAVFAC DRAWING NO.:	15160917
SHEET 68	OF 76
EP503	

DRAWFORM REVISION: 25 AUGUST 2020

1 2 3 4 5



EXISTING GAS SWITCH GS-39 INTERIOR PHOTOGRAPH
NTS

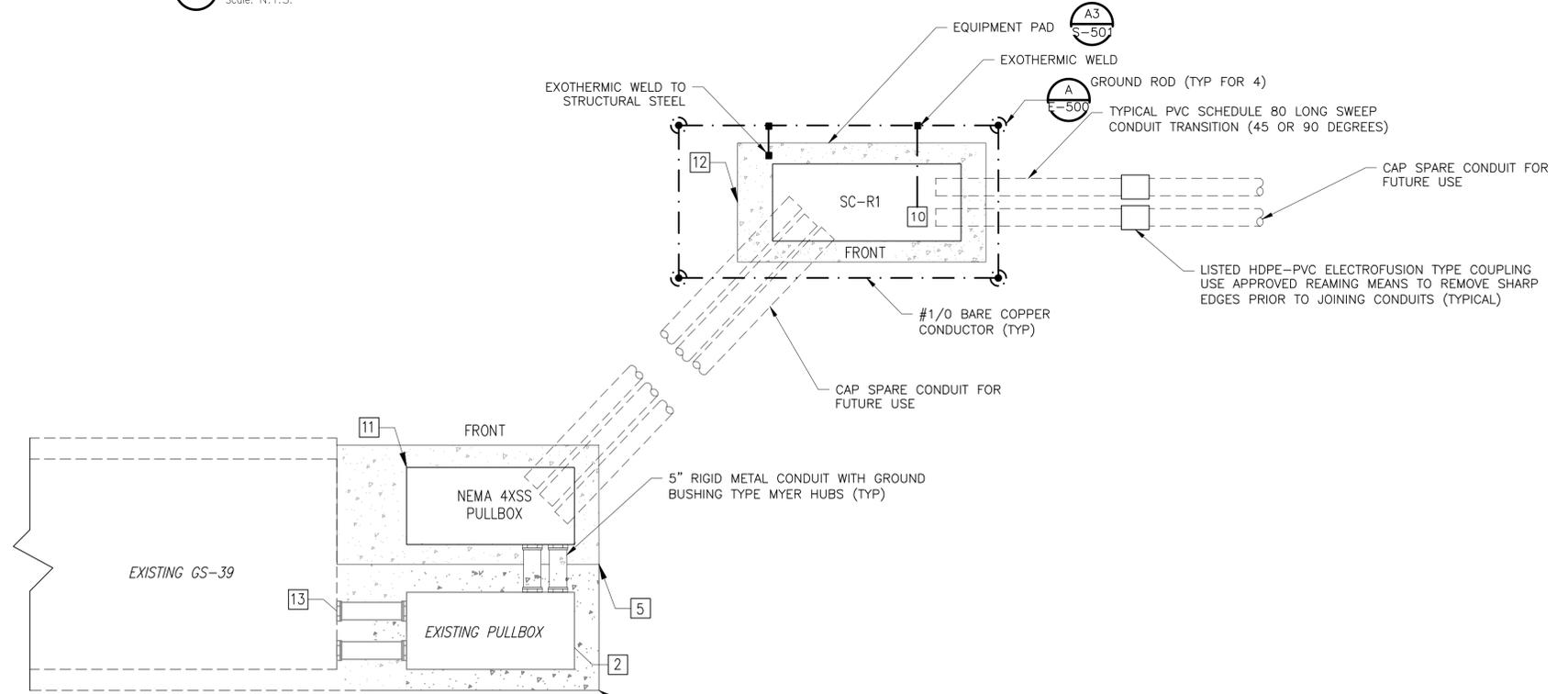


C1 SECTIONALIZING CABINET SC-R1 FRONT ELEVATION DETAIL
Scale: N.T.S.

- KEY NOTES:**
- 1 600 AMP DEAD BREAK ELBOW.
 - 2 PROTECT EXISTING FEEDERS DURING THE COURSE OF CONSTRUCTION ACTIVITIES.
 - 3 CONNECT DEAD BREAK ELBOW DRAIN WIRE TAB TO GROUND.
 - 4 MUNSELL GREEN POWDER-COATED STAINLESS STEEL THREE-PHASE SECTIONALIZING CABINET WITH 15KV 3-WAY 600A JUNCTIONS W/ U-STRAPS. CABINET DIMENSIONS 84"W x 30"H x 22"D.
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 - 10 BOND EQUIPMENT ENCLOSURE TO THE GROUND SYSTEM WITH #1/0 BARE COPPER CONDUCTOR.
 - 11 NEMA 4X STAINLESS STEEL PULLBOX WITH HINGED COVER WITH MINIMUM DIMENSIONS AS REQUIRED BY THE NEC BUT NOT LESS THAN THE SIZE OF THE EXISTING PULLBOX
 - 12 PROVIDE CONCRETE PAD AS REQUIRED FOR MOUNTING EQUIPMENT.
 - 13 PULL BACK THE EXISTING FEED TO SC-T2 AND PROVIDE SPLICE IN EXISTING PULLBOX. REUSE EXISTING CONDUIT FOR FEEDER SCHEDULED ON SHEET E-606.



EXISTING NEMA 4XSS PULLBOX ADJACENT TO GS-39 PHOTOGRAPH
NTS



A1 SECTIONALIZING CABINET SC-R1 PLAN VIEW DETAIL
Scale: N.T.S.

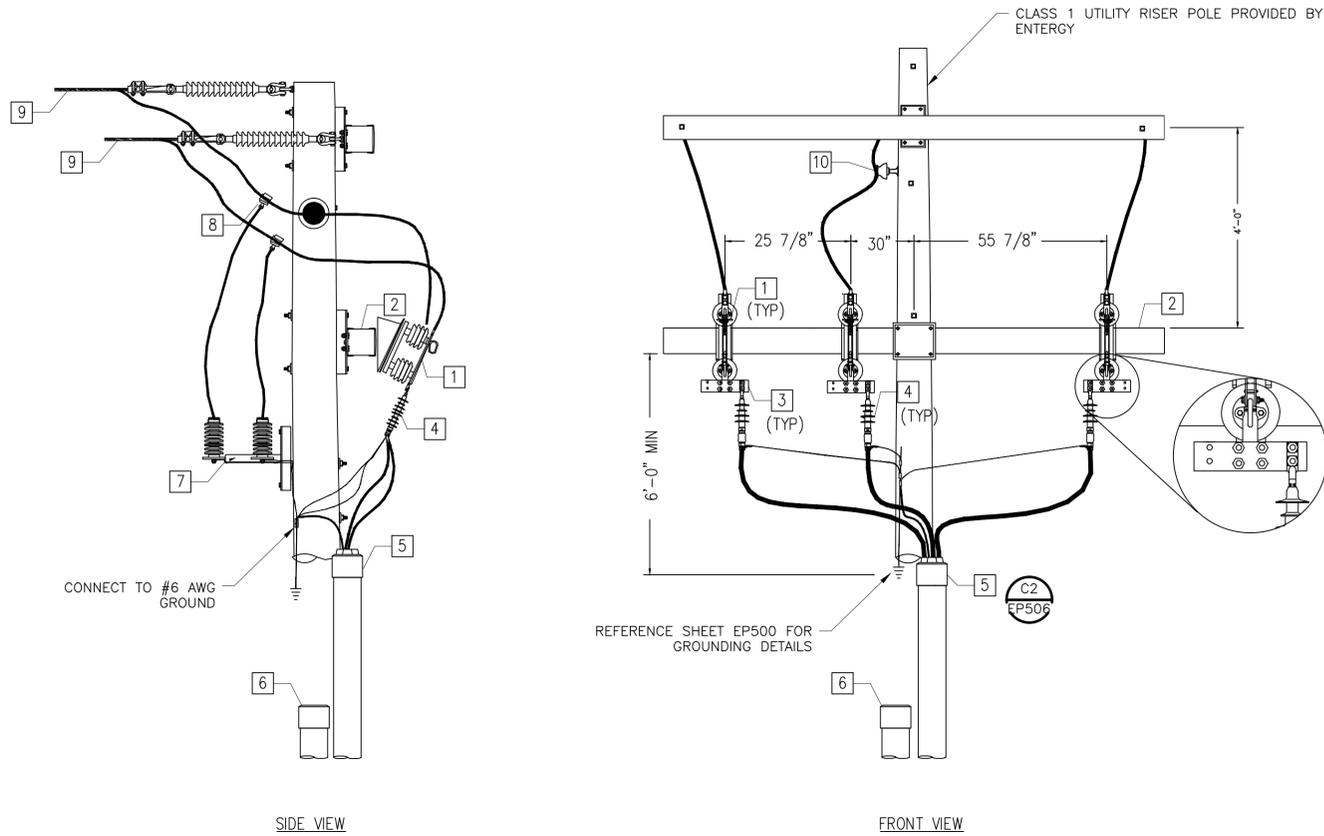
ES104

APPROVED	DATE	APP'R
FOR COMMANDER NAVFAC		
SATISFACTORY TO	DATE	
DES: MGH	DRW: NRM	CHK: ISP
PM/DM	SARAH REED	
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NAVAL AIR STATION JACKSONVILLE, FLORIDA NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA		
DISTRIBUTION SWITCHGEAR ECIP SECTIONALIZING CABINET SC-R1		
SCALE:	AS NOTED	
PROJECT NO.:	1641213	
CONSTR. CONTR. NO.:	N62470-15-D-4002	
NAVFAC DRAWING NO.:	15160918	
SHEET	69	OF 76
EP504 DRAWNFORM REVISION: 23 AUGUST 2020		

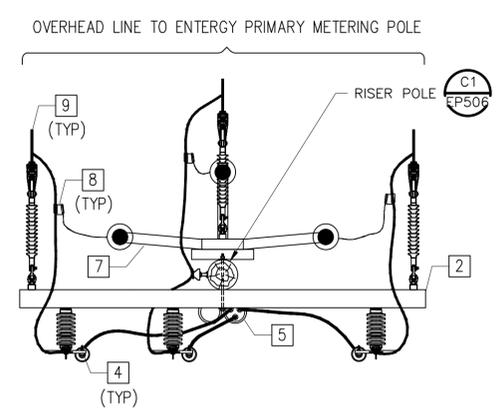
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READY TO ADVERTISE

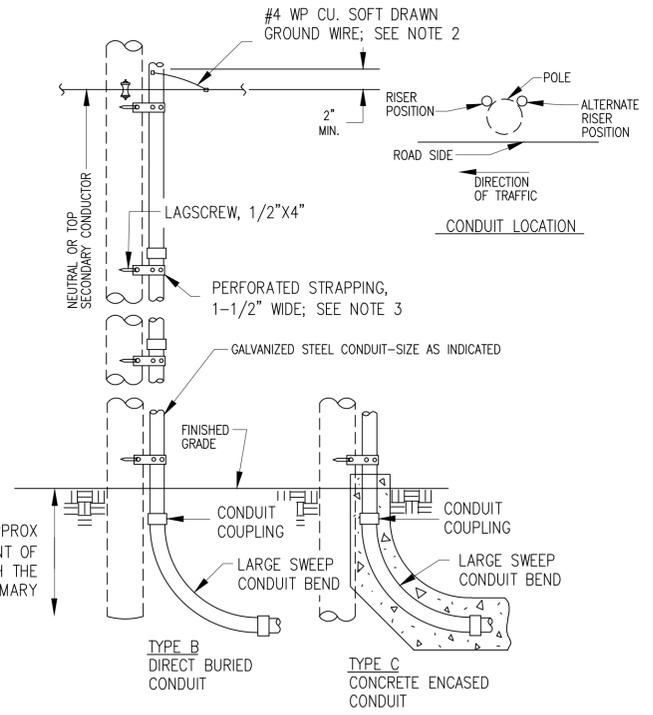
FILE NAME: C:\pwworking\10967575\24942EP-504.dwg LAYOUT NAME: PLOT_PLOTED: Friday, May 28, 2021 - 5:31pm USER: HandleyMG



C1 RISER POLE ELEVATION DETAIL
Scale: N.T.S.



A1 RISER POLE PLAN VIEW DETAIL
Scale: N.T.S.



- NOTES**
- ON CONDUIT RISER FOR PRIMARY CIRCUITS, PROVIDE GROUNDING TYPE INSULATING BUSHING.
 - BOND CONDUIT TO POLE GROUND AND SYSTEM NEUTRAL (IF EXISTING).
 - SPACE STRAPS AT MAXIMUM OF 4' INTERVALS.

C2 RISER POLE ELEVATION DETAIL
Scale: N.T.S.

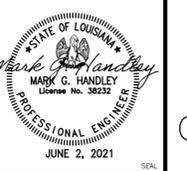
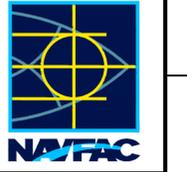
GENERAL ELECTRICAL NOTES:

1. DETAILS ARE COURTESY OF ENTERGY AND ARE TYPICAL FOR BOTH THE NORMAL INCOMING AND THE EMERGENCY INCOMING FEEDER. COORDINATE THESE DETAILS WITH ENTERGY PRIOR TO ANY AND ALL CONSTRUCTION ACTIVITIES CONCERNING THE SCOPE OF WORK AS SHOWN HEREIN.

KEY NOTES:

- ENTERGY PROVIDED 900 AMP DISCONNECT SWITCH.
- ENTERGY PROVIDED DISCONNECT SWITCH BRACKET.
- ENTERGY PROVIDED 8 HOLE EXTENSION PLATE.
- PROVIDE ENTERGY APPROVED OUTDOOR 15KV POTHEAD.
- REFERENCE DETAIL THIS SHEET FOR ROUTING CONDUITS ON RISER POLE. PROVIDE CABLE BREAKOUT BOOT FOR THE CONDUITS SCHEDULED ON SHEET E-600.
- STUB-UP SPARE CONDUIT AND CAP FOR FUTURE USE.
- ENTERGY PROVIDED 10KV RISER TYPE METAL OXIDE SURGE ARRESTOR AND 3 POSITION MOUNTING BRACKET.
- ENTERGY PROVIDED HOT LINE CLAMP.
- ENTERGY PROVIDED 795KCMIL BARE ALUMINUM CONDUCTOR TO ENTERGY METERING POLE.
- 15KV INSULATOR POST AND STANDOFF BRACKET.

NO.	DESCRIPTION	DATE	APP'R



APPROVED	A/E: INF3
FOR COMMANDER NAFAC	
ACTIVITY	
SATISFACTORY TO	DATE
DES: MGH	DRW: NRM
CHK: ISP	
PM/DM	SARAH REED
BRANCH MANAGER	
CHIEF ENG/ARCH	
FIRE PROTECTION	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
NAVAL AIR STATION JACKSONVILLE FLORIDA
NAVAL AIR STATION JRB @ BELLE CHASSE
NEW ORLEANS, LA
DISTRIBUTION SWITCHGEAR ECIP
15KV SERVICE RISER POLE

SCALE:	AS NOTED
PROJECT NO.:	1641213
CONSTR. CONTR. NO.	N62470-15-D-4002
NAVFAC DRAWING NO.	15160920
SHEET	71 OF 76
EP506	

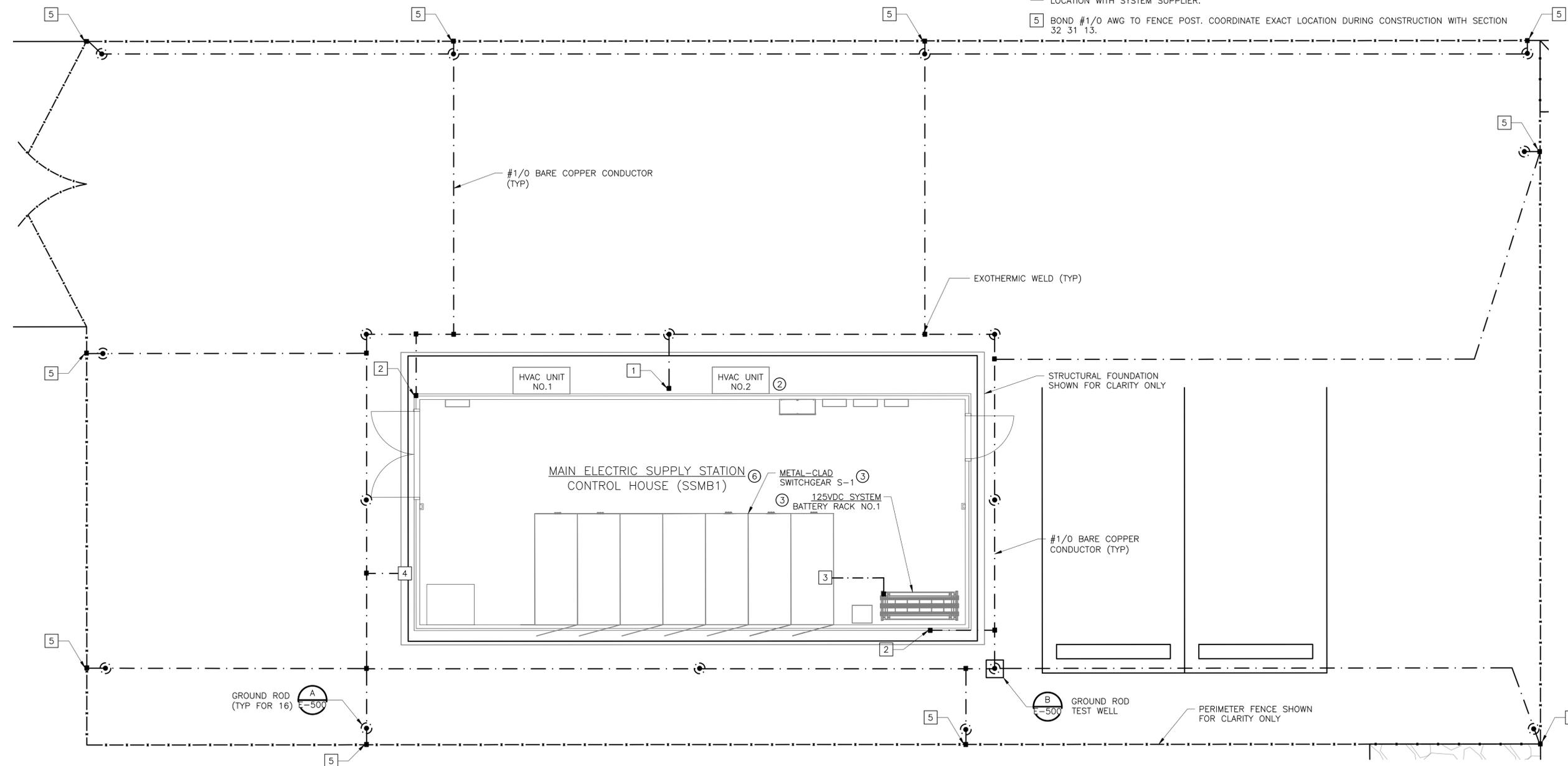
1 2 3 4 5

GENERAL ELECTRICAL NOTES:

1. FINAL ELECTRICAL EQUIPMENT LAYOUT MUST BE COORDINATED WITH ENCLOSURE MANUFACTURER.
2. LOCATE EXISTING UNDERGROUND PIPING, CIRCUITRY AND UTILITIES PRIOR TO EXCAVATING AND OR TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH EXISTING UNDERGROUND SERVICES.
3. LOCATION OF GROUNDING LOOP MUST BE AT A MINIMUM OF 30" FROM ANY FOUNDATION WALLS AND COLUMNS. GROUNDING LOOP MUST BE BURIED 30" BELOW GRADE LEVEL.

KEY NOTES:

- 1 BOND #1/0 BARE COPPER TO STRUCTURAL STEEL.
- 2 BOND #1/0 BARE COPPER TO CONTROL HOUSE ENCLOSURE WITH MECHANICAL LUG.
- 3 BOND #1/0 INSULATED COPPER GROUND CONDUCTOR FROM BATTERY RACK TO CONTROL HOUSE GROUND RING (GROUND RING NOT SHOWN IN ITS ENTIRETY FOR CLARITY BUT THE RESPONSIBILITY OF THE CONTROL HOUSE MANUFACTURER).
- 4 BOND #1/0 COPPER CONDUCTOR TO CONTROL HOUSE LIGHTNING PROTECTION SYSTEM. COORDINATE EXACT LOCATION WITH SYSTEM SUPPLIER.
- 5 BOND #1/0 AWG TO FENCE POST. COORDINATE EXACT LOCATION DURING CONSTRUCTION WITH SECTION 32 31 13.



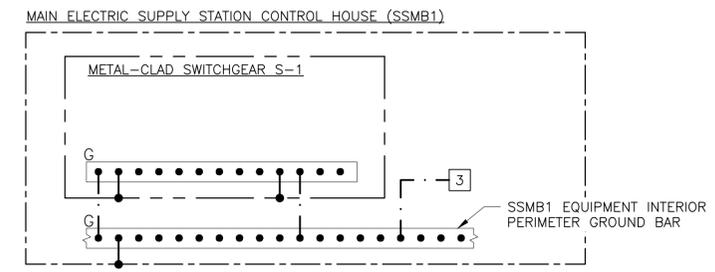
MAIN ELECTRIC SUPPLY STATION CONTROL HOUSE (SSMB1) GROUNDING

PLAN

1/4" = 1'-0"

OPTION BID ITEMS (SEE SPECIFICATIONS):

- 1 ADD FIRE ALARM SYSTEM
- 2 ADD REDUNDANT HVAC UNIT
- 3 ADD BATTERIES, BATTERY CHARGER, DC PANELBOARD, VENTILATION FANS, HYDROGEN GAS DETECTOR, AND EYE-WASH IN LIEU OF AC CONTROL POWER AND CAPACITOR TRIP DEVICE FOR THE MEDIUM VOLTAGE BREAKER CONTROLS. DESIGN CONTROL HOUSE FOOTPRINT TO THE INSTALLED EQUIPMENT AND SYSTEMS.
- 4 ADD AMI METERING SYSTEM.
- 5 ADD TEMPORARY PORTABLE GENERATORS DURING OUTAGE.
- 6 ADD STAINLESS STEEL MATERIAL IN LIEU OF POWDER-COATED STEEL AS CONTROL HOUSE ENVELOPE.
- 7 ADD DEMOLITION OF EXISTING SWITCHYARD.



CONTROL HOUSE SSMB1 INTERIOR GROUNDING RISER DIAGRAM

DIAGRAM

NTS

1 2 3 4 5

	APPR
	DATE
	DESCRIPTION
	SYN
	
	
	
<small>1515 Poydras Street, Suite 1000 New Orleans, LA 70112 Tel: (504) 799-1120 LA FIRM LICENSE NO: EF-0000144</small>	
A/E: INF3	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	
DES: MGH	DRW: NRM
CHK: ISP	ISP: SARAH REED
PM/DM	BRANCH MANAGER
CHIEF ENG/ARCH	FIRE PROTECTION
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST <small>NAVAL AIR STATION JACKSONVILLE FLORIDA</small> NAVAL AIR STATION JRB @ BELLE CHASSE NEW ORLEANS, LA	
DISTRIBUTION SWITCHGEAR ECIP SSMB1 CONTROL HOUSE GROUNDING PLAN	
SCALE: AS NOTED	
EPROJCT NO.: 1641213	
CONSTR. CONTR. NO. N62470-15-D-4002	
NAVFAC DRAWING NO. 15160921	
SHEET 72 OF 76	
EG100 <small>DRAWFORM REVISION: 23 AUGUST 2020</small>	

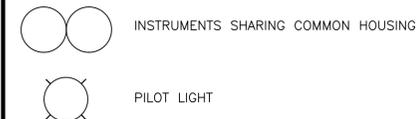


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FILE NAME: C:\pwworking\15160921\15160921-EG100.dwg LAYOUT NAME: PLOT PLOTTED: Friday, May 28, 2021 - 5:43pm USER: HandleyMG

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

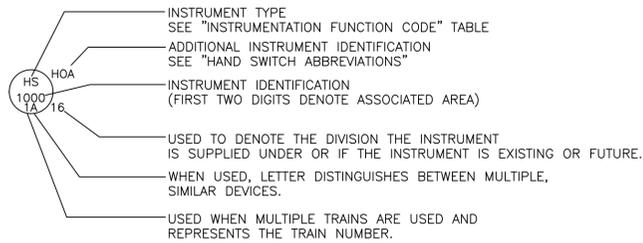
SHARED DISPLAY/ SHARED CONTROL		COMPUTER SOFTWARE	DISCRETE	LOCATION AND ACCESSIBILITY
PRIMARY CHOICE	SECONDARY CHOICE			
				FIELD MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				PRIMARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				PRIMARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE
				SECONDARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				SECONDARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE



MISCELLANEOUS SYMBOLS

- INDICATES INTERLOCK OR LOGIC IN A MOTOR CONTROL CENTER
- INDICATES GENERAL OR MISCELLANEOUS HARDWIRED INTERLOCK
- MOTOR STARTER
- SILICONE CONTROL RECTIFIER
- VARIABLE FREQUENCY DRIVE
- PURGE OR FLUSHING DEVICE

TYPICAL TAG NUMBERS & DESIGNATION



GENERAL ABBREVIATIONS

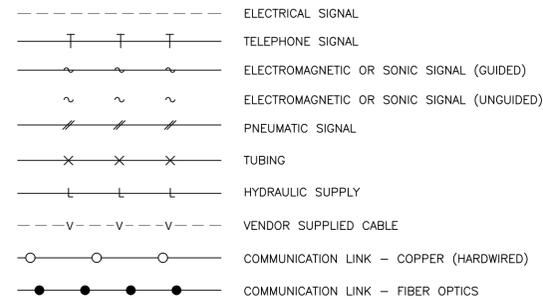
- AI ANALOG IN
- AO ANALOG OUT
- CPU CENTRAL PROCESSOR UNIT
- DI DIGITAL OR DISCRETE INPUT
- DO DIGITAL OUTPUT
- FC FAIL CLOSED
- FO FAIL OPEN OR FIBER OPTIC
- HMI HUMAN MACHINE INTERFACE
- MCC MOTOR CONTROL CENTER
- NC NORMALLY CLOSED
- NPW NON-POTABLE WATER
- NO NORMALLY OPEN
- PLC PROGRAMMABLE LOGIC CONTROLLER
- PW PLANT WATER
- RIO REMOTE INPUT/OUTPUT
- UPS UNINTERRUPTIBLE POWER SUPPLY
- VFD VARIABLE FREQUENCY DRIVE

INSTRUMENTATION FUNCTION CODE

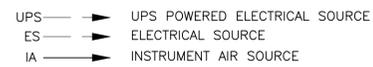
FIRST LETTERS	SUCCEEDING LETTERS			
	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
A MEASURED/INITIATING VARIABLE	VARIABLE MODIFIER	READOUT/PASSIVE FUNCTION	OUTPUT/ACTIVE FUNCTION	FUNCTION MODIFIER
B ANALYSIS		ALARM		
C BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
D USER'S CHOICE	DIFFERENCE, DIFFERENTIAL		CONTROL	CLOSED
E VOLTAGE		SENSOR, PRIMARY ELEMENT		
F FLOW, FLOW RATE	RATIO			
G USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H HAND				HIGH
I CURRENT		INDICATE		
J POWER		SCAN		
K TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L LEVEL		LIGHT		LOW
M MOISTURE				MIDDLE, INTERMEDIATE
N USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P PRESSURE		POINT (TEST CONNECTION)		
Q QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R RADIATION		RECORD		RUN
S SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T TEMPERATURE			TRANSMIT	
U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V VIBRATION, MECHANICAL, ANALYSIS			VALVE, DAMPER, LOUVER	
W WEIGHT, FORCE		WELL, PROBE		
X UNCLASSIFIED (1)	X-AXIS	ACCESSORY DEVICES, UNCLASSIFIED (1)	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y EVENT, STATE, PRESENCE	Y-AXIS		AUXILIARY DEVICES	
Z POSITION, DIMENSION	Z-AXIS, SAFETY INSTRUMENT SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED, FINAL CONTROL ELEMENT	

TABLE NOTES:
(1) WHEN USED SYMBOL OR SIGNAL LINE IS ANNOTATED.

INSTRUMENT LINE SYMBOLS



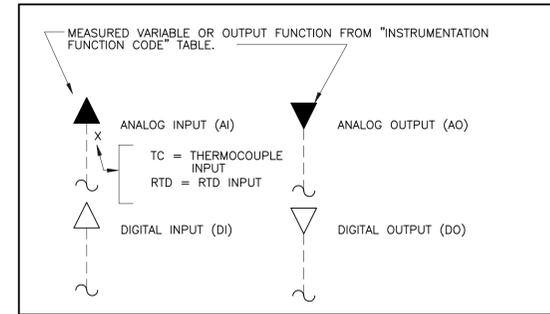
ELECTRICAL / AIR SOURCES



HAND SWITCH ABBREVIATIONS

- AO = AUTO/OFF
- AM = AUTO/MANUAL
- CM = COMPUTER/MANUAL
- CL = COMPUTER/LOCAL
- E-STOP = EMERGENCY STOP
- FR = FORWARD/REVERSE
- FOR = FORWARD/OFF/REVERSE
- FS = FAST SLOW
- FOS = FAST/OFF/SLOW
- HOA = HAND/OFF/AUTO
- LLS = LEAD/LAG/STANDBY
- LOC = LOCAL/OFF/COMPUTER
- LOR = LOCAL/OFF/REMOTE
- LOS = LOCKOUT/STOP
- LA = LOCAL/AUTO
- LR = LOCAL/REMOTE
- OC = OPEN/CLOSE
- OCA = OPEN/CLOSE/AUTO
- OO = ON/OFF
- OOA = ON/OFF/AUTO
- OSC = OPEN/STOP/CLOSE
- RSL = RAISE/STOP/LOWER
- SS = START/STOP
- SOR = START/OFF/RESET

I/O SIGNALS



GENERAL SHEET NOTES

- THIS LEGEND APPLIES TO PROCESS AND INSTRUMENTATION DIAGRAM ONLY AND MAY DIFFER FROM LEGENDS FOR OTHER SHEETS.
- IN GENERAL THIS LEGEND SHEET AND THE PROCESS AND INSTRUMENTATION DIAGRAMS ARE BASED ON THE INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARDS FOR PRACTICES FOR INSTRUMENTATION. SOME MODIFICATIONS, ADDITIONS AND ALTERATIONS HAVE BEEN MADE AS REQUIRED TO ACCOMMODATE PROJECT REQUIREMENTS.
- SOME PROCESS ITEMS SUCH AS EQUIPMENT ISOLATION VALVES, BYPASS LINES, ETC., WHICH ARE NOT CRITICAL FOR AN UNDERSTANDING OF THE INSTRUMENTATION FUNCTIONS ARE NOT SHOWN ON THE PROCESS AND INSTRUMENTATION DIAGRAMS.
- LIGHTER WEIGHT LINES, SHOWN AS _____, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE EXISTING. WEIGHTED LINES, SHOWN AS _____ OR HEAVIER _____, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE NEW. DASHED WEIGHTED LINES, SHOWN AS _____, INDICATED EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE GROUPED AS A PACKAGE.



APPROVED

FOR COMMANDER NAFAC

ACTIVITY

SATISFACTORY TO DATE

DES: TGW | DRW: RWC | CHK: TGW

PM/DM SARAH REED

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST

NAVAL AIR STATION JACKSONVILLE FLORIDA

NEW ORLEANS, LA

NAVAL AIR STATION JRB @ BELLE CHASSE

DISTRIBUTION SWITCHGEAR ECIP

INSTRUMENTATION LEGEND

SCALE: NTS

PROJECT NO.: 1641213

CONSTR. CONTR. NO. N62470-15-D-4002

NAFAC DRAWING NO. 15160922

SHEET 73 OF 76

T-001

DRAWING REVISION: 25 AUGUST 2020

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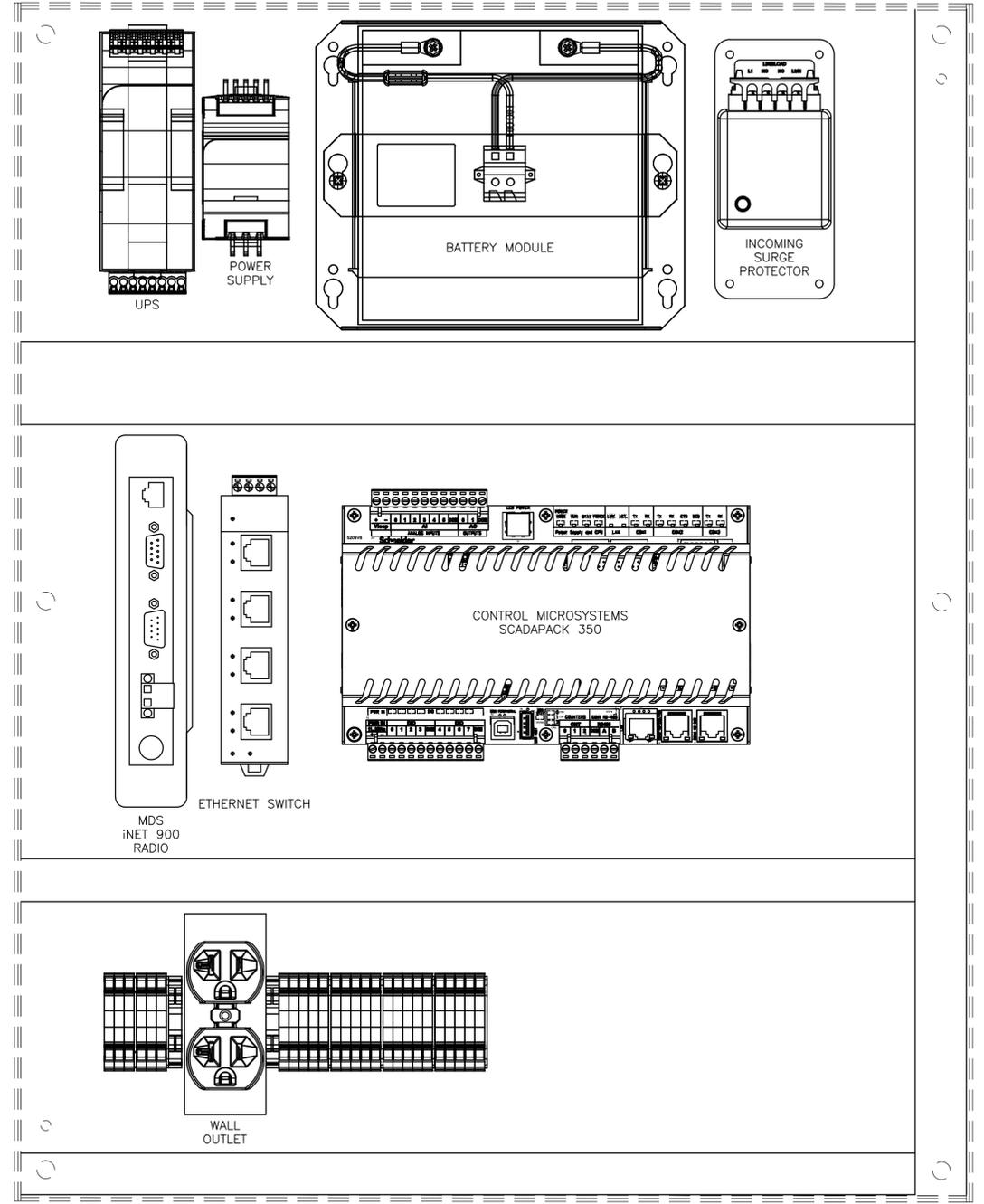
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D

C

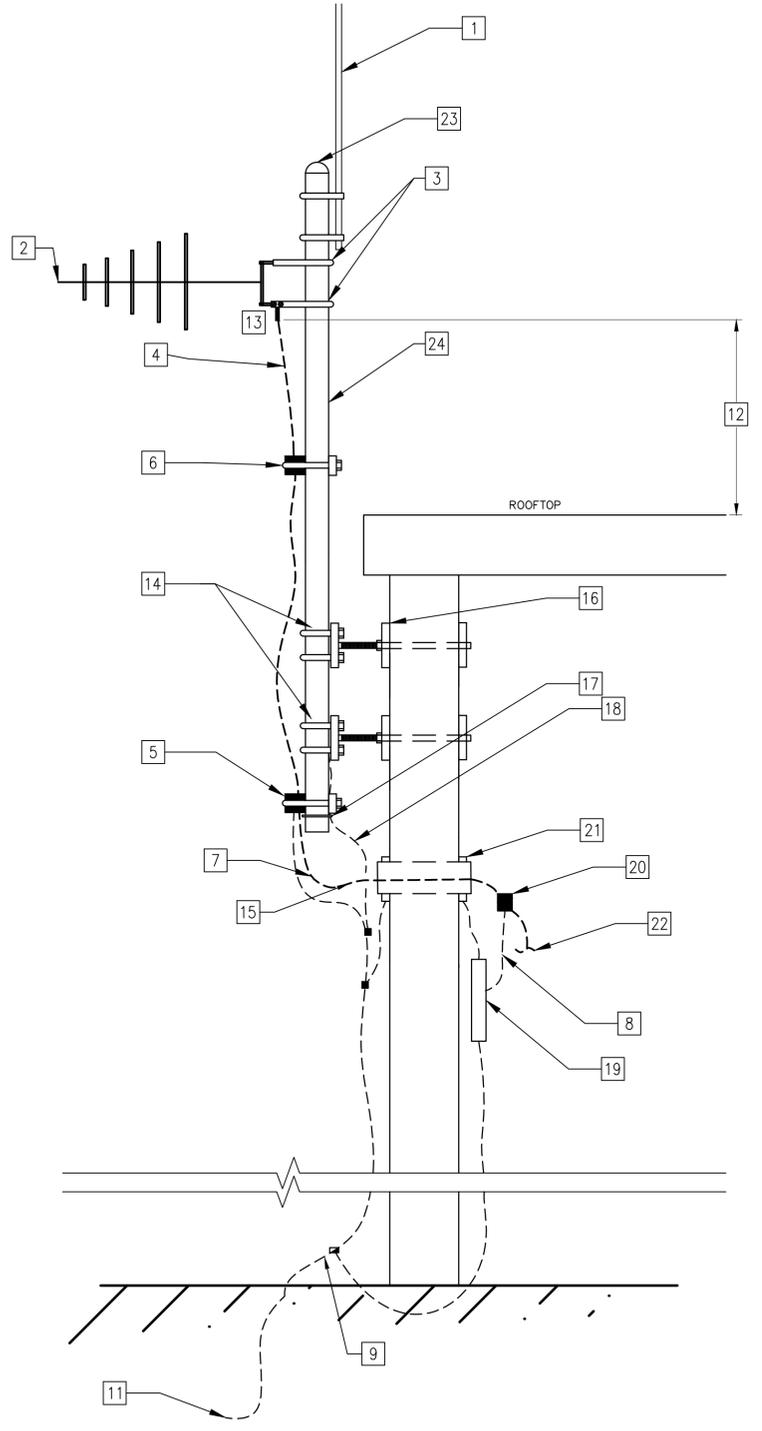
B

A



SCADA NETWORK PANEL LAYOUT

DETAIL A
NTS



BUILDING MOUNTED ANTENNA MAST

DETAIL B
NTS

GENERAL SHEET NOTES

- EQUIPMENT SYMBOLOGY SHOWN IS FOR GENERAL VISUAL INFORMATION ONLY.
- ANTENNA MAST INSTALLATION DETAIL IS PROVIDED FOR GUIDANCE ONLY. COORDINATE INSTALLATION OF MAST WITH THE CONTROL HOUSE MANUFACTURER.
- SITE RADIO NETWORK IS UNLICENSED 900MHZ.

KEYNOTES

- LIGHTNING ROD PER NFPA 780
- YAGI ANTENNA FOR 900 MHz RADIO
- ANTENNA PIPE MOUNTS
- PROVIDE SUPERFLEX COAXIAL CABLE JUMPER FOR FINAL CONNECTION
- ANTENNA CABLE GROUNDING KIT
- SECURE CABLE TO MAST PIPE WITH CLAMPS, MAXIMUM 3 FEET BETWEEN CLAMPS.
- DRIP LOOP
- JUMPER #10 AWG COPPER MINIMUM PER NEC
- GROUND WIRE: PER ELECTRICAL DESIGN
- NOTE NOT USED.
- BOND TO ELECTRICAL GROUNDING ELECTRODE SYSTEM WITH #6 AWG MINIMUM PER NEC ARTICLE 820.
- RADIO ANTENNA HEIGHT MEASURED FROM TOP OF BUILDING. CONFIGURE HEIGHT AT INSTALLATION TO ENSURE PROPER COMMUNICATIONS WITH A MAXIMUM HEIGHT OF 4 FEET.
- PROTECT CONNECTION WITH SEALING TAPE.
- WALL MOUNT CLAMPS WITH HARDWARE. MINIMUM 20 INCHES SPACING BETWEEN WALL MOUNTS.
- PROVIDE ENOUGH BENDING SPACE TO ALLOW FLEXING OF ANTENNA CABLE
- PLATE WITH ANCHOR BOLTS
- LISTED GROUND CLAMP FOR PIPE
- BOND ANTENNA POLE TO BUILDING GROUND SYSTEM PER NEC AND NFPA 780.
- COPPER GROUND BAR
- SURGE PROTECTOR
- ANTENNA CABLE FEED THROUGH PANEL
- ANTENNA CABLE TO BE ROUTED TO THE SCADA NETWORK PANEL.
- PIPE CAP
- 2 INCHES MINIMUM SCHEDULE 40 PIPE

SYMBOL	DESCRIPTION	DATE	APPROVED



APPROVED

FOR COMMANDER NAFAC

ACTIVITY

SATISFACTORY TO DATE

DES: TGW | DRAW: RWC | CHK: TGW

PM/CM: SARAH REED

BRANCH MANAGER

CHIEF ENG/ARCH

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 NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
 11TH FLEET AIR STATION JACKSONVILLE FLORIDA
 NAVAL AIR STATION JRB @ BELLE CHASSE
 NEW ORLEANS, LA

DISTRIBUTION SWITCHGEAR ECIP
 INSTRUMENTATION DETAILS

SCALE: NTS

PROJECT NO.: 1641213

CONSTR. CONTR. NO. N62470-15-D-4002

NAFAC DRAWING NO. 15160924

SHEET 75 OF 76

T-501

DRAWFORM REVISION: 25 AUGUST 2020

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