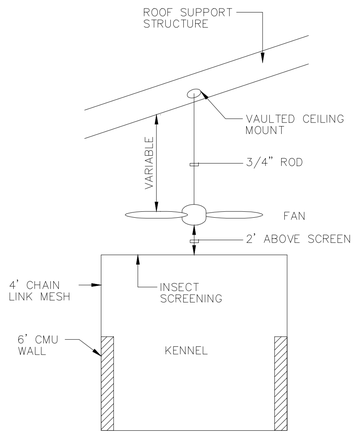
CEILING FAN SPECIFICATION

CEILING FAN SHALL UTILIZE 21ST CENTURY DESIGN AND TECHNOLOGY TO CREATE A FAN OF SUPERIOR QUALITY, STYLE AND WHISPER-QUIT PERFORMANCE. FAN SHALL BE SUITABLE FOR OUTDOOR USE AND UL LISTED FOR DAMP OR WET LOCATION. ALSO, FAN WILL BE ENERGY STAR LISTED. THE FAN WILL FEATURE 5 WEATHER BLADES WITH 52" BLADE SPAN EACH. BLADE PITCH SHALL BE 12 TO 13 PERCENT. BLADES WILL BE BROWN OAK PLASTIC. FAN CONTROLS SHALL BE THREE SPEED: LOW (NEMA 1250 MINIMUM CFM), MEDIUM NEMA 3,000 MINIMUM CFM) AND HIGH (NEMA 5000 MINIMUM CFM). FAN SPEED CONTROL DEVICE SHALL BE SUITABLE FOR WALL INSTALLATION. FAN ON-OFF SWITCH SHALL BE SUITABLE FOR WALL MOUNTING. MOTOR SHALL HAVE A MINIMUM 30 YEAR WARRANTY. STAINLESS STEEL HARDWARE SHALL BE STANDARD FOR THE FAN.

DESIGN BASIS: HUNTER SEA AIR 23562 OUTDOOR CEILING FAN OR APPROVED EQUAL.



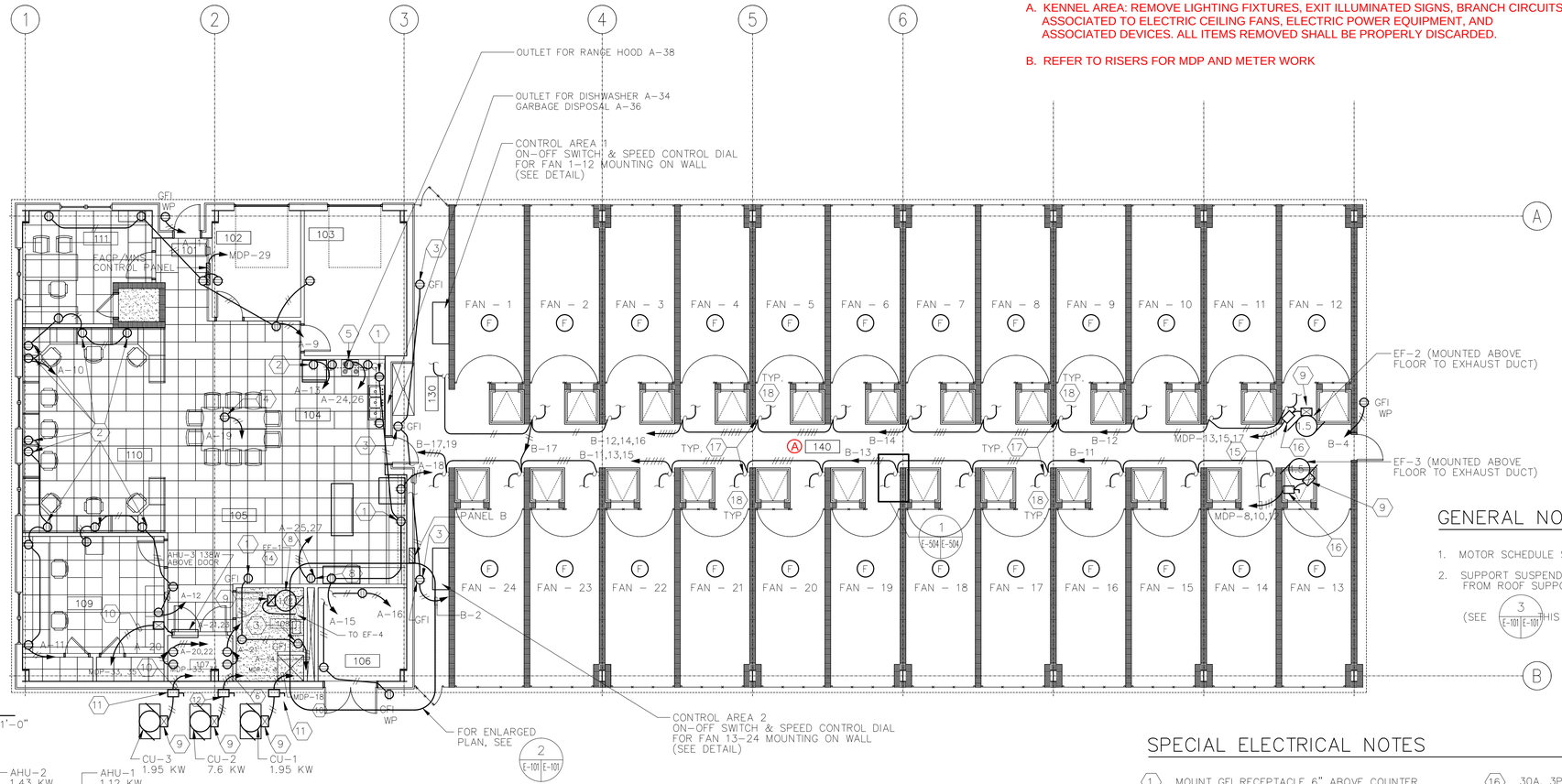
3 E-101 E-101 TYPICAL FAN INSTALLATION DETAIL

SCALE: 1/4" = 1'-0"

SEED PROJECT NOTES:

A. KENNEL AREA: REMOVE LIGHTING FIXTURES, EXIT ILLUMINATED SIGNS, BRANCH CIRCUITS ASSOCIATED TO ELECTRIC CEILING FANS, ELECTRIC POWER EQUIPMENT, AND ASSOCIATED DEVICES. ALL ITEMS REMOVED SHALL BE PROPERLY DISCARDED.

B. REFER TO RISERS FOR MDP AND METER WORK



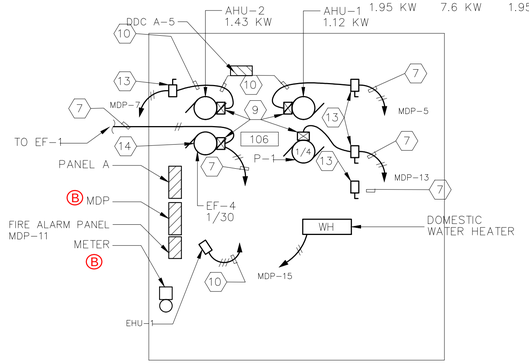
GENERAL NOTES:

1. MOTOR SCHEDULE SHOWN ON SHEET E-602.
2. SUPPORT SUSPENDED FANS WITH 3/4" RODS FROM ROOF SUPPORT STRUCTURE.

(SEE 3 E-101 E-101 THIS SHEET)

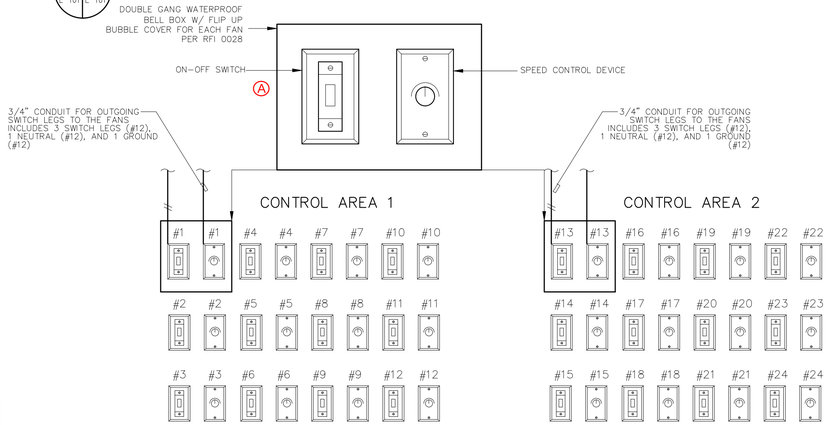
2 E-101 E-101 ENLARGED MECHANICAL ROOM NO. 106

SCALE: 1/4" = 1'-0"



1 E-101 E-101 ELECTRICAL POWER PLAN

SCALE: 1/8" = 1'-0"



1. CIRCUIT B-5 SHALL SERVE FAN #1-4 ON-OFF SWITCHES (2 #12 THHN & 1 #12 THHN GROUND IN 1/2" EMT)
2. CIRCUIT B-7 SHALL SERVE FAN #5-8 ON-OFF SWITCHES (2 #12 THHN & 1 #12 THHN GROUND IN 1/2" EMT)
3. CIRCUIT B-9 SHALL SERVE FAN #9-12 ON-OFF SWITCHES (2 #12 THHN & 1 #12 THHN GROUND IN 1/2" EMT)

1. CIRCUIT B-6 SHALL SERVE FAN #13-16 ON-OFF SWITCHES (2 #12 THHN & 1 #12 THHN GROUND IN 1/2" EMT)
2. CIRCUIT B-8 SHALL SERVE FAN #17-20 ON-OFF SWITCHES (2 #12 THHN & 1 #12 THHN GROUND IN 1/2" EMT)
3. CIRCUIT B-10 SHALL SERVE FAN #21-24 ON-OFF SWITCHES (2 #12 THHN & 1 #12 THHN GROUND IN 1/2" EMT)

SPECIAL ELECTRICAL NOTES

1. MOUNT GFI RECEPTACLE 6" ABOVE COUNTER.
2. MOUNT RECEPTACLE 36" ABOVE FLOOR.
3. MOUNT RECEPTACLE 48" ABOVE FLOOR.
4. MOUNT DUPLEX RECEPTACLE AND COMMUNICATION OUTLET IN CEILING ABOVE TABLE FOR AMER AV-DCP KIT PROJECT MOUNT. COORDINATE LOCATION WITH USERS.
5. RANGE RECEPTACLE 14-50. COORDINATION INSTALLATION WITH USER FOR ACTUAL RANGE INSTALLED.
6. 3 #8 COPPER, THHN & 1 #8, COPPER, THHN GROUND IN 1" RIGID GALVANIZED STEEL ABOVE GRADE, 1" RIGID GALVANIZED STEEL WITH 40 MIL PVC COATING FROM GROUND LEVEL TO ADAPTER 6 INCH AFTER ELBOW, AND 1" PVC SCHEDULE 40 BELOW GRADE.
7. 2 #12, COPPER, THHN & 1 #12, COPPER, THHN GROUND IN 3/4" RIGID GALVANIZED STEEL CONDUIT.
8. 2 POLE, 3 WIRE, 250V RECEPTACLE.
9. MOTOR STARTER TO BE SUPPLIED BY MANUFACTURE FOR SUPPLIED UNIT.
10. 2 #10, COPPER, THHN & 1 #10, COPPER, THHN GROUND IN 3/4" RIGID GALVANIZED STEEL ABOVE GRADE, 3/4" RIGID GALVANIZED STEEL WITH 40 MIL PVC COATING FROM GROUND LEVEL TO ADAPTER 6 INCH AFTER ELBOW, AND 3/4" PVC SCHEDULE 40 BELOW GRADE.
11. 30A, 1P, 600V, NEMA 3R, SOLID BLADE SAFETY SWITCH MOUNTED 48" ABOVE GROUND.
12. 60A, 3P, 600V, NEMA 3R, SOLID BLADE SAFETY SWITCH MOUNTED 48" ABOVE GROUND.
13. 30A, 1P, NEMA 1, 600V, SOLID BLADE SAFETY SWITCH MOUNTED 48" ABOVE THE FLOOR.
14. PROVIDE PLUG AND RECEPTICLE DISCONNECT FOR EXHAUST FAN.
15. 3 #10, COPPER, THHN AND 1 #10, COPPER, THHN GROUND IN 3/4" RIGID STEEL CONDUIT.
16. 30A, 3P, 600V, NEMA 3R, SOLID BLADE SAFETY SWITCH MOUNTED ADJACENT TO OUTSIDE FRAME OF EXHAUST FAN.
17. SINGLE-POLE SWITCH IN NEMA 4X, SURFACE-MOUNTED OUTLET BOX WITH WEATHERPROOF COVER SUITABLE FOR HOSEDOWN.
18. MAKE FINAL CONNECTION TO SLAB HEATING SYSTEM THERMOSTAT POWER TERMINALS (FURNISHED BY OTHERS). REFER TO THERMOSTAT MANUFACTURER'S INSTALLATION MANUAL FOR EXACT TERMINATION POINTS.

12"0" 5' 10' 15' 20' 25'
SCALE: 1/8 INCH = 1 FOOT

12" 0" 5' 10'
SCALE: 1/4 INCH = 1 FOOT

RECORD DRAWINGS

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Tracking No.	Action	Date

Date: FEBRUARY 2012 | Rev.
Sol. No. W9126G-12-R-0056 | Contr No.
File name: FP062622E101
Plot date:
Plot scale:

Designed by: M. SMITH
Drawn by: B. BLANCHARD
Reviewed by: G. VERSTRAETE
Submitted by: TROY MARTINSON, PE PROJECT MANAGER

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS FORT WORTH, TEXAS

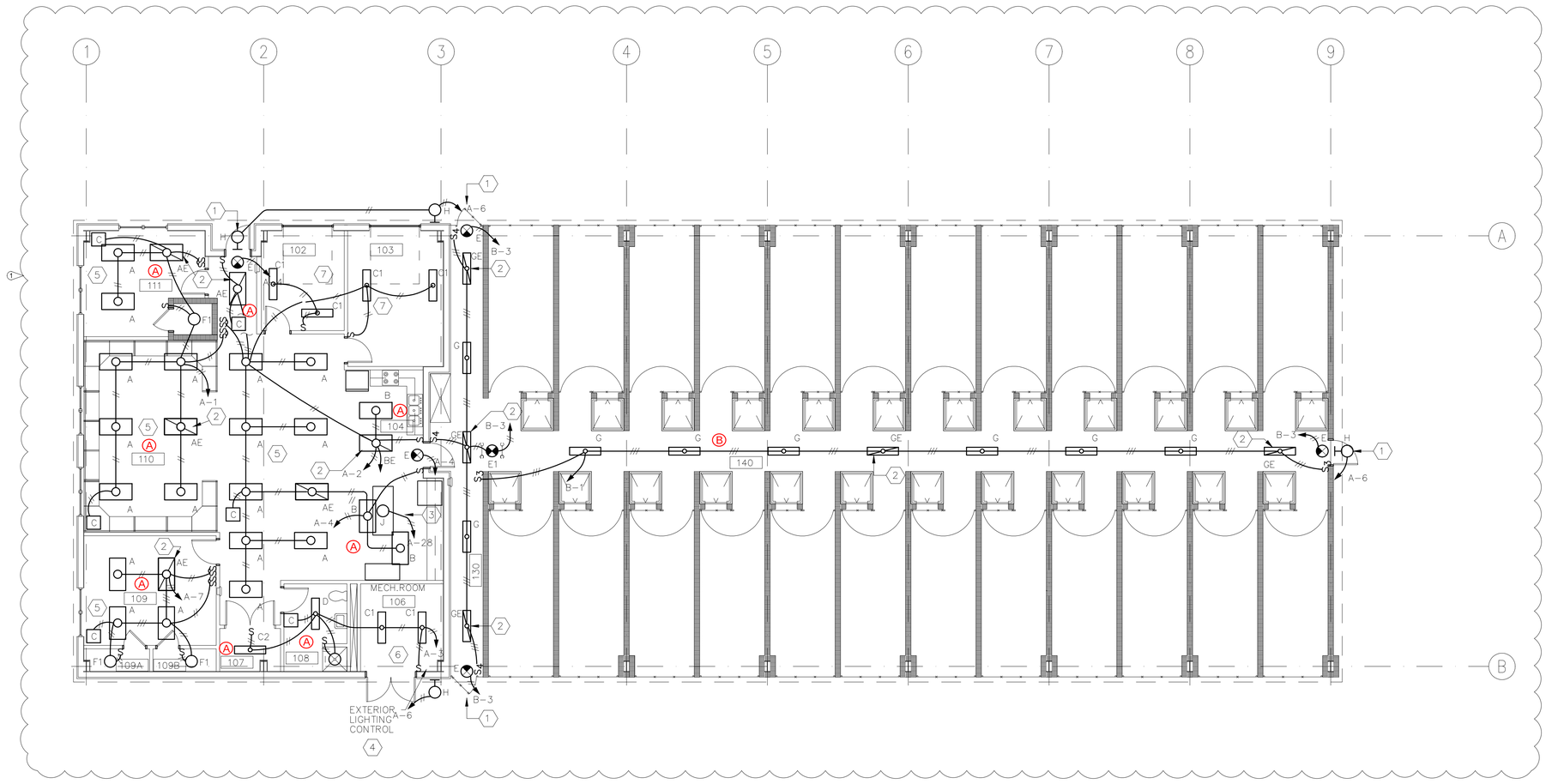
MERRICK & COMPANY

FORT POLK, LOUISIANA
MILITARY WORKING DOG FACILITY
PROJECT No.: 062622, P2# 130860

ELECTRICAL POWER PLAN

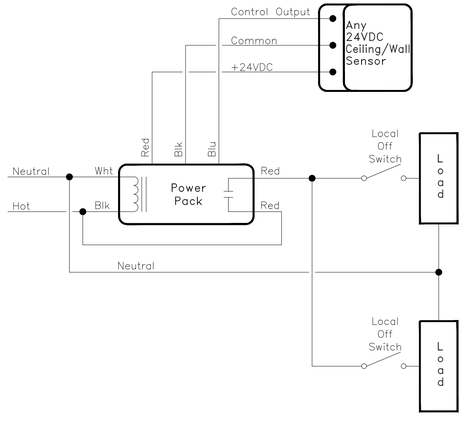
Sheet reference number:
E-101
Sheet 84 of 96

Contr No.



1 ELECTRICAL LIGHTING PLAN

SCALE: 1/8" = 1'-0"



2 OCCUPANCY WIRING DIAGRAM

SCALE: NO SCALE

SEED PROJECT NOTES:

A. REMOVE AND DISCARD LIGHT FIXTURES IN ROOM. ASSOCIATED BRANCH CIRCUITS MUST BE PRESERVED FOR NEW LIGHT FIXTURES.

B. KENNEL AREA: REMOVE LIGHTING FIXTURES, EXIT ILLUMINATED SIGNS, BRANCH CIRCUITS ASSOCIATED TO ELECTRIC CEILING FANS, ELECTRIC POWER EQUIPMENT, AND ASSOCIATED DEVICES. ALL ITEMS REMOVED SHALL BE PROPERLY DISCARDED.

SPECIAL ELECTRICAL NOTES

1. OUTSIDE WALL FIXTURES TO BE MOUNTED ABOVE DOOR.
2. CONNECT EMERGENCY LIGHT FIXTURES CIRCUITS IN ACCORDANCE WITH DETAIL 1 E-601 ON SHEET E-601.
3. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF SURGERY LIGHT FIXTURE ABOVE EXAMINATION TABLE WITH USER (FORT POLK VTF).
4. EXTERIOR LIGHTING CONTROL SCHEMATIC AT DETAIL 2 E-601 ON SHEET E-601.
5. PROVIDE CEILING MOUNTED OCCUPANCY SENSOR IN THIS ROOM. REFER TO WIRING DIAGRAM 2 E-102 ON SHEET E-102.
6. PENDANT MOUNT "C1" FIXTURES IN THIS AREA AT 9'-0" AFF. COORDINATE LOCATION WITH MECHANICAL PRIOR TO ROUGH-IN.
7. PENDANT MOUNT "C1" FIXTURES IN THIS AREA AT 9'-0" AFF. COORDINATE LOCATION WITH OVERHEAD DOOR PRIOR TO ROUGH-IN.

12"0" 5' 10' 15' 20' 25'
SCALE: 1/8 INCH = 1 FOOT

RECORD DRAWINGS

US Army Corps of Engineers
Fort Worth District

Symbol	Tracking No.	Action	Date
1		DRAWING REVISED TO SHOW LIGHTING FOR AM003.	

Designed by: B. BLANCHARD
Drawn by: B. BLANCHARD
Reviewed by: M. SMITH
Submitted by: TROY MARTINSON, PE PROJECT MANAGER
Date: FEBRUARY 2012
Sol. No. W9126G-10-D-0025
Contr No.
File name
Plot date:
Plot scale:
Rev.

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS FORT WORTH, TEXAS

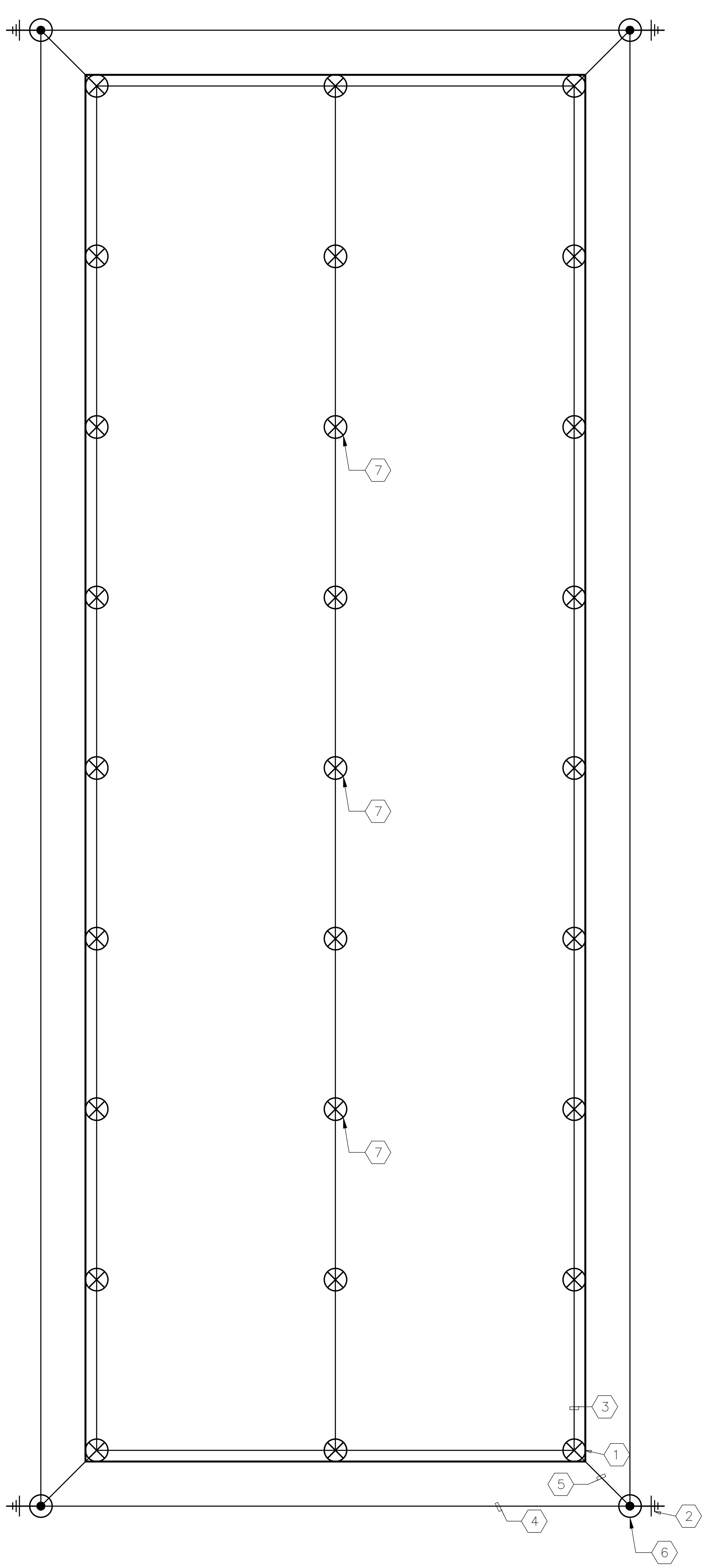
MERRICK & COMPANY

FORT POLK, LOUISIANA
MILITARY WORKING DOG FACILITY
PROJECT No.: 062622, P2# 130860

ELECTRICAL LIGHTING PLAN

Sheet reference number:
E-102
Sheet 85 of 96

Contr No. W9126G-07-D-0005



1 LIGHTNING PROTECTION PLAN

SCALE: 1" = 10'

LEGEND

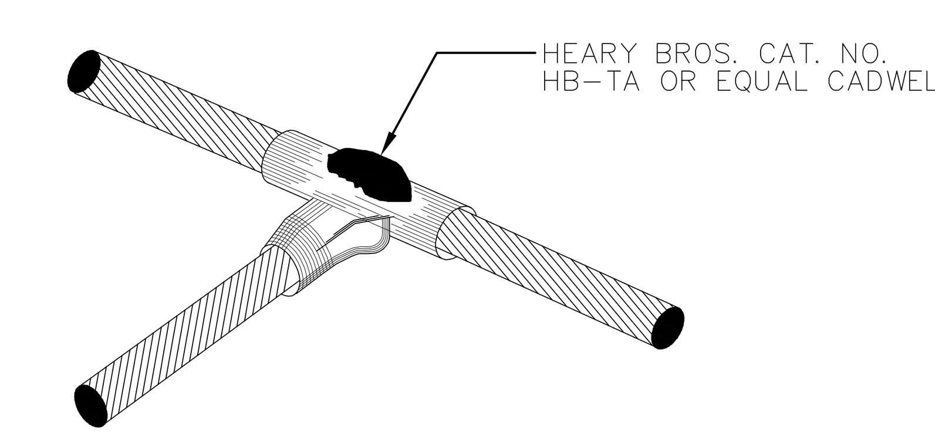
- 1/2" DIAMETER, 12" AIR TERMINAL
- PRIMARY CONDUCTOR
- SECONDARY CONDUCTOR
- BONDING
- GROUND ROD
- GROUND ROD TEST WELL

GENERAL NOTES:
(LIGHTNING PROTECTION SYSTEM)

1. STRUCTURAL FRAMEWORK SHALL BE MADE ELECTRICALLY CONTINUOUS BY WELDING.
2. ALL SPLICES BELOW GRADE SHALL BE THE EXOTHERMIC WELD TYPE.
3. CONNECT AIR TERMINAL TO THE STRUCTURAL STEEL FRAMING WITH CONDUCTOR ROUTED THROUGH THE ROOF AND WELD TO HORIZONTAL MEMBER.
4. CONNECT AIR TERMINAL TO TOP OF THE STRUCTURAL STEEL COLUMN WITH CONDUCTOR ROUTED THROUGH THE ROOF.
5. GROUND RODS SHALL BE CONNECTED TO BOTTOM OF THE STRUCTURAL STEEL COLUMN WITH NO. 1/0 AWG BARE COPPER CONDUCTOR.
6. ALL METAL EQUIPMENT ON ROOF SHALL BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
7. THRU ROOF FLASHING SHALL BE ALUMINUM WITH 8 INCH ROUND BASE AND VERTICAL TUBE WITH NEOPRENE SEAL. FLASHING SHALL BE THE PRODUCT OF THE MANUFACTURER OF THE LIGHTNING PROTECTION SYSTEM. A MEMBRANE FLASHING SHALL BE PROVIDED OVER THE THRU ROOF FLASHING.
8. BOND TO WATER SERVICE PIPES AND OTHER METALLIC PIPING SYSTEMS AS REQUIRED BY NFPA 70 AND 780.
9. INTERCONNECT LIGHTNING PROTECTION GROUNDING SYSTEM TO ELECTRICAL POWER SYSTEM, TELECOMMUNICATIONS, AND BUILDING GROUNDING GRID SYSTEMS AS REQUIRED BY NFPA 70 AND 780.
10. MINIMUM GROUND CABLE LAYOUT AND MINIMUM GROUND ROD LOCATIONS ARE SHOWN. PROVIDE ADDITIONAL GROUND RODS AS NECESSARY TO OBTAIN OVERALL GROUND GRID SYSTEM RESISTANCE OF LESS THAN 10 OHMS.
11. PROVIDE THE LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS AND NFPA 780 AND UL 96A. THE NEW FACILITY SHALL HAVE A UL MASTER LABEL CERTIFICATE.
12. BARE COPPER MATERIALS SHALL NOT COME IN CONTACT WITH ALUMINUM.
13. INSTALLED LIGHTNING PROTECTION SYSTEM SHALL BE FIELD-INSPECTED WITH UL MASTER LABEL FOR LIGHTNING PROTECTION SYSTEM.
14. PROVIDE PVC SLEEVE WHEREVER GROUNDING CONDUCTOR MUST PASS THROUGH CONCRETE PAD, SLAB, OR FOUNDATION GRADE BEAM.
15. GROUND ALL STRUCTURAL METAL OBJECTS SUCH AS HANDRAILS.

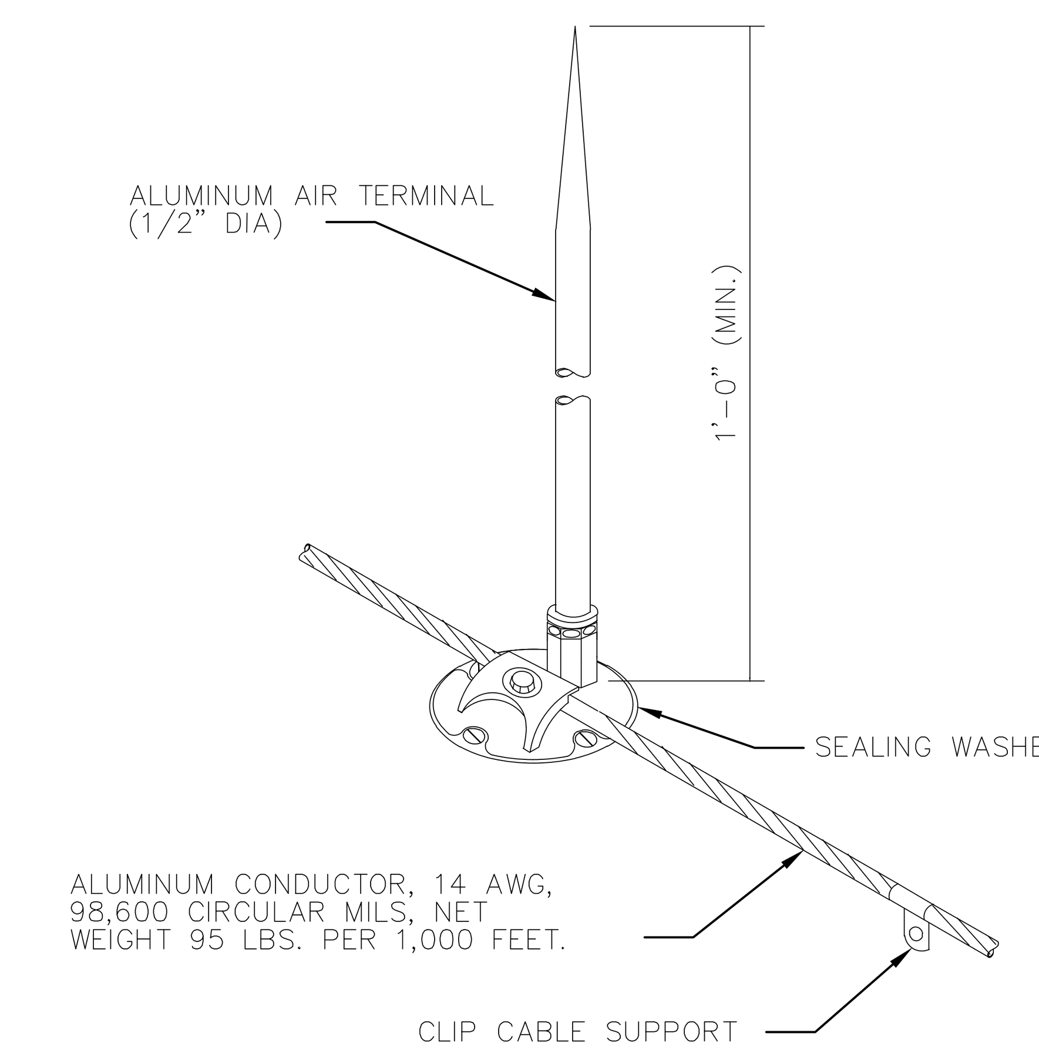
SPECIAL ELECTRICAL NOTES:
(SHEET E-105 ONLY)

1. TYPICAL ALUMINUM AIR TERMINAL SHALL BE PLACED AT OR WITHIN 2 FEET OF THE ENDS OF RIDGES OR EDGES AND CORNERS OF ROOFS.
2. TYPICAL 3/4" x 10' COPPERCLAD GROUND ROD, THERMOWELDED TO GROUND LOOP CONDUCTOR.
3. ALUMINUM CONDUCTOR, 14 AWG, 98,600 CIRCULAR MILS, NET WEIGHT 95 LBS. PER 1,000 FEET.
4. GROUND LOOP COPPER CONDUCTOR, 1/0 AWG, 115,000 CIRCULAR MILS, WEIGHT 375 LBS. PER 1,000 FEET. BURIED 3 FEET BELOW GRADE, AND THERMOWELDED TO GROUND RODS.
5. ALUMINUM CONDUCTOR, 14 AWG, 98,600 CIRCULAR MILS, NET WEIGHT 95 LBS. PER 1,000 FEET, BONDED TO STRUCTURAL STEEL FRAMEWORK.
6. TYPICAL TEST WELL FOR COPPER-CLAD STEEL GROUND RODS. BOND ALL GROUND RODS TOGETHER.
7. MOUNT A GROUNDED AIR TERMINAL ON METAL STRUCTURE.



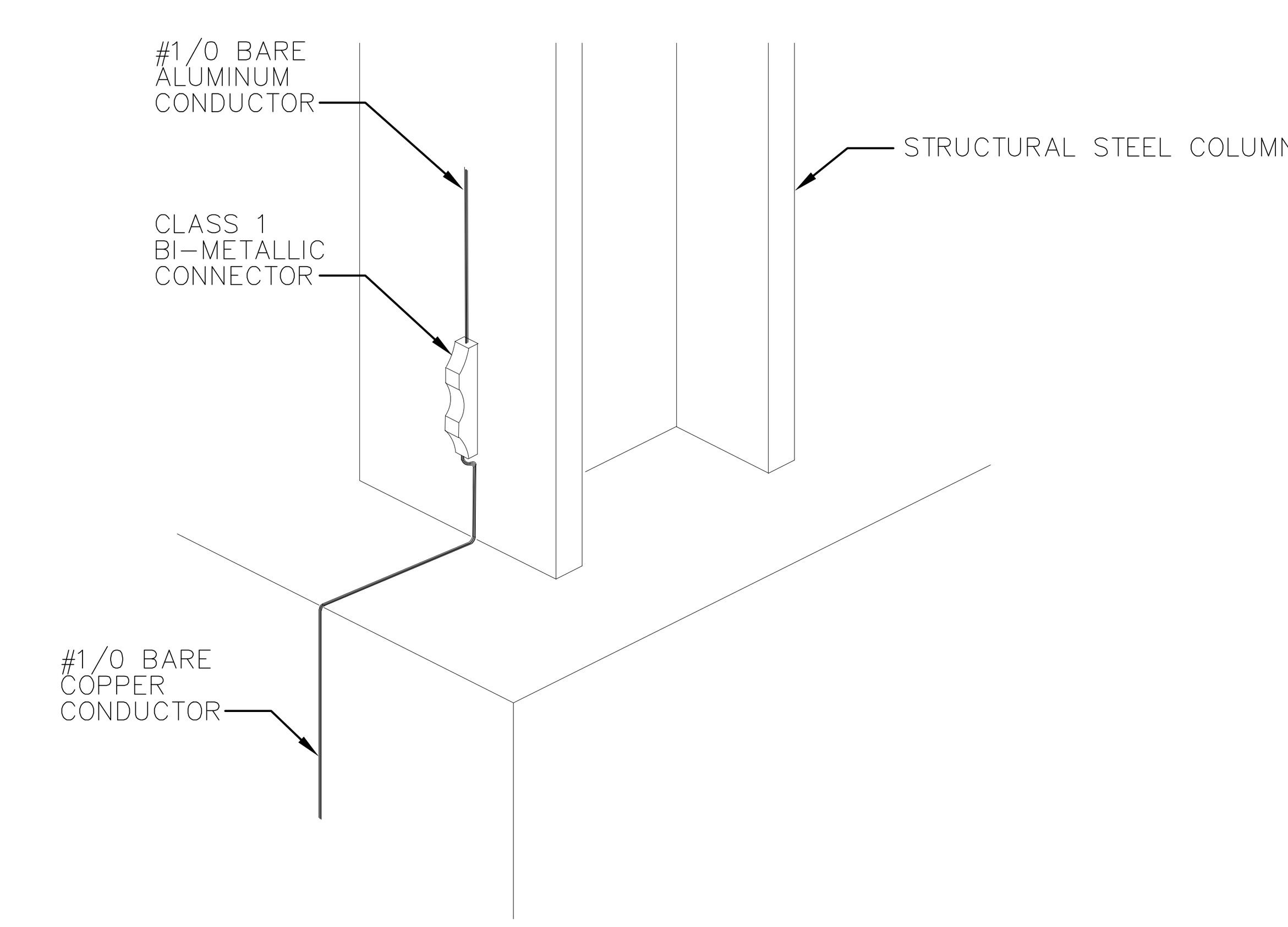
2 TEE-SPLICER CONNECTOR DETAIL

NO SCALE



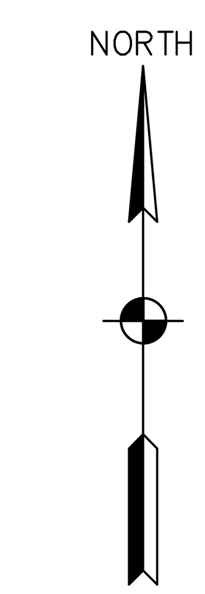
3 AIR TERMINAL DETAIL

NO SCALE



4 BI-METALLIC CONNECTOR DETAIL

NO SCALE



10 0 10 20
SCALE OF FEET

SEED PROJECT NOTE:

THIS SHEET IS THE EXISTING LIGHTNING PROTECTION SYSTEM (LPS) AS BUILTS. LPS SHALL BE DESIGNED AND CONSTRUCTED PER CODES AND CRITERIA CALLED IN THIS RFP. A UL LIGHTNING PROTECTION INSPECTION MASTER LABEL CERTIFICATE SHALL BE PROVIDED BY A COMMERCIAL THIRD-PARTY INSPECTION ENTITY, AS NOTED IN UFC 3-575-01. THE EXISTING STANDING SEAM METAL ROOF IS TO REMAIN AND BE EXTENDED ON EITHER SIDE OF THE KENNEL AND AT THE OFFICE WITH THE NEW FIRE ROOM. THE EXISITNG LPS SHALL BE MODIFIED TO COMPLY WITH ALL REQUIREMENTS. MODIFICATION MAY ENTAIL AN ALL NEW SYSTEM. THE LPS CONTRACTOR SHALL DETERMINE WHAT MAY OR MAY NOT BE REUSED DURING CONSTRUCTION.

RECORD DRAWINGS

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Tracking No.	Action	Date

Designed by: M. SMITH	Date: FEBRUARY 2012 / Rev.
Dwn by: B. BLANCHARD	Sol No. W9126G-12-R-0056
Reviewed by: G. VERSTRAETE	Contr No.
Submitted by: TROY MARTINSON, PE PROJECT MANAGER	File name: FP062622E105 Plot date: Plot scale:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
FORT WORTH, TEXAS

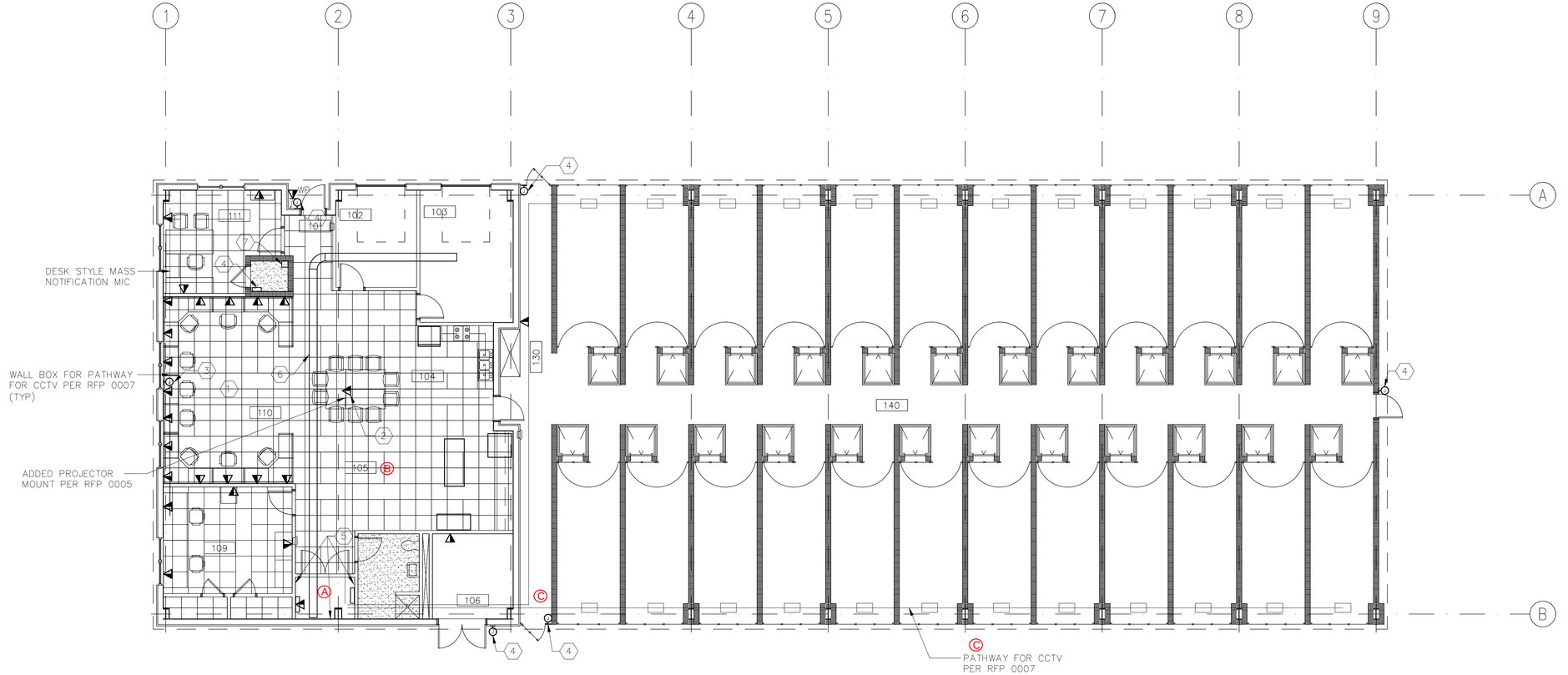
MERRICK® & COMPANY

FORT POLK, LOUISIANA
MILITARY WORKING DOG FACILITY
PROJECT No.: 062622, P2# 130860

LIGHTNING PROTECTION PLAN

Sheet reference number:
E-105
Sheet 88 of 96

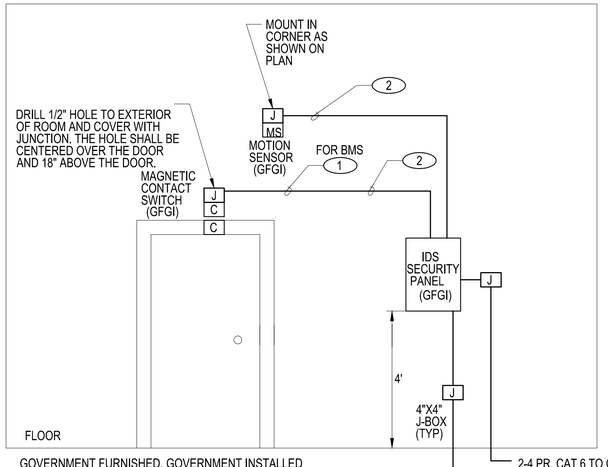
Contr No.



1 COMMUNICATION PLAN

E-103 | E-103

SCALE: 1/8" = 1'-0"



2 COMMUNICATION PLAN

E-103 | E-103

NO SCALE

CONDUCTOR LEGEND

1. 2 CONDUCTORS, 22AWG IN 3/4"C. WEST PENN 220 CONDUCTOR OR EQUAL.
2. 4 CONDUCTORS, 22AWG IN 3/4"C. WEST PENN 240 CONDUCTOR OR EQUAL.

SEED PROJECT NOTES:

A. PRE-DEMOLITION TESTING: ALL EXISTING FIBER OPTIC AND COPPER CABLING SHALL BE TESTED AT THE PLYWOOD BACKBOARD LOCATED INSIDE THE BUILDING PRIOR TO THE START OF DEMOLITION ACTIVITIES TO VERIFY CURRENT OPERATIONAL STATUS. RESULTS SHALL BE DOCUMENTED AND SUBMITTED FOR GOVERNMENT REVIEW. UPON COMPLETION OF INSTALLATION AND TERMINATION, ALL NEW CABLING SHALL BE TESTED FOR CONTINUITY, PERFORMANCE, AND COMPLIANCE WITH APPLICABLE STANDARDS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH UFGS SECTION 33 82 00.

B. PRESERVE CABLE TRAY ABOVE CEILING FROM THE COMMUNICATION ROOM THROUGHOUT THE OFFICE AREA.

C. ALL CCTV CAMERAS IN THE KENNEL AREA TO BE REMOVED AND DISCARDED. DEMOLISH EXISTING PATHWAYS.

COMMUNICATION NOTES:

1. MOUNT COMM OUTLETS IN AREA 36" AFF.
2. COMM OUTLET FOR CAMERA, CEILING-MOUNTED.
3. J-BOX FOR FUTURE CATV BY OTHERS. PROVIDE 1" EMT TO COMMUNICATION ROOM.
4. IDS PANEL REFER TO 2/E-103 FOR REQUIREMENTS.
5. PROVIDE 3/4" PLYWOOD BACKBOARD ON THIS WALL.
6. PROVIDE CABLE TRAY AS SHOWN.
7. MOTION SENSOR REFER TO 2/E-103 FOR REQUIREMENTS.

12"0" 5' 10' 15' 20' 25'
SCALE: 1/8 INCH = 1 FOOT

12" 0" 5' 10'
SCALE: 1/4 INCH = 1 FOOT

RECORD DRAWINGS

US Army Corps of Engineers
Fort Worth District

Symbol	Description	Tracking No.	Action	Date

Designed by: M. SMITH
Drwn by: B. BLANCHARD
Reviewed by: G. VERSTRAETE
Submitted by: TROY MARTINSON, PE PROJECT MANAGER

Date: FEBRUARY 2012
Sol. No. W9126G-12-R-0056
Contr No.
File name: FP062622E103
Plot scale:
Plot date:
Rev.

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS FORT WORTH, TEXAS

MERRICK & COMPANY

FORT POLK, LOUISIANA
MILITARY WORKING DOG FACILITY
PROJECT No.: 062622, P2# 130860

COMMUNICATION PLAN

Sheet reference number:
E-103
Sheet 86 of 96

Contr No.

LIGHTING:
Technology shall be LED. All lamps shall have a Correlated Color Temperature (CCT) not greater than 4100k, a Color Rendering Index of (CRI) not less than 80, minimum efficacy of 100 lumens per watt, a lumen depreciation greater than or equal to L70 at 40,000 hours and five-year unconditional warranty for material.

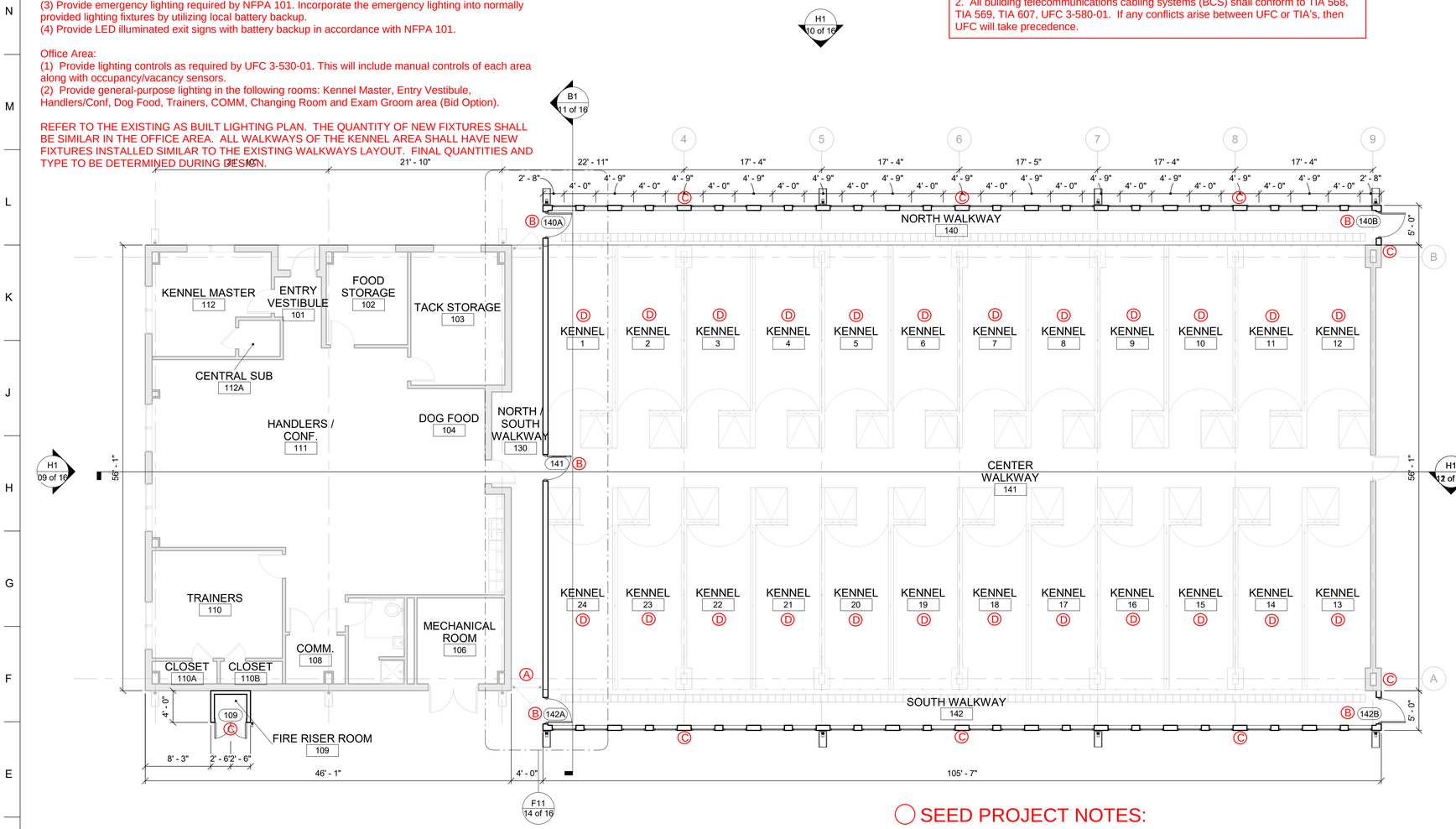
Kennel Area:
(1) Provide lighting controls as required by UFC 3-530-01.
(2) Provide full cut-off type, wall-mounted, lighting fixtures around the building perimeter. These fixtures shall be controlled by a lighting contactor with a photocell and timeclock should respond to the architectural character of the facility.
(3) Provide emergency lighting required by NFPA 101. Incorporate the emergency lighting into normally provided lighting fixtures by utilizing local battery backup.
(4) Provide LED illuminated exit signs with battery backup in accordance with NFPA 101.

Office Area:
(1) Provide lighting controls as required by UFC 3-530-01. This will include manual controls of each area along with occupancy/vacancy sensors.
(2) Provide general-purpose lighting in the following rooms: Kennel Master, Entry Vestibule, Handlers/Conf, Dog Food, Trainers, COMM, Changing Room and Exam Groom area (Bid Option).

REFER TO THE EXISTING AS BUILT LIGHTING PLAN. THE QUANTITY OF NEW FIXTURES SHALL BE SIMILAR IN THE OFFICE AREA. ALL WALKWAYS OF THE KENNEL AREA SHALL HAVE NEW FIXTURES INSTALLED SIMILAR TO THE EXISTING WALKWAYS LAYOUT. FINAL QUANTITIES AND TYPE TO BE DETERMINED DURING DESIGN.

1. Conform to NFPA 101 regarding penetrations in walls and partitions due to outlet boxes, normal construction ratings or fire ratings. At all penetrations of fire-rated walls or partitions, seal the opening to maintain the fire rating of the wall or partition. Provide F-rating in accordance with ASTM E814 or UL1479 that matches the rating of the wall or partition being penetrated. Provide commercially manufactured products manufactured and tested specifically for condition of application.

2. All building telecommunications cabling systems (BCS) shall conform to TIA 568, TIA 569, TIA 607, UFC 3-580-01. If any conflicts arise between UFC or TIA's, then UFC will take precedence.



NOTE THAT THIS FLOOR PLAN DOES NOT SHOW BID OPTIONS 1 & 2

BID OPTION 1: Reconfiguration of administrative area to provide exam and isolation areas.

BID OPTION 2: ABA restroom upgrades (moving sink and adjacent receptacle)

Additional electrical work will be needed to support each of these options.

B1
10 of 16

SEED PROJECT NOTES:

A. PROVIDE THE BACKBONE FOR A FULLY FUNCTIONAL CLOSED-CIRCUIT TELEVISION SYSTEM INCLUDING CONNECTION POINTS FOR CAMERAS, EQUIPMENT, AND WIRING. THIS INCLUDES CATEGORY 6 CABLE, CONDUIT, JUNCTION BOXES, AND WIRING RACEWAYS. PROVIDE COMMUNICATION HORIZONTAL PATHWAY IN CONDUIT, CATEGORY 6 CABLE, FOR THE NEW CCTV CAMERAS IN THE KENNEL AREA. REFER TO THE EXISTING CCTV LAYOUT ON THE COMMUNICATION PLAN FOR APPROXIMATE LOCATIONS OF NEW CAMERAS. FINAL LOCATIONS SHALL BE DETERMINED DURING THE DESIGN PHASE.

B. PROVIDE IDS/ACS INFRASTRUCTURE ONLY TO NEW DOORS IN THE KENNEL AREA. INFRASTRUCTURE INCLUDES CONDUITS AND J-BOX.

C. PROVIDE FULL CUT-OFF TYPE, WALL-MOUNTED, LIGHTING FIXTURES AROUND THE BUILDING PERIMETER. FINAL QUANTITIES TO BE DETERMINED DURING DESIGN.

D. PROVIDE TWO LIGHT FIXTURES PER KENNEL. EACH KENNEL WILL BE SWITCHED SEPARATELY. FINAL LAYOUT TO BE DETERMINED DURING DESIGN.

SEED PROJECT NEW WORK

B1 FLOOR PLAN
1/8" = 1'-0"

0 4' 8' 16'

PLAN NORTH

SHEET NOTES

FLOOR PLAN
FOR INFORMATION ONLY

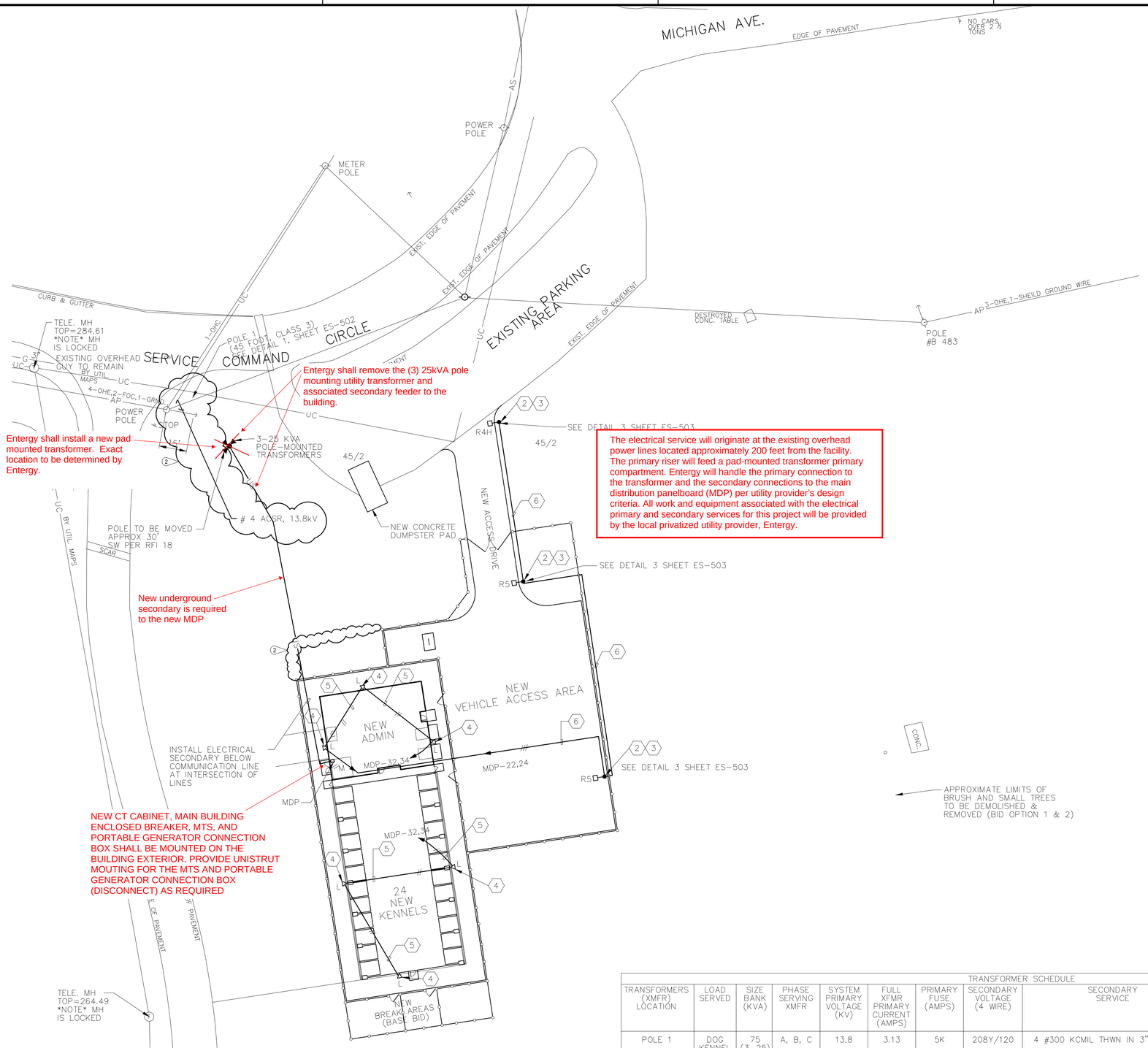
File Path: File Path:
Plot Date: 2/17/2016 12:09:44 PM

FORT POLK, LOUISIANA
ANIMAL BUILDING
102842

CONCEPT, NOT FOR CONSTRUCTION

PAGE
03 of
16

CONCEPT, NOT FOR CONSTRUCTION



LEGEND

EXISTING	DESCRIPTION	NEW	REMOVE BY OTHER
AP	AERIAL PRIMARY	AP	APX
US	UNDERGROUND SECONDARY	US	
	POWER POLE (SIZED AS SHOWN)		
	DOWN GUY		
	POLE-MOUNTED 10 TRANSFORMER	N/A	
N/A	POLE-MOUNTED 3-10 TRANSFORMER		
AS	AERIAL SECONDARY SERVICE	ASX	ASX

SPECIAL ELECTRICAL NOTES:

(THIS SHEET ONLY)

1. 4#300 kCMIL COPPER IN 3" CONDUIT WITH ONE SPARE 3" CONDUIT ALL ENCASED IN CONCRETE. REFER TO DETAIL 2/ES-504 FOR DUCTBANK CONSTRUCTION REQUIREMENTS.
2. 30' CLASS 3 ANODIZED ALUMINUM, DARK BRONZE FINISH. (SEE DETAIL 3, SHEET ES-503)
3. 150 W, LUMINAIRE R5 (SEE DETAIL 2, SHEET ES-503)
4. 70 W, LUMINAIRE L (SEE DETAIL 1 AND 4, SHEET ES-503)
5. 2 #10, COPPER, THHN CONDUCTORS AND 1 #10 COPPER THHN GROUND IN 1/2" RIGID GALVANIZED STEEL CONDUIT
6. 2 #8, COPPER, THWN CONDUCTORS AND 1 #8 COPPER THWN GROUND IN 1" RIGID GALVANIZED STEEL ABOVE GRADE AND 1" PVC SCHEDULE 40 BELOW GRADE (SEE DETAILS 1-5, SHEET ES-504 FOR INSTALLATION METHODS.)

GENERAL NOTES:

1. UNDERGROUND COMMUNICATION LINES SHOW ON SHEETS CS-101 AND CS-102

TRANSFORMER SCHEDULE

TRANSFORMERS (XMFR) LOCATION	LOAD SERVED	SIZE BANK (KVA)	PHASE SERVING XMFR	SYSTEM PRIMARY VOLTAGE (KV)	FULL XFMR PRIMARY CURRENT (AMPS)	PRIMARY FUSE (AMPS)	SECONDARY VOLTAGE (4 WIRE)	SECONDARY SERVICE	SERVING PANEL	MAIN CIRCUIT BREAKER/ SWITCH	CONNECTED LOAD (KVA)	CONNECTED SECONDARY LOAD (AMPS)
POLE 1	DOG KENNEL	75 (3-25)	A, B, C	13.8	3.13	5K	208Y/120	4 #300 KCMIL THWN IN 3" PVC/RSC	MDP	250 A, 3P	65.4	180.6

NORTH

30 0 30 60
SCALE OF FEET

1 ES-101 ES-101 ELECTRICAL SITE PLAN (BASE BID)

SCALE: 1" = 30'

BID SUPPORT PAGE 6 OF 8

RECORD DRAWINGS

US Army Corps of Engineers
Fort Worth District

No.	Action	Tracking No.	Date
2	DRAWING REVISED AM003. DRAWING REVISED TO SHOW LIGHTING FOR AM003.		02/27/12

Date: FEBRUARY 2012 | Rev.
Sol No. W9126G-10-D-0025
Contr No.
File name:
Plot date:
Plot scale:
Designed by:
Dwn by:
Reviewed by:
Submitted by: TROY MARTINSON, PE PROJECT MANAGER

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS FORT WORTH, TEXAS

MERRICK & COMPANY

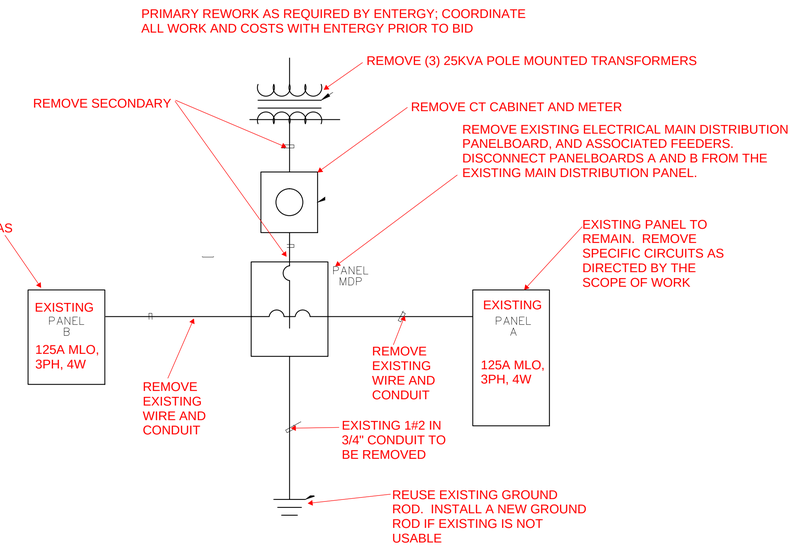
FORT POLK, LOUISIANA
MILITARY WORKING DOG FACILITY
PROJECT No.: 062622, P2# 130860

ELECTRICAL SITE PLAN (BASE BID)

Sheet reference number: ES-101
Sheet 32 of 96

Contr No. W9126G-07-D-0005

All work and equipment associated with the electrical primary and secondary services for this project will be provided by the local privatized utility provider, Entergy.



1 / E-603 | E-603 DEMOLITION ELECTRICAL RISER

NO SCALE

BID SUPPORT PAGE 7 OF 8

US Army Corps of Engineers
Fort Worth District

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MERRICK & COMPANY

FORT POLK, LOUISIANA
MILITARY WORKING DOG FACILITY
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ELECTRICAL RISER DIAGRAMS I

Sheet reference number:

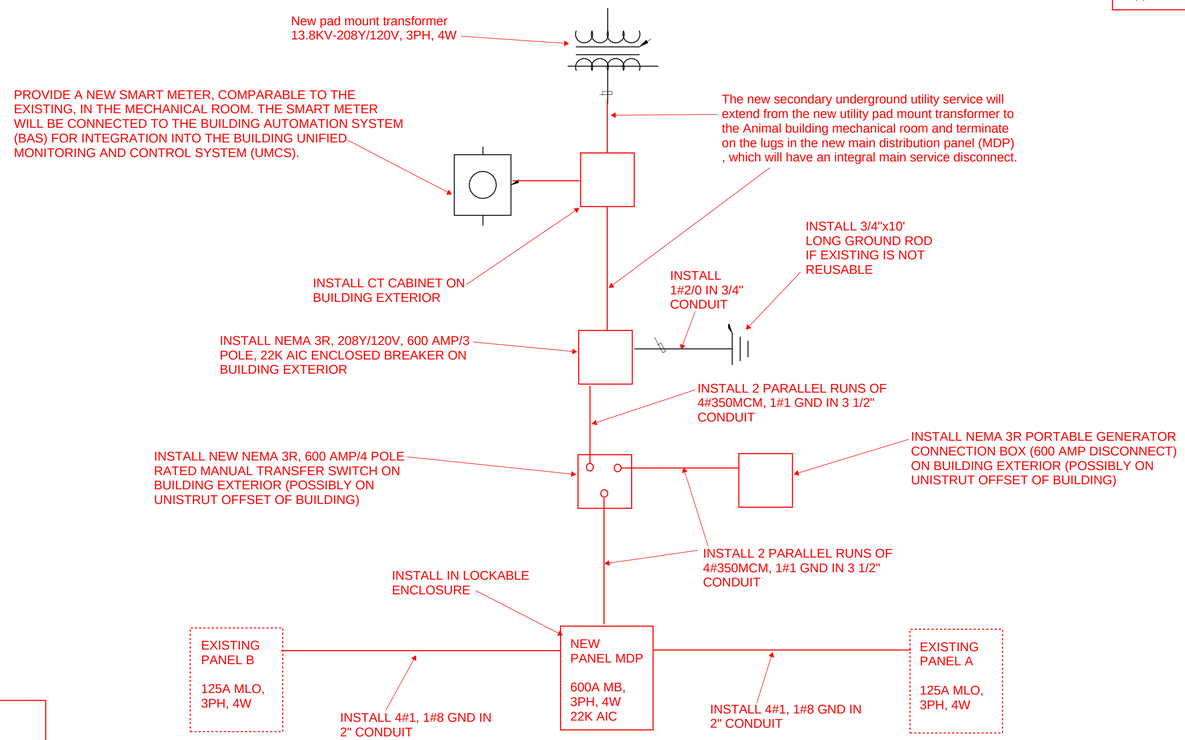
Sheet 95 of 96

Contr No. W9126G-07-D-0005

The electrical service will originate at the existing overhead power lines located approximately 200 feet from the facility. The primary riser will feed a pad-mounted transformer primary compartment. Entergy will handle the primary connection to the transformer and the secondary connections to the main distribution panelboard (MDP) per utility provider's design criteria. All work and equipment associated with the electrical primary and secondary services for this project will be provided by the local privatized utility provider, Entergy. The contractor shall coordinate with Entergy as to where they stop installation and where the contractor shall pickup with new. The SOW states Panel MDP but the enclosed breaker for the MTS could be Entergy's D-marc. This needs to be verified and will be updated during the design process.

PRIMARY REWORK AS REQUIRED BY ENTERGY; COORDINATE ALL WORK AND COSTS WITH ENTERGY PRIOR TO BID

All conductors shows are copper.



NEW WORK ELECTRICAL RISER

NOTE THAT RISER IS PRELIMINARY TO ASSIST WITH BIDDING ONLY AND MAY CHANGE DURING THE DESIGN PHASE OF THE PROJECT.

POWER REQUIREMENTS

A. Each panel shall have 15% spare capacity in the number of circuit breakers, as well as 15% spare kVA capacity for future use. Both the panels and the feeders shall be sized for the spare kVA loads.

(1) The main distribution panel (MDP) shall be 208Y/120-volt, rated with one main circuit breaker with appropriate circuit breakers for branch circuits. MDP shall be copper bus, all circuits breakers must be bolt on type.

(2) Provide a minimum of 15% spare load and 15% spare circuit breaker at the MDP.

(3) Wiring shall be installed per UFC unless exemptions are secured. Wiring system shall consist of insulated single conductors installed in raceways. Do not use cable assemblies, types of AC, MC, or MI, in lieu of conduit and wire. Conduit shall be labeled with source and destination. Empty conduit shall have nylon pull rope installed in it with 10 feet of pull rope coiled at each end. An equipment grounding conductor (EGC) shall be installed with all feeders and with all branch circuit wiring to receptacle and equipment. Conductors shall be a minimum size of 12 AWG.

(4) Provide surge protection device (SPD) adjacent to the MDP that meets the requirements of IEEE C62.42 and is UL listed in accordance with the testing requirements of UL 1449, 3rd edition. Do not install SPD inside a panelboard. Transient voltage surge protection device shall be placed in enclosed boxes that are separate from panel boards.

B. New electrical distribution system shall meet the requirements per NFPA 70, NFPA 70E, and UFC 3-520-01. Contractor cannot install either Metal-Clad cable (MC) or Romex in this project.

C. Lighting, receptacle, specialized equipment, and mechanical/plumbing equipment shall be on their own branch circuits. Contractor shall not mix these types of loads onto any of the branch circuits.

D. Outlet Requirements:
(1) Provide GFCI protected, weather-resistant (WR), "in-use" type receptacle cover, a 120-volt, 20A receptacle within 10-feet of every mechanical equipment, located exterior of building.
(2) GFCI Receptacles shall not be wired in series with any other receptacles.
(3) Provide special purpose receptacles if needed to meet other requirements of this RFP.

BELOW IS THE AS BUILT MAIN PANEL BEING REMOVED. THE NEW MDP PANEL SHALL BE 600 AMP MB, AT 22K AIC. THE EXISTING CIRCUITS TO REMAIN WILL RECONNECT TO THE NEW MDP. THE NEW MDP WILL ALSO REQUIRE AN APPROXIMATE 300 AMP/3 POLE BREAKER FOR THE KENNEL MECH UNIT AND A COUPLE 60 AMP (OR LESS)/3 POLE BREAKERS FOR THE NEW EXAM ROOM MECHANICAL. OTHER BREAKER CHANGES ARE POSSIBLE DURING DESIGN. THE PANEL SHOWN IS TO ASSIST WITH BIDDING ONLY AND WILL BE UPDATED DURING THE DESIGN PHASE AS REQUIRED. A 54 SPACE PANEL MAY BE REQUIRED.

PANEL: MDP — 22,000A PANEL SCHEDULE — 600A — LOCATION: RM 106

PANEL AIC RATING: ~~10,000A~~ — MAIN BUS SIZE: ~~400A~~ — MAIN CIRCUIT BREAKER – ~~250A~~, 3P

MOUNTING: SURFACE — VOLTS: 208Y/120 — PHASE: 3 — WIRES: 4 — BY: JPM

CIRC NO.	TRIP AMPS	NO. POLES	LOAD SERVED	PHASE LOAD VA A	PHASE LOAD VA B	PHASE LOAD VA C	LOAD SERVED	CIRC NO.	TRIP AMPS	NO. POLES
1	40	2	CU #2	–				2		
3					–		SURGE ARRESTER	4	30	3
5	25	1	AHU #1			1116		6		
7	25	1	AHU #2	1955		–	SPARE	8	20	1
9	20	1	SPARE		–		SPARE	10	20	1
11	20	1	FIRE ALARM			–	SPARE	12	20	1
13	20	1	RECIRCULATING PUMP	–			UH–1	14	20	2
15	20	1	WATER HEATER		–			16		
17	20	1	SPARE			–	UH–1	18	30	1
19				2000		1955	SPARE	20	20	1
21	15	3	EXHAUST FAN #2		2000		POLE LIGHTS	22	20	2
23						1955		24		
25				828			POLE LIGHTS	26	20	2
27	15	3	EXHAUST FAN #3		828			28		
29						828	EXT WALL PACK LIGHTS	30	20	2
31	15	2	CU #3	240				32		
33					240		ARMAG	34	70	2
35	20	1	SPARE			–		36		
37				5540				38		
39	~~60~~	3	PANEL B	2533	4880		PANEL A	40	100	3
41					2533	3600		42		
			TOTAL	–	–	2533 –				

100

TOTAL CONNECTED LOAD: 65.4 KVA — CONNECTED AMPS: 180.6

ESTIMATED DEMAND LOAD: 61.4 KVA — DEMAND LINE AMPS: 169.5

US Army Corps of Engineers
Fort Worth District

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ELECTRICAL RISER DIAGRAMS I

Sheet reference number:

Sheet 95 of 96

Contr No. W9126G-07-D-0005