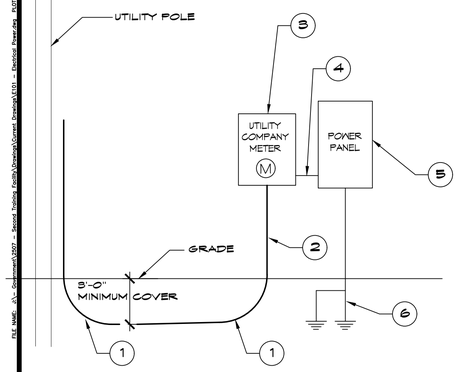



ONE LINE NOTES:

1. 36" LONG SWEEP ELBOW
2. PROVIDE TWO (2) 3" SCHEDULE 40 PVC CONDUIT BELOW GRADE AND SCH 80 PVC CONDUIT ABOVE GRADE WITH SUITABLE FISH WIRE.
3. 120/240V 1Φ 200amp METER PAN.
4. 3 #4 THHN, 1 #2 GND, 2-1/2" C
5. 120/240V 1Φ 200A PANELBOARD WITH MAIN BREAKER.
6. 2-3/4" x 10' CU CLAD GND ROD, #1/0 CU GND WIRE. PROTECT IN PVC PIPE. CONNECT TO METAL BLDG, COLD WATER SUPPLY & GAS LINE. CAD WELD ALL CONNECTIONS.

## RISER DIAGRAM

SCALE: NTS

## PANEL SCHEDULE

PANEL: PP1 INTERRUPTING RATING: 10 KAIC VOLTAGE: 240/120V, 200A 1Φ, 3W W/MAIN CIRCUIT BREAKER
LOCATION: EQUIPMENT ROOM ENCLOSURE: FLUSH MOUNTED W/ EQUIPMENT GND
FEEDER SOURCE: UTILITY BAR SQUARE-D TYPE QOD OR EQUAL

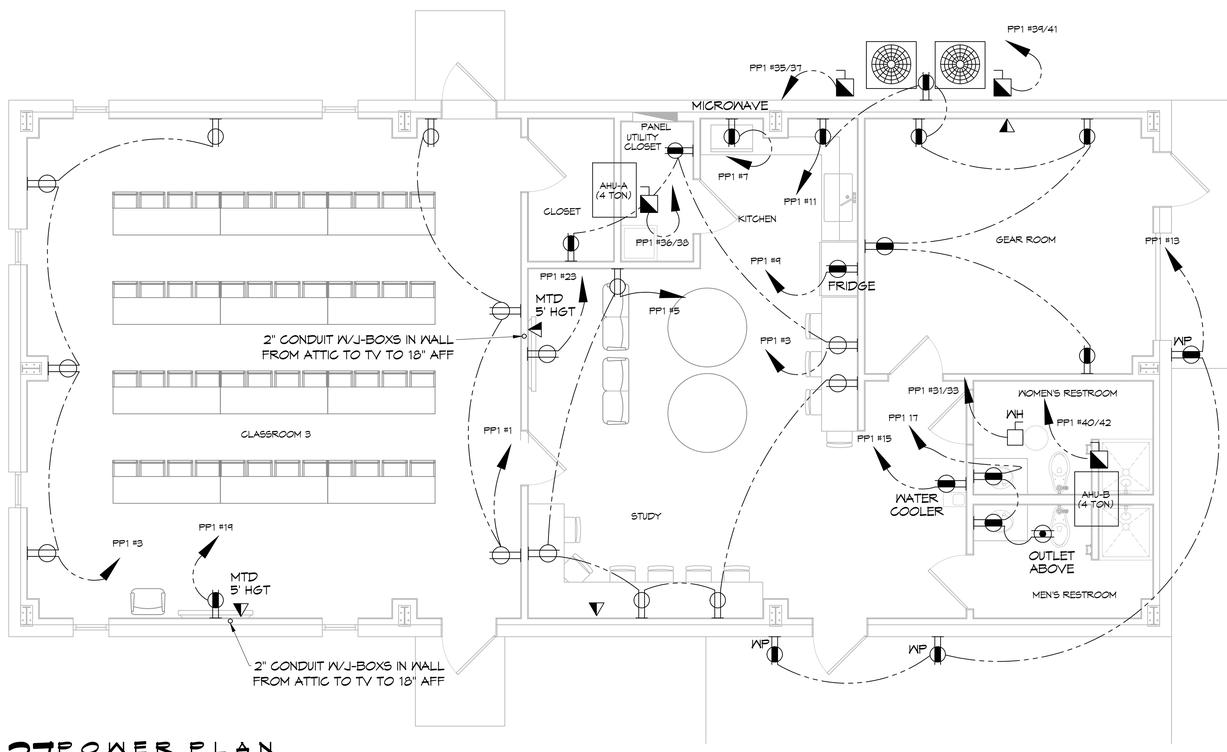
| CKT NO | THHN WIRE SIZE | LOAD DESCRIPTION / LOCATION | BREAKER AMP | BREAKER POLE | LOAD (KVA) | AG | BG | LOAD (KVA) | BREAKER POLE | BREAKER AMP | LOAD DESCRIPTION / LOCATION | THHN WIRE SIZE | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | RECEPTACLES CLASSROOM 3 | 20 | 1 | 1000 | | | 600 | 1 | 20 | LIGHTS, CLASSROOM 3 AND CLOSET | #12 | 2 |
| 3 | #12 | RECEPTACLES CLASSROOM 3 AND CLOSETS | 20 | 1 | 1000 | | | 700 | 1 | 20 | LIGHTS, LOUNGE AND KITCHEN AND UTILITY CLOSET | #12 | 4 |
| 5 | #12 | RECEPTACLES STUDY | 20 | 1 | 1000 | | | 1000 | 1 | 20 | LIGHTS AND/EXHAUST FAN BATHROOMS | #12 | 6 |
| 7 | #12 | RECEPTACLE, MICROWAVE | 20 | 1 | 1500 | | | 600 | 1 | 20 | LIGHTS AND/EXHAUST FAN GEAR ROOM | #12 | 8 |
| 9 | #12 | RECEPTACLE, REFRIGERATOR | 20 | 1 | 1500 | | | 300 | 1 | 20 | LIGHTS EXTERIOR | #12 | 10 |
| 11 | #12 | RECEPTACLES GEAR ROOM AND KITCHEN | 20 | 1 | 1000 | | | | | | SPACE | | 12 |
| 13 | #12 | RECEPTACLES OUTSIDE | 20 | 1 | 720 | | | | | | SPACE | | 14 |
| 15 | #12 | RECEPTACLE FOR WATER COOLER | 20 | 1 | 500 | | | | | | SPACE | | 16 |
| 17 | #12 | RECEPTACLES, BATHROOMS | 20 | 1 | 500 | | | | | | SPACE | | 18 |
| 19 | #12 | RECEPT. TV, CLASSROOM 3 | 20 | 1 | 500 | | | | | | SPACE | | 20 |
| 21 | | SPARE | 20 | 1 | | | | | | | SPACE | | 22 |
| 23 | #12 | RECEPT. TV, STUDY | 20 | 1 | 500 | | | | | | SPACE | | 24 |
| 25 | | SPARE | 20 | 1 | | | | | | | SPACE | | 26 |
| 27 | | SPARE | 20 | 1 | | | | | | | SPACE | | 28 |
| 29 | | SPARE | 20 | 1 | | | | | | | SPACE | | 30 |
| 31 | #10 | WATER HEATER | 30 | 2 | 2500 | | | | | | SPACE | | 32 |
| 33 | | | | | 2500 | | | | | | SPACE | | 34 |
| 35 | #10 | AHU-1 | 25 | 2 | 1450 | | | 4500 | 2 | 45 | HEAT PUMP-1 | #10 | 36 |
| 37 | | | | | 1450 | | | 4500 | | | | | 38 |
| 39 | #10 | AHU-2 | 25 | 2 | 1450 | | | 4500 | 2 | 50 | HEAT PUMP-2 | #10 | 40 |
| 41 | | | | | 1450 | | | 4500 | | | | | 42 |

SOLID NEUTRAL / NEUTRAL WIRE (N) — TOTAL CONNECTED LOAD (VA) = 42,250 — AG = 21,250 — BG = 20,980 — GROUND BUS / GROUND WIRE (G)

## ELECTRICAL LOAD SUMMARY

| | | | | | |
|---|---|---|---|---|---|
| POWER COMPANY: | Cleco | | | | |
| PROJECT NAME: | NEW TRAINING FACILITY | | | | |
| PROJECT ADDRESS: | 34780 RANGE ROAD | | | | |
| CITY TOWN: | SLIDELL, LOUISIANA 70460 | | | | |
| INTENDED USER: | ST. TAMMANY FIRE TRAINING | | | | |
| REQUIRED SERVICE: | 240/120 | VOLTS | 1 PHASE | 3 WIRE | |
| SERV ENTR SIZE: | 200 | AMPS | | | |
| HVAC TONNAGE: | 7.5 | TONS | | | |
| LARGEST MOTOR: | | HP | NOTE: MOTORS ABOVE 20 HP MAY REQUIRE REDUCED VOLTAGE STARTING AND ARE NEVER RECOMMENDED FOR USE WITH 240/120V, 1 PH, 3 W SERVICE | | |
| TOTAL BUILDING SQUARE FOOTAGE: | | S.F. | | | |
| INDIVIDUAL UNIT SQUARE FOOTAGE: | 0 | S.F. | | | |
| INDIVIDUAL UNIT DESIGNATION: | | (MULT OCCUPANCY) | | | |

| LOAD SOURCE | 1Φ KVA | 3Φ KVA | OR | 1Φ KW | 3Φ KW |
|---|---|---|---|---|---|
| BUILDING LIGHTING | 2.7 | | | | |
| ELECTRIC WATER HEATING | 5.0 | | | | |
| HEAT PUMPS | 18.2 | | | | |
| SUPPLEMENTAL HEAT SYSTEMS | 5.8 | | | | |
| AIR COND CONDENSING UNITS | | | | | |
| ELEC HEATING (PRIMARY) AHU'S | | | | | |
| COOKING | | | | | |
| REFRIGERATION | 1.5 | | | | |
| RECEPTACLES (STANDARD) | 7.5 | | | | |
| RECEPTACLES (COMPUTER) | | | | | |
| TOTAL MOTORS (EXCLUDE HVAC) | | | | | |
| EXTERIOR LIGHTING | 0.5 | | | | |
| MISCELLANEOUS - CEILING FANS | | | | | |
| OTHER | | | | | |
| TOTAL CONNECTED LOAD | 41.2 | 0.0 | | 0.0 | 0.0 |




## 27 POWER PLAN

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

## GENERAL POWER NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE GOVERNING ELECTRICAL CODE AND ALL OTHER INSPECTION DEPARTMENTS HAVING JURISDICTION. OBTAIN CERTIFICATES OR APPROVAL WHERE REQUIRED. ELECTRICAL CONTRACTOR SHALL VERIFY ALL WIRE AND CONDUIT SIZES FOR MECHANICAL EQUIPMENT TO BE INSTALLED.
2. ALL MATERIALS FURNISHED SHALL BE NEW AND SHALL BE U.L. LISTED.
3. THE DRAWINGS INDICATE SIZE AND GENERAL LOCATION OF WORK. SCALE DIMENSIONS SHALL NOT BE USED. THE EXACT LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES AND TELEPHONE OUTLETS, ETC. SHALL BE DETERMINED BY ACTUAL CONDITIONS IN THE FIELD.
4. PRIOR TO BIDDING, CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AND WITH OTHER CONTRACTORS WHOSE WORK MAY AFFECT THIS INSTALLATION.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE INCOMING ELECTRICAL SERVICE WITH UTILITY COMPANY AND INCLUDE IN HIS BID ALL CHARGES AND FEES INCURRED IN MODIFICATIONS.
7. ELECTRICAL CONTRACTOR SHALL COORDINATE THE TELEPHONE INSTALLATION WITH THE TELEPHONE COMPANY AND THE GENERAL CONTRACTOR.
8. ELECTRICAL CONTRACTOR, BEFORE INSTALLING ANY OF THE WORK, SHALL SEE THAT IT DOES NOT INTERFERE WITH CLEARANCES REQUIRED FOR FINISHED COLUMNS, HUNG CEILINGS, PLASTER, PARTITIONS, WALLS, ETC. AS SHOWN IN THE ARCHITECTURAL DRAWINGS AND DETAILS. IF ANY WORK IS INSTALLED AND IT LATER DEVELOPS THAT SUCH DETAILS OR DESIGN CANNOT BE FOLLOWED, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL MAKE SUCH CHANGES IN THE WORK AS DIRECTED BY THE ARCHITECT, AS WELL AS TO PERMIT THE INSTALLATION OF THE ARCHITECTURAL WORK AS SHOWN ON THE PLANS AND DETAILS.
9. PERFORM TEST REQUIRED BY THE OWNER OR THE ENGINEER IN CONNECTION WITH THE OPERATION OF THE ELECTRICAL SYSTEM IN THE BUILDING. ALL TESTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST STANDARD OF THE IEEE AND THE NATIONAL ELECTRICAL CODE.
10. MINIMUM CONDUCTOR SIZE SHALL BE #12, 600V INSULATION.
11. MINIMUM SIZE CONDUIT SHALL BE ¾" ELECTRICAL METALLIC TUBING (EMT) FOR INTERIOR USE, ¾" RIGID ALUMINUM FOR EXTERIOR USE ABOVE GRADE AND 1" SCHEDULE 40 PVC, BURIED A MINIMUM OF 18" FOR NON-VEHICLUAR TRAFFIC AREAS, AND 3 FT IN VEHICULAR TRAFFIC AREAS . EMT SHALL BE USED WITH METAL STUD CONSTRUCTION AND ALL ASSEMBLY OCCUPANCIES. 6 FT LENGTH MC CABLE IS ALLOWED ABOVE DROPPED CEILING.
12. INTERIOR FITTINGS SHALL BE CAST WHERE EXPOSED ON WALLS, AND EXTERIOR FITTINGS SHALL BE CAST BOXES WITH NEMA 3R COVER(S).
13. CONTRACTOR SHALL INSTALL WIRING AND OTHER CIRCUIT COMPONENTS TO MATCH EQUIPMENT ACTUALLY INSTALLED.
14. ALL 120V RUNS LONGER THAN 80 FEET SHALL BE #10 AWG AND 277V RUNS LONGER THAN 150 FEET SHALL BE #10 AWG UNLESS NOTED OTHERWISE.
15. INSTALL GROUND FAULT RECEPTACLES AT RECEPTACLE LOCATIONS WITHIN 5' OF SINKS OR LAVATORIES, AND AT EXTERIOR LOCATIONS. EXTERIOR RECEPTACLES SHALL ALSO BE WATERPROOF. ALL RECEPTACLES IN A KITCHEN AREA SHALL HAVE GROUND FAULT PROTECTION.
16. BONDING AND GROUNDING SHALL BE IN ACCORDANCE WITH NFPA 70:250-63, NFPR 250-23, 250-71 & 250-72.
17. GROUND NEUTRAL IN ACCORDANCE WITH NFPA 70:250-23b.
18. FUSES SHALL BE ITT CLASS K5, 250 VOLT, 200,000 AMP INTERRUPTING CAP.
19. PROVIDE SERVICES OF A FIRE/SMOKE DETECTION AND ALARM COMPANY TO DESIGN AND INSTALL ALARM SYSTEM TO MEET REQUIREMENTS OF THE STATE FIRE MARSHALL AND THE FIRE DISTRICT.
20. EXTERIOR LIGHTING SHALL BE SHADED OR INWARDLY DIRECTED IN SUCH A MANNER SO THAT NO DIRECT LIGHTING OR GLARE IS CAST BEYOND THE PROPERTY LINE. THE INTENSITY OF SUCH LIGHTING SHALL NOT EXCEED ONE FOOT CANDLE AS MEASURED AT THE ABUTTING PROPERTY LINE.
21. ALL ELECTRICAL, MECHANICAL AND PLUMBING PENETRATING FIRE PARTITIONS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E814.)
22. VERIFY ELECTRICAL CONNECTIONS PER MANUFACTURER'S RECOMMENDATIONS.
23. TYPES NM AND NMC CABLES SHALL NOT BE PERMITTED TO BE EXPOSED IN DROPPED OR SUSPENDED CEILINGS.

## POWER LEGEND

- TAMPER PROOF DUPLEX RECEPTACLE - WALL MOUNTED
- TAMPER PROOF GFIC DUPLEX RECEPTACLE - WALL MOUNTED
- WP WEATHER PROOF TAMPER PROOF GFIC DUPLEX RECEPTACLE - WALL MOUNTED
- DATA OUTLET - WALL MOUNTED
- DISCONNECT SWITCH W/ VIABLE BLADES
- FUSE DISCONNECT SWITCH W/ VIABLE BLADES
- J JUNCTION BOX

## THIS WORK SHALL MEET ALL ELECTRICAL CODES

1. 2020 NATIONAL ELECTRICAL CODE
2. NFPA 70
3. 2021 IECC ENERGY CODE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Slidell, LA 70458


| # | DESCRIPTION | DATE |
|---|---|---|
| | | |

REVISIONS

SEAL:

STATE OF LOUISIANA — BRIAN A. MISTICH License No. 30187 — PROFESSIONAL ENGINEER

NEW TRAINING FACILITY
ST. TAMMANY FIRE PROTECTION DISTRICT No. 1
34780 S RANGE ROAD
SLIDELL, LA 70460

| | | | |
|---|---|---|---|
| JOB No: | 2507 | DATE: | 02-04-2025 |
| DRAWN BY: | CJD | CHECKED BY: | BAM |


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SHEET TITLE: POWER PLAN

DRAWING NUMBER: E101

SHEET No: 14 of 15