

GENERAL SPECIFICATIONS

INTRODUCTION

THE CONTRACTOR FOR INSTALLATION OF THE ELECTRICAL SYSTEM WILL BE ACCOMPLISHED IN THE FIELD AT THE DIVISION LEVEL...

DEFINITIONS

FURNISH - TO SUPPLY THE MATERIAL NECESSARY TO PERFORM THE TASK. INSTALL - TO SUPPLY THE LABOR NECESSARY TO COMPLETE THE TASK...

1. SCOPE

- 1.1 E.C. TO PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT (U.O.N.) REQUIRED TO EXECUTE WORK PER NEC AND ALL APPLICABLE ELECTRICAL CODES IN FORCE AT THE TIME OF PROJECT COMPLETION.

2. INSTALLATION

- 2.1 THE INSTALLATION SHALL COMPLY WITH ALL LAWS IN EFFECT AT THE TIME OF CONSTRUCTION APPLYING TO ELECTRICAL INSTALLATION...

2.5 WIRING

- 2.5.1 ALL WORK SHALL BE COMPLETED IN A NEAT AND WORKMAN-LIKE MANNER. THE E.C. SHALL CONTACT THE E.O.R. SHOULD THIS PLAN REQUIRE MODIFICATION...

3. TESTING AND INSPECTION

3.1 TESTING

- 3.1.1 THE E.C. SHALL TEST, PRIOR TO ENERGIZING FOR THE FIRST TIME ALL PIECES OF ELECTRICAL EQUIPMENT TO ASSURE THEY HAVE THE PROPER PHASE TO PHASE AND PHASE TO GROUND INSULATION AND TO BE FREE OF SHORTS...

4. INDUSTRY STANDARDS

4.1 THE FOLLOWING IS A LIST OF ABBREVIATIONS USED IN THE ELECTRICAL NOTES AND SPECIFICATIONS.

Table with 2 columns: Abbreviation and Full Name. Includes NEC, NEMA, NFPA, etc.

WIRING METHODS

PART 1 - GENERAL

- 1.1 SUMMARY
A. SECTION INCLUDES:
1. WIRE AND CABLE.
2. CONDUIT.
3. OUTLET BOXES AND CONDUIT FITTINGS.
4. WIRING DEVICES.

2. REFERENCES

- A. THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED.

PART 2 - PRODUCTS

- 2.1 WIRE AND CABLE
A. ELECTRICAL COMPONENTS AND DEVICES, LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100...

2.2 CONDUIT

- A. CONDUIT TYPES SHALL BE AS FOLLOWS AND SHALL BEAR THE LABEL OF A NATIONALLY RECOGNIZED TESTING LABORATORY...

2.3 WIRING DEVICES

- A. OUTLET BOXES AND CONDUIT FITTINGS SHALL BEAR THE LABEL OF A NATIONALLY RECOGNIZED TESTING LABORATORY...

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PANELBOARDS

PART 1 - GENERAL

- 1.1 SUMMARY
A. SECTION INCLUDES:
1. LIGHTING/APPLIANCE PANELBOARDS.
2. RELATED REQUIREMENTS.

2. REFERENCES

- A. NATIONAL ELECTRICAL CODE (NFPA-70), AND INTERIM AMENDMENTS IN EFFECT.

PART 2 - PRODUCTS

- 2.1 MANUFACTURERS
A. PANELBOARDS MANUFACTURED BY ONE OF THE FOLLOWING, UNLESS OTHERWISE INDICATED ON DRAWINGS...

2.2 LIGHTING/APPLIANCE PANELBOARDS

- A. PANELBOARDS SHALL BE SCHEDULED ON DRAWINGS, INCLUDING MAIN PANELS, SUBPANELS, AND TRANSFER SWITCHES...

PART 3 - EXECUTION

- 3.1 EXAMINATION
A. EXAMINE SURFACES AND ADJACENT AREAS IN WHICH WORK UNDER THIS SECTION IS TO BE PERFORMED...

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GENERAL NOTES

1. PROVIDE SEALS AT RACEWAY PENETRATIONS AS FOLLOWS:

- A. FIRE RATED WALLS: SEAL WITH SEALANT HAVING A T-RATING TO MATCH OR EXCEED WALL RATING.

2. PROVIDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR

- (SIZE PER NEC) IN PVC TYPE CONDUIT, POWER CIRCUITS, ISOLATED GROUND CIRCUITS, OR AS SHOWN ON PLANS.

3. WRING DEVICES: DEVICE MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTER OF OUTLET BOX UNLESS NOTED OTHERWISE

- NOTE: COORDINATE THE STANDARD MOUNTING HEIGHTS WITH MASONRY.

4. WRING SHALL INCLUDE FINAL CONNECTION TO ALL EQUIPMENT IN CONFORMANCE WITH EQUIPMENT SUPPLIER WIRING DIAGRAMS.

- 5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE PANELBOARD IDENTIFICATION SCHEDULES.

6. BRANCH CIRCUIT CONDUIT SHALL BE PERMANENTLY LABELED

- UNLESS NOTED OTHERWISE IN SCHEDULES. LABELS SHALL BE BLACK OR BROWN, 1/8" HIGH LETTERS (OR CONTRASTING COLOR IF PLATES ARE USED).

7. WHERE BRANCH CIRCUITS ARE GROUNDED BY CONDUIT AND DERATE CURRENT ON ANY FEEDING BRANCH CIRCUITS

- 10. SUPPORTS FROM STRUCTURE: NO ATTACHMENT OF ANY TYPE SHALL BE MADE TO BRIDGING OR JOIST WEB UNLESS NOTED OTHERWISE.

11. DO NOT INSTALL EQUIPMENT OR CONDUITS DIRECTLY UNDER SKYLIGHT WELLS UNLESS INDICATED OTHERWISE ON PLANS.

- 12. WHERE GROUPED CONDUITS ARE INSTALLED WITHIN THE JOIST SPACE, COORDINATE WITH SPRINKLER CONTRACTOR PRIOR TO INSTALLATION IN ORDER TO MAINTAIN REQUIRED CLEARANCES FROM SPRINKLERS.

13. COORDINATE OUTLET BOX LOCATIONS WITH METAL SIDING TO MINIMIZE CUTTING OF SIDING.

- 14. ALL MOUNTING HEIGHTS TO CENTERLINE OF ITEM UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUTING.

15. LABEL THE FRONT OF EACH RECEPTACLE COVERPLATE WITH PANEL DESIGNATION AND CIRCUIT NUMBER USING CLEAR THERMAL TRANSFER (ELECTRONIC DYMIO) LABELS

- 16. LABEL EACH RECEPTACLE COVERPLATE COMPUTER USING CLEAR THERMAL TRANSFER (ELECTRONIC DYMIO) LABELS WITH 1/8" HIGH LETTERS.

17. OUTLET BOXES (ELECTRICAL, VOICE, DATA, ETC.) SHALL BE LIMITED TO TWO OUTLET BOXES PER STUD SPACE.

- 18. LABEL EACH RECEPTACLE COVERPLATE WITH PANEL DESIGNATION AND CIRCUIT NUMBER USING CLEAR THERMAL TRANSFER (ELECTRONIC DYMIO) LABELS WITH 1/8" HIGH LETTERS.

19. THE COLOR OF ISOLATED GROUND RECEPTACLES AND COVERPLATES SHALL MATCH THOSE OF OTHER DEVICES ON THE JOB.

- 20. FOR ISOLATED GROUND CIRCUITS, PROVIDE AN ISOLATED GROUND CONDUCTOR THROUGHOUT THE LENGTH OF THE CIRCUIT IN ADDITION TO THE PHASE, NEUTRAL, AND GROUND CONDUCTORS.

ALL ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT, PANELBOARDS, DISCONNECT SWITCHES AND LIGHTING FIXTURES TO BE FURNISHED BY THE ACCOUNT VENDOR, GRAYBAR.

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SAFETY SWITCHES

PART 1 - GENERAL

- 1.1 SUMMARY
A. SECTION INCLUDES:
1. SAFETY DISCONNECT SWITCHES.

2. REFERENCES

- A. THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED.

PART 2 - PRODUCTS

- 2.1 SAFETY SWITCHES
A. SWITCH INTERIOR:
1. DEAD-FRONT CONSTRUCTION WITH HINGED ARC SUPPRESSOR AND SWITCH BLADES WHICH ARE FULLY VISIBLE IN THE OFF POSITION AND WITH DOOR OPEN.

PART 3 - EXECUTION

- 3.1 INSTALLATION
A. INSTALL MOTOR AND CIRCUIT DISCONNECT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. LABELS SHALL TAKE PRECEDENCE OVER DRAWING DETAILS.

SYMBOL LEGEND

(SYMBOLS APPLY ONLY WHEN USED ON DRAWINGS)

Table with 2 columns: Symbol and Description. Lists electrical symbols for exit fixture, emergency fixture, switches, receptacles, etc.

UNDERGROUND CONDUIT RUN

CIRCUIT, CONCEALED

CIRCUIT, EXPOSED

CONDUIT SLEEVE

FLUSH MOUNTED PANELBOARD

SURFACE MOUNTED PANELBOARD

TELEPHONE / DATA BOX

LOW VOLTAGE CABLE BOX FOR OTHER

TELEPHONE, FLUSH FLOOR

MOTOR

TELEPOWER POLE

PUSH BUTTON

BUZZER

SMOKE DETECTOR

HORN / STROBE

DOOR HOLD OPEN

HBA DIGITAL TIMER SWITCH - TD200

CF CONDENSER FANS

ED ELECTRIC DEFOIST

EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD.

THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY OF PERFORMING HIS WORK PROPERLY.

NO ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS KNOWLEDGE.

MATERIALS AND METHODS

PART 1 - GENERAL

- 1.1 SUMMARY
A. SECTION INCLUDES:
1. ELECTRICAL IDENTIFICATION.
2. HANGERS AND SUPPORTS.
3. CONDUIT SLEEVES.
4. GROUNDING AND BONDING PRODUCTS.

1.2 ELECTRICAL IDENTIFICATION

- A. NAMEPLATES: PROVIDE LAMINATED PLASTIC NAMEPLATES WITH 3/4 INCH MINIMUM CONTRASTING COLOR ENGRAVED LETTERS.

1.3 HANGERS AND SUPPORTS

- A. CONDUIT AND EQUIPMENT SUPPORTS: HANGERS SHALL BE SERIES P2000 OR P3300 CHANNELS BY UNISTRUT DEPENDING ON LOAD AND SPAN INVOLVED. HANGERS SHALL BE MOUNTED ON WALLS, CEILING, OR CADDY CLIPS BY ERICO ONLY WHERE MOUNTING ON CEILING OR WALLS.

1.4 CONDUIT SLEEVES

- A. SLEEVES: GALVANIZED RIGID STEEL OR SCHEDULE 40 PVC PIPE.

1.5 GROUNDING AND BONDING

- A. ISOLATED GROUNDING: WIRING: STEEL WITH FEED-THRU LUGS.

PART 2 - EXECUTION

2.1 INSTALLATION

- A. INSTALL SPECIFIED MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.

2.2 GROUNDING

- A. GENERAL: GROUND ALL METALLIC CONDUITS, SUPPORTS, CABINETS, EQUIPMENT SYSTEM NEUTRALS, METAL BUILDING STRUCTURES, AND OTHER ITEMS REQUIRED TO BE GROUNDED IN ACCORDANCE WITH THE NEC AND OTHER APPLICABLE CODES AND AS INDICATED ON DRAWINGS.

2.3 TESTING

- A. UPON COMPLETION OF INSTALLATION, PERFORM CONTINUITY TESTING ON POWER AND EQUIPMENT GROUND CIRCUIT CONDUCTOR.

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HFA logo, Harrison French & Associates, L.P., 1705 St. Louis Blvd., Suite 3 Bentonville, Arkansas 72712, 479.273.7780, F888.520.9685, www.hfa-ac.com. Also includes contact info for Love's Country Stores and a seal for Jaime A. Castaneda, Professional Engineer.