



Crawford County Career & Technical Center

Student Start Date: _____

Student Name: _____

Competency Task List – Secondary Component

Electrical and Power Transmission Installers, Other CIP 46.0399

High School Graduation Years 2022, 2023, 2024

100 Basic Safety

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|---|--|------|
| 101 | Inspect and use personal protective equipment. | | |
| 102 | Identify causes of job site accidents. | | |
| 103 | RESERVED | | |
| 104 | RESERVED | | |
| 105 | Properly don fall protection. | | |
| 106 | Identify four classes of fire extinguishers. | | |
| 107 | Confirm circuits are de-energized before working on them. | | |
| 108 | Perform lockout/tagout. | | |
| 109 | Inspect and use ladders. | | |
| 110 | Complete jobsite hazard analysis form. | | |
| 111 | Identify arc-flash hazards and protection (NFPA70E). | | |

200 Hand Tools

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|---|--|------|
| 201 | Use screwdrivers. | | |
| 202 | Use pliers. | | |
| 203 | Use a keyhole/drywall saw. | | |
| 204 | Use a hydraulic knockout/punch tool. | | |
| 205 | Use a tape measure. | | |
| 206 | Use wire strippers. | | |
| 207 | Use wire cutters. | | |
| 208 | Use a utility knife. | | |
| 209 | Use a torpedo level. | | |
| 210 | Use a hammer. | | |
| 211 | Use a conduit reamer. | | |
| 212 | Use a hacksaw. | | |
| 213 | Use an MC Cable splitter (roto-split). | | |
| 214 | Use an adjustable or non-adjustable wrenches. | | |
| 215 | Use a ratchet and sockets. | | |
| 216 | Use nut drivers. | | |

300 Power Tools

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|------------------------------------|--|------|
| 301 | RESERVED | | |
| 302 | Use a hammer drill. | | |
| 303 | Use a reciprocating saw. | | |
| 304 | Use a portable hand-held band saw. | | |
| 305 | RESERVED | | |
| 306 | Use a drill. | | |
| 307 | RESERVED | | |
| 308 | RESERVED | | |

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|-----|---------------------------------------|--|--|
| 309 | RESERVED | | |
| 310 | Use an oscillating multipurpose tool. | | |
| 311 | Use impact driver. | | |

400 Blueprint Reading

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|--|--|------|
| 401 | Identify types of blueprint plans. | | |
| 402 | Identify blueprint symbols. | | |
| 403 | Interpret blueprint plans. | | |
| 404 | RESERVED | | |
| 405 | Develop electrical details on a blueprint. | | |
| 406 | Use a measuring tool to scale. | | |

500 Anchors and Supports

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|--|--|------|
| 501 | Identify, select, and install various types of anchors and supports. | | |

600 Residential Cabling Technology

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|----------------------------------|--|------|
| 601 | Install non-metallic (NM) Cable. | | |
| 602 | Install metal-clad cable (MC). | | |
| 603 | RESERVED | | |
| 604 | RESERVED | | |
| 605 | Terminate a coaxial cable. | | |
| 606 | RESERVED | | |

| | | | |
|-----|--|--|--|
| 607 | RESERVED | | |
| 608 | RESERVED | | |
| 609 | Identify telecommunications cable types. | | |
| 610 | Terminate a RJ45 connector. | | |
| 611 | Install SE cable. | | |
| 612 | Terminate and splice conductors. | | |

700 Switches and Receptacles Circuits

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|---|--|------|
| 701 | Install a duplex receptacle. | | |
| 702 | Install a single pole switch. | | |
| 703 | Install a 3-way switch. | | |
| 704 | Install a 4-way switch. | | |
| 705 | Install a split-wired duplex receptacle. | | |
| 706 | Install a Ground Fault Circuit Interrupter (GFCI) receptacle. | | |
| 707 | Install an Arc-Fault Circuit Interrupter (AFCI). | | |
| 708 | Install a time control switch. | | |
| 709 | Install a range receptacle. | | |
| 710 | Install a dryer receptacle. | | |
| 711 | Install various branch circuits. | | |
| 712 | Install connected/ smart devices. | | |

800 Fixtures

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|---|--|------|
| 801 | Install surface-mounted lighting fixture. | | |
| 802 | Install recessed lighting fixtures. | | |
| 803 | Install a ceiling fan. | | |

| | | | |
|-----|--|--|--|
| 804 | Install special purpose lighting. | | |
| 805 | Identify IC and non-IC recessed lighting fixtures. | | |

900 Raceways

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|--|--|------|
| 901 | Install Electrical Metallic Tubing (EMT). | | |
| 902 | RESERVED | | |
| 903 | Design a surface raceways system (wiremold). | | |
| 904 | Install flexible raceway. | | |
| 905 | RESERVED | | |
| 906 | RESERVED | | |
| 907 | RESERVED | | |
| 908 | Bend a stub 90°. | | |
| 909 | Bend an offset. | | |
| 910 | Bend a back to back 90°. | | |
| 911 | Cut, ream, and deburr raceway systems. | | |
| 912 | Install conductors in a raceway system. | | |

1000 Wired Devices

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|--------------------------------------|--|------|
| 1001 | Install a hard-wired smoke detector. | | |
| 1002 | Install door-bell system. | | |
| 1003 | Trim out electrical devices. | | |
| 1004 | Install an occupancy sensor. | | |
| 1005 | Install a photocell. | | |

1100 Testing Equipment

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|---|--|------|
| 1101 | Use a multimeter to test a circuit. | | |
| 1102 | RESERVED | | |
| 1103 | Use a plug-in circuit tester. | | |
| 1104 | Use a clamp-on ammeter. | | |
| 1105 | RESERVED | | |
| 1106 | Use a circuit tracer. | | |
| 1107 | Use a network cable tester. | | |
| 1108 | Apply Ohm's/Watt's law calculations to electrical applications. | | |

1200 Electrical Service

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|--|--|------|
| 1201 | Install an overhead service. | | |
| 1202 | Identify parts of an underground service. | | |
| 1203 | RESERVED | | |
| 1204 | RESERVED | | |
| 1205 | RESERVED | | |
| 1206 | RESERVED | | |
| 1207 | RESERVED | | |
| 1208 | RESERVED | | |
| 1209 | Identify types of safety disconnect switches. | | |
| 1210 | Terminate a service panel/load center/sub-panel. | | |

1300 National Electrical Code (NEC)

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|--|--|------|
| 1301 | Identify the purpose of the NEC. | | |
| 1302 | Use Chapter 9 Tables. | | |
| 1303 | Use the NEC as a reference to questions and competencies that students perform for all electrical installations. | | |
| 1304 | Identify the publisher of the NEC. | | |
| 1305 | Identify the code cycle of the NEC. | | |
| 1306 | RESERVED | | |

1400 Green Technology

| Item | Task | (X) Indicates Proficiency ¹ | Date |
|------|---|--|------|
| 1401 | Identify renewable energy sources. | | |
| 1402 | Identify procedures for installing a wind turbine system. | | |
| 1403 | RESERVED | | |
| 1404 | Identify procedures for installing a solar energy system. | | |
| 1405 | RESERVED | | |
| 1406 | RESERVED | | |
| 1407 | Evaluate the demand and consumption of electrical energy. | | |

¹ Student Demonstrated Entry-Level Industry Proficiency as Indicated by (X)

Secondary CTE Instructor Signature _____ Date _____

Student Signature _____ Date _____