# Competency Task List – Secondary Component

# Electrical and Power Transmission Installers, Other CIP 46.0399

# High School Graduation Years 2025, 2026, 2027

## 100 Basic Safety

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 101 | Inspect and use personal protective equipment. |   |   |
| 102 | Identify causes of job site accidents. |  |  |
|  | RESERVED (103-104) |  |  |
| 105 | Don fall protection harness equipment. |  |  |
| 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

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 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

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
|  | RESERVED (301) |  |   |
| 302 | Use a hammer drill. |  |   |
| 303 | Use a reciprocating saw. |  |  |
| 304 | Use a portable hand-held band saw. |  |  |
|  | RESERVED (305) |  |  |
| 306 | Use a drill. |  |  |
|  | RESERVED (307-309) |  |  |
| 310 | Use an oscillating multipurpose tool. |  |  |
| 311 | Use impact driver. |  |  |

## 400 Blueprint Reading

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

## 500 Anchors and Supports

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

## 600 Residential Communication Technology

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
|  | RESERVED (601-604) |   |   |
| 605 | Terminate a coaxial cable. |  |  |
|  | RESERVED (606-608) |  |  |
| 609 | Identify telecommunications cable types. |  |  |
| 610 | Terminate a RJ45 connector. |  |  |
|  | RESERVED (611-612) |  |  |

## 700 Switches and Receptacles Circuits

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 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 with (NM) and (MC) cable. |  |  |
| 712 | Install connected/ smart devices. |  |  |
| 713 | Terminate and splice conductors. |  |  |
| 714 | Install various types new and old work boxes. |  |  |

## 800 Fixtures

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 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

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 901 | Install Electrical Metallic Tubing (EMT). |   |   |
|  | RESERVED (902) |   |   |
| 903 | Design a surface raceways system (wiremold). |   |   |
| 904 | Install flexible raceway. |  |  |
|  | RESERVED (905-911) |  |  |
| 912 | Install conductors in a raceway system. |  |  |
| 913 | Demonstrate knowledge of various raceway systems. |  |  |
| 914 | Identify, bend, and install various bends using types of conduits with the proper tools and techniques.  |  |  |

## 1000 Wired Devices

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 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

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

## 1200 Electrical Service

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1201 | Install an overhead service using SE cable. |   |   |
| 1202 | Identify parts of an underground service. |   |   |
|  | RESERVED (1203-1208) |   |   |
| 1209 | Identify types of safety disconnect switches. |  |  |
| 1210 | Terminate a service panel/load center/sub-panel.  |  |  |

## 1300 National Electrical Code (NEC)

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 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. |  |  |
|  | RESERVED (1306) |  |  |

## 1400 Green Technology

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1401 | Identify renewable energy sources. |   |   |
| 1402 | Identify procedures for installing a wind turbine system. |   |   |
|  | RESERVED (1403) |   |   |
| 1404 | Identify procedures for installing a solar energy system. |  |  |
|  | RESERVED (1405-1407) |  |  |

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

Secondary CTE Instructor Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_