# Construction Trades, Other CIP 46.9999

# Competency Task List – Secondary Component

# High School Graduation Years 2023, 2024, 2025

## 100 Construction Trades Safety

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 101 | Follow Occupational Safety and Health Administration (OSHA) standards. |   |   |
| 102 | Evaluate Safety Data Sheets (SDS). |  |  |
| 103 | Work with hazardous materials. |  |  |
| 104 | Use personal protective equipment (PPE). |  |  |
| 105 | Follow rules and regulations for fire protection. |  |  |
| 106 | Handle and store construction materials. |  |  |
|  | RESERVED (107) |  |  |
|  | RESERVED (108) |  |  |
| 109 | Follow electrical safety procedures. |  |  |
| 110 | Differentiate between stuck-by and caught-in-between hazards. |  |  |
| 111 | Follow working from heights safety procedures. |  |  |
| 112 | Follow excavation site safety procedures.  |  |  |
|  | RESERVED (113) |  |  |
| 114 | Follow concrete and masonry safety procedures. |  |  |
| 115 | Use ladders and scaffolding. |  |  |
| 116 | Follow safety procedures working in confined spaces. |  |  |
|  | RESERVED (117) |  |  |

## 200 Hand Tools

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 201 | Use and maintain hand tools. |   |   |
| 202 | Use and maintain layout and measuring tools. |   |   |
| 203 | Use and maintain cutting tools. |   |   |
|  | RESERVED (204) |   |   |
| 205 | Use and maintain fastening tools. |   |   |
| 206 | Use and maintain dismantling tools. |   |   |

## 300 Power Tools and Equipment

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 301 | Operate a circular saw. |  |   |
| 302 | Operate battery and electric drills and drivers. |  |   |
| 303 | Operate belt and hand sanders. |  |  |
| 304 | Operate reciprocating and oscillating saws. |  |  |
| 305 | Operate routers. |  |  |
| 306 | Operate a pneumatic and battery-operated nailer. |  |  |
| 307 | Operate a miter saw. |  |  |
| 308 | Operate a table saw. |  |  |
| 309 | Operate an electric planer. |  |  |
| 310 | Operate a grinder. |  |  |
|  | RESERVED (311) |  |  |

## 400 Plans and Blueprints

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 401 | Interpret building codes, zoning regulations, and permits. |  |   |
|  | RESERVED (402) |  |   |
| 403 | Interpret plans, sketches, and blueprints. |  |  |
| 404 | Interpret standard abbreviations and symbols. |  |  |
| 405 | Estimate material from a print.  |  |  |
| 406 | Use an architect scale. |  |  |
| 407 | Identify structural components. |  |  |
| 408 | Interpret Americans with Disabilities Act (ADA) regulations. |  |  |
| 409 | Identify mechanical fasteners, hangers and devices. |  |  |

## 500 Site and Building Layout

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 501 | Use a builder’s level, transit, and/or laser level to determine site layout and building elevations. |   |   |
| 502 | Square a structure using the Pythagorean Theorem and diagonals. |   |   |

## 600 Concrete

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 601 | Use modern concrete materials. |   |   |
| 602 | Determine appropriate concrete finishing processes and equipment. |   |   |
| 603 | Estimate the amount of concrete needed for footers and slabs. |   |   |
| 604 | Lay out and build concrete forms. |   |   |
| 605 | Use equipment and tools for concrete. |  |  |
| 606 | Prep and place concrete. |  |  |
| 607 | Perform basic concrete finishing processes. |  |  |
| 608 | Use tools to edge, groove, and cut concrete. |  |  |
| 609 | Identify the uses of admixtures and sealers. |  |  |

## 700 Block and Brick Masonry

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 701 | Identify common types of masonry units. |   |   |
| 702 | Identify concrete block by size and type. |   |   |
| 703 | Estimate masonry units needed for block construction. |   |   |
| 704 | Use masonry cutting techniques. |   |   |
| 705 | Lay out and construct a block laying project.  |  |  |
| 706 | Perform masonry positions and bonds. |  |  |
| 707 | Lay block to a line. |  |  |
| 708 | Install masonry fasteners.  |  |  |
| 709 | RESERVED |  |  |
| 710 | Mix mortar to proper proportions and consistency. |  |  |
| 711 | Compare mortar types and applications. |  |  |
| 712 | Perform proper brick and block laying techniques. |  |  |
| 713 | Install block or brick walls. |  |  |

## 800 Floor Framing

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 801 | Identify framing materials and systems. |   |   |
| 802 | Install girders and sills. |   |   |
| 803 | Perform layout of floor joists and openings. |   |   |
| 804 | Install floor joists and band joists. |  |  |
| 805 | Install bridging. |  |  |
| 806 | Install columns and supports. |  |  |
| 807 | Install subfloor materials. |  |  |
| 808 | Estimate framing material and systems. |  |  |

## 900 Wall Framing

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 901 | Install components of interior and exterior walls. |   |   |
| 902 | Install ceiling systems. |   |   |
| 903 | Install steel framing components. |   |   |
| 904 | Identify framing materials and systems. |  |  |
| 905 | Estimate framing material and systems. |  |  |

## 1000 Roof Framing

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1001 | Identify framing materials and systems. |   |   |
| 1002 | Install roof components for gable roofs. |   |   |
| 1003 | Install roof trusses. |   |   |
| 1004 | Install roof sheathing materials. |  |  |
|  | RESERVED (1005) |  |  |
| 1006 | Calculate, layout, and cut roof rafters. |  |  |
| 1007 | Estimate framing material and systems. |  |  |

## 1100 Roof Coverings

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1101 | Install asphalt shingles. |   |   |
| 1102 | Install underlayment materials. |   |   |
| 1103 | Install flashing. |   |   |
| 1104 | Identify roof covering materials and systems.  |  |  |
| 1105 | Estimate roof covering materials and systems. |  |  |

## 1200 Insulation Materials

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1201 | Install insulation and ventilation. |   |   |
| 1202 | Identify insulation and ventilation materials. |   |   |
| 1203 | Estimate insulation and ventilation materials. |  |  |

## 1300 Exterior Finishes

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1301 | Install horizontal sidings. |   |   |
| 1302 | Install vertical sidings. |   |   |
|  | RESERVED (1303) |   |   |
| 1304 | Identify exterior finish materials. |  |  |
| 1305 | Install windows. |  |  |
| 1306 | Install exterior doors. |  |  |
| 1307 | Install soffit and fascia. |  |  |
| 1308 | Install house wrap. |  |  |
| 1309 | Estimate exterior finish materials. |  |  |

## 1400 Basic Plumbing

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1401 | Use and maintain basic plumbing tools.  |   |   |
|  | RESERVED (1402) |   |   |
| 1403 | Identify pipes and fittings. |   |   |
|  | RESERVED (1404) |  |  |
| 1405 | Install pipes, fittings, valves, and devices. |  |  |
| 1406 | Install faucets and drain assemblies. |  |  |
|  | RESERVED (1407) |  |  |
|  | RESERVED (1408) |  |  |
| 1409 | Install water supply systems. |  |  |
| 1410 | Install drain, waste, and vent systems. |  |  |
| 1411 | Install fixtures and equipment. |  |  |
| 1412 | Troubleshoot and repair common plumbing problems. |  |  |
| 1413 | Estimate pipes and fittings. |  |  |

## 1500 Residential Electric Circuits and Components

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1501 | Practice electrical safety. |   |   |
| 1502 | Apply the National Electric Code (NEC) to common residential installations. |   |   |
| 1503 | Interpret electrical drawings. |   |   |
| 1504 | Apply electrical theory. |  |  |
| 1505 | Construct electrical circuits. |  |  |
| 1506 | Install residential wire. |  |  |
| 1507 | Use electrical tools. |  |  |
| 1508 | Install ground fault circuit interrupters. |  |  |
| 1509 | Install arc fault circuit interrupters. |  |  |
| 1510 | Install over current protection devices. |  |  |
| 1511 | Install electrical boxes. |  |  |
|  | RESERVED (1512) |  |  |
| 1513 | Install light fixtures. |  |  |
| 1514 | Install receptacle circuits. |  |  |
| 1515 | Install switch circuits. |  |  |
| 1516 | Install a 220-volt circuit. |  |  |
|  | RESERVED (1517) |  |  |
| 1518 | Trim out and finish electrical circuits. |  |  |
| 1519 | Install service entrance. |  |  |
|  | RESERVED (1520) |  |  |
|  | RESERVED (1521) |  |  |

## 1600 Wall Components

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1601 | Install drywall. |   |   |
| 1602 | Install interior moldings. |   |   |
| 1603 | Identify drywall materials. |   |   |
| 1604 | Identify interior moldings. |  |  |
| 1605 | Estimate drywall materials. |  |  |
| 1606 | Estimate interior moldings. |  |  |

## 1700 Interior Finishes

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1701 | Identify paints, stains, and their uses. |   |   |
| 1702 | Apply paints and stains.  |   |   |
| 1703 | Clean painting tools. |   |   |
| 1705 | Apply caulking. |  |  |
| 1706 | Install ceramic tile. |  |  |
| 1707 | Estimate paints and stains. |  |  |

## 1800 Stairways

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1801 | Identify stairways and components. |   |   |
| 1802 | Calculate, lay out, and cut stair stringers. |   |   |
| 1803 | Install stairways and components. |   |   |

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

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

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

[PA In-Demand Occupations List (PA IDOL)](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.workstats.dli.pa.gov%2FProducts%2FIDOL%2FPages%2Fdefault.aspx&data=04%7C01%7Celw12%40psu.edu%7C465d2f58a43f45631dac08d9e0349a4c%7C7cf48d453ddb4389a9c1c115526eb52e%7C0%7C0%7C637787338795980555%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=yZW%2BaPOFwIBGxV3Jk72%2BGXlAbGWgkjCVKy%2FQtYol1F0%3D&reserved=0)

[Industry-Recognized Credential Resource Guide](https://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Resources/Teacher%20Resources/IndustryRecognized/Pages/default.aspx)