

Unit/Standard Number	 pennsylvania DEPARTMENT OF EDUCATION <u>High School Graduation Years 2010, 2011 and 2012</u> Electrical and Power Transmission Installers, Other CIP 46.0399 Task Grid	Proficiency Level Achieved: (X) Indicates Competency Achieved to Industry Proficiency Level
Secondary Competency Task List		
100	BASIC SAFETY	
101	Identify career and training opportunities.	
102	Identify causes of job site accidents.	
103	Identify job site hazards.	
104	Working safely with job hazards.	
105	Identify safe methods and equipment of aerial work.	
106	Demonstrate basic fire safety.	
107	Demonstrate basic electrical safety.	
108	Using Perform Lockout/Tagout.	
109	Demonstrate scaffold and ladder safety.	
200	CONSTRUCTION MATH	
201	Problem solve using whole numbers.	
202	Problem solve using fractions.	
203	Problem solve using decimal numbers.	
204	Convert decimals, fractions and percents.	
205	Problem solve using the metric system.	
206	Calculate basic construction problems using geometry formulas.	
207	Calculate basic construction problems using algebraic formulas.	
300	HAND TOOLS	
301	Recognize, identify and safely use hammers and screwdrivers.	
302	Recognize, identify and safely use pliers and wire cutters.	
303	Recognize, identify and safely use saws and chisels.	
304	Identify and safely use hydraulic tool systems.	

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400	POWER TOOLS	
401	Recognize, identify and safely use drill and saws.	
402	Identify and safely use electric hammer drill.	
403	Identify and safely use reciprocating saw.	
404	Identify and safely use portable hand-held band saw.	
405	Identify and safely use circular saw.	
406	Identify and safely use electric/cordless drill.	
407	Identify and safely use portable jig saw.	
500	BLUEPRINT READING	
501	Identify types of blueprint plans.	
502	Identify blueprint symbols.	
503	Interpret blueprint plans.	
504	Plan branch circuits for blueprint development.	
505	Incorporate electrical details to residential blueprint.	
600	ANCHORS AND SUPPORTS	
601	Identify and install various types of anchors and supports.	
700	CABLE TYPES AND INSTALLATIONS	
701	Install Non-Metallic (NM) Cable for connection to an electrical device.	
702	Install metal-clad cable (MC).	
703	Install telecommunications (category 5e,6,7 cabling) cable.	
704	Install a telephone circuit.	
705	Install a Television circuit.	
706	Install rough wiring in a residence.	
707	Install finish wiring.	
800	SWITCHES AND RECEPTACLES CIRCUITS	

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801	Install a duplex receptacle.	
802	Install a single pole switch.	
803	Install a 3-way switch.	
804	Install a 4-way switch.	
805	Install a split-wired duplex receptacle.	
806	Install a Ground Fault Circuit Interrupter (GFCI) Receptacle.	
807	Install an Arc-Fault Circuit Interrupter (AFCI).	
808	Install a timer circuit.	
809	Install various special switches and receptacles.	
900	FIXTURES	
901	Install surface-mounted lighting fixture.	
902	Install recessed lighting fixtures.	
1000	RACEWAYS	
1001	Install Electrical Metallic Tubing (EMT).	
1002	Install Poly-Vinyl Chloride conduit (PVC).	
1003	Identify surface metal and non-metal raceways (Wiremold).	
1004	Identify flexible raceway.	
1005	Demonstrate the five bends (90, offset, 3 point saddle, 4 point saddle, kick) used for conduit raceways.	
1100	WIRED DEVICES	
1101	Install a hard wired smoke detector.	
1102	Install door-bell system.	
1200	TESTING EQUIPMENT	
1201	Identify and safely use a multi-meter.	
1202	Identify and safely use a continuity tester.	
1203	Identify and safely use a plug-in circuit tester.	
1204	Identify and safely use a clamp-on ammeter.	

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1300	ELECTRICAL SERVICE	
1301	Install a 100 amp overhead service.	
1302	Identify a 100 amp underground service.	
1400	RESIDENTIAL CABLING TECHNOLOGY+B39	
1401	Define residential networks.	
1402	Identify a structured media -systems.	
1403	Design and plan layout of low voltage circuits services.	
1500	NATIONAL ELECTRICAL CODE	
1501	Identify NEC publisher.	
1502	Identify code cycle.	
1503	Identify purpose of NEC.	
1504	Identify layout of NEC.	
1600	GREEN TECHNOLOGY	
1601	Identify renewable energy resources.	
1602	Identify and safely use energy savings devices.	