Appendix A

WORK PROCESS SCHEDULE

AND

RELATED INSTRUCTION OUTLINE

Appendix A

WORK PROCESS SCHEDULE
HOME PERFORMANCE LABORER
(Existing Title: Home Performance Laborer Residential, Revised)
O*NET-SOC CODE : 47-4099.03 RAPIDS CODE : 2004HY

This schedule is attached to and a part of these Standards for the above identified occupation.

1. APPRENTICESHIP APPROACH

☐ Time-based ☐ Competency-based ☒ Hybrid

2. TERM OF APPRENTICESHIP

The minimum term of this occupation shall be approximately 1 year with an OJL attainment of 2080-2500 hours supplemented by 144 hours of related technical instruction

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to Journeyworker ratio is: 1 Apprentice to 1 Journeyworker at the jobsite.

4. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages based on either a percentage or a dollar amount of the current hourly journeyworker wage rate, which is: $16.50. (This wage is illustrative. Local Wages will be provided by local employer/sponsor)

Period	Length	Percentage Journeyworker Rate
1	0-6 months	83%
2	7-12 months	98%
3	Exit Wage	100%

5. PROBATIONARY PERIOD

Every applicant selected for apprenticeship will serve a probationary period of *13 weeks*.

6. SELECTION PROCEDURES

Please see page A-10.

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Home Performance Laborer (other possible titles: Weatherization Technician or Energy Efficiency Technician)	
Job Description: Perform work to protect a residential building and its interior from the elements, housing retrofit, remodel and perform services to improve the energy efficiency and performance of the home.	
RAPIDS Code: 2004HY	**O*NET Code:** 47-4099.03
Estimated Program Length: 2,080 to 2,500 hours	
Apprenticeship Type: ☐ Competency-Based ☐ Time-Based ☒ Hybrid	

Understanding of building science principles.	Approximate Hours		
A. Demonstrate an understanding of the basic industry science principles used on the worksite.	100	-	120
B. Comprehend productive work habits for home performance employee outputs.	100	-	120
Total Hours	**200**	**-**	**240**

Analyze a home's energy efficiency	Approximate Hours		
A. Calculate potential for energy savings with health and safety upgrades using the whole building approach.	100	-	120
B. Collect and analyze field data related to energy usage and building improvement upgrade opportunities.	50	-	60
C. Measure energy usage, consumption, or loss with devices such as blower doors, manometers, data loggers, universal data recorders, light meters, sling psychrometers, psychrometric charts, flue gas analyzers, amp probes, watt meters, volt meters, thermometers, or utility meters.	100	-	120
D. Analyze energy bills, including utility rates or tariffs, to gather historical and seasonal energy usage data.	50	-	60

E. Quantify energy consumption to establish baselines for energy use or need.	100	-	120
F. Determine patterns of building use to show annual or monthly needs for heating, cooling, lighting, or other energy needs.	50	-	60
G. Compare existing energy consumption levels to normative data.	50	-	60
Total Hours	**500**	**-**	**600**

On the job safety.	Approximate Hours		
A. Demonstrate confined space awareness safety procedures; obtain CPR and OSHA-30 Certifications.	50	-	60
Total Hours	**50**	**-**	**60**

HVAC Fundamentals	Approximate Hours		
A. Use skills gained during introductory education of HVAC concepts and impacts of building envelope improvements as a system	140	-	168
Total Hours	**140**	-	**168**

Consumer Education	Approximate Hours		
A. Prepare audit reports containing energy analysis results or recommendations for energy cost savings and health and safety upgrades.	100	-	120
Total Hours	**100**	-	**120**

Healthy Homes (Lead Paint, Mold and Asbestos awareness).	Approximate Hours		
A. Identify components and areas of a structure which may contain asbestos. B. State the health effects from exposure to asbestos and use safety procedures to avoid disturbing asbestos containing materials.	30	-	36
C. Review lead renovation practices for renovation in homes with lead-based paint. Demonstrate an understanding of lead-based paint as a hazard and conducting renovation activities where lead-based paint is present, as well as testing procedures.	30		36
D. Identify indoor air quality and health hazards associated with the exposure to moisture, mold, and other microbial contamination.	20	-	24
Total Hours	**80**	-	**96**

Retrofitting a home for energy efficiency	Approximate Hours		
A. Oversee installation of air sealing and insulation materials such as foam, caulk, water heater wraps, pipe insulation, weatherstripping, door sweeps, moisture barriers or and water use reduction items to reduce the consumption of natural resources while improving the health, safety and durability of a home or building. B. Conduct testing for carbon monoxide and combustion safety and evaluate project impacts.	450	-	540
Total Hours	**450**	-	**540**

Evaluate condition of properties – understand materials, plans, specifications, and codes).	Approximate Hours		
A. Examine sites to determine the feasibility of installing equipment that allows homes to reduce electricity consumption during peak demand periods resulting in improved air quality and occupant comfort.	20	-	25
Total Hours	**20**	-	**25**

Crew Leader	Approximate Hours		
A. Demonstrate leadership through team motivation, project scheduling, addressing performance issues, resource management and safety issues.	110	-	132
Total Hours	**110**	-	**132**

Infiltration & Duct Leakage	Approximate Hours		
A. Perform tests such as blower-door tests to locate air leaks.	100	-	120
Total Hours	**100**	-	**120**

Correspond with customers to answer questions or resolve complaints.	Approximate Hours		
A. Educate customers on energy efficiency or answer questions on topics such as the costs of running household appliances or the selection of energy-efficient appliances.	100	-	120
Total Hours	**100**	-	**120**

Deconstruction of materials	Approximate Hours		
A. Clean-up and removal of materials used or replaced within a home to ensure safety and control hazards.	20	-	24
Total Hours	**20**	-	**24**

Math	Approximate Hours		
A. Perform calculations related to distance, area, volume, angles, weight, and measurement on projects.	80	-	96
Total Hours	**80**	-	**96**

ASHRAE 62.2	Approximate Hours		
A. Apply best practices for calculating ventilation requirements, optimizing equipment selection and the importance in understanding ventilation within a residential home.	120	-	144
Total Hours	**120**	-	**144**

Business development – entrepreneurial skills	Approximate Hours		
A. Demonstrate foundational knowledge on business principles.	10	-	15
Total Hours	**10**	-	**15**
Total Program Hours	**2080**	**-**	**2500**

Commented [RG1]: These hours add up to 2499, not 2500.

RELATED INSTRUCTION OUTLINE
HOME PERFORMANCE LABORER
(Existing Title: Home Performance Laborer Residential, Revised)
O*NET-SOC CODE : 47-4099.03 RAPIDS CODE : 2004HY

Related Instruction Provider	
Name: Building Performance Association	
Address: 651 Holiday Drive Suite 400, Pittsburgh, PA 15220	
Email: info@building-performance.org	**Phone Number:** 412-424-0070
Related Instruction Hours: 144 Hours	

Course Titles	**Approximate Hours**
Introduction to Weatherization and Energy Efficiency	12
Safety and Health	22
Diagnostic Testing and Assessment	12
Air Sealing Techniques and Materials	32
Insulation Materials and Installation	32
Window and Door Efficiency - *Basic Level*	8
Duct Sealing and Insulation - *Basic Level*	8
Client Communication and Professionalism - *Introductory Level*	8
Quality Control and Inspection - *Basic Level*	4
Weatherization Technician Review and Assessment	6
Total	**144**

SELECTION PROCEDURES

Selection procedures will be determined by the local sponsor.

The local sponsor will not discriminate against apprenticeship applicants or apprentices based on race, color, religion, national origin, sex (including pregnancy and gender identity), sexual orientation, genetic information, or because they are an individual with a disability or a person 40 years old or older.

The sponsor will take affirmative action to provide equal opportunity in apprenticeship and operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, part 30.

Sponsors may develop procedures for direct entry, such as completing a pre-apprenticeship program.