

APPLICATION FOR WSATC RECOGNITION OF AN APPRENTICESHIP PREPARATION PROGRAM

Recognized Apprenticeship Preparation Programs are education and training programs which maintain formal articulation agreement(s) with one or more registered apprenticeship program sponsors. The purpose of the recognized preparation programs is to prepare participants for successful entry into registered apprenticeship programs. Preparatory programs are designed to increase the participation of underrepresented populations in registered apprenticeship. (WSATC Policy 2012-03 Sec. I B).

An apprenticeship preparation program may apply for recognition or continuing recognition from the WSATC. The WSATC may grant initial recognition for a period of up to 18 months, and continuing recognition for a period of up to three years. To apply for initial recognition, programs must have participants enrolled in training at the time of application, and provide individualized demographic data for the first/current cohort of participants. (WSATC Policy 2012-03 Sec. III).

SECTION 1: CONTACT INFORMATION AND PROGRAM SUMMARY

Name of Apprenticeship Preparation Program:

Federal Way Public School

Name of parent organization/organization that will administer the program:

Federal Way Public Schools

Contact Information:

Individual Authorized to Represent the Program

Name: Eric Hong

Organization: Federal Way Public Schools

Title: Executive Director of College, Career Readiness, and CTE

Phone: 253-945-2183

Email: ehong@fwps.org

Mailing Address: 33330 8th Ave S. Federal Way, WA 98003

Physical Address: 33330 8th Ave S. Federal Way, WA 98003

Point of Contact for Outreach and Enrollment

Name: Fredolyn Armstrong

Organization: Federal Way Public Schools

Title: Facilitator of College, Career Readiness, and CTE

Phone: 253-945-2183

Email: farmstrong@fwps.org

Mailing Address: 33330 8th Ave S. Federal Way, WA 98003

Physical Address: 33330 8th Ave S. Federal Way, WA 98003

Primary User of Apprentice Registration and Tracking System (ARTS) Portal

Name: Charissa Eggleston

Organization: Federal Way Public Schools

Title: Facilitator

Phone: 253-945-2183

Email: ceggleston@fwps.org

Mailing Address: 33330 8th Ave S. Federal Way, WA 98003

Physical Address: 33330 8th Ave S. Federal Way, WA 98003

Summary of Preparatory Program

Please briefly summarize the following in three pages or less within Appendix A.

1. *Describe the organization that will be operating the preparatory training. If this is an existing organization, briefly describe its history and mission, and why apprenticeship preparation is a good fit.*
2. *Describe how the program will be funded. If the program's start-up is grant funded, describe your sustainability plan once the grant ends.*
3. *Describe the primary needs you have identified in your service area the program will address.*
4. *Describe the target populations and geographical area.*
5. *Describe the program. Please include the following:*
 - a. *The structure of preparatory program including the anticipated number of participants/cohorts per year and approximate duration of the program;*
 - b. *How the program will be staffed (i.e., instructors, administration, etc);*
 - c. *Participant support/resources during program; and*
 - d. *Apprenticeship navigation and articulation plan.*

6. *Describe the program outcomes. Please include the following if applicable.*
 - a. *Successful completion (required)*
 - b. *Industry recognized certificate(s)/certification(s)*
 - c. *Educational credit*
 - d. *Target articulation rate (required)*

7. *Please provide additional details, if any, you would like to share about your program (i.e. positives outcomes other than registered apprenticeship articulation, etc.)*

SECTION 2: PROGRAM PARTICIPANTS AND OUTCOMES - (WSATC Policy 2012-03 Sec. II B)

A minimum apprenticeship articulation goal, which shall be at least 15% of graduates. Articulation shall be measured at six months following the date program participants graduate, with the following exceptions:

- a. Programs serving actively enrolled K-12 participants may request articulation be measured at 12 months following the date of apprenticeship preparation program graduation; OR*
- b. Programs serving currently incarcerated individuals may request articulation be measured at 18 months following the date of apprenticeship preparation program graduation.*

The anticipated number of participants who will enroll in the preparatory program annually.

The specific requirements to complete the program (i.e., attendance, grades, test scores, skill demonstrations, certificate attainment, etc.).

The specific apprenticeship, industries and/or occupations program graduates will be prepared to enter.

Please respond in full to the questions below regarding your program’s participants and outcomes.

1. Occupations Trained: *Please describe the specific apprenticeship, industries and/or occupations program graduates will be prepared to enter:*

Labor, Carpentry, Electrical, Glaziers, Construction Technology, Project Management, Framing, Drywall, and Roofing

2. Target Articulation Rate: *Approximately what percentage of program graduates do you expect to enter into a registered apprenticeship following completion of your program?*

Our goal is to target at least 15% of our graduates to directly enroll in apprenticeship programs.

3. Target Participant Population and Successful Articulation Timeframe: *Please select the option which best characterizes your program participant successful articulation timeframe. Please describe.*

6 Months

12 Months *(program serving actively enrolled K-12 participants)*

18 Months *(program serving currently incarcerated individuals)*

We are serving K-12 participants so we have 12 months to articulate and register into an apprenticeship program.

4. *How many participants do you anticipate enrolling in each cohort and how many cohorts per year?*

Our enrollment is 40 students for this two-year program. 20 juniors and 20 seniors with two cohorts per year.

5. *Please describe the requirements to complete the program (i.e., attendance, grades, test scores, skill demonstrations, certificate attainment, etc.).*

80% attendance in the program, Pass Tool Identification, OSHA Safety, Flagger and Forklift

SECTION 3: ARTICULATIONS AND PARTNERSHIPS - (WSATC Policy 2012-03 Sec. II E, Sec. I E)

Apprenticeship preparation programs training participants for a specific occupation must provide at least one articulation agreement at the time of application. Preparatory programs training individuals in multiple occupations must provide a minimum of two articulation agreements at the time of application. Articulation agreements must contain the following components:

The names of the organizations entering into the agreement (Apprenticeship Preparation Program and Registered Apprenticeship Program).

The specific apprenticeship program and occupation(s) that the apprenticeship prep program graduates will be prepared to enter.

One or more of the following considerations for graduates of the prep program:

- a. A preferred entry clause;*
- b. An advanced standing or credit clause;*
- c. Additional point(s) awarded in the application/interview process; or*
- d. Guaranteed interview with registered apprenticeship program.*

Be executed or renewed no more than three months prior to the date of application.

Please select the option which best characterizes your program.

- Registered Apprenticeship Program specific apprenticeship preparation** *(goal is preparation of apprentices for one specific registered apprenticeship)*

General apprenticeship preparation program (*goal is preparation and support to succeed in a variety of apprenticeships*)

Please complete the chart below with the requested information for each registered apprenticeship with which your program has a formal articulation agreement. A copy of each articulation agreement must be attached to this application. A Memorandum of Agreement/Understanding, a formal contract, or a signed letter of commitment are acceptable forms of articulation agreements.

Federal Way Public Schools Pre-Apprenticeship Program	Articulating Occupation(s)	Articulation Type <i>(select all that apply)</i>			
		Preferred Entry	Advanced Standing or Credit	Additional Points on Application/Interview	Guaranteed Interview
Northwest Carpenters Institute	construction	X			
Northwest Laborers Employers Training	construction	X		X	

Please list any other organizations, if any, which have endorsed your program or otherwise partnered with you to develop or administer this program.

Program or Organization Name	Role(s) <i>(eg: training provider, Advisory Board member, industry consultant, supportive services provider, etc.)</i>
Regional PreApprenticeship Collaboration	John Hurd
Construction Center of Excellence	Christina Rupp
Northwest Carpenters Institute	Paula Reesa
AJAC	Eric Peterson
Port of Seattle	Carl Hugle
BNBuilders	Eric Shelton
ANEW	Karen Dove
Hoffman Construction	Shawna Preeham
Urban League	Delaun claus

SECTION 4: CURRICULUM - (WSATC Policy 2012-03 Sec. II C)

Curriculum should be developed in consultation with apprenticeship partners and subject matter experts to ensure it aligns with current industry standards and prepares graduates to meet or exceed the minimum qualifications for entry into an apprenticeship. To ensure recognized Apprenticeship Preparation Programs are adequately preparing participants to enter Registered Apprenticeship and be successful apprentices, preparatory training curriculum must meet the following requirements:

- a. Be a minimum of 80 hours in duration;*
- b. Employability skill development shall not exceed 50% of curriculum hours. Employability skill development shall be defined as general employment skills (communication, professionalism, work ethic, etc.);*
- c. Industry/trade specific skills and knowledge shall constitute at least 50% of curriculum hours. Industry/trade specific skills and knowledge shall be defined as hands-on training to develop manual, mechanical, or technical skills relevant to the occupation(s) the preparatory participant(s) are training to successfully enter, and which does not displace paid employees; and*
- d. Industry/occupation specific safety training and education.*

In one to two paragraphs, please provide a brief summary of the program’s curriculum describing the total number of hours, topics covered, method of delivery, etc.

Our Pre-Apprenticeship Construction program is a 2-year program that has 810 hours of instruction aligned to CORE PLUS Construction, an official Washington State program of study developed by the Associated General Contractors of Washington Education Foundation and its construction industry partners, that allows high school students to explore careers in the construction industry. Students use hands-on-learning to gain real-world skills and earn graduation credits. The strength of the CORE PLUS Construction program is that it is developed and supported by the Washington State construction industry. Knowledge and skills developed through this program meet the needs of employers while introducing students to companies in their local communities and regions. Skills mastered and successful completion of the pre-apprenticeship program lead to industry certification, college credits, and preferred entry to into a professional apprenticeship.

Year 1 topics covered include: Workplace Behavior and Safety; Hand, Power, and Working Machine Tools, Site Layout (Skilled Trades Math); Building Material; Print Reading (Skilled Trades Math); Basic Framing, Drywall and Wood Finishing; Moisture and Thermal Protection; Doors and Windows; Stairs; Residential Electrical; Concrete Footing from Construction; Scaffolding; Rigging and Workplace Safety; Skilled Trades Career Exploration. Year 2 topics covered include: Safety; Construction Career Planning; Personal Success in the Construction Industry; Prints and Drawings; Digital Tools; Project Management; Construction Measurement; Construction Materials & Fasteners; Site – Planning and Layout; Foundations – Concrete and Reinforcements; Floor Systems; Framing – Walls and Ceilings; Roof – Framing and Cladding; Openings – Windows and

Doors; Exteriors – Sidings and Finishes; Barriers – Moisture and Thermal; Stair Systems; Basic Electrical Installation; Basic Plumbing Installation; Sustainability in Construction; Lean Construction Processes and Principles; Capstone

Please respond in full to the questions below.

1. *Please describe your program's working relationship with one or more registered apprenticeship programs in the development of elements such as curriculum, class activities, evaluation methods, and teaching techniques.*

We have worked closely with the Northwest Carpenters to enhance the construction math portion of our OSPI-approved Core Plus Construction curriculum. We added the Career Connections curriculum, and our teacher and CTE team supported embedding this into our curriculum. Our pre-apprentices have assessments at the end of each unit. We have utilized skilled trades contractors and apprenticeship programs like the Laborers, Cement Masons, Electricians, AJAC, Roofers, and others to support the teacher with setting up real-world classroom activities and skill assessments. Our instructor attends regular professional development, including Construction Center of Excellence webinars, Washington Association for Career and Technical Educators, and Career and Technical Educators conferences with a focus on the skilled trades to enhance teaching techniques and evaluations of student progress.

2. *Please identify the program's instructor(s) and provide a brief summary of their qualifications.*

The class instructor – Larry DuFresne has over 25 years of teaching experience at the secondary level. He has taught woodshop at the middle and high school level. Prior to teaching the Pre-Apprenticeship Construction program, he's taught the following courses at the high school level: Drafting, Composites, Manufacturing, and Applied Math.

3. *What, if any, post-secondary credit do program participants receive?*

We currently have articulation agreements with Green River College and Renton Technical College for CTE dual credit (post-secondary credit). Participating scholars can receive 2 credits at Green River College for "CARP 113 – Foundations and Floor Framing" and up to 7 credits at Renton Technical College for "CONST 160 – Materials, Methods and Equipment" (3 credits) and "CONST 250 – Project Safety and Accident Prevention" (4 credits).

Please complete Appendix B – Curriculum Outline.

SECTION 5: PARTICIPANT RECRUITMENT AND RETENTION - (WSATC Policy 2012-03

Sec. II D)

Preparatory program recruitment and retention plans must contain the following elements:

The target demographics of the population their enrollees will be drawn from; and

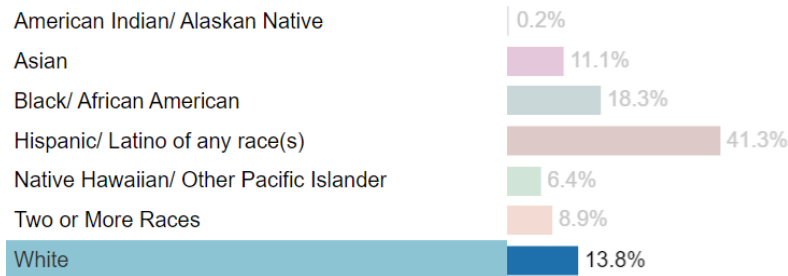
The specific tools and activities used to recruit and retain participants, with an emphasis on recruitment of underrepresented populations.

Please respond to the following questions regarding your programs recruiting and retention plans.

1. *Please describe the general demographics of the intended program participants (i.e., age, gender, race/ethnicity, geographic area, etc.). Is the program limited to a specific population (i.e., students at a particular high school, veterans, WIOA-eligible, etc.)? If so, explain:*

The Federal Way Public Schools Construction Pre-Apprenticeship program is offered to juniors and seniors that attend Federal Way High school with a focus on recruiting and enrolling underrepresented scholars including women and Black, Indigenous People of Color scholars. The program is located on Federal Way High School. The High School has an enrollment of over 1,600 students from diverse backgrounds. They are 46.5% Female, 53.2% Male, and 0.2% Gender X.

Race/Ethnicity



Please describe the tools and activities which will be utilized to recruit students, and describe how underrepresented populations will be encouraged to enroll in the program.

Federal Way Public Schools works closely with our diverse, skilled trades partners to host recruitment and info sessions during lunches, after school, and high school planning nights, as well as the Science, Technology, Engineering, and Math Expo, Life After High School, and our annual Career and Technical Education Showcase event. Women in Trades, ANEW, Department of Vocational Rehabilitation, Urban League, Youth Build, and minority and women-owned contractors and diverse skilled trades professionals serve on our Advisory Board and informational panels as guest speakers and provide construction site and workplace visits. We also take scholars to

the Women in Trades yearly event, showcase at the ShoWare, and Pierce County Construction days for more hands-on opportunities to learn about this in-demand career path. We also provide construction exploration opportunities as an extended learning opportunity for multilingual students and special education students. We utilize Career Interest survey data and teacher recommendations to do targeted invitations to underrepresented scholars and families to participate in the events described above.

- 2. Please describe the tools, processes, and resources your program will utilize to retain participants through graduation.*

Federal Way Public Schools is a member of the Regional Pre-Apprenticeship Collaboration (RPAC) and works closely with several programs that provide direct support services to diverse pre-apprentices. RPAC has over 500 partners that support pre-apprenticeship programs. Through conversations with scholars and surveys, we identify possible barriers that scholars may face that will impact them successfully entering the skilled trades. Once these barriers are identified, our partners serve as guest speakers or meet individually with our pre-apprentices and their families. Our partners include Youthforce, ANEW, Urban League, Youth Build, Cassandra Banks Foundation, and local contractors. Our partners have supported us with housing, driver's licenses, addiction, legal issues, and social and emotional barriers. They have also provided boots, starter tool sets, paid entry fees to join apprenticeship programs, paid internships, and paid employment while scholars prepare to enter the skilled trades.

- 3. Please describe the services that will be provided to graduates and current participants to assist in their successful application and articulation into registered apprenticeship programs.*

Federal Way Public Schools utilizes our College and Career Specialist and community skilled trades partners to support pre-apprentices with professional resumes and application support. Our partners support with mock interviews twice a year and final interviews for our seniors. We will also identify staff to check in regularly with our participating students to help them navigate the challenging apprenticeship application and onboarding process.

SECTION 6: ADMINISTRATIVE REQUIREMENTS - (WSATC Policy 2012-03 Sec. II A)

Recognized Apprenticeship preparation programs shall commit to reporting the following information to L&I via the Apprenticeship Registration Tracking System (ARTS) system on a semi-annual basis, unless granted an exception by the WSATC:*

New participant demographics

- a. First and Last Names*
- b. Birth Date*
- c. Gender*
- d. Race/ Ethnicity*
- e. Veteran Status*
- f. Social Security Number**

Outcome measures (Individual-level Information)

- a. Participant graduation(s)/ completions*
- b. Participant withdrawals*
- c. Graduates who have entered into Registered Apprenticeship*

Please describe the tools and processes your program will utilize to successfully meet the administrative requirements listed above.

We gather student information data as part of their enrollment into the pre-apprenticeship program and track student outcomes in our database. The information will be entered into the “Appendix C-Administrative Requirements” spreadsheet.

Please complete Appendix C – Administrative Requirements Spreadsheet.

SECTION 7: APPENDICES

Please complete and submit appendices with the application packet as separate files. Appendices include the following:

Appendix A – Program Summary

Appendix B – Curriculum Outline

Appendix C – Administrative Requirements Spreadsheet

Appendix D – Articulation Agreement(s)

**Submitted by program as individual documents*

SUBMISSION INSTRUCTIONS

Applications are due no later than 45 days prior to the scheduled quarterly meeting of the Washington State Apprenticeship and Training Council. It is strongly recommended that you submit your application 2 weeks prior to the deadline for pre-review, to ensure that your application is complete. Contact Rio Frame for questions or assistance.

Please submit your completed application via email to:

Rio Frame, Management Analyst

Dept. of Labor & Industries, Apprenticeship Section

Rio.Frame@Lni.wa.gov

509-426-0985

Teri Gardner 5-29-24

APPENDIX A – PROGRAM SUMMARY

Appendix A (WSACT Apprenticeship Application)

1. *Describe the organization that will be operating the preparatory training.*

Federal Way Public Schools is one the most diverse school districts in state and the country. With over 100 languages spoken, our classrooms are the beneficiaries of broad points of view, rich dialogue, and diverse thinking. Our district is guided by our strategic plan, with five big, bold goals that prepares our scholars from early years and persist to graduation. Our staff is committed to academic and social emotional success of our scholars. As we continue to position our young people to seize very bright futures, preparing our scholars through strong pre-apprenticeship programs and linking them to existing apprenticeship programs in the region is a vital component of post-high school career options. Our application for renewal will allow us to continue building a strong pipeline of potential apprentices in the high demand careers such as construction and manufacturing.

2. *Describe how the program will be funded.*

The funding for the Pre-apprenticeship Program started with grants from OSPI, King County, and Core Plus Construction. The total amount was over a million dollars and most of the funds were used to build a new pre-apprenticeship construction facility. The majority of the funding to expand our program for the next two years will come from a variety of sources. They are:

- a. HB1013 Apprenticeship Prep Program with Puget Sound Educational Service District: \$500,000.00
 - b. District Career and Technical Education's (CTE) enhanced Materials, Supplies, and Operating Cost budget
3. *Describe the primary needs you have identified in your service area the program will address.*

Federal Way Public Schools will need to partner with the construction services industry to create a strong pipeline of potential apprentices in the region. The construction services industry continues to project strong growth potential for the city of Federal Way and the surrounding areas throughout South King County. Using 2023 research conducted by Ernst and Young on behalf of the Greater Federal Way Chamber of Commerce, the average wage for the construction services is \$90,633.00. The growth in this area from 2016-2021 was 20.2% and future projections continue to indicate "strong and advancing" growth for the region, outperforming education, hospitality, and healthcare.

4. *Describe the target populations and geographical area.*

Federal Way Public Schools is located in the South King County Region, and is the most diverse school district in the state, 5th most diverse in the country. Our student population is composed of 13.6% Asian, 15.5% Black/African American, 33.1% Hispanic/Latino, 6% Native Hawaiian/Other Pacific Islander, 11.4% Two or More Races, and 20% White. Our goal is to recruit and increase underrepresented apprentices in the high demand fields from our diverse group of students.

5. *Describe the program. Please include the following:*

a. *The structure of preparatory program including the anticipated number of participants/cohorts per year and approximate duration of the program;*

Starting in the 11th grade, students attend 3 period blocks in the program for the entire school year. All participating students earn CTE, math, and science credit. Full enrollment is 20 in the junior cohort and 20 in the senior cohort with a total of 40 pre-apprentices.

b. *How the program will be staffed (i.e., instructors, administration, etc);*

The program is staffed with a full-time instructor, guest lecturers/demonstrators, contracted resource centers, Career Center Specialist, a site administrator, and a district facilitator.

c. *Participant support/resources during program; and*

- Apprenticeship/worksite preparation and coaching
- Resource support
 - Personal protective equipment and tools
 - Paid fee to cover Washington State Driver's License
 - Paid Industry recognized credentials

d. *Apprenticeship navigation and articulation plan.*

Starting in the summer of 2024, we will have a dedicated district level facilitator supporting with the apprenticeship navigation with students. Based on OSPI's Work Based Learning Guide, the facilitator will support each student in the following area:

- Assessment of potential apprenticeship/work site
- Student Orientation, Preparation, and Placement
- Apprenticeship/worksite supervisor identification and training
- Worksite learning plan and evaluation development
- Student evaluation and feedback
- Student records management and reporting
- Apprenticeship articulation and maintenance

6. *Describe the program outcomes. Please include the following if applicable.*

a. *Successful completion (required)*

Successful completion of the program will prepare our students to enter partner apprenticeship programs. In addition, our students will be prepared for college study in construction management, CAD, welding, military skilled trades options and a deeper understanding of positive work place behaviors, math, physics and material science through construction applications

b. *Industry recognized certificate(s)/certification(s)*

Students in the Pre-apprenticeship program will earn:

- OSHA 10
- OSHA 30
- Forklift Certification
- Flagger Certification

c. *Educational credit*

Students earn 3 high school credits per year in CTE, math, and science. Students in our program also earn dual credits (post-secondary credit). We currently have articulation agreements with Green River College and Renton Technical College for CTE dual credit (post-secondary credit). Participating scholars can receive 2 credits at Green River College for “CARP 113 – Foundations and Floor Framing” and up to 7 credits at Renton Technical College for “CONST 160 – Materials, Methods and Equipment”

d. *Target articulation rate (required)*

Our target articulation rate is 15%.

7. *Please provide additional details, if any, you would like to share about your program (i.e. positives outcomes other than registered apprenticeship articulation, etc.)*

We will continue to expand our offerings of industry recognized credentials and dual credits, including summer welding program with Renton Technical College and offer up to 7 college credits for participants. We are also in the process of developing a paid summer running start apprenticeship for youth in the South King County region.

APPENDIX B – CURRICULUM OUTLINE

Curriculum should be developed in consultation with apprenticeship partners and subject matter experts to ensure it aligns with current industry standards and prepares graduates to meet or exceed the minimum qualifications for entry into an apprenticeship. To ensure recognized Apprenticeship Preparation Programs are adequately preparing participants to enter Registered Apprenticeship and be successful apprentices, preparatory training curriculum must meet the following requirements:

- a. Be a minimum of 80 hours in duration;*
- b. Employability skill development shall not exceed 50% of curriculum hours. Employability skill development shall be defined as general employment skills (communication, professionalism, work ethic, etc.);*
- c. Industry/trade specific skills and knowledge shall constitute at least 50% of curriculum hours. Industry/trade specific skills and knowledge shall be defined as hands-on training to develop manual, mechanical, or technical skills relevant to the occupation(s) the preparatory participant(s) are training to successfully enter, and which does not displace paid employees; and*
- d. Industry/occupation specific safety training and education. (WSATC Policy 2012-03 Sec. II C)*

Please use the format below for the program’s curriculum outline. Identify all curriculum elements and provide primary learning objectives that apply to each course.

Please copy and paste the format below to add additional course sections and/or primary learning objectives as needed.

Pre-Apprenticeship Construction Year 1 (405 hours)

1. Unit 1: Workplace Behavior and Safety – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 10 hours)
- Industry/trade specific skills and knowledge

- a. Students will use proper ergonomic considerations at their workstations.
- b. Students will prepare questions regarding safety and welfare to ask on site visit and to guest industry speakers.
- c. Students will locate, interpret, and apply Material Safety Data Sheets information, when asked by instructor, e.g., a site evaluation/inspection as occurs in industry.
- d. Students will take a written assessment of safety practices using industry standards and must pass with an 80% or better.

- e. Students will demonstrate safety knowledge daily through proper utilization of safety tools of the trade.
 - f. Pass basic shop safety with 100%.
 - g. Group read basic shop safety and pass end of chapter test with 70% or higher.
 - h. Take all 17 S/P2 Safety and Pollution Prevention construction and environmental tests with 80% or higher. Make a presentation on one of the 17 SP2 tests.
 - i. Earn a First Aid CPR/ AED card
 - j. Earn OSHA certificate
 - k. Students will build portfolio of learning including reflections, pictures, media, certificates, physical fitness progress.
2. Unit 2: Hand, Power, and Working Machine Tools – 27 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 13 hours)
- Industry/trade specific skills and knowledge

- a. Students will demonstrate their knowledge of hand tools by performing hands-on demonstrations of the proper use of each tool.
 - b. Students will take a written assessment of hand tool and equipment knowledge and pass it with an 80% or higher.
 - c. Students will demonstrate their knowledge of power tools by performing hands-on demonstrations of the proper use of each tool.
 - d. Students will take a written assessment of power tool knowledge and pass it with an 80% or higher.
 - e. National Center for Construction Education and Research (NCCER) and pass end of NCCER chapter test with a score of 80% or higher.
 - f. Layout specific tool block for each major power tool. Read tool information sheets and pass tool safety tests for each power tool.
 - g. Demonstrate safety usage of power tool one on one with the instructor.
 - h. Students will build toolbox.
 - i. Students will continue to build portfolio of learning including reflections, pictures, media, certificates, physical fitness progress.
3. Unit 3: Site Layout (Skilled Trades Math) – 48 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 15 hours)

Industry/trade specific skills and knowledge

- a. Students will learn the safety, principles, equipment, and methods used to perform the site layout task of distance measurement and differential leveling.
- b. Student will demonstrate layout responsibilities of surveyors, field engineers, and carpenters; understanding and using site/plot drawings; and methods used for on-site communication.
- c. Students will continue to build portfolio of learning including reflections, pictures, media, certificates, physical fitness progress.
- d. Students learn and demonstrate how to shoot grade.
- e. Students create a story pole.
- f. Students use a laser level to shoot grade for footing on a house.
- g. Students chalk and square different shapes.
- h. Set-up string lines and batter boards for a foundation using 3-4-5 triangle.

4. Unit 4: Building Material – 32 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 12 hours)
- Industry/trade specific skills and knowledge

- a. Students will identify and describe the sources and uses of various softwoods and hardwoods, explains the grading systems for lumber and plywood, and discuss the composition and uses if various engineered sheet materials and laminated lumber products.
- b. Students will identify and describe the many kinds of fasteners and adhesives used with wood and masonry.
- c. Students will identify characteristics of responsible forest management and environmentally sustainable practices in the trades.
- d. Students will continue to build portfolio of learning including reflections, pictures, media, certificates, physical fitness progress.

5. Unit 5: Print Reading (Skilled Trades Math) – 43 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 15 hours)

Industry/trade specific skills and knowledge

- a. Students will interpret blueprints and use drawing dimensions.
- b. Read the title block
- c. Read the revision block
- d. Read the notes and legend
- e. Determine the view
- f. Establish the scale
- g. Inspect grid system
- h. Locate doors and windows
- i. Pass NCCER end of chapter exam with 80% or higher. Orthographic, isometric projections worksheet.
- j. Students will rotate leading class in physical agility activities that reflect the expectations of the trade studied in the unit.
- k. Students will participate in career-connected learning through a visit to an associated trades pre-apprenticeship, apprenticeship or community college as well as a visit to a job site. The activities will include collaboration with current students/members that reflect expectations of the trade as well as a reflection of the visit.

6. Unit 6A: Basic Framing– 14 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 6 hours)
- Industry/trade specific skills and knowledge

BASIC FRAMING:

- a. Identify the components of a wall and ceiling layout.
- b. Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition Ts, bracing, and firestops.
- c. Describe the correct procedure for assembling and erecting an exterior wall.
- d. Describe the common materials and methods used for installing sheathing on walls.
- e. Layout assemblies, erect, and brace exterior walls for a frame building.
- f. Describe wall framing techniques used in masonry construction.
- g. Explain the use of metal studs in wall framing.
- h. Describe the correct procedure for laying out a ceiling.
- i. Cut and install ceiling joists on a wood frame building.
- j. Estimate the materials required to frame walls and ceilings.
- k. Explain the benefits of SIP (Structural Integrated Panels).
- l. Identify framing techniques that meet thermal performance.
- m. Explain OVE (Optimal Value Engineered) framing techniques.

- n. Wall Members Horizontal and Vertical (Terminology, Structural Purpose, Uses, Material Estimation, Assembly).
- o. Types of Walls, Bearing, Non-Bearing Interior Partitions and Exterior (Structural and Non-Structural Purposes).
- p. Plate Layout (Abbreviations and Techniques).
- q. Wall Assembly (Tools and Techniques for Attachment of Wall Parts).
- r. Squaring, Bracing, and Erection of Wood Framed Walls (Tools and Techniques).
- s. Plumb and Line, and Temporary Bracing (Tools Techniques).
- t. Sheathing (Types and Purposes, and Installation Techniques).
- u. Steel Wall Framing (Terminology, Uses, and Installation Techniques).
- v. Blueprint Reading and Wall Layout (Interpret Information from Plans to Chalked Lines on Sub-floor).
- w. Balloon Framing (Terminology and Techniques).
- x. Sheer Walls (Purpose, Attachment Systems and Techniques).
- y. Students will develop a layout and demonstrate safety skills to build a model. Students will use correct vocabulary while presenting design to the class.
- z. Students will reason effectively, make judgements and decisions and produce results to show their ability to safely build a wall with a door, window, and basic framing structure then they will complete the drywall and trim on the structure.
- aa. Identify and describe the function of each part of a wall frame
- bb. Determine the length of wall studs, cripple studs, bottom & top plates, headers and sills
- cc. Measure, cut, and construct a wall section to 16" and 24" on center
- dd. Erect and temporarily brace a wall section plumb and straight
- ee. Layout & erect stair stringers
- ff. Layout & erect a common rafter pair

Unit 6b: Flooring – 13 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

FLOORING

- a. The students will use the construction drawings to plan the framing and to reference the placement of the floor framing components.
- b. The simulated foundation walls will be checked for square, the sill plate will be anchored to the foundation walls, and a built-up wood beam will be installed with a supporting wood post.

- c. The sill plate and wood beam will be laid out to accept the floor joists and a floor opening.
- d. The floor opening will be installed with trimmers, headers, tail joists, and metal hardware.
- e. The floor joists are overlapped at the wood beam and attached to rim joists as well as to the wood beam.
- f. Bridging is installed between the floor joists and the joists are covered with sheathing to complete the floor framing installation.
- g. Explain how a foundation plan and floor plan are used to construct a wood floor frame
- h. Demonstrate safety practices
- i. Identify the components in a wood floor frame
- j. Lay out and install a sill plate
- k. Install posts and beams
- l. Lay out and install a wood floor frame
- m. Install cross bridging and blocking
- n. Install subfloor sheathing
- o. Explain how a foundation plan and floor plan are used to construct a wood floor frame
- p. Identify the components in a wood floor frame
- q. Lay out and install a sill plate
- r. Install posts and beams
- s. Lay out and install a wood floor frame
- t. Install cross bridging and blocking
- u. Install subfloor sheathing

Unit 6c: Drywall and Wood Finishing – 13 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

DRYWALL & WOOD FINISHING:

- a. Wall and Ceiling GWB (Material and Fastener Specifications, Terminologies, Safety, Tools, Installation Methods and Techniques).
- b. Wall and Ceiling Finish GWB (Material Uses, Terminologies, Tools, Methods and Techniques).
- c. Final GWB Treatments; Textures and Paint (Terminology, Material Types, Tools, Installation Methods and Techniques, Safety MSDS / PPE).

- d. Wall and Ceiling Treatments; Plywood, Hardboard, T&G, Laminate, Tile, and Acoustic Tile (Types, Terminologies, Methods).
- e. Doors and Hardware (Types, Terminologies, and Installation Techniques).
- f. Cabinet and Countertop Installation (Types, Terminologies, and Installation Techniques).
- g. Interior Trim and Moldings (Types, Applications, Terminologies, and Installation Techniques).
- h. Finish Flooring (Types, Applications, Terminologies, Installation Techniques).
- i. Decipher Blue Prints; Finish schedules, Detail Plans, Elevations and Section Views (Terminologies, Methods).
- j. Demonstrate safety practices
- k. Describe the Drywall Finisher trade.
- l. Use trade terminology.
- m. Locate and interpret appropriate codes, regulations, and standards that apply to drywall work.
- n. Describe the proper storage of materials.
- o. Describe how mold develops
- p. Describe procedures to follow when mold is detected.
- q. Inspect and prepare walls for taping.
- r. Install drywall
- s. Properly tape for the job.
- t. Select, prepare, handle and apply filling compounds
- u. Inspect and prepare walls for taping.
- v. Describe and apply finishing practices.
- w. Finish drywall.

7. Unit 7: Moisture and Thermal Protection – 12 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 6 hours)
- Industry/trade specific skills and knowledge

- a. The student will learn how to apply house wrap and flashing to help make the structure moisture resistant.
- b. They will also learn the different types of weather protection used in residential construction prior to installing doors and windows and any other type of penetrations through exterior walls of the structure.
- c. Students will work in pairs or teams with an assigned a foreman, who will be responsible for group evaluations on a daily basis.
- d. Group members are responsible for daily foreman evaluations.

- e. These group will work to complete a moisture / thermal protection plan of installation as determined from architectural plans.
- f. Each group will be responsible for installing a small portion of the moisture and thermal protection on a demonstration stand.
- g. At the end of each day, students will communicate clearly and solve problems when there is a team debrief with the instructor on the group performance and daily expectations.
- h. Identify the components in a stair
- i. Understand how to calculate the dimensions and numbers required for stairs
- j. Demonstrate an ability to lay out a stringer
- k. Complete the installation an open stringer stair

8. Unit 8: Doors and Windows – 15 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 8 hours)
- Industry/trade specific skills and knowledge

- a. Identify different types and styles of doors and windows.
- b. The student will size a door, determine the hand of a door, and understand the difference between interior and exterior doors.
- c. The student will identify the different types of windows and their components.
- d. Students will read and understand door and window schedules.
- e. Install a pre-hung exterior door and a window.
- f. Students will work in pairs or teams with an assigned a foreman, who will be responsible for group evaluations on a daily basis.
- g. Group members are responsible for daily foreman evaluations.
- h. Following a blueprint student will order the proper size and number of doors and windows for a residential projects
- i. Each group will be responsible for installing a door and window demonstration stand.
- j. At the end of each day, students will communicate clearly and solve problems when there is a team debrief with the instructor on the group performance and daily expectations.
- k. Identify different types and styles of doors and windows
- l. Demonstrate the proper steps to safely install an exterior pre-hung door
- m. Demonstrate the proper steps to safely install a residential window

9. Unit 9: Stairs – 15 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
 - Employability skill development (up to 6 hours)
 - Industry/trade specific skills and knowledge
- a. Identify the components that make up a stair and the tools required to lay out, cut, and install stairs.
 - b. Use math to calculate all the dimensions and number of risers and treads required.
 - c. Stringers cut and installed per plan.
 - d. Install treads on the stringers.
 - e. Each student will use systems thinking, make judgments, decisions while drawing and planning for the installation for a set of stairs.
 - f. Each student will solve problem by install a 3-step stairs system with a partner.

10. Unit 10: Residential Electrical – 43 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
 - Employability skill development
 - Industry/trade specific skills and knowledge
- a. Performance Test: Wire a wall mockup with various switches and plugs.
 - b. Formal written assessment: Electrical systems general knowledge exam
 - c. Identify the tools, machines and equipment needed to construct and/or fabricate a project.
 - d. Examine and identify safety hazards associated with equipment, machinery and power units used in power, structural, and technical systems (e.g., caution, warning, danger, etc.).
 - e. Interpret and explain the meaning of symbols used in sketches of residential structures.
 - f. Read and interpret the parts and/or views of plans for residential structures.
 - g. Service electrical systems and components of mechanical equipment and power systems using a variety of troubleshooting and/or diagnostic methods.
 - h. Determine the relationship between voltage amperage, resistance and power.
 - i. Apply Ohm's Law
 - j. Understand how electricity is measured
 - k. Name and explain how to use common electrical wiring tools
 - l. Prepare wire for a basic electrical circuit
 - m. Complete the following electrical circuits:
 - Single pole switch to power at light
 - Single pole switch to power at switch
 - Two double pole switches to light
 - Two three-way switches to light - power at switch

- n. Two three-way switches to light - power at light two three-way switches to two lights

11. Unit 11: Concrete Footing from Construction – 30 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 12 hours)
- Industry/trade specific skills and knowledge

- a. Recognize the importance of temporary structures and their relationship to Permanent structures;
- b. Describe basic properties of wood and plywood;
- c. Explain design considerations for concrete formwork ;
- d. Recognize the causes of failure in concrete formwork and plan to avoid them;
- e. Identify formwork components, materials, and accessories;
- f. Calculate loads on concrete formwork ; and
- g. Design wall forms.
- h. Students will learn and understand the complexities and differences, including uses, of concrete versus cement.
- i. Students will research the history of concrete and its many uses over time
- j. Students will research the industrial versus residential applications connected to concrete (noting similarities and differences)
- k. Students will be provided an 'engineering challenge' to think of various potential improvements or alternatives to using concrete in both residential and commercial applications
- l. Students will reason effectively, make judgements and decisions and produce results to show their ability to construct in teams the proper shape, forms and pouring technique needed to make a concrete footing
- m. List the reasons for reinforcing concrete and describe the materials used
- n. Identify the types of footing forms (conventional and engineered) and their components
- o. Build batter boards and accurately establish building lines with string
- p. Square building lines using the 3-4-5 method of squaring
- q. Construct footing forms that are level and plumb
- r. Construct a single-waler snap tie wall
- s. Explain the parts of a log-cabin system
- t. Build a handset foundation wall that includes Jahn Shoes with a single waler, double waler and install embeds, bulkheads and block outs
- u. Properly plumb up a foundation wall and properly brace to prevent movement
- v. Use a laser level to accurately level a typical job-built footing
- w. Layout snap ties on a basic concrete and describe the materials used

- x. Install chamfer strips to required corners and runs
- y. Site Excavation using; Picks, Shovels, Rakes and Wheelbarrows (Calculations to find; Hub Locations, Batter Boards and String Locations, and Final Building and Lot Corners)
- z. Footings, Pier Forms (Measure, Cut, Assemble, Locate, Stabilize and Brace)
- aa. Reinforcement of and Placement of Concrete (Sizing of Rebar , Placing of Horizontal Rebar , Mixing of Concrete , Placement and Finishing< of Concrete)
- bb. Foundation Types, Methods and Systems (Estimate Concrete Volume)
- cc. Seismic Hold Downs and Foundation Hardware (Types, Uses, Specifications)
- dd. Site Layout (Use of Datum Points and Elevations, Use of Survey Instruments to Locate Hubs/Points and Slopes)
- ee. Blueprint Reading (Decipher Information to Locate Structures and Benchmarks)
- ff. Specialty Forming Systems and Hardware, (System Types, Panel Layout and Assembly)
- gg. Concrete Block (Types, Properties, Layout Cutting and Placement, Material Estimation)
- hh. Concrete Finish (Tools, Types, Techniques)

12. Unit 12: Scaffolding – 35 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a. To inspect scaffolds and scaffold components for visible defects before each work shift and after any occurrence which could affect the structural integrity and to authorize prompt corrective actions.
- b. To inspect ropes on suspended scaffolds prior to each work shift and after every occurrence which could affect the structural integrity and to authorize prompt corrective actions.
- c. To inspect manila or plastic (or other synthetic) rope being used for top rails or midrails.
- d. To evaluate direct connections to support the load.
- e. To evaluate the need to secure two-point and multi-point scaffolds to prevent swaying.
- f. To determine the feasibility and safety of providing fall protection and access.
- g. To determine if a scaffold will be structurally sound when intermixing components from different manufacturers.
- h. To determine if galvanic action has affected the capacity when using components of dissimilar metals.
- i. To design the rigging for single-point adjustable suspension scaffolds.

- j. To design platforms on two-point adjustable suspension types that are less than 36 inches (0.9 m) wide to prevent instability.
- k. To make swaged attachments or spliced eyes on wire suspension ropes.
- l. To design scaffold components construction in accordance with the design.
- m. Learn and demonstrate the hand signals used to call out number and type of scaffold components.
- n. Learn and properly tie the knots used in scaffolding to raise and lower material including Bowline, Timber Hitch, Half Hitch, Clove Hitch, and Scaffold Plank Hitch.
- o. Identify the components used to build a Systems scaffold, frame scaffold, tube, and Clamp Scaffold.
- p. Learn the standards in OSHA subpart L. Scaffolding: 451, 452, 454
- q. Learn the standards in OSHA subpart M. Fall Protection: (ALL)
- r. Identify the components of a fall protection system.
- s. Basic understanding of Tie-ins and how they are attached.
- t. Identify the components of various Systems Manufactures.
- u. Familiarize and interpret a Systems Scaffold working drawing.
- v. Demonstrate the ability to safely layout the base to a Systems Scaffold.
- w. Erect a single Bay, Multi-Bay, and Multi-Lift System Scaffold square, level, and plumb.
- x. Safely dismantle a Systems Scaffold in the proper order.
- y. Safely handle material being passed in a chain line.
- z. Accurately estimate the amount of material from a working set of drawings to build any given Systems Scaffold.
- aa. Demonstrate the ability to properly install a Right-Angle Clamp.
- bb. Properly erect a Systems Stair Unit.
- cc. Identify the load capacity of components in a manufactures Tech Manuals.
- dd. Determining a safe foundation load for any given scaffold.
- ee. Understanding the forces applied to a scaffold by the wind.
- ff. Identify the components of various Frame Manufacturers.
- gg. Familiarize and interpret a Frame Scaffold working drawing.
- hh. Demonstrate the ability to safely layout the base to a Frame Scaffold.
- ii. Properly install Putlogs to a Frame Scaffold.
- jj. Properly install Raker Braces to build a bridge on a Tube and Clamp Scaffold.
- kk. Install proper and safe access to a Tube and Clamp Scaffold.
- ll. Proper assembly, Identification, and Inspection of Solid Sawn, and Laminated wood planking.

13. Unit 13: Rigging and Workplace Safety – 23 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development

Industry/trade specific skills and knowledge

- a. Describes inspection techniques and load-handling safety practices
- b. The instructor will conduct day-to-day observations of students using proper ergonomic considerations at their workstations.
- c. Students will prepare questions regarding safety and welfare to ask on site visit and to guest industry speakers.
- d. Students will locate, interpret, and apply Material Safety Data Sheet (MSDS) information, when asked by instructor, e.g., a site evaluation/inspection as occurs in industry.
- e. Students will take a written assessment of safety practices using industry standards and must pass with an 80% or better.
- f. Students will demonstrate safety knowledge daily through proper utilization of safety tools of the trade.
- g. Students will create posters and 1-2 minute safety videos to be presented to current students and shared with future apprenticeship students
- h. Posters will be posted on pre-apprenticeship worksite locations for public visibility
- i. Identify and describe the use of slings and common rigging hardware
- j. Describe basic inspection techniques and rejection criteria used for slings and hardware
- k. Describe basic hitch configurations and their proper connections
- l. Describe basic load-handling safety practice
- m. Demonstrate proper use of American National Standards Institute (ANSI) hand signals

14. Unit 14: Skilled Trades Career Exploration– 22 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 8 hours)
- Industry/trade specific skills and knowledge

- a. Research skilled trades careers.
- b. Pre-test for tool and equipment identification.
- c. Complete physical fitness pre-assessment.
- d. Student will participate in Interview Process that requires: Planning and Organizing, Work Ethic and initiative, Flex and adaptability
- e. Students will be prepared in work attire each day with: Boots, Gloves, Safety Glasses, Pen and Pencil
- f. Students will rotate leading class in physical agility activities that reflect the expectations of the trade studied in the unit.
- g. Students will listen to and reflect on the skills guest speakers from the trades and industry expect from employees

- h. Students will present to instructor and class their current career aspirations and the path to achieve the aspiration.
- i. Complete , discuss, and analyze the results of personality, career interest, and aptitude assessments
- j. Explore the career clusters as defined by the U.S. Department of Education and summarize the career opportunities in a cluster of personal interest;
- k. Create a personal career portfolio including academic, certification and technical-skill requirement, career opportunities , expected wages, skills and aptitude necessary and the
- l. Impact of technology on careers of personal interest.
- m. Determine academic/training or certification requirements for transition from one learning level to the next and explore opportunities for earning credit/certifications in high school such as advanced placement, tech prep, International Baccalaureate, college in the high school, military and apprenticeship opportunities.
- n. Develop and analyze tables, charts, and graphs related to career interests and make oral presentation regarding the career pathway of your choice.
- o. Develop an awareness of financial aid, scholarships, and other sources of income to support postsecondary education/training and discuss the impact of effective college and career planning.
- p. Identify how performance on assessments such as the SAT[®], ACT[®], ASVAB[®], COMPASS[®] and ACCUPLACER[®] impact personal academic and career goals.
- q. Prepare a personal budget reflecting desired lifestyle and compare and contrast at least three careers of interest in regards to salary expectations and education/training costs.
- r. Prepare a program of study for at least one career of interest
- s. Apply knowledge gained from individual assessment to a set of goals and a career plan
WR-1.12 Develop strategies to make an effective transition from school to career
- t. Identify industry certification opportunities
- u. Overview of careers in the construction industry
- v. Qualifications needed for a construction professional
- w. Evaluate construction careers including but not limited to: Carpenter, Plumber, Electrician, Mason, HVAC Tech, Electronic Tech, Welder, Heavy Equipment Operation.

Pre-Apprenticeship Construction Year 2 (405 hours)

1. Unit 1: Safety – 24 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 8 hours)
- Industry/trade specific skills and knowledge

- a) Explain and demonstrate proper use of basic and task specific personal protective equipment (PPE).
- b) Explain and demonstrate knowledge of safe use of all hand tools, power tools, and stationary equipment in the shop.
- c) Observation of correct and accurate applications of safety concepts in the performance of practical construction activities in the classroom and shop.
- d) Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions.
- e) Demonstrate through completion of a daily Job Hazard Analysis form the concepts and skills in using safety related to construction operations.
- f) Create a disaster and/or emergency response plan.
- g) Comply with the safe handling, storage and disposal of chemicals, materials and adhesives in accordance with local, state, and federal safety and environmental regulations (OSHA, Environmental Protection Agency [EPA], Hazard Communication [HazCom], Material Safety Data Sheets [MSDS], etc.).
- h) Work in groups to apply safety principles in practical construction activities.
- i) Utilize correct safety vocabulary and language in written and verbal communication.
- j) Research and create a tool talk with PowerPoint and information sheet handouts.
- k) Identify and understand the components of and reasons for an effective environment, health, and safety program.
- l) Be informed of laws/acts pertaining to the Occupational Safety and Health Administration (OSHA).
- m) Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions.
- n) Conduct a safety meeting and present a hazard analysis of the materials you will be working with that week.
- o) Demonstrate the proper care and safe use of hand, portable and stationary power tools.
- p) Write an installation procedure for a selected construction material noting installation techniques, tools and equipment required, fastening approach, and safety procedures that must be observed.
- q) Actively participate in developing and upholding a safety culture within the class
- r) Demonstrate and understanding of accident causes and results.
- s) Complete Job Hazard Analysis form to industry standard for all assigned projects
- t) Practice personal safety when lifting, bending, or moving equipment and supplies.
- u) Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics.
- v) Describe and display appropriate safety behaviors for elevated work and use of fall protections.
- w) Demonstrate appropriate safety practices when working on around ladders and scaffolds.
- x) Explain and demonstrate emergency procedures to follow in response to workplace accidents.

y) Create a disaster and/or emergency response plan.

2. Unit 2: Construction Career Planning – 4 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 4 hours)
- Industry/trade specific skills and knowledge

- a) Utilize a variety of information sources to research positions and career pathways within construction and building trades industry
- b) Compare/contrast position descriptions, duties, and expectations
- c) Develop questions for guest speakers from industry to gain a better understanding of industry expectations and write up brief summaries of the speakers' answers
- d) Utilize a career research tools ex. O*net OnLine, WIOS, etc. to gather facts to make informed decisions
- e) Prepare a report and presentation covering the requirements for training, certification, licensing, and the personal characteristics required for employment in that career.
- f) Develop a career map that incorporates all the steps that students will need to take for the life they envision for themselves, including, a financial plan that is in alignment with their goals.
- g) Create a financial plan that aligns with the career map in accordance with the typical pay range of the students' researched careers
- h) Complete a personal career portfolio including academic, certification and technical-skill requirement, career opportunities, expected wages, skills, aptitude necessary, and the impact of technology on careers of personal interest.
- i) Determine academic/training or certification requirements for transition from high school to post-secondary training program or career.
- j) Apply knowledge gained from individual assessment to a set of goals and a career plan
- k) Prepare a personal budget reflecting desired lifestyle and compare and contrast at least three careers of interest in regard to salary expectations and education/training costs.
- l) Prepare a program of study for at least one career of interest
- m) Develop strategies to make an effective transition from school to career
- n) Complete a personal career portfolio including academic, certification and technical-skill requirement, career opportunities, expected wages, skills, aptitude necessary and the impact of technology on careers of personal interest.

3. Unit 3: Personal Success in the Construction Industry – 4 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 4 hours)
- Industry/trade specific skills and knowledge

- a) Develop a resume and maintain a working portfolio that documents the development of students' knowledge, skills, and abilities through documentation of completed assignments and projects
- b) Work in small groups, in teams, and as individuals on case studies related to professional behavior, work ethic, time management, goal setting and etc.
- c) Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.
- d) Students will listen to and reflect on the skills guest speakers from the trades and industry expect from employees
- e) Identify the characteristics of successful teams, including leadership, cooperation, collaboration, and effective decision-making skills as applied in groups, teams, and career technical student organization activities.
- f) Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace setting.
- g) Actively participate in assigned role in group projects
- h) Work with partners and individually on written and verbal assignments and assessments
- i) Complete self-evaluations of assigned projects and presentations
- j) Serve as peer evaluators and guides on basic skill development assignments
- k) Works efficiently and accurately
- l) Complete assignments and meet deadlines
- m) Respect the opinions, customs, and individual differences of others
- n) Interact respectfully with coworkers of different cultures, genders, and backgrounds
- o) Work cooperatively with others
- p) Resolve conflicts and differences to maintain a smooth workflow
- q) Integrity: Display accepted social and work behaviors.
- r) Apply ethical standards of the industry to workplace/jobsite conduct
- s) Treat others with honesty, fairness, and respect
- t) Demonstrate respect for property of customers, employer, and coworkers
- u) Take responsibility for accomplishing work goals within accepted timeframes
- v) Accept responsibility for one's decisions and actions
- w) Professionalism: Maintain a professional demeanor
- x) Take pride in one's work and the work of the group
- y) Demonstrate self-control by keeping emotions in check
- z) Accept criticism and deal calmly with stressful situations
- aa) Demonstrate a willingness to work.
- bb) Pursue work with energy, drive, and effort to accomplish tasks

- cc) Persist at a task or problem despite interruptions, obstacles, or setbacks
- dd) Work independently and perform effectively even with little or no supervision
- ee) Demonstrate the ability to change from one task to another
- ff) Take initiative to seek out new responsibilities
- gg) Establish and maintain challenging, but realistic work goals

4. Unit 4: Print and Drawings – 24 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 6 hours)
- Industry/trade specific skills and knowledge

- a) Identify the elements used in technical drawings, including types of lines, symbols, details, and views.
- b) Identify and interpret the elements of technical drawings, including plan, elevation, section, and detail views.
- c) Interpret technical drawings specifications.
- d) Identify plumbing, electrical, and mechanical symbols and other abbreviations used in construction drawings.
- e) Interpret and scale dimensions from a set of plans using an architect's scale.
- f) Interpret sectional and detail drawings to determine construction details such as corners, rough openings, stairs, and roof systems.
- g) Understand the sequencing and phases of residential and commercial construction projects
- h) Draft a project to scale
- i) Construct a structure based on supplied prints.
- j) Demonstrate through written examination general knowledge of print reading and measuring and mathematics related to construction print scale.
- k) Work in groups to apply print reading principles in practical construction activities.
- l) Serve as peer evaluators and guides on basic skill development assignments
- m) Use technology-based tools, printed documentation, and other media sources to research and make presentations of print reading techniques to practical construction related activities.
- n) Locate the Title Block on a drawing and identify the name, purpose of a drawing, and other fields depicted. (Construction Prints)
- o) Interpret geometric elements in a drawing. (Construction Prints)
- p) Identify the Alphabet of Lines. (Construction Prints)
- q) Identify types of views, including detail views, sectional views, auxiliary views, and be able to interpret cutting lines. (Construction Prints)
- r) Interpret common drawing symbols used in industry. (Construction Prints)

- s) Identify types of dimensioning: linear, progressive, typical, equally spaced, angles, arcs, cylinders, holes, size, location, baseline, and tabular. (Construction Prints)
- t) Recognize different types of construction prints/drawings. (Construction Prints)
- u) Explain the different sections in a set of drawings (Construction Prints)
- v) Describe the details, symbols, and nomenclature in each section (Construction Prints)
- w) Identify lines, symbols, abbreviations, and nomenclature within prints (Reading Print/Drawings)
- x) Explain the difference and significance between plan view and elevations (Reading Print/Drawings)
- y) Explain scale and the mathematical concepts supporting it (Reading Print/Drawings)
- z) Demonstrate correct interpretation of drawing/print information and specifications to the correct location on the plan. (Reading Print/Drawings)
- aa) Perform necessary mathematics to determine scale and measurements (Reading Print/Drawings)
- bb) Specifications (Reading Print/Drawings)
- cc) Components of the drawings: Title block, Border, Drawing area, Revision block, Legend (Reading Print/Drawings)
- dd) Orthographic and Isometric views (Reading Print/Drawings)
- ee) Explain the purpose of specifications in construction projects (Construction Specifications)
- ff) Describe how specifications and construction drawings are used together on construction projects (Construction Specifications)
- gg) Elaborate on the purpose and function of the Construction Specifications Institute (CSI) (Construction Specifications)
- hh) Demonstrate how to layout the foundation of a project (Layout)
- ii) Translate drawing information into operational plans (Layout)

5. Unit 5: Digital Tools – 14 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 6 hours)
- Industry/trade specific skills and knowledge

- a) Demonstrate proficiency in the use of computers and applications.
- b) Use email to communicate in a professional manner with classmates, instructors, school community, potential employers, and the general public.
- c) Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media
- d) Utilize Microsoft Word to develop project reports, safety briefings, team assignments and directions, etc.

- e) Develop a Power Point presentation on their capstone project that can be included in their digital portfolio.
- f) Create an MS Excel workbook, perform calculations in a MS Excel worksheet, modify a MS Excel worksheet
- g) Manage MS Excel workbooks as a project management tool for all major group and individual projects tracking project timeline, material usage, labor and material expenses.
- h) Using CAD program to create a 2-D drawing, Isometric drawing, and orthographic drawing.
- i) Correctly locate and populate title block, dimensions, and specifications on CAD drawing
- j) Demonstrate proficiency in the use of computers and applications
- k) Use technology for research, problem-solving, and communication
- l) Use basic computer hardware (e.g., PCs, printers) and software (e.g., word processing software, spreadsheet software) to perform tasks
- m) Understand capabilities of computers and common computer terminology (e.g., program, operating system)
- n) Understand computer terminology related to the construction profession (e.g., Global Positioning Systems, Geographic Information Systems, Electronic Surveying Equipment, Computer-Aided Design)
- o) Draft basic prints and plans using a CAD program.
- p) Organize, store, and retrieve files
- q) Use word processing programs to create simple documents and business communications
- r) Use electronic mail and Internet applications
- s) Use spreadsheet and database applications
- t) Enter data and type materials quickly and accurately
- u) Double check work to identify and correct typographical errors.

6. Unit 6: Project Management – 14 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 6 hours)
- Industry/trade specific skills and knowledge

- a) Recognize and explain the construction project life cycle.
- b) Define, point out, and give examples of construction industry roles & responsibilities.
- c) Prepare and present an oral presentation, as part of a team, which demonstrates collective knowledge of how project team members work together to plan, manage, and control a construction project

- d) Develop a construction project schedule showing construction activities, their sequence and timeline
- e) Develop an excel workbook and explain how it is used to plan and manage construction projects
- f) Analyze professional decisions based on ethical principles
- g) Explain how construction professionals manage risks associated with construction safety, quality, schedule, and costs
- h) Explain the purpose and components of contract documents and specifications.
- i) Read, interpret, and apply plans, elevations, sections and details.
- j) Explain the relationships of the elements of contract documents.
- k) Create lists of materials and prepare estimates.
- l) Use architectural and engineering scales.
- m) Identify and locate local, state and federal codes, regulations and standards.
- n) Identify local, state and federal regulatory agencies.
- o) Understand zoning requirements.
- p) Understand property lines and building setbacks.
- q) Calculate material quantities and purchase cost (including sales tax).
- r) Calculate labor costs including work hours, duration and cost of workers.
- s) Explain and compute federal, state and local taxes.
- t) Schedule various construction activities.
- u) Understand how construction project funds are allocated.

7. Unit 7: Construction Measurement – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Explain and demonstrate knowledge of the concepts of fractions as they relate to measurement.
- b) Observation of correct and accurate measurement technique using standard construction measuring tools and equipment during classroom and shop activities.
- c) Describe the differences between measuring by fractions and decimals.
- d) Demonstrate through written examination general knowledge of measuring and mathematics related to measuring.
- e) Work in groups to apply measurement principles in practical construction activities.
 - a. Use technology-based tools, printed documentation, and other media sources to research and make presentations of measurement techniques to practical construction related activities.

- f) Use a standard rule, metric ruler, and measuring tape and read to the 1/16th inch to measure lengths (Measuring)
- g) Explain what the metric system is and how it is important to the construction industry (Measuring)
- h) Add, subtract, divide, and multiply fractions (Measuring)
- i) Add, subtract, divide, and multiply decimals (Measuring)
- j) Convert fractions to decimals and decimals to fractions. (Measuring)
- k) Convert decimals to feet and inches (Measuring)
- l) Measure dimension Strings and Grids (Measuring)
- m) Calculate area, perimeter, surface area and volume (Measuring)

8. Unit 8: Construction Materials and Fasteners – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 6 hours)
- Industry/trade specific skills and knowledge

- a) Identify and describe the sources and uses of various softwoods and hardwoods, explain the grading systems for lumber and plywood, and discuss the composition and uses of various engineered sheet materials and laminated lumber products
- b) Demonstrate ability to read and understand SDS (safety data sheet) for construction
- c) Cite safety precautions for working with wood building materials.
- d) Cite safety precautions for working with concrete building materials.
- e) Cite safety precautions for working with metal building materials.
- f) Demonstrate ability to research state, local and federal codes pertaining to materials and fasteners
- g) Demonstrate through written tasks the structure and properties of various materials and fasteners
- h) Correctly identify commonly used construction materials
- i) Select appropriate materials to complete assigned projects
- j) Identify and utilize the correct tools for processing different materials
- k) Utilize materials in a manner that eliminates unnecessary waste
- l) Complete projects that demonstrate the correct use of a variety of materials
- m) Present on correct ways to handle and store various materials
- n) Research, understand and comply with correct storage of different construction materials
- o) Explain how incorrect storage of materials can compromise the structural integrity of the material and run afoul of local, state, and federal codes and specifications
- p) Serve as peer evaluators and guides on basic skill development assignments
- q) Describe through written assignment an understanding of material selection as it applies to construction type, geography of project, and materials being utilized

- r) Identify construction materials (Material Identification)
- s) List several common materials used in design and construction. (Material Identification)
- t) Define simple properties of materials, such as strength, flexibility, brittleness, hardness, etc. (Material Identification)
- u) Select suitable materials for making a particular object based on their properties. (Material Identification)
- v) Explain the advantages and disadvantages of common materials used in engineered structures. (Material Identification)
- w) Evaluate waste of resources/materials (Material Identification)
- x) Differentiate between compatible and incompatible substances (Material Identification)
- y) Evaluate and select building materials and assemblies to meet project specifications (e.g., metals, woods, ceramics, concrete, rubber, plastics, polymers, composites, etc.) (Material Selection)
- z) Understand criteria used for material selection (Material Selection)
- aa) Handle, install, position, move, and store materials properly (Material Use)
- bb) Demonstrate knowledge of various material finishing techniques (Material Use)
- cc) Understand appropriate transport methods of various construction materials (Material Use)
- dd) Use appropriate combinations of building materials and components (Material Use)
- ee) Identify the components of a fastening system using nuts and bolts (Fastening Systems: General)
- ff) Specify the materials and style from which bolts and nuts are made (Fastening Systems: General)
- gg) Distinguish between sheer and tension types of stress/load (Fastening Systems: General)
- hh) List the four forces acting on installed bolts (Fastening Systems: General)
- ii) Discuss permanent fasteners and identify features of hex-drive and lockbolts (Permanent Fasteners)
- jj) Explain the limitations of lockbolts, detailing how they are used to fasten materials together (Permanent Fasteners)
- kk) Demonstrate normal procedures for installation of lockbolt fasteners (Permanent Fasteners)
- ll) Identify the different types of screws that are used in construction (Screws)
- mm) Explain which screws to use in a specific application (Screws)
- nn) Identify specific physical characteristics of screws (Screws)
- oo) Explain the different installation methods (Screws)
- pp) Identify the different types of nails that are used in construction (Nails)
- qq) Explain which nails to use in a specific application (Nails)
- rr) Identify specific physical characteristics of nails (Nails)
- ss) Identify the different sizes of nails and their meanings (Nails)
- tt) Explain the different installation methods (Nails)
- uu) Identify the different types of adhesives that are used in construction (Adhesives)

- vv) Indicate specific applications and the type of adhesives used (Adhesives)
- ww) Provide a basic understanding of the physical make-up for the different adhesives (Adhesives)
- xx) Explain the different techniques for applying adhesives. (Adhesives)

9. Unit 9: Site Preparation and Lay Out – 10 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Demonstrate an understanding of the principles, equipment, and methods used to perform the site layout task of distance measurement and differential leveling.
- b) Research and present on the layout responsibilities of surveyors, field engineers, and carpenters; understanding and using site/plot drawings; and methods used for on-site communication.
- c) Use and properly maintain tools and equipment associated with taping.
- d) Use taping and/or chaining equipment and procedures to make distance measurements and perform site layout tasks.
- e) Determine approximate distances by pacing.
- f) Use leveling devices to check for elevation, level, and plumb.
- g) Demonstrate how to establish grades using survey instruments.
- h) Install batter boards.
- i) Check site layout for square using the diagonal method.
- j) Describe excavation and backfill methods identify tools and equipment used in each process
- k) Identify different methods and equipment used for compaction.
- l) Identify types of backfill materials and how they are used
- m) Utilize terminology associated with site layout.
- n) Describe the major responsibilities of the personnel relative to site layout (field engineer, surveyor, excavator, and carpenter).
- o) Analyze lot and surrounding area for slope and drainage issues.
- p) Identify survey markers and information.
- q) Discuss requirements of calling in "locates" prior to excavation.
- r) Excavate and finish grade for on-site project.
- s) Read and interpret site / plot plans.
- t) Utilize 100 ft. tape measure to determine dimensions / square footage of lot.
- u) Check and/or establish 90° angles using the 3/4/5 rule. Check and/or establish square using corner to corner measurement.
- v) Identify and setback requirements for structures using prints/drawings.
- w) Identify and/or install drainage / erosion control requirements.
- x) Identify and determine tree removal requirements.

- y) Discuss soil types and compaction / density to support structure.
- z) Convert measurements stated in feet and inches to equivalent measurements stated in decimal feet, and vice versa.
- aa) Utilize taping and/or chaining equipment and procedures to make distance measurements and perform site layout tasks.
- bb) Utilize a builder's level and/or laser level for differential leveling procedures to determine elevations.
- cc) Record site layout data and information in field notes

10. Unit 10: Site Preparation and Lay Out – 14 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Demonstrate foundation layout techniques to include setting forms, placing reinforcements, and placing concrete according to construction drawings, specifications, and building codes as part of team project
- b) Describe the sequencing procedures for placing large and small slabs.
- c) Demonstrate how to establish elevations for concrete structures.
- d) Lay out location and elevation of concrete/masonry structures based on construction drawings.
- e) Develop a material take-off in accordance with construction drawings and specifications.
- f) Lay out location for reinforcements, expansion joints, openings, and embedded items based on construction drawings, specifications, and building codes.
- g) Construct, place, and brace forms for concrete as detailed in construction drawings for footings, slab, and raised floors.
- h) Place and secure reinforcement as detailed by construction drawings, building codes, and industry standards.
- i) Place secure embedded hardware as detailed on construction drawings.
- j) Demonstrate proper removal and care of concrete forms.
- k) Use appropriate tools and techniques for placing, compacting, screeding, and finishing consolidating concrete in slabs and footings.
- l) Utilize terminology associated with foundations and concrete.
- m) Identify various kinds of footings (continuous, spread, stepped, pier block, grade beam) and determine their purpose.
- n) Identify various kinds of foundations including, continuous slab-at-grade, stem wall / footing design, CMU block and ICF systems.
- o) String out foundation using industry standard layout methods.

- p) Utilize builder's level or laser level to determine finish elevations for footings walls and piers.
- q) Estimate materials required to build footing and/or stem wall forms.
- r) Build form system/s and stake/fasten to finish position.
- s) Identify types and quantities of reinforcement bars (rebar) and welded-wire fabric (WWF) required.
- t) Identify types of steel reinforcement bar supports and purposes for their uses.
- u) Identify proper size and tensile strengths for steel reinforcing bar (rebar).
- v) Estimate materials required to build footing and/or stem wall forms.
- w) Identify the purpose for pocket blocks, anchor bolts and seismic hold-downs.
- x) Identify various types of masonry tools and determine their uses.
- y) Discuss and identify characteristics of concrete.
- z) Identify types and sizes of concrete aggregates.
- aa) Identify types of concrete admixtures and determine their uses.
- bb) Identify special types of concrete and determine their uses.
- cc) Identify concrete curing methods.
- dd) Explore concrete testing methods.
- ee) Estimate concrete volume needed to fill forms.
- ff) Discuss and identify methods for placing/pouring concrete.
- gg) Discuss the need for inspections of forms prior to placement of concrete.
- hh) Mix concrete and/or grout to specific requirements
- ii) Demonstrate proper methods for finishing concrete.
- jj) Demonstrate methods for proper use of concrete/masonry tools.
- kk) Clean and store masonry/concrete tools.
- ll) Strip/remove, clean, and properly store form boards.
- mm) Identify types of concrete structures that require the construction of edge forms (slab on grade, parking lots, driveways, sidewalks).
- nn) Explore heave commercial foundation construction designs, forming methods and placement.

11. Unit 11: Floor Systems – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Utilize the correct vocabulary associated with flooring systems to communicate effectively on a job site
- b) Identify floor and sill framing and support members.
- c) Name the methods used to fasten sills to the foundation.
- d) Describe how to select the proper girder/beam and joist size from a list, given specific floor load and span data

- e) List and recognize different types of floor joists.
- f) List and recognize different types of bridging.
- g) List and recognize different types of flooring materials.
- h) Explain the purposes of subflooring and underlayment.
- i) Match selected fasteners used in floor framing to their correct uses.
- j) Estimate the amount of material needed to frame a floor assembly.
- k) Demonstrate the ability to:
 - a. Lay out and construct a floor assembly
 - b. Install bridging
 - c. Install joists for a cantilever floor
 - d. Install a subfloor using butt-joint plywood/OSB panels
 - e. Install a single floor system using tongue-and-groove plywood/OSB panels
- l) Utilize terminology associated with floor systems.
- m) Identify different types of floor systems.
- n) Identify the various framing members and determine their purpose.
- o) Read and understand drawings and specifications to determine floor system requirement.
- p) Determine various methods and requirements to fasten floor systems to foundations.
- q) Select the proper girder/beam size given specific floor load and span data.
- r) Explore industry standards and code requirements related to deflection and loading of floor systems.
- s) Select the proper joist size given specific floor load and span data.
- t) List, recognize, and install different types of bridging.
- u) List and recognize different types of sub-flooring materials.
- v) Explain the purposes and types of underlayment needed for specific finish floor materials.
- w) Identify fasteners used for floor framing systems.
- x) Lay-out and construct a floor system using conventional lumber and methods/tools.
- y) Evaluate floor system for quality: accurate joist layout, square, flush, level, gaps, and correct nailing schedule.
- z) Perform pick-up framing operations required prior to wall layout and framing.
- aa) Estimate the amount of materials needed to frame a floor assembly

12. Unit 12: Framing – Walls and Ceilings – 40 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Research and use the correct terminology associated with installation of wood frame walls and ceilings to ensure effective jobsite communication

- b) Demonstrate the ability to locate codes and specifications that relate to framing of walls and ceilings.
- c) Demonstrate the ability to successfully read plans and prints pertaining to wall and ceiling framing
- d) Identify the components of a wall and ceiling layout.
- e) Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partitions, bracing and fire stops.
- f) Describe the correct procedure for assembling and erecting an exterior wall.
- g) Identify the common materials and methods used for installing sheathing on walls.
- h) Lay out, assemble, erect and brace exterior walls for a frame building.
- i) Describe wall framing techniques used in masonry construction.
- j) Explain the use of metal studs in wall framing.
- k) Describe the correct procedure for laying out ceiling joists.
- l) Cut and install ceiling joists on a wood frame building.
- m) Estimate the materials required to frame walls and ceilings.
- n) Utilize terminology associated with wall and ceiling systems.
- o) Identify the components in a wall and ceiling.
- p) Layout the components in a wall and ceiling.
- q) Describe and execute the correct procedure for assembling and erecting a wall.
- r) Describe the common materials and methods used for installing sheathing on walls.
- s) Delineate between different methods used for engineering of walls.
- t) Determine length of plates based on plans.
- u) Layout plates according to specifications on plans.
- v) Cut and assemble framing members for wood frame walls.
- w) Demonstrate the ability square, sheath, and to plumb & line walls.
- x) Estimate the amount of material needed to frame a wall and ceiling assemblies
- y) Describe the correct procedure for laying out a ceiling.
- z) Identify sheer wall requirements and procedures used in specified locations
- aa) Explain the benefits of SIP (Structural Integrated Panels).
- bb) Identify framing techniques that meet thermal performance (Advanced Framing).
- cc) Evaluate walls and ceilings for quality: layout, square, flush, level, gaps, and correct nailing schedule.
- dd) Perform pick-up framing procedures required by code (backing and fire blocking).
- ee) Estimate the materials required to frame walls and ceilings

13. Unit 13: Roof – Framing and Cladding – 40 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Show an understanding of vocabulary associated with the framing of a roof while working as part of a team
- b) Perform, lay out, cut, and install ceiling joists and common jack rafters
- c) Frame and erect shed and gable roof systems per plans provided
- d) Demonstrate the ability to lay out and install trusses “on-center” using the specified hardware
- e) Identify blocking, bracing, lookouts, fascia, and drip edge and describe their application
- f) Research and present on how to select the appropriate roof sheathing materials based on local, state and federal codes and specifications
- g) Apply roof sheathing and install appropriate flashings.
- h) Understand different roofing materials and methods of application.
- i) Utilize terminology associated with roof framing.
- j) Identify worker responsibilities and hazards when working at heights.
- k) Adhere to a fall protection plan.
- l) Demonstrate knowledge of various roof styles (gable, hip, shed, mansard, etc.).
- m) Describe intersecting roof systems and dormers.
- n) Describe flat (no pitch) roof systems.
- o) Identify roof framing members.
- p) Identify the various types of trusses used in roof framing
- q) Identify the various types of rafters used in roof framing.
- r) Demonstrate methods used to calculate the length of, layout of, and cut of rafters.
- s) Identify various types of sheathing used in roof construction
- t) Measure/layout top plates for rafters.
- u) Identify truss structural members.
- v) Describe the forces and loads associated with roof truss systems.
- w) Describe the differences between roof truss systems and stick frame (conventional) methods.
- x) Use terminology for steel
- y) Install bird blocks.
- z) Estimate materials for roof framing and sheathing.
- aa) Evaluate roof system construction for quality: layout, square, flush, level, gaps, and correct nailing schedule.
- bb) Install roof sheathing
- cc) Estimate materials for roof framing and sheathing.
- dd) Evaluate roof system construction for quality: layout, square, flush, level, gaps, and correct nailing schedule.
- ee) Perform roof framing pick-up operations required before finish roofing is installed.

14. Unit 14: Openings – Windows and Doors – 10 hours

Curriculum Elements:

- Industry/occupation specific safety training and education

- Employability skill development
- Industry/trade specific skills and knowledge

- a) Describe the various types of windows commonly used in construction.
- b) List the parts of a window.
- c) State requirements for proper window installation.
- d) Install a pre-hung window.
- e) Identify various types of doors commonly used in construction.
- f) Identify the parts of door construction.
- g) Identify types of thresholds used with exterior doors.
- h) Install pre-hung doors
- i) Identify and install various types of locksets used on doors.
- j) Utilize terminology associated with safe installation of windows and doors
- k) Identify different types and styles of doors and windows
- l) Demonstrate the proper steps to install an exterior pre-hung door
- m) Demonstrate the proper steps to install a residential window

15. Unit 15: Exteriors – Sliding's and Finishes – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Describe the installation procedures and techniques of masonry siding materials.
- b) Install wood, vinyl, and/or manufactured siding.
- c) Demonstrate preparation techniques for applying exterior paint and stain.
- d) Apply exterior paint and stain according to specifications.
- e) Describe various types and uses of doors and windows used in building construction.
- f) Install pre-hung windows and doors using appropriate flashing and trim.
- g) Caulk and seal joints to prevent air and moisture infiltration and increase energy efficiency.
- h) Research and present on mold-prevention techniques.
- i) Utilize the correct terminology associated with safe handling and application of various types of siding
- j) Describe the purpose of wall insulation and flashing.
- k) Identify the types and parts of common cornices.
- l) Demonstrate lap and panel siding estimating methods.
- m) Describe the types and applications of common wood siding:
 - Beveled
 - Tongue-and-groove

- Shiplap
 - Board-and-batten
 - Shake or shingle
 - Plywood
 - Hardboard and particleboard
 - Concrete siding
- n) Install selected types of wood siding.
 - o) Describe fiber-cement siding and its uses.
 - p) Demonstrate the installation of fiber-cement siding.
 - q) Describe the types and applications of vinyl or metal siding.
 - r) Describe the types and applications of stucco and masonry veneer finishes.
 - s) Describe the types and applications of special exterior finish systems.
 - t) Describe the types and styles of gutters and downspouts and their accessories.
 - u) Install selected types of metal or vinyl gutters and downspouts.

16. Unit 16: Barriers- Moisture and Thermal – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Demonstrate ability to research manufacturers suggested storage and application information for various moisture control materials
- b) Caulk and seal joints to prevent air and moisture infiltration and increase energy efficiency.
- c) Install vents for efficient attic and crawl space ventilation.
- d) Install various types of floor, wall, and ceiling thermal insulation.
- e) Describe mold-prevention techniques.
- f) Understand how to locate local, state, and federal codes and standards for insulation and moisture control codes and standards
- g) Describe the requirements for insulation.
- h) Describe the characteristics of various types of insulation material.
- i) Describe the characteristics of water-proof insulation material.
- j) Calculate the required amounts of insulation for a structure.
- k) Demonstrate the installation of selected insulation materials.
- l) Describe the requirements for moisture control and ventilation.
- m) Describe the requirements for sump pumps and water removal in flood plain construction.
- n) Install selected vapor barriers.
- o) Describe various methods of waterproofing.

p) Describe air infiltration control requirements.

17. Unit 17: Stair Systems – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development (up to 10 hours)
- Industry/trade specific skills and knowledge

- a) Classify stairs according to the type such as open, closed, winding, geometrical, and spiral.
- b) Recognize common stair components such as tread, riser, stringer, skirt-board, and cleats.
- c) Explain rise and run in relation to a given platform height.
- d) Define rules for determining the rise and run for a given set of stairs.
- e) Determine the number of treads and risers for a given platform height.
- f) Identify codes and standards for determining rise, run, and stairwell openings.
- g) Demonstrate ability in selecting appropriate material for stair stringers.
- h) Understand and be familiar with the use of the framing square and stair gauges in marking stringer cuts.
- i) Demonstrate ability in marking a stair stringer accurately.
- j) Demonstrate ability to cut a stair stringer accurately.
- k) Identify the various types of stairs designs.
- l) Identify the various parts of stairs.
- m) Identify the materials used in the construction of stairs.
- n) Interpret construction drawings of stairs.
- o) Explain the methods of constructing various types of stairs.
- p) Understand the various terms and definitions relating to stairs.
- q) Layout and cut stringers.
- r) Determine the number and sizes of risers and treads required for a stairway.

18. Unit 18: Basic Electrical Installation – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Research the vocabulary used when installing basic residential electrical systems
- b) Identify the correct PPE required when working with electrical current.

- c) Complete a JHA to standard identifying electrical hazards and how to avoid or minimize these hazards and safely complete assigned project
- d) Explain basic electrical theory
- e) Determine whether or not an electrical circuit is “live.”
- f) Prepare rough framing for the installation of electrical cables and conduit.
- g) Lay out components to the tolerances indicated on the construction drawings, specifications, and government codes.
- h) Install typical devices, junction boxes, and panels.
- i) Determine whether or not an electrical circuit is “live.”
- j) Prepare rough framing for the installation of electrical cables and conduit.
- k) Lay out components to the tolerances indicated on the construction drawings, specifications, and government codes.
- l) Install typical devices, junction boxes, and panels.
- m) Install lighting support boxes according to the National Electrical Code (NEC).
- n) Install conduit typical of residential construction and pull conductors through conduit as required by the NEC.
- o) Splice and tap conductors for the installation of fixtures and devices.
- p) Install low voltage control and communication cables.
- q) Demonstrate grounding techniques for all electrical boxes, cabinets, and enclosures.
- r) Terminate electrical connections to receptacles, switches, lighting fixtures, and other devices.
- s) Select receptacles and switches based on load requirements.
- t) Terminate equipment grounding and neutral conductor at the electrical service.
- u) Terminate communication and control wiring.

19. Unit 19: Basic Plumbing Installation – 20 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Research the vocabulary used when installing basic residential plumbing systems
- b) Identify the correct PPE required when working with common plumbing materials.
- c) Identify various types of plumbing systems
- d) Research and explain why a buildings drainage and venting are connected
- e) Describe type of pipe used in residential construction
- f) Identify common pipe fittings
- g) Demonstrate techniques for cutting, deburring, and joining metallic and nonmetallic water piping.
- h) Lay out and install hot and cold-water piping to fixture locations as indicated on the construction documents.

- i) Understand how to perform pressure test of an installed piping system.
- j) Install fastened in-place fixture valves and shut-off valves as indicated on supplied prints.
- k) Install and secure proper drainage piping to fixture locations.
- l) Determine the proper slope for DWV piping using hand levels, laser levels, and transits.
- m) Identify and install various pipes and tubing used in the plumbing trade.
- n) Explain how waste moves from a fixture through the drain system to the environment.
- o) Identify the major components of a drainage system and describe their functions.
- p) Identify the different types of traps and their components.
- q) Explain the importance of traps and identify the ways that traps can lose their seals.
- r) Identify the various types of drain/waste/vent fittings and describe their applications.
- s) Identify significant code and health issues, violations and consequences related to drain/waste/vent systems.
- t) Identify types of materials and schedules of plastic piping.
- u) Identify proper and improper applications of plastic piping.
- v) Identify types of fittings and valves used with plastic piping.
- w) Identify and determine the kinds of hangers and supports needed for plastic piping.
- x) Identify the various techniques used in hanging and supporting plastic piping.
- y) Explain proper procedures for the handling, storage, and protection of plastic pipes.

20. Unit 20: Sustainability in Construction – 5 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a) Identify and design energy solutions for improving building energy efficiency.
- b) Identify materials used in building construction to increase energy efficiency and sustainability.
- c) Identify and use construction materials and methods that more easily allow for salvage and re-use of building materials.
- d) Perform demolition in ways that allow for salvage of re-usable building materials.
- e) Demonstrate the application of constructing materials intended to improve building efficiency and sustainability.
- f) Identify and make use of techniques for weatherization and sustainable remodeling of existing structures.
- g) Define sustainability and sustainable design.

- h) Describe the characteristics of “sustainable” and “green” in the context of the human designed environment
- i) Explain how sustainability principles can be incorporated within the context of design, construction, and operation of a building.
- j) Identify and implement environmental conservation strategies or energy efficiency strategies within their home or workplace.
- k) Understand how site selection and landscaping choices contribute to the environmental sustainability of a building.
- l) Differentiate between energy conservation strategies and energy efficiency strategies in built spaces.
- m) Evaluate life cycle assessment and how material selection plays a role in creating a sustainable building.

21. Unit 21: Lean Construction Processes and Principles – 5 hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge


- a) List examples of Lean Construction in practice
- b) Discuss benefits of Lean Construction
- c) Define Lean Construction
- d) Explain the origins of Lean Construction
- e) Describe Lean Construction methodologies
- f) Identify Lean Construction implementation opportunities.
- g) Distinguish between the varying definitions for design;
- h) Define value and commonly used methods to maximize it;
- i) Discuss waste and commonly used methods to minimize it;
- j) Differentiate between traditional project methods and lean design
- k) Explain the various lean processes
- l) Define the difference between traditional and lean problem-solving
- m) Describe how to create a team environment to solve problems, reduce waste, decrease work schedule hours
- n) Explain how to create trust to avoid problems
- o) Describe Observation Walks
- p) Identify root causes of problems.

22. Unit 22: Capstone Project– 37 hours

Curriculum Elements:

- ☒ Industry/occupation specific safety training and education
- ☒ Employability skill development
- ☒ Industry/trade specific skills and knowledge
 - a) Work in groups to apply material science principles in practical construction activities.
 - b) Demonstrate safety practices related to tool operation, maintenance, and storage.
 - c) Work in groups to safely use hand tools, power tools, and stationary equipment in practical construction activities.
 - d) Demonstrate accurate applications of safety concepts in the performance of practical construction activities in the classroom and shop.
 - e) Work in groups to apply safety principles in practical construction activities.
 - f) Utilize accurate measurement technique using standard construction measuring tools and
 - g) Work in groups to apply measurement principles in practical construction activities.
 - h) Explain and demonstrate knowledge of the concepts of fractions as they relate to measurement and scale.
 - i) Utilize correct and accurate print reading technique using standard architectural nomenclature and symbology
 - j) Work as a team member to apply print reading principles to complete assigned project as detailed in project prints
 - k) Demonstrate knowledge of company organizational and operational concepts of as they relate to completion of assigned project.
 - l) Work in group to apply company organizational and operational concepts to completion of assigned project.
 - m) Work in group to apply planning and scheduling concepts to completion of assigned project.
 - n) Work in group to apply estimating concepts in instructional activities.
 - o) Interact respectfully with fellow human beings of different cultures, genders, and backgrounds
 - p) Work cooperatively with others in the class
 - q) Work cooperatively with others to complete work assignments.
 - r) Understand the roles and responsibilities of the individual as part of a team and the hierarchy of individual positions in the construction industry
 - s) Perform responsibly as a team member and assist other members of the work team
 - t) Effectively communicate with all members of the group or team to achieve team goals
 - u) Effectively resolve conflicts with co-workers to maintain a smooth workflow
 - v) Learn from other team members
 - w) Assist others who have less experience
 - x) Listens to other ideas and be open to opinions and ideas that are different from your own

- y) Resolve conflicts and differences in a respectful manner to maintain a smooth workflow
- z) Treat others with honesty, fairness, and respect
- aa) Demonstrate respect for the property of others
- bb) Take responsibility for accomplishing work goals within accepted timeframes
- cc) Accept responsibility for one's decisions and actions and recognize the affect your actions have on others
- dd) Demonstrate the safe operation of hand tools.
- ee) Perform competent operation of hand tools in their intended use.
- ff) Properly choose and consistently wear proper PPE for hand tool use.
- gg) Demonstrate the safe operation of the stationary equipment.
- hh) Perform competent operation of stationary tools in their intended use.
- ii) Properly choose and consistently wear proper PPE for equipment use.
- jj) Choose the right mathematical method or formula to solve a problem
- kk) Add, subtract, divide, and multiply fractions
- ll) Add, subtract, divide, and multiply decimals
- mm) Read gauges and measurement instruments accurately
- nn) Use and report measurements correctly
- oo) Find level, plumb, and square
- pp) Identify lines, symbols, abbreviations, and nomenclature within prints
- qq) Demonstrate correct interpretation of drawing/print information and specifications to the correct location on the plan.
- rr) Perform necessary mathematics to determine scale and measurements
- ss) Translate drawing information into operational plans
- tt) Identify appropriate construction materials required for project per prints
- uu) Handle, install, position, move, and store materials properly
- vv) Demonstrate knowledge of various material finishing techniques
- ww) Understand appropriate transport methods of various construction materials
- xx) Use appropriate combinations of building materials and components
- yy) Create a baseline project schedule
- zz) Anticipate obstacles to project completion and develop contingency plans to address them
- aaa) Incorporate potential job disruptions into planning timelines
- bbb) Adjust plan/schedules to respond to unexpected events and conditions
- ccc) Estimate the time required to perform activities needed to accomplish a specific task
- ddd) Develop a timeline for sequencing the activities of a project/job
- eee) Establish specific goals to accomplish work in a timely manner
- fff) Stay on schedule

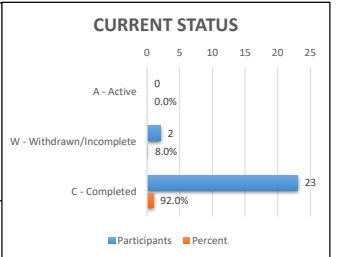
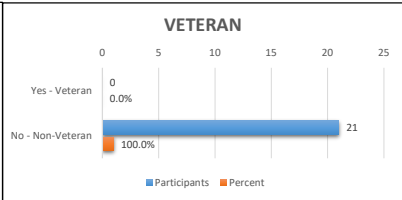
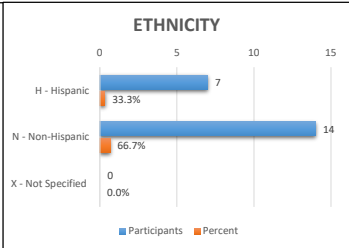
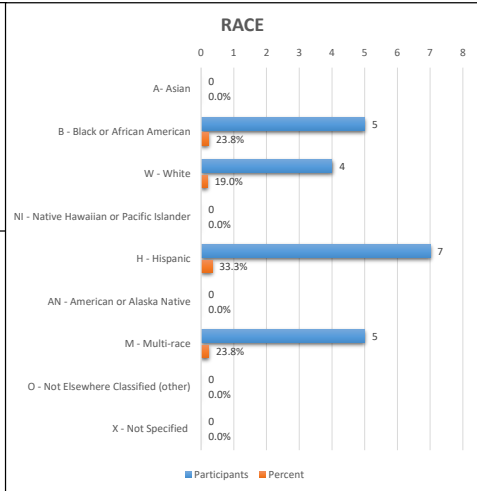
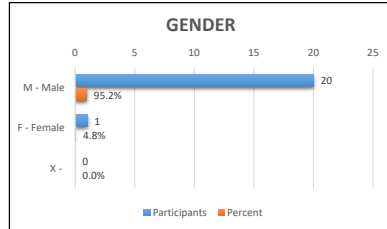
Preparatory Program Name:	Federal Way Public School Construction Pre-Apprenticeship Program	Total Number of Participants:	25	
		Total Participant Graduates:	23	
Reporting Period, Earliest Date:	8/1/2021	Total Withdrawals/Incomplete:	2	
Reporting Period, Latest Date:	5/14/2024	Total Grad's Articulated into Reg' Apprenticeship:	5	

*Please refer to the instructions tab for information on how to properly complete this document.

Participant Information - Total of Cohorts										Registered Apprenticeship Articulation Information			
Last Name	First Name	Birth Date	Gender	Race	Ethnicity	Veteran	Cohort Start Date	Current Status	Graduation Date	Registered Apprenticeship Name	Occupation	Date of Registration	Apprentice ID Number
25	25	25	25	25	25	25	25	25	23	5	5	5	5

Articulation Rate
20.00%

Hide Chart Hide Chart Hide Chart Hide Chart Hide Chart





CarpentersTraining
CARPENTERS-EMPLOYERS APPRENTICESHIP &
TRAINING TRUST FUND OF WASHINGTON-IDAHO

Articulation Agreement- TIER 1

Between

Carpenters-Employers Apprenticeship & Training Trust Fund

And

Federal Way Public Schools

THIS IS A TIER 1 AGREEMENT, by and between the **Carpenters- Employers Apprenticeship & Training Trust Fund (CEATT)**, 20424 72nd Ave S. Kent, WA and, is made to provide **Federal Way Public Schools** carpentry graduates the option to earn preferred enrollment and advanced placement in the CEATT apprenticeship program.

NOW, THEREFORE, it is agreed by and between the parties as follows:

1. Preferred enrollment and advance placement in the CEATT apprenticeship program may be granted through this agreement. Preferred enrollment means that **Federal Way Public Schools** program graduates who, because of the quality of preparation at the **Federal Way Public Schools** program, meet criteria identified below in Section 2 will be granted the next available position for the Trade Orientation; this means if the Trade Orientation is full – successful applicants based on the signed articulation agreement will still be enrolled -- (Trade Orientations are scheduled on a monthly basis), direct entry into the CEATT state-recognized pre-apprenticeship cohort and/or be granted direct entry into the UBC JATC if using the approved United Brotherhood of Carpenters (UBC) Career Connections curriculum as advised in the UBC JATC Standards. Preferred enrollment does not constitute direct entry because candidates must demonstrate skills and abilities acquired through the **Federal Way Public Schools** program. The awarding of such preferred enrollment or advanced placement is contingent upon the joint cooperation of the two institutions.
2. The courses articulated for preferred enrollment and advanced placement credit are outlined below. Requirements for advanced placement include:
 - a. **Federal Way Public Schools** program will appear on the transcript and/or supporting documentation
 - b. Direct entry will only be considered for students who complete all **Federal Way Public Schools** program courses as identified in section 1.
 - c. Demonstration of acquired CEATT carpentry skills via Hands on Assessment
 - d. Students must demonstrate proficiency in basic math fundamentals-specifically fractions and decimals.



CarpentersTraining
CARPENTERS-EMPLOYERS APPRENTICESHIP &
TRAINING TRUST FUND OF WASHINGTON-IDAHO

- e. First year CEATT certification classes must be taken regardless of **Federal Way Public Schools** certification. Among others, these classes include OSHA 10, First Aid/CPR, Scaffold User, Fall Protection and Ergonomics.
- f. Direct entry will be contingent on the current employment needs.
- 3. Students must complete the **Federal Way Public Schools** program in its entirety and submit a letter of strong recommendation by the program administrator, instructor or director along with completion certificates and transcript (if available). ***The letter of recommendation will need to be on company letterhead.***
- 4. Both parties agree to evaluate this agreement bi-annually (every 2 years) and in the context of student benefits, program efficiency, and effectiveness. **Federal Way Public Schools** must maintain its level of quality as determined by CEATT program evaluation.
- 5. **Federal Way Public Schools** will support the referred students as a mentor and provide needed resources for the student’s success in CEATT’s pre-apprenticeship (if applicable) or throughout their apprenticeship
- 6. CEATT will help to support the **Federal Way Public Schools program as guest speakers, support with project development and help to support training center tours.**
- 7. This agreement shall begin date of **4/24/24.**
- 8. **Federal Way Public Schools** referrals must demonstrate strong retention within the program, and contribute to the diversity needs of the CEATT by referring qualified women and minority candidates.
- 9. This agreement is subject to change or cancellation by either party at any time.
- 10. If in any case the **Federal Way Public Schools** Curriculum is changed substantially, **Federal Way Public Schools** will notify CEATT.
- 11. The agreement may be revised/ modified by mutual agreement as needed.
- 12. Both parties may advertise this agreement.
- 13. Both parties agree to the Curriculum confidentiality and Student confidentiality

The undersigned parties accept and approve THIS AGREEMENT.



Paula Resa
Executive Director

Carpenters- Employers Apprenticeship & Training Trust Fund

DocuSigned by:



Dr. Dani Pfeiffer
Superintendent
Federal Way Public Schools



Date

4/30/2024

_____ Date



CarpentersTraining
CARPENTERS-EMPLOYERS APPRENTICESHIP &
TRAINING TRUST FUND OF WASHINGTON-IDAHO

Diversity is an important part of the culture for the Carpenters Employers-Apprenticeship Training Trust (CEATT). Diversity encompasses race, gender, ethnic group, age, personality, religion, sexual orientation, education, background and more. Our organization embraces differences and welcomes all. We achieve this by partnering with regional pre-apprenticeship programs, as well as, organizations that work with diverse communities. Networking, mentoring and socializing with a variety of groups will increase engagement by demonstrating to individuals from all backgrounds that they can achieve success in our industry and that we are willing to help them succeed. Our programs are bias free, and to all applicants, apprentices, and members we make the following non-discrimination pledge. (See below)

The CEATT will not discriminate against apprenticeship applicants, apprentices or journey persons based on race, color, religion, national origin, sex (including pregnancy and gender identity), sexual orientation, genetic information, or individuals having a disability, or persons 40 years old or older. The CEATT will take affirmative action to provide equal opportunity in apprenticeship and training for all qualified members and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30.

The CEATT is approved by the Veterans Administration for those eligible for VA education benefits. Upon registration of the apprenticeship program, the apprentice can request the forms to apply for benefits.



Teri Gardner 5-29-24

Articulation Agreement

This Articulation Agreement is made and entered into as of April 24, 2024 by and between:

- **NW Laborers Employers Training Trust Fund ("NWLETT")**, a Washington State Registered Apprenticeship located at 27055 Ohio Avenue Ne, Kingston, Wa, 98346.
- **Federal Way Public Schools ("FWPS")**, a public school district located at [FWPS Address].

WHEREAS, NWLETT is dedicated to providing skilled labor for the construction industry through training program.

WHEREAS, FWPS offers a pre-apprenticeship program designed to prepare students for careers in the construction trades.

WHEREAS, NWLETT and FWPS desire to collaborate to create a seamless pathway for qualified graduates of the FWPS pre-apprenticeship program to enter the NWLETT training programs.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants contained herein, the parties agree as follows:

1. Purpose

The purpose of this Agreement is to establish a formal partnership between NWLETT and FWPS to:

- **Facilitate** the transition of qualified FWPS pre-apprenticeship program graduates into NWLETT apprenticeship programs.
- **Provide** a preferred applicant status for FWPS pre-apprenticeship program graduates during the NWLETT application process.
- **Award** additional points on the NWLETT New Entry Assessment to qualified FWPS pre-apprenticeship program graduates.

2. Preferred Applicant Status

FWPS pre-apprenticeship program graduates who meet the following criteria will be granted preferred applicant status when applying to NWLETT apprenticeship programs:

1. A preferred entry in the NWLETT apprenticeship program may be granted through this agreement. Preferred enrollment means that Federal Way Public Schools program graduates who, because of the quality of preparation at the Federal Way Public Schools program, meet criteria identified below in Section 2 will be granted preferred entry on their application upon



successfully completing an application at our next available Trade Orientation; (Trade Orientations are scheduled twice a month), preferred entry into the NWLETT state-recognized apprenticeship. Preferred enrollment does not constitute direct entry for students that complete Federal Way Public Schools program. The awarding of such preferred enrollment is contingent upon the joint cooperation of the two institutions.

2. The courses articulated for preferred enrollment are outlined below:
 - a. Federal Way Public Schools program will appear on the transcript and/or supporting documentation.
 - b. Successful completion of the FWPS pre-apprenticeship program with a certification as a supporting document.
 - c. The student must meet the minimum requirements of the NWLETT Apprenticeship as shown in the Northwest Laborers Apprenticeship Committee Apprenticeship Program Standards (<https://lni.wa.gov/licensing-permits/apprenticeship/docs/0071.pdf>) (Be 18 years of age upon date of application.)

3. New Entry Assessment Points

Qualified FWPS pre-apprenticeship program graduates will receive 10 additional points in the Technical/ Trade Related section on the NWLETT New Entry Assessment.

4. Responsibilities

a. NWLETT:

- Develop and maintain communication with staff and students outlining the benefits of the articulation agreement for FWPS pre-apprenticeship program graduates.
- Work collaboratively with FWPS to promote the articulation agreement and NWLETT apprenticeship programs to FWPS students.
- Provide clear and timely application and enrollment procedures for FWPS pre-apprenticeship program graduates.
- Award the agreed-upon additional points on the New Entry Assessment to qualified FWPS pre-apprenticeship program graduates.
- NWLETT will help to support the Federal Way Public Schools program as guest speakers, help to support training center tours.

b. FWPS:

- Advise program participants about the articulation agreement and its benefits.
- Assist graduates in completing NWLETT apprenticeship program applications.
- Provide NWLETT with a list of qualified pre-apprenticeship program graduates upon program completion.



- Federal Way Public Schools will support the referred students as a mentor and provide needed resources for the student’s success.
- Federal Way Public Schools referrals must demonstrate strong retention within the program, and contribute to the diversity needs of the NWLETT by referring qualified women and minority candidates.

5. Term and Termination

This Agreement will be effective for a period of 2 years from the date of execution. This Agreement may be terminated by either party upon 60 days' written notice to the other party and is subject to change by either party at any time.

1. The agreement may be revised/ modified by mutual agreement as needed.
2. Both parties may advertise this agreement.
3. Both parties agree to the Curriculum confidentiality and Student confidentiality

6. Entire Agreement

This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written.

7. Amendment

This Agreement may be amended only by a written agreement signed by both parties.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.


NW Laborers Employers Training Trust Fund ("NWLETT")

By: 

Name: Brandon Jordan

Title: Training Director

Federal Way Public Schools ("FWPS")

By: 
01600E12FF35439...

Name: Dr. Dani Pfeiffer

Title: Superintendent Federal Way Public Schools