



Training Proposal for:

**Associated Builders and Contractors Northern California
Chapter Training Trust Fund**

Agreement Number: ET17-0916

Panel Meeting of: October 28, 2016

ETP Regional Office: San Francisco Bay Area

Analyst: C. Hoover

PROJECT PROFILE

Contract Attributes:	Retrainee Priority Rate Apprenticeship Veterans	Industry Sector(s):	Construction Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Counties Served:	Alameda, Contra Costa, El Dorado, Fresno, Kern, Marin, Mendocino, Merced, Monterey, Napa, Placer, Sacramento, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Stanislaus, Tuolumne, Yolo	Repeat Contractor:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Union(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Turnover Rate:	≤20%		
Managers/Supervisors: (% of total trainees)	≤0%		

FUNDING DETAIL:

Program Costs	+	Support Costs	=	Total ETP Funding
\$470,945		\$32,720 8%		\$503,665

In-Kind Contribution:	50% of Total ETP Funding Required	Inherent
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TRAINING PLAN TABLE

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Retrainee Priority Rate Apprentice	Commercial Skills, HAZWOPER, OSHA 10/30	280	8-210	0	\$1,599	\$21.28
				Weighted Avg: 115			
2	Retrainee Priority Rate Journeyman	Business Skills, Commercial Skills, OSHA 10/30	85	8-200	0	\$376	\$21.28
				Weighted Avg: 16			
3	Veteran Apprentice	Commercial Skills, HAZWOPER, OSHA 10/30	15	8-210	0	\$1,599	\$21.28
				Weighted Avg: 115			

Minimum Wage by County: \$21.28 per hour Statewide (Priority Industry)
Health Benefits: Yes No This is employer share of cost for healthcare premiums – medical, dental, vision.
Used to meet the Post-Retention Wage?: Yes No Maybe
 \$6.50 per hour may be used to meet the Post-Retention Wage.

Wage Range by Occupation		
Occupation Titles	Wage Range	Estimated # of Trainees
Job Number 1		
Painters		44
Electricians I		97
Electricians II		89
Carpenters I		23
Carpenters II		4
Construction Craft Laborers		23
Job Number 2		
Journeymen Electricians I		80
Journeymen Electricians II		5
Job Number 3 (Veterans)		
Painters		1
Electricians I		8
Electricians II		1
Carpenters I		2
Carpenters II		1
Construction Craft Laborers		2

INTRODUCTION

In this proposal, Associated Builders and Contractors Northern California Chapter Training Trust Fund (ABC NorCal Trust or Trust) (www.abcnorcal.org) seeks funding for Apprentice and Journeyman training. ABC NorCal Trust was established in 1982 to fund a Unilateral Apprenticeship Program (UAC) sponsored by the Associated Builders and Contractors of Northern California (Association). The Association appoints a five-member Board of Trustees to govern the trust. The 300-plus program participants are each required to make payments into the trust fund, for each apprentice hour worked.

The Association has been in existence since 1976, having been formed originally as the Golden Gate Chapter. It has a current membership of approximately 600 large and small employers located throughout 22 counties in Northern California: Alameda, Contra Costa, El Dorado, Fresno, Kern, Marin, Mendocino, Merced, Monterey, Napa, Placer, Sacramento, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Stanislaus, Tuolumne, and Yolo. The Association provides many services to its membership in affiliation to apprenticeship training.

Under the terms of the trust, each participating employer is responsible for compliance with statutory/regulatory requirements for apprenticeship training with oversight by the DAS. There are five apprenticeship programs pertinent to the trade groups hired by participating employers.

There is a trade-based Related & Supplemental Instruction (RSI) curriculum for each program, as approved by DAS. Each participating employer is responsible for filing apprentice wage scales with DAS, as a proportion of journeyman wages.

The five UAC program sponsors are shown below; however, the Plumber's UAC is not going to be included within this Agreement:

- Associated Builders and Contractors NorCal Chapter Carpentry UAC, 48 training months
- Associated Builders and Contractors NorCal Chapter Construction Craft Laborer UAC, 24 training months
- Associated Builders and Contractors NorCal Chapter Electrical UAC, 60 training months
- Associated Builders and Contractors NorCal Chapter Painting UAC, 48 training months
- Associated Builders and Contractors NorCal Chapter Plumbing UAC, 48 training months.

Employer Demand

This new proposal will expand electricians, painters, carpenters and laborers' skills in preparation for current and upcoming construction projects in Northern California. This includes the following specific projects: Manteca WQCF Digester Improvements Project; Carmel Area Wastewater District's Treatment Plant; UC Davis Tercero III Student Housing Project; General Purpose Warehouse (Tracy, CA); REACT Center (Modesto, CA); Folsom State Prison; Sacramento Downtown Plaza; Petaluma Joint Union High School District Solar Project; Stanislaus County REACT; Echowater Project (Elk Grove, CA); McKinleyville Wastewater Facility Improvements Project; plus, the Sacramento Community College Davis Center at UC Davis West Village.

There has been an increased awareness and demand for a skilled and trained workforce, which has been driving a large number of individuals towards the apprenticeship programs. New state legislation requires that at least 40% - 60% of Journeymen working on specific job sites must be graduates of an apprenticeship program approved by DAS. This applies to all Journeymen in an

apprentice-able occupation. According to ABC Nor-Cal Trust, this is evidence of growing and ongoing demand for graduates of their apprenticeship program.

In addition, construction industry employment rates continue to increase, and approximately 17% of the current workforce will retire in the next few years. As such, employers are focused on finding, training, and retaining new skilled workers. Apprenticeship training has proven to be an effective strategy to meet these needs, driving more employers to be involved with the programs.

This is the second ETP Agreement (contract) between ETP and the ABC NorCal Trust. However, this is the first time Veterans and Journeymen have been included with the Apprentice trainees.

Under this proposal, the Trust seeks to train even more apprentices, as needed to meet employer demand. The number of UAC apprentice graduates is steadily increasing: 2014 was at 43; 2015 was at 39; 2016 is at 79; and 2017 is estimated to be 59.

Apprenticeship Program

The Panel is authorized to fund Apprentice training that does not displace any other source of government funds, or replace an existing apprenticeship program approved by the Division of Apprenticeship Standards (DAS). The Panel adopted the Apprenticeship Training Program as a pilot in March 2012. It is designed to supplement cost of delivery for the Related and Supplemental Instruction (RSI) portion of DAS-approved apprenticeship training.

Apprenticeships are a multi-year training program that results in DAS certification to work as a Journeyman. They are authorized in California under the Shelly-Maloney Apprenticeship Labor Standards Act of 1939. Apprentices commit to training under contract with an apprenticeship program sponsor. They advance through a series of apprenticeship levels as they complete modules of RSI and on-the-job training. Wages are paid for hours worked on the job, in progression with a series of advancements up to the Journeyman level.

Apprentice programs may be sponsored by a Unilateral Apprenticeship Committee (UAC), created through a trade association with employer contributions to a training trust fund.

Depending on the type of trade, apprenticeship programs vary in length, typically from 2-6 years. They also vary in size, ranging from less than 10 to several hundred apprentices at any given point in time. Several types of trainees are eligible under the Apprenticeship Program: Apprentices (second-year), Journeymen and Pre-Apprentices. First-year Apprentices are not eligible due to the higher drop-out rates associated with this entry-level.

ETP funding flows through a Multiple Employer Contract in this proposal held by a UAC. The employers are not "participants" but are members of a trade association.

RSI is traditionally delivered as class/lab, and ETP does not reimburse CBT delivery for apprenticeship training. The curriculum is developed with input from DAS and a designated Local Educational Agency; in this proposal the LEA is Eden Area Regional Occupational Program. The Apprenticeship Program allows reimbursement for up to 200 hours of RSI plus OSHA 10, per-apprentice.

For the building trades, it is not customary for workers to be employed for a standard retention period of 90 consecutive days with one employer. In that instance, the Panel may substitute non-consecutive hours worked for retention. This modified retention period must be no less

than 500 hours within 272 days with more than one employer. Both the standard and modified retention periods will apply to this proposal.

Because ETP funding cannot displace another source of government funds, the fixed fee rate is reduced by \$5.00 to account for adult education funding appropriated each year for Apprentice training through the California Community College Chancellor's Office and Department of Education. This changes the ETP Priority Industry Rate from \$18.00 to \$13.00 per hour for all Apprentice Job Numbers.

In addition, the Panel adopted a "blended rate" for Journeymen, reflecting the fact that they may be employed by a variety of contractors over the two-year term of contract ranging from large employers, to small (≤ 100 employees). This is \$22 per hour, midway between the Priority Industry standard rate (\$18) and Small Business rate (\$26). [Note: This "blended rate" has been extended to Pre-Apprentices, for ease of administration.]

Under the Apprenticeship Training Program, the post-retention wage has been standardized to \$21.28 per hour reflecting the Special Employment Training (SET) wage for Priority Industry. This wage was chosen for ease of administration, recognizing that most Apprentices and all Journeymen exceed the highest ETP wage requirements. However, the actual wage is displayed in the Training Plan Table and contract, if it exceeds \$21.28.

PROJECT DETAILS

All training outlined in this proposal will be center-based, classroom/laboratory training occurring at the UAC's training facility in Livermore. Journeymen will receive Commercial Skills, Business Skills and OSHA 10/30; Apprentices and Veteran Apprentices will receive Commercial Skills, HAZWOPER and OSHA 10/30.

Training Plan

The proposed center-based training is scheduled to begin in November 2016. Trainers are journeymen craft professionals with at least 20 years of prior teaching experience.

Journeymen

Business Skills (10%): This training will be offered to journeymen electricians. The purpose of this training will be to upgrade the journeymen's business skills, while delivering courses in Cost Awareness and Control, Crew Leader, Fundamentals of Crew Leadership, Negotiations, Planning and Scheduling, Problem Solving, Record Keeping, Document Control and Estimating in order to prepare them for superintendent and foreman responsibilities. Training will help the journeymen's productivity, and it will give the trainee the required on-the-job skills that are needed for career advancement.

Commercial Skills (85%): This training will be offered to Journeymen who will receive the most up-to-date skills training required to perform by occupation. Training will help journeymen gain the skills to work safely and productively in their various trades.

OSHA 10/30 (5%): This training will be delivered to all of the journeymen.

Apprentice

Commercial Skills (85%): This training will be offered to apprentices who will receive the most up-to-date skills training required to perform by occupation. Training will help apprentices gain the skills to work safely and productively in their various trades.

HAZWOPER (10%): This training will be offered to the Construction Craft Laborers' apprentices.

OSHA 10/30 (5%): This training will be offered to all of the apprentices.

Certified Safety Training

1. OSHA 10/30. This training is a series of courses "bundled" by industry sector and occupation. It consists of 10 hours of classroom or CBT training for journey-level workers and 30 hours for frontline supervisors. The coursework is geared to construction work, and also manufacturing. Completion of the training results in a certificate that expands employment opportunities. The coursework must be approved by Cal-OSHA, and the instructors must be certified by Cal-OSHA.
2. Hazardous Waste Operations and Emergency Response Standard (HAZWOPER). This training is also a series of courses specifically designed for workers who handle hazardous substances as first-responders, or clean-up as needed at a hazard disposal or emergency site. It consists of 40 hours of classroom or CBT training, for workers stationed at the hazard site; and 24 hours for workers who visit the site (e.g., engineers). Field training is also required, although not funded by ETP. Completion of the training results in a certificate that expands employment opportunities. Each certification requires an 8-hour annual refresher course. This coursework must be approved by Cal-OSHA, and the instructors must be certified by Cal-OSHA.

Commitment to Training

ABC NorCal Trust represents that signatory employers will continue to pay into the Trust for Journeyman and Apprentice training. In addition, employers must provide structured, on-the-job training for apprentices that meet DAS standards. ETP funds supplement and do not displace employer contributions to training. Safety training is provided by the participating employers in accordance with all requirements under state and federal law.

Record Keeping

ABC NorCal Trust will be using an established Learning Management System (LMS)-FlashPoint developed by Data Research Group for record keeping, which is currently in place as it has been used over the last four years and is an established record-keeping practice. ETP staff has approved the LMS. The LMS is utilized by the Apprenticeship Director, Apprenticeship Coordinator and Training Director. The contractor has completed the Electronic Training Questionnaire and an Authorization Log providing detailed information about the LMS.

Impact/Outcome

Apprentices will be certified as journeymen workers once they have completed the entire apprentice curriculum.

Marketing and Support Costs

ABC NorCal Trust programs are advertised on the Association website and the DAS website. Announcements for the apprenticeship programs are sent to local, state, federal agencies, community colleges and community based organizations. Staff members visit the Employment Development Department and One Stop offices to disseminate information about the programs. In addition, staff and committee representatives attend various career fairs and school career days.

ABC NorCal Trust requests 8% support costs to assist staff in recruiting and qualifying additional participating employers for this program. While many participating employers have already been recruited, additional recruitment and assessment activities with employers must occur to support apprenticeship training. Staff recommends 8% support costs.

Tuition Reimbursement

Students enrolled in the ETP-funded program will not be charged tuition, fees, or any other costs associated with training. The representation will be made a condition of the Agreement.

Veteran Apprentice

The Veteran training curriculum will be the same as the Apprentice training outlined above. These trainees are in a separate Job Number to better track performance toward the goal of improved outreach for Veterans. ABC Nor-Cal Trust has committed to train 15 veterans.

The Panel has established a higher reimbursement rate and other incentives for training California veterans. Higher support costs are also available to reach participants for this program. However, ABC Nor-Cal Trust is only requesting 8% support costs for Job Number 3.

RECOMMENDATION

Staff recommends approval of this proposal.

PRIOR PROJECTS

The following table summarizes performance by ABC Nor-Cal Trust under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned	
				\$	%
ET14-0901	Livermore	8/1/2013-7/31/2015	\$299,880	\$299,880	(100%)

DEVELOPMENT SERVICES

N/A

ADMINISTRATIVE SERVICES

N/A

TRAINING VENDORS

To Be Determined

Exhibit B: Menu Curriculum

Class/Lab Hours

8-210 (Job Numbers 1 & 3)

Trainees may receive any of the following:

APPRENTICE

COMMERCIAL SKILLS

CARPENTER

- ✚ Advanced Hand & Power Tools
- ✚ Advanced Roof Systems
- ✚ Advanced Stair Systems
- ✚ Advanced Wall Systems
- ✚ Basic Communication Skills
- ✚ Basic Employability Skills
- ✚ Basic Safety
- ✚ Basic Stair Layout
- ✚ Building Materials, Fasteners, and Adhesives
- ✚ Cabinet Installation
- ✚ Ceiling Joist and Roof Framing
- ✚ Cold-Formed Steel Framing
- ✚ Commercial Drawings
- ✚ CPR / First Aid / Automated External Defibrillator
- ✚ CPR / First Aid / Automated External Defibrillator Refresher
- ✚ Crane Signaling & Rigging certification
- ✚ Doors and Door Hardware
- ✚ Drywall Finishing
- ✚ Drywall Installation
- ✚ Exterior Finishing
- ✚ Fall Protection & Ladder Safety
- ✚ Fire Watch & Extinguisher Training
- ✚ Floor Systems
- ✚ Foundations and Slab-on-Grade
- ✚ Fundamentals of Crew Leadership
- ✚ Handling and Placing Concrete
- ✚ Horizontal Formwork
- ✚ Introduction to Apprenticeship
- ✚ Introduction to Building Envelope Systems
- ✚ Introduction to Construction Drawings
- ✚ Introduction to Construction Drawings, Specifications, and Layout
- ✚ Introduction to Construction Equipment
- ✚ Introduction to Construction Math
- ✚ Introduction to Hand Tools
- ✚ Introduction to Materials Handling
- ✚ Introduction to Power Tools
- ✚ Introduction to Weatherization
- ✚ Job-Site Safety
- ✚ Lift Certifications
- ✚ Orientation to the Trade (Carpentry)

- ✚ Properties of Concrete
- ✚ Reinforcing Concrete
- ✚ Rigging Equipment
- ✚ Rigging Practices
- ✚ Roofing Applications
- ✚ Rules and Regulations
- ✚ Scaffold Erector & User
- ✚ Site Layout One: Differential Leveling
- ✚ Site Layout Two: Angular and Distance Measurement
- ✚ Site Preparation
- ✚ Solar Installation Awareness
- ✚ Suspended Ceilings
- ✚ Thermal and Moisture Protection
- ✚ Tilt-Up Wall Panels
- ✚ Total Robotics Training
- ✚ Trenching and Excavating
- ✚ Vertical Formwork
- ✚ Wall Systems
- ✚ Window, Door, Floor, and Ceiling Trim
- ✚ Your Role in the Green Environment

CONSTRUCTION CRAFT LABORER

- ✚ Basic Communication Skills
- ✚ Basic Employability Skills
- ✚ Basic Safety
- ✚ Confined Space
- ✚ CPR / First Aid / Automated External Defibrillator
- ✚ Crane Signaling & Rigging
- ✚ Fall Protection & Ladder Safety
- ✚ Fencing
- ✚ Fire Watch
- ✚ Flagging & Traffic Control
- ✚ Interpreting Civil Drawings
- ✚ Introduction to Apprenticeship
- ✚ Intro to Concrete Construction and Finishing
- ✚ Introduction to Construction Drawings
- ✚ Introduction to Construction Math
- ✚ Introduction to Hand Tools
- ✚ Introduction to Materials Handling
- ✚ Introduction to Power Tools
- ✚ Job-Site Safety
- ✚ Lift Certifications
- ✚ Oxy-Fuel Cutting
- ✚ Paving
- ✚ Placing Concrete
- ✚ Rigging & Delivering Pipe
- ✚ Rules & Regulations
- ✚ Scaffold Erector & User
- ✚ Soils
- ✚ Storm Water Pollution Prevention Plan (SWPPP)
- ✚ Tools & Equipment – Pipe Layer

- ✚ Tools and Equipment - Concrete Finishing
- ✚ Waste Management
- ✚ Your Role in the Green Environment

ELECTRICIAN

- ✚ Advanced Controls
- ✚ Alternating Current
- ✚ Arc Flash and High Voltage Safety Training
- ✚ Basic Communication Skills
- ✚ Basic Electrical Construction Drawings
- ✚ Basic Electronic Theory
- ✚ Basic Employability Skills
- ✚ Basic Safety
- ✚ Cable Tray
- ✚ CADWELD Certification
- ✚ Circuit Breakers and Fuses
- ✚ Commercial Electrical Services
- ✚ Conductor Installations
- ✚ Conductor Selection and Calculations
- ✚ Conductor Terminations and Splices
- ✚ Conductors and Cables
- ✚ Conduit Bending
- ✚ Confined Space Awareness
- ✚ Control Systems and Fundamental Concepts
- ✚ CPR/ First Aid / Automated External Defibrillator
- ✚ CPR/ First Aid / Automated External Defibrillator Refresher #1
- ✚ CPR/ First Aid / Automated External Defibrillator Refresher #2
- ✚ Device Boxes
- ✚ Distribution Equipment
- ✚ Electric Lighting
- ✚ Electrical Safety
- ✚ Electrical Test Equipment
- ✚ Electrical Theory
- ✚ Fall Protection & Ladder Safety
- ✚ Fire Alarm Systems
- ✚ Fundamentals of Crew Leadership
- ✚ Grounding and Bonding
- ✚ Hand Bending
- ✚ Hazardous Locations
- ✚ Health Care Facilities
- ✚ Heat Tracing and Freeze Protection
- ✚ HVAC Controls
- ✚ Introduction to Apprenticeship
- ✚ Introduction to Construction Drawings
- ✚ Introduction to Construction Math
- ✚ Introduction to Electrical Circuits
- ✚ Introduction to Hand Tools
- ✚ Introduction to Materials Handling
- ✚ Introduction to Power Tools
- ✚ Introduction to the National Electrical Code
- ✚ Job-Site Safety

- ✚ Lift Certifications
- ✚ Load Calculations - Branch and Feeder Circuits
- ✚ Load Calculations - Feeders and Services
- ✚ Medium - Voltage Terminations/Splices
- ✚ Motor Calculations
- ✚ Motor Controls
- ✚ Motor Operation and Maintenance
- ✚ Motors: Theory and Application
- ✚ National Electric Code (NEC) Test Preparation
- ✚ Orientation to the Electrical Trade
- ✚ Overcurrent Protection
- ✚ Programmable Logic Controllers (PLC)
- ✚ Practical Applications of Lighting
- ✚ Pull and Junction Boxes
- ✚ Raceways and Fittings
- ✚ Residential Electrical Services
- ✚ Rigging Awareness
- ✚ Rules & Regulations
- ✚ Solar Installer Certification
- ✚ Special Locations
- ✚ Specialty Transformers
- ✚ Standby and Emergency Systems
- ✚ Terminations Presentation
- ✚ Transformers
- ✚ Voice, Data, & Video

PAINTER

- ✚ Abrasive Blasting
- ✚ Basic Communication Skills
- ✚ Basic Employability Skills
- ✚ Basic Safety
- ✚ Basic Surface Preparation
- ✚ Brushing and Rolling Paints and Coatings
- ✚ Careers in the Painting Trade
- ✚ Chemical Cleaning and Stripping
- ✚ Clear Finishes
- ✚ Coatings Three
- ✚ Coatings Two
- ✚ Color and Tinting
- ✚ Confined Space
- ✚ CPR/ First Aid / Automated External Defibrillator
- ✚ CPR/ First Aid / Automated External Defibrillator Refresher
- ✚ Decorative (Faux) Finishes
- ✚ Drywall Finishing and Patching
- ✚ Fall Protection & Ladder Safety
- ✚ Graphics
- ✚ Identifying Surface/Substrate Materials and Conditions
- ✚ Industrial Coating Application
- ✚ Industrial Coatings
- ✚ Industrial Containment/Ventilation
- ✚ Industrial Fall Protection

- ✚ Industrial Quality Inspections
- ✚ Industrial Safety
- ✚ Industrial Surface Prep I
- ✚ Industrial Surface Prep II
- ✚ Industrial Surface Prep III
- ✚ Introduction to Apprenticeship
- ✚ Introduction to Construction Drawings
- ✚ Introduction to Construction Math
- ✚ Introduction to Hand Tools
- ✚ Introduction to Materials Handling
- ✚ Introduction to Paints and Coatings
- ✚ Job Planning and Completion
- ✚ Job-Site Safety
- ✚ Job Supervision, Planning and Control
- ✚ Ladders, Scaffolds, Lifts, and Fall Protection
- ✚ Lift Certifications
- ✚ Low-Pressure Water Cleaning
- ✚ Painting Failures and Remedies
- ✚ Painting Failures and Remedies Two
- ✚ Protecting Adjacent Surfaces
- ✚ Respirator Training & Fit Testing
- ✚ Rules & Regulations
- ✚ Safety
- ✚ Scaffold Erector & User
- ✚ Sealants and Repair/Fillers
- ✚ Society for Protective Coatings (SSPC)
- ✚ Spray Painting
- ✚ Spraying with Special Devices
- ✚ Stains
- ✚ Texturing
- ✚ Wallcovering
- ✚ Wood Finishing
- ✚ Your Role in the Green Environment
- ✚ Lead Related Construction Worker (LRCW)
- ✚ Mold & Asbestos
- ✚ Renovation, Repair, and Painting (RRP)

HAZWOPER (OSHA CERTIFIED INSTRUCTOR)

- ✚ HAZWOPER 40

OSHA 10/30 (OSHA CERTIFIED INSTRUCTOR)

- ✚ OSHA 10 (requires completion of 10 hours)
- ✚ OSHA 30 (requires completion of 30 hours)

Class/Lab Hours**JOURNEYMAN**

8-200 (Job Number 2)

Trainees may receive any of the following:

BUSINESS SKILLS

- ✚ Computer Applications
- ✚ Construction and Project Management
- ✚ Contract and Construction Documents
- ✚ Cost Awareness and Control
- ✚ Crew Leader
- ✚ Document Control and Estimating
- ✚ Employee Motivation
- ✚ Fundamentals of Crew Leadership
- ✚ Human Relations and Problem Solving
- ✚ Negotiations
- ✚ Planning and Scheduling
- ✚ Problem Solving
- ✚ Quality Control
- ✚ Recordkeeping
- ✚ Resource Control and Awareness

COMMERCIAL SKILLS

- ✚ Access Control Systems
- ✚ Advanced Wall Systems
- ✚ Advanced Roof Systems
- ✚ Advanced Stair Systems
- ✚ Alternating Current
- ✚ Arc Flash National Fire Protection Association (NFPA) 70E
- ✚ Audio Systems
- ✚ Basic Communication Skills
- ✚ Basic Electrical Construction Drawings
- ✚ Basic Employability Skills
- ✚ Basic Rigging
- ✚ Basic Stair Layout
- ✚ Broadband Systems
- ✚ Building Materials, Fasteners, and Adhesives
- ✚ Busses and Networks
- ✚ Cabinet Installation
- ✚ CCTV Systems
- ✚ Ceiling Joist and Roof Framing
- ✚ Cold-Formed Steel Framing
- ✚ Commercial Drawings Elective for Residential Path
- ✚ Conductors and Cables
- ✚ Conductor Selection and Calculations
- ✚ Construction Materials and Methods
- ✚ CPR/ First Aid/ Automated External Defibrillator
- ✚ CPR/ First Aid / Automated External Defibrillator Refresher
- ✚ Craft Related Math
- ✚ Devise Boxes
- ✚ Doors and Door Hardware
- ✚ Drywall Finishing

- ✚ Drywall Installation
- ✚ Electrical Lighting
- ✚ Electric Motors and Motor Control Circuit Repair & Maintenance
- ✚ Electrical Test Equipment
- ✚ Electrical Theory
- ✚ Exterior Finishing Elective for Commercial Path
- ✚ Fasters and Anchors
- ✚ Fencing
- ✚ Fiber Optics
- ✚ Fire Alarm Systems
- ✚ Fire Watch
- ✚ Flagging
- ✚ Floor Systems
- ✚ Foundations and Slab-on-Grade
- ✚ Generators & Emergency Power
- ✚ Grounding and Bonding
- ✚ Hand Bending
- ✚ Handling and Placing Concrete
- ✚ High Voltage Electrical Safety Training
- ✚ Horizontal Formwork
- ✚ Instructor Upgrade
- ✚ Instrumentation, Process Measurement & Control
- ✚ Intro to Blueprints
- ✚ Intro to Building Envelope Systems
- ✚ Introduction to Construction Equipment
- ✚ Intro to Construction Math
- ✚ Intro to Electric Circuits
- ✚ Intro to Electric Theory
- ✚ Intro to Hand Tools
- ✚ Intro to National Electric Code
- ✚ Introduction to Ox-Fuel Cutting and Arc Welding
- ✚ Intro to Power Tools
- ✚ Intrusion Detection Systems
- ✚ Load Calculations – Branch Feeder Circuits
- ✚ Low Voltage Cabling
- ✚ Maintenance and Repair
- ✚ Media Management Systems
- ✚ Motor Theory and Application
- ✚ NEC Code Update
- ✚ One and Two Family Dwellings
- ✚ Overcurrent Protection
- ✚ Overview of Nurse Call and Signaling Systems
- ✚ Oxy-Fuel Cutting
- ✚ Pathways and Spaces
- ✚ Paving
- ✚ Programmable Logic Controller (PLC) for Non-Programmers
- ✚ PLC Programming and Application
- ✚ Placing Concrete
- ✚ Practical Applications of Lighting
- ✚ Properties of Concrete
- ✚ Rack Assembly

- ✚ Raceways and Fittings
- ✚ Reinforcing Concrete
- ✚ Residential Electrical Services
- ✚ Rigging and Delivering Pipe
- ✚ Roofing Applications
- ✚ Scaffold User and Erector
- ✚ Site Layout One—Differential Leveling
- ✚ Site Layout Two—Angular and Distance Measurement
- ✚ Site Preparation
- ✚ Site Survey
- ✚ Soils
- ✚ Storm Water Pollution Prevention Plan (SWPPP)
- ✚ Suspended Ceilings
- ✚ Switching Devices and Timers
- ✚ System Commissioning and User Training
- ✚ System Integration
- ✚ Terminating Conductors
- ✚ Thermal and Moisture Protection
- ✚ Tilt-up Wall Panels
- ✚ Tools and Equipment – Concrete Finishing
- ✚ Tools and Equipment – Pipe Layer
- ✚ Trenching and Excavating
- ✚ Uninterruptible Power Supply Systems
- ✚ Voice and Data Systems
- ✚ Wall Systems
- ✚ Wiring and Troubleshooting Residential Electrical Systems
- ✚ Wireless Communication
- ✚ Your Role in the Green Environment
- ✚ Accident Investigations: Data Analysis
- ✚ Accident Investigations: Policy and Procedures
- ✚ Concrete and Masonry Safety
- ✚ Confined Space
- ✚ Confined Space Entry Procedures
- ✚ Electrical and High-Voltage Hazards
- ✚ Emergency Action Plans
- ✚ Environmental, Safety & Health (ES&H) Data Tracking and Trending
- ✚ Environmental Awareness
- ✚ Fall Protection
- ✚ Field Safety
- ✚ Fire Protection and Prevention
- ✚ Forklift Safety
- ✚ Hazardous Communication
- ✚ Hazard Recognition, Evaluation, and Control
- ✚ Heavy Equipment, Crane, and Rigging Safety
- ✚ Horizontal Directional Drilling Hazards
- ✚ Inspections, Audits, and Observations
- ✚ Intro to Safety
- ✚ JSA's (Job Safety Analysis) and TSA's (Task Safety Analysis)
- ✚ Ladders and Scaffolding
- ✚ Lockout/Tag out
- ✚ Trainer Course for Construction (OSHA 500)

- ✚ Inspection Procedures (OSHA Compliance)
- ✚ Personal Protective Equipment (PPE)
- ✚ Risk Analysis Assessment
- ✚ Safety Orientation and Training
- ✚ Safety Meetings
- ✚ Site-Specific Environmental, Safety and Health (ES&H) Plans
- ✚ Steel Erection
- ✚ Trenching Safety
- ✚ Walking and Working Surfaces
- ✚ Welding Safety
- ✚ Work Permit Policies
- ✚ Work Zone Safety

OSHA 10/30 (OSHA CERTIFIED INSTRUCTOR)

- ✚ OSHA 10 (requires completion of 10 hours)
- ✚ OSHA 30 (requires completion of 30 hours)

Note: Reimbursement for all Apprenticeship training is capped at 200 total training hours per trainee in Commercial Skills and 10 hours of either OSHA 10 or 30 for a total of 210 hours regardless of the method of training delivery. Safety training cannot exceed 10% of total training hours for any individual trainee. This 10% safety training cap does not apply to HAZWOPER or HAZMAT or OSHA 10/30 training.