



**Training Proposal for:**

**United Association Local Union 342 Joint Apprenticeship  
and Training Committee**

**Agreement Number: ET16-0914**

**Panel Meeting of:** September 25, 2015

**ETP Regional Office:** San Francisco Bay Area      **Analyst:** D. Woodside

**PROJECT PROFILE**

Contract Attributes:	Retrainee Apprenticeship Priority Rate	Industry Sector(s):	Construction Green Technology  Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
County Served:	Alameda, Contra Costa	Repeat Contractor:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Union:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada (Local 342)		
Turnover Rate:	≤20%		
Managers/Supervisors: (% of total trainees)	N/A		

**FUNDING DETAIL**

<b>Program Costs</b>	+	<b>Support Costs</b>	=	<b>Total ETP Funding</b>
\$500,049		\$34,506 8%		\$534,555

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 Apprentice	Commercial Skills, OSHA 10	297	8-210	0	\$1,515	\$25.64
				Weighted Avg: 109			
2	Retrainee Journeyman Priority Rate	Commercial Skills, OSHA 10/30	150	8-200	0	\$564	\$53.46
				Weighted Avg: 24			

**Minimum Wage by County:** \$20.55 per hour for SET 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

**Wage Range by Occupation**

Occupation Titles	Wage Range	Estimated # of Trainees
Apprentice Plumber, Pipefitter, Steamfitter, Refrigeration Fitter/Air Conditioning Mechanic		297
Journeyman Plumber, Pipefitter, Steamfitter, Refrigeration Fitter/Air Conditioning Mechanic		150

**INTRODUCTION**

The United Association Local Union 342 Joint Apprenticeship and Training Committee (UA Local 342 JATC) ([www.ua342.org/training](http://www.ua342.org/training)) trains Apprentices and Journeymen for the piping industry in Northern California. The JATC serves over 1,700 Journeymen and 350 Apprentices working primarily in Alameda and Contra Costa counties and various other northern California counties.

Employers are represented by the Industrial Contractors UMIC, Inc.; the Northern California Piping Contractors, the Mechanical Contractors Association of Northern California, the Air Conditioning & Refrigeration Contractors Association of Northern California; and the Residential Plumbing and Mechanical Contractors Association of Northern California. Workers to be trained are employed by a variety of firms, including plumbing and mechanical contractors, utility contractors, refineries, building and industrial plant owners, utility and pipeline companies.

The UA Local 342 JATC operates a 45,000 square-foot, fully equipped Training Center located in Concord where all ETP-funded training will occur. The Training Center offers apprentice programs (Plumber, Pipefitter, Steamfitter, Refrigeration Fitter and Air Conditioning Mechanic) registered through the DAS. Funding for Journeymen training will allow the JATC to offer specialized training leading to certifications that are nationally recognized in the pipe trades industry. This will be the Panel's second Agreement with this JATC.

Plumbers service, repair, and remodel existing plumbing systems in residential, commercial, and industrial buildings. Refrigeration and air conditioning mechanics install and retrofit all types of refrigeration equipment, from small air conditioning systems to HVAC units used in hospitals, schools, and other complex installations. Steamfitters/pipefitters are responsible for designing and installing complex heating systems, and special piping for acid, gas, oil, air, oxygen, nitrogen, and ultra-high-purity water and gas systems.

### **Employer Demand for Training**

Employers need training to acquire an adequate number of skilled craftsmen to work in specialized jobs and to replace retiring baby boomers. There is a national shortage in the pipe trades industry, especially for welders. There is also a shortage of workers trained in energy efficient "green" building technologies and procedures. For example, most motors and pumps that are mechanically operated now have variable frequency drivers that ramp up the motor only when it is needed. The demand for workers skilled in such green building systems is especially true in California where the California Building Energy Efficiency Standards, also known as Title 24, require higher levels of efficiency for all building and construction trades. These standards mandate that California reduce its greenhouse gas emissions to 1990 levels by 2020.

Demand for trained workers in oil refineries is increasing as a result of SB 54, which requires that an increasing percentage of refinery workers be registered Apprentices or graduates of apprenticeship programs. PG&E also has begun a massive program of replacing gas pipelines throughout Northern California that will require more pipe trades workers.

In addition, the trade itself is changing. Work is becoming more complex and workers are expected to be more productive. New systems require fewer people to complete a job, but each person must be better trained.

### **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). ETP funding is designed to supplement cost of delivery for the Related and Supplemental Instruction (RSI) portion of DAS-approved apprenticeship training. Depending on the type of trade, apprenticeship programs vary in length. In this case the program is five years, for all four occupational titles.

Apprentice programs are typically sponsored by a Joint Apprenticeship Training Committee (JATC). A JATC is created through collective bargaining, with an equal number of members appointed by union and management with employer contributions to a training trust fund. The employers are not "participants" but are signatories to the Collective Bargaining Agreement.

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 case Diablo Valley College). The Apprenticeship Program allows reimbursement for up to 200 hours of RSI plus OSHA10, per-apprentice. (Journeymen are capped at 200 hours.) The trainer-to-trainee ratio for Apprentices is 1:25 and 1:20 for Journeymen.

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.

To ensure ETP does not displace Montoya Funds, Apprenticeship reimbursement is reduced by \$5.00, reducing the priority industry rate from \$18 to \$13 per hour. 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 ( $\leq 100$  employees). This is \$22 per hour, midway between the Priority Industry standard rate (\$18) and Small Business rate (\$26).

The ETP wage for Apprentices is no less than \$20.55 per hour, tracking the Special Employment Training wage as modified for priority industries. However, the actual wages paid are shown in the Training Plan Table and contract when they exceed \$20.55, for both Apprentice and Journeymen.

### **DAS Completion Rates**

The completion rate for this DAS-approved program for the most recent five year period (2009-2013) is 49.05% and exceeds the industry completion percentage of 48.01% for that same time period. This meets Panel standards.

## **PROJECT DETAILS**

### **Training Plan**

**Commercial Skills (95%):** Training will be offered to all occupations. Coursework includes skills in valve repair, medical gas installation, welding, refrigerant handling, industrial rigging, foreman skills, geothermal systems, green awareness, and instrumentation. Training provides workers and employers with the skills they need to win bids and complete jobs quickly and with the highest quality workmanship.

Apprentices receive 108 hours of instruction in an 18-week semester. The JATC reports that it has 300 apprentices eligible for this project. If all 300 apprentices complete 108 hours of training in one semester, the amount allocated for apprentice training in this proposal may be earned in six months. Journey level training will be completed within the same period.

Training proposed in this application will give journeymen skills in valve repair, medical gas installation, welding, refrigerant handling, industrial rigging, foreman skills, geothermal systems, green awareness, instrumentation, and field computer systems. This specialized training leads to certifications that are recognized nationally in the pipe trades industry.

### **Certified Safety Training**

**OSHA 10/30 (5%):** Journeymen will receive OSHA 10/30. Apprentices will only receive OSHA 10. 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.

## **Curriculum Development**

The curriculum is employer-driven and employer representatives provide direct input based on local industry needs. Thus, hiring demands result in a comprehensive and technically advanced curriculum based on feedback received directly from the employers and union representatives. Input is based on workplace performance, requests of customers, and needs of the industry as well as student course evaluations completed at the end of each course.

## **Electronic Recordkeeping**

Staff has approved the JATC's use of a Learning Management System for recordkeeping.

## **Impact/Outcome**

Certifications earned may include various welding certifications such as medical gas installation systems, backflow testing, tube bending, National Inspection Testing Certifications for Pipefitters and Plumbers, and OSHA 10/30.

## **Marketing and Support Costs**

UA Local 342 JATC requests 8% support costs to assist in trainee recruitment, employer outreach and assessment of employer-specific job requirements.

The Apprenticeship program is marketed through the various employer associations in Northern California. Employers are notified of training through association websites, mailings, and presentations. Training is then designed around employer's needs and the overall need of the industry. The JATC will also disseminate class information throughout the year to all Journeyman pipe trades workers within the local's jurisdiction. Marketing is thus conducted through newsletters, personal contacts, telephone calls, the Internet, emails, and the JATC's website.

Certain employers have already been recruited; however, additional recruitment will take place to complete the project and replace any employers whose training needs change since the project planning process began. Assessment of employer-specific job requirements will continue during the contract term. The JATC requests, and staff recommends, the 8% support costs used for these purposes.

## **Commitment to Training**

Employers will continue to make contributions to the training trust for every hour worked by Apprentices and Journeymen. General safety training is provided by the signatory employers in accordance with all pertinent requirements under state and federal law.

## **Tuition Reimbursement**

In accordance with Title 22, CCR, Section 4412.1, UA Local 342 JATC represents that 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.

## **RECOMMENDATION**

Staff recommends approval of this proposal.

## **CURRENT CONTRACT PERFORMANCE**

The following table summarizes performance by UA Local 342 JATC under its current ETP Agreement:

Agreement No.	Approved Amount	Term	No. Trainees Estimated	No. Completed Training	No. Retained
ET14-0916	\$533,399	5/5/14 – 5/4/16	Apprentice – 299 Journeyman-150	Apprentice – 219 Journeyman - 71	0

All training has ended under this Agreement. Based on the ETP tracking system, 41,179 reimbursable hours have been tracked (over 100% of the Agreement amount).

## **DEVELOPMENT SERVICES**

Steve Duscha Advisories in Sacramento assisted with development of this proposal for a flat fee of \$10,000.

## **ADMINISTRATIVE SERVICES**

Steve Duscha Advisories will also perform administrative services for a fee not to exceed 12.2% of payment earned.

## **TRAINING VENDORS**

N/A

**Exhibit B: Menu Curriculum****Apprentice Training****Class/Lab Hours**

8 - 210

Trainees may receive any of the following:

**COMMERCIAL SKILLS**

Refrigeration Fitter/Air Conditioning Mechanic:

- + Beginning Electrical Theory
- + Mechanical Refrigeration Theory
- + Electrical Theory/Beginning Schematics
- + The Refrigeration Cycle
- + Intermediate Electrics I
- + Intermediate Mechanical Refrigeration I
- + Intermediate Electrical II
- + Intermediate Mechanical Refrigeration II
- + Electrical Troubleshooting I
- + Electrical Troubleshooting II
- + Introduction to Direct Digital Controls
- + Introduction to Variable Frequency Drivers
- + Introduction to Market Refrigeration Systems
- + Introduction to Pneumatic Controls
- + Introduction to Boilers
- + Advanced Compressor and Motor Theory
- + Start Test Balance: Water Side I
- + Start Test Balance: Air side I
- + Start Test Balance: Water Side II
- + Start Test Balance: Air Side II

Plumber/Pipefitter:

- + CPR
- + Trade Mathematics
- + Computers in the Field
- + Water Supply Systems
- + Sewage Disposal
- + Plumbing System Service and Repair
- + Construction Management in Plumbing
- + Medical Gas Systems
- + Related Science in the Piping Trades
- + Beginning Drawing & Plan Reading for the Piping Trades
- + Advanced Drawing in the Piping Trades
- + Plumbing Tool Workshop I
- + Plumbing Tool Workshop II
- + Plumbing Code I
- + Plumbing Code II
- + Welding for Plumbers
- + Electricity for Plumbers
- + Gas Installation in Plumbing
- + Backflow Prevention
- + Plumbing Fixtures
- + Certification Preparation

Steamfitter:

- + CPR
- + Trade Mathematics
- + Computers in the Field
- + Use and Care of Tools
- + Welding Safety/Plate Welding
- + Oxygen/Acetylene Cutting
- + Pipe Shop I
- + Pipe Shop II
- + Related Science in the Piping Trades
- + Beginning Drawing and Plan Reading for the Piping Trades
- + Advanced Drawing in the Piping Industry
- + Instrumentation 1
- + Instrumentation 2
- + Steam Systems
- + Electricity for Steamfitting
- + Industrial Rigging
- + Beginning AutoCAD
- + Advanced AutoCAD
- + Pumps
- + Tube Bending
- + Pipe Welding 1
- + Welding 5
- + Welding 6
- + Welding 7
- + Welding 8
- + Welding 9
- + Welding 10
- + Orbital Welding
- + Construction Management in Steamfitting

**OSHA 10** (Certified OSHA Instructor)

- + OSHA 10 (requires completion of 10 hours)

**Journeyman Training**

**Class/Lab Hours**

8-200

Trainees may receive any of the following:

**COMMERCIAL SKILLS**

- + Auto CAD
- + Advanced Drawing (Pipe Drafting)
- + Advanced Plan Reading
- + Basic Electricity
- + Beginning Instrumentation
- + Blueprint Reading
- + Boiler
- + Brazing
- + Crane Operations
- + Handling Refrigerants
- + Construction Management

- ✚ Detailing
- ✚ Diametrics
- ✚ Downhill Welding
- ✚ Drawing
- ✚ Foreman Training
- ✚ Gas
- ✚ Gas Installations (Plumbing)
- ✚ Hand Fusion
- ✚ HVAC Theory
- ✚ Industrial Instrumentation (Tube Bending)
- ✚ Instrumentation
- ✚ Med Gas
- ✚ Med-Gas Installer/Brazer (For UA Certification)
- ✚ MIG
- ✚ Orbital Welding
- ✚ Plumbing Code
- ✚ Plumbing Fixtures & Appliances (Plumbing)
- ✚ Polyvinylidene Fluoride Products
- ✚ Rigging
- ✚ Signal Person
- ✚ Tig & Fusion Welding
- ✚ Trimble
- ✚ Tube Bending
- ✚ Variable Speed
- ✚ Water Supply

**OSHA 10/30** (Certified OSHA Instructor)

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

Safety training cannot exceed 10% of total training hours per-trainee. (This cap does not apply to OSHA 10/30)

Note: Reimbursement is capped at 210 total training hours per Apprentice trainee and 200 total hours for Journeymen regardless of the method of delivery.