## Training Proposal for:

# Qual-Pro Corporation

## Agreement Number: ET16-0468

**Panel Meeting of:** May 26, 2016

**ETP Regional Office:** North Hollywood **Analyst:** M.Webb

## PROJECT PROFILE

| | | | |
|---|---|---|---|
| Contract Attributes: | Retrainee<br>Priority Rate | Industry Sector(s): | Manufacturing<br><br>Priority Industry: ☒ Yes ☐ No |
| Counties Served: | Los Angeles | Repeat Contractor: | ☐ Yes ☒ No |
| Union(s): | ☐ Yes ☒ No | | |

| | | | |
|---|---|---|---|
| Number of Employees in: | CA: 140 | U.S.:140 | Worldwide: 200 |
| Turnover Rate: | 3% | | |
| Managers/Supervisors: (% of total trainees) | 7% | | |

## FUNDING DETAIL

| Program Costs | - | (Substantial Contribution) | (High Earner Reduction) | = | **Total ETP Funding** |
|---|---|---|---|---|---|
| $108,000 | | $0 | $0 | | $108,000 |

| | | |
|---|---|---|
| In-Kind Contribution: | 100% of Total ETP Funding Required | $122,000 |

## 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<br>Priority Rate | Computer Skills, Continuous Impr, Literacy Skills, Mfg Skills, Advanced Tech, PL-Mfg Skills | 120 | 8-200 | 0 | $900 | $16.48 |
| | | | | Weighted Avg: 50 | | | |

It will be made a condition of contract that the trainees in this Job Number will never be paid less than the State or local minimum wage rate as in effect at the end of retention (Final Payment) regardless of the wage expressed in this table. The highest minimum wage rate will prevail.

**Minimum Wage by County:** $16.48 per hour for Los Angeles County.
**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
Up to $3.00 per hour may be used to meet the Post-Retention Wage.

| Wage Range by Occupation | | |
|---|---|---|
| Occupation Titles | Wage Range | Estimated # of Trainees |
| Operators | | 79 |
| Office/Sales Staff I | | 7 |
| Office/Sales Staff II | | 2 |
| Engineering Staff I | | 5 |
| Engineering Staff II | | 8 |
| Technicians | | 3 |
| Planners/Quoters/ Doc Control Staff | | 9 |
| Leads | | 4 |
| Buyers | | 6 |
| Production Supervisors | | 3 |
| Accounting Staff | | 2 |
| Department Managers | | 7 |

## INTRODUCTION

Founded in 1971, Qual-Pro Corporation (Qual-Pro) (www.qual-pro.com) is a contract electronics manufacturing service provider located in Gardena. The customer designs their own product, and Qual-Pro builds and manufactures the product to the customer's design specifications. The Company provides manufacturing; test and design engineering; Ball Grid Array (BGA) and micro-BGA placements; flex, box-level and turnkey system assembly; functional testing; design for manufacturability analysis; electro-mechanical assembly; environmental stress screening; and in-circuit testing.

Industries that utilize Qual-Pro services include defense, metrology, automotive, industrial controls, medical, nanotechnology, and aerospace. Customers include Northrop Grumman, Boeing, Curtiss Wright, and Goodrich.

## PROJECT DETAILS

Qual-Pro's assembly and manufacturing processes have been in use for approximately 40 years and now fall short of industry best practices. To update these processes, the executive team has developed a formal training plan that includes structured classes and curriculum topics that will teach staff new manufacturing techniques and improve employee skill sets. Techniques to be implemented in the manufacturing process will impact cost effectiveness and line efficiency and improve the quality of products and services.

In the last two years, Qual-Pro invested approximately $500,000 for new equipment and technology. High technology machinery purchased include an automatic optical inspection machine (AOI), screen print inspection machine (SPI), pick and place equipment, x-ray florescent, a wave solder machine, and a new Manufacturing Resource Planning System (MRP/ERP). Trainees will learn quality skills to operate these high technology products used on a daily basis.

### Training Plan

**Computer Skills** (25%): Training will be offered to all occupations to increase employee knowledge of software programs and learn how to utilize Qual-Pro's new MRP System.

**Continuous Improvement** (25%): Training will be offered to all occupations. Training will make certain products meet all quality mandates of the military, aerospace, and medical sectors.

**Literacy Skills** (15%): Training will be offered to all occupations. Many employees cannot communicate clearly in English and encounter barriers when attempting to follow manufacturing procedures that are written in English. Training will improve staff's ability to read and follow protocol for ISO quality requirements.

**Manufacturing Skills** (25%): Training will be offered to Engineers, Technicians, and Operators to increase efficiency and teach staff to operate new equipment. Training courses such as SMT Set-Up Reduction will lower the need for additional set-up of equipment.

**Certified Safety Training** (5%)

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. OSHA 10/30 will be offered to all occupations.

**Productive Lab** (4%):

For Productive Lab (PL), trainees may produce goods for profit as part of the training, in the courses identified under the Curriculum. The instructor must be dedicated to training delivery during all hours of training.

PL in Manufacturing Skills (offered to 16 Technicians and Engineers) will be delivered by qualified in-house instructors who attended an intensive two week training held by an equipment

vendor in South Korea. Technicians will be taught how to properly program a recently purchased automatic inspection machine. Hands-on training will allow staff to create faster programming to increase productivity. Following instruction from the trainer, trainees must demonstrate they can program the inspection machine and accurately identify errors/problems that may occur during the programming process. Once instruction is completed, Supervisors will then determine if the trainee is proficient and can operate the new machine independently. The trainer-to-trainee ratio will be 1:1 and trainees may receive up to 40 hours.

**Advanced Technology** (1%):

Engineers will receive training in Computer Aided Design (CAD) to learn advanced skills in 3D design, drawings, and conversions. Training will improve employee capabilities to design products using the latest computer software and technology offerings. Qual-Pro will hire a licensed training vendor that has the hardware, equipment, and qualified training instructors to provide all CAD training. The trainer-to-trainee ratio will not exceed 1:10 to allow in-depth coverage and personal attention from the instructor.

**Commitment to Training**

Qual-Pro spends approximately $100k annually for training at the Gardena facility. Training delivered is both job specific and companywide and includes equipment operation, computer skills, Lean manufacturing, and sexual harassment prevention training.

ETP funds will not displace the Company's existing financial commitment to training. Safety training is, and will continue to be, provided in accordance with all pertinent requirements under state and federal law.

- Training Infrastructure

  The Company's VP of Global operations will lead this training program alongside the HR Manager and Quality Director. These staff members will take on the responsibility of scheduling training, collecting rosters, tracking training hours, and meeting with ETP Staff.

## RECOMMENDATION

Staff recommends approval of this proposal.

## DEVELOPMENT SERVICES

N/A

## ADMINISTRATIVE SERVICES

N/A

## TRAINING VENDORS

N/A

# Exhibit B: Menu Curriculum

**Class/Lab Hours**
8-200

Trainees may receive any of the following:

## COMPUTER SKILLS

- Epicor Training (In-House Instruction Only)
  - Manufacturing Resource Planning (MRP)

## CONTINUOUS IMPROVEMENT

- IPC 610 Soldering
- IPC Quality Inspection Awareness (J-STD)
- ISO Quality Requirements
- MTA Kando Lean (6 Sigma)
- Statistical Process Control for Process Control (SPC)
- Team Leader/Leadership Skills
- Train-the-Trainer
  - IPC Training for Operators
- Value Stream Mapping

## LITERACY SKILLS

- Vocational English as Second Language (VESL)
  - Work Instructions
  - ISO Quality Requirements
  - Writing, Reading, Learning Comprehension

## MANUFACTURING SKILLS

- Assembly Best Practices*
- Design for Excellence*
- Design & Manufacturing *
- Equipment Operation
  - SMT Set-Up Reduction
- Inspection Techniques for Manufacturing
- Manufacturing Productivity Best Practices
- Stencil Printing Process for Efficiency*

**In-House Instruction Only*

## OSHA 10/30 (OSHA certified instructor)

- OSHA 10 (requires completion of full 10-hour course)
- OSHA 30 (requires completion of full 30-hour course)

## ADVANCED TECHNOLOGY

- Computer Aided Design (CAD)

**PL Hours**
0-40

**MANUFACTURING SKILLS** (1:1 trainer-to-trainee ratio)

- Automatic Optical Inspection (AOI/SPI)
- Wave Soldering

Safety Training will be limited to 10% of total training hours per-trainee (This cap does not apply to OSHA 10/30)

Literacy Training cannot exceed 45% of total training hours per-trainee

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of the method of delivery.