



**Training Proposal for:  
Southern California Surveyors Joint Apprenticeship Committee  
Agreement Number: ET15-0902**

**Panel Meeting of:** June 27, 2014

**ETP Regional Office:** North Hollywood

**Analyst:** M. Paccerelli

**PROJECT PROFILE**

Contract Attributes:	Retrainee Priority Apprentice	Industry Sector(s):	Construction  Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Counties Served:	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Sam Luis Obispo, San Diego, Ventura, Imperial, Inyo, Kern, Mono	Repeat Contractor:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Union(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No International Union of Operating Engineers Local 12		
Turnover Rate:	≤20%		
Managers/Supervisors: (% of total trainees)	N/A		

**FUNDING DETAIL**

Program Costs	+	Support Costs	=	Total ETP Funding
\$143,710		\$9,990 8%		\$153,700

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	25	8-210	0	\$2,308	\$20.32
				Weighted Avg: 166			
2	Retrainee Journeyman	Commercial Skills OSHA10/30	120	8-200	0	\$800	\$39.93
				Weighted Avg: 34			

**Minimum Wage by County:** \$20.32 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

Up to \$3.55 per hour may be used to meet the post-retention wage in Job Number 1 only.

Wage Range by Occupation		
Occupation Titles	Wage Range	Estimated # of Trainees
Apprentice Chainman		25
Journeyman Chief of Party		120

**INTRODUCTION**

The Southern California Surveyors Joint Apprenticeship Committee (SCSJAC) ([www.scsurveyjac.org](http://www.scsurveyjac.org)) was established in 1960 providing Apprentice and Journeyman Surveyors education programs throughout 12 counties in Southern California. It is administered jointly by the Southern California Association of Civil Engineers and Land Surveyors, and the International Union of Operating Engineers, Local 12 (Union).

Participating employers are engineering, surveying, and construction firms operating under a collective bargaining agreement with the Union.

**Employer Demand**

The proposed training is designed to meet the signatory employers need to acquire an adequate number of skilled surveyors to work on specialized projects, and replace retiring journey level workers.

Funding for this training will increase the employability of Apprentice and Journeyman workers. Projects currently under contract with signatory employers include the Metrolink Gold line Extension, 405 Freeway Widening Project, Mojave Solar Project, Abengoa Solar Power Plant, and El Segundo Water Treatment.

## **Apprenticeship Pilot**

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 Division of Apprenticeship Standards (DAS). The Apprenticeship Training Pilot Training allows funding for programs sponsored by a Joint Apprenticeship Training Committee (JATC).

The Panel provides reimbursement for the Related and Supplemental Instruction (RSI) portion of an apprenticeship training program. RSI is delivered as class/lab training that is developed with a Local Educational Agency (in this case Rancho Santiago Community College) and approved by DAS. The program provides reimbursement for 200 hours of RSI plus OSHA 10.

For building trades where it is not customary for workers to be employed for 90 consecutive days with one employer, the Panel may substitute hours worked for retention. The modified retention period must be no less than 500 hours within 272 days with more than one employer. SCSJAC is requesting this modified retention period.

To ensure ETP does not displace Montoya Funds, Apprenticeship Pilot reimbursement is reduced by \$5.00, reducing the priority industry rate from \$18.00 to \$13.00 per hour. The ETP wage for Apprentices will be \$20.03 per hour. This is the Special Employment Training statewide as modified for priority industries which is being used for all apprentice occupation for ease of administration.

## **DAS Completion Rates**

The completion rates for the SCSJAC for the years 2005-2009 was 64.12% exceeding the overall industry average of 60.09%.

## **PROJECT DETAILS**

### **Training Plan**

The curriculum was developed by surveyor industry professionals. Labor and management are consulted through joint committees at all levels once a year to update the curriculum.

Trainers are graduates of the apprenticeship program as Journeymen and have minimum of six years experience in the surveyors industry, a minimum of Associate Degree and/or licensed surveyor. They possess various safety and specialty certificates.

**Commercial Skills (95%)** - This training will be provided to Journeyman and Apprentice trainees. The Chainman Apprenticeship training will cover surveying equipment, techniques, procedures, practices, computations, and projects. The Chief of Party training is an advanced training after becoming a Chainman. Training will cover the following, but not limited to, aerial photogrammetry, subdivision surveying, plan surveying and advanced coordinate geometry.

**OSHA 10/30 (5%)** - This training consists of 10 hours of training for Apprentices, and 10 or 30 hours of training for Journeymen. This training is not required as a condition of doing business in California. However, the coursework must be approved by, and the instructors must be certified by Cal-OSHA. The vendor must also have a certified instructor present to confirm attendance. Completion of the training results in a certificate that expands employment opportunities. To ensure that each trainee receives certification, ETP will only consider payment earned upon completion of the full 10-hour course.

**Marketing and Support Costs**

The SCSJAC is requesting 8% in support costs to assist in apprentice recruitment, employer outreach, and to conduct assessment of employer-specific job requirements. SCSJAC will continue to market and advertise its program via mailers sent to EDD offices and announcement on its website. Participating employers are also notified by email and regular mail of program and upgrade courses. Although many of the signatory employers have already been made aware of this training opportunity, additional outreach will take place to complete the project and assessment of employer-specific job requirements will occur during the term of the Agreement. Staff recommends the 8% support costs.

**Commitment to Training**

Employers will continue to make contributions to the training trust for every hour worked by Apprentices and Journey level workers. In addition, Chainman will also receive up to 6,000 hours of on-the-job training and 4,000 hours for Chief of Party at the employers' expense.

Safety training is, and will continue to be, provided by the participating employers in accordance with all pertinent requirements under state and federal law.

**RECOMMENDATION**

Staff recommends approval of this proposal.

**DEVELOPMENT SERVICES**

N/A

**ADMINISTRATIVE SERVICES**

N/A

**TRAINING VENDORS**

To Be Determined

## **Exhibit B: Menu Curriculum**

### **Class/Lab Hours**

8 - 210 Job Number 1

8 - 200 Job Number 2

Trainees may receive any of the following:

### **Apprentice Training**

#### **COMMERCIAL SKILLS**

- SURVEYING EQUIPMENT and TECHNIQUES:
  - Overview of the Survey Industry
  - Basic Field Operations and Setting Survey Points
  - Basic Measurement Techniques in Surveying
  - Introduction to Angle Measuring and Field Instruments
  - Introduction to Leveling
  - Introduction to Topographic Surveys
  - First Aid
  - Computer Literacy
  
- SURVEY PROCEDURES:
  - Apprentice Responsibilities and Public Relations
  - Field Notes
  - Identification of Monuments
  - Linear Measurements
  - Introduction to Station and Location Systems
  - Review of Angles, Bearings and Instruments
  - Leveling Methods
  - Global Positioning Systems
  - Plan Reading and Grade Sheets
  - Introduction to Construction Surveys
  
- SURVEYING PRACTICES:
  - Review of Measuring Systems
  - Review of Angles, Bearings and Location Systems
  - Trigonometry
  - Slope Staking
  - Electronic Distance Measuring and Recording
  
- SURVEYING COMPUTATIONS:
  - Coordinate Geometry
  - Horizontal and Vertical Curves
  - Traverse Surveys
  
- SURVEYING PROJECTS:
  - Safety Procedures
  - U.S. Public Land Surveys
  - Property Surveys
  - Subdivision Surveys
  - Topographic and Photogrammetric Surveys

- Staking Procedures for Various Projects
- Heavy Construction Surveys
- ALTA Surveys
- Total Stations
- Public Relations
- Scope of Profession

### **OSHA 10** (Certified OSHA Instructor)

- OSHA 10 (requires completion of 10 hours)

## **Journeyman Training**

### **COMMERCIAL SKILLS**

- PLANE SURVEYING AND COORDINATE GEOMETRY:
  - Surveying Mathematics and Coordinate Geometry
  - Modern Field Methods and Measuring Systems
  - Locating/Eliminating Plan, Calculation and Staking Errors
- ADVANCED COORDINATE GEOMETRY:
  - Advanced Coordinate Geometry and Curve Calculations
  - Complex Field Problems and Accuracy Requirements
  - Field and Office Calculating Techniques
- LAPTOP SURVEYING/AERIAL PHOTOGRAMMETRY:
  - Laptop Surveying Using Trimble Business Center Software
  - Topographic Surveying Methods and Techniques
  - Topographic Surveying Analysis and Review
  - Performing Topographic Surveys
  - Plotting Field Data and Surveys for Quantities
  - Photogrammetry, Ground Control and Topo Analysis
- PLAN READING AND SUBDIVISION SURVEYING:
  - Types of Plans, Plan Reading and Locating Errors
  - Grading Plans and Control for Construction Projects
  - Staking Procedures and Improvement Plans
- MAJOR PROJECT PLANS AND SURVEY LAYOUT:
  - Construction Plan Reading, Survey control and Layout
  - Case Study of Multi-Story Building – Structural
- CONTROL AND GEODETIC SURVEYING:
  - Triangulation and State Plane Coordinate Systems
  - Astronomy and Global Positioning Systems
  - Dredging and Hydrographic Surveys

- U.S. PUBLIC LAND AND PROPERTY DESCRIPTION:
  - Public Land System and Subdivision of Sections
  - Retracement Surveys and Restoration of Corners
  - Reading and Interpreting Property Descriptions
  
- PROPERTY SURVEYS AND LEGAL DESCRIPTIONS:
  - Property surveys and Legal Descriptions
  - Laws Affecting Surveyors
  - Supervision and Public Relations

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

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

Note: Reimbursement for retraining is capped at 210 total training hours per trainee in Job Number 1 and capped at 200 total hours per trainee in Job Number 2, regardless of the method of delivery.