

## **CONSTRUCTION ESTIMATOR/SCHEDULER**

### **A. CLASS DEFINITION**

Under general supervision, prepares preliminary construction schedules from engineering plans and specifications, reviews contractor schedule submittals and prepares analysis, participates in the development of project phasing, prepares schedule forensic analysis of contract changes, prepares integrated Master Schedule in the absence of a general contractor and when needed, assists project construction manager in assessing job schedule progress, reviews consultant project cost estimates, prepares cost estimates of proposed changes, participates in value engineering exercises, reviews contractor change order estimates and recommends fair cost settlements to the Project Construction Manager. Performs other related duties as required.

### **DISTINGUISHING CHARACTERISTICS**

The incumbent in this class provides technical expertise to the Port in the area of construction scheduling and estimating. The Construction Estimator/Scheduler confers with the Port's design and construction staff as well as with outside consultants and contractors. The work requires a working understanding of engineering drawings and construction methods and production rates. The Construction Estimator/Scheduler receives general supervision and work assignments from the Engineering Project Manager; assists the project construction managers on a daily basis.

### **B. TYPICAL TASKS/DUTIES** (Any one position may not include all the duties listed, nor do the examples cover all the duties which may be performed. Incumbent may perform other related duties at the equivalent level.)

#### **SCHEDULING TASKS**

1. Selects appropriate software to prepare schedule.
2. Assists the Engineering Project Manager with development of the project schedule early in the project initiation phase.
3. Reviews Plans & Specifications; interviews Engineering and Project Construction Manager and develops preliminary schedule.
4. Reviews initial schedule with Engineering and Project Construction Manager and incorporates changes as necessary.
5. Updates the schedule regularly during project design development.
6. Reviews consultant engineers' schedule and assists with assessment of the design status.
7. Reviews bidders' schedules and provides comments to Project Construction Manager.
8. Reviews Contractor's schedule submittals and prepares an analysis report for the Project Construction Manager assessing the conformance with the requirements in the Project Manual and completion dates.
9. Maintains Project Schedule submittal working file, identifying the need for (and validity of) recovery schedules.
10. Assists the Project Construction Manager with tracking lost work days due to weather or unforeseen work stoppages.

11. When necessary, analyzes the Contractor's work schedule using appropriate forensic software.

#### ESTIMATING TASKS

12. Assists Project Design Engineer with development of the Project budget estimate.
13. Reviews design Consultant's construction cost estimates, compares estimates to Program Budget and prepares analysis for Project Design Engineer.
14. Prepares estimates of scope changes prior to their initiation and assists with cost optimization of changes under consideration.
15. At stages of design determined by the Project Manager, participates in Value Engineering, offering costs in order of magnitude accuracy, to assist with cost reduction exercises.
16. Participates in Construction Bid Analysis by preparing bid summaries and comparisons (when requested and/or when not in design consultant scope).
17. Assists Construction PM with development and acceptance of the Contractor Schedule of Values.
18. Prepares estimates of contract changes for comparison to the contractor's proposal estimates. Assists the Project Construction Manager with price settlement if requested.
19. Performs other related work as required.

#### **C. KNOWLEDGE SKILLS AND ABILITIES**

To perform the typical tasks and duties of the position successfully, the knowledge, skills and/or abilities listed below are required and/or desired.

Knowledge of:

- Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) fundamentals including developing a CPM resource loaded schedule.
- Engineering and Architectural plans.
- Approved methods, materials and devices used in general building and civil construction.
- Port standard scheduling and reporting specifications.
- Project earned value applications and assessment.
- Port Project Manual and contract standard terms and conditions.
- Construction production rates for primary commodities in heavy civil and buildings including, but not limited to, demolition, excavation, pile driving, paving, steel construction, formwork, concrete placement, underground utilities, tenant improvements.
- Principles of construction cost estimating.
- Port estimating guidelines.

- Standard PC software and hardware, including project estimating, planning and scheduling software.

Ability to:

- Read plans and specifications and develop an approach to construction.
- Develop quantities from architectural and engineering plans by “take off.”
- Develop estimates and timelines from concepts and rough ideas.
- Develop and maintain an historical database of costs and production rates from previous Port projects and those that are similar to Port projects within the local area.
- Communicate effectively in both written and oral format.
- Use a personal computer and appropriate software.
- Exercise professional judgment within general policy guidelines.
- Maintain an organized work area and accessible working files.
- Establish and maintain effective working relationships with those contacted in the performance of duties and to work as a team member on a number of project groups.
- Work under deadlines and coordinate several concurrent deadlines.
- Accept supervision and adjust to changes in work priorities as determined by altered priorities.

#### **D. PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to perform this job successfully.

While performing the duties the incumbent is regularly required to make use of close vision to read engineering blueprints and reduced size black & white drawings, specifications, fine print, reports, schedules, estimates, spreadsheets, summaries and other documents in either hard copy or computer monitor. Must be able to converse on the telephone and in person, use hands and fingers to write and type, prepare email messages with attached files and use personal computers and calculators. The incumbent will periodically need to lift and/or carry heavy documents such as plans and specifications, weighing up to 30 pounds.

#### **E. WORK ENVIRONMENT**

The work environment described here is representative of those an employee encounters while performing this job.

The incumbent works indoors in an office cubicle with a mix of natural, incandescent and fluorescent light. The office may be air-conditioned and furnished with a personal computer, a desk or work surface and a chair. The office may be located within an active construction site where noise levels may be high. Occasionally the incumbent will be required to observe construction progress outdoors by walking or driving the site over rough or uneven terrain which may be dusty, muddy wet and noisy. The incumbent will follow safety regulations in force at the

job site including the wearing of proper attire, safety gear, protective hat, safety glasses and shoes as required.

#### **F. EDUCATION AND EXPERIENCE**

The position requires a combination of education and experience reflecting possession of the required knowledge skills and abilities.

A typical combination would include graduation from an accredited college or university with a bachelor's degree in engineering, economics, physical sciences or applied mathematics, or a field related to the work AND four years experience in engineering and construction with primary assignments in estimating, scheduling and project controls. Two of the four years must have been in cost estimation of the type of projects constructed by the Port, such as civil building and infrastructure. May substitute experience for education.

#### **G. OTHER CHARACTERISTICS**

1. Certification in professional field such as, Project Management Institute (PMI), Association for the Advancement of Cost Engineering (AACE), Professional Estimators, Professional Construction Manager or certification as a Professional Engineer is desirable.
2. Must be willing to work scheduled and non-scheduled overtime, as needed, to meet deadlines.
3. This classification requires each incumbent to complete and pass a 10-year employment history verification, which will include fingerprinting and a Criminal History Records Check (CHRC) prior to being considered for this position. This status must be maintained for the duration of employment at the Port.
4. Must possess a valid California Drivers License at the time of and for the duration of appointment with the Port.

CLASS CODE:	10681
STANDARD HOURS-DAY/WEEK:	7.5/Day-37.5/Week
CS STATUS/UNIT:	Classified/C
FLSA:	Non-Exempt
Classification created: (Port Ordinance)	February 6, 2007 (3972)