

## ROMP Contract Project Controls Requirements

### 1. Objective

This guideline is designed to augment current Pima County contract language for Project Controls to assist Project Managers and others in preparing contract requirements specific to Project Schedules, Project Controls and Electronic Documents.

### 2. Project Schedule

- 2.1. Software required – Primavera Project Manager P6.0 (Oracle) or later
- 2.2. Composition
  - 2.2.1. Work Breakdown Structure (WBS) – The scope of work, schedule and any estimates will be organized by WBS
  - 2.2.2. Scope of Work Activities - Resource loaded (budget/cost) activities that accurately represent the scope of work that are sequenced by using logic (predecessors and successors) that result in a critical path method schedule (CPM).
  - 2.2.3. Organization of Activities – All schedule activities are to be organized (by code) via a WBS provided by the Consultant/Contractor subject to approval by the Program Manager/Owner.
  - 2.2.4. Schedule Milestones – Schedule milestones are required to reflect key scope of work events that begin, end or represent an interim point within a work process. They are also required to integrate the schedule of values within the project schedule.
  - 2.2.5. Physical Percent Complete (Earned Value) – All schedule activity progress will be recorded as the authorized work physically accomplished. Level of Effort (LOE) progress commonly computed as the activity's duration expended to date divided by total activity duration is applicable to only those activities that are by nature overhead or management that cannot be broken down into smaller discrete activities. These activities are to be identified in the schedule of values or CPM as such.
  - 2.2.6. Cash Flow Curves and Tables – As part of the schedule, cash flow curves and tables will be prepared from the resource loaded schedule. The curves will be organized by scope of work total, WBS and any other coded grouping requested by the Program Manager. The curves distribution will be reported by month and by Fiscal Year.
- 2.3. Baseline Schedule, Current Schedule and Three-Week Look Ahead Schedule
  - 2.3.1. Baseline Schedule – The Baseline Schedule represents the scheduled scope of work agreed to between the Owner/Program Manager and Consultant or Contractor. This Baseline schedule is the benchmark upon which schedule, budget (cost) and cash flow progress is compared to determine performance.
  - 2.3.2. Current Schedule – The Current Schedule represents the scheduled scope of work progress that is recorded and updated on a periodic basis which is compared to the Baseline Schedule to determine schedule performance. Budget (cost) and cash flow performance.
  - 2.3.3. Three-Week look Ahead Schedule – Current week and three weeks ahead. This document must be created from the P6 schedule for consistency. Presenting the schedule in MS Excel with additional detail is acceptable provided the base schedule activities for the period of review are exported from P6.
  - 2.3.4. Presentation of Baseline and Current Schedules – The Baseline and Current Schedule activity bars shall be displayed together (per activity) on one schedule to show current performance. The activity data table of the schedule shall show the activities, Baseline

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start and finish dates, Forecast/Actual start and finish dates, duration, physical percent complete and total float.

### 2.3.5. Submittals

- 2.3.4.1. WBS and coding plan
- 2.3.4.2. Preliminary design and/or construction resource loaded schedule in P6 .xer file format (for use in creating an approved Baseline Schedule)
- 2.3.4.3. Baseline design and/or construction resource loaded schedule in P6 .xer file format
- 2.3.4.4. Monthly updated Current design and/or construction resource loaded schedule in P6 .xer file format
- 2.3.4.5. Monthly updated schedule analysis and narrative (see Project Controls)

## 3. Project Controls

- 3.1. The consultant/contractor will prepare monthly reports showing the comparison of actual costs and percent complete with baseline cost and percent complete for the scope of work. Project reports will be presented in a format consistent with guidelines provided by the Program manager within 30 days of Notice to Proceed (NTP).
- 3.2. Periodic Requirements – Three-Week Look Ahead Schedule for every Project Coordination or Progress Meeting
- 3.3. Monthly Requirements
  - 3.2.1. Design/construction schedule status updated
  - 3.2.2. Schedule of Values for progress payment application including physical percent complete
  - 3.2.3. Monthly Status Report – Analysis and Narrative
    - 3.2.3.1. Once the baseline design/construction schedule is accepted by the Program Manager the designer/contractor shall be responsible for preparing and submitting update information on logic, physical percent complete, actual start and finish dates, and duration changes. On a date determined by the Program Manager, the designer/contractor shall meet with the Program Manager to review the monthly progress schedule update. The designer/contractor and the Program Manager will review the updated design/construction schedule and discuss the content of the narrative report. All subsequent monthly schedule updates shall be compared to the baseline design/construction schedule. In addition, each current monthly update shall be compared to the last month's update. Designer/contractor will send a Primavera .xer file to the Program Manager. The narrative report shall include, but not be limited to, those activities that completed, started, finished or are in progress for the reporting period.
    - 3.2.3.2. Schedule Analysis and Narrative - An analysis of the CPM is required to report the status of the critical path as it relates to delay of the project (if any), changes in total float and changes in the composition of the critical path activities. The analysis results will be written in a narrative format with any supporting graphics as needed.

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4. **Project Changes** – Any change to be made to the Baseline Schedule must be approved by the Owner through a formal change request. The request must address whether the change in the schedule is a result of scope, activity start, finish or duration change, activity sequencing change, budget change or resource loading change among the activities or activity resource curve assignment.

### 5. Qualifications of Scheduler

The consultant/contractor shall employ or retain the services of a full-time onsite Project Scheduler who shall have a minimum of 10 years verifiable experience in design/construction work sequencing and recent experience using the most current version of Primavera Project Manager, Version 6.0 or later.

Within thirty (30) days after notice to proceed, the consultant/contractor shall submit the baseline design/construction schedule to the Program Manager including a written narrative to further explain the plan as set forth in the project schedule.

The work activities comprising the baseline schedule shall be of sufficient detail to assure adequate planning and execution of the work such that, in the judgment of the Program Manager, it provides an appropriate basis for forecasting, monitoring and evaluating the progress of the work.

The baseline design/construction schedule shall begin with the date of issuance of the notice to proceed and not exceed the maximum contract days provided by the contract.

### 6. Electronic Documentation

- 6.2. ROMP Document Control System - The ROMP projects are employing an electronic document control system, designated the Pima County Management Information System (PCMIS), based on Primavera's Contract Manager. Except where noted, PCMIS eliminates the need to submit multiple hard copies, sepias, CDs, etc. for required contract submittals. Instead, most documents can be submitted electronically with physical copies required only when copying is impractical or not possible, such as with samples, catalogue cuts, or large drawings. Original documents may also be necessary when original signatures are required; otherwise, electronic transmittals and documentation will be used. ROMP projects will have scanning capability for signed letters and transmittals that are sent; however, in most cases electronic copies of these documents will be sufficient. The detailed requirements can be worked out with the Pima County Project Manager following contract award. Contractors and Consultants needing to use PCMIS will be provided licenses by the County.

6.2.1. Modules of PCMIS that have been deployed and a description of the use of these modules by the County and Contractor/Consultant.

6.2.1.1. Correspondence Received and Sent - The County maintains a complete log and copy of all project correspondence received and sent. All documents generated in PCMIS are copied to the Correspondence Sent module. Electronic, or original scanned documents received by the County are copied into Correspondence Received.

6.2.1.2. Meeting Minutes and Action Items - Agendas for all formal meetings sponsored by the project are generated in PCMIS, and PCMIS is used to record the minutes and action items. Action items are given discrete numbers and are tracked for follow-up actions. Standard meeting templates are used for regular meetings. Consultants and Contractors do not use this

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module. Their meeting minutes are sent electronically to the project administrator.

- 6.2.1.3. Drawings and Drawing Sets - PCMIS has a module for the storage of all contract drawings and revisions. The County also has a second electronic document control system, designated DMS that is available to authorized project stakeholders. PCMIS is available only to users with a Contract Manager license. Since drawings need to be available to a broader audience, DMS can be used for the storage of drawings in lieu of, or in addition to, PCMIS at the discretion of the Project Manager.
  - 6.2.1.4. Daily Inspection Reports - Daily inspections reports prepared by County inspectors, or by consultants hired to work on behalf of the County, are generated in PCMIS using standard templates. The features in PCMIS make preparation of these reports easier and more consistent than use of word processing software. Daily Reports by contractors are submitted electronically using their software and are stored in PCMIS in Correspondence Received.
  - 6.2.1.5. RFIs (Requests for Information) - RFIs are to be submitted electronically using PCMIS. Answers to RFI questions will be delivered back to the contractor electronically through PCMIS.
  - 6.2.1.6. Submittals - Contractors will provide a submittal register at the beginning of the contract (per the Submittals specification) and the County or its consultant will record the entries in PCMIS. Individual submittals will be submitted electronically through PCMIS by the Contractor, with the provision that non-scanable items be delivered manually the same day and noted in the submittal. Submittal responses will be provided back to the Contractor electronically.
  - 6.2.1.7. Payment Applications - Payment applications can be submitted either electronically by the Contractor using PCMIS or manually, and the PM staff will enter the information into the Payment Application module. This decision is at the discretion of the project manager.
  - 6.2.1.8. Change Management - Changes to Contracts or Purchase Orders are managed using the Change Management module. Change Notice (County initiated) or Change Request (Contractor initiated) documents are prepared outside of PCMIS. Amounts and negotiations are tracked using PCMIS. Final changes to be submitted for County department or board approval are prepared in the PCMIS.
- 6.3. ROMP Document Management System (DMS) – The ROMP Document Management System is based on Microsoft SharePoint. This system is used for storage and retrieval of documents not prepared and stored in the PCMIS (Contract Manager) and for PCMIS documents that is shared to program and project stakeholders who do not have access to the PCMIS. The decision regarding which documents are to be stored in both systems is determined by the Pima County Project Manager. The system is web-based and operated by the ROMP.
- 6.3.1. Consultant/Contractor Requirements – All consultants and contractors may be given access to a Document Library within the DMS for the purpose of uploading contract deliverables and downloading documents from Pima County.

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- 6.3.2. Access and Training – The ROMP program will provide access to this system on an as-needed basis and provide any training required for Consultant/Contract users. Since the system is intuitive, instructions for use are given at the time access is enabled.
- 6.3.3. Physical Documents (hard copy) – Use of the ROMP DMS does not relieve the consultant or contractor of the requirement to provide hard copy or wet signature documents as required by the Pima County Project Manager, ROMP Program Manager or Pima County contract with the consultant or contractor.

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