

This section is used for projects under \$1,000,000 use other section if more than \$1M

SECTION 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SCOPE

- A. Preliminary Contract Schedule, Contract Schedule, and updated Contract Schedules.
- B. Graphical Reports
- C. Computer Software Requirements

1.2 DEFINITIONS

- A. Critical Work activities are defined as Work activities that, if delayed or extended, will cause a critical delay as defined in General Conditions Article 8. All other Work activities are defined as non-critical Work activities and are considered to have float.
- B. Float is defined as the time that a non-critical Work activity can be delayed or extended without causing a critical delay as defined in General Conditions Article 8. Neither the Contractor nor the University shall have an exclusive right to the use of float. Float is a shared resource available to each party to the contract. The Contractor shall document the effect of the use of float on the updated Contract Schedule.
- C. Preliminary Contract Schedule is defined as a practical schedule representing the Contractors plan for accomplishing the work within the Contract time showing all significant milestones for the Contract period as well as a detailed work plan for the first 60 days following the Notice to Proceed. The Preliminary Contract Schedule shall not include any actual dates or progress measured against any activities.

Edit between [ ], 60 days recommended for large projects

- D. Contract Schedule is defined as a graphical representation of a practical plan to complete the Work within the Contract Time. The first Contract Schedule that shall be submitted to the University not later than [30] [60] days after Notice to Proceed. The period covered by Contract Schedule shall be the Contract Time. The Contract Schedule shall incorporate the logic of the Preliminary Contract Schedule covering the first 60 days following the Notice to Proceed.
- E. Look Ahead Schedule is defined as a schedule derived from the Contract Schedule (or the most current monthly update of the Contract Schedule) which indicates in detail all activities scheduled or worked on for the 2 prior weeks, and all activities scheduled to occur during the next 4 weeks.

1.3 SUBMITTALS REQUIRED

- A. Submit the following in accordance with Section 01 33 23 Shop Drawings, Product Data, Samples
  - 1. Preliminary Contract Schedule
  - 2. Contract Schedule
  - 3. Monthly Updates to Contract Schedule
  - 4. Graphical Reports
  - 5. Electronic Schedule Files
  - 6. Look Ahead Schedules
- B. Submit all submittals required by this specification (except preliminary schedule and look-ahead schedules) to the University's Representative via electronic means. Submit 2 copies when transmitting via a diskette or CD-ROM.

PART 2 - PRODUCTS

2.1 SOFTWARE

- A. Software Requirements

1. The Contractor shall use SureTrak Project Manager by Primavera Systems, or equal to produce the schedule and all required graphical and tabular reports.

### PART 3 - EXECUTION

#### 3.1 PRELIMINARY CONTRACT SCHEDULE

- A. Within 10 days after the notice of selection as the apparent lowest responsible bidder, Contractor shall submit a Preliminary Contract Schedule to the University's Representative for approval. This schedule shall account for use of the Contract Time and identify significant known constraints and milestones within the Contract Time. The Preliminary Contract Schedule shall provide a detailed work plan of all activities planned by the Contractor for the first 60 days of the project subsequent to the Notice to Proceed as well as all anticipated activities prior to the Notice to Proceed. The Preliminary Contract Schedule, including the logic contained therein, shall be incorporated into the Contractor's proposed Contract Schedule. In addition to the detailed work plan, the Contractor shall identify in detail the following planned activities in the Preliminary Contract Schedule:
  1. Preparation of equipment and material submittals for review.
  2. Fabrication and delivery periods of long lead items.
  3. Major milestones.
  4. All holidays, UC Davis finals weeks and non-working days.
- B. Submission – The Contractor shall submit an electronic version (computer backup file) of the Preliminary Contract Schedule, as well as a Gantt chart of the Preliminary Contract Schedule to the University for approval as a condition precedent to being eligible for receipt of the first progress payment. The files shall be provided on CD-ROM prepared in MS Windows format.
- C. Form – The Preliminary Contract Schedule shall reflect the Contractor's actual plan of work for the first 60 days of the project. The Contractor's progress shall be measured against the preliminary contract schedule until such time as the University approves the Contractor's first Contract Schedule.

#### 3.2 CONTRACT SCHEDULE

- A. Within 30 days of the Notice to Proceed date, the Contractor shall submit its proposed Contract Schedule. The proposed Contract Schedule shall incorporate the Preliminary Contract Schedule, including the logic of the Preliminary Schedule, unless approval is granted by the University's Representative to deviate from this requirement.
- B. Form:
  1. The proposed first contract schedule shall be produced using CPM (Critical Path Method) techniques, in the PDM (Precedence Diagram Method) method of scheduling.
  2. When approved, the proposed first Contract Schedule shall become the Contract Schedule.
  3. The Contract Schedule shall represent a practical plan to fully complete the Contract within the Contract Time.
  4. The Contract Schedule shall identify all holidays, UC Davis finals weeks and non-working days.
  5. The Contract Schedule activities shall be coded with the following information applicable to each activity:
    - a. Area of the project
    - b. Identity of the party responsible for the activity (i.e., University, General Contractor, specific subcontractor...)
    - c. Specification section applicable to activity
    - d. Phase – The following phases shall be identified:
      - 1) Administrative
      - 2) Submittal and Review
      - 3) Fabrication
      - 4) Construction
      - 5) Inspection

C. Content:

1. The Contract Schedule shall identify all Work activities in correct sequence for the completion of the Work within the Contract Time. Work activities shall include the following:
  - a. Major Contractor-furnished equipment, materials, and building elements requiring submittals or University's Representative's prior approval.
    - 1) Show dates for the submission, review, and approval of each such submittal. Dates shall be shown for the procurement, fabrication, delivery, and installation of major equipment, materials, and building elements, and for scheduled activities designated by the University.
    - 2) A minimum of 18 days shall be allotted for University's Representative to review each submittal. The 18 days shall be measured starting with actual receipt by the University Representative of the submittal.
  - b. System test dates.
  - c. Dates Contractor requests designated workspaces, storage area, access, and other facilities to be provided by the University.
  - d. Dates Contractor requests orders and decisions from the University on designated items.
  - e. Dates Contractor requests University-furnished equipment.
  - f. Dates Contractor requests University-furnished utilities.
  - g. Planned dates for connection and relocation of existing utilities.
  - h. Planned dates for connecting to or penetrating existing structures.
  - i. Planned dates for scheduled inspections as required by Codes, or as otherwise specified.
  - j. Commissioning Sequence and activities for all Building Systems.
  - k. Punchlist and punchlist correction periods.
  - l. University Training periods.
2. The Contract Schedule shall include a complete sequence of construction, in adequate detail for the planning and coordination of the Work. Unless approved by the University's Representative, there shall be no activities shown with durations in excess of 20 business days.
3. The Contract Schedule shall be calculated using the Retained Logic method. Progress override calculations shall not be acceptable.

D. Submission

1. The Contractor shall submit an electronic version (computer backup file) of the Contract Schedule, as well as a Gantt chart of the Contract Schedule to the University. The files shall be provided on CD-ROM, prepared in MS Windows format.
2. Tabular Computer Reports
  - a. As requested by the University, the Contractor shall submit various computer-generated tabular reports.

E. Acceptance

1. Upon receipt, the University's Representative shall review the proposed first Contract Schedule. Within 5 business days of the University's receipt of the proposed first Contract Schedule, the University's Representative shall schedule a review meeting with the Contractor for the purpose of jointly reviewing the proposed first Contract Schedule. The meeting shall occur within 10 business days of the University's receipt of the proposed first contract schedule.
2. If the proposed first Contract Schedule is accepted by the University's Representative, it shall become the Contract Schedule. Such acceptance shall not relieve Contractor from its responsibility to fully complete the Contract within the Contract Time, nor shall it relieve Contractor from sole responsibility for any errors in the Contract Schedule.
3. If the Contractor or the University's Representative determines the proposed first Contract Schedule to be in need of revision, within 5 business days following the joint review meeting, the Contractor shall revise and resubmit the proposed first Contract Schedule to the University's Representative for acceptance, and, upon acceptance thereof, it shall become the Contract Schedule. Such acceptance shall not relieve Contractor from its responsibility to fully

complete the Contract within the Contract Time, nor shall it relieve Contractor from sole responsibility for any errors in the Contract Schedule. No progress payment beyond the second progress payment will be paid to the Contractor until such time as the University's Representative has approved the Contractor's first Contract Schedule.

### 3.3 MONTHLY UPDATES

- A. After approval of the first proposed Contract Schedule, Contractor shall update the Contract Schedule monthly. The update shall reflect progress as of the end of each month. Contractor shall submit monthly schedule update to the University's Representative for approval by no later than the tenth day of the following month. The updates shall be made as follows:
  1. The Monthly updates shall report progress based upon percent complete of each activity or remaining duration. Actual start dates shall be recorded for those activities that have started. Actual finish dates shall be recorded for those activities that are completed. Activities that are in progress shall reflect an actual start date and the percentage completion for the activity.
  2. The updated Contract Schedule shall reflect an up-to-date status of the contract work as completed, and materials furnished and in permanent place that qualify for payment.
  3. The updated Contract Schedule shall reflect Contract Time changes included in all processed change orders for the progress month and each preceding month
- B. Within 5 business days after receipt of the updated Contract Schedule in conjunction with the Application for Payment, the University's Representative shall review both and determine which work and material pay items qualify for payment; the approved data will then be returned to the Contractor with comments. The Contractor and the University's Representative shall meet to review the Construction CPM Schedule and discuss any changes required.
- C. The Contractor shall then revise and resubmit (if required) the Updated Contract Schedule and Application for Payment to the University's Representative for payment approval.
- D. The monthly update shall be calculated using retained logic with a required finish date specified as the current contract completion date. Progress Override calculations shall not be acceptable.
- E. No Applications for Payment will be processed nor shall any progress payments become due until updated Contract Schedules are accepted by University's Representative. The accepted, updated Contract Schedule shall be the Contract Schedule of record for the period it is current and shall be the basis for payment during that period. Acceptance of any updated Contract Schedules shall not relieve Contractor from its responsibility to fully complete the Contract within the Contract Time, nor shall it relieve Contractor from sole responsibility for any errors in the updated Contract Schedules.
- F. Submission
  1. The Contractor shall submit an electronic version (computer backup file) of the monthly update of the Contract Schedule, as well as a Gantt chart of the updated Contract Schedule to the University. The files shall be provided on CD-ROM produced in MS Windows format.
- G. Obligation
  1. Contractor shall perform the Work in accordance with the updated Contract Schedule. Contractor may change the Contract Schedule to modify the order or method of accomplishing the Work only with prior agreement by the University.

### 3.4 LOOKAHEAD SCHEDULES

- A. Provide detailed lookahead schedules every 2 weeks indicating all activities planned during the next 4 weeks.
- B. Submit in 11 inch by 17 inch Gantt chart format. Provide as many copies as requested by University's representative.

- C. Lookahead schedule shall correlate to the then current Preliminary Contract Schedule, Contract Schedule, or updated Contract Schedule. Lookahead schedules shall be legible but may be hand written and drawn.

### 3.5 GANTT CHART REQUIREMENTS

- A. Gantt Charts shall meet the following requirements
  - 1. Prepared on 11 inch by 17 inch paper
  - 2. Organized by Area and Phase
  - 3. Sorted by Early Start dates, then Total Float
  - 4. Bars shall be formatted in such a way that they are visually distinguishable through the use of graphical tools such as cross hatching (the use of color copies is encouraged)
  - 5. Columns shall include at a minimum
    - a. Activity ID
    - b. Activity Description
    - c. Original Durations
    - d. Remaining Durations
    - e. Early Start Dates
    - f. Early Finish Dates
    - g. Percent Complete
  - 6. The critical path of paths shall be clearly identifiable.

END OF SECTION 01 32 00