

PART 1 – GENERAL

1.1 RELATED SECTIONS

- .1 Section 013300 - Submittal Procedures

1.2 DEFINITIONS

- .1 Construction Progress Schedule (Project Time Management): describes processes required to ensure timely completion of Project. These processes ensure that various elements of Project are properly co-ordinated. It consists of planning, time estimating, scheduling, progress monitoring and control.
- .2 Planning: this is most basic function of management, that of determining presentation of action and is essential.
 - .1 It involves focusing on objective consideration of future, and integrating forward thinking with analysis; therefore, in planning, implicit assumptions are made about future so that action can be taken today.
 - .2 Planning and scheduling facilitates accomplishment of objectives and should be considered continuous interactive process involving planning, review, scheduling, analysis, monitoring and reporting.

1.3 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Include costs for execution, preparation and reproduction of schedule submittals in bid documents.
- .3 Submit letter ensuring that schedule has been prepared in co-ordination with major subcontractors.
- .4 Refer to article "Progress monitoring and reporting" of this specification Section for frequency of schedule submittals.
- .5 Submit Construction Progress Schedule in the following form.
 - .1 CD files in original scheduling MS Project software and PDF format labelled with data date, specific update, and person responsible for update.
- .6 Update and submit the Construction Progress Schedule:
 - .1 Every time there are major changes;
 - .2 Before each project meeting
 - .3 With each invoice.

1.4 PROJECT MEETING

- .1 Meet with Departmental Representative within five (5) working days of Award of Contract date to coordinate work activities and establish the construction schedule requirements.

1.5 CONSTRUCTION PROGRESS SCHEDULE

- .1 Submit a detailed project schedule within ten (10) working days of Award of Contract date showing activity sequencing, interdependencies and duration estimates. Include listed activities as follows:
 - .1 Shop drawings.
 - .2 Samples.
 - .3 All other submittals (e.g. noise control plan).
 - .4 Approvals.
 - .5 Procurement.
 - .6 Enclosures and site protection.
 - .7 Excavation and archaeological monitoring.
 - .8 Demolition and construction.
 - .9 Installation.
 - .10 Site works.
 - .11 Testing and inspections.
 - .12 Commissioning and acceptance.
 - .13 Close out documents submission.
 - .14 Substantial Completion.
 - .15 Final Completion.
- .2 Show a minimum of four phases of mobilization, as indicated in 011400 – Work Restrictions.
- .3 Clearly show sequence and interdependence of construction activities and indicate:
 - .1 Start and completion of all items of Work, their major components, and interim milestone completion dates.
 - .2 Activities for procurement, delivery, installation and completion of each major piece of equipment, materials and other supplies, including:
 - .1 Time for submittals, resubmittals and review.
 - .2 Time for fabrication and delivery of manufactured products for Work.
 - .3 Interdependence of procurement and construction activities.
 - .3 Include sufficient detail to assure adequate planning and execution of Work. Activities should generally range in duration from three (3) to fifteen (15) workdays each.
- .4 Ensure Construction Progress Schedule is practical and remains within specified Contract duration.
- .5 Construction Progress Schedule deemed impractical by Departmental Representative are revised and resubmitted for approval.

- .6 Acceptance of Construction Progress Schedule showing scheduled Contract duration shorter than specified Contract duration does not constitute change to Contract. Duration of Contract may only be changed through bilateral Agreement.
- .7 Allow for and show Construction Progress Schedule adverse weather conditions normally anticipated. Specified Contract duration has been predicated assuming normal amount of adverse weather conditions.
- .8 Provide necessary crews and manpower to meet schedule requirements for performing Work within specified Contract duration.
- .9 Arrange participation on and off site of subcontractors and suppliers, as required by Departmental Representative, for purpose of planning, scheduling, updating and progress monitoring. Approvals by Departmental Representative of Construction Progress Schedule and revisions does not relieve Contractor from duties and responsibilities required by Contract.
- .10 Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.
- .11 Insert Change Orders in appropriate and logical location of Detail Schedule. After analysis, clearly state and report to Departmental Representative for review effects created by insertion of new Change Order.
- .12 Construction Progress Schedule to be developed and maintained using MS Project software only.

1.6 REVIEW OF THE CONSTRUCTION PROGRESS SCHEDULE

- .1 Allow five (5) work days for review by Departmental Representative of proposed construction progress Schedule.
- .2 Upon receipt of reviewed construction Progress Schedule make necessary revisions and resubmit to Departmental Representative for review within five (5) work days.
- .3 Promptly provides additional information to validate practicability of Construction Progress Schedule required by Departmental Representative.
- .4 Submittal of Construction Progress Schedule indicates that it meets Contract requirements and will be executed generally in sequence.

1.7 COMPLIANCE WITH CONSTRUCTION PROGRESS SCHEDULE

- .1 Comply with reviewed Construction Progress Schedule

- .2 Proceed with significant changes and deviations from scheduled sequence of activities that cause delay, only after written receipt of approval by Departmental Representative.
- .3 Identify activities that are behind schedule and causing delay. Provide measures to regain slippage.
 - .1 Corrective measures may include:
 - .1 Increase of personnel on site for effected activities or work package.
 - .2 Increase in materials and equipment.
 - .3 Overtime work and/or additional work shifts.
- .4 Submit to Departmental Representative, justification, project schedule data and supporting evidence for approval of extension to Contract completion date or interim milestone date when required. Include as part of supporting evidence:
 - .1 Written submission of proof of delay based on revised activity logic, duration and costs, showing time impact analysis illustrating influence of each change or delay relative to approved contract schedule.
 - .2 Prepared schedule indicating how change will be incorporated into the overall logic diagram. Demonstrate perceived impact based on date of occurrence of change and include status of construction at that time.
 - .3 Other supporting evidence requested by Departmental Representative.
 - .4 Do not assume approval of Contract extension prior to receipt of written approval from Departmental Representative.

1.8 PROGRESS MONITORING AND REPORTING

- .1 Project construction Progress Meetings to occur every one (1) weeks in accordance with Section 01 31 19 – Project Meetings.
- .2 On ongoing basis, Construction Progress Schedule must show "Progress to Date". Arrange participation on and off site of subcontractors and suppliers, as, and when necessary, for purpose of network planning, scheduling, updating and progress monitoring.

Inspect Work with Departmental Representative at least once every one (2) weeks to establish progress on each current activity shown on applicable networks.
- .3 Perform Construction Progress Schedule update every two (2) weeks. Update to reflect activities completed to date, activities in progress, logic and duration changes.
- .4 Do not automatically update actual start and finish dates by using default mechanisms found in project management software.
- .5 Submit to Departmental Representative copies of updated Construction Progress Schedule

- .6 As Project progresses, keep team aware of changes to schedule, and possible consequences. In addition to Bar Charts, use narrative reports to provide advice on seriousness of difficulties and measures to overcome them.
 - .1 Narrative reporting begins with statement on general status of Project followed by summarization of delays, potential problems, corrective measures and Project status criticality
- .7 Requirements for monthly progress monitoring and reporting are basis for progress payment request.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

***** END OF SECTION *****