

## SECTION 01320 - DECONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of the performance of the Work, including the following:
  - 1. Preliminary Project Schedule.
  - 2. Contractor's Project Schedule.
  - 3. Submittals Schedule.
  - 4. Daily construction reports.
  - 5. Field condition reports.

#### 1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the Project. Activities included in the Project Schedule consume time and resources.
  - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
  - 2. Predecessor Activity: An activity that precedes another activity in the network.
  - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the Schedule of Values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Lump Sum, unless otherwise approved by LMDC.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
  - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and the Scheduled Completion Date.
  - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the Scheduled Completion Date.

- G. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- H. Major Area: A story of construction, a separate building, or a similar significant construction element.
- I. Milestone: A key or critical point in time for reference or measurement.
- J. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.
- K. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

### 1.3 SUBMITTALS

- A. Qualification Data: For Scheduling Consultant.
- B. Submittals Schedule: Submit eight (8) copies of schedule. Arrange the following information in a tabular format:
  - 1. Scheduled date for first submittal.
  - 2. Specification Section number and title.
  - 3. Submittal category (action or informational).
  - 4. Name of subcontractor.
  - 5. Description of the Work covered.
- C. Preliminary Deconstruction Schedule: Submit eight (8) copies.
  - 1. Preliminary Deconstruction Schedule: Prepare a preliminary horizontal bar-chart-type deconstruction schedule for the project. Submit the Preliminary Deconstruction Schedule to the Owner within 7 calendar days after the date established for commencement of the Contract, unless otherwise required by the General Conditions. Revise the Preliminary as required until it is approved by the General Conditions.
    - a. Provide a separate time bar for each significant deconstruction activity. Coordinate each element on the schedule with other deconstruction activities. Schedule each deconstruction activity in proper sequence.
    - b. Schedule shall be time-scaled in not more than weekly increments, with the dates of the first day of each week indicated.
    - c. Completion of the Work shall be indicated in advance of the date established for completion of the Contract.
    - d. With the submission of the Preliminary Deconstruction Schedule, include a tabulation by date of submittals required during the first 90 calendar days of deconstruction, or show the submittals on the schedule. Include the submittals required to maintain orderly progress of the Work and those required early because of long lead-time for manufacture or fabrication.
  - 2. Approval of cost-loaded preliminary Deconstruction Schedule will not constitute approval of Schedule of Values for cost-loaded activities.



- D. Preliminary Network Diagram: Submit eight (8) copies, large enough to show entire network for entire deconstruction period. Show logic ties for activities.
- E. Contractor's Deconstruction Schedule: Submit eight (8) copies of schedule, large enough to show entire schedule for entire construction period.
  - 1. Contractor's Deconstruction Schedule: Prepare and periodically update a comprehensive, fully developed, horizontal bar-chart-type deconstruction schedule. Base the Contractor's Deconstruction Schedule on the approved Preliminary Deconstruction Schedule and whatever updating and feedback has been received since the start of deconstruction.
    - a. Submit the initial Contractor's Deconstruction Schedule within 60 calendar days after the date established for commencement of the Work.
    - b. Within each deconstruction activity's time bar, indicate estimated completion percentages in not more than 10 percent increments and, as Work progresses, place marks in the bars to indicate actual completion percentages.
    - c. Cost Correlation: If requested by the Owner, provide a cost correlation line at the head of the schedule to indicate planned and actual cost. As Work progresses, show dollar volume of Work performed as of the dates used for applications for payment.
    - d. Individual Work Stages: Show significant stages for each category or unit of work.
    - e. Area Separations: Arrange the schedule to separately show each major category or unit of work for each major area of demolition. Indicate where each major category or unit of work must be sequenced or integrated with other work as necessary for overall work in that area. A major area is defined as a story of deconstruction, a separate building or similar separation. Copies of the original drawings of the existing Building are attached to the Contract for reference. These may be used to prevent and track, phase abatement and demolition operations.
    - f. Updating: Provide an updated schedule in conjunction with each project meeting. In addition, revise the schedule after each event or activity that causes a significant change in the planned progress of the Work. Highlight or otherwise emphasize revisions for ease of identification.
    - g. Distribution: Print and distribute copies of the initial Contractor's Deconstruction Schedule, and each updated or revised schedule, to the Owner, as well as to subcontractors and other parties required to comply with upcoming scheduled dates. Post copies in the project meeting room and temporary field office.
  - 2. Submit an electronic copy of schedule, using Primavera (P3- PRX) software, via E-Mail and on CD-R, and labeled to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.
- F. CPM Reports: Concurrent with CPM schedule, submit eight (8) copies of each of the following computer-generated reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
  - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
  - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
  - 3. Total Float Report: List of all activities sorted in ascending order of total float.

G. Daily Deconstruction Reports: Submit eight (8) copies at progress meetings.

1. Daily Deconstruction Reports: Prepare a daily deconstruction report recording the following information concerning events at the site. Submit duplicate copies to the Owner or Owner's Authorized Representative at weekly intervals.

- a. List of subcontractors at the site.
- b. List of separate contractors at the site.
- c. Count of personnel at the site.
- d. High and low temperatures, general weather conditions.
- e. Accidents.
- f. Meetings and significant decisions.
- g. Unusual events.
- h. Stoppages, delays, shortages, and losses.
- i. Emergency procedures.
- j. Orders and requests of governing authorities.
- k. Change Orders received or implemented.
- l. Services connected or disconnected.
- m. Summary of all work performed, detailed by trade.
- n. Monthly Reports.

H. Field Correction Reports: When the need to take corrective action requires a departure from the Contract Documents, prepare a detailed report. Include a statement describing the problem and recommended changes. Indicate reasons the Contract Documents cannot be followed. Submit a copy to the Owner or Owner's Authorized Representative for approval.

I. Unusual Event Reports: When an event of an unusual and significant nature occurs at the site, prepare a detailed report. List the chain of events, persons participating, response(s) by the Contractor's personnel, evaluation of the results or effects, and similar pertinent information. Submit a copy to the Owner or Owner's Authorized Representative immediately. Advise the Owner or Owner's Authorized Representative in advance when such events are known or predictable. Number of copies for reports in four paragraphs below assumes that Architect and Owner, or Architect and Construction Manager, each receive a copy. Revise to suit Project.

J. Monthly Reports:

1. Schedule to include man power allocation to meet proposed schedule as well as equipment listing and how the equipment relates to the schedule. A man power report should support the scheduled work activities being planned and the anticipated crew sizes required to fulfill that work task. The schedule should be in a CPM format that can track the work paths and be evaluated;
2. Outline of safety program and safety training;
3. Certified payrolls from all, which should be included in the MBE/WBE work force log;
4. Submission of time sheets from all extra work;
5. Request for monies on all allowance work, additional work, change order work needs to be supported with complete documentation (time sheets, invoices, material charges, etc.)
6. Union reports and proof of payment;
7. Documentation to support rate charges of non union personnel;
8. The daily security logs from the relevant month;
9. All incident reports which should be generated by Contractor or the security vendor on all site accidents, safety violations, theft, vandalism, security breaches, workplace violence



- or threats of violence, trespass, and any calls made to local, state or federal authorities/regulatory agencies;
10. Notice of the contractor's employee(s) or a subcontractor's employee(s) being removed from the job for cause. Contractor should include the employer's information, the employee's information, and the circumstances surrounding the removal;
  11. Copies of weekly site safety report (as defined in site access and emergency protocols for 130 Liberty Street summary by Contractor)
  12. Contractor shall give LMDC a monthly report showing all change orders/Allowance Work Authorizations claimed or pending as of the date of such report and all unresolved claims for extra payment by subcontractors. This report shall reflect any and all pending claims, whether written or otherwise presented to Contractor and/or LMDC, as of the date of such report. All pending claims shall be annotated by Contractor to include Contractor's assessment of the claim and the potential impact of the claim on the project schedule;
  13. Cumulative list of delays to the work (whether excusable delays, compensable delays, or otherwise);
  14. Section 3 workforce report as required under HUD guidelines;
  15. Contractor and each Subcontractor shall certify in writing that Contractor (and the applicable Subcontractor) has paid or provided (and has caused all subcontractors to pay or provide) at least the prevailing rates of wage and supplements required by this Article 21 of the contract by and between the Lower Manhattan Development Corporation and Contractor, and Contractor shall comply (and cause its Subcontractors to comply) with any such request within ten (10) calendar days of Contractor's receipt thereof. Contractor's certification shall be executed by a corporate officer, if Contractor is a corporation; a partner, if Contractor is a partnership; a manager, if Contractor is a limited liability company; or the owner, if Contractor is a sole proprietorship;
  16. All legal requirements (and required supporting documentation as determined by contract or law) as stated in Schedule "A", Article III of the LMDC/Contractor contract including, but not limited to, Davis-Bacon requirements, the Copeland "Anti-Kickback" Act and others as required;
  17. Copy of all safety violations, reports, action items; and
  18. Copy of all inspections and violations issued by regulating authority, such as EPA, DEP, DOB, DOL etc.
  19. Submittal schedule should be included indicating the delivery dates of required submissions, permits, approvals, work plans, etc, that ties these dates into Contractor's overall project schedule.
  20. A one month look ahead schedule, indicating what work activities are being planned for the upcoming month. The entire schedule should indicate monthly progress, look ahead, status, any modifications and revisions.

#### 1.4 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to the Preliminary Deconstruction Schedule and Contractor's Deconstruction Schedule, including, but not limited to, the following:

1. Review software limitations and content and format for reports.
2. Verify availability of qualified personnel needed to develop and update schedule.
3. Discuss constraints, including phasing work stages, area separations and interim milestones.
4. Review schedule for work of Owner's other separate contractors.
5. Review time required for review of submittals and resubmittals.
6. Review requirements for tests and inspections by independent testing and inspecting agencies.
7. Review and finalize list of deconstruction activities to be included in schedule.
8. Review submittal requirements and procedures.
9. Review procedures for updating schedule.

## 1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Deconstruction Schedule with the Schedule of Values, list of subcontracts, submittals schedule, progress reports, payment requests, and other required schedules and reports.
  1. Secure time commitments for performing critical elements of the Work from parties involved.
  2. Coordinate each deconstruction activity in the network with other activities and schedule them in proper sequence.

## PART 2 - PRODUCTS

### 2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by Deconstruction Schedule. Include time required for review and resubmittal when establishing dates.
  1. Coordinate submittals schedule with list of subcontracts, the Schedule of Values, and Contractor's Deconstruction Schedule.
  2. Initial Submittal: Submit concurrently with Preliminary Deconstruction Schedule. Include submittals required during the first 60 days of construction.
    - a. At Contractor's option, show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.

### 2.2 CONTRACTOR'S DECONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in this Section and Section 01311. In case of conflict, the more stringent requirement shall govern.



- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial and Final Completion.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each floor or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Owner.
  2. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Deconstruction Schedule with submittals schedule.
  3. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Owner's administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
  2. Work under More Than One Contract: Include a separate activity for each contract.
  3. Work by Others: Include a separate activity for each portion of the Work performed by others.
  4. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with other contractors.
    - b. Uninterruptible services.
    - c. Use of premises restrictions.
    - d. Provisions for future construction.
    - e. Seasonal variations.
    - f. Environmental control.
  5. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
    - a. Subcontract awards.
    - b. Submittals.
    - c. Purchases.
    - d. Sample testing.
    - e. Deliveries.
    - f. Tests and inspections.
    - g. Final clean-up.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
- F. Change Orders: For each proposed Change Order and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall Project Schedule.

- G. Computer Software: Prepare schedules using Primavera in "P3" format.

## 2.3 PRELIMINARY DECONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type deconstruction schedule within seven (7) days of the Notice to Proceed.
- B. Preparation: Indicate each significant deconstruction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant deconstruction activities for first sixty (60) days of deconstruction. Include skeleton diagram for the remainder of the Work.

## 2.4 CONTRACTOR'S DECONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Preliminary Network Diagram: Submit diagram within seven (7) days of the Notice to Proceed. Outline significant deconstruction activities for the first sixty (60) days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's Deonstruction Schedule using a computerized, time-scaled CPM network analysis diagram for the Work.
1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than fifteen (15) days after the Notice to Proceed.
    - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all Work within applicable completion dates, regardless of Owner's approval of the schedule.
  2. Establish procedures for monitoring and updating CPM Schedule and for reporting progress. Coordinate procedures with progress meeting.
  3. Use "one workday" as the unit of time. Include list of nonworking days and holidays incorporated into the schedule.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the preliminary network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.
    - b. Mobilization and demobilization.
    - c. Utility interruptions.
    - d. Acquiring permits.
    - e. Demolition work.
    - f. Work by others that may affect or be affected by Contractor's activities.



- g. Testing.
- 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Project milestone dates.
- 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM Schedule within the limitations of the time for completion.
- 4. Format: Mark the critical path.
  - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Initial Issue of Schedule: Prepare initial network diagram from a list of straight "early start-total float" sort. Identify critical activities. Prepare tabulated reports showing the following:
  - 1. Contractor or subcontractor and the Work or activity.
  - 2. Description of activity.
  - 3. Principal events of activity.
  - 4. Immediate preceding and succeeding activities.
  - 5. Early and late start dates.
  - 6. Early and late finish dates.
  - 7. Activity duration in workdays.
  - 8. Total float or slack time.
- F. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
  - 1. Identification of activities that have changed.
  - 2. Changes in early and late start dates.
  - 3. Changes in early and late finish dates.
  - 4. Changes in activity durations in workdays.
  - 5. Changes in the critical path.
  - 6. Changes in total float or slack time.
  - 7. Changes in the milestones (if approved by Owner).

## 2.5 REPORTS

- A. Daily Deconstruction Reports: Prepare a daily deconstruction report recording the following information concerning events at Project site:
  - 1. List of subcontractors at Project site.
  - 2. List of separate contractors at Project site.
  - 3. Approximate count of personnel at Project site.
  - 4. Equipment at Project site.
  - 5. Material deliveries.
  - 6. High and low temperatures and general weather conditions.
  - 7. Accidents.
  - 8. Meetings and significant decisions.
  - 9. Unusual events (refer to special reports).

10. Stoppages, delays, shortages, and losses.
11. Meter readings and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Change Orders received and implemented.
15. Services connected and disconnected.
16. Substantial Completions authorized.

- B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a request for interpretation. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

### PART 3 - EXECUTION

#### 3.1 CONTRACTOR'S DECONSTRUCTION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
  2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. Contractor's Deconstruction Schedule Updating: At monthly intervals, update and submit schedule to reflect actual deconstruction progress and activities.
1. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  2. As the Work progresses, indicate actual completion percentage for each activity.

END OF SECTION 01320