

Project Management II: Monitoring Activities to Ensure Compliance with Project Schedule

National Association of Elevator Contractors



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About this Study Guide

This guide is intended to supplement your individualized Skillsoft learning by providing materials and examples specific to the vertical transport industry.

The learning objective for this study guide is for the student to identify appropriate monitoring activities to ensure adherence to project schedule and to identify milestones for each entity's work.

Information included in this study guide is intended for educational purposes only. Check with your company for specific guidelines.

Skillsoft related lessons:



Skillbriefs: Control Schedule Inputs (PROJ_22A03_BS);
Time Management Processes (PROJ_22_A01_BS);
Planning Schedule Management-(PROJ_22_A01_BS);
Monitoring and Measuring Schedule Performance (PROJ_22_A03_BS)

Expert Summary

There are several factors that contribute to an elevator project schedule. The first factor is the owner's requested turn over date. This should be determined before you enter a contract. The other factors are vendor lead times and your manpower schedule. Owners requested turnover dates are often ambitious and are not always realistic or accurate. However, it is a starting point. Vendor lead times need to be negotiated on each job. You should not assume your next job with a vendor will ship in the same time as your last. An elevator installation or modernization requires the work of other trades such as electricians, masons, carpenters, fire/security contractors, and plumbers. This work is not typically in your contract. However, the project manager needs to inform the general contractor of the work necessary and periodically check to see if the work is being completed. There is "work by others" required before the elevator work can begin and more required prior to scheduling the final inspection and turnover. Changes in the schedule and delays caused by other trades needs to be documented. Once work begins, progress should be checked at least every other day. Installers should know the schedule.

Also, creating your own project schedule using a program such as Microsoft Project is highly recommended. Templates with detailed tasking for different types of product installations or modernizations can be created and re-used on future projects.

- Review Master Schedule, if provided, and immediately identify Owner's Turn Over for Completion (TCO)
- Identify building and other trade work that is directly related to or may impact your schedule in any way
- Identify Vendor lead-times for drawings, manufacturing and delivery.
- Convey same to Owner and define required turn-around by Owner of approved drawings.
- Manage personal calendar (Microsoft Outlook for example) using key dates identified above

Example



Documents referenced in this example are "Sample specs" "Sample Bob's Garage subcontract with XYZ elevator company", Attachment 3, sections 2.1 and 2.2., and " Sample GC Baseline Schedule 11/19/2012."

Monitoring and controlling schedule occur on two levels – in coordination with general contractor and within the elevator subcontractor organization.

In this example, the contract sections 2 and 5 delineate the action, measures and consequences of issues related to schedule monitoring and control in coordination with the general contractor and other contractors working on the project. (See also Sample GC Baseline Schedule for schedule of all work and milestones performed on this project.)

Section 2: Management/Coordination

[Modification of the below items to be determined by separate Work Authorization]

2.1 Kickoff Meeting: Subcontractor's Key Project and other personnel as required by DEF General Contractor, as a minimum, shall attend a mandatory two (2) hour kickoff meeting prior to the commencement of Subcontractor's work on the site. The purpose of this meeting is to familiarize everyone with the site, go over Project communication procedures, verify scope of Work inclusions and exclusions, review the Project's safety and logistics plan, coordinate submittal and Work schedules, and to discuss other issues that DEF General Contractor and or Subcontractor consider appropriate.

2.2 Job Progress & Coordination Meetings: DEF General Contractor will conduct regular job progress meetings to ensure clear communications and a smooth flow of the work. The Subcontractor's on-site supervision and any management or detailing resources and other personnel, as required are required to attend and participate in these meetings and provide appropriate information in order to allow for the timely monitoring and flow of the Work. Below is a schedule of planned meetings:

MEETING	RECURRENCE	APPROXIMATE DURATION
Subcontractor Progress Meeting	weekly	1 hours
MEP Coordination	weekly	2 hours

Section 5: Time

5.1. Project Schedule: Coordination: Time is of the essence in the performance of Subcontractor's Work and other obligations under this Agreement. Prior to performing any Work, Subcontractor shall provide DEF General Contractor with scheduling information and a proposed schedule for performance of the Work, which shall include a projection of man-hours and crew sizes, all in forms acceptable to DEF General Contractor. Subcontractor's proposed schedule shall conform to the Project Schedule and all revisions or changes made to it from time-to-time. Subcontractor shall provide timely, accurate schedule input on a weekly basis, in a format acceptable to DEF General Contractor and when directed by DEF General Contractor, Subcontractor shall revise and update Subcontractor's activities reflected in DEF General Contractor's then current schedule. The Project Schedule is not a representation by DEF General Contractor that Subcontractor will be able to perform its activities on certain dates. Subcontractor shall perform the Work in a prompt and diligent manner in accordance with DEF General Contractor's schedule, as updated from time to time, without delaying or hindering DEF General Contractor's work or the work of other contractors or subcontractors. Subcontractor's performance of Work outside normal work days and times must be pre-approved by DEF General Contractor and shall be at no additional expense to DEF General Contractor unless otherwise agreed. Subcontractor shall coordinate the Work with that of DEF General Contractor and all other contractors and subcontractors in a manner that will facilitate the efficient completion of the entire Project. DEF General Contractor shall have complete control of the premises on which the Work is to be performed and all matters relating to the timely and orderly completion of the Work. DEF General Contractor shall have the right to decide the relative priority of the Work compared to the work of other subcontractors on the Project and the time and order in which various portions of the Work shall be performed by Subcontractor. Subcontractor must attend all coordination and other required meetings as DEF General Contractor may schedule from time to time. If Subcontractor fails to maintain progress in accordance with the current schedule, it shall, without additional compensation, accelerate the Work as DEF General Contractor may direct until the Work is in accordance with such schedule.

5.2. Delays and Time Extensions: The time fixed for the completion of the Work under this Section 5.2 shall only be extended by the number of Days Subcontractor has been delayed, through no fault of Subcontractor, in its performance or completion of the Work by one or more of the following events: a) the act, neglect or default of Owner, Architect, or DEF General Contractor; b) delays directly resulting from any fire or other casualty for which Subcontractor is not responsible; c) labor unrest to the extent excusable as a delay by the Prime Contract provisions and, in no way caused by or resulting from the fault or collusion on the part of Subcontractor; d) a lock-out by DEF General Contractor; or e) other causes which DEF General Contractor determines may justify delay; provided, however, no extension shall be made unless Subcontractor presents to DEF General Contractor a written claim for an extension within 48 hours of the commencement of a delay, and under no circumstances shall the time of completion be extended to a date which will prevent DEF General Contractor from completing the entire Project within the time allowed DEF General Contractor by Owner for that completion. Any such time extension shall be limited to the Days that Subcontractor's overall duration of performance is extended by the foregoing events.

5.3. Damages for Delays: If Subcontractor has incurred delay damages as a result of delays caused by events under Section 5.2, it may request a Change Order pursuant to Section 6. Notwithstanding anything to the contrary in this Agreement, Subcontractor's rights to receive additional compensation under this Section 5.3 shall be subject to any applicable provisions of the Prime Contract, and any additional compensation allowed shall be payable in accordance with the above Section 4.5 and the Prime Contract. Subcontractor shall not be entitled to compensation for delay damages to the extent that delays caused by the events in Section 5.2 are concurrent with delays caused by Subcontractor or someone for whom Subcontractor is responsible. If delays caused by the events described in Section 5.2 are caused by any reason other than the acts of DEF General Contractor that interfere with Subcontractor's performance of the Work, Subcontractor shall only be entitled to additional compensation if DEF General Contractor receives compensation from the Owner for delays sustained by Subcontractor, and only in the amount of the compensation received by DEF General Contractor from the Owner, less any mark-up included by DEF General Contractor in the claim for additional compensation made on behalf of the Subcontractor to the Owner.

Internal monitoring activities, tools and outputs

- See example, Internal Schedule 10/23/13.
- See Skillbriefs *Control Schedule Inputs* and *Monitoring and Measuring Schedule Performance*

Final exercise questions will be based on

Expert summary, documents referenced in example and the example.