

Chapter Thirteen

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Short Term Schedules

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Introduction

- Most of the method of planning and scheduling relate to overall project scheduling, and provide a global view of an entire project.
- Scheduling represents an excellent vehicles by which owners can monitor the progress of contractors on their projects.

Introduction (Cont.)

- As project scheduling an essential need for owners and top-level managers, they generally don't provide necessary details.
- A more detailed plan must be developed in order to bridge the gap from the over all project schedule to the organization of the tasks performed at crew level.

What are Short Term Schedules?

- Short Term Schedules: Schedule that covers short period of time, such as one, two, or three weeks.
- Also referred to as *look-ahead schedule*, *window schedule*, *“roll-up” schedule*, *two-week schedule*, or *short range plane*.
- It provide a means of coordinating the various resources on the project over short period of time.

Short Term Schedules

- Items to be covered in short-interval schedules include the following:

*All “work in place” activates.

- Material and equipments deliveries.
- Work performed by subcontractors
- Equipments maintenance.
- Safety enhancement.
- Quality control.

Short Term Schedules (Cont.)

- Issuance of permits.
- Surveying functions(sitting grades, alignments, control points).
- Planning delays(shutdowns, holydays, company picnics)
- Regulatory constraints.
- owner functions involving the project(meeting, inspection).
- Project events including third parties.

Short Term Schedules (Cont.)

- limited resources should be examined to be sure that they aren't overextended.
- Short-interval schedules is typically more accurate because the schedule must be current.
- If short-interval schedules to be both accurate and current , specific time or scheduling constraints of the various parties must be Known.

How Contractors use short-interval schedules?

- *Short interval schedules are mentioned with so little information in the literature.
- *So, most of these short interval schedules are made by construction firms in the site.
- *They were typically presented as bar charts structured to cover the upcoming two, three, or even four weeks period.
- * They show the days of the week, and the list of activities that are to be scheduled during the selected period

The accuracy of a short Interval Schedule

- * The accuracy of a short interval schedule is directly affected by the timing of its preparation.
- * Short interval schedules are prepared each week, although the focus of discussions at meetings involving the short interval schedules tend to emphasize the activities and events to take place during the upcoming weeks.

The Advantages of Look Back Short Interval Schedule

Many short interval schedules include a look back of one week.*

(There is a link between the past week for example and the following week).

* The advantages of this:

1. It helps to clarify the nature of the tasks to be performed.
2. It helps to clarify the rate at which they are to take place.
3. This look back constitutes valuable documentation that could be useful in preparing an as-built schedule.

NOTE

- In order to execute this type of schedules accurately, it is important to establish a forum at the project level in which the relevant information can be communicated to those parties identified in the schedule.

90-Days Work Schedule

- * It is one in which sufficient detail is required in order to show the nature of the activities that will occur on a week by week basis.
- * This type of schedules that covers the first 90 days of the contract shall be submitted within 15 days .
- * This schedule shall be time-scaled and resource loaded for workforce requirements, and shall be submitted in either bar chart or critical path method (CPM) format.
- * With accompany of this schedule, the contractor is requested to present a paper explaining the approach he will follow during the initial 90-days period of the contract.

CPM vs. Short Interval Schedules

- *No matter how different forms of schedules are there, but in essentially all cases, the CPM schedule is used as the basis for developing short interval schedule.
- * In S.I.S: Daily work plans that are prepared to describe the duties and tasks of individual workers are developed.
- * In master (CPM) schedule: a comprehensive-detailed schedule covers all the duration of the project.
- * In S.I.S: They are prepared by various craft supervisors.
- * In master schedule: They are prepared by the project manager.

A Check List in the Short Interval

- * These are the most specific elements that may be included in the short –interval schedule to be checked out:
 - All “ work in place “ activities expected to take place.
 - Materials and equipment deliveries.
 - Work performed by sub-contractors.
 - Equipment maintenance.
 - Safety enhancement.
 - Quantities for selected tasks.
 - Delays.
 - Surveying and Testing.
 - Owner responsibilities.

The realistic of Short Interval Schedules

* Before distributing the short interval schedule to the appropriate parties, it is a good idea to check that this schedule is realistic. How?

By doing some quick checks including the following:

- The schedule should accurately reflect realistic production rates from past or completed projects.
- Ensure that two crews are not scheduled for work in the same area at the same time.
- Verify that major pieces of equipment are not assigned to two different work items that are to take place concurrently.

Other Short Interval Schedules

- ☺ The Punch-list Schedule .
- ☺ The Daily Project schedule .
- ☺ The Daily Crew Planning .
- ☺ The Pre-task Planning .

The Punch-list Schedule

- * The Punch-List is a form that is generally prepared by the owners representative at the point of substantial completion .
- * The Punch-List is used to document the remaining shortcomings in the project before it can be declared to have reached final completion .
- * It tends to be a detailed listing of all noted deficiencies in a project .

The Punch-list Schedule (Cont.)

- ▶ It can take a variety of forms which may use in civil or industrial projects that utilized different lists of items .
- ▶ The punch-list is generally not a time scaled schedule , It is simply a listing of all minor work items that remain to be performed , since these are often of a minor nature , it is not prudent to try to schedule the actual time at which each punch-list item will be addressed .

Example

- #- On a three story office building the punch-list might consist of hundreds of deficiencies that must be addressed .
- #- The major task for the general contractor is to determine which first line supervisors or which subcontractors are responsible for the respective items .
- #- Once this has been accomplished , the general contractor must communicate this information to the appropriate parties .

-Wood								
4. Doors								
-Frame								
-Jamb								
-Hardware								
-Operation								
-Seals								
5. Windows/Skylights								
-Frame								
-Glass								
-Hardware								
-Operation								
-Seals								
6. Casework								
-Finish								
-Electrical								
-Mechanical								
7. Other								
-Built-ins								
-Furr Downs								

The Daily Project Schedule

- * The daily project schedule is on an even shorter time frame than the punch-list .
- * It provides a good picture of the specific tasks to be performed by the employees of the general contractor and the various subcontractors .
- * It includes the tasks to be performed by engineering , with separate tasks spelled out for the surveying crew .

Equip. Plan	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5
1.										
2.										
3.										

Contingency Tasks to Perform (when time is available)

1.	
2.	
3.	
4.	

Comments and Notes

1.	
2.	
3.	
4.	

The Pre-task Planning

- ▶ The pre-task is prepared before to the performance of each task , and the pre-task plan is implement at the crew level .
- ▶ Before a new task is performed , the foremen or a designated worker will meet with the crew to discuss how the upcoming .task is to be performed
- ▶ Although work planning is discussed at this meeting , particular emphasis is placed on ensuring that the task will be performed in a safe manner .

The Pre-task Planning (Cont.)

- When the pre-task planning meeting is held , the crew members will discuss the possible ways that an injury might occur when using the proposed approach .
- * The pre-task planning form contains some common hazards resulting in injury that are listed to help the crew focus on the possible hazards associated with a particular task .

The Pre-task Planning (Cont.)

- The pre-task plan is generally posted in the work area for inspection by other supervisory or safety personnel . Where pre-task plan are implemented , there is rigid adherence to having a pre-task plan prepared before to performing each task
- It possible that a single crew might have four or five pre-task planning meetings in a single day , which take more time and may make delay .

- Pinch points
- Materials/scrap
- Elevated work
- Cave-in
- Cuts
- Heat stress
- Rigging
- Strains, sprains
- Abrasions
- Chemical burn
- Thermal burn
- Slips, trips, falls
- Electrical shock
- Fire
- Noise
- Overhead work
- Harmful vapors
- Overextension

- Use monitor
- Slope, shore, t-box
- Set safe position
- Fire extinguisher
- Use proper tools
- Change procedure
- Other:
- Housekeeping
- Scaffold
- Contain sparks
- Erect barricades
- Get help
- Contain materials

Items Verified

- Permits obtained
- Task reviewed