

# Building and Preserving Alaska's Future

## Construction Schedules

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*November 2, 2011*



US Army Corps of Engineers  
**BUILDING STRONG**

# CONSTRUCTION SCHEDULES

- ▶ **Revised Schedule Specification**  
**01 32 01.00 29**
- ▶ **Schedule Review Checklists**
- ▶ **Questions/Answers**



# CONSTRUCTION SCHEDULES

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**“How are things going at work?  
During your colonoscopy, we found a shoe.”**



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# REVISED SCHEDULE SPECIFICATION

## ► Pitfalls in CPM Scheduling:

- Development – Buy-In by Project Team
- Inexperienced Scheduler
- Abuse of Scheduling Software
- Lack of communication and incorporation of schedule updates
- Failure to properly incorporate time impact analyses (fragnets)



# REVISED SCHEDULE SPECIFICATION

Master Template / Subtemplate

.....  
USACE / NAVFAC / AFCEA / NASA UFGS-01 32 01.00 29 (May 2011)  
.....  
Preparing Activity: USACE Alaska District

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated April 2011  
.....

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SECTION 01 32 01.00 29

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09/22/11

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## Specification Revision Objective:

- ✓ Update specification
- ✓ Promote good scheduling practices
- ✓ Maintain as a vital Project Management tool and increase Project Success



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# REVISED SCHEDULE SPECIFICATION

## 1.3 PROJECT SCHEDULER QUALIFICATIONS

- ☑ Contractor designates a scheduler
- ☑ 2- years experience scheduling on similar projects using scheduling software that meets the specification, i.e. Primavera



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# REVISED SCHEDULE SPECIFICATION

## 3.3.3 Schedule Parameters

### 3.3.3.1 Contract Milestones and Constraints

Two constraints allowed:

- First activity shall be a start milestone titled "NTP Acknowledged" – use *Start On* constraint
- Last activity shall be a finish milestone titled "Contract Completion Date (CCD)" - use *Mandatory Finish* constraint

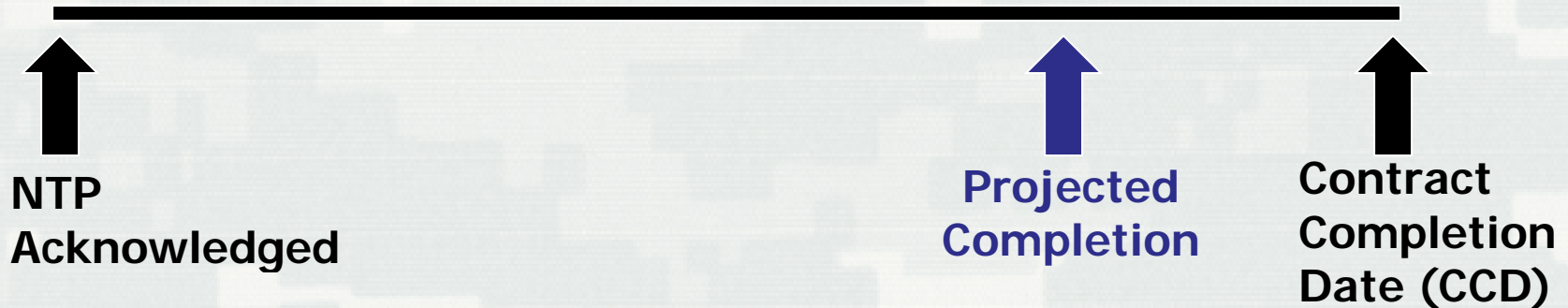


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# REVISED SCHEDULE SPECIFICATION

## NEW Requirement - "Projected Completion" finish milestone



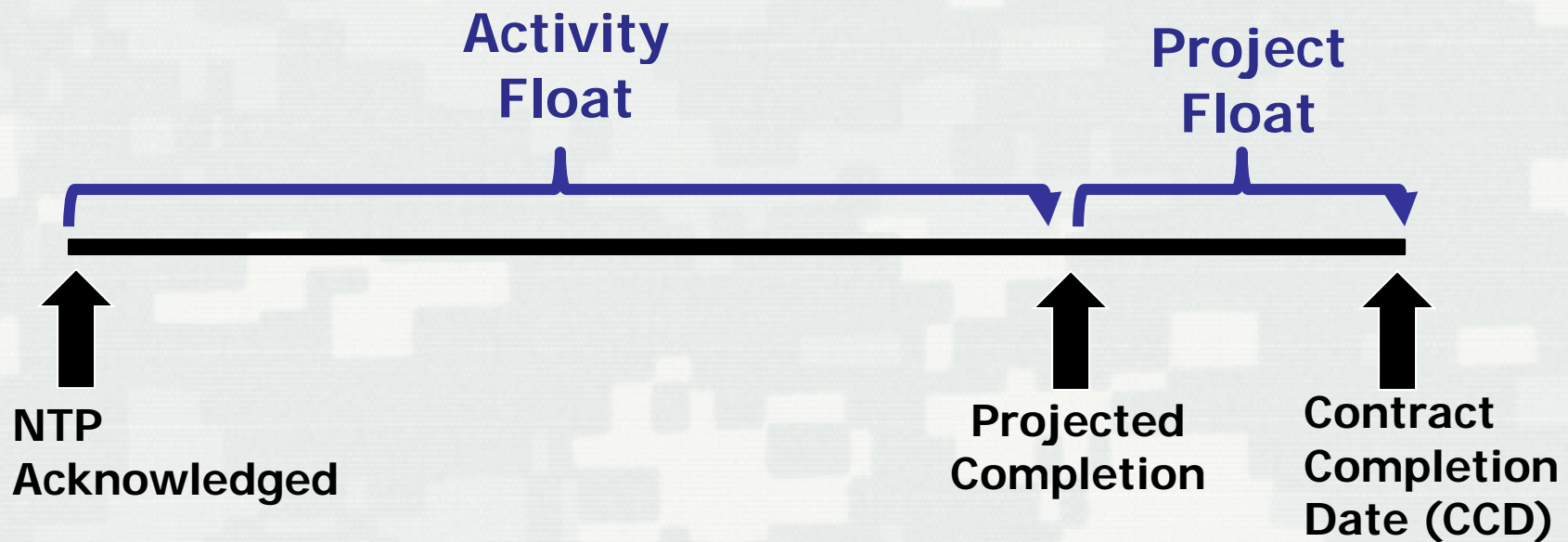
- Added new finish milestone "Projected Completion"
- Not restrained
- One successor – Contract Completion Date (CCD)
- Early finish shows positive float; late finish shows negative float



# REVISED SCHEDULE SPECIFICATION

## 3.9 OWNERSHIP OF FLOAT

"Float available on the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor including activity and/or project float."



# REVISED SCHEDULE SPECIFICATION

## Other Schedule Parameters

- ✓ Proper use of Calendars
- ✓ Two Open Ended activities allowed
- ✓ No out of Sequence Progress
- ✓ Approval to change, delete or add activities
- ✓ "Original Durations" do not change; adjust activity durations with "Remaining Duration"
- ✓ Use Retained Logic



# REVISED SCHEDULE SPECIFICATION

## 3.7 REQUESTS FOR TIME EXTENSIONS

### 3.7.1 Justification of Delay

- ✓ Description of events that caused the delay
- ✓ Must show how the Government was responsible for the events that caused the delay
- ✓ Prepare a Time Impact Analysis (reference AACE 52R-06)



# REVISED SCHEDULE SPECIFICATION

## 3.7.2 Recovery Plan

- ✓ No more recovery (re-baseline) schedules
- ✓ Submit Recovery Plan
- ✓ Must follow plan

## 3.11 Primavera P6 Mandatory Requirements

- ✓ P6 presents unique problems for USACE
- ✓ P6 Mandatory Requirements checklist



# SCHEDULE REVIEW CHECKLISTS

## Schedule Review Checklists

- Initial Project Schedule (IPS)
- Periodic Schedule Updates
- Time Impact Analysis (TIA)



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# IPS SCHEDULE REVIEW CHECKLIST

## Initial Progress Schedule (IPS) Review

- ✓ Review schedule mechanics
- ✓ Evaluate logic and overall constructability
- \* **Most Important Schedule Review**



# IPS SCHEDULE REVIEW CHECKLIST

## Initial Project Schedule (IPS) Development General Worksheet for Contractors

### Contract Documents

1. Project Schedule Tech Spec 01 32 01.00 10
2. Solicitation, Offer & Award SF1442 (Total Contract Value & Bid Items/Cline, Project Duration, Super, Close Out Dates)
3. Letters: NTP Acknowledgement Letter (NTP = Contractor Acknowledgement Date) & Project Completion Letter (CPL)

### Contract Data needed for IPS development

1. Notice to Proceed (NTP), Contract Duration, Contract Completion Data (CCD)
2. Other Contractual Dates Defined (Interim or Phased Dates as specifically defined in the contract)
3. Contract Schedule of Values (SOV) \$ for Total Contract and by CLIN/Bid Item
4. Scope, Mandatory Tasks, Critical Dates etc.
5. Specific Submittal Review/Approval durations, Close Out As-built \$ requirements, Commissioning, Design etc.

### IPS Submission Requirements

#### CDs (2 sets)

- Electronic Schedule File in Backup Format (XER or PRX). Unique File Names every file
- Opened / Imported Successfully

#### Hard Copies (2 sets)

- Narrative Report** (Description of Activities on the 2 most Critical Paths, Problem Areas or Delaying Factors or Impacts & Corrective Actions)
- Network Diagram / Schedule**
- Activity Report** (sorted by Activity ID)
- Logic Report** (Predecessor & Successor Listing in ascending order by Activity ID)
- Total Float Report** (Incomplete Activities listed by TF in ascending order of EF)
- Earnings Report** (Act ID, Activity Description, Original Budget \$, City to Date, % complete based on Post, Earnings to Date)
- S-Curves** (Projected early and late earnings and earnings to date)
- Subcontract Value Report** (\$ Value by Subcontract) – submitted as allowed per feature as information required for input into QCR/MS)

### General Schedule Review

1. **Date Data** – Equals the NTP date and the schedule has no Progress
  2. **NTP Milestone** - Equal to contract NTP acknowledgement date with a Early Start (Start on or After) Constraint
  3. **CCD Milestone** - Equal to the contract CCD with a Late Finish (Finish on or Before) Constraint
  4. **Other Contractual Dates** – Only NTP & CCD constraints allowed unless interim dates defined in contract
  5. **Mechanics** - Retained Logic (not Progress Override), Remaining Duration & % Complete Not Linked
  6. **Critical Activities** defined as Longest Path, passes common sense test
  7. **Logic** - No Open Ends, No Out-of-Sequence Logic (Run Schedule Report!)
  8. **Mandatory Tasks** - Submission & Approval: Design PKGs, Permits, TAB, Testing, As-builts/LEED, O&Ms, Commissioning, Prefinal, Punchlists, Final Inspections etc.
  9. **Preconstruction Submittal & Review/Approval Activities** - Health & Safety, Accident Prevention, Traffic Control, Environmental, Sampling & Analysis, SWPPP, PS, QC, Site, Temp Utilities
  10. **Descriptions** - Activity Descriptions are all Unique and adequately describe work scope detail
  11. **Level of Detail** – Number of activities reasonable to define & control work
  12. **Durations** - Reasonable length, no excessive durations, realistic to perform & progress work
  13. **Lags** - No Negative Lags, No excessive Lags (must be real and not to force logic)
  14. **Materials** - Activities (Long Lead, Procurement, Fab/Deliver, address Stored Materials vs. install activities)
  15. **Calendars** – realistic, use for seasonal restrictions, holidays (P6 develop as "Project" Calendar not Global)
  16. **Activity Coding** – Use structure defined in the Standard Data Exchange Format (SDEF).  
(P6: develop as "Project" Activity Codes not Global)
- |      |                     |              |      |                  |             |
|------|---------------------|--------------|------|------------------|-------------|
| WSKP | Workers Per Day     | (Length = 3) | BIDI | Bid Item (CLIN)  | (Length 6)  |
| RFSR | Responsible Party   | (Length = 4) | PHAS | Phase of Work    | (Length 2)  |
| AREA | Area of Work        | (Length = 4) | CATW | Category of Work | (Length 1)  |
| MODF | Modification Number | (Length = 6) | HOW  | Feature of Work  | (Length 10) |
17. **Schedule of Values / Budgets** – The Total Contract \$ & IPS \$ must match including each PHID/CLIN. Values reasonable, not too much scope on one activity, PHID markup equitably spread. Close Out Activity to have & contract req. Not front end loaded. (Summary Report by BIDI to check \$ match contract values & BIDI/Cline)
  18. **Additional Primavera P6 USACE Requirements** (see reference material and/or Tech Spec Addendum)

Note: This Worksheet is intended for general reference only and should not be considered all inclusive of contract requirements

REV 11/11

## Contractor IPS Checklist


✓ Quick reference checklist for Contractors

✓ Perform review before submitting schedule to Government



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# IPS SCHEDULE REVIEW CHECKLIST



## Initial Project Schedule (IPS) Review Worksheet

*Technical Specification 01 32 01.00 10 Project Schedule*

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_ Date IPS Received: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contract Number: \_\_\_\_\_

Contractor Scheduler: \_\_\_\_\_ USACE IPS Reviewer: \_\_\_\_\_

IPS Software & Reporting

1. Software  P6  P3  Other \_\_\_\_\_ Version \_\_\_\_\_
2. Project Schedule File Names Backup File (XER, PRX, Other): \_\_\_\_\_  
Primavera Project ID: \_\_\_\_\_ Project Name: \_\_\_\_\_
3. Data CD's provided with Schedule files:  Yes  No Imported/Opened Successfully:  Yes  No
4. Reporting submitted:
 

<input type="checkbox"/> Activity Report	<input type="checkbox"/> Earnings Report
<input type="checkbox"/> Narrative Report	<input type="checkbox"/> S-Curves
<input type="checkbox"/> Network Diagram (Schedule)	<input type="checkbox"/> Total Float Report
	<input type="checkbox"/> Subcontract \$ Listing *

\* FAR 52.232-6 Payments Under Fixed Priced Contracts

Contract Data

**Dates**

5.  Notice to Proceed acknowledgement (NTP): \_\_\_\_\_

6.  Interim or Phased Completion (if specified): \_\_\_\_\_

7.  Contract Required Completion Date (CCD): \_\_\_\_\_

**Dollars**

8. Total Contract Award: \$ \_\_\_\_\_ (Reference or Attach Copy of SF1442)

Bid Item #	Description	Bid Item (BIDI) Value \$

IPS Activity Date Matches Contract Date

	Yes	No	Milestone Activity IDs
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

General Information & Mechanics

Run Primavera Schedule Log

	Yes	No	Notes
9. Data Date: _____ Data Date matches NTP?	<input type="checkbox"/>	<input type="checkbox"/>	
10. Scheduling Options/Settings (Primavera Schedule Log):			
⇨ When Scheduling Progressed Activities use..... Retained Logic	<input type="checkbox"/>	<input type="checkbox"/>	
⇨ Define critical activities as ..... Longest Path	<input type="checkbox"/>	<input type="checkbox"/>	
11. Constraints: Number: _____ All Constraints are Contractually Defined?	<input type="checkbox"/>	<input type="checkbox"/>	
⇨ Project Start or NTP Milestone - Constraint Type is EG or "Start On"	<input type="checkbox"/>	<input type="checkbox"/>	
⇨ Interim Completion Milestone - Constraint Type matches Contract (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	
⇨ Project Finish or CCD Milestone - Constraint Type is LF or "Finish On or Before"	<input type="checkbox"/>	<input type="checkbox"/>	
12. Total Number of Activities: _____ Number Reasonable for Project ?	<input type="checkbox"/>	<input type="checkbox"/>	
13. Critical Path: Number of Activities? _____ Percentage Activities Critical? _____ % Lowest Total Float? _____			
14. Open Ends - Predecessor/Successor Logic Missing: Number: _____ (should be zero not counting first and last Activity)			

## Government IPS Checklist

✓ Fill-able checklist used in Government/Contractor review meeting

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# IPS SCHEDULE REVIEW CHECKLIST



## Initial Project Schedule (IPS) Review Worksheet

Technical Specification 01 32 01.00 10 Project Schedule

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_ Date IPS Received: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contract Number: \_\_\_\_\_

Contractor Scheduler: \_\_\_\_\_ USACE IPS Reviewer: \_\_\_\_\_

### IPS Software & Reporting

- Software**  P6  P3  Other \_\_\_\_\_ Version \_\_\_\_\_
- Project Schedule File Names** Backup File (XER, PRX, Other): \_\_\_\_\_  
Primavera Project ID: \_\_\_\_\_ Project Name: \_\_\_\_\_
- Data CD's provided with Schedule files:**  Yes  No Imported/Opened Successfully:  Yes  No
- Reporting submitted:**
  - Activity Report
  - Earnings Report
  - Narrative Report
  - Logic Report
  - S-Curves
  - Network Diagram (Schedule)
  - Total Float Report
  - Subcontract \$ Listing \*

\*FAR 52.232-5 Payments Under Fixed Priced Contracts



# IPS SCHEDULE REVIEW CHECKLIST

## Contract Data

### Dates

- 5. **◆ Notice to Proceed acknowledgement (NTP):**
- 6. **◇ Interim or Phased Completion (if specified):**
- 7. **◆ Contract Required Completion Date (CCD):**

Dates

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

IPS Activity Date Matches Contract Date

Yes	No	Milestone Activity IDs
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____

### Dollars

8. **Total Contract Award: \$** \_\_\_\_\_

(Reference or Attach Copy of SF1442)

<i>Bid Item #</i>	<i>Description</i>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

<i>Bid Item (BID) Value \$</i>
\$ _____
\$ _____
\$ _____
\$ _____
\$ _____

IPS \$ Match

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>



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# IPS SCHEDULE REVIEW CHECKLIST

General Information & Mechanics			
<u>Run Primavera Schedule Log</u>			Notes
9. <b>Data Date:</b> _____	Data Date matches NTP?	Yes <input type="checkbox"/>	No <input type="checkbox"/> _____
<b>10. Scheduling Options/Settings (Primavera Schedule Log):</b>			
⇒ When Scheduling Progressed Activities use.....	Retained Logic	<input type="checkbox"/>	<input type="checkbox"/> _____
⇒ Define critical activities as .....	Longest Path	<input type="checkbox"/>	<input type="checkbox"/> _____
<b>11. Constraints:</b> Number: _____ All Constraints are Contractually Defined?			
⇒ Project Start or NTP Milestone - Constraint Type is ES or "Start On"		<input type="checkbox"/>	<input type="checkbox"/> _____
⇒ Interim Completion Milestone - Constraint Type matches Contract (if applicable)		<input type="checkbox"/>	<input type="checkbox"/> _____
⇒ Project Finish or CCD Milestone - Constraint Type is LF or "Finish On or Before"		<input type="checkbox"/>	<input type="checkbox"/> _____
<b>12. Total Number of Activities:</b> _____	Number Reasonable for Project?	<input type="checkbox"/>	<input type="checkbox"/> _____
<b>13. Critical Path:</b> Number of Activities? _____	Percentage Activities Critical? _____ %		Lowest Total Float? _____
<b>14. Open Ends - Predecessor/Successor Logic Missing:</b> Number: _____ (should be zero not counting first and last Activity)			



# IPS SCHEDULE REVIEW CHECKLIST



## Initial Project Schedule (IPS) Review Worksheet

Project Name: \_\_\_\_\_

Page Two

### P6 Software Settings & Development

#### 15. Primavera P6 - USACE Mandatory Requirements *(See Manual for verification instructions):*

	Yes	No		Yes	No
#1 Activity Codes are Project Level	<input type="checkbox"/>	<input type="checkbox"/>	#6 Critical Activities defined as "Longest Path" *	<input type="checkbox"/>	<input type="checkbox"/>
#2 Calendars are Project Level	<input type="checkbox"/>	<input type="checkbox"/>	#7 Schedule Option set to "Retained Logic" *	<input type="checkbox"/>	<input type="checkbox"/>
#3 Duration Types set to "Fixed Duration & Units"	<input type="checkbox"/>	<input type="checkbox"/>	#8 Schedule Cost Loaded - Lump Sum Labor Resource	<input type="checkbox"/>	<input type="checkbox"/>
#4 Percent Complete Types set to "Physical"	<input type="checkbox"/>	<input type="checkbox"/>	#9 Activity ID values do not exceed 10 characters	<input type="checkbox"/>	<input type="checkbox"/>
#5 Time Period Preferences set to Default <i>(8 hr/day, 40 hr/week, 172 hr/month, 2000 hr/year Settings do not Export - must verify with User)</i>	<input type="checkbox"/>	<input type="checkbox"/>	#10 Activity Name values do not exceed 30 characters	<input type="checkbox"/>	<input type="checkbox"/>

\* Verified previously on IPS Review Worksheet - Page One



# IPS SCHEDULE REVIEW CHECKLIST

## Project Schedule Detail

### 16. Activity Names/Descriptions

- Descriptions adequately define work scope
- All Activity Names are unique
- One Responsible Party per Activity
- Level of Detail is Sufficient for size and complexity of Project
- OR  Additional Activity Detail & Break out is required

### 17. Required Activities

- Preconstruction Submittals/Plans: QC, Accident Prevention, EPA/SWPPP, Temp Facility, Traffic Control, LEED, IPS, Sampling & Analysis
- Submittal Review Activities: Logic ties to Submittals, Original Durations match contract and "Govt" as the Responsible Party
- Mandatory Tasks: Design Activities (Design/Build contract), Permits, TAB, Commissioning, Testing, As-builts, O&Ms, Punchlists, Inspections
- Materials Activities: (Long Lead Items, Procurement, Fab/Deliver, Stored Materials)

### 18. Original Durations (ODs) & Lags

- ODs are not excessively long or unreasonably short
- ODs appear reasonable to perform work
- No Negative Lags
- No Excessive Lags
- Lags are justified - not used to "force" dates or reduce Total Float

### 19. Calendars (Project Level)

- Calendar Names/Work Days: \_\_\_\_\_
- Calendars used for seasonal restrictions (not constraints, lags, long durations)

### 20. Logic

- Logic ties pass common sense test
- Majority of Activities have Finish Start (FS) Relationships
- Are Activities "Stacked" (If same trades working - is space feasible and does the plan include multiple crews)
- Critical Path "makes sense"



# IPS SCHEUDLE REVIEW CHECKLIST

## 21. Schedule of Values \$

- Budget\$ are equitably spread throughout Project- Not Front End Loaded
- Activities do not have too much work scope per Activity OR  Additional Activity Detail & Break out is required
- Design Activities (if Design/Build) - \$ are a reasonable % of the Total Contract value (if not specified by BIDI)
- Subcontract \$ Listing vs. Responsibility Code \$ Comparison - matches up with overhead equitable spread in IPS?
- No \$ on Submittals, Mobilization, Govt Activities etc. unless allowed by contract.  Yes \$ on Close Out (e.g. As-builts)

## 22. Activity Code Development (Project Level)

<u>Activity Code Description</u>	<u>Code Value</u>	<u>Field Length</u>	<u>Developed</u>	<u>Assigned</u>	<u>Notes</u>
Workers Per Day	WRKP	3	<input type="checkbox"/>	<input type="checkbox"/>	_____
Responsible Party	RESP	4	<input type="checkbox"/>	<input type="checkbox"/>	_____
Area of Work	AREA	4	<input type="checkbox"/>	<input type="checkbox"/>	_____
Modification Number	MODF	6	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bid Item	BIDI	6	<input type="checkbox"/>	<input type="checkbox"/>	_____
Phase of Work	PHAS	2	<input type="checkbox"/>	<input type="checkbox"/>	_____
Category of Work	CATW	1	<input type="checkbox"/>	<input type="checkbox"/>	_____
Feature of Work	FCW (P3 FCW, 23)	10, 10, 10	<input type="checkbox"/>	<input type="checkbox"/>	_____



# UPDATE SCHEDULE REVIEW CHECKLIST

## Schedule Update Meeting Agenda & Worksheet

Meeting Date: \_\_\_\_\_ Pay Estimate #: \_\_\_\_\_  
Project: \_\_\_\_\_  
Attendees: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Meeting Purpose

The purpose of the periodic schedule update meeting is to jointly review the Contractor's proposed updated schedule. Evaluate schedule changes and mechanics; once approved, evaluate the overall project status including whether the project is ahead or behind schedule, critical work being performed, delaying factors, etc.

Reference Contract Specification 01 32 01.00 29 Project Schedule:

Paragraph 3.3.3 Schedule Parameters

Paragraph 3.4.4 Periodic Schedule Updates (with monthly Pay Estimate)

Paragraph 3.5 Submission Requirements (Data CDs, Narrative, Reports, etc.)

Paragraph 3.6.Periodic Schedule Update Meeting

1. Check Schedule Mechanics (Contractor must identify and document rationale for changes in mandatory settings and schedule parameters since the previous update period in the Narrative Report. The narrative should contain Activity IDs and Descriptions.)

\* Print Primavera Schedule Log

Data Date: \_\_\_\_\_ File Name: \_\_\_\_\_

#### a. Mandatory Schedule Requirements:

- Retained logic default setting (Paragraph 3.3.3.10)
- Critical path is defined as the *Longest Path* (Paragraph 3.5.4.3)
- No constraints except for contractually required dates (Paragraph 3.3.3.1)
- No open ended logic except first and last activity (Paragraph 3.3.3.3)
- No out of sequence work (Paragraph 3.3.3.6)

\* Run Primavera Claim Digger Report

b. Contractor must identify and explain rationale for each of the following changes in the Narrative Report:

- Added/ deleted activities (Paragraph 3.3.3.7)
- Activity descriptions changes (Paragraph 3.3.3.7)
- Original duration changes (Paragraph 3.3.3.8)
- Logic changes in the Narrative Report (Paragraph 3.5.2.e)
- Calendar changes (Paragraphs 3.3.3.2 and 3.5.3.5)

REV Oct 2011

## Periodic Update Schedule Review

- ✓ Update progress
- ✓ Evaluate changes and mechanics
- ✓ Evaluate overall project status



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# UPDATE SCHEDULE REVIEW CHECKLIST

## Schedule Update Meeting Agenda & Worksheet

Meeting Date: \_\_\_\_\_ Pay Estimate #: \_\_\_\_\_

Project: \_\_\_\_\_

Attendees: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

### Meeting Purpose

The purpose of the periodic schedule update meeting is to jointly review the Contractor's proposed updated schedule. Evaluate schedule changes and mechanics; once approved, evaluate the overall project status including whether the project is ahead or behind schedule, critical work being performed, delaying factors, etc.

*Reference Contract Specification 01 32 01.00 29 Project Schedule:*

*Paragraph 3.3.3 Schedule Parameters*

*Paragraph 3.4.4 Periodic Schedule Updates (with monthly Pay Estimate)*

*Paragraph 3.5 Submission Requirements (Data CDs, Narrative, Reports, etc.)*

*Paragraph 3.6. Periodic Schedule Update Meeting*



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# UPDATE SCHEDULE REVIEW CHECKLIST

**1. Check Schedule Mechanics** (*Contractor must identify and document rationale for changes in mandatory settings and schedule parameters since the previous update period in the Narrative Report. The narrative should contain Activity IDs and Descriptions.*)

*\* Print Primavera Schedule Log*

Data Date: \_\_\_\_\_ File Name: \_\_\_\_\_

*a. Mandatory Schedule Requirements:*

- Retained logic default setting (Paragraph 3.3.3.10)
- Critical path is defined as the *Longest Path* (Paragraph 3.5.4.3)
- No constraints except for contractually required dates (Paragraph 3.3.3.1)
- No open ended logic except first and last activity (Paragraph 3.3.3.3)
- No out of sequence work (Paragraph 3.3.3.6)

*\* Run Primavera Claim Digger Report*

*b. Contractor must identify and explain rationale for each of the following changes in the Narrative Report:*

- Added/ deleted activities (Paragraph 3.3.3.7)
- Activity descriptions changes (Paragraph 3.3.3.7)
- Original duration changes (Paragraph 3.3.3.8)
- Logic changes in the Narrative Report (Paragraph 3.5.2.e)
- Calendar changes (Paragraphs 3.3.3.2 and 3.5.3.5)



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# UPDATE SCHEDULE REVIEW CHECKLIST

## 2. Review/Discuss Overall Project Status

Projected Completion Milestone Finish Date: \_\_\_\_\_ Lowest Total Float = \_\_\_\_\_

*(Rule of thumb: positive float = ahead of schedule; negative float = behind schedule)*

Verify Contract Completion Date (CCD) Milestone Finish Date: \_\_\_\_\_

Identify the critical (longest) path: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

- Identify activities that should have started or finished during the last update period, but did not.
- Discuss work scheduled to start or finish in upcoming update period.
- Identify and discuss current and anticipated problem areas, their impact on the schedule, and possible correction actions.
- Identify all new fragments incorporated into the schedule.
- Identify budget revisions (for new modifications added).

**Provide Comments Below**



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# TIME IMPACT ANALYSIS (TIA) REVIEW CHECKLIST

## Time Impact Analysis Review Checklist

Project: \_\_\_\_\_ Date: \_\_\_\_\_

Case No.: \_\_\_\_\_ Modification No.: \_\_\_\_\_

List all other reference documents including serial letters, emails, drawings, specifications, submittals, etc. related to delay issue: \_\_\_\_\_

Contractor did not ask for time for this contract modification.

Was the modification bilateral with a release of claims?

Yes (no further action necessary)  No (request Time Impact Analysis (TIA) from Contractor)

Contractor asked for Time; Number of calendar days: \_\_\_\_\_

Did the Contractor provide a time impact analysis to support its request for a time extension?

Yes (continue)  No (request TIA from Contractor)

Description of Facts pertaining to the changed condition or impact:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Data Date of Schedule used in TIA \_\_\_\_\_ First Day of Impact \_\_\_\_\_

Was the appropriate schedule used in the TIA (schedule data date must be prior to the impact)?

Yes (continue)  No (stop - the appropriate schedule needs to be used in the TIA)

Was time frame too long between impact and data date (longer than 30 days)?

Yes (stop - schedule needs to be updated prior to performing TIA)  No (continue)

Schedule used to perform the TIA

Primavera Project ID & Project Name \_\_\_\_\_

Pay Estimate Number \_\_\_\_\_

Identify the activity that shows the contractor's projected finish date (has to be on the critical path):

Activity ID/Name \_\_\_\_\_

Finish date prior to TIA being performed: \_\_\_\_\_

New projected finish date after TIA performed: \_\_\_\_\_

Did the projected finish date slip after the TIA was performed?  Yes  No

Does the new projected finish date support the number of calendar days that the contractor is requesting in this modification?  Yes  No

## Time Impact Analysis Review Checklist

- ✓ TIA required on every modification and request for time
- ✓ Forward looking analysis
- ✓ Use standardized procedure, i.e. AACE 52R-06



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# TIA SCHEDULE REVIEW CHECKLIST

## Time Impact Analysis Review Checklist

**Project:** \_\_\_\_\_ **Date** \_\_\_\_\_

**Case No.:** \_\_\_\_\_ **Modification No.:** \_\_\_\_\_

List all other reference documents including serial letters, emails, drawings, specifications, submittals, etc. related to delay issue: \_\_\_\_\_  
\_\_\_\_\_

**Contractor did not ask for time for this contract modification.**

Was the modification bilateral with a release of claims?

Yes (no further action necessary)     No (request Time Impact Analysis (TIA) from Contractor)

**Contractor asked for Time; Number of calendar days:** \_\_\_\_\_

Did the Contractor provide a time impact analysis to support its request for a time extension?

Yes (continue)     No (request TIA from Contractor)

**Description of Facts pertaining to the changed condition or impact:**

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# TIA SCHEDULE REVIEW CHECKLIST

**Data Date of Schedule used in TIA** \_\_\_\_\_ **First Day of Impact** \_\_\_\_\_

Was the appropriate schedule used in the TIA (schedule data date must be prior to the impact)?

Yes (continue)       No (stop – the appropriate schedule needs to be used in the TIA)

Was time frame too long between impact and data date (longer than 30 days)?

Yes (stop - schedule needs to be updated prior to performing TIA)       No (continue)

## Schedule used to perform the TIA

Primavera Project ID & Project Name \_\_\_\_\_

Pay Estimate Number \_\_\_\_\_

Identify the activity that shows the contractor's projected finish date (has to be on the critical path):

Activity ID/Name \_\_\_\_\_

Finish date prior to TIA being performed: \_\_\_\_\_

New projected finish date after TIA performed: \_\_\_\_\_

Did the projected finish date slip after the TIA was performed?  Yes  No

Does the new projected finish date support the number of calendar days that the contractor is requesting in this modification?  Yes  No



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# TIA SCHEDULE REVIEW CHECKLIST

## Fragnet

Describe the fragnet (i.e. activities, relationships, durations, calendar, etc.)

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Does the fragnet accurately reflect the corrective action agreed upon (i.e. the logic and durations are reasonable; the fragnet is not overly complex, etc.)?  Yes  No (Explain)

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Identify all schedule activities impacted and whether they are a predecessor or successor to the fragnet:

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Do you agree with the contractor that these activities were impacted?  Yes  No (Explain)

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# TIA SCHEDULE REVIEW CHECKLIST

What are the actual delay dates? \_\_\_\_\_

Are there concurrent\* contractor delays?  Yes (Explain)  No

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\*Concurrent delays (both Contractor and Government delays) must be on the critical path. The contractor is owed time, but not extended project costs. If there are no concurrent delays, then the contractor is owed time and extended project costs.



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# QUESTIONS?

**Craig Lance**  
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**Alaska District**  
**U.S. Army Corps of Engineers**

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Future”***

