



# SCHEDULE REQUIREMENTS FOR CONSULTANTS AND CONTRACTORS

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# WHY

- What value does scheduling add?
  - Schedules are a project management tool to ensure successful project execution and completion
  - They help narrate scope changes and support the change order process
  - They protect contractors and owners from performance related disputes
  - Protects contractor from scope creep/changes directed by owner
- Why does DEN have these requirements?
  - Transparency
  - Good Partner
  - Accountability

# DEN CONTRACT REQUIREMENTS

- GENERAL CONTRACT CONDITIONS (Yellow Book) Section 306
  - Construction Schedule to be submitted within 10 days of NTP
  - Schedule Format will be CRITICAL PATH METHOD
  - Monthly Submittals (including progress report & schedule update)
- TECHNICAL SPECIFICATIONS 013210
  - Describes detailed procedures and requirements for scheduling & progress documentation

# TECHNICAL SPECIFICATIONS 013210

- Provides detailed requirements for DEN schedule submittal process, schedule creation, and impacts to the contract
  - Software
  - Submittals
  - Coordination with DEN
  - Schedule Requirements
  - Schedule Submittals
  - Withholding/Payment Rejection
  - Request for Time Extension (Changes/Delays)

# TS 013210 SOFTWARE

- Must be compatible with Oracle Primavera P6, Release 18.7
  - DEN will not provide software or software support to the contractor
  - Software Settings will be standardized
  - Recommended (Required) Software:
    - Primavera P6, Release 16 or higher
- Accepted Files:
  - Any software export of XER files compatible with Primavera P6 18.7
  - Note: Using other software to generate the XER file (Microsoft Project, Powerproject, etc.) may result in a loss of data, causing schedules to get rejected.

# TS 013210 SUBMITTALS

- Scheduler Qualifications - 2+ years of experience in scheduling with P6 software in similar setting
- Preliminary Project Schedule - Due 10 days from NTP
- Initial (Baseline) Project Construction Schedule - Complete schedule, must conform to all schedule specs.
- Monthly Progress Schedules - Including narrative of changes
- As-Built (Final) Schedule - Including narrative of changes
- Additional schedules, as required by PM - Time/Change Requests, Recovery Schedules, etc.

# TS 013210 COORDINATION



- Pre-scheduling Conference
  - Discuss activities that are impacted by other entities (DEN, other contractors)
  - Ensure all questions/concerns are answered by DEN
  - Not required – recommended to come with a draft schedule or WBS to discuss
- Other coordination activities:
  - Time commitments from other entities
  - Ensure SOV matches WBS
  - Communicate with PM on changes to schedule

# TS 013210 SCHEDULE REQUIREMENTS

- Level of Detail – WBS should be reflective of the SOV, activities should be descriptive, only one action per activity (example: Do NOT use “demo and haul concrete to recycling area” as one activity)
- User Defined Fields – required: responsible party; recommended: SOV, crew
- Cost/Resource Loading – one resource (LS\$) required for every activity. Other resource for hours (MH), required for construction activities.
- Milestones – ensure all required milestones are included
- Out of Sequence/Delays/Schedule Changes – Document all schedule changes in a narrative. Add activities to account for changes when needed

USE BEST PRACTICES – INDUSTRY ACCEPTED STANDARDS



# TS 013210 WITHHOLDING/REJECTION



- **ALL SCHEDULES MUST BE ACCEPTED BY DEN PROJECT MANAGER**
  - Schedules that have been rejected by DEN with comments must be corrected and resubmitted in order to be in compliance with the contract
    - “Failure of the contractor to have an Initial Project Construction Schedule accepted by DEN Project Manager will be considered cause for withholding progress payment”
    - “Failure of the Contractor to have a Monthly Progress Construction Schedule accepted by the DEN Project Manager will be considered cause for withholding progress payment per Article 306 - Working Hours and Schedules and Article 909 - Additional Withholding of Progress Payments of the General Contract Conditions, 2011 Edition”

# TS 013210 REQUEST - TIME EXTENSION



- Must be submitted within 10 days of a delay occurring
- Each request must be accompanied by the following:
  - Justification of Delay
  - Time-Impact Analysis (AACEi Recommended Practice 52R-06)
  - Fragmentary Network (FragNet)
    - This is a proposal for how activities will be sequenced in the schedule due to the change
  - Requested Time Extension
  - Impact to Schedule Completion

# SCHEDULE SUBMITTAL DATES

- Preliminary Project Construction Schedule
  - Submitted ten (10) days after the issuance of NTP
- Initial Project Construction Schedule
  - Submitted thirty (30) days after the issuance of NTP
- 3-Week Look Ahead Schedules
  - Provided weekly to the PM in PDF format
- Monthly Progress Schedule Updates
  - Submit at the end of each month following issuance of NTP
  - Accompany the Monthly Request for Payment or Application for Payment
- As-Built Project Construction Schedule
  - Submitted at project completion with final payment application

# SCHEDULE SUBMITTALS CHECKLIST

- Schedule PDF, including GANTT chart
  - Include (at minimum) the following columns: Activity ID, Description, Baseline Start/Finish, Start/Finish, Float, Variance, Responsible Party
- Export of the schedule in .XER format
  - Must not have resources, risks, or any global data in the XER
- Schedule Narrative that describes construction approach, changes to approach, and any updates made to the schedule (activities actualized, added, or deleted; changes to logic,etc.)

# SCHEDULE REQUIREMENTS

- Prior to contract award, must have
  - Scheduling Software (compatible with Primavera P6 V18.7)
  - Qualified Scheduler
- After contract award
  - Be prepared to submit a preliminary schedule within 10 days
  - Be able to support weekly and monthly schedule submittal requirements
  - Use the schedule as a tool to partner with DEN, work through project changes, and support successful project execution and completion



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