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| 1. **~~~~ SPECIFIER NOTES ~~~~~**   This specification guidelines, its sections, and text included, is intended to be used in the preparation of Contract Documents. It contains **Specifier Notes** which shall guide editing by the A/E consultant for the uniqueness of each project during the preparation of the Project Manual. Where **[Optional]** appears in this document, it indicates requirements which may/may not be relevant to the subject project depending upon the project complexity, scope, and unique conditions. For **DRAFT** specifications prepared during the design process, use Microsoft Word, Track Changes. Set Criteria so that deletion show as strikethrough. Deletions and additions are to be in red text.  Notes unique to this section:  *1. General Conditions 3.02*  *2. Allow for sufficient lead time for supply chain disruptions*  *~~~ END OF SPECIFIER NOTES ~~~~* |

SECTION 01 3216 - CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

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| 1. **~~~~ SPECIFIER NOTES ~~~~~**   *For projects of Limited Scope, modify the following paragraph to permit the use the of a bar chart type of schedule.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

1.01 SECTION INCLUDES

A. Preliminary progress schedule, to be submitted at time of contract. Scheduler to have 3 to 5 years’ experience.

B. Construction progress schedule. The project size and type will determine schedule form, from Critical Path to a bar chart type with approval of Owner and AE.

C. Construction progress schedule, with network analysis diagrams and reports. Schedule to reflect sequencing of work and Owner may request a 3 week look ahead and a recovery schedule if changes have been executed.

1.02 RELATED SECTIONS

A. Drawings and general provisions of the Contract, including the General Conditions 3.02, for Washington State Facilities Construction and other Division 01 specification sections, apply to this section.

B. Section 01 1000 Summary showing sequencing

C. Section 01 3000 Administrative Requirements

1.03 REFERENCE STANDARDS

A. [M-H (CPM)](http://www.cpminconstructionmanagement.com/) - CPM in Construction Management - Project Management with CPM; 2015

1.04 SUBMITTALS

A. Within 14 days after date established in Notice to Proceed, submit preliminary Progress Schedule defining planned operations for the first 21 days of Work, with a general outline for remainder of Work.

B. If preliminary schedule requires revision after review, submit revised schedule within 7 days.

C. Within 7 days after review of preliminary schedule, submit draft of proposed complete Progress Schedule for review.

1. Include written certification that major subcontractors have reviewed and accepted proposed schedule.

D. Within 7 days after joint review, submit complete schedule.

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| 1. **~~~~ SPECIFIER NOTES ~~~~~**   *For projects of Limited Scope, use the following paragraph in lieu of the above.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

E. Within 7 days after date establish in Notice to Proceed, submit complete Progress Schedule to A/E review and comment.

1. If revisions are requested by the A/E, submit the revised Project Schedule within 7 days after receipt of requested revisions.

F. Submit updated schedule with each Application for Payment.

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| 1. **~~~~ SPECIFIER NOTES ~~~~~**   *Delete this section for projects requiring a Bar Chart type Schedule.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

1.05 QUALITY ASSURANCE

A. Scheduler: Contractor's personnel or specialist Consultant specializing in CPM scheduling with 3 to 5 years minimum experience in scheduling construction work of a complexity comparable to this Project and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.

1.06 SCHEDULE FORMAT

A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.

B. Diagram Sheet Size: 22 x 34 inches.

C. Scale and Spacing: Must be legible when reduced and printed half-size 11 x 17 inches.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

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| 1. **~~~~ SPECIFIER NOTES ~~~~~**   *Edit the content below as appropriate for the projects scope and complexity.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

3.01 CONTENT

A. Show complete sequence of construction by activity, milestones and with dates for beginning and completion of each element of construction. Note long lead items.

1. Construction Progress shall be developed using any Work Sequence stages if identified in specification section 01 1000.

B. Identify each item by specification section number.

C. Identify work of separate stages and other logically grouped activities.

D. Provide sub-schedules to define critical portions of the entire schedule.

E. Include critical conferences and meetings in schedule, i.e., pre-construction and pre-installation meetings.

F. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.

G. Provide separate schedule of submittal dates for shop drawings, product data, and samples, and dates reviewed submittals will be required from A/E. Indicate decision dates for selection of finishes.

H. Indicate delivery dates for owner-furnished products. [Optional]

I. Coordinate content with schedule of values specified in Section 01 2000 - Price and Payment Procedures.

J. Provide legend for symbols and abbreviations used.

3.02 BAR CHARTS

A. Include a separate bar for each major portion of Work or operation.

B. Identify the first workday of each week.

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| 1. **~~~~ SPECIFIER NOTES ~~~~~**   *Provide additional definition of analyses and reporting desired and as appropriate for project scope and complexity.*  ***~~~ END OF SPECIFIER NOTES ~~~~*** |

3.03 NETWORK ANALYSIS

A. Prepare network analysis diagrams and supporting mathematical analyses using the Critical Path Method.

B. Illustrate order and interdependence of activities and sequence of work; how start of a given activity depends on completion of preceding activities, and how completion of the activity may restrain start of subsequent activities.

C. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identify for each activity:

1. Preceding and following event numbers

2. Activity description

3. Estimated duration of activity, in maximum 14-day intervals

4. Earliest start date

5. Earliest finish date

6. Actual start date

7. Actual finish date

8. Latest start date

9. Latest finish date

10. Total and free float; belongs to the project. Neither the Contractor nor the Owner have exclusive right to the Float Time.

11. Monetary value of activity, keyed to Schedule of Values

12. Percentage of activity completed

13. Responsibility

D. Analysis Program: Capable of accepting revised completion dates, and re-computation of all dates and float.

E. Required Reports: List activities in sorts or groups:

1. By preceding work item or event number from lowest to highest.

2. By amount of float, then in order of early start.

3.04 REVIEW AND EVALUATION OF SCHEDULE

A. Participate in joint review and evaluation of schedule with A/E at each submittal.

B. Evaluate project status to determine work behind schedule and work ahead of schedule.

C. After review, revise as necessary as result of review, and resubmit within 10 days.

3.05 UPDATING SCHEDULE

A. Maintain schedules to record actual start and finish dates of completed activities.

B. Indicate progress of each activity to date of revision, with projected completion date of each activity.

C. Annotate diagrams to graphically depict current status of work.

D. Indicate changes required to maintain Date of Substantial Completion.

E. Provide narrative report to define problem areas, anticipated delays, and impact on the schedule. Report corrective action taken or proposed and its effect.

3.06 DISTRIBUTION OF SCHEDULE

A. Distribute copies of updated schedules to Contractor's project site file, to subcontractors, suppliers, A/E, Owner.

B. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

END OF SECTION 01 3216 - CONSTRUCTION PROGRESS SCHEDULE