
USACE / NAVFAC / AFCEA / NASA UFGS-01 32 17.00 20 (August 2010)

Preparing Activity: NAVFAC Superseding
 UFGS-01 32 17.00 20 (December 2009)
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UNIFIED FACILITIES GUIDE SPECIFICATIONS

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 32 17.00 20

NETWORK ANALYSIS SCHEDULES (NAS)

08/10

PART 1 GENERAL

- 1.1 DESCRIPTION
- 1.2 SUBMITTALS
- 1.3 SCHEDULE ACCEPTANCE PRIOR TO START OF WORK
- 1.4 SOFTWARE
- 1.5 QUALIFICATIONS
- 1.6 NETWORK SYSTEM FORMAT
 - 1.6.1 Diagrams
 - 1.6.2 Schedule Activity Properties and Level of Detail
 - 1.6.2.1 Activity Categories
 - 1.6.2.2 Contract Milestones and Constraints
 - 1.6.2.3 Activity Code
 - 1.6.2.4 Anticipated Weather Delays
 - 1.6.2.5 Cost Loading
 - 1.6.3 Schedule Software Settings and Restrictions
 - 1.6.4 Required Tabular Reports
- 1.7 SUBMISSION AND ACCEPTANCE
 - 1.7.1 Monthly Network Analysis Updates
 - 1.7.2 As-Built Schedule
- 1.8 CONTRACT MODIFICATION
- 1.9 PROJECT FLOAT
- 1.10 THREE-WEEK LOOK AHEAD SCHEDULE

PART 2 PRODUCTS

PART 3 EXECUTION

-- End of Section Table of Contents --

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SECTION 01 32 17.00 20

NETWORK ANALYSIS SCHEDULES (NAS)
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NOTE: This guide specification covers the preparation and use of Design-Bid-Build Network Analysis Schedule.

Insert this guide specification when a fixed-price construction contract is contemplated and the contract amount is expected to exceed \$750,000, and the contract duration is expected to exceed 6 months. Insert this guide specification in such contracts when the contract amount is expected to be less than \$750,000 and the contract duration is expected to be less than 6 months, when there is a known critical completion date for the Supported Command. Consult the Administering FEAD/ROICC Office on all construction contracts under the stated threshold values to determine if insertion of this guide specification is required.

Insert this guide specification on all NAVFAC PAC Marianas, Hawaii and Diego Garcia projects.

This section shall be reviewed and approved by the administering FEAD/ROICC prior to completion of the Invitation For Bids (IFB).

Coordination is required with Section 01 20 00.00 20, PRICE AND PAYMENT PROCEDURES, when cost loaded Network Analysis Schedules is specified.

Use of electronic communication is encouraged.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable items(s) or insert appropriate information. Brackets are used in the text to indicate designer/FEAD/ROICC choices or locations where text must be supplied by the

designer/FEAD/ROICC.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).

PART 1 GENERAL

1.1 DESCRIPTION

The Contractor is responsible for scheduling procurement, Contractor quality control and construction, acceptance testing and training. Refer to Specification Section 01 33 00 SUBMITTAL PROCEDURES to determine if any items require Government approval prior to construction; If any are required, that submittal review time shall be included in the schedule.

The schedule is a tool to manage the project, both for Contractor and Government activities. It will also be used to report progress and evaluate time extensions. If cost-loaded, it will provide the basis for progress payments.

The Contractor shall use the Critical Path Method (CPM) and the Precedence Diagram Method (PDM) to satisfy time and cost applications. For consistency, when scheduling software terminology is used in this specification, the terms in Primavera's scheduling programs are used.

1.2 SUBMITTALS

NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES. Edit the following list to reflect only the submittals required for the project. Keep submittals to the minimum required for adequate quality management and Government construction management activities.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

The use of a "G" following a submittal indicates that a Government approval action is required. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES, except as modified in this contract.

SD-01 Preconstruction Submittals

Qualifications; G

Baseline Network Analysis Schedule (NAS); G

SD-07 Certificates

Monthly Network Analysis Schedule Update; G

SD-11 Closeout Submittals

As-Built Schedule; G

1.3 SCHEDULE ACCEPTANCE PRIOR TO START OF WORK

The Contracting Officer and Contractor shall participate in a preliminary meeting(s) to discuss the proposed schedule and requirements of this section prior to the Contractor preparing the Project Baseline Schedule.

Government review comments on the Contractor's schedule(s) shall not relieve the Contractor from compliance with requirements of the Contract Documents.

Only bonds shall be paid prior to acceptance of the Baseline Network Analysis Schedule (NAS).

The acceptance of a Baseline NAS is a condition precedent to:

1. The Contractor starting work on the demolition or construction stage(s) of the contract.
2. Processing Contractor's pay request(s) for construction activities/items of work.
3. Review of any schedule updates.

Submittal of the [Baseline Network Analysis Schedule](#), and subsequent schedule updates, shall be understood to be the Contractor's certification that the submitted schedule meets all of the requirements of the Contract Documents, represents the Contractor's plan on how the work shall be accomplished, and accurately reflects the work that has been accomplished and how it was sequenced (as-built logic).

1.4 SOFTWARE

Project schedules must be prepared and maintained using Primavera P3, Primavera SureTrak or current mandated scheduling program. Save files in Concentric P3 or current mandated scheduling program file format, compatible with the Government's version of the scheduling program. Importing data into P3/SureTrak/current mandated scheduling program using data conversion techniques or third party software will be cause for rejection of the submitted schedule.

1.5 QUALIFICATIONS

The designated Scheduler for the project shall have prepared and maintained at least 3 previous schedules of similar size and complexity of this contract using SureTrak/P3 or current mandated scheduling program. A resume outlining the qualifications of the Scheduler shall be submitted for acceptance to the Contracting Officer. Payment will not be processed until an acceptable Scheduler is provided.

1.6 NETWORK SYSTEM FORMAT

The system shall include time scaled logic diagrams and specified reports.

1.6.1 Diagrams

Provide Time-scaled Logic Diagram printed in color on ANSI D size sheets. The diagram shall clearly show activities on the critical path. Include the following information for each activity:

- a. Activity ID
- b. Activity Description
- c. Original Duration in Work Days
- d. Remaining duration
- e. Percent Complete
- f. Early Start Date
- g. Early Finish Date
- h. Total Float

1.6.2 Schedule Activity Properties and Level of Detail

The NAS shall identify all Government, Construction Quality Management (CQM), Construction activities planned for the project and all other activities that could impact project completion if delayed. Separate activities shall be created for each Phase, Area, Floor Level and Location the activity is occurring. Activity categories included in the schedule are specified below.

With the exception of the Contract Award and Contract Completion Date (CCD) milestone activities, no activity shall be open-ended; each activity shall have predecessor and successor ties. Once an activity exists on the schedule it may not be deleted or renamed to change the scope of the activity and shall not be removed from the schedule logic without approval from the Contracting Officer. The ID number for a deleted activity shall not be re-used for another activity. No more than 20 percent of the activities shall be critical or near critical. Critical is defined as having zero days of Total Float. "Near Critical" is defined as having Total Float of 1 to 14 days. Contractor activities shall be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days.

1.6.2.1 Activity Categories

- a. Procurement Activities: Examples of procurement activities include, but are not limited to; Material/equipment submittal preparation, submittal and approval of material/equipment; material/equipment fabrication and delivery, and material/equipment on-site. As a minimum, separate procurement activities will be provided for critical items, long lead items, items requiring government approval and material/equipment procurement for which payment will be requested in advance of installation. The Contractor shall show each delivery with relationship tie to the Construction Activity specifically for the delivery.
- b. Government Activities: Government and other agency activities that could impact progress shall be clearly identified. Government activities include, but are not limited to; Government approved