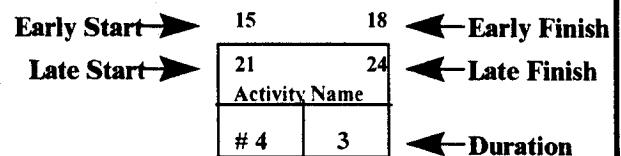
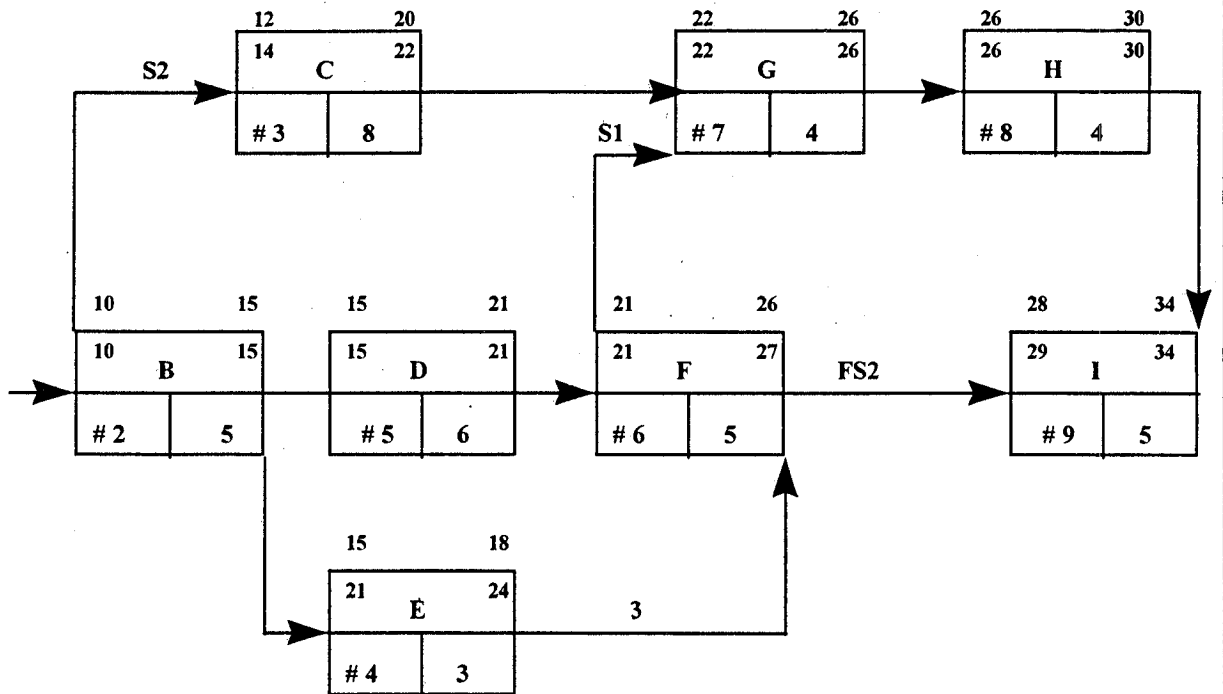




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Network Analysis Systems Guide



DEPARTMENT OF THE ARMY
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Construction
NETWORK ANALYSIS SYSTEMS GUIDE

FOREWORD

This guide provides information for Corps of Engineers Construction and Engineering personnel in the application of Network Analysis Systems. It is intended to give a basic introduction to the two diagraming systems, precedence and arrow diagraming, and to instruct the reader in the various management uses of Network Analysis both when scheduling and when updating the schedule to show progress.

The information given in this pamphlet replaces the Network Analysis Systems Guide dated 31 August 1986. Basic policy and procedure concerning the use of Network Analysis are contained in the most current edition of ER 1-1-11.

Network Analysis scheduling systems encountered in the field will fall in either of the two diagraming techniques described herein. The Precedence system is by far the most common one in use currently. Managers must understand the system they are using. For a more detailed discussion of the systems capabilities and instruction in the use of Network Analysis, the PROSPECT course, 46NWA01A Project Scheduling (NAS) is offered several times annually at various locations.

FOR THE COMMANDER:



OTIS WILLIAMS
Colonel, Corps of Engineers
Chief of Staff

CEMP-CE

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No. 415-1-4

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CHAPTER 1

INTRODUCTION

1-1. Purpose. This pamphlet provides information for Corps of Engineers personnel in the application of Network Analysis Systems.

1-2. Applicability. This pamphlet is applicable to all FOA.

1-3. References. ER 1-1-11

1-4. Distrubution. Approved for public release; distribution is unlimited.

1-5 General. The wide scope of computer software presently available on the market is recognized. The intent of this pamphlet is not to attempt to describe all such systems but to give a basic introduction to the elements of diagraming and associated computer reports of the two most prevalent Network Analysis systems available at present. Examples of computer printouts are provided illustrating some information which can be extracted through the use of various computer data sorts. Also the recommended method of keeping the network schedule up to date and projecting the completion of work based on updates is addressed. This pamphlet illustrates the policies and specifications of ER 1-1-11. For a more detailed understanding of Network Analysis, the PROSPECT course, 46NWA01A, Project Scheduling (NAS), is recommended.

CHAPTER 2

DEFINITION AND DEVELOPMENT

2-1. Definition.

a. There are many names used for network analysis management systems. These systems differ somewhat in their diagramming techniques, notations, terminology, and computer programs, but operate fundamentally in the same manner producing the same basic information common to all of them. The term Network Analysis Systems (NAS) is used by the Corps of Engineers to cover all such systems.

b. The Corps of Engineers recognizes two NAS methods most commonly used by industry, "Precedence" diagramming where the activity is represented by a block and "Arrow diagramming" where the activity is represented by an arrow. These two scheduling systems employ significantly different diagramming techniques. The results of analyses from these systems produce similar report data, however, differences exist between them which must be recognized and understood. Precedence networks have become prevalent in the scheduling industry.

c. Network Analysis Systems can produce a variety of information. The procedures recommended herein include only those considered to be most applicable to work administered by the Corps of Engineers in the field of program planning, engineering design, construction, and operation and maintenance.

d. Where contracts require the use of Network Analysis Systems by the contractor, it is not intended that any specific Network Analysis System be designated as mandatory. Rather, it is intended that construction contractors be permitted to use procedures with which their management personnel are most familiar and can use most effectively, as long as those procedures provide the basic information required by the contract specifications. The procedures and techniques described herein are acceptable. Other programs exist which will provide the information specified in the contract. A Standard Data Exchange Format has been developed which allows transfer of basic data between participating programs.

e. NAS is not a new method of planning. It is a method graphically portraying planning, which demands much greater detail than was necessary under past procedures such as bar charts. It displays the logic or order and interdependence of the various activities in such a manner that they can be analyzed, so as to produce much more meaningful data. The time and cost associated with each task are used in mathematical computations which project completion and payment due as progress is made on the project.

2-2. Development.

a. Preparing the network diagram. Someone who thoroughly understands the project and knows how to accomplish the work or someone with access to those who have this information is the one best able to prepare the diagram, or at least have direct management of the preparation. If a consultant is used, his or her services should be limited to collecting and recording the basic information from appropriate managers and providing computer services for analysis and updating. Participation by responsible project managers or superintendent is vital. A common failing can occur if planning is left to an individual who is not directly involved in the project. If this is the case, management will not be committed to operate in accordance with the planning. Once the network plan is divorced from actual project accomplishment or becomes out of date with actual progress, it becomes useless.

b. The Logic Diagram. Network Analysis Systems function primarily for time analysis. Consequently, the project to be accomplished must be broken down into activities or tasks that require time, whether or not they require effort or costs. Normally, the degree of detail into which the project schedule is divided is determined by the activities to which reasonable time estimates can be applied. Of course, the degree of detail is also influenced by the accuracy desired and the use to be made of the system. Usually greater detail results in greater accuracy, since better time estimates can be made for smaller pieces of work. Many factors must be considered in determining the degree of detail to be shown. Since the project manager must furnish the estimates and use the data from the system, he or she should be involved in this decision concerning the level of detail. State-of-the-art computers handle large amounts of data very rapidly so that more detail can be handled easily in analysis. However, activities must be reviewed and updated by managers.

CHAPTER 3

PRECEDENCE DIAGRAMING SYSTEM

Precedence Diagraming

a. **Activities.** The activities or work items in precedence are shown in a block (Figure 3-1). The description of the activity is usually shown in the top of the block as indicated with spaces provided for activity identification number and the duration also. Durations are estimated amounts of time that the activity is expected to take. Durations are usually expressed in work or calendar days but can be expressed in other units of time. Each activity is assigned a unique work item identification number which can be sequential but need not be.

b. **Logic Diagraming.** The considerations for precedence logic diagraming include three factors which should be considered:

- (1) What must be finished before this activity can be started?
- (2) What work can proceed concurrently with this activity?
- (3) What work cannot start until this activity is finished?

When these questions are satisfied, activities can be arranged in logical sequence. Precedence relationships are indicated by a series of arrows between activities. They define the relationship between the activities and they indicate interdependence but do not represent work. In this aspect precedence diagrams are relatively easy to construct. A sample precedence diagram is shown at Figure 3-2. B, C, and D cannot start until A is finished and B, C, and D are parallel or concurrent with respect to each other. However, in addition to the capability of relating the finish of one activity to the start of the next the start of one activity can be related to the start of another or the finish of one activity to the finish of another. A start to start relationship as depicted in Figure 3-5 in precedence indicates that the start of A must precede the start of B. Similarly, a finish to finish relationship indicates that the finish of A must precede the finish of B in Figure 3-6.

c. **Lag Factors.** The relationships mentioned above may be assigned time factors. While a finish to start relationship usually does not have a lag, it can (see Figure 3-4). Start to start and finish to finish relationships usually are assigned lag factors as indicated by the 3-day lags in Figures 3-5 and 3-6.

d. **Manual Analysis.** This is rarely done when working with precedence diagraming; however, it can be useful for illustration. Relationships, when assigned time factors, must be considered in the analysis forward and backward passes. Such lag factors often dictate early and late starts and finishes. When doing a precedence

GENERAL INFORMATION - PRECEDENT SYSTEM

A. Elements of the System.

1. Activity/Work Item: Includes description, duration, and work (Number Identifier) enclosed in a node rather than shown on an arrow generally indicated similar to:

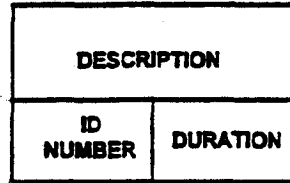


Figure 3-1

2. Logic Information: Indicated by position of nodes in relation to each other, arrows are used to identify dependencies between nodes/activities.

B. Example of a Diagram: (A, B, C, D, E, F, and G are activities.)

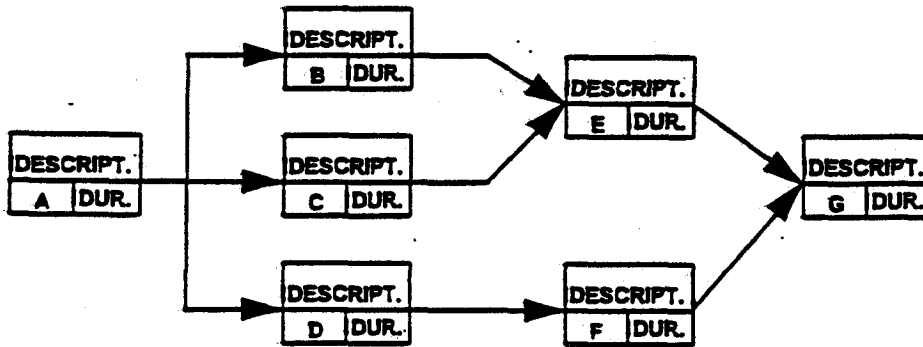


Figure 3-2

C. Example of Dependencies:

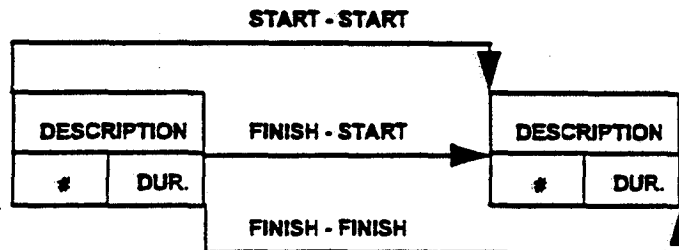
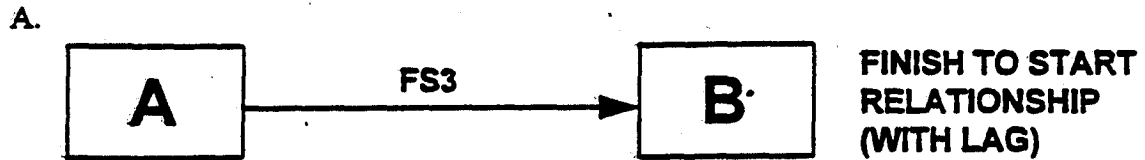


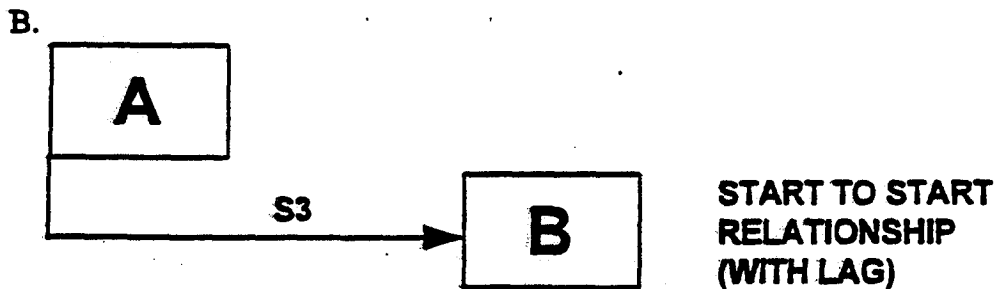
Figure 3 - 3

PRECEDENT ACTIVITY DEPENDENCY RELATIONSHIPS WITH "LAG" FACTORS



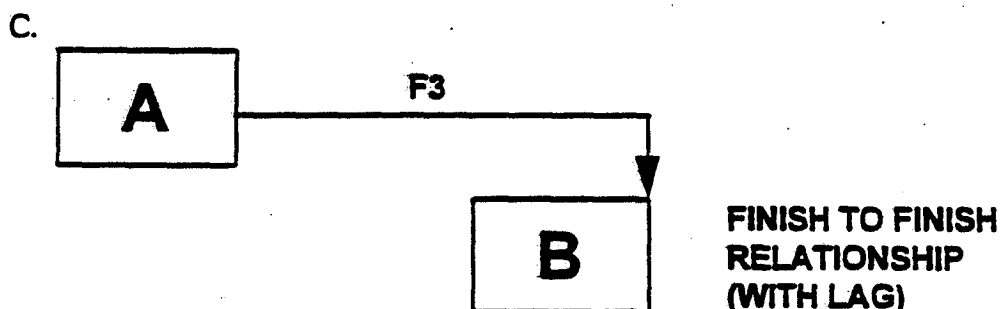
EXAMPLE: CONCRETE PLACEMENT [A] MUST BE FINISHED 3 DAYS BEFORE FORMS CAN BE STRIPPED [B]

Figure 3-4



EXAMPLE: FORMS MAY BE STRIPPED [B] 3 DAYS AFTER THE START OF CONCRETE PLACEMENT [A]

Figure 3-5



EXAMPLE: FORM STRIPPING [B] CANNOT BE FINISHED UNTIL 3 DAYS AFTER THE FINISH OF CONCRETE PLACEMENT [A]

Figure 3-6

forward pass, if a selection is required between the results of two calculations, the larger answer is selected. Similarly, in a precedence backward pass a selection is resolved by selecting the least of the values indicated. Conventionally, the Early Start (ES), Early Finish (EF), Late Start (LS), and Late Finish (LF) are shown as indicated on the sample activity in Figure 3-7. One should note that the lag factors between activities can influence the starts and finishes to the extent that the (ES) and (EF) for an activity may not differ by the activity duration and, likewise, the (LS) and (LF) may not.

e. The Critical Path. In a precedence network the critical path consists of a chain of activities controlling the length of the project. In addition, if start to start or finish to finish relationships are included, the critical path may include some of these lag times. An activity on the critical path will display the characteristics of equal early and late start and finish dates and the difference between the start and finish equal to the duration. If, however, a start to start or a finish to finish relationship is critical, the start of an activity may be critical but not the finish. Likewise, the finish may be critical but not the start. Note Activities 6 and 9 on Figure 3-7 evince these conditions.

f. Activity Data. The most common data elements relevant to activities are as follow:

(1) Early Start (ES) is the earliest date an activity can be started. It is the earliest time the activity can start due to the latest early finish time of a predecessor activity or from a start lag from a predecessor activity. The ES for activity 5 is 15 (Figure 3-7).

(2) Early Finish (EF) is the earliest date an activity can be completed and is found by adding the duration (D) to the ES or from a finish lag from a predecessor activity. For Activity 6, EF is 26 (Figure 3-7).

(3) Late Finish (LF) is the latest date an activity can be finished and permit the project to be completed on time. It is derived by subtracting from the late start of a successor activity or by subtracting through a finish lag from a successor activity. For activity 4, the LF is 24 (Figure 3-7).

(4) Late Start (LS) is the latest date an activity can start without delaying final completion of the project. For any activity it is found by subtracting the duration time from the LF or by subtracting through a start lag from a successor activity. In Figure 3-7, the late start for activity 7 is LF minus the duration, or $26-4=22$. The late start for activity 6 is the late start of activity 7 minus the one-day start lag, or $22-1=21$.

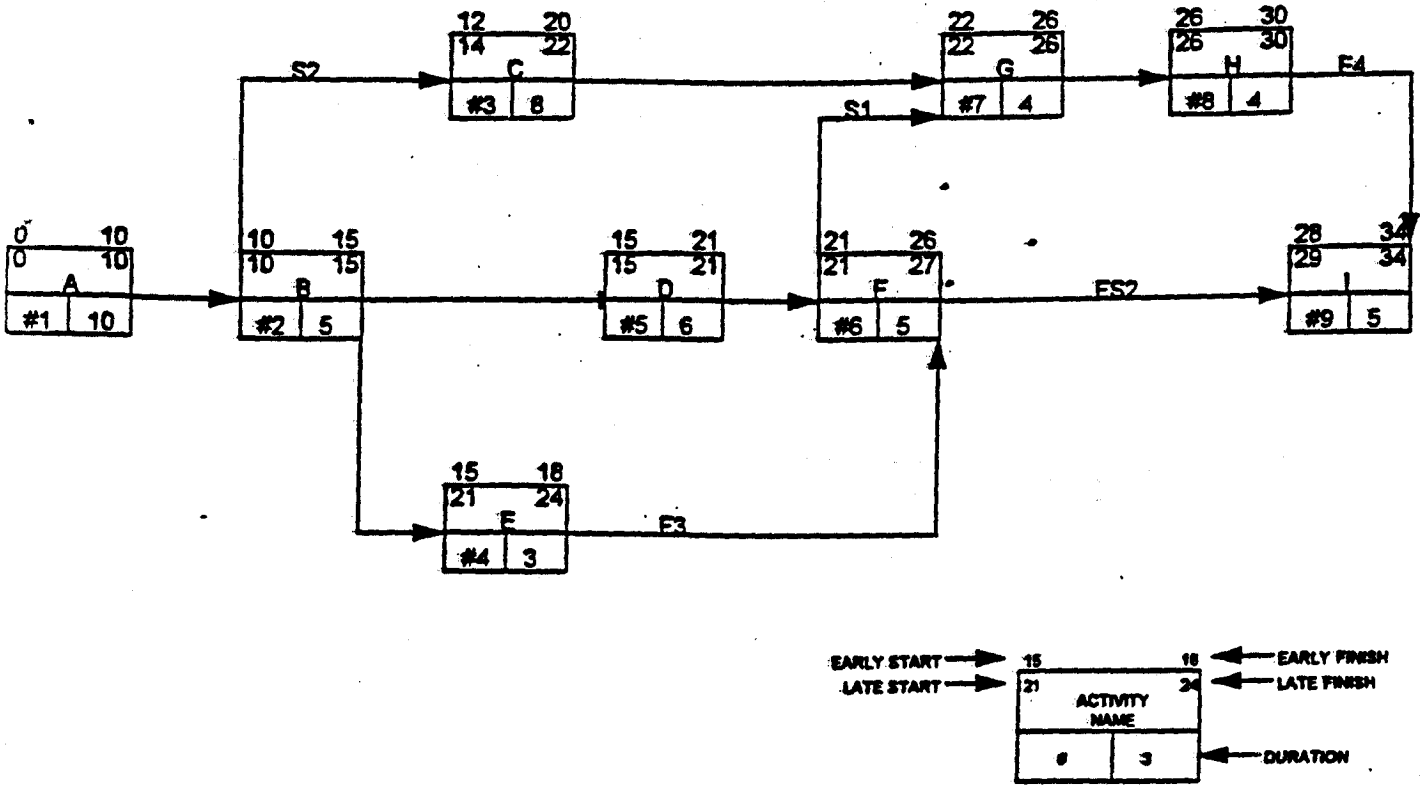


Figure 3-7

(5) Total Float (TF) is the amount of time available for scheduling an activity. It is the time that start of an activity can be delayed beyond the ES without affecting the final completion date of the project. It is the difference between the early start and late start (LS-ES) or early finish and late finish (LF-EF) of any given activity. Notice that any of these calculations yields an answer of 0 for a critical activity. Total float must be calculated in one of the above ways since it does not appear directly on the diagram. In the Precedence diagramming system, if start to start or finish to finish lags are used, it is possible for the total float on the start and finish of an activity to differ. In such an instance the start float may be more critical (smaller) than the finish float or vice versa. Total float is the most significant float calculation. Free float (FF) is a feature which signifies only float available without affecting the next activity early start. The only concept that has significant value in contract management is total float. The critical path (TF=0) for Figure 3-7 is A (#1), B (#2), D (#5), S1 lag, G (#7), H (#8), F4 lag.

g. Activity Data. If start to start or finish to finish relationships are included, they may dictate the Early Start (ES), Late Start (LS), Early Finish (EF), or Late Finish (LF) dates for an activity in such a way that $(ES) + \text{Duration}$ is not the (EF) and $LF - \text{Duration}$ is not the (LS). This occurs when that the start to start lags and the finish to finish lags dictate a period between start and finish longer than the activity duration.

CHAPTER 4

COMPUTER ANALYSIS

Computer Analysis Computations. When the logic diagram has been developed with descriptions, activity numbers, and estimated duration times for the activities, all other analysis computations can be made by computer with the results listed in tabular format on printouts which are easy to read and use. In the Precedence diagramming system, the input information needed by the computer includes the following for each activity; activity identification number, duration time, activity description, the predecessor and successor activities, and any start to start or finish to finish relationships and lag times. Other information such as activity cost, contractor, subcontractor or Government responsibility can also be entered if desired. The computer should also be told what output information is desired in each report. Information can be sorted by any data desired. Some useful sorts are as follows:

a. Work Activity Number Sort. A work item sort for precedence diagrams provides a convenient listing to locate any one activity quickly. It is the "dictionary" sort of activities in order of work item number for the precedence system.

b. Predecessor/Successor Report. In the precedence system, a report of what activities precede and what activities follow any activity is available. These reports are necessary for complete analysis of the precedence logic.

c. Late Start Sort. A listing of activities by late start dates arranges the activities in chronological order of start dates which must be met to maintain schedule. All activities with must start dates for the next report period can be quickly identified.

d. Early Start Sort. A tabulation of activities by early start dates will group those activities which can be started during the next report period. This provides the manager with the work which can start and the dates on which he or she may begin it.

e. Late Finish Sort. A listing of activities in chronological order of late finish dates provides a means to quickly locate all activities which must be finished during the next report period, and the dates which must be met to maintain or to regain the schedule.

f. Early Finish Sort. A listing of activities in chronological order of early finish dates provides a means to quickly locate all activities which can be finished during the next report period.

g. Responsibility Sort. If contractor, subcontractor, Government, etc. responsibility has been entered as an activity resource, a report can be extracted in groupings of responsibility as coded. These reports are useful to distribute assigned schedule dates to various responsible parties such as subcontractors.

h. Total Float Sort. A listing of activities in order of total float identifies the critical path and other float paths in ascending order of float. As the float value of a path increases its criticality decreases. If the report secondary sort is by early start the paths will appear in order. This listing is very useful for a number of reasons. The date on the early finish of the final critical activity projects the completion of the project. The critical activities controlling this completion are displayed together in order. The next groups of activities which are nearly as critical are displayed together grouped in ascending order of float. Most computer software systems allow the fixation of the late finish of the final critical activity on any date such as the current contract completion date. If the projected early project finish slips beyond this date, a negative float calculation will result on the critical path and perhaps on other nearly critical paths. This provides a display of where, by how much, and on which activities the project must be accelerated to regain schedule. Similarly, if the projected early finish of the last critical activity falls earlier than the fixed contract completion date, the most critical path will display a positive float value.

i. Reports. If activity costs have been assigned to each activity that represents a cost item, cost reports can be generated projecting possible payment based on early or late sort arrangements. These reports allow an early and late fund requirement prediction.

CHAPTER 5
MANAGEMENT

Use of Management Data.

a. Information. Network Analysis provides information which the Gantt (bar) chart does not provide, such as:

(1) Which specific activities control the total time required to accomplish the project, the critical path.

(2) Time parameters within which each activity can and must be done to meet the completion date for a project. These are defined by the early start and late finish dates for each activity.

(3) Degree of criticality and latitude available for scheduling each activity (float or slack).

(4) Identification of all activities which must be started or finished during any selected time period in order to meet a required completion date for the project.

(5) Identification of all activities which could be started during any selected time period.

(6) Impact of delays and variations from original activity time estimates and/or logic on other activities and the overall project.

(7) Identification of the causes for past delays and which activities need attention in the future to make up the lost time.

b. Use of Network Analysis Reports. The manager must be able to obtain appropriate management information rapidly if this information is to be useful. It is easily obtained from computer print-outs arranged in appropriate sorts. Figure 5-1 is a copy of a listing of activities in the activity number order with budget amounts for appropriate activities. Figure 5-2 is a reprint of the same data computer sorted by early finish and abbreviated to indicate only those activities that can finish in the months of July and August 1994. Figure 5-3 is another reprint of the same data reprint computer sorted by early start and abbreviated to show only those activities which can start in July and August 1994. To reduce the volume of data printed, limit the early and late start and finish sorts to the upcoming month or two. Figure 5-4 is a list of the activities which are the Government's responsibility. Figure 5-5 and 5-6 are computer sorts ordered by late finish and late start in the months of July and August 1994. Figure 5-7 is a listing of all activities that involve responsibility of the

mechanical/ electrical subcontractor with budget figures included. Note that the late start and finish columns have been erased in this report. Figure 5-8 is another abbreviated reprint computer sorted by Total Float less than 14 days. Note the critical path consists of activities with 0 total float. These activities are in order due to a secondary sort by the early start date. The critical path is followed in order by a path sharing 1 day total float then 5, 7, 12, and 13 days. Figure 5-9 is a listing of the activities listed by activity number including all predecessor and successor activities for each activity. These are noted by PR and SU, respectively. A predecessor/successor report is necessary in order to review and understand the logic of the project diagram. While the diagram can be computer plotted, the activity to activity relationships are often difficult if not impossible to view accurately. Figure 5-10 is a sample of the diagram printed from this data. Note that it is impossible to follow the logic from such a reduced diagram or even one on a larger scale. This series of reports is provided to illustrate the various reports that are available to manage a project. The Government manager should select only those reports which he or she deems necessary or design others to his or her liking.

REPORT DATE 6MAR95 RUN NO. 54
13:09

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95*

SCHEDULE REPORT WITH ACTIVITY BUDGETS

DATA DATE 1JUL94 PAGE NO. 1

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|----------|--------|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | .00 | .00 | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 2 | 7 | 7 | 0 | MOBILIZE & LAYOUT | 10000.00 | .00 | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | .00 | .00 | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 4 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS PAN FORMS | .00 | .00 | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 5 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS METAL DOORS | .00 | .00 | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 6 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | .00 | .00 | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| 7 | 30 | 30 | 0 | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | .00 | .00 | 2JUL94 | 31JUL94 | 12SEP94 | 11OCT94 | 72 |
| 8 | 45 | 45 | 0 | SUBMIT SHOP DRWS. ALUM. ENTRA | .00 | .00 | 2JUL94 | 15AUG94 | 7OCT94 | 20NOV94 | 97 |
| 9 | 45 | 45 | 0 | SUBMIT LATH & PLASTER | .00 | .00 | 2JUL94 | 15AUG94 | 25DEC94 | 7FEB95 | 176 |
| 10 | 45 | 45 | 0 | SUBMIT CERAMIC TILE | .00 | .00 | 2JUL94 | 15AUG94 | 13DEC94 | 26JAN95 | 164 |
| 11 | 45 | 45 | 0 | SUBMIT TOILET PARTITIONS & ACC | .00 | .00 | 2JUL94 | 15AUG94 | 12FEB95 | 28MAR95 | 225 |
| 12 | 30 | 30 | 0 | SUBMIT PLUMBING FIXTURES & MEC | .00 | .00 | 2JUL94 | 31JUL94 | 20OCT94 | 18NOV94 | 110 |
| 13 | 30 | 30 | 0 | SUBMIT ELECTRIC FIXTURES & EQUIP. | .00 | .00 | 2JUL94 | 31JUL94 | 17DEC94 | 15JAN95 | 168 |
| 14 | 45 | 45 | 0 | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | .00 | .00 | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | .00 | .00 | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| 16 | 45 | 45 | 0 | SUBMIT & APPROVE ROOF DECK SHO | .00 | .00 | 2JUL94 | 15AUG94 | 26OCT94 | 9DEC94 | 116 |
| 17 | 30 | 30 | 0 | SUBMIT ROOF & SHEET MET SHOP DRAW. WINGS | .00 | .00 | 2JUL94 | 31JUL94 | 8OCT94 | 6NOV94 | 98 |
| 18 | 30 | 30 | 0 | SUBMIT X-RAY PROTECTION | .00 | .00 | 2JUL94 | 31JUL94 | 23OCT94 | 21NOV94 | 113 |
| 19 | 45 | 45 | 0 | SUBMIT & APPROVE DOOR CANOPIES | .00 | .00 | 2JUL94 | 15AUG94 | 26MAR95 | 9MAY95 | 267 |
| 20 | 30 | 30 | 0 | SUBMIT PAINT SAMPLES | .00 | .00 | 2JUL94 | 31JUL94 | 19JAN95 | 17FEB95 | 201 |
| 21 | 30 | 30 | 0 | SUBMIT VINYL WALL COVERING | .00 | .00 | 2JUL94 | 31JUL94 | 22MAR95 | 20APR95 | 263 |
| 22 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS MILLWORK | .00 | .00 | 2JUL94 | 31JUL94 | 25DEC94 | 23JAN95 | 176 |
| 23 | 30 | 30 | 0 | SUBMIT RESILIENT FLOOR SAMPLES | .00 | .00 | 2JUL94 | 31JUL94 | 23FEB95 | 24MAR95 | 236 |
| 24 | 45 | 45 | 0 | SUBMIT SHOP DRAWINGS CASEWORK | .00 | .00 | 2JUL94 | 15AUG94 | 27NOV94 | 10JAN95 | 148 |

Figure 5-1

5-3

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|--------|-------------|--------------|------------|-------------|-------------|
| 25 | 45 | 45 | 0 | SUBMIT HOSPITAL & MISC. EQUIPMENT .00 | .00 | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 26 | 30 | 30 | 0 | SUBMIT MISC. BUILDING EQUIPMENT .00 | .00 | 2JUL94 | 31JUL94 | 2MAR95 | 31MAR95 | 243 |
| 27 | 15 | 15 | 0 | CONCRETE DESIGN MIX .00 | .00 | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 28 | 30 | 30 | 0 | PRE-QUALIFY WELDERS .00 | .00 | 2JUL94 | 31JUL94 | 30NOV94 | 29DEC94 | 151 |
| 29 | 45 | 45 | 0 | SUBMIT & APPROVE SHP DRUG OS E .00 | .00 | 2JUL94 | 15AUG94 | 3NOV94 | 17DEC94 | 124 |
| 30 | 14 | 14 | 0 | ROUGH GRADE & EXCAVATE BUILDIN 20000.00 | .00 | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 31 | 32 | 32 | 0 | DEMOLITION & SITE GRADING 50000.00 | .00 | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 32 | 45 | 45 | 0 | SUBMIT & APPROVE MASONRY MATER .00 | .00 | 2JUL94 | 15AUG94 | 25OCT94 | 8DEC94 | 115 |
| 33 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS METAL WINDOWS .00 | .00 | 2JUL94 | 31JUL94 | 10SEP94 | 9OCT94 | 70 |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. 65000.00 | .00 | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 35 | 15 | 15 | 0 | GOVERNMENT APPROVE PAN FORMS .00 | .00 | 22JUL94 | 5AUG94 | 6SEP94 | 20SEP94 | 46 |
| 36 | 15 | 15 | 0 | GOVERNMENT APPROVE METAL DOOR .00 | .00 | 22JUL94 | 5AUG94 | 11SEP94 | 25SEP94 | 51 |
| 37 | 20 | 20 | 0 | GOVERNMENT APPROVE STRUCT. STE .00 | .00 | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| 38 | 45 | 45 | 0 | DELIVER MASONRY MATERIALS 47500.00 | .00 | 16AUG94 | 29SEP94 | 9DEC94 | 22JAN95 | 115 |
| 39 | 20 | 20 | 0 | GOVERNMENT APPROVE METAL WINDO .00 | .00 | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| 40 | 30 | 30 | 0 | GOVERNMENT APPROVE BUILDER'S N .00 | .00 | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |
| 41 | 20 | 20 | 0 | GOVERNMENT APP. ALUM. ENTRANCE .00 | .00 | 16AUG94 | 4SEP94 | 21NOV94 | 10DEC94 | 97 |
| 42 | 15 | 15 | 0 | GOVERNMENT APPROVE LATH & PLAS .00 | .00 | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |
| 43 | 30 | 30 | 0 | GOVERNMENT APPROVE CERAMIC TIL .00 | .00 | 16AUG94 | 14SEP94 | 27JAN95 | 25FEB95 | 164 |
| 44 | 20 | 20 | 0 | GOVERNMENT APPROVE TOILET PART .00 | .00 | 16AUG94 | 4SEP94 | 29MAR95 | 17APR95 | 225 |
| 45 | 30 | 30 | 0 | GOVT. APPROVE PLUMB. FIXTURES .00 | .00 | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| 46 | 30 | 30 | 0 | GOVERNMENT APPROVE ELEC. FIXTU .00 | .00 | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| 47 | 45 | 45 | 0 | FABRICATE & DELIVER MISC. METALS 17500.00 | .00 | 16AUG94 | 29SEP94 | 1DEC94 | 14JAN95 | 107 |
| 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL 45000.00 | .00 | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |

5-4

Figure 5-1 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---|-----------|--------|-------------|--------------|------------|-------------|-------------|
| 49 | 30 | 30 | 0 | DELIVER ROOF DECK MATERIALS | | | 16AUG94 | 14SEP94 | 10DEC94 | 8JAN95 | 116 |
| | | | | | .00 | .00 | | | | | |
| 50 | 15 | 15 | 0 | GOVERNMENT APPROVE ROOF & SHEE | | | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |
| | | | | | .00 | .00 | | | | | |
| 51 | 20 | 20 | 0 | GOVERNMENT APPROVE X-RAY PROTE | | | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| | | | | | .00 | .00 | | | | | |
| 52 | 75 | 75 | 0 | DELIVER DOOR CANOPIES & SIGNS | | | 16AUG94 | 29OCT94 | 10MAY95 | 23JUL95 | 267 |
| | | | | | 10000.00 | .00 | | | | | |
| 53 | 30 | 30 | 0 | GOVERNMENT TEST & APPROVE PAINT | | | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| | | | | | .00 | .00 | | | | | |
| 54 | 30 | 30 | 0 | GOVERNMENT APPROVE COLOR SAMP. | | | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |
| | | | | | .00 | .00 | | | | | |
| 55 | 20 | 20 | 0 | GOVERNMENT APPROVE MILLWORK | | | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| | | | | | .00 | .00 | | | | | |
| 56 | 30 | 30 | 0 | GOVERNMENT APPROVE & COLOR SEL | | | 1AUG94 | 30AUG94 | 25MAR95 | 23APR95 | 236 |
| | | | | | .00 | .00 | | | | | |
| 57 | 30 | 30 | 0 | GOVERNMENT APPROVE CASEWORK | | | 16AUG94 | 14SEP94 | 11JAN95 | 9FEB95 | 148 |
| | | | | | .00 | .00 | | | | | |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | | | 16AUG94 | 14SEP94 | 1DEC94 | 30DEC94 | 107 |
| | | | | | .00 | .00 | | | | | |
| 59 | 20 | 20 | 0 | GOVERNMENT APPROVE MISC. BUILD | | | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| | | | | | .00 | .00 | | | | | |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | | | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| | | | | | 10000.00 | .00 | | | | | |
| 63 | 45 | 45 | 0 | DELIVER PAN FORMS | | | 6AUG94 | 19SEP94 | 21SEP94 | 4NOV94 | 46 |
| | | | | | .00 | .00 | | | | | |
| 64 | 90 | 90 | 0 | FABRICATE & DELIVER METAL DOORS | | | 6AUG94 | 3NOV94 | 26SEP94 | 24DEC94 | 51 |
| | | | | | 10000.00 | .00 | | | | | |
| 65 | 45 | 45 | 0 | FABRICATE & DELIVER STEEL COLUMNS | | | 21AUG94 | 4OCT94 | 10NOV94 | 24DEC94 | 81 |
| | | | | | 7500.00 | .00 | | | | | |
| 66 | 90 | 90 | 0 | FABRICATE & DELIVER STRUCT. STEEL | | | 21AUG94 | 18NOV94 | 1OCT94 | 29DEC94 | 41 |
| | | | | | 95000.00 | .00 | | | | | |
| 67 | 2 | 2 | 0 | SAMPLE MASONRY PANEL | | | 30SEP94 | 1OCT94 | 23JAN95 | 24JAN95 | 115 |
| | | | | | .00 | .00 | | | | | |
| 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | | | 21AUG94 | 18NOV94 | 3OCT94 | 27JAN95 | 70 |
| | | | | | 10000.00 | .00 | | | | | |
| 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | | | 31AUG94 | 28DEC94 | 11NOV94 | 10MAR95 | 72 |
| | | | | | 45000.00 | .00 | | | | | |
| 70 | 90 | 90 | 0 | FABRICATE & DELIVER ALUM. ENTRANCE | | | 5SEP94 | 3DEC94 | 11DEC94 | 10MAR95 | 97 |
| | | | | | 22500.00 | .00 | | | | | |
| 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | | | 31AUG94 | 29SEP94 | 23FEB95 | 24MAR95 | 176 |
| | | | | | .00 | .00 | | | | | |
| 72 | 45 | 45 | 0 | DELIVER CERAMIC TILE MATERIAL | | | 15SEP94 | 29OCT94 | 26FEB95 | 11APR95 | 164 |
| | | | | | 45000.00 | .00 | | | | | |
| 73 | 90 | 90 | 0 | DELIVER TOILET PARTITIONS & ACCESSORIES | | | 5SEP94 | 3DEC94 | 18APR95 | 16JUL95 | 225 |
| | | | | | 20000.00 | .00 | | | | | |
| 74 | 150 | 150 | 0 | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | | | 31AUG94 | 27JAN95 | 19DEC94 | 17MAY95 | 110 |
| | | | | | 215000.00 | .00 | | | | | |

5-5

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---|--------|-------------|--------------|------------|-------------|-------------|
| 75 | 120 | 120 | 0 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT 115000.00 | .00 | 31AUG94 | 20DEC94 | 15FEB95 | 14JUN95 | 168 |
| 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL ROOF .00 | .00 | 16AUG94 | 14OCT94 | 22NOV94 | 20JAN95 | 98 |
| 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS 17500.00 | .00 | 21AUG94 | 3NOV94 | 12DEC94 | 24FEB95 | 113 |
| 78 | 45 | 45 | 0 | DELIVER PAINT MATERIALS .00 | .00 | 31AUG94 | 14OCT94 | 20MAR95 | 3MAY95 | 201 |
| 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING 7500.00 | .00 | 31AUG94 | 29OCT94 | 21MAY95 | 19JUL95 | 263 |
| 80 | 120 | 120 | 0 | FABRICATE & DELIVER MILLWORK 30000.00 | .00 | 21AUG94 | 10DEC94 | 13FEB95 | 12JUN95 | 176 |
| 81 | 45 | 45 | 0 | DELIVER RESILIENT FLOOR MATERIALS 17500.00 | .00 | 31AUG94 | 14OCT94 | 24APR95 | 7JUN95 | 236 |
| 82 | 150 | 150 | 0 | DELIVER CASEWORK 80000.00 | .00 | 15SEP94 | 11FEB95 | 10FEB95 | 9JUL95 | 148 |
| 83 | 180 | 180 | 0 | DELIVER HOSPITAL & MISCELLANEOUS EQUIPMENT 215000.00 | .00 | 15SEP94 | 13MAR95 | 31DEC94 | 28JUN95 | 107 |
| 84 | 90 | 90 | 0 | DELIVER MISC. BUILDING EQUIPMENT 30000.00 | .00 | 21AUG94 | 18NOV94 | 21APR95 | 19JUL95 | 243 |
| 85 | 16 | 16 | 0 | FOOTINGS & PLINTHS 22500.00 | .00 | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| 86 | 30 | 30 | 0 | GRADE BEAMS 50000.00 | .00 | 6SEP94 | 5OCT94 | 6SEP94 | 5OCT94 | 0 |
| 87 | 14 | 14 | 0 | BASEMENT FOUNDATION SLABS & BEAMS 15000.00 | .00 | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| 88 | 21 | 21 | 0 | BASEMENT WALLS 22500.00 | .00 | 9SEP94 | 29SEP94 | 10SEP94 | 30SEP94 | 1 |
| 89 | 5 | 5 | 0 | DAMP PROOFING 7500.00 | .00 | 30SEP94 | 4OCT94 | 1OCT94 | 5OCT94 | 1 |
| 91 | 10 | 10 | 0 | BACKFILL & GRADE UNDER BUILDING 22500.00 | .00 | 6OCT94 | 15OCT94 | 6OCT94 | 15OCT94 | 0 |
| 92 | 10 | 10 | 0 | BASEMENT STEPS & LANDINGS 4500.00 | .00 | 6OCT94 | 15OCT94 | 15JAN95 | 24JAN95 | 101 |
| 93 | 20 | 20 | 0 | 30% UNDERFLOOR MECH. & ELEC. R 59000.00 | .00 | 16OCT94 | 4NOV94 | 16OCT94 | 4NOV94 | 0 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS 87500.00 | .00 | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R 135000.00 | .00 | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| 97 | 18 | 18 | 0 | CONCRETE TOPPING FILL 27500.00 | .00 | 25DEC94 | 11JAN95 | 7FEB95 | 24FEB95 | 44 |
| 98 | 63 | 63 | 0 | ELECTRICAL ROUGH IN 100000.00 | .00 | 25DEC94 | 25FEB95 | 4FEB95 | 7APR95 | 41 |
| 99 | 70 | 70 | 0 | MECHANICAL & PLUMBING ROUGH IN 105000.00 | .00 | 25DEC94 | 4MAR95 | 28JAN95 | 7APR95 | 34 |
| 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BUCKS 5000.00 | .00 | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |

Figure 5-1 Cont.

REPORT DATE 6MAR95 RUN NO. 54
13:09

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95+

SCHEDULE REPORT WITH ACTIVITY BUDGETS

DATA DATE 1JUL94 PAGE NO. 5

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---|-----------|--------|-------------|--------------|------------|-------------|-------------|
| 102 | 10 | 10 | 0 | ERECT STRUCTURAL STEEL & JOISTS | 17500.00 | .00 | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| 103 | 27 | 27 | 0 | EXTERIOR MASONRY WALLS | 47500.00 | .00 | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| 108 | 14 | 14 | 0 | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 10000.00 | .00 | 26JAN95 | 8FEB95 | 11MAR95 | 24MAR95 | 44 |
| 109 | 12 | 12 | 0 | INSTALL ROOF DECK | 47500.00 | .00 | 9JAN95 | 20JAN95 | 9JAN95 | 20JAN95 | 0 |
| 110 | 21 | 21 | 0 | ROOFING & SHEET METAL | 80000.00 | .00 | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| 111 | 14 | 14 | 0 | INSTALL METAL WINDOWS | 2500.00 | .00 | 2JAN95 | 15JAN95 | 28JAN95 | 10FEB95 | 26 |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 115000.00 | .00 | 11FEB95 | 7APR95 | 11FEB95 | 7APR95 | 0 |
| 114 | 42 | 42 | 0 | INTERIOR PARTITIONS | 85000.00 | .00 | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| 116 | 14 | 14 | 0 | STUCCO | 10000.00 | .00 | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| 120 | 14 | 14 | 0 | CEILING SUSPENSION SYSTEM & INSULATION | 27500.00 | .00 | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| 121 | 14 | 14 | 0 | PLASTER WALLS | 5000.00 | .00 | 25MAR95 | 7APR95 | 20APR95 | 3MAY95 | 26 |
| 122 | 22 | 22 | 0 | CERAMIC TILE | 22500.00 | .00 | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| 124 | 35 | 35 | 0 | ACOUSTIC & OTHER CEILINGS | 35000.00 | .00 | 22APR95 | 26MAY95 | 27APR95 | 31MAY95 | 5 |
| 125 | 12 | 12 | 0 | PLASTER CEILINGS | 4000.00 | .00 | 22APR95 | 3MAY95 | 22APR95 | 3MAY95 | 0 |
| 128 | 17 | 17 | 0 | TOILET PARTITIONS & ACCESSORIES | 3500.00 | .00 | 16APR95 | 2MAY95 | 17JUL95 | 2AUG95 | 92 |
| 130 | 28 | 28 | 0 | SOX PAINT & FINISH | 19500.00 | .00 | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 25000.00 | .00 | 4MAY95 | 12JUL95 | 18MAY95 | 26JUL95 | 14 |
| 139 | 45 | 45 | 0 | SOX COMPLETE PAINT & FINISH | 32500.00 | .00 | 1JUN95 | 15JUL95 | 1JUN95 | 15JUL95 | 0 |
| 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 15000.00 | .00 | 1JUN95 | 12JUL95 | 15JUN95 | 26JUL95 | 14 |
| 141 | 30 | 30 | 0 | INSTALL PLUMBING FIXTURES & EQUIPMENT | 12500.00 | .00 | 1JUN95 | 30JUN95 | 27JUN95 | 26JUL95 | 26 |
| 142 | 14 | 14 | 0 | VINYL WALL COVER | 5000.00 | .00 | 1JUN95 | 14JUN95 | 20JUL95 | 2AUG95 | 49 |
| 143 | 16 | 16 | 0 | INSTALL SOX MILLWORK | 7500.00 | .00 | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| 144 | 21 | 21 | 0 | INSTALL RESILIENT FLOORS | 7500.00 | .00 | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| 146 | 16 | 16 | 0 | COMPLETE MILLWORK | 7500.00 | .00 | 17JUN95 | 2JUL95 | 30JUN95 | 15JUL95 | 13 |

Figure 5-1 Cont.

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31 Oct 97

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|--------------|----------|---------|---|--|--------|-------------|--------------|------------|-------------|-------------|
| 150 | 3 | 3 | 0 | GOVERNMENT TEST X-RAY PROTECTION .00 | .00 | 22JUN95 | 24JUN95 | 31JUL95 | 2AUG95 | 39 |
| 151 | 24 | 24 | 0 | INSTALL CASEWORK 15000.00 | .00 | 22JUN95 | 15JUL95 | 10JUL95 | 2AUG95 | 18 |
| 152 | 35 | 35 | 0 | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT 20000.00 | .00 | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| 153 | 14 | 14 | 0 | INSTALL MISCELLANEOUS BUILDING EQUIPMENT 4000.00 | .00 | 22JUN95 | 5JUL95 | 20JUL95 | 2AUG95 | 28 |
| 154 | 10 | 10 | 0 | INSTALL DOOR CANOPIES & SIGNS 2500.00 | .00 | 26JAN95 | 4FEB95 | 24JUL95 | 2AUG95 | 179 |
| 155 | 18 | 18 | 0 | 20X PAINT & FINISH 13000.00 | .00 | 16JUL95 | 2AUG95 | 16JUL95 | 2AUG95 | 0 |
| 156 | 7 | 7 | 0 | CLEAN UP BUILDING 5000.00 | .00 | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| 157 | 45 | 45 | 0 | DELIVER OUTSIDE ELEC. & PLUMBING MAT. .00 | .00 | 16AUG94 | 29SEP94 | 18DEC94 | 31JAN95 | 124 |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAIN 50000.00 | .00 | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING 35000.00 | .00 | 30SEP94 | 13NOV94 | 18MAR95 | 1MAY95 | 169 |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL 120000.00 | .00 | 30SEP94 | 28DEC94 | 1FEB95 | 1MAY95 | 124 |
| 167 | 42 | 42 | 0 | SUBGRADE & BASE FOR PAVING 67500.00 | .00 | 29DEC94 | 8FEB95 | 2MAY95 | 12JUN95 | 124 |
| 168 | 21 | 21 | 0 | CURB & GUTTER 20000.00 | .00 | 9FEB95 | 1MAR95 | 13JUN95 | 3JUL95 | 124 |
| 169 | 21 | 21 | 0 | SIDEWALKS 20000.00 | .00 | 2MAR95 | 22MAR95 | 4JUL95 | 24JUL95 | 124 |
| 170 | 10 | 10 | 0 | ASPHALT PAVING 32500.00 | .00 | 2MAR95 | 11MAR95 | 15JUL95 | 24JUL95 | 135 |
| 172 | 16 | 16 | 0 | TOPSOIL & FINE GRADING 10000.00 | .00 | 23MAR95 | 7APR95 | 25JUL95 | 9AUG95 | 124 |
| 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT 15000.00 | .00 | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| 174 | 5 | 5 | 0 | SELL JOB 5000.00 | .00 | 10AUG95 | 14AUG95 | 10AUG95 | 14AUG95 | 0 |
| REPORT TOTAL | | | | 300000.00 | .00 | | | | | |

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Figure 5-1 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 2 | 7 | 7 | 0 | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 27 | 15 | 15 | 0 | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 4 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS PAN FORMS | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 5 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS METAL DOORS | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 30 | 14 | 14 | 0 | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 6 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| 33 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS METAL WINDOWS | 2JUL94 | 31JUL94 | 10SEP94 | 9OCT94 | 70 |
| 7 | 30 | 30 | 0 | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | 2JUL94 | 31JUL94 | 12SEP94 | 11OCT94 | 72 |
| 17 | 30 | 30 | 0 | SUBMIT ROOF & SHEET MET SHOP DRAW . WINGS | 2JUL94 | 31JUL94 | 8OCT94 | 6NOV94 | 98 |
| 12 | 30 | 30 | 0 | SUBMIT PLUMBING FIXTURES & MEC | 2JUL94 | 31JUL94 | 20OCT94 | 18NOV94 | 110 |
| 18 | 30 | 30 | 0 | SUBMIT X-RAY PROTECTION | 2JUL94 | 31JUL94 | 23OCT94 | 21NOV94 | 113 |
| 28 | 30 | 30 | 0 | PRE-QUALIFY WELDERS | 2JUL94 | 31JUL94 | 30NOV94 | 29DEC94 | 151 |
| 13 | 30 | 30 | 0 | SUBMIT ELECTRIC FIXTURES & EQUIP. | 2JUL94 | 31JUL94 | 17DEC94 | 15JAN95 | 168 |
| 22 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS MILLWORK | 2JUL94 | 31JUL94 | 25DEC94 | 23JAN95 | 176 |
| 20 | 30 | 30 | 0 | SUBMIT PAINT SAMPLES | 2JUL94 | 31JUL94 | 19JAN95 | 17FEB95 | 201 |
| 23 | 30 | 30 | 0 | SUBMIT RESILIENT FLOOR SAMPLES | 2JUL94 | 31JUL94 | 23FEB95 | 24MAR95 | 236 |
| 26 | 30 | 30 | 0 | SUBMIT MISC. BUILDING EQUIPMENT | 2JUL94 | 31JUL94 | 2MAR95 | 31MAR95 | 243 |
| 21 | 30 | 30 | 0 | SUBMIT VINYL WALL COVERING | 2JUL94 | 31JUL94 | 22MAR95 | 20APR95 | 263 |
| 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| 35 | 15 | 15 | 0 | GOVERNMENT APPROVE PAN FORMS | 22JUL94 | 5AUG94 | 6SEP94 | 20SEP94 | 46 |
| 36 | 15 | 15 | 0 | GOVERNMENT APPROVE METAL DOOR | 22JUL94 | 5AUG94 | 11SEP94 | 25SEP94 | 51 |
| 31 | 32 | 32 | 0 | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |

Figure 5-2

5-9

31 Oct 97

| ACTIVITY ID | ORIG DUR | REN DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 8 | 45 | 45 | 0 | SUBMIT SHOP DRWG. ALUM. ENTRA | 2JUL94 | 15AUG94 | 7OCT94 | 20NOV94 | 97 |
| 50 | 15 | 15 | 0 | GOVERNMENT APPROVE ROOF & SNEE | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |
| 14 | 45 | 45 | 0 | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 25 | 45 | 45 | 0 | SUBMIT HOSPITAL & MISC. EQUIPMENT | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 32 | 45 | 45 | 0 | SUBMIT & APPROVE MASONRY MATER | 2JUL94 | 15AUG94 | 25OCT94 | 8DEC94 | 115 |
| 16 | 45 | 45 | 0 | SUBMIT & APPROVE ROOF DECK SHO | 2JUL94 | 15AUG94 | 26OCT94 | 9DEC94 | 116 |
| 29 | 45 | 45 | 0 | SUBMIT & APPROVE SHP DRWG OS E | 2JUL94 | 15AUG94 | 3NOV94 | 17DEC94 | 124 |
| 24 | 45 | 45 | 0 | SUBMIT SHOP DRAWINGS CASEWORK | 2JUL94 | 15AUG94 | 27NOV94 | 10JAN95 | 148 |
| 10 | 45 | 45 | 0 | SUBMIT CERAMIC TILE | 2JUL94 | 15AUG94 | 13DEC94 | 26JAN95 | 164 |
| 9 | 45 | 45 | 0 | SUBMIT LATH & PLASTER | 2JUL94 | 15AUG94 | 25DEC94 | 7FEB95 | 176 |
| 11 | 45 | 45 | 0 | SUBMIT TOILET PARTITIONS & ACC | 2JUL94 | 15AUG94 | 12FEB95 | 20MAR95 | 225 |
| 19 | 45 | 45 | 0 | SUBMIT & APPROVE DOOR CANOPIES | 2JUL94 | 15AUG94 | 26MAR95 | 9MAY95 | 267 |
| 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| 37 | 20 | 20 | 0 | GOVERNMENT APPROVE STRUCT. STE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| 39 | 20 | 20 | 0 | GOVERNMENT APPROVE METAL WINDO | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| 51 | 20 | 20 | 0 | GOVERNMENT APPROVE X-RAY PROTE | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| 55 | 20 | 20 | 0 | GOVERNMENT APPROVE MILLWORK | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| 59 | 20 | 20 | 0 | GOVERNMENT APPROVE MISC. BUILD | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| 40 | 30 | 30 | 0 | GOVERNMENT APPROVE BUILDER'S N | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |
| 45 | 30 | 30 | 0 | GOVT. APPROVE PLUMB. FIXTURES | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| 46 | 30 | 30 | 0 | GOVERNMENT APPROVE ELEC. FIXTU | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| 42 | 15 | 15 | 0 | GOVERNMENT APPROVE LATH & PLAS | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |

Figure 5-2 Cont.

Construction Company
 REPORT DATE 15NOV94 RUN NO. 41
 9:44
 EARLY FINISH NEXT TWO MONTHS

PRIMAVERA PROJECT PLANNER
 PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

DA DISPENSARY, LACKLAND AFB, TEXAS
 START DATE 1JUL94 FIN DATE 14AUG95
 DATA DATE 1JUL94 PAGE NO. 3

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--------------------------------|-------------|--------------|------------|-------------|-------------|
| 53 | 30 | 30 | 0 | GOVERNMENT TEST & APPROVE PAIN | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| 56 | 30 | 30 | 0 | GOVERNMENT APPROVE & COLOR SEL | 1AUG94 | 30AUG94 | 25MAR95 | 23APR95 | 236 |
| 54 | 30 | 30 | 0 | GOVERNMENT APPROVE COLOR SAMP. | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |

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Figure 5-2 Cont.

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 2 | 7 | 7 | 0 | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 27 | 15 | 15 | 0 | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 6 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| 4 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS PAN FORMS | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 5 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS METAL DOORS | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 33 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS METAL WINDOWS | 2JUL94 | 31JUL94 | 10SEP94 | 9OCT94 | 70 |
| 7 | 30 | 30 | 0 | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | 2JUL94 | 31JUL94 | 12SEP94 | 11OCT94 | 72 |
| 8 | 45 | 45 | 0 | SUBMIT SHOP DRWS. ALUM. ENTRA | 2JUL94 | 15AUG94 | 7OCT94 | 20NOV94 | 97 |
| 17 | 30 | 30 | 0 | SUBMIT ROOF & SHEET MET SHOP DRAW . WINGS | 2JUL94 | 31JUL94 | 8OCT94 | 6NOV94 | 98 |
| 14 | 45 | 45 | 0 | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 25 | 45 | 45 | 0 | SUBMIT HOSPITAL & MISC. EQUIPMENT | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 12 | 30 | 30 | 0 | SUBMIT PLUMBING FIXTURES & MEC | 2JUL94 | 31JUL94 | 20OCT94 | 18NOV94 | 110 |
| 18 | 30 | 30 | 0 | SUBMIT X-RAY PROTECTION | 2JUL94 | 31JUL94 | 23OCT94 | 21NOV94 | 113 |
| 32 | 45 | 45 | 0 | SUBMIT & APPROVE MASONRY MATER | 2JUL94 | 15AUG94 | 25OCT94 | 8DEC94 | 115 |
| 16 | 45 | 45 | 0 | SUBMIT & APPROVE ROOF DECK SHO | 2JUL94 | 15AUG94 | 26OCT94 | 9DEC94 | 116 |
| 29 | 45 | 45 | 0 | SUBMIT & APPROVE SHP DRWG OS E | 2JUL94 | 15AUG94 | 3NOV94 | 17DEC94 | 124 |
| 24 | 45 | 45 | 0 | SUBMIT SHOP DRAWINGS CASEWORK | 2JUL94 | 15AUG94 | 27NOV94 | 10JAN95 | 148 |
| 28 | 30 | 30 | 0 | PRE-QUALIFY WELDERS | 2JUL94 | 31JUL94 | 30NOV94 | 29DEC94 | 151 |
| 10 | 45 | 45 | 0 | SUBMIT CERAMIC TILE | 2JUL94 | 15AUG94 | 13DEC94 | 26JAN95 | 164 |
| 13 | 30 | 30 | 0 | SUBMIT ELECTRIC FIXTURES & EQUIP. | 2JUL94 | 31JUL94 | 17DEC94 | 15JAN95 | 168 |
| 9 | 45 | 45 | 0 | SUBMIT LATH & PLASTER | 2JUL94 | 15AUG94 | 25DEC94 | 7FEB95 | 176 |

5-12

Figure 5-3

REPORT DATE 15NOV94 RUN NO. 40
9:32
EARLY START NEXT TWO MONTHS

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14JUG94
DATA DATE 1JUL94 PAGE NO. 2

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 22 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS MILLWORK | 2JUL94 | 31JUL94 | 25DEC94 | 23JAN95 | 176 |
| 20 | 30 | 30 | 0 | SUBMIT PAINT SAMPLES | 2JUL94 | 31JUL94 | 19JAN95 | 17FEB95 | 201 |
| 11 | 45 | 45 | 0 | SUBMIT TOILET PARTITIONS & ACC | 2JUL94 | 15AUG94 | 12FEB95 | 20MAR95 | 225 |
| 23 | 30 | 30 | 0 | SUBMIT RESILIENT FLOOR SAMPLES | 2JUL94 | 31JUL94 | 23FEB95 | 24MAR95 | 236 |
| 26 | 30 | 30 | 0 | SUBMIT MISC. BUILDING EQUIPMENT | 2JUL94 | 31JUL94 | 2MAR95 | 31MAR95 | 243 |
| 21 | 30 | 30 | 0 | SUBMIT VINYL WALL COVERING | 2JUL94 | 31JUL94 | 22MAR95 | 20APR95 | 263 |
| 19 | 45 | 45 | 0 | SUBMIT & APPROVE DOOR CANOPIES | 2JUL94 | 15AUG94 | 20MAR95 | 9MAY95 | 267 |
| 30 | 14 | 14 | 0 | ROUGH GRADE & EXCAVATE BUILDING | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 31 | 32 | 32 | 0 | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 35 | 15 | 15 | 0 | GOVERNMENT APPROVE PAIR FORMS | 22JUL94 | 9AUG94 | 6SEP94 | 20SEP94 | 46 |
| 36 | 15 | 15 | 0 | GOVERNMENT APPROVE METAL DOOR | 22JUL94 | 9AUG94 | 11SEP94 | 23SEP94 | 51 |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 37 | 20 | 20 | 0 | GOVERNMENT APPROVE STRUCT. STE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| 39 | 20 | 20 | 0 | GOVERNMENT APPROVE METAL WINDOW | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| 40 | 30 | 30 | 0 | GOVERNMENT APPROVE BUILDER'S N | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |
| 50 | 15 | 15 | 0 | GOVERNMENT APPROVE ROOF & SNEE | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |
| 45 | 30 | 30 | 0 | GOVT. APPROVE PLUMB. FIXTURES | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| 51 | 20 | 20 | 0 | GOVERNMENT APPROVE X-RAY PROTE | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| 46 | 30 | 30 | 0 | GOVERNMENT APPROVE ELEC. FIXTU | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| 55 | 20 | 20 | 0 | GOVERNMENT APPROVE MILLWORK | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| 53 | 30 | 30 | 0 | GOVERNMENT TEST & APPROVE PAINT | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| 56 | 30 | 30 | 0 | GOVERNMENT APPROVE & COLOR SEL | 1AUG94 | 30AUG94 | 25MAR95 | 23APR95 | 236 |
| 59 | 20 | 20 | 0 | GOVERNMENT APPROVE MISC. BUILD | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| 54 | 30 | 30 | 0 | GOVERNMENT APPROVE COLOR SAMP. | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |

Figure 5-3 Cont.

5-13

31 Oct 97

5-14

| ACTIVITY ID | ORIG DUR | REV DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---------------------------------------|-------------|--------------|------------|-------------|-------------|
| 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| 63 | 45 | 45 | 0 | DELIVER PAN FORMS | 6AUG94 | 19SEP94 | 21SEP94 | 4NOV94 | 46 |
| 64 | 90 | 90 | 0 | FABRICATE & DELIVER METAL DOORS | 6AUG94 | 3NOV94 | 26SEP94 | 24DEC94 | 51 |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| 41 | 20 | 20 | 0 | GOVERNMENT APP. ALUM. ENTRANCE | 16AUG94 | 4SEP94 | 21NOV94 | 10DEC94 | 97 |
| 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL/ROOF | 16AUG94 | 14OCT94 | 22NOV94 | 20JAN95 | 98 |
| 47 | 45 | 45 | 0 | FABRICATE & DELIVER MISC. METALS | 16AUG94 | 29SEP94 | 1DEC94 | 14JAN95 | 107 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 16AUG94 | 14SEP94 | 1DEC94 | 30DEC94 | 107 |
| 38 | 45 | 45 | 0 | DELIVER MASONRY MATERIALS | 16AUG94 | 29SEP94 | 9DEC94 | 22JAN95 | 115 |
| 49 | 30 | 30 | 0 | DELIVER ROOF DECK MATERIALS | 16AUG94 | 14SEP94 | 10DEC94 | 8JAN95 | 116 |
| 157 | 45 | 45 | 0 | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 16AUG94 | 29SEP94 | 18DEC94 | 31JAN95 | 124 |
| 57 | 30 | 30 | 0 | GOVERNMENT APPROVE CASEWORK | 16AUG94 | 14SEP94 | 11JAN95 | 9FEB95 | 148 |
| 43 | 30 | 30 | 0 | GOVERNMENT APPROVE CERAMIC TIL | 16AUG94 | 14SEP94 | 27JAN95 | 25FEB95 | 164 |
| 42 | 15 | 15 | 0 | GOVERNMENT APPROVE LATH & PLAS | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |
| 44 | 20 | 20 | 0 | GOVERNMENT APPROVE TOILET PART | 16AUG94 | 4SEP94 | 29MAR95 | 17APR95 | 225 |
| 52 | 75 | 75 | 0 | DELIVER DOOR CANOPIES & SIGNS | 16AUG94 | 29OCT94 | 10MAY95 | 23JUL95 | 267 |
| 65 | 16 | 16 | 0 | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| 66 | 90 | 90 | 0 | FABRICATE & DELIVER STRUCT. STEEL | 21AUG94 | 18NOV94 | 1OCT94 | 29DEC94 | 41 |
| 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 21AUG94 | 18NOV94 | 30OCT94 | 27JAN95 | 70 |
| 65 | 45 | 45 | 0 | FABRICATE & DELIVER STEEL COLUMNS | 21AUG94 | 4OCT94 | 10NOV94 | 24DEC94 | 81 |
| 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS | 21AUG94 | 3NOV94 | 12DEC94 | 24FEB95 | 113 |
| 80 | 120 | 120 | 0 | FABRICATE & DELIVER MILLWORK | 21AUG94 | 18DEC94 | 13FEB95 | 12JUN95 | 176 |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAINS | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| 84 | 90 | 90 | 0 | DELIVER MISC. BUILDING EQUIPMENT | 21AUG94 | 18NOV94 | 21APR95 | 19JUL95 | 243 |

Figure 5-3 Cont.

Moyle Construction Company

PRIMAVERA PROJECT PLANNER

DA DISPENSARY, LACKLAND AFB, TEXAS

REPORT DATE 15NOV94 RUN NO. 40

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95*

9:32

EARLY START NEXT TWO MONTHS

DATA DATE 1JUL94 PAGE NO. 4

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---|-------------|--------------|------------|-------------|-------------|
| 87 | 14 | 14 | 0 | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 31AUG94 | 28DEC94 | 11NOV94 | 10MAR95 | 72 |
| 74 | 150 | 150 | 0 | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 31AUG94 | 27JAN95 | 19DEC94 | 17MAY95 | 110 |
| 75 | 120 | 120 | 0 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 31AUG94 | 28DEC94 | 15FEB95 | 14JUN95 | 168 |
| 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | 31AUG94 | 29SEP94 | 23FEB95 | 24MAR95 | 176 |
| 78 | 45 | 45 | 0 | DELIVER PAINT MATERIALS | 31AUG94 | 14OCT94 | 20MAR95 | 3MAY95 | 201 |
| 81 | 45 | 45 | 0 | DELIVER RESILIENT FLOOR MATERIALS | 31AUG94 | 14OCT94 | 24APR95 | 7JUN95 | 236 |
| 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING | 31AUG94 | 29OCT94 | 21MAY95 | 19JUL95 | 263 |

5-15

Figure 5-3 Cont.

31 Oct 97

31 OCT 97

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|----------------------------------|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 35 | 15 | 15 | 0 | GOVERNMENT APPROVE PAN FORMS | 22JUL94 | 5AUG94 | 6SEP94 | 20SEP94 | 46 |
| 36 | 15 | 15 | 0 | GOVERNMENT APPROVE METAL DOOR | 22JUL94 | 5AUG94 | 11SEP94 | 25SEP94 | 51 |
| 37 | 20 | 20 | 0 | GOVERNMENT APPROVE STRUCT. STE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| 39 | 20 | 20 | 0 | GOVERNMENT APPROVE METAL WINDO | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| 40 | 30 | 30 | 0 | GOVERNMENT APPROVE BUILDER'S H | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |
| 45 | 30 | 30 | 0 | GOVT. APPROVE PLUMB. FIXTURES | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| 46 | 30 | 30 | 0 | GOVERNMENT APPROVE ELEC. FIXTU | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| 50 | 15 | 15 | 0 | GOVERNMENT APPROVE ROOF & SHEE | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |
| 51 | 20 | 20 | 0 | GOVERNMENT APPROVE X-RAY PROTE | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| 53 | 30 | 30 | 0 | GOVERNMENT TEST & APPROVE PAIN | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| 54 | 30 | 30 | 0 | GOVERNMENT APPROVE COLOR SAMP. | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |
| 55 | 20 | 20 | 0 | GOVERNMENT APPROVE MILLWORK | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| 56 | 30 | 30 | 0 | GOVERNMENT APPROVE & COLOR SEL | 1AUG94 | 30AUG94 | 25MAR95 | 23APR95 | 236 |
| 59 | 20 | 20 | 0 | GOVERNMENT APPROVE MISC. BUILD | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| 41 | 20 | 20 | 0 | GOVERNMENT APP. ALUM. ENTRANCE | 16AUG94 | 4SEP94 | 21NOV94 | 10DEC94 | 97 |
| 42 | 15 | 15 | 0 | GOVERNMENT APPROVE LATH & PLAS | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |
| 43 | 30 | 30 | 0 | GOVERNMENT APPROVE CERAMIC TIL | 16AUG94 | 14SEP94 | 27JAN95 | 25FEB95 | 164 |
| 44 | 20 | 20 | 0 | GOVERNMENT APPROVE TOILET PART | 16AUG94 | 4SEP94 | 29MAR95 | 17APR95 | 225 |
| 57 | 30 | 30 | 0 | GOVERNMENT APPROVE CASEWORK | 16AUG94 | 14SEP94 | 11JAN95 | 9FEB95 | 148 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 16AUG94 | 14SEP94 | 10DEC94 | 30DEC94 | 107 |
| 150 | 3 | 3 | 0 | GOVERNMENT TEST X-RAY PROTECTION | 22JUN95 | 24JUN95 | 31JUL95 | 2AUG95 | 39 |

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Figure 5-4

9 Construction Company

PRIMAVERA PROJECT PLANM.

DA DISPENSARY, LACKLAND AFB, TEXAS

REPORT DATE 15NOV94 RUN NO. 43
9:55
LATE FINISH NEXT TWO MONTHS

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG94
DATA DATE 1JUL94 PAGE NO. 1

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 2 | 7 | 7 | 0 | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 9AUG94 | 2JUL94 | 9AUG94 | 0 |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 30 | 14 | 14 | 0 | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| 27 | 15 | 15 | 0 | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |

5-17

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 2 | 7 | 7 | 0 | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL R.I. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 30 | 14 | 14 | 0 | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| 27 | 15 | 15 | 0 | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 6 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| 4 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS PAN FORMS | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 85 | 16 | 16 | 0 | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| 5 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS METAL DOORS | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 87 | 14 | 14 | 0 | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |

5-18

Figure 5-6

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | BUDGET | EARNED | SCHEDULED | | |
|--------------|----------|---------|---|--|-----------|------------|-----------|---------|--|
| | | | | | | | START | FINISH | |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | | | 2JUL94 | 31JUL94 | |
| 12 | 30 | 30 | 0 | SUBMIT PLUMBING FIXTURES & MEC | .00 | .00 | 2JUL94 | 31JUL94 | |
| 13 | 30 | 30 | 0 | SUBMIT ELECTRIC FIXTURES & EQUIP. | .00 | .00 | 2JUL94 | 31JUL94 | |
| 29 | 45 | 45 | 0 | SUBMIT & APPROVE SHP DRWG OS E | .00 | .00 | 2JUL94 | 15AUG94 | |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RT. MAT. | .00 | .00 | 1AUG94 | 15AUG94 | |
| 157 | 45 | 45 | 0 | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 85000.00 | .00 | 16AUG94 | 29SEP94 | |
| 75 | 120 | 120 | 0 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | .00 | .00 | 31AUG94 | 28DEC94 | |
| 74 | 150 | 150 | 0 | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 115000.00 | .00 | 31AUG94 | 27JAN95 | |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | 215000.00 | .00 | 30SEP94 | 13NOV94 | |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL | 35000.00 | .00 | 30SEP94 | 28DEC94 | |
| 93 | 20 | 20 | 0 | 30% UNDERFLOOR MECH. & ELEC. R | 120000.00 | .00 | 16OCT94 | 4NOV94 | |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 59000.00 | .00 | 5NOV94 | 24DEC94 | |
| 98 | 63 | 63 | 0 | ELECTRICAL ROUGH IN | 135000.00 | .00 | 25DEC94 | 25FEB95 | |
| 99 | 70 | 70 | 0 | MECHANICAL & PLUMBING ROUGH IN | 100000.00 | .00 | 25DEC94 | 4MAR95 | |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 105000.00 | .00 | 11FEB95 | 7APR95 | |
| 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 115000.00 | .00 | 4MAY95 | 12JUL95 | |
| 141 | 30 | 30 | 0 | INSTALL PLUMBING FIXTURES & EQUIPMENT | 25000.00 | .00 | 1JUN95 | 30JUN95 | |
| 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 12500.00 | .00 | 1JUN95 | 12JUL95 | |
| 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 15000.00 | .00 | 13JUL95 | 26JUL95 | |
| | | | | | 15000.00 | .00 | | | |
| REPORT TOTAL | | | | ***** | | 1131500.00 | .00 | | |

5-19

Figure 5-7

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRUG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| 85 | 16 | 16 | 0 | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| 86 | 30 | 30 | 0 | GRADEBEAMS | 6SEP94 | 5OCT94 | 6SEP94 | 5OCT94 | 0 |
| 91 | 10 | 10 | 0 | BACKFILL & GRADE UNDER BUILDING | 6OCT94 | 15OCT94 | 6OCT94 | 15OCT94 | 0 |
| 93 | 20 | 20 | 0 | 30% UNDERFLOOR MECH. & ELEC. R | 16OCT94 | 4NOV94 | 16OCT94 | 4NOV94 | 0 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BRACKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| 102 | 10 | 10 | 0 | ERECT STRUCTURAL STEEL & JOISTS | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| 109 | 12 | 12 | 0 | INSTALL ROOF DECK | 9JAN95 | 20JAN95 | 9JAN95 | 20JAN95 | 0 |
| 110 | 21 | 21 | 0 | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 11FEB95 | 7APR95 | 11FEB95 | 7APR95 | 0 |
| 120 | 14 | 14 | 0 | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| 125 | 12 | 12 | 0 | PLASTER CEILING | 22APR95 | 3MAY95 | 22APR95 | 3MAY95 | 0 |
| 130 | 28 | 28 | 0 | 30% PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| 139 | 45 | 45 | 0 | 50% COMPLETE PAINT & FINISH | 1JUN95 | 15JUL95 | 1JUN95 | 15JUL95 | 0 |
| 155 | 18 | 18 | 0 | 20% PAINT & FINISH | 16JUL95 | 2AUG95 | 16JUL95 | 2AUG95 | 0 |
| 156 | 7 | 7 | 0 | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| 174 | 5 | 5 | 0 | BELL JOB | 10AUG95 | 14AUG95 | 10AUG95 | 14AUG95 | 0 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.1 | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |

Figure 5-8

Moyb Construction Company

PRIMAVERA PROJECT PLANNER

DA DISPENSARY, LACKLAND AFB, TEXAS

REPORT DATE 15NOV94 RUN NO. 44
9:57
TOTAL FLOAT LESS THAN 14 DAYS

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95
DATA DATE 1JUL94 PAGE NO. 2

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|--|-------------|--------------|------------|-------------|-------------|
| 87 | 14 | 14 | 0 | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| 88 | 21 | 21 | 0 | BASEMENT WALLS | 9SEP94 | 29SEP94 | 10SEP94 | 30SEP94 | 1 |
| 89 | 9 | 9 | 0 | DAMP-ROOFING | 30SEP94 | 4OCT94 | 1OCT94 | 5OCT94 | 1 |
| 124 | 39 | 39 | 0 | ACOUSTIC & OTHER CEILING | 22APR95 | 26MAY95 | 27APR95 | 31MAY95 | 9 |
| 144 | 21 | 21 | 0 | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| 152 | 39 | 39 | 0 | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| 143 | 16 | 16 | 0 | INSTALL SOX MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| 146 | 16 | 16 | 0 | COMPLETE MILLWORK | 17JUN95 | 2JUL95 | 30JUN95 | 15JUL95 | 13 |

Figure 5-8 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 1 | 0 | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 2* | 7 | 7 | 0 SU | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 3* | 30 | 30 | 0 SU | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 4* | 20 | 20 | 0 SU | SUBMIT SHOP DRAWINGS PAN FORMS | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 5* | 20 | 20 | 0 SU | SUBMIT SHOP DRAWINGS METAL DOORS | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 6* | 30 | 30 | 0 SU | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| 7* | 30 | 30 | 0 SU | SUBMIT LISTS & SAMPLE BUILDERS HARDWARE | 2JUL94 | 31JUL94 | 12SEP94 | 11OCT94 | 72 |
| 8* | 45 | 45 | 0 SU | SUBMIT SHOP DRWG. ALUM. ENTRA | 2JUL94 | 15AUG94 | 7OCT94 | 20NOV94 | 97 |
| 9* | 45 | 45 | 0 SU | SUBMIT LATH & PLASTER | 2JUL94 | 15AUG94 | 25DEC94 | 7FEB95 | 176 |
| 10* | 45 | 45 | 0 SU | SUBMIT CERAMIC TILE | 2JUL94 | 15AUG94 | 13DEC94 | 26JAN95 | 164 |
| 11* | 45 | 45 | 0 SU | SUBMIT TOILET PARTITIONS & ACC | 2JUL94 | 15AUG94 | 12FEB95 | 20MAR95 | 225 |
| 12* | 30 | 30 | 0 SU | SUBMIT PLUMBING FIXTURES & MEC | 2JUL94 | 31JUL94 | 20OCT94 | 18NOV94 | 110 |
| 13* | 30 | 30 | 0 SU | SUBMIT ELECTRIC FIXTURES & EQUIP. | 2JUL94 | 31JUL94 | 17DEC94 | 15JAN95 | 168 |
| 14* | 45 | 45 | 0 SU | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 15* | 35 | 35 | 0 SU | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| 16* | 45 | 45 | 0 SU | SUBMIT & APPROVE ROOF DECK SHO | 2JUL94 | 15AUG94 | 26OCT94 | 9DEC94 | 116 |
| 17* | 30 | 30 | 0 SU | SUBMIT ROOF & SHEET MET SHOP DRAW . .WINGS | 2JUL94 | 31JUL94 | 8OCT94 | 6NOV94 | 98 |
| 18* | 30 | 30 | 0 SU | SUBMIT X-RAY PROTECTION | 2JUL94 | 31JUL94 | 23OCT94 | 21NOV94 | 113 |
| 19* | 45 | 45 | 0 SU | SUBMIT & APPROVE DOOR CANOPIES | 2JUL94 | 15AUG94 | 26MAR95 | 9MAY95 | 267 |
| 20* | 30 | 30 | 0 SU | SUBMIT PAINT SAMPLES | 2JUL94 | 31JUL94 | 19JAN95 | 17FEB95 | 201 |
| 21* | 30 | 30 | 0 SU | SUBMIT VINYL WALL COVERING | 2JUL94 | 31JUL94 | 22MAR95 | 20APR95 | 263 |
| 22* | 30 | 30 | 0 SU | SUBMIT SHOP DRAWINGS MILLWORK | 2JUL94 | 31JUL94 | 25DEC94 | 23JAN95 | 176 |
| 23* | 30 | 30 | 0 SU | SUBMIT RESILIENT FLOOR SAMPLES | 2JUL94 | 31JUL94 | 23FEB95 | 24MAR95 | 236 |
| 24* | 45 | 45 | 0 SU | SUBMIT SHOP DRAWINGS CASEWORK | 2JUL94 | 15AUG94 | 27NOV94 | 10JAN95 | 148 |
| 25* | 45 | 45 | 0 SU | SUBMIT HOSPITAL & MISC. EQUIPMENT | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 26* | 30 | 30 | 0 SU | SUBMIT MISC. BUILDING EQUIPMENT | 2JUL94 | 31JUL94 | 2MAR95 | 31MAR95 | 243 |
| 27* | 15 | 15 | 0 SU | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 28* | 30 | 30 | 0 SU | PRE-QUALIFY WELDERS | 2JUL94 | 31JUL94 | 30NOV94 | 29DEC94 | 151 |
| 29* | 45 | 45 | 0 SU | SUBMIT & APPROVE SHP DRWG OS 2 | 2JUL94 | 15AUG94 | 3NOV94 | 17DEC94 | 124 |
| 32* | 45 | 45 | 0 SU | SUBMIT & APPROVE MASONRY MATER | 2JUL94 | 15AUG94 | 25OCT94 | 8DEC94 | 115 |
| 33* | 30 | 30 | 0 SU | SUBMIT SHOP DRAWINGS METAL WINDOWS | 2JUL94 | 31JUL94 | 10SEP94 | 9OCT94 | 70 |
| 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 2 | 7 | 7 | 0 | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 30* | 14 | 14 | 0 SU | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 31* | 32 | 32 | 0 SU | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 3 | 30 | 30 | 0 | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 34* | 15 | 15 | 0 SU | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 4 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS PAN FORMS | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 35* | 15 | 15 | 0 SU | GOVERNMENT APPROVE PAN FORMS | 22JUL94 | 5AUG94 | 6SEP94 | 20SEP94 | 46 |
| 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 5 | 20 | 20 | 0 | SUBMIT SHOP DRAWINGS METAL DOORS | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 36* | 15 | 15 | 0 SU | GOVERNMENT APPROVE METAL DOOR | 22JUL94 | 5AUG94 | 11SEP94 | 25SEP94 | 51 |

Figure 5-9

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT | |
|-------------|-----------------|---------|----|----------------------|--|--------------|------------|-------------|-------------|-----|
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 6 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| .. | 37 ^a | 20 | 20 | 0 SU | GOVERNMENT APPROVE STRUCT. SITE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 7 | 30 | 30 | 0 | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | 2JUL94 | 31JUL94 | 12SEP94 | 11OCT94 | 72 |
| .. | 40 ^a | 30 | 30 | 0 SU | GOVERNMENT APPROVE BUILDER'S H | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 8 | 45 | 45 | 0 | SUBMIT SHOP DRWS. ALUM. ENTRA | 2JUL94 | 15AUG94 | 7OCT94 | 20NOV94 | 97 |
| .. | 41 ^a | 20 | 20 | 0 SU | GOVERNMENT APP. ALUM. ENTRANCE | 16AUG94 | 4SEP94 | 21NOV94 | 10DEC94 | 97 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 9 | 45 | 45 | 0 | SUBMIT LATN & PLASTER | 2JUL94 | 15AUG94 | 25DEC94 | 7FEB95 | 176 |
| .. | 42 ^a | 15 | 15 | 0 SU | GOVERNMENT APPROVE LATN & PLAS | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 10 | 45 | 45 | 0 | SUBMIT CERAMIC TILE | 2JUL94 | 15AUG94 | 13DEC94 | 26JAN95 | 164 |
| .. | 43 ^a | 30 | 30 | 0 SU | GOVERNMENT APPROVE CERAMIC TIL | 16AUG94 | 14SEP94 | 27JAN95 | 25FEB95 | 164 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 11 | 45 | 45 | 0 | SUBMIT TOILET PARTITIONS & ACC | 2JUL94 | 15AUG94 | 12FEB95 | 20MAR95 | 225 |
| .. | 44 ^a | 20 | 20 | 0 SU | GOVERNMENT APPROVE TOILET PART | 16AUG94 | 4SEP94 | 29MAR95 | 17APR95 | 225 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 12 | 30 | 30 | 0 | SUBMIT PLUMBING FIXTURES & MEC | 2JUL94 | 31JUL94 | 20OCT94 | 18NOV94 | 110 |
| .. | 45 ^a | 30 | 30 | 0 SU | GOVT. APPROVE PLUMB. FIXTURES | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 13 | 30 | 30 | 0 | SUBMIT ELECTRIC FIXTURES & EQUIP. | 2JUL94 | 31JUL94 | 17DEC94 | 15JAN95 | 168 |
| .. | 46 ^a | 30 | 30 | 0 SU | GOVERNMENT APPROVE ELEC. FIXTU | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 14 | 45 | 45 | 0 | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| .. | 47 ^a | 45 | 45 | 0 SU | FABRICATE & DELIVER MISC. METALS | 16AUG94 | 29SEP94 | 10DEC94 | 14JAN95 | 107 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 15 | 35 | 35 | 0 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| .. | 48 ^a | 15 | 15 | 0 SU | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 16 | 45 | 45 | 0 | SUBMIT & APPROVE ROOF DECK SHO | 2JUL94 | 15AUG94 | 26OCT94 | 9DEC94 | 116 |
| .. | 49 ^a | 30 | 30 | 0 SU | DELIVER ROOF DECK MATERIALS | 16AUG94 | 14SEP94 | 10DEC94 | 8JAN95 | 116 |
| .. | 1 ^a | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. | 17 | 30 | 30 | 0 | SUBMIT ROOF & SHEET MET SHOP DRAW . .WINGS | 2JUL94 | 31JUL94 | 8OCT94 | 6NOV94 | 98 |
| .. | 50 ^a | 15 | 15 | 0 SU | GOVERNMENT APPROVE ROOF & SREE | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |

Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|-----------------------------------|-------------|--------------|------------|-------------|-------------|
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 18 | 30 | 30 | 0 | SUBMIT X-RAY PROTECTION | 2JUL94 | 31JUL94 | 23OCT94 | 21NOV94 | 113 |
| .. 51* | 20 | 20 | 0 SU | GOVERNMENT APPROVE X-RAY PROTE | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 19 | 45 | 45 | 0 | SUBMIT & APPROVE DOOR CANOPIES | 2JUL94 | 15AUG94 | 26MAR95 | 9MAY95 | 267 |
| .. 52* | 75 | 75 | 0 SU | DELIVER DOOR CANOPIES & SIGNS | 16AUG94 | 29OCT94 | 10MAY95 | 23JUL95 | 267 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 20 | 30 | 30 | 0 | SUBMIT PAINT SAMPLES | 2JUL94 | 31JUL94 | 19JAN95 | 17FEB95 | 201 |
| .. 53* | 30 | 30 | 0 SU | GOVERNMENT TEST & APPROVE PAINT | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 21 | 30 | 30 | 0 | SUBMIT VINYL WALL COVERING | 2JUL94 | 31JUL94 | 22MAR95 | 20APR95 | 263 |
| .. 54* | 30 | 30 | 0 SU | GOVERNMENT APPROVE COLOR SAMP. | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 22 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS MILLWORK | 2JUL94 | 31JUL94 | 25DEC94 | 23JAN95 | 176 |
| .. 55* | 20 | 20 | 0 SU | GOVERNMENT APPROVE MILLWORK | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 23 | 30 | 30 | 0 | SUBMIT RESILIENT FLOOR SAMPLES | 2JUL94 | 31JUL94 | 23FEB95 | 24MAR95 | 236 |
| .. 56* | 30 | 30 | 0 SU | GOVERNMENT APPROVE & COLOR SEL | 1AUG94 | 30AUG94 | 25MAR95 | 23APR95 | 236 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 24 | 45 | 45 | 0 | SUBMIT SHOP DRAWINGS CASEWORK | 2JUL94 | 15AUG94 | 27NOV94 | 10JAN95 | 148 |
| .. 57* | 30 | 30 | 0 SU | GOVERNMENT APPROVE CASEWORK | 16AUG94 | 14SEP94 | 11JAN95 | 9FEB95 | 148 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 25 | 45 | 45 | 0 | SUBMIT HOSPITAL & MISC. EQUIPMENT | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| .. 58* | 30 | 30 | 0 SU | GOVERNMENT APPROVE HOSPITAL & | 16AUG94 | 14SEP94 | 10DEC94 | 30DEC94 | 107 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 26 | 30 | 30 | 0 | SUBMIT MISC. BUILDING EQUIPMENT | 2JUL94 | 31JUL94 | 2MAR95 | 31MAR95 | 243 |
| .. 59* | 20 | 20 | 0 SU | GOVERNMENT APPROVE MISC. BUILD | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 27 | 15 | 15 | 0 | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| .. 85 | 16 | 16 | 0 SU | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| .. 87 | 14 | 14 | 0 SU | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| .. 160 | 60 | 60 | 0 SU | DELIVER & INSTALL STORM DRAINS | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 28 | 30 | 30 | 0 | PRE-QUALIFY WELDERS | 2JUL94 | 31JUL94 | 30NOV94 | 29DEC94 | 151 |
| .. 102 | 10 | 10 | 0 SU | ERECT STRUCTURAL STEEL & JOISTS | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| .. 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| .. 29 | 45 | 45 | 0 | SUBMIT & APPROVE SHP DRUG OS & | 2JUL94 | 15AUG94 | 3NOV94 | 17DEC94 | 124 |

Figure 5-9 Cont.

5-24

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|--|-------------|--------------|------------|-------------|-------------|
| 157* | 45 | 45 | 0 SU | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 16AUG94 | 29SEP94 | 18DEC94 | 31JAN95 | 124 |
| 2* | 7 | 7 | 0 PR | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 30 | 14 | 14 | 0 | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 62 | 10 | 10 | 0 SU | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| 85 | 16 | 16 | 0 SU | FOOTINGS & PLINTS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| 2* | 7 | 7 | 0 PR | MOBILIZE & LAYOUT | 2JUL94 | 8JUL94 | 27JUL94 | 2AUG94 | 25 |
| 31 | 32 | 32 | 0 | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 160 | 60 | 60 | 0 SU | DELIVER & INSTALL STORM DRAINS | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| 161 | 45 | 45 | 0 SU | OUTSIDE PLUMBING | 30SEP94 | 13NOV94 | 18MAR95 | 1MAY95 | 169 |
| 162 | 90 | 90 | 0 SU | OUTSIDE ELECTRICAL | 30SEP94 | 28DEC94 | 1FEB95 | 1MAY95 | 124 |
| 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 32 | 45 | 45 | 0 | SUBMIT & APPROVE MASONRY MATER | 2JUL94 | 15AUG94 | 25OCT94 | 8DEC94 | 115 |
| 38* | 45 | 45 | 0 SU | DELIVER MASONRY MATERIALS | 16AUG94 | 29SEP94 | 9DEC94 | 22JAN95 | 115 |
| 1* | 1 | 1 | 0 PR | NOTICE TO PROCEED | 1JUL94 | 1JUL94 | 1JUL94 | 1JUL94 | 0 |
| 33 | 30 | 30 | 0 | SUBMIT SHOP DRAWINGS METAL WINDOWS | 2JUL94 | 31JUL94 | 10SEP94 | 9OCT94 | 70 |
| 39* | 20 | 20 | 0 SU | GOVERNMENT APPROVE METAL WINDO | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| 3* | 30 | 30 | 0 PR | SUBMIT & APPROVE MECH/ELEC R.I | 2JUL94 | 31JUL94 | 3JUL94 | 1AUG94 | 1 |
| 34 | 15 | 15 | 0 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 62* | 10 | 10 | 0 SU | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| 4* | 20 | 20 | 0 PR | SUBMIT SHOP DRAWINGS PAN FORMS | 2JUL94 | 21JUL94 | 17AUG94 | 5SEP94 | 46 |
| 35 | 15 | 15 | 0 | GOVERNMENT APPROVE PAN FORMS | 22JUL94 | 5AUG94 | 6SEP94 | 20SEP94 | 46 |
| 63* | 45 | 45 | 0 SU | DELIVER PAN FORMS | 6AUG94 | 19SEP94 | 21SEP94 | 4NOV94 | 46 |
| 5* | 20 | 20 | 0 PR | SUBMIT SHOP DRAWINGS METAL DOORS | 2JUL94 | 21JUL94 | 22AUG94 | 10SEP94 | 51 |
| 36 | 15 | 15 | 0 | GOVERNMENT APPROVE METAL DOOR | 22JUL94 | 5AUG94 | 11SEP94 | 25SEP94 | 51 |
| 64* | 90 | 90 | 0 SU | FABRICATE & DELIVER METAL DOORS | 6AUG94 | 3NOV94 | 26SEP94 | 24DEC94 | 51 |
| 6* | 30 | 30 | 0 PR | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | 2JUL94 | 31JUL94 | 12AUG94 | 10SEP94 | 41 |
| 37 | 20 | 20 | 0 | GOVERNMENT APPROVE STRUCT. STE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| 65* | 45 | 45 | 0 SU | FABRICATE & DELIVER STEEL COLUMNS | 21AUG94 | 4OCT94 | 10NOV94 | 24DEC94 | 81 |
| 66* | 90 | 90 | 0 SU | FABRICATE & DELIVER STRUCT. STEEL | 21AUG94 | 18NOV94 | 1OCT94 | 29DEC94 | 41 |
| 32* | 45 | 45 | 0 PR | SUBMIT & APPROVE MASONRY MATER | 2JUL94 | 15AUG94 | 25OCT94 | 8DEC94 | 115 |
| 38 | 45 | 45 | 0 | DELIVER MASONRY MATERIALS | 16AUG94 | 29SEP94 | 9DEC94 | 22JAN95 | 115 |
| 67* | 2 | 2 | 0 SU | SAMPLE MASONRY PANEL | 30SEP94 | 1OCT94 | 23JAN95 | 24JAN95 | 115 |
| 33* | 30 | 30 | 0 PR | SUBMIT SHOP DRAWINGS METAL WINDOWS | 2JUL94 | 31JUL94 | 10SEP94 | 9OCT94 | 70 |
| 39 | 20 | 20 | 0 | GOVERNMENT APPROVE METAL WINDO | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| 68* | 90 | 90 | 0 SU | FABRICATE & DELIVER METAL WINDOWS | 21AUG94 | 18NOV94 | 30OCT94 | 27JAN95 | 70 |
| 7* | 30 | 30 | 0 PR | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | 2JUL94 | 31JUL94 | 12SEP94 | 11OCT94 | 72 |
| 40 | 30 | 30 | 0 | GOVERNMENT APPROVE BUILDER'S H | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |

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Figure 5-9 Cont.

SCHEDULE REPORT - DETAILED PRECEDENCE ANALYSIS

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| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|---------------------|----------|---------|------|---|-------------|--------------|------------|-------------|-------------|
| .. 69 ^a | 120 | 120 | 0 BU | DELIVER BUILDER'S HARDWARE | 31AUG94 | 28DEC94 | 11NOV94 | 10MAR95 | 72 |
| .. 8 ^a | 45 | 45 | 0 PR | SUBMIT SHOP DRWS. ALUM. ENTRA | 2JUL94 | 15AUG94 | 7OCT94 | 20NOV94 | 97 |
| .. 41 | 20 | 20 | 0 | GOVERNMENT APPROVE ALUM. ENTRANCE | 16AUG94 | 4SEP94 | 21NOV94 | 10DEC94 | 97 |
| .. 70 ^a | 90 | 90 | 0 BU | FABRICATE & DELIVER ALUM. ENTRANCE | 5SEP94 | 30EC94 | 11OEC94 | 10MAR95 | 97 |
| .. 9 ^a | 45 | 45 | 0 PR | SUBMIT LATH & PLASTER | 2JUL94 | 15AUG94 | 25DEC94 | 7FEB95 | 176 |
| .. 42 | 15 | 15 | 0 | GOVERNMENT APPROVE LATH & PLAS | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |
| .. 71 ^a | 30 | 30 | 0 BU | DELIVER LATH & PLASTER MATERIALS | 31AUG94 | 29SEP94 | 23FEB95 | 24MAR95 | 176 |
| .. 10 ^a | 45 | 45 | 0 PR | SUBMIT CERAMIC TILE | 2JUL94 | 15AUG94 | 13DEC94 | 26JAN95 | 164 |
| .. 43 | 30 | 30 | 0 | GOVERNMENT APPROVE CERAMIC TIL | 16AUG94 | 14SEP94 | 27JAN95 | 25FEB95 | 164 |
| .. 72 ^a | 45 | 45 | 0 BU | DELIVER CERAMIC TILE MATERIAL | 15SEP94 | 29OCT94 | 26FEB95 | 11APR95 | 164 |
| .. 11 ^a | 45 | 45 | 0 PR | SUBMIT TOILET PARTITIONS & ACC | 2JUL94 | 15AUG94 | 12FEB95 | 28MAR95 | 225 |
| .. 44 | 20 | 20 | 0 | GOVERNMENT APPROVE TOILET PART | 16AUG94 | 4SEP94 | 29MAR95 | 17APR95 | 225 |
| .. 73 ^a | 90 | 90 | 0 BU | DELIVER TOILET PARTITIONS & ACCESSORIES | 5SEP94 | 30EC94 | 18APR95 | 16JUL95 | 225 |
| .. 12 ^a | 30 | 30 | 0 PR | SUBMIT PLUMBING FIXTURES & MEC | 2JUL94 | 31JUL94 | 20OCT94 | 18NOV94 | 110 |
| .. 45 | 30 | 30 | 0 | GOVT. APPROVE PLUMB. FIXTURES | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| .. 74 ^a | 150 | 150 | 0 BU | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 31AUG94 | 27JAN95 | 19DEC94 | 17MAY95 | 110 |
| .. 13 ^a | 30 | 30 | 0 PR | SUBMIT ELECTRIC FIXTURES & EQUIP. | 2JUL94 | 31JUL94 | 17DEC94 | 15JAN95 | 168 |
| .. 46 | 30 | 30 | 0 | GOVERNMENT APPROVE ELEC. FIXTU | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| .. 75 ^a | 120 | 120 | 0 BU | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 31AUG94 | 28DEC94 | 15FEB95 | 14JUN95 | 168 |
| .. 14 ^a | 45 | 45 | 0 PR | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| .. 47 | 45 | 45 | 0 | FABRICATE & DELIVER MISC. METALS | 16AUG94 | 29SEP94 | 1DEC94 | 14JAN95 | 107 |
| .. 92 | 10 | 10 | 0 BU | BASEMENT STEPS & LANDINGS | 6OCT94 | 15OCT94 | 15JAN95 | 24JAN95 | 101 |
| .. 15 ^a | 35 | 35 | 0 PR | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | 2JUL94 | 5AUG94 | 2JUL94 | 5AUG94 | 0 |
| .. 48 | 15 | 15 | 0 | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| .. 85 ^a | 16 | 16 | 0 BU | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| .. 160 ^a | 60 | 60 | 0 BU | DELIVER & INSTALL STORM DRAIN | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| .. 16 ^a | 45 | 45 | 0 PR | SUBMIT & APPROVE ROOF DECK SHO | 2JUL94 | 15AUG94 | 26OCT94 | 9DEC94 | 116 |
| .. 49 | 30 | 30 | 0 | DELIVER ROOF DECK MATERIALS | 16AUG94 | 14SEP94 | 10DEC94 | 8JAN95 | 116 |
| .. 109 | 12 | 12 | 0 BU | INSTALL ROOF DECK | 9JAN95 | 20JAN95 | 9JAN95 | 20JAN95 | 0 |
| .. 17 ^a | 30 | 30 | 0 PR | SUBMIT ROOF & SHEET MET SHOP DRAW . WINGS | 2JUL94 | 31JUL94 | 6OCT94 | 6NOV94 | 98 |
| .. 50 | 15 | 15 | 0 | GOVERNMENT APPROVE ROOF & SHEE | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |
| .. 76 ^a | 60 | 60 | 0 BU | FABRICATE & DELIVER SHEETMETAL/ROOF | 16AUG94 | 14OCT94 | 22NOV94 | 20JAN95 | 98 |
| .. 18 ^a | 30 | 30 | 0 PR | SUBMIT X-RAY PROTECTION | 2JUL94 | 31JUL94 | 23OCT94 | 21NOV94 | 113 |
| .. 51 | 20 | 20 | 0 | GOVERNMENT APPROVE X-RAY PROTE | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| .. 77 ^a | 75 | 75 | 0 BU | DELIVER PROTECTION MATERIALS | 21AUG94 | 3NOV94 | 12DEC94 | 24FEB95 | 113 |

Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|--|-------------|--------------|------------|-------------|-------------|
| 19* | 45 | 45 | 0 PR | SUBMIT & APPROVE DOOR CANOPIES | 2JUL94 | 15AUG94 | 26MAR95 | 9MAY95 | 267 |
| 52 | 75 | 75 | 0 | DELIVER DOOR CANOPIES & SIGNS | 16AUG94 | 29OCT94 | 10MAY95 | 23JUL95 | 267 |
| 154 | 10 | 10 | 0 SU | INSTALL DOOR CANOPIES & SIGNS | 26JAN95 | 4FEB95 | 24JUL95 | 2AUG95 | 179 |
| 20* | 30 | 30 | 0 PR | SUBMIT PAINT SAMPLES | 2JUL94 | 31JUL94 | 19JAN95 | 17FEB95 | 201 |
| 53 | 30 | 30 | 0 | GOVERNMENT TEST & APPROVE PAINT | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| 76* | 45 | 45 | 0 SU | DELIVER PAINT MATERIALS | 31AUG94 | 14OCT94 | 20MAR95 | 3MAY95 | 201 |
| 21* | 30 | 30 | 0 PR | SUBMIT VINYL WALL COVERING | 2JUL94 | 31JUL94 | 22MAR95 | 20APR95 | 263 |
| 54 | 30 | 30 | 0 | GOVERNMENT APPROVE COLOR SAMP. | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |
| 79* | 60 | 60 | 0 SU | DELIVER VINYL WALL COVERING | 31AUG94 | 29OCT94 | 21MAY95 | 19JUL95 | 263 |
| 22* | 30 | 30 | 0 PR | SUBMIT SHOP DRAWINGS MILLWORK | 2JUL94 | 31JUL94 | 25DEC94 | 23JAN95 | 176 |
| 55 | 20 | 20 | 0 | GOVERNMENT APPROVE MILLWORK | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| 80* | 120 | 120 | 0 SU | FABRICATE & DELIVER MILLWORK | 21AUG94 | 18DEC94 | 13FEB95 | 12JUN95 | 176 |
| 23* | 30 | 30 | 0 PR | SUBMIT RESILIENT FLOOR SAMPLES | 2JUL94 | 31JUL94 | 23FEB95 | 24MAR95 | 236 |
| 56 | 30 | 30 | 0 | GOVERNMENT APPROVE & COLOR SEL | 1AUG94 | 30AUG94 | 23MAR95 | 23APR95 | 236 |
| 81* | 45 | 45 | 0 SU | DELIVER RESILIENT FLOOR MATERIALS | 31AUG94 | 14OCT94 | 24APR95 | 7JUN95 | 236 |
| 24* | 45 | 45 | 0 PR | SUBMIT SHOP DRAWINGS CASEWORK | 2JUL94 | 15AUG94 | 27NOV94 | 10JAN95 | 148 |
| 57 | 30 | 30 | 0 | GOVERNMENT APPROVE CASEWORK | 16AUG94 | 14SEP94 | 11JAN95 | 9FEB95 | 148 |
| 82* | 150 | 150 | 0 SU | DELIVER CASEWORK | 15SEP94 | 11FEB95 | 10FEB95 | 9JUL95 | 148 |
| 25* | 45 | 45 | 0 PR | SUBMIT HOSPITAL & MISC. EQUIPMENT | 2JUL94 | 15AUG94 | 17OCT94 | 30NOV94 | 107 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 16AUG94 | 14SEP94 | 10DEC94 | 30DEC94 | 107 |
| 83* | 180 | 180 | 0 SU | DELIVER HOSPITAL & MISCELLANEOUS EQUIPMENT | 15SEP94 | 13MAR95 | 31OCT94 | 28JUN95 | 107 |
| 26* | 30 | 30 | 0 PR | SUBMIT MISC. BUILDING EQUIPMENT | 2JUL94 | 31JUL94 | 2MAR95 | 31MAR95 | 243 |
| 59 | 20 | 20 | 0 | GOVERNMENT APPROVE MISC. BUILD | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| 84* | 90 | 90 | 0 SU | DELIVER MISC. BUILDING EQUIPMENT | 21AUG94 | 18NOV94 | 21APR95 | 19JUL95 | 243 |
| 30 | 14 | 14 | 0 PR | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| 34* | 15 | 15 | 0 PR | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 1AUG94 | 15AUG94 | 2AUG94 | 16AUG94 | 1 |
| 62 | 10 | 10 | 0 | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| 87* | 14 | 14 | 0 SU | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| 35* | 15 | 15 | 0 PR | GOVERNMENT APPROVE PAN FORMS | 22JUL94 | 5AUG94 | 6SEP94 | 20SEP94 | 46 |
| 63 | 45 | 45 | 0 | DELIVER PAN FORMS | 6AUG94 | 19SEP94 | 21SEP94 | 4NOV94 | 46 |
| 94 | 50 | 50 | 0 SU | FORM, PLACE, & CURE PAN SLABS & BEAMS | 3NOV94 | 24DEC94 | 3NOV94 | 24DEC94 | 0 |
| 95 | 50 | 50 | 0 SU | TOX UNDERFLOOR MECH. & ELEC. R | 3NOV94 | 24DEC94 | 3NOV94 | 24DEC94 | 0 |
| 36* | 15 | 15 | 0 PR | GOVERNMENT APPROVE METAL DOOR | 22JUL94 | 5AUG94 | 11SEP94 | 25SEP94 | 51 |
| 64 | 90 | 90 | 0 | FABRICATE & DELIVER METAL DOORS | 6AUG94 | 3NOV94 | 26SEP94 | 24DEC94 | 51 |
| 100 | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL BUCKS | 25DEC94 | 29OCT94 | 25DEC94 | 29DEC94 | 0 |
| 37* | 20 | 20 | 0 PR | GOVERNMENT APPROVE STRUCT. STE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| 65 | 45 | 45 | 0 | FABRICATE & DELIVER STEEL COLUMNS | 21AUG94 | 4OCT94 | 10NOV94 | 24DEC94 | 81 |

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Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|---|-------------|--------------|------------|-------------|-------------|
| .. 100 | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL BRCKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| .. 37* | 20 | 20 | 0 PR | GOVERNMENT APPROVE STRUCT. STE | 1AUG94 | 20AUG94 | 11SEP94 | 30SEP94 | 41 |
| .. 66 | 90 | 90 | 0 | FABRICATE & DELIVER STRUCT. STEEL | 21AUG94 | 18NOV94 | 10CT94 | 29DEC94 | 41 |
| .. 102 | 10 | 10 | 0 SU | ERECT STRUCTURAL STEEL & JOISTS | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| .. 38* | 45 | 45 | 0 PR | DELIVER MASONRY MATERIALS | 16AUG94 | 29SEP94 | 9DEC94 | 22JAN95 | 115 |
| .. 67 | 2 | 2 | 0 | SAMPLE MASONRY PANEL | 30SEP94 | 10CT94 | 23JAN95 | 24JAN95 | 115 |
| .. 103 | 27 | 27 | 0 SU | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. 39* | 20 | 20 | 0 PR | GOVERNMENT APPROVE METAL WINDO | 1AUG94 | 20AUG94 | 10OCT94 | 29OCT94 | 70 |
| .. 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 21AUG94 | 18NOV94 | 30OCT94 | 27JAN95 | 70 |
| .. 111 | 14 | 14 | 0 SU | INSTALL METAL WINDOWS | 2JAN95 | 15JAN95 | 28JAN95 | 10FEB95 | 26 |
| .. 40* | 30 | 30 | 0 PR | GOVERNMENT APPROVE BUILDER'S H | 1AUG94 | 30AUG94 | 12OCT94 | 10NOV94 | 72 |
| .. 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 31AUG94 | 28DEC94 | 11NOV94 | 10MAR95 | 72 |
| .. 108 | 14 | 14 | 0 SU | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 26JAN95 | 8FEB95 | 11MAR95 | 24MAR95 | 44 |
| .. 41* | 20 | 20 | 0 PR | GOVERNMENT APP. ALUM. ENTRANCE | 16AUG94 | 4SEP94 | 21NOV94 | 10DEC94 | 97 |
| .. 70 | 90 | 90 | 0 | FABRICATE & DELIVER ALUM. ENTRANCE | 5SEP94 | 3DEC94 | 11DEC94 | 10MAR95 | 97 |
| .. 108 | 14 | 14 | 0 SU | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 26JAN95 | 8FEB95 | 11MAR95 | 24MAR95 | 44 |
| .. 42* | 15 | 15 | 0 PR | GOVERNMENT APPROVE LATH & PLAS | 16AUG94 | 30AUG94 | 8FEB95 | 22FEB95 | 176 |
| .. 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | 31AUG94 | 29SEP94 | 23FEB95 | 24MAR95 | 176 |
| .. 116 | 14 | 14 | 0 SU | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 43* | 30 | 30 | 0 PR | GOVERNMENT APPROVE CERAMIC TIL | 16AUG94 | 14SEP94 | 27JAN95 | 25FEB95 | 164 |
| .. 72 | 45 | 45 | 0 | DELIVER CERAMIC TILE MATERIAL | 15SEP94 | 29OCT94 | 26FEB95 | 11APR95 | 164 |
| .. 122 | 22 | 22 | 0 SU | CERAMIC TILE | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| .. 44* | 20 | 20 | 0 PR | GOVERNMENT APPROVE TOILET PART | 16AUG94 | 4SEP94 | 29MAR95 | 17APR95 | 225 |
| .. 73 | 90 | 90 | 0 | DELIVER TOILET PARTITIONS & ACCESSORIES | 5SEP94 | 3DEC94 | 18APR95 | 16JUL95 | 225 |
| .. 128 | 17 | 17 | 0 SU | TOILET PARTITIONS & ACCESSORIES | 16APR95 | 2MAY95 | 17JUL95 | 2AUG95 | 92 |
| .. 45* | 30 | 30 | 0 PR | GOVT. APPROVE PLUMB. FIXTURES | 1AUG94 | 30AUG94 | 19NOV94 | 18DEC94 | 110 |
| .. 74 | 150 | 150 | 0 | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 31AUG94 | 27JAN95 | 19DEC94 | 17MAY95 | 110 |
| .. 133 | 70 | 70 | 0 SU | INSTALL MECHANICAL EQUIPMENT | 4MAY95 | 12JUL95 | 18MAY95 | 26JUL95 | 14 |
| .. 141 | 30 | 30 | 0 SU | INSTALL PLUMBING FIXTURES & EQUIPMENT | 1JUN95 | 30JUN95 | 27JUN95 | 26JUL95 | 26 |
| .. 46* | 30 | 30 | 0 PR | GOVERNMENT APPROVE ELEC. FIXTU | 1AUG94 | 30AUG94 | 16JAN95 | 14FEB95 | 168 |
| .. 75 | 120 | 120 | 0 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 31AUG94 | 28DEC94 | 15FEB95 | 14JUN95 | 168 |
| .. 140 | 42 | 42 | 0 SU | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 1JUN95 | 12JUL95 | 15JUN95 | 26JUL95 | 14 |
| .. 50* | 15 | 15 | 0 PR | GOVERNMENT APPROVE ROOF & SHEE | 1AUG94 | 15AUG94 | 7NOV94 | 21NOV94 | 98 |
| .. 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL ROOF | 16AUG94 | 14OCT94 | 22NOV94 | 20JAN95 | 98 |
| .. 110 | 21 | 21 | 0 SU | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |

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Figure 5-9 Cont.

REPORT DATE 16NOV94 RUN NO. 50

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95

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SCHEDULE REPORT - DETAILED PRECEDENCE ANALYSIS

DATA DATE 1JUL94 PAGE NO. 8

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|--|-------------|--------------|------------|-------------|-------------|
| .. 91* | 20 | 20 | 0 PR | GOVERNMENT APPROVE X-RAY PROTE | 1AUG94 | 20AUG94 | 22NOV94 | 11DEC94 | 113 |
| .. 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS | 21AUG94 | 3NOV94 | 12DEC94 | 24FEB95 | 113 |
| .. 114 | 42 | 42 | 0 SU | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| .. 93* | 30 | 30 | 0 PR | GOVERNMENT TEST & APPROVE PAINT | 1AUG94 | 30AUG94 | 18FEB95 | 19MAR95 | 201 |
| .. 78 | 45 | 45 | 0 | DELIVER PAINT MATERIALS | 31AUG94 | 14OCT94 | 20MAR95 | 3MAY95 | 201 |
| .. 130 | 28 | 28 | 0 SU | 30% PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 94* | 30 | 30 | 0 PR | GOVERNMENT APPROVE COLOR SAMP. | 1AUG94 | 30AUG94 | 21APR95 | 20MAY95 | 263 |
| .. 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING | 31AUG94 | 29OCT94 | 21MAY95 | 19JUL95 | 263 |
| .. 142 | 14 | 14 | 0 SU | VINYL WALL COVER | 1JUN95 | 14JUN95 | 20JUL95 | 2AUG95 | 49 |
| .. 95* | 20 | 20 | 0 PR | GOVERNMENT APPROVE MILLWORK | 1AUG94 | 20AUG94 | 24JAN95 | 12FEB95 | 176 |
| .. 80 | 120 | 120 | 0 | FABRICATE & DELIVER MILLWORK | 21AUG94 | 18DEC94 | 13FEB95 | 12JUN95 | 176 |
| .. 143 | 16 | 16 | 0 SU | INSTALL 90% MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 96* | 30 | 30 | 0 PR | GOVERNMENT APPROVE & COLOR SEL | 1AUG94 | 30AUG94 | 23MAR95 | 23APR95 | 236 |
| .. 81 | 45 | 45 | 0 | DELIVER RESILIENT FLOOR MATERIALS | 31AUG94 | 14OCT94 | 24APR95 | 7JUN95 | 236 |
| .. 144 | 21 | 21 | 0 SU | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 97* | 30 | 30 | 0 PR | GOVERNMENT APPROVE CASEWORK | 16AUG94 | 14SEP94 | 11JAN95 | 9FEB95 | 148 |
| .. 82 | 150 | 150 | 0 | DELIVER CASEWORK | 15SEP94 | 11FEB95 | 10FEB95 | 9JUL95 | 148 |
| .. 151 | 24 | 24 | 0 SU | INSTALL CASEWORK | 22JUN95 | 15JUL95 | 10JUL95 | 2AUG95 | 18 |
| .. 98* | 30 | 30 | 0 PR | GOVERNMENT APPROVE HOSPITAL & | 16AUG94 | 14SEP94 | 1DEC94 | 30DEC94 | 107 |
| .. 83 | 180 | 180 | 0 | DELIVER HOSPITAL & MISCELLANEOUS EQUIPMENT | 15SEP94 | 13MAR95 | 31DEC94 | 28JUN95 | 107 |
| .. 152 | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| .. 99* | 20 | 20 | 0 PR | GOVERNMENT APPROVE MISC. BUILD | 1AUG94 | 20AUG94 | 1APR95 | 20APR95 | 243 |
| .. 84 | 90 | 90 | 0 | DELIVER MISC. BUILDING EQUIPMENT | 21AUG94 | 18NOV94 | 21APR95 | 19JUL95 | 243 |
| .. 153 | 14 | 14 | 0 SU | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 22JUN95 | 5JUL95 | 20JUL95 | 2AUG95 | 28 |
| .. 27 | 15 | 15 | 0 PR | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| .. 30 | 14 | 14 | 0 PR | ROUGH GRADE & EXCAVATE BUILDIN | 9JUL94 | 22JUL94 | 3AUG94 | 16AUG94 | 25 |
| .. 48* | 15 | 15 | 0 PR | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| .. 85 | 16 | 16 | 0 | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| .. 86* | 30 | 30 | 0 SU | GRADEBEAMS | 6SEP94 | 5OCT94 | 6SEP94 | 5OCT94 | 0 |
| .. 85* | 16 | 16 | 0 PR | FOOTINGS & PLINTHS | 21AUG94 | 5SEP94 | 21AUG94 | 5SEP94 | 0 |
| .. 86 | 30 | 30 | 0 | GRADEBEAMS | 6SEP94 | 5OCT94 | 6SEP94 | 5OCT94 | 0 |
| .. 91* | 10 | 10 | 0 SU | BACKFILL & GRADE UNDER BUILDING | 6OCT94 | 15OCT94 | 6OCT94 | 15OCT94 | 0 |
| .. 92* | 10 | 10 | 0 SU | BASEMENT STEPS & LANDINGS | 6OCT94 | 15OCT94 | 15JAN95 | 24JAN95 | 101 |
| .. 27 | 15 | 15 | 0 PR | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| .. 62* | 10 | 10 | 0 PR | ROUGH IN UNDER BASEMENT | 16AUG94 | 25AUG94 | 17AUG94 | 26AUG94 | 1 |
| .. 87 | 14 | 14 | 0 | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| .. 88* | 21 | 21 | 0 SU | BASEMENT WALLS | 9SEP94 | 29SEP94 | 10SEP94 | 30SEP94 | 1 |

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Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT | |
|-------------|----------|---------|----|----------------------|--|--------------|------------|-------------|-------------|-----|
| .. | 87* | 14 | 14 | 0 PR | BASEMENT FOUNDATION SLABS & BEAMS | 26AUG94 | 8SEP94 | 27AUG94 | 9SEP94 | 1 |
| .. | 88 | 21 | 21 | 0 | BASEMENT WALLS | 9SEP94 | 29SEP94 | 10SEP94 | 30SEP94 | 1 |
| .. | 89* | 5 | 5 | 0 SU | DAMPROOFING | 30SEP94 | 4OCT94 | 1OCT94 | 5OCT94 | 1 |
| .. | 88* | 21 | 21 | 0 PR | BASEMENT WALLS | 9SEP94 | 29SEP94 | 10SEP94 | 30SEP94 | 1 |
| .. | 89 | 5 | 5 | 0 | DAMPROOFING | 30SEP94 | 4OCT94 | 1OCT94 | 5OCT94 | 1 |
| .. | 91 | 10 | 10 | 0 SU | BACKFILL & GRADE UNDER BUILDING | 6OCT94 | 15OCT94 | 6OCT94 | 15OCT94 | 0 |
| .. | 92 | 10 | 10 | 0 SU | BASEMENT STEPS & LANDINGS | 6OCT94 | 15OCT94 | 15JAN95 | 24JAN95 | 101 |
| .. | 86* | 30 | 30 | 0 PR | GRADEBEAMS | 6SEP94 | 5OCT94 | 6SEP94 | 5OCT94 | 0 |
| .. | 89 | 5 | 5 | 0 PR | DAMPROOFING | 30SEP94 | 4OCT94 | 1OCT94 | 5OCT94 | 1 |
| .. | 91 | 10 | 10 | 0 | BACKFILL & GRADE UNDER BUILDING | 6OCT94 | 15OCT94 | 6OCT94 | 15OCT94 | 0 |
| .. | 93* | 20 | 20 | 0 SU | 30% UNDERFLOOR MECH. & ELEC. R | 16OCT94 | 4NOV94 | 16OCT94 | 4NOV94 | 0 |
| .. | 47 | 45 | 45 | 0 PR | FABRICATE & DELIVER MISC. METALS | 16AUG94 | 29SEP94 | 1DEC94 | 14JAN95 | 107 |
| .. | 86* | 30 | 30 | 0 PR | GRADEBEAMS | 6SEP94 | 5OCT94 | 6SEP94 | 5OCT94 | 0 |
| .. | 89 | 5 | 5 | 0 PR | DAMPROOFING | 30SEP94 | 4OCT94 | 1OCT94 | 5OCT94 | 1 |
| .. | 92 | 10 | 10 | 0 | BASEMENT STEPS & LANDINGS | 6OCT94 | 15OCT94 | 15JAN95 | 24JAN95 | 101 |
| .. | 103 | 27 | 27 | 0 SU | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. | 91* | 10 | 10 | 0 PR | BACKFILL & GRADE UNDER BUILDING | 6OCT94 | 15OCT94 | 6OCT94 | 15OCT94 | 0 |
| .. | 93 | 20 | 20 | 0 | 30% UNDERFLOOR MECH. & ELEC. R | 16OCT94 | 4NOV94 | 16OCT94 | 4NOV94 | 0 |
| .. | 94* | 50 | 50 | 0 SU | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 95* | 50 | 50 | 0 SU | 70% UNDERFLOOR MECH. & ELEC. R | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 63 | 45 | 45 | 0 PR | DELIVER PAN FORMS | 6AUG94 | 19SEP94 | 21SEP94 | 4NOV94 | 46 |
| .. | 93* | 20 | 20 | 0 PR | 30% UNDERFLOOR MECH. & ELEC. R | 16OCT94 | 4NOV94 | 16OCT94 | 4NOV94 | 0 |
| .. | 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 97* | 18 | 18 | 0 SU | CONCRETE TOPPING FILL | 25DEC94 | 11JAN95 | 7FEB95 | 24FEB95 | 44 |
| .. | 98* | 63 | 63 | 0 SU | ELECTRICAL ROUGH IN | 25DEC94 | 25FEB95 | 4FEB95 | 7APR95 | 41 |
| .. | 99* | 70 | 70 | 0 SU | MECHANICAL & PLUMBING ROUGH IN | 25DEC94 | 4MAR95 | 28JAN95 | 7APR95 | 34 |
| .. | 100* | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL DUCKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| .. | 63 | 45 | 45 | 0 PR | DELIVER PAN FORMS | 6AUG94 | 19SEP94 | 21SEP94 | 4NOV94 | 46 |
| .. | 93* | 20 | 20 | 0 PR | 30% UNDERFLOOR MECH. & ELEC. R | 16OCT94 | 4NOV94 | 16OCT94 | 4NOV94 | 0 |
| .. | 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 100* | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL DUCKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| .. | 94* | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 97 | 18 | 18 | 0 | CONCRETE TOPPING FILL | 25DEC94 | 11JAN95 | 7FEB95 | 24FEB95 | 44 |
| .. | 114 | 42 | 42 | 0 SU | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 23FEB95 | 7APR95 | 14 |
| .. | 94* | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 98 | 63 | 63 | 0 | ELECTRICAL ROUGH IN | 25DEC94 | 25FEB95 | 4FEB95 | 7APR95 | 41 |
| .. | 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. | 94* | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. | 99 | 70 | 70 | 0 | MECHANICAL & PLUMBING ROUGH IN | 25DEC94 | 4MAR95 | 28JAN95 | 7APR95 | 34 |

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Figure 5-9 Cont.

REPORT DATE 16NOV94 RUN NO. 50
7:44

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 16AUG95

SCHEDULE REPORT - DETAILED PRECEDENCE ANALYSIS

DATA DATE 1JUL94 PAGE NO. 10

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---------|---|-------------|--------------|------------|-------------|-------------|
| .. 120 | 14 | 14 | 0 BU | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 64 | 90 | 90 | 0 PR | FABRICATE & DELIVER METAL DOORS | 6AUG94 | 3NOV94 | 26SEP94 | 24DEC94 | 91 |
| .. 65 | 43 | 43 | 0 PR | FABRICATE & DELIVER STEEL COLUMNS | 21AUG94 | 4OCT94 | 10NOV94 | 24DEC94 | 81 |
| .. 94* | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. 95* | 50 | 50 | 0 PR | TOX UNDERFLOOR MECH. & ELEC. R | 5NOV94 | 24DEC94 | 5NOV94 | 24DEC94 | 0 |
| .. 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BUCKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| .. 102* | 10 | 10 | 0 BU | ERECT STRUCTURAL STEEL & JOISTS | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| .. 103* | 27 | 27 | 0 BU | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. 28 | 30 | 30 | 0 PR | PRE-QUALIFY WELDERS | 2JUL94 | 31JUL94 | 30NOV94 | 29DEC94 | 151 |
| .. 66 | 90 | 90 | 0 PR | FABRICATE & DELIVER STRUCT. STEEL | 21AUG94 | 18NOV94 | 1OCT94 | 29DEC94 | 41 |
| .. 100* | 5 | 5 | 0 PR | ERECT STEEL COLUMNS & METAL BUCKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| .. 102 | 10 | 10 | 0 | ERECT STRUCTURAL STEEL & JOISTS | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| .. 109* | 12 | 12 | 0 BU | INSTALL ROOF DECK | 9JAN95 | 20JAN95 | 9JAN95 | 20JAN95 | 0 |
| .. 67 | 2 | 2 | 0 PR | SAMPLE MASONRY PANEL | 30SEP94 | 1OCT94 | 23JAN95 | 24JAN95 | 115 |
| .. 92 | 10 | 10 | 0 PR | BASEMENT STEPS & LANDINGS | 6OCT94 | 15OCT94 | 15JAN95 | 24JAN95 | 101 |
| .. 100* | 5 | 5 | 0 PR | ERECT STEEL COLUMNS & METAL BUCKS | 25DEC94 | 29DEC94 | 25DEC94 | 29DEC94 | 0 |
| .. 103 | 27 | 27 | 0 | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. 108* | 14 | 14 | 0 BU | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 26JAN95 | 8FEB95 | 11MAR95 | 24MAR95 | 44 |
| .. 111* | 14 | 14 | 0 BU SS | INSTALL METAL WINDOWS | 2JAN95 | 15JAN95 | 28JAN95 | 10FEB95 | 26 |
| .. 154* | 10 | 10 | 0 BU | INSTALL DOOR CANOPIES & SIGNS | 26JAN95 | 4FEB95 | 24JUL95 | 2AUG95 | 179 |
| .. 172 | 16 | 16 | 0 BU | TOPSOIL & FINE GRADING | 23MAR95 | 7APR95 | 25JUL95 | 9AUG95 | 124 |
| .. 69 | 120 | 120 | 0 PR | DELIVER BUILDER'S HARDWARE | 31AUG94 | 28DEC94 | 11NOV94 | 10MAR95 | 72 |
| .. 70 | 90 | 90 | 0 PR | FABRICATE & DELIVER ALUM. ENTRANCE | 5SEP94 | 3DEC94 | 11DEC94 | 10MAR95 | 97 |
| .. 103* | 27 | 27 | 0 PR | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. 108 | 14 | 14 | 0 | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 26JAN95 | 8FEB95 | 11MAR95 | 24MAR95 | 44 |
| .. 116 | 14 | 14 | 0 BU | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 49 | 30 | 30 | 0 PR | DELIVER ROOF DECK MATERIALS | 16AUG94 | 14SEP94 | 10DEC94 | 8JAN95 | 116 |
| .. 102* | 10 | 10 | 0 PR | ERECT STRUCTURAL STEEL & JOISTS | 30DEC94 | 8JAN95 | 30DEC94 | 8JAN95 | 0 |
| .. 109 | 12 | 12 | 0 | INSTALL ROOF DECK | 9JAN95 | 20JAN95 | 9JAN95 | 20JAN95 | 0 |
| .. 110* | 21 | 21 | 0 BU | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| .. 76 | 60 | 60 | 0 PR | FABRICATE & DELIVER SHEETMETAL ROOF | 16AUG94 | 14OCT94 | 22NOV94 | 20JAN95 | 98 |
| .. 109* | 12 | 12 | 0 PR | INSTALL ROOF DECK | 9JAN95 | 20JAN95 | 9JAN95 | 20JAN95 | 0 |
| .. 110 | 21 | 21 | 0 | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| .. 113* | 56 | 56 | 0 BU | AIRCONDITIONING DUCTWORK | 11FEB95 | 7APR95 | 11FEB95 | 7APR95 | 0 |
| .. 114* | 42 | 42 | 0 BU | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| .. 116* | 14 | 14 | 0 BU | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 68 | 90 | 90 | 0 PR | FABRICATE & DELIVER METAL WINDOWS | 21AUG94 | 18NOV94 | 30OCT94 | 27JAN95 | 70 |
| .. 103* | 27 | 27 | 0 PR SS | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. 111 | 14 | 14 | 0 | INSTALL METAL WINDOWS | 2JAN95 | 15JAN95 | 28JAN95 | 10FEB95 | 26 |
| .. 113 | 56 | 56 | 0 BU | AIRCONDITIONING DUCTWORK | 11FEB95 | 7APR95 | 11FEB95 | 7APR95 | 0 |

Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|---|-------------|--------------|------------|-------------|-------------|
| .. 110* | 21 | 21 | 0 PR | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| .. 111 | 14 | 14 | 0 PR | INSTALL METAL WINDOWS | 2JAN95 | 15JAN95 | 28JAN95 | 10FEB95 | 26 |
| .. 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 11FEB95 | 7APR95 | 11FEB95 | 7APR95 | 0 |
| .. 120* | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 77 | 75 | 75 | 0 PR | DELIVER PROTECTION MATERIALS | 21AUG94 | 3NOV94 | 12DEC94 | 24FEB95 | 113 |
| .. 97 | 18 | 18 | 0 PR | CONCRETE TOPPING FILL | 25DEC94 | 11JAN95 | 7FEB95 | 24FEB95 | 44 |
| .. 110* | 21 | 21 | 0 PR | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| .. 114 | 42 | 42 | 0 | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| .. 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 121* | 14 | 14 | 0 SU | PLASTER WALLS | 25MAR95 | 7APR95 | 20APR95 | 3MAY95 | 26 |
| .. 122* | 22 | 22 | 0 SU | CERAMIC TILE | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| .. 71 | 30 | 30 | 0 PR | DELIVER LATH & PLASTER MATERIALS | 31AUG94 | 29SEP94 | 23FEB95 | 24MAR95 | 176 |
| .. 108 | 14 | 14 | 0 PR | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 26JAN95 | 8FEB95 | 11MAR95 | 24MAR95 | 44 |
| .. 110* | 21 | 21 | 0 PR | ROOFING & SHEET METAL | 21JAN95 | 10FEB95 | 21JAN95 | 10FEB95 | 0 |
| .. 116 | 14 | 14 | 0 | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 121 | 14 | 14 | 0 SU | PLASTER WALLS | 25MAR95 | 7APR95 | 20APR95 | 3MAY95 | 26 |
| .. 122 | 22 | 22 | 0 SU | CERAMIC TILE | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| .. 98 | 63 | 63 | 0 PR | ELECTRICAL ROUGH IN | 25DEC94 | 25FEB95 | 4FEB95 | 7APR95 | 41 |
| .. 99 | 70 | 70 | 0 PR | MECHANICAL & PLUMBING ROUGH IN | 25DEC94 | 4MAR95 | 28JAN95 | 7APR95 | 34 |
| .. 113* | 56 | 56 | 0 PR | AIRCONDITIONING DUCTWORK | 11FEB95 | 7APR95 | 11FEB95 | 7APR95 | 0 |
| .. 114 | 42 | 42 | 0 PR | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| .. 116 | 14 | 14 | 0 PR | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 120 | 14 | 14 | 0 | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 124* | 35 | 35 | 0 SU | ACOUSTIC & OTHER CEILINGS | 22APR95 | 26MAY95 | 17APR95 | 31MAY95 | 5 |
| .. 125* | 12 | 12 | 0 SU | PLASTER CEILINGS | 22APR95 | 3MAY95 | 22APR95 | 3MAY95 | 0 |
| .. 114* | 42 | 42 | 0 PR | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| .. 116 | 14 | 14 | 0 PR | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 121 | 14 | 14 | 0 | PLASTER WALLS | 25MAR95 | 7APR95 | 20APR95 | 3MAY95 | 26 |
| .. 128 | 17 | 17 | 0 SU | TOILET PARTITIONS & ACCESSORIES | 16APR95 | 2MAY95 | 17JUL95 | 2AUG95 | 92 |
| .. 130 | 28 | 28 | 0 SU | SOX PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 72 | 45 | 45 | 0 PR | DELIVER CERAMIC TILE MATERIAL | 15SEP94 | 29OCT94 | 26FEB95 | 11APR95 | 164 |
| .. 114* | 42 | 42 | 0 PR | INTERIOR PARTITIONS | 11FEB95 | 24MAR95 | 25FEB95 | 7APR95 | 14 |
| .. 116 | 14 | 14 | 0 PR | STUCCO | 11FEB95 | 24FEB95 | 25MAR95 | 7APR95 | 42 |
| .. 122 | 22 | 22 | 0 | CERAMIC TILE | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| .. 128* | 17 | 17 | 0 SU | TOILET PARTITIONS & ACCESSORIES | 16APR95 | 2MAY95 | 17JUL95 | 2AUG95 | 92 |
| .. 130 | 28 | 28 | 0 SU | SOX PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 120* | 14 | 14 | 0 PR | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 124 | 35 | 35 | 0 | ACOUSTIC & OTHER CEILINGS | 22APR95 | 26MAY95 | 27APR95 | 31MAY95 | 5 |
| .. 139 | 45 | 45 | 0 SU | SOX COMPLETE PAINT & FINISH | 1JUN95 | 15JUL95 | 1JUN95 | 15JUL95 | 0 |
| .. 141 | 30 | 30 | 0 SU | INSTALL PLUMBING FIXTURES & EQUIPMENT | 1JUN95 | 30JUN95 | 27JUN95 | 26JUL95 | 26 |
| .. 142 | 14 | 14 | 0 SU | VINYL WALL COVER | 1JUN95 | 14JUN95 | 20JUL95 | 2AUG95 | 49 |

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Figure 5-9 Cont.

REPORT DATE 16NOV94 RUN NO. 50
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PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95

SCHEDULE REPORT - DETAILED PRECEDENCE ANALYSIS

DATA DATE 1JUL94 PAGE NO. 12

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|---|-------------|--------------|------------|-------------|-------------|
| .. 120* | 14 | 14 | 0 PR | CEILING SUSPENSION SYSTEM & INSULATION | 8APR95 | 21APR95 | 8APR95 | 21APR95 | 0 |
| .. 125 | 12 | 12 | 0 | PLASTER CEILINGS | 22APR95 | 3MAY95 | 22APR95 | 3MAY95 | 0 |
| .. 130* | 28 | 28 | 0 SU | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 133* | 70 | 70 | 0 SU | INSTALL MECHANICAL EQUIPMENT | 4MAY95 | 12JUL95 | 18MAY95 | 26JUL95 | 14 |
| .. 73 | 90 | 90 | 0 PR | DELIVER TOILET PARTITIONS & ACCESSORIES | 5SEP94 | 30DEC94 | 18APR95 | 16JUL95 | 225 |
| .. 121 | 14 | 14 | 0 PR | PLASTER WALLS | 25MAR95 | 7APR95 | 20APR95 | 3MAY95 | 26 |
| .. 122* | 22 | 22 | 0 PR | CERAMIC TILE | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| .. 128 | 17 | 17 | 0 | TOILET PARTITIONS & ACCESSORIES | 16APR95 | 2MAY95 | 17JUL95 | 2AUG95 | 92 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 78 | 45 | 45 | 0 PR | DELIVER PAINT MATERIALS | 31AUG94 | 14OCT94 | 20MAR95 | 3MAY95 | 201 |
| .. 121 | 14 | 14 | 0 PR | PLASTER WALLS | 25MAR95 | 7APR95 | 20APR95 | 3MAY95 | 26 |
| .. 122 | 22 | 22 | 0 PR | CERAMIC TILE | 25MAR95 | 15APR95 | 12APR95 | 3MAY95 | 18 |
| .. 125* | 12 | 12 | 0 PR | PLASTER CEILINGS | 22APR95 | 3MAY95 | 22APR95 | 3MAY95 | 0 |
| .. 130 | 28 | 28 | 0 | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 139* | 45 | 45 | 0 SU | 50X COMPLETE PAINT & FINISH | 1JUN95 | 15JUL95 | 1JUN95 | 15JUL95 | 0 |
| .. 140* | 42 | 42 | 0 SU | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 1JUN95 | 12JUL95 | 15JUN95 | 26JUL95 | 14 |
| .. 141* | 30 | 30 | 0 SU | INSTALL PLUMBING FIXTURES & EQUIPMENT | 1JUN95 | 30JUN95 | 27JUN95 | 26JUL95 | 26 |
| .. 142* | 14 | 14 | 0 SU | VINYL WALL COVER | 1JUN95 | 14JUN95 | 20JUL95 | 2AUG95 | 49 |
| .. 143* | 16 | 16 | 0 SU | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 144* | 21 | 21 | 0 SU | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 74 | 150 | 150 | 0 PR | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 31AUG94 | 27JAN95 | 19DEC94 | 17MAY95 | 110 |
| .. 125* | 12 | 12 | 0 PR | PLASTER CEILINGS | 22APR95 | 3MAY95 | 22APR95 | 3MAY95 | 0 |
| .. 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 4MAY95 | 12JUL95 | 18MAY95 | 26JUL95 | 14 |
| .. 173* | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| .. 124 | 35 | 35 | 0 PR | ACOUSTIC & OTHER CEILINGS | 22APR95 | 26MAY95 | 27APR95 | 31MAY95 | 5 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 139 | 45 | 45 | 0 | 50X COMPLETE PAINT & FINISH | 1JUN95 | 15JUL95 | 1JUN95 | 15JUL95 | 0 |
| .. 155* | 18 | 18 | 0 SU | 20X PAINT & FINISH | 16JUL95 | 2AUG95 | 16JUL95 | 2AUG95 | 0 |
| .. 75 | 120 | 120 | 0 PR | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 31AUG94 | 28DEC94 | 15FEB95 | 14JUN95 | 168 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 1JUN95 | 12JUL95 | 15JUN95 | 26JUL95 | 14 |
| .. 173* | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| .. 74 | 150 | 150 | 0 PR | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 31AUG94 | 27JAN95 | 19DEC94 | 17MAY95 | 110 |
| .. 124 | 35 | 35 | 0 PR | ACOUSTIC & OTHER CEILINGS | 22APR95 | 26MAY95 | 27APR95 | 31MAY95 | 5 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 141 | 30 | 30 | 0 | INSTALL PLUMBING FIXTURES & EQUIPMENT | 1JUN95 | 30JUN95 | 27JUN95 | 26JUL95 | 26 |
| .. 173 | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| .. 79 | 60 | 60 | 0 PR | DELIVER VINYL WALL COVERING | 31AUG94 | 29OCT94 | 21MAY95 | 19JUL95 | 263 |
| .. 124 | 35 | 35 | 0 PR | ACOUSTIC & OTHER CEILINGS | 22APR95 | 26MAY95 | 27APR95 | 31MAY95 | 5 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 142 | 14 | 14 | 0 | VINYL WALL COVER | 1JUN95 | 14JUN95 | 20JUL95 | 2AUG95 | 49 |

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Figure 5-9 Cont.

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| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|--|-------------|--------------|------------|-------------|-------------|
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 80 | 120 | 120 | 0 PR | FABRICATE & DELIVER MILLWORK | 21AUG94 | 18DEC94 | 13FEB95 | 12JUN95 | 176 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 143 | 16 | 16 | 0 | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 146* | 16 | 16 | 0 SU | COMPLETE MILLWORK | 17JUN95 | 2JUL95 | 30JUN95 | 15JUL95 | 13 |
| .. 150 | 3 | 3 | 0 SU | GOVERNMENT TEST X-RAY PROTECTION | 22JUN95 | 24JUN95 | 31JUL95 | 2AUG95 | 39 |
| .. 151 | 24 | 24 | 0 SU | INSTALL CASEWORK | 22JUN95 | 15JUL95 | 10JUL95 | 2AUG95 | 18 |
| .. 152 | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| .. 153 | 14 | 14 | 0 SU | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 22JUN95 | 5JUL95 | 20JUL95 | 2AUG95 | 28 |
| .. 81 | 45 | 45 | 0 PR | DELIVER RESILIENT FLOOR MATERIALS | 31AUG94 | 14OCT94 | 24APR95 | 7JUN95 | 236 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 4MAY95 | 31MAY95 | 4MAY95 | 31MAY95 | 0 |
| .. 144 | 21 | 21 | 0 | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 150* | 3 | 3 | 0 SU | GOVERNMENT TEST X-RAY PROTECTION | 22JUN95 | 24JUN95 | 31JUL95 | 2AUG95 | 39 |
| .. 151* | 24 | 24 | 0 SU | INSTALL CASEWORK | 22JUN95 | 15JUL95 | 10JUL95 | 2AUG95 | 18 |
| .. 152* | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| .. 153* | 14 | 14 | 0 SU | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 22JUN95 | 5JUL95 | 20JUL95 | 2AUG95 | 28 |
| .. 143* | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 146 | 16 | 16 | 0 | COMPLETE MILLWORK | 17JUN95 | 2JUL95 | 30JUN95 | 15JUL95 | 13 |
| .. 155 | 18 | 18 | 0 SU | 20X PAINT & FINISH | 16JUL95 | 2AUG95 | 16JUL95 | 2AUG95 | 0 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 150 | 3 | 3 | 0 | GOVERNMENT TEST X-RAY PROTECTION | 22JUN95 | 24JUN95 | 31JUL95 | 2AUG95 | 39 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 82 | 150 | 150 | 0 PR | DELIVER CASEWORK | 15SEP94 | 11FEB95 | 10FEB95 | 9JUL95 | 148 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 151 | 24 | 24 | 0 | INSTALL CASEWORK | 22JUN95 | 15JUL95 | 10JUL95 | 2AUG95 | 18 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 83 | 180 | 180 | 0 PR | DELIVER HOSPITAL & MISCELLANEOUS EQUIPMENT | 15SEP94 | 13MAR95 | 31DEC94 | 28JUN95 | 107 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 152 | 35 | 35 | 0 | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 84 | 90 | 90 | 0 PR | DELIVER MISC. BUILDING EQUIPMENT | 21AUG94 | 18NOV94 | 21APR95 | 19JUL95 | 243 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 1JUN95 | 16JUN95 | 13JUN95 | 28JUN95 | 12 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 1JUN95 | 21JUN95 | 8JUN95 | 28JUN95 | 7 |
| .. 153 | 14 | 14 | 0 | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 22JUN95 | 5JUL95 | 20JUL95 | 2AUG95 | 28 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 52 | 75 | 75 | 0 PR | DELIVER DOOR CANOPIES & SIGNS | 16AUG94 | 29OCT94 | 10MAY95 | 23JUL95 | 267 |
| .. 103* | 27 | 27 | 0 PR | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |

Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|--|-------------|--------------|------------|-------------|-------------|
| 154 | 10 | 10 | 0 | INSTALL DOOR CANOPIES & SIGNS | 26JAN95 | 4FEB95 | 24JUL95 | 2AUG95 | 179 |
| 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| 139* | 45 | 45 | 0 PR | 50% COMPLETE PAINT & FINISH | 1JUN95 | 15JUL95 | 1JUN95 | 15JUL95 | 0 |
| 146 | 16 | 16 | 0 PR | COMPLETE MILLWORK | 17JUN95 | 2JUL95 | 30JUN95 | 15JUL95 | 13 |
| 155 | 18 | 18 | 0 | 20% PAINT & FINISH | 16JUL95 | 2AUG95 | 16JUL95 | 2AUG95 | 0 |
| 156* | 7 | 7 | 0 SU | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| 128 | 17 | 17 | 0 PR | TOILET PARTITIONS & ACCESSORIES | 16APR95 | 2MAY95 | 17JUL95 | 2AUG95 | 92 |
| 142 | 14 | 14 | 0 PR | VINYL WALL COVER | 1JUN95 | 14JUN95 | 20JUL95 | 2AUG95 | 49 |
| 150 | 3 | 3 | 0 PR | GOVERNMENT TEST X-RAY PROTECTION | 22JUN95 | 24JUN95 | 31JUL95 | 2AUG95 | 39 |
| 151 | 24 | 24 | 0 PR | INSTALL CASEWORK | 22JUN95 | 15JUL95 | 10JUL95 | 2AUG95 | 18 |
| 152 | 35 | 35 | 0 PR | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 22JUN95 | 26JUL95 | 29JUN95 | 2AUG95 | 7 |
| 153 | 14 | 14 | 0 PR | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 22JUN95 | 5JUL95 | 20JUL95 | 2AUG95 | 28 |
| 154 | 10 | 10 | 0 PR | INSTALL DOOR CANOPIES & SIGNS | 26JAN95 | 4FEB95 | 24JUL95 | 2AUG95 | 179 |
| 155* | 18 | 18 | 0 PR | 20% PAINT & FINISH | 16JUL95 | 2AUG95 | 16JUL95 | 2AUG95 | 0 |
| 156 | 7 | 7 | 0 | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| 174* | 5 | 5 | 0 SU | SELL JOB | 10AUG95 | 14AUG95 | 10AUG95 | 14AUG95 | 0 |
| 29* | 45 | 45 | 0 PR | SUBMIT & APPROVE SHP DRWG OS & | 2JUL94 | 15AUG94 | 3NOV94 | 17DEC94 | 124 |
| 157 | 45 | 45 | 0 | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 16AUG94 | 29SEP94 | 18DEC94 | 31JAN95 | 124 |
| 161* | 45 | 45 | 0 SU | OUTSIDE PLUMBING | 30SEP94 | 13NOV94 | 10MAR95 | 1MAY95 | 169 |
| 162* | 90 | 90 | 0 SU | OUTSIDE ELECTRICAL | 30SEP94 | 28DEC94 | 1FEB95 | 1MAY95 | 124 |
| 27 | 15 | 15 | 0 PR | CONCRETE DESIGN MIX | 2JUL94 | 16JUL94 | 6AUG94 | 20AUG94 | 35 |
| 31 | 32 | 32 | 0 PR | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 48* | 15 | 15 | 0 PR | DELIVER REINFORCING STEEL | 6AUG94 | 20AUG94 | 6AUG94 | 20AUG94 | 0 |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAIN | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| 167 | 42 | 42 | 0 SU | SUBGRADE & BASE FOR PAVING | 29DEC94 | 8FEB95 | 2MAY95 | 12JUN95 | 124 |
| 31 | 32 | 32 | 0 PR | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 157* | 45 | 45 | 0 PR | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 16AUG94 | 29SEP94 | 18DEC94 | 31JAN95 | 124 |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | 30SEP94 | 13NOV94 | 10MAR95 | 1MAY95 | 169 |
| 167 | 42 | 42 | 0 SU | SUBGRADE & BASE FOR PAVING | 29DEC94 | 8FEB95 | 2MAY95 | 12JUN95 | 124 |
| 173 | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| 31 | 32 | 32 | 0 PR | DEMOLITION & SITE GRADING | 9JUL94 | 9AUG94 | 31DEC94 | 31JAN95 | 175 |
| 157* | 45 | 45 | 0 PR | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 16AUG94 | 29SEP94 | 18DEC94 | 31JAN95 | 124 |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL | 30SEP94 | 28DEC94 | 1FEB95 | 1MAY95 | 124 |
| 167* | 42 | 42 | 0 SU | SUBGRADE & BASE FOR PAVING | 29DEC94 | 8FEB95 | 2MAY95 | 12JUN95 | 124 |
| 173 | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| 160 | 60 | 60 | 0 PR | DELIVER & INSTALL STORM DRAIN | 21AUG94 | 19OCT94 | 3MAR95 | 1MAY95 | 194 |
| 161 | 45 | 45 | 0 PR | OUTSIDE PLUMBING | 30SEP94 | 13NOV94 | 10MAR95 | 1MAY95 | 169 |
| 162* | 90 | 90 | 0 PR | OUTSIDE ELECTRICAL | 30SEP94 | 28DEC94 | 1FEB95 | 1MAY95 | 124 |
| 167 | 42 | 42 | 0 | SUBGRADE & BASE FOR PAVING | 29DEC94 | 8FEB95 | 2MAY95 | 12JUN95 | 124 |
| 168* | 21 | 21 | 0 SU | CURB & GUTTER | 9FEB95 | 1MAR95 | 13JUN95 | 3JUL95 | 124 |

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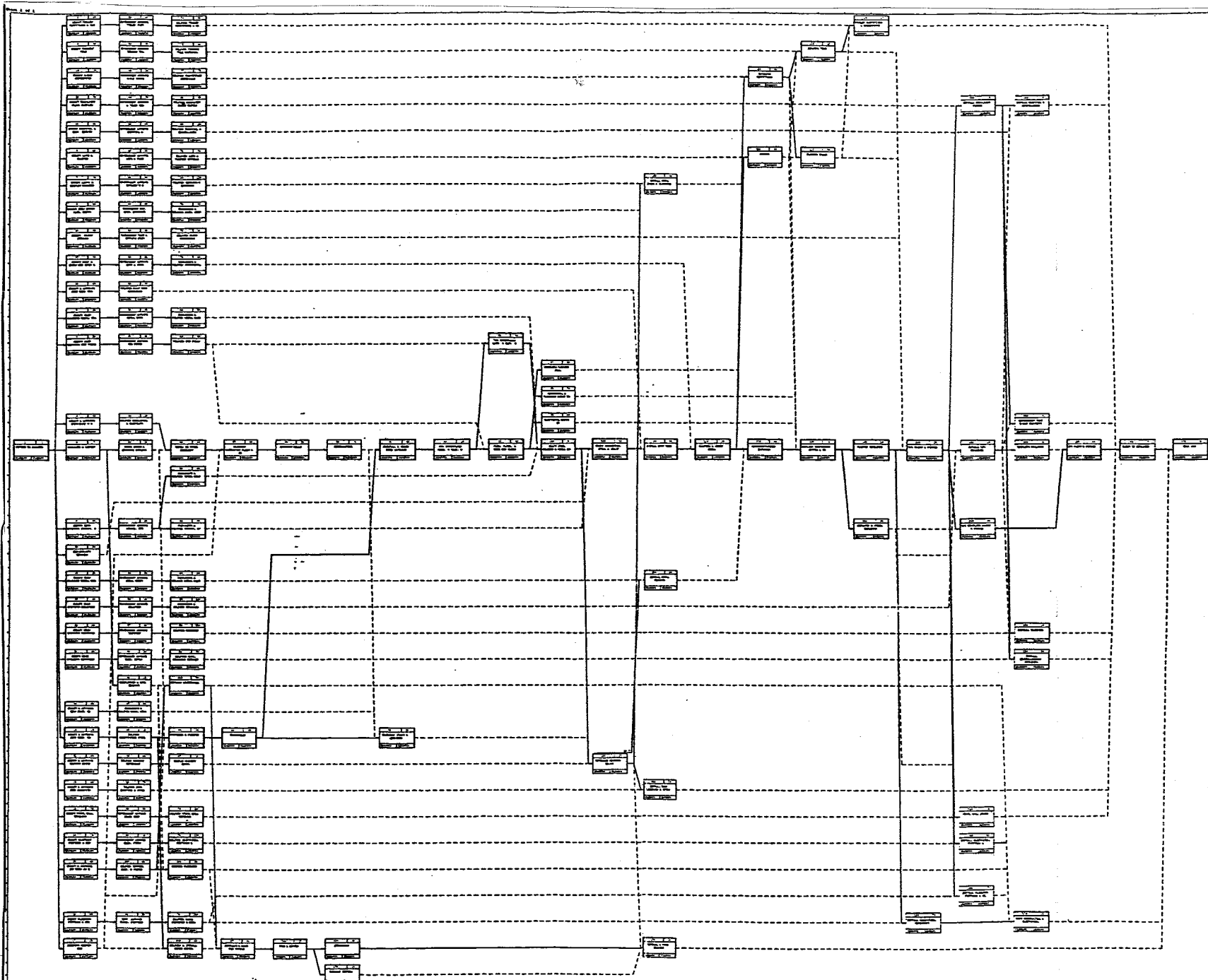
Figure 5-9 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|---|-------------|--------------|------------|-------------|-------------|
| .. 167* | 42 | 42 | 0 PR | SUBGRADE & BASE FOR PAVING | 29DEC94 | 0FEB95 | 2MAY95 | 12JUN95 | 124 |
| .. 168 | 21 | 21 | 0 | CURB & GUTTER | 9FEB95 | 1MAR95 | 13JUN95 | 3JUL95 | 124 |
| .. 169* | 21 | 21 | 0 BU | SIDEWALKS | 2MAR95 | 22MAR95 | 4JUL95 | 24JUL95 | 124 |
| .. 170* | 10 | 10 | 0 BU | ASPHALT PAVING | 2MAR95 | 11MAR95 | 15JUL95 | 24JUL95 | 133 |
| .. 168* | 21 | 21 | 0 PR | CURB & GUTTER | 9FEB95 | 1MAR95 | 13JUN95 | 3JUL95 | 124 |
| .. 169 | 21 | 21 | 0 | SIDEWALKS | 2MAR95 | 22MAR95 | 4JUL95 | 24JUL95 | 124 |
| .. 172* | 16 | 16 | 0 BU | TOPSOIL & FINE GRADING | 23MAR95 | 7APR95 | 25JUL95 | 9AUG95 | 124 |
| .. 168* | 21 | 21 | 0 PR | CURB & GUTTER | 9FEB95 | 1MAR95 | 13JUN95 | 3JUL95 | 124 |
| .. 170 | 10 | 10 | 0 | ASPHALT PAVING | 2MAR95 | 11MAR95 | 15JUL95 | 24JUL95 | 133 |
| .. 172 | 16 | 16 | 0 BU | TOPSOIL & FINE GRADING | 23MAR95 | 7APR95 | 25JUL95 | 9AUG95 | 124 |
| .. 103 | 27 | 27 | 0 PR | EXTERIOR MASONRY WALLS | 30DEC94 | 25JAN95 | 25JAN95 | 20FEB95 | 26 |
| .. 169* | 21 | 21 | 0 PR | SIDEWALKS | 2MAR95 | 22MAR95 | 4JUL95 | 24JUL95 | 124 |
| .. 170 | 10 | 10 | 0 PR | ASPHALT PAVING | 2MAR95 | 11MAR95 | 15JUL95 | 24JUL95 | 133 |
| .. 172 | 16 | 16 | 0 | TOPSOIL & FINE GRADING | 23MAR95 | 7APR95 | 25JUL95 | 9AUG95 | 124 |
| .. 174 | 5 | 5 | 0 BU | SELL JOB | 10AUG95 | 14AUG95 | 10AUG95 | 14AUG95 | 0 |
| .. 133* | 70 | 70 | 0 PR | INSTALL MECHANICAL EQUIPMENT | 4MAY95 | 12JUL95 | 10MAY95 | 26JUL95 | 14 |
| .. 140* | 42 | 42 | 0 PR | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 1JUN95 | 12JUL95 | 15JUN95 | 26JUL95 | 14 |
| .. 141 | 30 | 30 | 0 PR | INSTALL PLUMBING FIXTURES & EQUIPMENT | 1JUN95 | 30JUN95 | 27JUN95 | 26JUL95 | 26 |
| .. 161 | 45 | 45 | 0 PR | OUTSIDE PLUMBING | 30SEP94 | 13NOV94 | 10MAR95 | 1MAY95 | 169 |
| .. 162 | 90 | 90 | 0 PR | OUTSIDE ELECTRICAL | 30SEP94 | 28DEC94 | 1FEB95 | 1MAY95 | 124 |
| .. 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| .. 174 | 5 | 5 | 0 BU | SELL JOB | 10AUG95 | 14AUG95 | 10AUG95 | 14AUG95 | 0 |
| .. 156* | 7 | 7 | 0 PR | CLEAN UP BUILDING | 3AUG95 | 9AUG95 | 3AUG95 | 9AUG95 | 0 |
| .. 172 | 16 | 16 | 0 PR | TOPSOIL & FINE GRADING | 23MAR95 | 7APR95 | 25JUL95 | 9AUG95 | 124 |
| .. 173 | 14 | 14 | 0 PR | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 13JUL95 | 26JUL95 | 27JUL95 | 9AUG95 | 14 |
| .. 174 | 5 | 5 | 0 | SELL JOB | 10AUG95 | 14AUG95 | 10AUG95 | 14AUG95 | 0 |

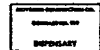
5-36

Figure 5-9 Cont.

31 Oct 97



FINAL SUBMISSION



MG-2
NAS-47

Figure 5-10

FIGURE 5-10
DATE: 03/19/97
PROJECT: NAS-47
PROGRAM: NAS-47

| NO. | REVISION | DATE | BY |
|-----|----------|------|----|
| | | | |
| | | | |
| | | | |
| | | | |

CHAPTER 6

UPDATING

Updating as the Work Progresses.

a. General. Although great benefit can result from planning a job by network analysis, even greater benefit can come from the use of NAS as the job progresses. Since the original activity time durations are only estimates, actual times involved in activity accomplishment will vary as the work progresses. This can be due to any of a number of causes which can and will arise and cannot always be foreseen. The initial plan can help get the job organized and scheduled, but as various activities actually take more or less time than originally estimated, control of the work is lost unless the network analysis is updated periodically. Updating the system is necessary to monitor progress, to evaluate impact of delays and changes, and to adjust planning so as to meet the required completion of the work. The principles of updating involve substitution of actual occurrences in lieu of previous estimates, revising the logic where necessary to reflect changes or to correct previous errors, and then making a new analysis. For example, updating activity information would include actual start and finish dates which have occurred, revised duration estimates for activities for which better information is available, and addition or deletion of activities or change of restraints occasioned by changes in the work. Updating analysis is normally done by computer. Accurate agreed upon input information is vital to a reliable update report.

b. Computer Updating. Input information for updating by computer involves accurate agreed upon information: actual start dates, actual finish dates, revised duration time estimates for appropriate activities, and logic changes if appropriate. For those activities started but not yet finished, some software programs require a percentage of completion and others a remaining duration. Most programs will use either. The particular requirements of the computer schedule software program being used should be understood before updating is undertaken. Notice that actual start and finish dates are indicated by the letter A in the Early Start or Finish column. This program indicates the update date at the beginning of each sort. In addition these printouts indicate such information as earliest and latest delivery dates of materials, dates subcontractors are needed on the job and early and late dates for Government approval actions. Computer programs differ in some respects but this program is fairly typical.

(1) Figure 6-1, is the schedule report with activity budgets. The actually completed activities with a dollar value and percentage of the value of actually started activities based on expired duration over total duration are entered in the earned column and summed to attain an earned payment of \$661,375.

(2) Figure 6-2, the early start sort indicates the activities which can start during the remainder of October, November, and December 1994. The large number of activities indicating 28 October 1994 early start (data day 120) represent activities which could have started earlier but apparently did not. This program restricts early starts to the date of the update or later unless an actual start is entered. Similarly the early finish sort, Figure 6-3 shows what can finish in the same period.

(3) Figure 6-4, the Government Responsibility Report shows the status of such activities with all but five done.

(4) Figure 6-5 is a late finish sort. These activities are those which must finish in the remainder of October, November, and December 1994. Figure 6-6, the late start sort shows activities which must start in the same period.

(5) Figure 6-7, the Mechanical/Electrical Responsibility Report, shows progress on the subcontractor's activities and the amount he or she has earned, \$210,600.

(6) Figure 6-8 is the Predecessor/Successor Report listing activities which are not yet completed. Note there are some added activities due to changes since the original schedule.

(7) Figure 6-9, the total float sort. Note as of 28 October 1994 the project completion has slipped from 14 to 21 August 1995. Note that this projection appears in the early finish column for activity 174 but that the late finish has been locked at 14 August 1995 generating a -7 float on the most critical path. If the projected completion is earlier than 14 August 1995 a positive value of critical path float would show. The negative float reveals that seven days must be regained in accomplishing activities remaining on the critical path if the completion of 14 August 1995 is to be realized. In addition, a parallel path of -4 days total float must also be regained. It is evident how easily an updated NAS reveals where and why a project is behind schedule and directs the manager's attention to what must be done to regain schedule. If the update reveal that the cause of the project being behind is excusable, the appropriate action may be to extend the contract completion date accordingly.

| ACTIVITY ID | ORIG DUR | REN DUR | % | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|--|----------|----------|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 0 | 100 | NOTICE TO PROCEED | | | 1JUL94A | 1JUL94A | | | |
| 2 | 7 | 0 | 100 | MOBILIZE & LAYOUT | .00 | .00 | 4JUL94A | 12JUL94A | | | |
| 3 | 30 | 0 | 100 | SUBMIT & APPROVE MECH/ELEC R.I | 10000.00 | 10000.00 | 5JUL94A | 4AUG94A | | | |
| 4 | 20 | 0 | 100 | SUBMIT SHOP DRAWINGS PAN FORMS | .00 | .00 | 10JUL94A | 30JUL94A | | | |
| 5 | 20 | 0 | 100 | SUBMIT SHOP DRAWINGS METAL DOORS | .00 | .00 | 21JUL94A | 9AUG94A | | | |
| 6 | 30 | 0 | 100 | SUBMIT SHOP DRAWINGS STRUCT. STL. & JOISTS | .00 | .00 | 9JUL94A | 7AUG94A | | | |
| 7 | 29 | 0 | 100 | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | .00 | .00 | 15AUG94A | 18OCT94A | | | |
| 8 | 45 | 0 | 100 | SUBMIT SHOP DRWG. ALUM. ENTRA | .00 | .00 | 2JUL94A | 30JUL94A | | | |
| 9 | 45 | 0 | 100 | SUBMIT LATH & PLASTER | .00 | .00 | 4AUG94A | 18SEP94A | | | |
| 10 | 45 | 0 | 100 | SUBMIT CERAMIC TILE | .00 | .00 | 25JUL94A | 8SEP94A | | | |
| 11 | 45 | 0 | 100 | SUBMIT TOILET PARTITIONS & ACC | .00 | .00 | 30JUL94A | 8SEP94A | | | |
| 12 | 30 | 0 | 100 | SUBMIT PLUMBING FIXTURES & MEC | .00 | .00 | 9JUL94A | 7AUG94A | | | |
| 13 | 30 | 0 | 100 | SUBMIT ELECTRIC FIXTURES & EQUIP. | .00 | .00 | 2JUL94A | 28JUL94A | | | |
| 14 | 35 | 0 | 100 | SUBMIT & APPROVE SHOP DRWG. MISC. METAL | .00 | .00 | 30JUL94A | 3SEP94A | | | |
| 15 | 35 | 0 | 100 | SUBMIT & APPROVE SHOP DRWG. REINF. STEEL | .00 | .00 | 2JUL94A | 26JUL94A | | | |
| 16 | 45 | 0 | 100 | SUBMIT & APPROVE ROOF DECK SHO | .00 | .00 | 6JUL94A | 20AUG94A | | | |
| 17 | 28 | 0 | 100 | SUBMIT ROOF & SHEET MET SHOP DRAWINGS | .00 | .00 | 11AUG94A | 10SEP94A | | | |
| 18 | 30 | 0 | 100 | SUBMIT X-RAY PROTECTION | .00 | .00 | 14AUG94A | 13SEP94A | | | |
| 19 | 39 | 0 | 100 | SUBMIT & APPROVE DOOR CANOPIES | .00 | .00 | 26JUL94A | 8SEP94A | | | |
| 20 | 25 | 0 | 100 | SUBMIT PAINT SAMPLES | .00 | .00 | 19AUG94A | 18SEP94A | | | |
| 21 | 35 | 0 | 100 | SUBMIT VINYL WALL COVERING | .00 | .00 | 4AUG94A | 3SEP94A | | | |
| 22 | 30 | 0 | 100 | SUBMIT SHOP DRAWINGS MILLWORK | .00 | .00 | 12JUL94A | 11AUG94A | | | |
| 23 | 18 | 0 | 100 | SUBMIT RESILIENT FLOOR SAMPLES | .00 | .00 | 21AUG94A | 20SEP94A | | | |
| 24 | 20 | 0 | 100 | SUBMIT SHOP DRAWINGS CASEWORK | .00 | .00 | 14AUG94A | 28SEP94A | | | |

Figure 6-1

6-3

31 OCT 97

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|--|----------|-------------|--------------|------------|-------------|-------------|
| 25 | 44 | 0 | 100 | SUBMIT HOSPITAL & MISC. EQUIPMENT | .00 | 26JUL94A | 8SEP94A | | | |
| 26 | 34 | 0 | 100 | SUBMIT MISC. BUILDING EQUIPMENT | .00 | 31JUL94A | 3SEP94A | | | |
| 27 | 15 | 0 | 100 | CONCRETE DESIGN MIX | .00 | 6JUL94A | 21JUL94A | | | |
| 28 | 29 | 20 | 31 | PRE-QUALIFY WELDERS | .00 | 20AUG94A | 16NOV94 | | 29DEC94 | 43 |
| 29 | 45 | 0 | 100 | SUBMIT & APPROVE SHP DRWG OS E | .00 | 6JUL94A | 21AUG94A | | | |
| 30 | 14 | 0 | 100 | ROUGH GRADE & EXCAVATE BUILDING | 20000.00 | 16JUL94A | 30JUL94A | | | |
| 31 | 32 | 0 | 100 | DENOLITION & SITE GRADING | 50000.00 | 18JUL94A | 19AUG94A | | | |
| 32 | 45 | 0 | 100 | SUBMIT & APPROVE MASONRY MATERIAL | .00 | 12JUL94A | 26AUG94A | | | |
| 33 | 32 | 0 | 100 | SUBMIT SHOP DRAWINGS METAL WINDOWS | .00 | 17AUG94A | 19SEP94A | | | |
| 34 | 15 | 0 | 100 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | 65000.00 | 5AUG94A | 14AUG94A | | | |
| 35 | 15 | 0 | 100 | GOVERNMENT APPROVE PAN FORMS | .00 | 4AUG94A | 19AUG94A | | | |
| 36 | 15 | 0 | 100 | GOVERNMENT APPROVE METAL DOOR | .00 | 10AUG94A | 21AUG94A | | | |
| 37 | 20 | 0 | 100 | GOVERNMENT APPROVE STRUCT. STE | .00 | 8AUG94A | 25AUG94A | | | |
| 38 | 80 | 16 | 80 | DELIVER MASONRY MATERIALS | 47500.00 | 26AUG94A | 12NOV94 | | 22JAN95 | 71 |
| 39 | 20 | 0 | 100 | GOVERNMENT APPROVE METAL WINDOWS | .00 | 20SEP94A | 4OCT94A | | | |
| 40 | 30 | 21 | 30 | GOVERNMENT APPROVE BUILDER'S H | .00 | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| 41 | 20 | 0 | 100 | GOVERNMENT APP. ALUM. ENTRANCE | .00 | 31JUL94A | 14AUG94A | | | |
| 42 | 15 | 0 | 100 | GOVERNMENT APPROVE LATH & PLAS | .00 | 19SEP94A | 3OCT94A | | | |
| 43 | 30 | 0 | 100 | GOVERNMENT APPROVE CERAMIC TIL | .00 | 9SEP94A | 3OCT94A | | | |
| 44 | 20 | 0 | 100 | GOVERNMENT APPROVE TOILET PART | .00 | 10SEP94A | 10OCT94A | | | |
| 45 | 30 | 0 | 100 | GOVT. APPROVE PLUMB. FIXTURES | .00 | 7AUG94A | 4SEP94A | | | |
| 46 | 30 | 0 | 100 | GOVERNMENT APPROVE ELEC. FIXTURES & EQUIP. | .00 | 29JUL94A | 27AUG94A | | | |
| 47 | 45 | 0 | 100 | FABRICATE & DELIVER MISC. METALS | 17500.00 | 8SEP94A | 23OCT94A | | | |
| 48 | 15 | 0 | 100 | DELIVER REINFORCING STEEL | 45000.00 | 27JUL94A | 14AUG94A | | | |

Figure 6-1 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|---|----------|----------|-------------|--------------|------------|-------------|-------------|
| 49 | 85 | 17 | 80 | DELIVER ROOF DECK MATERIALS | | | 21AUG94A | 13NOV94 | | 8JAN95 | 56 |
| 50 | 15 | 0 | 100 | GOVERNMENT APPROVE ROOF & SHEE | .00 | .00 | 11SEP94A | 28SEP94A | | | |
| 51 | 20 | 0 | 100 | GOVERNMENT APPROVE X-RAT PROTE | .00 | .00 | 14SEP94A | 8OCT94A | | | |
| 52 | 75 | 75 | 0 | DELIVER DOOR CANOPIES & SIGNS | | | 28OCT94 | 10JAN95 | 10MAY95 | 23JUL95 | 194 |
| 53 | 30 | 0 | 100 | GOVERNMENT TEST & DISAPPROVE PAINT | 10000.00 | .00 | 19SEP94A | 18OCT94A | | | |
| 54 | 30 | 0 | 100 | GOVERNMENT APPROVE COLOR SAMP. VINYL WALL | .00 | .00 | 4SEP94A | 18SEP94A | | | |
| 55 | 20 | 0 | 100 | GOVERNMENT APPROVE MILLWORK | .00 | .00 | 12AUG94A | 25AUG94A | | | |
| 56 | 30 | 0 | 100 | GOVERNMENT APPROVE & COLOR SEL | .00 | .00 | 21SEP94A | 13OCT94A | | | |
| 57 | 30 | 0 | 100 | GOVERNMENT APPROVE CASEWORK | .00 | .00 | 29SEP94A | 26OCT94A | | | |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | .00 | .00 | 23NOV94 | 22DEC94 | 1DEC94 | 30DEC94 | 8 |
| 59 | 20 | 0 | 100 | GOVERNMENT APPROVE MISC. BUILD | .00 | .00 | 4SEP94A | 28SEP94A | | | |
| 60 | 15 | 5 | 67 | RESUBMIT PAINT SAMPLES | .00 | .00 | 18OCT94A | 1NOV94 | | 17FEB95 | 108 |
| 61 | 30 | 30 | 0 | GOVT. RETEST & APPROVE PAINT SAMPLES | .00 | .00 | 2NOV94 | 1DEC94 | 18FEB95 | 19MAR95 | 108 |
| 62 | 10 | 0 | 100 | ROUGH IN UNDER BASEMENT | 10000.00 | 10000.00 | 15AUG94A | 26AUG94A | | | |
| 63 | 45 | 0 | 100 | DELIVER PAN FORMS | .00 | .00 | 21AUG94A | 10OCT94A | | | |
| 64 | 90 | 27 | 70 | FABRICATE & DELIVER METAL DOORS | 10000.00 | 7000.00 | 26AUG94A | 23NOV94 | | 24DEC94 | 31 |
| 65 | 45 | 0 | 100 | FABRICATE & DELIVER STEEL COLUMNS | 7500.00 | 7500.00 | 29AUG94A | 14OCT94A | | | |
| 66 | 90 | 28 | 69 | FABRICATE & DELIVER STRUCT. STEEL | 95000.00 | 65455.00 | 27AUG94A | 24NOV94 | | 29DEC94 | 35 |
| 67 | 2 | 2 | 0 | SAMPLE MASONRY PANEL | .00 | .00 | 13NOV94 | 14NOV94 | 23JAN95 | 24JAN95 | 71 |
| 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 10000.00 | .00 | 28OCT94 | 25JAN95 | 30OCT94 | 27JAN95 | 2 |
| 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 45000.00 | .00 | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| 70 | 90 | 15 | 83 | FABRICATE & DELIVER ALUM. ENTRANCE | 22500.00 | 18742.50 | 14AUG94A | 11NOV94 | | 10MAR95 | 119 |
| 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | .00 | .00 | 28OCT94 | 26NOV94 | 23FEB95 | 24MAR95 | 118 |
| 72 | 45 | 45 | 0 | DELIVER CERAMIC TILE MATERIAL | 45000.00 | .00 | 28OCT94 | 11DEC94 | 26FEB95 | 11APR95 | 121 |

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Figure 6-1 Cont.

31 OCT 95

| ACTIVITY ID | ORIG DUR | REN DUR | % | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|---|-----------|----------|-------------|--------------|------------|-------------|-------------|
| 73 | 90 | 90 | 0 | DELIVER TOILET PARTITIONS & ACCESSORIES | 20000.00 | .00 | 28OCT94 | 25JAN95 | 18APR95 | 16JUL95 | 172 |
| 74 | 150 | 105 | 30 | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 215000.00 | 64500.00 | 13SEP94A | 9FEB95 | | 17MAY95 | 97 |
| 75 | 120 | 60 | 50 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 115000.00 | 57500.00 | 29AUG94A | 26DEC94 | | 14JUN95 | 170 |
| 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL ROOF | .00 | .00 | 28OCT94 | 26DEC94 | 22NOV94 | 20JAN95 | 25 |
| 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS | 17500.00 | .00 | 28OCT94 | 10JAN95 | 12DEC94 | 24FEB95 | 45 |
| 78 | 45 | 45 | 0 | DELIVER PAINT MATERIALS | .00 | .00 | 2DEC94 | 15JAN95 | 20MAR95 | 3MAY95 | 108 |
| 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING | 7500.00 | .00 | 28OCT94 | 26DEC94 | 21MAY95 | 19JUL95 | 205 |
| 80 | 120 | 57 | 53 | FABRICATE & DELIVER MILLWORK | 30000.00 | 15750.00 | 26AUG94A | 23DEC94 | | 12JUN95 | 171 |
| 81 | 45 | 30 | 33 | DELIVER RESILIENT FLOOR MATERIALS | 17500.00 | 5827.50 | 13OCT94A | 26NOV94 | | 7JUN95 | 193 |
| 82 | 150 | 150 | 0 | DELIVER CASEWORK | 80000.00 | .00 | 28OCT94 | 26MAR95 | 10FEB95 | 9JUL95 | 105 |
| 83 | 180 | 180 | 0 | DELIVER HOSPITAL & MISC. EQUIPMENT | 115000.00 | .00 | 23DEC94 | 20JUN95 | 31DEC94 | 28JUN95 | 8 |
| 84 | 90 | 90 | 0 | DELIVER MISC. BUILDING EQUIPMENT | 30000.00 | .00 | 28OCT94 | 25JAN95 | 21APR95 | 19JUL95 | 175 |
| 85 | 16 | 0 | 100 | FOOTINGS & PLINTHS | 22500.00 | 22500.00 | 15AUG94A | 28AUG94A | | | |
| 86 | 30 | 0 | 100 | GRADE BEAMS | 50000.00 | 50000.00 | 29SEP94A | 8OCT94A | | | |
| 87 | 14 | 0 | 100 | BASEMENT FOUNDATION SLABS & BEAMS | 15000.00 | 15000.00 | 27AUG94A | 11SEP94A | | | |
| 88 | 21 | 0 | 100 | BASEMENT WALLS | 22500.00 | 22500.00 | 12SEP94A | 20CT94A | | | |
| 89 | 5 | 0 | 100 | DAMP PROOFING | 7500.00 | 7500.00 | 3OCT94A | 6OCT94A | | | |
| 91 | 10 | 0 | 100 | BACKFILL & GRADE UNDER BUILDING | 22500.00 | 22500.00 | 9OCT94A | 20OCT94A | | | |
| 92 | 10 | 10 | 0 | BASEMENT STEPS & LANDINGS | 4500.00 | .00 | 28OCT94 | 6NOV94 | 15JAN95 | 24JAN95 | 79 |
| 93 | 20 | 12 | 40 | 30% UNDERFLOOR MECH. & ELEC. R | 59000.00 | 23600.00 | 20OCT94A | 8NOV94 | | 4NOV94 | -4 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 87500.00 | .00 | 9NOV94 | 20DEC94 | 5NOV94 | 24DEC94 | -4 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 135000.00 | .00 | 9NOV94 | 20DEC94 | 5NOV94 | 24DEC94 | -4 |
| 97 | 18 | 18 | 0 | CONCRETE TOPPING FILL | 27500.00 | .00 | 29DEC94 | 15JAN95 | 7FEB95 | 24FEB95 | 40 |
| 98 | 63 | 63 | 0 | ELECTRICAL ROUGH IN | 100000.00 | .00 | 29DEC94 | 1MAR95 | 4FEB95 | 7APR95 | 37 |

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Figure 6-1 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---|-----------|--------|-------------|--------------|------------|-------------|-------------|
| 99 | 70 | 70 | 0 | MECHANICAL & PLUMBING ROUGH IN | 105000.00 | .00 | 29DEC94 | 8MAR95 | 28JAN95 | 7APR95 | 30 |
| 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BUCKS | 5000.00 | .00 | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| 102 | 10 | 10 | 0 | ERECT STRUCTURAL STEEL & JOISTS | 17500.00 | .00 | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| 103 | 27 | 27 | 0 | EXTERIOR MASONRY WALLS | 47500.00 | .00 | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| 108 | 14 | 14 | 0 | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 10000.00 | .00 | 10MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| 109 | 12 | 12 | 0 | INSTALL ROOF DECK | 47500.00 | .00 | 13JAN95 | 24JAN95 | 9JAN95 | 20JAN95 | -4 |
| 110 | 21 | 21 | 0 | ROOFING & SHEET METAL | 80000.00 | .00 | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| 111 | 14 | 14 | 0 | INSTALL METAL WINDOWS | 2500.00 | .00 | 26JAN95 | 8FEB95 | 28JAN95 | 10FEB95 | 2 |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 115000.00 | .00 | 15FEB95 | 11APR95 | 11FEB95 | 7APR95 | -4 |
| 114 | 42 | 42 | 0 | INTERIOR PARTITIONS | 85000.00 | .00 | 15FEB95 | 20MAR95 | 25FEB95 | 7APR95 | 10 |
| 116 | 14 | 14 | 0 | STUCCO | 10000.00 | .00 | 1APR95 | 14APR95 | 23MAR95 | 7APR95 | -7 |
| 120 | 14 | 14 | 0 | CEILING SUSPENSION SYSTEM & INSULATION | 27500.00 | .00 | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 121 | 14 | 14 | 0 | PLASTER WALLS | 5000.00 | .00 | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| 122 | 22 | 22 | 0 | CERAMIC TILE | 22500.00 | .00 | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| 124 | 35 | 35 | 0 | ACOUSTIC & OTHER CEILING | 35000.00 | .00 | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| 125 | 12 | 12 | 0 | PLASTER CEILING | 4000.00 | .00 | 29APR95 | 10MAY95 | 22APR95 | 3MAY95 | -7 |
| 128 | 17 | 17 | 0 | TOILET PARTITIONS & ACCESSORIES | 3500.00 | .00 | 7MAY95 | 23MAY95 | 17JUL95 | 2AUG95 | 71 |
| 130 | 28 | 28 | 0 | 30% PAINT & FINISH | 19500.00 | .00 | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 25000.00 | .00 | 11MAY95 | 19JUL95 | 18MAY95 | 26JUL95 | 7 |
| 139 | 45 | 45 | 0 | 50% COMPLETE PAINT & FINISH | 32500.00 | .00 | 8JUN95 | 22JUL95 | 1JUN95 | 15JUL95 | -7 |
| 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 15000.00 | .00 | 8JUN95 | 19JUL95 | 15JUN95 | 26JUL95 | 7 |
| 141 | 30 | 30 | 0 | INSTALL PLUMBING FIXTURES & EQUIPMENT | 12500.00 | .00 | 8JUN95 | 7JUL95 | 27JUN95 | 26JUL95 | 19 |
| 142 | 14 | 14 | 0 | VINYL WALL COVER | 5000.00 | .00 | 8JUN95 | 21JUN95 | 20JUL95 | 2AUG95 | 42 |
| 143 | 16 | 16 | 0 | INSTALL 50% MILLWORK | 7500.00 | .00 | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |

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Figure 6-1 Cont.

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| ACTIVITY ID | ORIG DUR | REN DUR | % | ACTIVITY DESCRIPTION | BUDGET | EARNED | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|--|-----------|--------|-------------|--------------|------------|-------------|-------------|
| 144 | 21 | 21 | 0 | INSTALL RESILIENT FLOORS | | | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| | | | | | 7500.00 | .00 | | | | | |
| 146 | 16 | 16 | 0 | COMPLETE MILLWORK | | | 24JUN95 | 9JUL95 | 30JUN95 | 15JUL95 | 6 |
| | | | | | 7500.00 | .00 | | | | | |
| 150 | 3 | 3 | 0 | GOVERNMENT TEST X-RAY PROTECTION | | | 29JUN95 | 1JUL95 | 31JUL95 | 2AUG95 | 32 |
| | | | | | .00 | .00 | | | | | |
| 151 | 24 | 24 | 0 | INSTALL CASEWORK | | | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |
| | | | | | 15000.00 | .00 | | | | | |
| 152 | 35 | 35 | 0 | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | | | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| | | | | | 20000.00 | .00 | | | | | |
| 153 | 14 | 14 | 0 | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | | | 29JUN95 | 12JUL95 | 20JUL95 | 2AUG95 | 21 |
| | | | | | 4000.00 | .00 | | | | | |
| 154 | 10 | 10 | 0 | INSTALL DOOR CANOPIES & SIGNS | | | 30JAN95 | 8FEB95 | 24JUL95 | 2AUG95 | 175 |
| | | | | | 2500.00 | .00 | | | | | |
| 155 | 18 | 18 | 0 | 20% PAINT & FINISH | | | 23JUL95 | 9AUG95 | 16JUL95 | 2AUG95 | -7 |
| | | | | | 13000.00 | .00 | | | | | |
| 156 | 7 | 7 | 0 | CLEAN UP BUILDING | | | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| | | | | | 5000.00 | .00 | | | | | |
| 157 | 45 | 0 | 100 | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | | | 23AUG94A | 23SEP94A | | | |
| | | | | | .00 | .00 | | | | | |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAIN | | | 28OCT94 | 26DEC94 | 3MAR95 | 1MAY95 | 126 |
| | | | | | 50000.00 | .00 | | | | | |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | | | 28OCT94 | 11DEC94 | 18MAR95 | 1MAY95 | 141 |
| | | | | | 35000.00 | .00 | | | | | |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL | | | 28OCT94 | 25JAN95 | 1FEB95 | 1MAY95 | 96 |
| | | | | | 120000.00 | .00 | | | | | |
| 167 | 42 | 42 | 0 | SUBGRADE & BASE FOR PAVING | | | 26JAN95 | 8MAR95 | 2MAY95 | 12JUN95 | 96 |
| | | | | | 67500.00 | .00 | | | | | |
| 168 | 21 | 21 | 0 | CURB & GUTTER | | | 9MAR95 | 29MAR95 | 13JUN95 | 3JUL95 | 96 |
| | | | | | 20000.00 | .00 | | | | | |
| 169 | 21 | 21 | 0 | SIDEWALKS | | | 30MAR95 | 19APR95 | 4JUL95 | 24JUL95 | 96 |
| | | | | | 20000.00 | .00 | | | | | |
| 170 | 10 | 10 | 0 | ASPHALT PAVING | | | 30MAR95 | 8APR95 | 15JUL95 | 24JUL95 | 107 |
| | | | | | 32500.00 | .00 | | | | | |
| 172 | 16 | 16 | 0 | TOPSOIL & FINE GRADING | | | 20APR95 | 5MAY95 | 25JUL95 | 9AUG95 | 96 |
| | | | | | 10000.00 | .00 | | | | | |
| 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT | | | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| | | | | | 15000.00 | .00 | | | | | |
| 174 | 5 | 5 | 0 | BELL JOB | | | 17AUG95 | 21AUG95 | 10AUG95 | 14AUG95 | -7 |
| | | | | | 5000.00 | .00 | | | | | |
| 200 | 1 | 0 | 100 | C.O. TO USE SOME OF HOSP. EQUIP. | | | 28SEP94A | 28SEP94A | | | |
| | | | | | .00 | .00 | | | | | |
| 201 | 25 | 0 | 100 | NEG. CHANGE ORDER NO. 1 | | | 29SEP94A | 23OCT94A | | | |
| | | | | | .00 | .00 | | | | | |
| 202 | 30 | 26 | 13 | RESUB. HOSP. & MISC. EQUIP. | | | 24OCT94A | 22NOV94 | | 30NOV94 | 8 |
| | | | | | .00 | .00 | | | | | |
| 203 | 240 | 237 | 1 | DELIVER GOVT. FURN. HOSP. EQUIP. | | | 25OCT94A | 21JUN95 | | 28JUN95 | 7 |
| | | | | | .00 | .00 | | | | | |

REPORT TOTAL

 2900000.00 661375.00

Figure 6-1 Cont.

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| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---|-------------|--------------|------------|-------------|-------------|
| 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 28OCT94 | 25JAN95 | 30OCT94 | 27JAN95 | 2 |
| 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL ROOF | 28OCT94 | 26DEC94 | 22NOV94 | 20JAN95 | 25 |
| 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS | 28OCT94 | 10JAN95 | 12DEC94 | 24FEB95 | 45 |
| 92 | 10 | 10 | 0 | BASEMENT STEPS & LANDINGS | 28OCT94 | 6NOV94 | 15JAN95 | 24JAN95 | 79 |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL | 28OCT94 | 25JAN95 | 1FEB95 | 1MAY95 | 96 |
| 82 | 150 | 150 | 0 | DELIVER CASEWORK | 28OCT94 | 26MAR95 | 10FEB95 | 9JUL95 | 105 |
| 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | 28OCT94 | 26NOV94 | 23FEB95 | 24MAR95 | 118 |
| 72 | 45 | 45 | 0 | DELIVER CERAMIC TILE MATERIAL | 28OCT94 | 11DEC94 | 26FEB95 | 11APR95 | 121 |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAINS | 28OCT94 | 26DEC94 | 3MAR95 | 1MAY95 | 126 |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | 28OCT94 | 11DEC94 | 18MAR95 | 1MAY95 | 141 |
| 73 | 90 | 90 | 0 | DELIVER TOILET PARTITIONS & ACCESSORIES | 28OCT94 | 25JAN95 | 18APR95 | 16JUL95 | 172 |
| 84 | 90 | 90 | 0 | DELIVER MISC. BUILDING EQUIPMENT | 28OCT94 | 25JAN95 | 21APR95 | 19JUL95 | 175 |
| 52 | 75 | 75 | 0 | DELIVER DOOR CANOPIES & SIGNS | 28OCT94 | 10JAN95 | 10MAY95 | 23JUL95 | 194 |
| 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING | 28OCT94 | 26DEC94 | 21MAY95 | 19JUL95 | 205 |
| 61 | 30 | 30 | 0 | GOVT. RETEST & APPROVE PAINT SAMPLES | 2NOV94 | 1DEC94 | 18FEB95 | 19MAR95 | 108 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 67 | 2 | 2 | 0 | SAMPLE MASONRY PANEL | 13NOV94 | 14NOV94 | 23JAN95 | 24JAN95 | 71 |
| 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 1DEC94 | 30DEC94 | 8 |
| 78 | 45 | 45 | 0 | DELIVER PAINT MATERIALS | 2DEC94 | 15JAN95 | 20MAR95 | 3MAY95 | 108 |
| 83 | 180 | 180 | 0 | DELIVER HOSPITAL & MISC. EQUIPMENT | 23DEC94 | 20JUN95 | 31DEC94 | 28JAN95 | 8 |

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Figure 6-2

| ACTIVITY ID | ORIG DUR | REN DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|---|-------------|--------------|------------|-------------|-------------|
| 60 | 15 | 5 | 67 | RESUBMIT PAINT SAMPLES | 18OCT94A | 1NOV94 | | 17FEB95 | 108 |
| 92 | 10 | 10 | 0 | BASEMENT STEPS & LANDINGS | 28OCT94 | 6NOV94 | 15JAN95 | 24JAN95 | 79 |
| 93 | 20 | 12 | 40 | 30% UNDERFLOOR MECH. & ELEC. R | 20OCT94A | 8NOV94 | | 4NOV94 | -4 |
| 70 | 90 | 15 | 83 | FABRICATE & DELIVER ALUM. ENTRANCE | 14AUG94A | 11NOV94 | | 10MAR95 | 119 |
| 38 | 80 | 16 | 80 | DELIVER MASONRY MATERIALS | 26AUG94A | 12NOV94 | | 22JAN95 | 71 |
| 49 | 85 | 17 | 80. | DELIVER ROOF DECK MATERIALS | 21AUG94A | 13NOV94 | | 8JAN95 | 96 |
| 67 | 2 | 2 | 0 | SAMPLE MASONRY PANEL | 13NOV94 | 14NOV94 | 23JAN95 | 24JAN95 | 71 |
| 28 | 29 | 20 | 31 | PRE-QUALIFY WELDERS | 20AUG94A | 16NOV94 | | 29DEC94 | 43 |
| 40 | 30 | 21 | 30 | GOVERNMENT APPROVE BUILDER'S R | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| 202 | 30 | 26 | 13 | RESUB. HOSP. & MISC. EQUIP. | 24OCT94A | 22NOV94 | | 30NOV94 | 8 |
| 64 | 90 | 27 | 70 | FABRICATE & DELIVER METAL DOORS | 26AUG94A | 23NOV94 | | 24DEC94 | 31 |
| 66 | 90 | 28 | 69 | FABRICATE & DELIVER STRUCT. STEEL | 27AUG94A | 24NOV94 | | 29DEC94 | 35 |
| 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | 28OCT94 | 26NOV94 | 23FEB95 | 24MAR95 | 118 |
| 81 | 45 | 30 | 33 | DELIVER RESILIENT FLOOR MATERIALS | 13OCT94A | 26NOV94 | | 7JUN95 | 193 |
| 61 | 30 | 30 | 0 | GOVT. RETEST & APPROVE PAINT SAMPLES | 2NOV94 | 1DEC94 | 18FEB95 | 19MAR95 | 108 |
| 72 | 45 | 45 | 0 | DELIVER CERAMIC TILE MATERIAL | 28OCT94 | 11DEC94 | 26FEB95 | 11APR95 | 121 |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | 28OCT94 | 11DEC94 | 18MAR95 | 1MAY95 | 141 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 1DEC94 | 30DEC94 | 8 |
| 80 | 120 | 57 | 53 | FABRICATE & DELIVER MILLWORK | 26AUG94A | 23DEC94 | | 12JUN95 | 171 |
| 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL/ROOF | 28OCT94 | 26DEC94 | 22NOV94 | 20JAN95 | 25 |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAINS | 28OCT94 | 26DEC94 | 3MAR95 | 1MAY95 | 126 |
| 75 | 120 | 60 | 50 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 29AUG94A | 26DEC94 | | 14JUN95 | 170 |
| 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING | 28OCT94 | 26DEC94 | 21MAY95 | 19JUL95 | 205 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |

Figure 6-3

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EP 415-1-4
31 Oct 97

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-----|--|-------------|--------------|------------|-------------|-------------|
| 1 | 1 | 0 | 100 | NOTICE TO PROCEED | 1JUL94A | 1JUL94A | | | |
| 46 | 30 | 0 | 100 | GOVERNMENT APPROVE ELEC. FIXTURES & EQUIP. | 29JUL94A | 27AUG94A | | | |
| 41 | 20 | 0 | 100 | GOVERNMENT APP. ALUM. ENTRANCE | 31JUL94A | 14AUG94A | | | |
| 35 | 15 | 0 | 100 | GOVERNMENT APPROVE PAN FORMS | 4AUG94A | 19AUG94A | | | |
| 45 | 30 | 0 | 100 | GOVT. APPROVE PLUMB. FIXTURES | 7AUG94A | 4SEP94A | | | |
| 37 | 20 | 0 | 100 | GOVERNMENT APPROVE STRUCT. STE | 8AUG94A | 25AUG94A | | | |
| 36 | 15 | 0 | 100 | GOVERNMENT APPROVE METAL DOOR | 10AUG94A | 21AUG94A | | | |
| 55 | 20 | 0 | 100 | GOVERNMENT APPROVE MILLWORK | 12AUG94A | 25AUG94A | | | |
| 54 | 30 | 0 | 100 | GOVERNMENT APPROVE COLOR SAMP. VINYL WALL | 4SEP94A | 18SEP94A | | | |
| 59 | 20 | 0 | 100 | GOVERNMENT APPROVE MISC. BUILD | 4SEP94A | 28SEP94A | | | |
| 43 | 30 | 0 | 100 | GOVERNMENT APPROVE CERAMIC TIL | 9SEP94A | 30CT94A | | | |
| 44 | 20 | 0 | 100 | GOVERNMENT APPROVE TOILET PART | 10SEP94A | 10OCT94A | | | |
| 50 | 15 | 0 | 100 | GOVERNMENT APPROVE ROOF & SHEE | 11SEP94A | 28SEP94A | | | |
| 51 | 20 | 0 | 100 | GOVERNMENT APPROVE X-RAY PROTE | 14SEP94A | 8OCT94A | | | |
| 42 | 15 | 0 | 100 | GOVERNMENT APPROVE LATN & PLAS | 19SEP94A | 30CT94A | | | |
| 53 | 30 | 0 | 100 | GOVERNMENT TEST & DISAPPROVE PAINT | 19SEP94A | 18OCT94A | | | |
| 39 | 20 | 0 | 100 | GOVERNMENT APPROVE METAL WINDOWS | 20SEP94A | 4OCT94A | | | |
| 56 | 30 | 0 | 100 | GOVERNMENT APPROVE & COLOR SEL | 21SEP94A | 13OCT94A | | | |
| 200 | 1 | 0 | 100 | C.O. TO USE SOME OF HOSP. EQUIP. | 28SEP94A | 28SEP94A | | | |
| 57 | 30 | 0 | 100 | GOVERNMENT APPROVE CASEWORK | 29SEP94A | 26OCT94A | | | |
| 201 | 25 | 0 | 100 | NEG. CHANGE ORDER NO. 1 | 29SEP94A | 23OCT94A | | | |
| 40 | 30 | 21 | 30 | GOVERNMENT APPROVE BUILDER'S R | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| 203 | 240 | 237 | 1 | DELIVER GOVT. FURN. HOSP. EQUIP. | 25OCT94A | 21JUN95 | | 28JUN95 | 7 |
| 61 | 30 | 30 | 0 | GOVT. RETEST & APPROVE PAINT SAMPLES | 2NOV94 | 10DEC94 | 18FEB95 | 19MAR95 | 108 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 10DEC94 | 30DEC94 | 8 |
| 150 | 3 | 3 | 0 | GOVERNMENT TEST X-RAY PROTECTION | 29JUN95 | 1JUL95 | 31JUL95 | 2AUG95 | 32 |

6-11

Figure 6-4

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|----|---------------------------------------|-------------|--------------|------------|-------------|-------------|
| 93 | 20 | 12 | 40 | 30% UNDERFLOOR MECH. & ELEC. R | 20OCT94A | 0NOV94 | | 4NOV94 | -4 |
| 40 | 30 | 21 | 30 | GOVERNMENT APPROVE BUILDER'S W | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| 202 | 30 | 26 | 13 | RESUB. WOSP. & MISC. EQUIP. | 24OCT94A | 22NOV94 | | 30NOV94 | 0 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 64 | 90 | 27 | 70 | FABRICATE & DELIVER METAL DOORS | 26AUG94A | 23NOV94 | | 24DEC94 | 31 |

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Figure 6-5

Moygreen Construction Company

PRIMAVERA PROJECT PLANNER

DA DISPENSARY, LACKLAND AFB, TEXAS

REPORT DATE 13JAN95 RUN NO. 274
13:27

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95*

LATE START NEXT TWO MONTHS

DATA DATE 28OCT94 PAGE NO. 1

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|---|---------------------------------------|-------------|--------------|------------|-------------|-------------|
| 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 28OCT94 | 25JAN95 | 30OCT94 | 27JAN95 | 2 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL ROOF | 28OCT94 | 26DEC94 | 22NOV94 | 20JAN95 | 25 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 1DEC94 | 30DEC94 | 8 |
| 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS | 28OCT94 | 10JAN95 | 12DEC94 | 24FEB95 | 45 |
| 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |

Figure 6-6

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | SCHEDULED | | | |
|--------------|----------|---------|-----|--|------------|-----------|----------|----------|
| | | | | | BUDGET | EARNED | START | FINISH |
| 3 | 30 | 0 | 100 | SUBMIT & APPROVE MECH/ELEC R.I | | | 5JUL94A | 4AUG94A |
| 12 | 30 | 0 | 100 | SUBMIT PLUMBING FIXTURES & MEC | .00 | .00 | 9JUL94A | 7AUG94A |
| 13 | 30 | 0 | 100 | SUBMIT ELECTRIC FIXTURES & EQUIP. | .00 | .00 | 2JUL94A | 28JUL94A |
| 29 | 45 | 0 | 100 | SUBMIT & APPROVE SHP DRWG OS E | .00 | .00 | 6JUL94A | 21AUG94A |
| 34 | 15 | 0 | 100 | DELIVER MECHANICAL & ELECTRICAL RI. MAT. | .00 | .00 | 5AUG94A | 14AUG94A |
| 74 | 150 | 105 | 30 | DELIVER PLUMB. FIXTURES & MECN. EQUIP. | 65000.00 | 65000.00 | 13SEP94A | 9FEB95 |
| 75 | 120 | 60 | 50 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 215000.00 | 64500.00 | 29AUG94A | 26DEC94 |
| 93 | 20 | 12 | 40 | 30% UNDERFLOOR MECH. & ELEC. R | 115000.00 | 57500.00 | 20OCT94A | 8NOV94 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 59000.00 | 23600.00 | 9NOV94 | 28DEC94 |
| 98 | 63 | 63 | 0 | ELECTRICAL ROUGH IN | 135000.00 | .00 | 29DEC94 | 1MAR95 |
| 99 | 70 | 70 | 0 | MECHANICAL & PLUMBING ROUGH IN | 100000.00 | .00 | 29DEC94 | 8MAR95 |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 105000.00 | .00 | 15FEB95 | 11APR95 |
| 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 115000.00 | .00 | 11MAY95 | 19JUL95 |
| 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 25000.00 | .00 | 8JUN95 | 19JUL95 |
| 141 | 30 | 30 | 0 | INSTALL PLUMBING FIXTURES & EQUIPMENT | 15000.00 | .00 | 8JUN95 | 7JUL95 |
| 157 | 45 | 0 | 100 | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 12500.00 | .00 | 23AUG94A | 23SEP94A |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | .00 | .00 | 28OCT94 | 11DEC94 |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL | 35000.00 | .00 | 28OCT94 | 25JAN95 |
| 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 120000.00 | .00 | 20JUL95 | 2AUG95 |
| | | | | | 15000.00 | .00 | | |
| REPORT TOTAL | | | | | 1131500.00 | 210600.00 | | |

6-14

Figure 6-7

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|--------|--|-------------|--------------|------------|-------------|-------------|
| .. 1* | 1 | 0 | 100 PR | NOTICE TO PROCEED | 1JUL94A | 1JUL94A | | | |
| .. 28 | 29 | 20 | 31 | PRE-QUALIFY WELDERS | 20AUG94A | 16NOV94 | | 29DEC94 | 43 |
| .. 102 | 10 | 10 | 0 SU | ERECT STRUCTURAL STEEL & JOISTS | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| .. 32* | 45 | 0 | 100 PR | SUBMIT & APPROVE MASONRY MATERIAL | 12JUL94A | 26AUG94A | | | |
| .. 38 | 80 | 16 | 80 | DELIVER MASONRY MATERIALS | 26AUG94A | 12NOV94 | | 22JAN95 | 71 |
| .. 67* | 2 | 2 | 0 SU | SAMPLE MASONRY PANEL | 13NOV94 | 14NOV94 | 23JAN95 | 24JAN95 | 71 |
| .. 7* | 29 | 0 | 100 PR | SUBMIT LISTS & SAMPLES BUILDERS HARDWARE | 15AUG94A | 18OCT94A | | | |
| .. 40 | 30 | 21 | 30 | GOVERNMENT APPROVE BUILDER'S H | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| .. 69* | 120 | 120 | 0 SU | DELIVER BUILDER'S HARDWARE | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| .. 16* | 45 | 0 | 100 PR | SUBMIT & APPROVE ROOF DECK SNO | 6JUL94A | 20AUG94A | | | |
| .. 49 | 85 | 17 | 80 | DELIVER ROOF DECK MATERIALS | 21AUG94A | 13NOV94 | | 8JAN95 | 56 |
| .. 109 | 12 | 12 | 0 SU | INSTALL ROOF DECK | 13JAN95 | 24JAN95 | 9JAN95 | 20JAN95 | -4 |
| .. 19* | 39 | 0 | 100 PR | SUBMIT & APPROVE DOOR CANOPIES | 26JUL94A | 8SEP94A | | | |
| .. 52 | 75 | 75 | 0 | DELIVER DOOR CANOPIES & SIGNS | 28OCT94 | 10JAN95 | 10MAY95 | 23JUL95 | 194 |
| .. 154 | 10 | 10 | 0 SU | INSTALL DOOR CANOPIES & SIGNS | 30JAN95 | 8FEB95 | 24JUL95 | 2AUG95 | 175 |
| .. 25 | 44 | 0 | 100 PR | SUBMIT HOSPITAL & MISC. EQUIPMENT | 26JUL94A | 8SEP94A | | | |
| .. 202* | 30 | 26 | 13 PR | RESUB. HOSP. & MISC. EQUIP. | 24OCT94A | 22NOV94 | | 30NOV94 | 8 |
| .. 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 1DEC94 | 30DEC94 | 8 |
| .. 83* | 180 | 180 | 0 SU | DELIVER HOSPITAL & MISC. EQUIPMENT | 23DEC94 | 20JUN95 | 31DEC94 | 28JUN95 | 8 |
| .. 53* | 30 | 0 | 100 PR | GOVERNMENT TEST & DISAPPROVE PAINT | 19SEP94A | 18OCT94A | | | |
| .. 60 | 15 | 5 | 67 | RESUBMIT PAINT SAMPLES | 18OCT94A | 1NOV94 | | 17FEB95 | 108 |
| .. 61* | 30 | 30 | 0 SU | GOVT. RETEST & APPROVE PAINT SAMPLES | 2NOV94 | 1DEC94 | 18FEB95 | 19MAR95 | 108 |
| .. 60* | 15 | 5 | 67 PR | RESUBMIT PAINT SAMPLES | 18OCT94A | 1NOV94 | | 17FEB95 | 108 |
| .. 61 | 30 | 30 | 0 | GOVT. RETEST & APPROVE PAINT SAMPLES | 2NOV94 | 1DEC94 | 18FEB95 | 19MAR95 | 108 |
| .. 78* | 45 | 45 | 0 SU | DELIVER PAINT MATERIALS | 2DEC94 | 15JAN95 | 20MAR95 | 3MAY95 | 108 |
| .. 36* | 15 | 0 | 100 PR | GOVERNMENT APPROVE METAL DOOR | 10AUG94A | 21AUG94A | | | |
| .. 64 | 90 | 27 | 70 | FABRICATE & DELIVER METAL DOORS | 26AUG94A | 23NOV94 | | 24DEC94 | 31 |
| .. 100 | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| .. 37* | 20 | 0 | 100 PR | GOVERNMENT APPROVE STRUCT. STE | 8AUG94A | 25AUG94A | | | |
| .. 66 | 90 | 28 | 69 | FABRICATE & DELIVER STRUCT. STEEL | 27AUG94A | 24NOV94 | | 29DEC94 | 35 |
| .. 102 | 10 | 10 | 0 SU | ERECT STRUCTURAL STEEL & JOISTS | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| .. 38* | 80 | 16 | 80 PR | DELIVER MASONRY MATERIALS | 26AUG94A | 12NOV94 | | 22JAN95 | 71 |
| .. 67 | 2 | 2 | 0 | SAMPLE MASONRY PANEL | 13NOV94 | 14NOV94 | 23JAN95 | 24JAN95 | 71 |
| .. 103 | 27 | 27 | 0 SU | EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 39* | 20 | 0 | 100 PR | GOVERNMENT APPROVE METAL WINDOWS | 20SEP94A | 4OCT94A | | | |
| .. 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 28OCT94 | 25JAN95 | 30OCT94 | 27JAN95 | 2 |
| .. 111* | 14 | 14 | 0 SU | INSTALL METAL WINDOWS | 26JAN95 | 8FEB95 | 28JAN95 | 10FEB95 | 2 |

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Figure 6-8

31 Oct 97

413-1-4
1 Oct 97

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|---------------------|----------|---------|--------|--|-------------|--------------|------------|-------------|-------------|
| .. 40 ^a | 30 | 21 | 30 PR | GOVERNMENT APPROVE BUILDER'S N | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| .. 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| .. 108 ^a | 14 | 14 | 0 SU | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 18MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| .. 41 ^a | 20 | 0 | 100 PR | GOVERNMENT APP. ALUM. ENTRANCE | 31JUL94A | 14AUG94A | | | |
| .. 70 | 90 | 15 | 83 | FABRICATE & DELIVER ALUM. ENTRANCE | 14AUG94A | 11NOV94 | | 10MAR95 | 119 |
| .. 108 | 14 | 14 | 0 SU | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 18MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| .. 42 ^a | 15 | 0 | 100 PR | GOVERNMENT APPROVE LATH & PLAS | 19SEP94A | 3OCT94A | | | |
| .. 71 | 30 | 30 | 0 | DELIVER LATH & PLASTER MATERIALS | 28OCT94 | 26NOV94 | 23FEB95 | 24MAR95 | 118 |
| .. 116 | 14 | 14 | 0 SU | STUCCO | 1APR95 | 14APR95 | 23MAR95 | 7APR95 | -7 |
| .. 43 ^a | 30 | 0 | 100 PR | GOVERNMENT APPROVE CERAMIC TIL | 9SEP94A | 3OCT94A | | | |
| .. 72 | 45 | 45 | 0 | DELIVER CERAMIC TILE MATERIAL | 28OCT94 | 11DEC94 | 26FEB95 | 11APR95 | 121 |
| .. 122 | 22 | 22 | 0 SU | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| .. 44 ^a | 20 | 0 | 100 PR | GOVERNMENT APPROVE TOILET PART | 10SEP94A | 10OCT94A | | | |
| .. 73 | 90 | 90 | 0 | DELIVER TOILET PARTITIONS & ACCESSORIES | 28OCT94 | 25JAN95 | 18APR95 | 16JUL95 | 172 |
| .. 128 | 17 | 17 | 0 SU | TOILET PARTITIONS & ACCESSORIES | 7MAY95 | 23MAY95 | 17JUL95 | 2AUG95 | 71 |
| .. 45 ^a | 30 | 0 | 100 PR | GOVT. APPROVE PLUMB. FIXTURES | 7AUG94A | 4SEP94A | | | |
| .. 74 | 150 | 105 | 30 | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 13SEP94A | 9FEB95 | | 17MAY95 | 97 |
| .. 133 | 70 | 70 | 0 SU | INSTALL MECHANICAL EQUIPMENT | 11MAY95 | 19JUL95 | 18MAY95 | 26JUL95 | 7 |
| .. 141 | 30 | 30 | 0 SU | INSTALL PLUMBING FIXTURES & EQUIPMENT | 8JUN95 | 7JUL95 | 27JUN95 | 26JUL95 | 19 |
| .. 46 ^a | 30 | 0 | 100 PR | GOVERNMENT APPROVE ELEC. FIXTURES & EQUIP. | 29JUL94A | 27AUG94A | | | |
| .. 75 | 120 | 60 | 50 | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 29AUG94A | 26DEC94 | | 14JUN95 | 170 |
| .. 140 | 42 | 42 | 0 SU | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 8JUN95 | 19JUL95 | 15JUN95 | 26JUL95 | 7 |
| .. 50 ^a | 15 | 0 | 100 PR | GOVERNMENT APPROVE ROOF & SHEE | 11SEP94A | 28SEP94A | | | |
| .. 76 | 60 | 60 | 0 | FABRICATE & DELIVER SHEETMETAL ROOF | 28OCT94 | 26DEC94 | 22NOV94 | 20JAN95 | 25 |
| .. 110 | 21 | 21 | 0 SU | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| .. 51 ^a | 20 | 0 | 100 PR | GOVERNMENT APPROVE X-RAY PROTE | 14SEP94A | 8OCT94A | | | |
| .. 77 | 75 | 75 | 0 | DELIVER PROTECTION MATERIALS | 28OCT94 | 10JAN95 | 12DEC94 | 24FEB95 | 45 |
| .. 114 | 42 | 42 | 0 SU | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| .. 61 ^a | 30 | 30 | 0 PR | GOVT. RETEST & APPROVE PAINT SAMPLES | 2NOV94 | 1DEC94 | 18FEB95 | 19MAR95 | 108 |
| .. 78 | 45 | 45 | 0 | DELIVER PAINT MATERIALS | 2DEC94 | 15JAN95 | 20MAR95 | 3MAY95 | 108 |
| .. 130 | 28 | 28 | 0 SU | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 54 ^a | 30 | 0 | 100 PR | GOVERNMENT APPROVE COLOR SAMP. VINYL WALL | 4SEP94A | 18SEP94A | | | |
| .. 79 | 60 | 60 | 0 | DELIVER VINYL WALL COVERING | 28OCT94 | 26DEC94 | 21MAY95 | 19JUL95 | 205 |
| .. 142 | 14 | 14 | 0 SU | VINYL WALL COVER | 8JUN95 | 21JUN95 | 20JUL95 | 2AUG95 | 42 |
| .. 55 ^a | 20 | 0 | 100 PR | GOVERNMENT APPROVE MILLWORK | 12AUG94A | 25AUG94A | | | |
| .. 80 | 120 | 57 | 53 | FABRICATE & DELIVER MILLWORK | 26AUG94A | 23DEC94 | | 12JUN95 | 171 |
| .. 143 | 16 | 16 | 0 SU | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |

Figure 6-8 Cont.

6-16

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|--------|--|-------------|--------------|------------|-------------|-------------|
| .. 56* | 30 | 0 | 100 PR | GOVERNMENT APPROVE & COLOR SEL | 21SEP94A | 13OCT94A | | | |
| .. 81 | 45 | 30 | 33 | DELIVER RESILIENT FLOOR MATERIALS | 13OCT94A | 26NOV94 | | 7JUN95 | 193 |
| .. 144 | 21 | 21 | 0 SU | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| .. 57* | 30 | 0 | 100 PR | GOVERNMENT APPROVE CASEWORK | 29SEP94A | 26OCT94A | | | |
| .. 82 | 150 | 150 | 0 | DELIVER CASEWORK | 28OCT94 | 26MAR95 | 10FEB95 | 9JUL95 | 105 |
| .. 151 | 24 | 24 | 0 SU | INSTALL CASEWORK | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |
| .. 58* | 30 | 30 | 0 PR | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 10DEC94 | 30DEC94 | 8 |
| .. 83 | 180 | 180 | 0 | DELIVER HOSPITAL & MISC. EQUIPMENT | 23DEC94 | 20JUN95 | 31DEC94 | 28JUN95 | 8 |
| .. 152 | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| .. 59* | 20 | 0 | 100 PR | GOVERNMENT APPROVE MISC. BUILD | 4SEP94A | 28SEP94A | | | |
| .. 84 | 90 | 90 | 0 | DELIVER MISC. BUILDING EQUIPMENT | 28OCT94 | 25JAN95 | 21APR95 | 19JUL95 | 175 |
| .. 153 | 14 | 14 | 0 SU | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 29JUN95 | 12JUL95 | 20JUL95 | 2AUG95 | 21 |
| .. 47* | 45 | 0 | 100 PR | FABRICATE & DELIVER MISC. METALS | 8SEP94A | 23OCT94A | | | |
| .. 86* | 30 | 0 | 100 PR | GRADEBEAMS | 29SEP94A | 8OCT94A | | | |
| .. 89* | 5 | 0 | 100 PR | DAMPROOFING | 3OCT94A | 6OCT94A | | | |
| .. 92 | 10 | 10 | 0 | BASEMENT STEPS & LANDINGS | 28OCT94 | 6NOV94 | 15JAN95 | 24JAN95 | 79 |
| .. 103 | 27 | 27 | 0 SU | EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 91* | 10 | 0 | 100 PR | BACKFILL & GRADE UNDER BUILDING | 9OCT94A | 20OCT94A | | | |
| .. 93 | 20 | 12 | 40 | 30% UNDERFLOOR MECH. & ELEC. R | 20OCT94A | 8NOV94 | | 4NOV94 | -4 |
| .. 94* | 50 | 50 | 0 SU | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| .. 95* | 50 | 50 | 0 SU | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| .. 63 | 45 | 0 | 100 PR | DELIVER PAN FORMS | 21AUG94A | 10OCT94A | | | |
| .. 93* | 20 | 12 | 40 PR | 30% UNDERFLOOR MECH. & ELEC. R | 20OCT94A | 8NOV94 | | 4NOV94 | -4 |
| .. 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| .. 97* | 18 | 18 | 0 SU | CONCRETE TOPPING FILL | 29DEC94 | 15JAN95 | 7FEB95 | 24FEB95 | 40 |
| .. 98* | 63 | 63 | 0 SU | ELECTRICAL ROUGH IN | 29DEC94 | 1MAR95 | 4FEB95 | 7APR95 | 37 |
| .. 99* | 70 | 70 | 0 SU | MECHANICAL & PLUMBING ROUGH IN | 29DEC94 | 8MAR95 | 28JAN95 | 7APR95 | 30 |
| .. 100* | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| .. 63 | 45 | 0 | 100 PR | DELIVER PAN FORMS | 21AUG94A | 10OCT94A | | | |
| .. 93* | 20 | 12 | 40 PR | 30% UNDERFLOOR MECH. & ELEC. R | 20OCT94A | 8NOV94 | | 4NOV94 | -4 |
| .. 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| .. 100* | 5 | 5 | 0 SU | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| .. 94* | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| .. 97 | 18 | 18 | 0 | CONCRETE TOPPING FILL | 29DEC94 | 15JAN95 | 7FEB95 | 24FEB95 | 40 |
| .. 114 | 42 | 42 | 0 SU | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| .. 94* | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| .. 98 | 63 | 63 | 0 | ELECTRICAL ROUGH IN | 29DEC94 | 1MAR95 | 4FEB95 | 7APR95 | 37 |
| .. 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |

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Figure 6-8 Cont.

| ACTIVITY ID | ORIG DUR | REN DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|---------------------|----------|---------|---------|---|-------------|--------------|------------|-------------|-------------|
| .. 94 ^a | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 9NOV94 | 24DEC94 | -4 |
| .. 99 | 70 | 70 | 0 | MECHANICAL & PLUMBING ROUGH IN | 29DEC94 | 8MAR95 | 28JAN95 | 7APR95 | 30 |
| .. 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| .. 64 | 90 | 27 | 70 PR | FABRICATE & DELIVER METAL DOORS | 26AUG94A | 23NOV94 | | 24DEC94 | 31 |
| .. 65 | 45 | 0 | 100 PR | FABRICATE & DELIVER STEEL COLUMNS | 29AUG94A | 14OCT94A | | | |
| .. 94 ^a | 50 | 50 | 0 PR | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 9NOV94 | 24DEC94 | -4 |
| .. 95 ^a | 50 | 50 | 0 PR | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 9NOV94 | 24DEC94 | -4 |
| .. 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| .. 102 ^a | 10 | 10 | 0 SU | ERECT STRUCTURAL STEEL & JOISTS | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| .. 103 ^a | 27 | 27 | 0 SU | EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 28 | 29 | 20 | 31 PR | PRE-QUALIFY WELDERS | 20AUG94A | 16NOV94 | | 29DEC94 | 43 |
| .. 66 | 90 | 28 | 69 PR | FABRICATE & DELIVER STRUCT. STEEL | 27AUG94A | 24NOV94 | | 29DEC94 | 35 |
| .. 100 ^a | 5 | 5 | 0 PR | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| .. 102 | 10 | 10 | 0 | ERECT STRUCTURAL STEEL & JOISTS | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| .. 109 ^a | 12 | 12 | 0 SU | INSTALL ROOF DECK | 13JAN95 | 24JAN95 | 9JAN95 | 20JAN95 | -4 |
| .. 67 | 2 | 2 | 0 PR | SAMPLE MASONRY PANEL | 13NOV94 | 14NOV94 | 23JAN95 | 24JAN95 | 71 |
| .. 92 | 10 | 10 | 0 PR | BASEMENT STEPS & LANDINGS | 28OCT94 | 6NOV94 | 15JAN95 | 24JAN95 | 79 |
| .. 100 ^a | 5 | 5 | 0 PR | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| .. 103 | 27 | 27 | 0 | EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 108 | 14 | 14 | 0 SU | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 18MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| .. 111 | 14 | 14 | 0 SU SS | 3 INSTALL METAL WINDOWS | 26JAN95 | 8FEB95 | 28JAN95 | 10FEB95 | 2 |
| .. 154 ^a | 10 | 10 | 0 SU | INSTALL DOOR CANOPIES & SIGNS | 30JAN95 | 8FEB95 | 24JUL95 | 2AUG95 | 175 |
| .. 172 | 16 | 16 | 0 SU | TOPSOIL & FINE GRADING | 20APR95 | 5MAY95 | 25JUL95 | 9AUG95 | 96 |
| .. 69 ^a | 120 | 120 | 0 PR | DELIVER BUILDER'S HARDWARE | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| .. 70 | 90 | 15 | 83 PR | FABRICATE & DELIVER ALUM. ENTRANCE | 14AUG94A | 11NOV94 | | 10MAR95 | 119 |
| .. 103 | 27 | 27 | 0 PR | EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 108 | 14 | 14 | 0 | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 18MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| .. 116 ^a | 14 | 14 | 0 SU | STUCCO | 1APR95 | 14APR95 | 23MAR95 | 7APR95 | -7 |
| .. 49 | 85 | 17 | 80 PR | DELIVER ROOF DECK MATERIALS | 21AUG94A | 13NOV94 | | 8JAN95 | 96 |
| .. 102 ^a | 10 | 10 | 0 PR | ERECT STRUCTURAL STEEL & JOISTS | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| .. 109 | 12 | 12 | 0 | INSTALL ROOF DECK | 13JAN95 | 24JAN95 | 9JAN95 | 20JAN95 | -4 |
| .. 110 ^a | 21 | 21 | 0 SU | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| .. 76 | 60 | 60 | 0 PR | FABRICATE & DELIVER SHEETMETAL ROOF | 28OCT94 | 26DEC94 | 22NOV94 | 20JAN95 | 25 |
| .. 109 ^a | 12 | 12 | 0 PR | INSTALL ROOF DECK | 13JAN95 | 24JAN95 | 9JAN95 | 20JAN95 | -4 |
| .. 110 | 21 | 21 | 0 | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| .. 113 ^a | 56 | 56 | 0 SU | AIRCONDITIONING DUCTWORK | 15FEB95 | 11APR95 | 11FEB95 | 7APR95 | -4 |
| .. 114 ^a | 42 | 42 | 0 SU | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| .. 116 | 14 | 14 | 0 SU | STUCCO | 1APR95 | 14APR95 | 23MAR95 | 7APR95 | -7 |
| .. 68 ^a | 90 | 90 | 0 PR | FABRICATE & DELIVER METAL WINDOWS | 28OCT94 | 25JAN95 | 30OCT94 | 27JAN95 | 2 |
| .. 103 | 27 | 27 | 0 PR SS | 3 EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 111 | 14 | 14 | 0 | INSTALL METAL WINDOWS | 26JAN95 | 8FEB95 | 28JAN95 | 10FEB95 | 2 |

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Figure 6-8 Cont.

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|------|---|-------------|--------------|------------|-------------|-------------|
| 113 | 56 | 56 | 0 SU | AIRCONDITIONING DUCTWORK | 15FEB95 | 11APR95 | 11FEB95 | 7APR95 | -4 |
| 110* | 21 | 21 | 0 PR | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| 111 | 14 | 14 | 0 PR | INSTALL METAL WINDOWS | 26JAN95 | 8FEB95 | 28JAN95 | 10FEB95 | 2 |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 15FEB95 | 11APR95 | 11FEB95 | 7APR95 | -4 |
| 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 77 | 75 | 75 | 0 PR | DELIVER PROTECTION MATERIALS | 28OCT94 | 10JAN95 | 12DEC94 | 24FEB95 | 45 |
| 97 | 18 | 18 | 0 PR | CONCRETE TOPPING FILL | 29DEC94 | 15JAN95 | 7FEB95 | 24FEB95 | 40 |
| 110* | 21 | 21 | 0 PR | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| 114 | 42 | 42 | 0 | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| 120 | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 121 | 14 | 14 | 0 SU | PLASTER WALLS | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| 122 | 22 | 22 | 0 SU | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| 71 | 30 | 30 | 0 PR | DELIVER LATH & PLASTER MATERIALS | 28OCT94 | 26NOV94 | 23FEB95 | 24MAR95 | 118 |
| 108* | 14 | 14 | 0 PR | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 18MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| 110 | 21 | 21 | 0 PR | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| 116 | 14 | 14 | 0 | STUCCO | 1APR95 | 14APR95 | 25MAR95 | 7APR95 | -7 |
| 120* | 14 | 14 | 0 SU | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 121* | 14 | 14 | 0 SU | PLASTER WALLS | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| 122* | 22 | 22 | 0 SU | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| 98 | 63 | 63 | 0 PR | ELECTRICAL ROUGH IN | 29DEC94 | 1MAR95 | 4FEB95 | 7APR95 | 37 |
| 99 | 70 | 70 | 0 PR | MECHANICAL & PLUMBING ROUGH IN | 29DEC94 | 8MAR95 | 28JAN95 | 7APR95 | 30 |
| 113 | 56 | 56 | 0 PR | AIRCONDITIONING DUCTWORK | 15FEB95 | 11APR95 | 11FEB95 | 7APR95 | -4 |
| 114 | 42 | 42 | 0 PR | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| 116* | 14 | 14 | 0 PR | STUCCO | 1APR95 | 14APR95 | 25MAR95 | 7APR95 | -7 |
| 120 | 14 | 14 | 0 | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 124* | 35 | 35 | 0 SU | ACOUSTIC & OTHER CEILINGS | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| 125* | 12 | 12 | 0 SU | PLASTER CEILINGS | 29APR95 | 10MAY95 | 22APR95 | 3MAY95 | -7 |
| 114 | 42 | 42 | 0 PR | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| 116* | 14 | 14 | 0 PR | STUCCO | 1APR95 | 14APR95 | 25MAR95 | 7APR95 | -7 |
| 121 | 14 | 14 | 0 | PLASTER WALLS | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| 128 | 17 | 17 | 0 SU | TOILET PARTITIONS & ACCESSORIES | 7MAY95 | 23MAY95 | 17JUL95 | 2AUG95 | 71 |
| 130 | 28 | 28 | 0 SU | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| 72 | 45 | 45 | 0 PR | DELIVER CERAMIC TILE MATERIAL | 28OCT94 | 11DEC94 | 26FEB95 | 11APR95 | 121 |
| 114 | 42 | 42 | 0 PR | INTERIOR PARTITIONS | 15FEB95 | 28MAR95 | 25FEB95 | 7APR95 | 10 |
| 116* | 14 | 14 | 0 PR | STUCCO | 1APR95 | 14APR95 | 25MAR95 | 7APR95 | -7 |
| 122 | 22 | 22 | 0 | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| 128* | 17 | 17 | 0 SU | TOILET PARTITIONS & ACCESSORIES | 7MAY95 | 23MAY95 | 17JUL95 | 2AUG95 | 71 |
| 130 | 28 | 28 | 0 SU | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| 120* | 14 | 14 | 0 PR | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 124 | 35 | 35 | 0 | ACOUSTIC & OTHER CEILINGS | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| 139 | 45 | 45 | 0 SU | 30X COMPLETE PAINT & FINISH | 8JUN95 | 22JUL95 | 1JUN95 | 15JUL95 | -7 |

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Figure 6-8 Cont.

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| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|---------------------|----------|---------|-------|---|-------------|--------------|------------|-------------|-------------|
| .. 141 | 30 | 30 | 0 SU | INSTALL PLUMBING FIXTURES & EQUIPMENT | 8JUN95 | 7JUL95 | 27JUN95 | 26JUL95 | 19 |
| .. 142 | 14 | 14 | 0 SU | VINYL WALL COVER | 8JUN95 | 21JUN95 | 20JUL95 | 2AUG95 | 42 |
| .. 120 ^a | 14 | 14 | 0 PR | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| .. 125 | 12 | 12 | 0 | PLASTER CEILINGS | 29APR95 | 10MAY95 | 22APR95 | 3MAY95 | -7 |
| .. 130 ^a | 28 | 28 | 0 SU | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 133 ^a | 70 | 70 | 0 SU | INSTALL MECHANICAL EQUIPMENT | 11MAY95 | 19JUL95 | 18MAY95 | 26JUL95 | 7 |
| .. 73 | 90 | 90 | 0 PR | DELIVER TOILET PARTITIONS & ACCESSORIES | 28OCT94 | 25JAN95 | 18APR95 | 16JUL95 | 172 |
| .. 121 | 14 | 14 | 0 PR | PLASTER WALLS | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| .. 122 ^a | 22 | 22 | 0 PR | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| .. 128 | 17 | 17 | 0 | TOILET PARTITIONS & ACCESSORIES | 7MAY95 | 23MAY95 | 17JUL95 | 2AUG95 | 71 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| .. 78 | 45 | 45 | 0 PR | DELIVER PAINT MATERIALS | 2DEC94 | 15JAN95 | 20MAR95 | 3MAY95 | 108 |
| .. 121 | 14 | 14 | 0 PR | PLASTER WALLS | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| .. 122 | 22 | 22 | 0 PR | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| .. 125 ^a | 12 | 12 | 0 PR | PLASTER CEILINGS | 29APR95 | 10MAY95 | 22APR95 | 3MAY95 | -7 |
| .. 130 | 28 | 28 | 0 | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 139 ^a | 45 | 45 | 0 SU | 50X COMPLETE PAINT & FINISH | 8JUN95 | 22JUL95 | 1JUN95 | 15JUL95 | -7 |
| .. 140 ^a | 42 | 42 | 0 SU | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 8JUN95 | 19JUL95 | 15JUN95 | 26JUL95 | 7 |
| .. 141 ^a | 30 | 30 | 0 SU | INSTALL PLUMBING FIXTURES & EQUIPMENT | 8JUN95 | 7JUL95 | 27JUN95 | 26JUL95 | 19 |
| .. 142 ^a | 14 | 14 | 0 SU | VINYL WALL COVER | 8JUN95 | 21JUN95 | 20JUL95 | 2AUG95 | 42 |
| .. 143 ^a | 16 | 16 | 0 SU | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 144 ^a | 21 | 21 | 0 SU | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| .. 74 | 150 | 105 | 30 PR | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 13SEP94A | 9FEB95 | | 17MAY95 | 97 |
| .. 125 ^a | 12 | 12 | 0 PR | PLASTER CEILINGS | 29APR95 | 10MAY95 | 22APR95 | 3MAY95 | -7 |
| .. 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 11MAY95 | 19JUL95 | 18MAY95 | 26JUL95 | 7 |
| .. 173 ^a | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| .. 124 | 35 | 35 | 0 PR | ACOUSTIC & OTHER CEILINGS | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| .. 130 ^a | 28 | 28 | 0 PR | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 139 | 45 | 45 | 0 | 50X COMPLETE PAINT & FINISH | 8JUN95 | 22JUL95 | 1JUN95 | 15JUL95 | -7 |
| .. 155 ^a | 18 | 18 | 0 SU | 20X PAINT & FINISH | 23JUL95 | 9AUG95 | 16JUL95 | 2AUG95 | -7 |
| .. 75 | 120 | 60 | 50 PR | DELIVER ELECTRICAL FIXTURES & EQUIPMENT | 29AUG94A | 26DEC94 | | 14JUN95 | 170 |
| .. 130 ^a | 28 | 28 | 0 PR | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 8JUN95 | 19JUL95 | 15JUN95 | 26JUL95 | 7 |
| .. 173 ^a | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| .. 74 | 150 | 105 | 30 PR | DELIVER PLUMB. FIXTURES & MECH. EQUIP. | 13SEP94A | 9FEB95 | | 17MAY95 | 97 |
| .. 124 | 35 | 35 | 0 PR | ACOUSTIC & OTHER CEILINGS | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| .. 130 ^a | 28 | 28 | 0 PR | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 141 | 30 | 30 | 0 | INSTALL PLUMBING FIXTURES & EQUIPMENT | 8JUN95 | 7JUL95 | 27JUN95 | 26JUL95 | 19 |
| .. 173 | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |

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Figure 6-8 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|-------|--|-------------|--------------|------------|-------------|-------------|
| .. 79 | 60 | 60 | 0 PR | DELIVER VINYL WALL COVERING | 28OCT94 | 26DEC94 | 21MAY95 | 19JUL95 | 205 |
| .. 124 | 35 | 35 | 0 PR | ACOUSTIC & OTHER CEILINGS | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 142 | 14 | 14 | 0 | VINYL WALL COVER | 8JUN95 | 21JUN95 | 20JUL95 | 2AUG95 | 42 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| .. 80 | 120 | 57 | 53 PR | FABRICATE & DELIVER MILLWORK | 26AUG94A | 23DEC94 | | 12JUN95 | 171 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 143 | 16 | 16 | 0 | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 146* | 16 | 16 | 0 SU | COMPLETE MILLWORK | 24JUN95 | 9JUL95 | 30JUN95 | 15JUL95 | 6 |
| .. 150 | 3 | 3 | 0 SU | GOVERNMENT TEST X-RAY PROTECTION | 29JUN95 | 1JUL95 | 31JUL95 | 2AUG95 | 32 |
| .. 151 | 24 | 24 | 0 SU | INSTALL CASEWORK | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |
| .. 152 | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| .. 153 | 14 | 14 | 0 SU | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 29JUN95 | 12JUL95 | 20JUL95 | 2AUG95 | 21 |
| .. 81 | 45 | 30 | 33 PR | DELIVER RESILIENT FLOOR MATERIALS | 13OCT94A | 26NOV94 | | 7JUN95 | 193 |
| .. 130* | 28 | 28 | 0 PR | 30X PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| .. 144 | 21 | 21 | 0 | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| .. 150* | 3 | 3 | 0 SU | GOVERNMENT TEST X-RAY PROTECTION | 29JUN95 | 1JUL95 | 31JUL95 | 2AUG95 | 32 |
| .. 151* | 24 | 24 | 0 SU | INSTALL CASEWORK | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |
| .. 152* | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| .. 153* | 14 | 14 | 0 SU | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 29JUN95 | 12JUL95 | 20JUL95 | 2AUG95 | 21 |
| .. 143* | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 146 | 16 | 16 | 0 | COMPLETE MILLWORK | 24JUN95 | 9JUL95 | 30JUN95 | 15JUL95 | 6 |
| .. 155 | 18 | 18 | 0 SU | 20X PAINT & FINISH | 23JUL95 | 9AUG95 | 16JUL95 | 2AUG95 | -7 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| .. 150 | 3 | 3 | 0 | GOVERNMENT TEST X-RAY PROTECTION | 29JUN95 | 1JUL95 | 31JUL95 | 2AUG95 | 32 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| .. 82 | 150 | 150 | 0 PR | DELIVER CASEWORK | 28OCT94 | 26MAR95 | 10FEB95 | 9JUL95 | 105 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| .. 151 | 24 | 24 | 0 | INSTALL CASEWORK | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| .. 83 | 180 | 180 | 0 PR | DELIVER HOSPITAL & MISC. EQUIPMENT | 23DEC94 | 20JUN95 | 31DEC94 | 28JUN95 | 8 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| .. 203 | 240 | 237 | 1 PR | DELIVER GOVT. FURN. HOSP. EQUIP. | 25OCT94A | 21MAY95 | | 28JUN95 | 7 |
| .. 152 | 35 | 35 | 0 | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| .. 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| .. 84 | 90 | 90 | 0 PR | DELIVER MISC. BUILDING EQUIPMENT | 28OCT94 | 25JAN95 | 21APR95 | 19JUL95 | 175 |
| .. 143 | 16 | 16 | 0 PR | INSTALL 50X MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| .. 144* | 21 | 21 | 0 PR | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |

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Figure 6-8 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|--------|--|-------------|--------------|------------|-------------|-------------|
| 153 | 14 | 14 | 0 | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 29JUN95 | 12JUL95 | 20JUL95 | 2AUG95 | 21 |
| 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| 52 | 75 | 75 | 0 PR | DELIVER DOOR CANOPIES & SIGNS | 28OCT94 | 10JAN95 | 10MAY95 | 23JUL95 | 194 |
| 103* | 27 | 27 | 0 PR | EXTERIOR MASONRY WALLS | 3JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| 154 | 10 | 10 | 0 | INSTALL DOOR CANOPIES & SIGNS | 30JAN95 | 8FEB95 | 24JUL95 | 2AUG95 | 173 |
| 156 | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| 139* | 45 | 45 | 0 PR | 50% COMPLETE PAINT & FINISH | 8JUN95 | 22JUL95 | 1JUN95 | 15JUL95 | -7 |
| 146 | 16 | 16 | 0 PR | COMPLETE MILLWORK | 24JUN95 | 9JUL95 | 30JUN95 | 15JUL95 | 6 |
| 155 | 18 | 18 | 0 | 20% PAINT & FINISH | 23JUL95 | 9AUG95 | 16JUL95 | 2AUG95 | -7 |
| 156* | 7 | 7 | 0 SU | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| 128 | 17 | 17 | 0 PR | TOILET PARTITIONS & ACCESSORIES | 7MAY95 | 23MAY95 | 17JUL95 | 2AUG95 | 71 |
| 142 | 14 | 14 | 0 PR | VINYL WALL COVER | 8JUN95 | 21JUN95 | 20JUL95 | 2AUG95 | 42 |
| 150 | 3 | 3 | 0 PR | GOVERNMENT TEST X-RAY PROTECTION | 29JUN95 | 1JUL95 | 31JUL95 | 2AUG95 | 32 |
| 151 | 24 | 24 | 0 PR | INSTALL CASEWORK | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |
| 152 | 35 | 35 | 0 PR | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| 153 | 14 | 14 | 0 PR | INSTALL MISCELLANEOUS BUILDING EQUIPMENT | 29JUN95 | 12JUL95 | 20JUL95 | 2AUG95 | 21 |
| 154 | 10 | 10 | 0 PR | INSTALL DOOR CANOPIES & SIGNS | 30JAN95 | 8FEB95 | 24JUL95 | 2AUG95 | 173 |
| 155* | 18 | 18 | 0 PR | 20% PAINT & FINISH | 23JUL95 | 9AUG95 | 16JUL95 | 2AUG95 | -7 |
| 156 | 7 | 7 | 0 | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| 174* | 5 | 5 | 0 SU | SELL JOB | 17AUG95 | 21AUG95 | 10AUG95 | 14AUG95 | -7 |
| 27* | 15 | 0 | 100 PR | CONCRETE DESIGN MIX | 6JUL94A | 21JUL94A | | | |
| 31* | 32 | 0 | 100 PR | DEMOLITION & SITE GRADING | 18JUL94A | 19AUG94A | | | |
| 48* | 15 | 0 | 100 PR | DELIVER REINFORCING STEEL | 27JUL94A | 14AUG94A | | | |
| 160 | 60 | 60 | 0 | DELIVER & INSTALL STORM DRAIN | 28OCT94 | 26DEC94 | 3MAR95 | 1MAY95 | 126 |
| 167 | 42 | 42 | 0 SU | SUBGRADE & BASE FOR PAVING | 26JAN95 | 8MAR95 | 2MAY95 | 12JUN95 | 96 |
| 31* | 32 | 0 | 100 PR | DEMOLITION & SITE GRADING | 18JUL94A | 19AUG94A | | | |
| 157* | 45 | 0 | 100 PR | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 23AUG94A | 23SEP94A | | | |
| 161 | 45 | 45 | 0 | OUTSIDE PLUMBING | 28OCT94 | 11DEC94 | 10MAR95 | 1MAY95 | 141 |
| 167 | 42 | 42 | 0 SU | SUBGRADE & BASE FOR PAVING | 26JAN95 | 8MAR95 | 2MAY95 | 12JUN95 | 96 |
| 173 | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| 31* | 32 | 0 | 100 PR | DEMOLITION & SITE GRADING | 18JUL94A | 19AUG94A | | | |
| 157* | 45 | 0 | 100 PR | DELIVER OUTSIDE ELEC. & PLUMBING MAT. | 23AUG94A | 23SEP94A | | | |
| 162 | 90 | 90 | 0 | OUTSIDE ELECTRICAL | 28OCT94 | 25JAN95 | 1FEB95 | 1MAY95 | 96 |
| 167* | 42 | 42 | 0 SU | SUBGRADE & BASE FOR PAVING | 26JAN95 | 8MAR95 | 2MAY95 | 12JUN95 | 96 |
| 173 | 14 | 14 | 0 SU | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| 160 | 60 | 60 | 0 PR | DELIVER & INSTALL STORM DRAIN | 28OCT94 | 26DEC94 | 3MAR95 | 1MAY95 | 126 |
| 161 | 45 | 45 | 0 PR | OUTSIDE PLUMBING | 28OCT94 | 11DEC94 | 10MAR95 | 1MAY95 | 141 |
| 162* | 90 | 90 | 0 PR | OUTSIDE ELECTRICAL | 28OCT94 | 25JAN95 | 1FEB95 | 1MAY95 | 96 |
| 167 | 42 | 42 | 0 | SUBGRADE & BASE FOR PAVING | 26JAN95 | 8MAR95 | 2MAY95 | 12JUN95 | 96 |
| 168* | 21 | 21 | 0 SU | CURB & GUTTER | 9MAR95 | 29MAR95 | 13JUN95 | 3JUL95 | 96 |

Figure 6-8 Cont.

REPORT DATE 13JAN95 RUN NO. 279
13:35

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95

SCHEDULE REPORT - DETAILED PRECEDENCE ANALYSIS

DATA DATE 28OCT94 PAGE NO. 9

| ACTIVITY ID | ORIG DUR | REN DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|--------|--|-------------|--------------|------------|-------------|-------------|
| .. 167* | 42 | 42 | 0 PR | SUBGRADE & BASE FOR PAVING | 26JAN95 | 09MAR95 | 2MAY95 | 12JUN95 | 96 |
| .. 168 | 21 | 21 | 0 | CURB & GUTTER | 09MAR95 | 29MAR95 | 13JUN95 | 3JUL95 | 96 |
| .. 169* | 21 | 21 | 0 SU | SIDEWALKS | 30MAR95 | 19APR95 | 4JUL95 | 24JUL95 | 96 |
| .. 170* | 10 | 10 | 0 SU | ASPHALT PAVING | 30MAR95 | 08APR95 | 15JUL95 | 24JUL95 | 107 |
| .. 168* | 21 | 21 | 0 PR | CURB & GUTTER | 09MAR95 | 29MAR95 | 13JUN95 | 3JUL95 | 96 |
| .. 169 | 21 | 21 | 0 | SIDEWALKS | 30MAR95 | 19APR95 | 4JUL95 | 24JUL95 | 96 |
| .. 172* | 16 | 16 | 0 SU | TOPSOIL & FINE GRADING | 20APR95 | 09MAY95 | 25JUL95 | 09AUG95 | 96 |
| .. 168* | 21 | 21 | 0 PR | CURB & GUTTER | 09MAR95 | 29MAR95 | 13JUN95 | 3JUL95 | 96 |
| .. 170 | 10 | 10 | 0 | ASPHALT PAVING | 30MAR95 | 08APR95 | 15JUL95 | 24JUL95 | 107 |
| .. 172 | 16 | 16 | 0 SU | TOPSOIL & FINE GRADING | 20APR95 | 09MAY95 | 25JUL95 | 09AUG95 | 96 |
| .. 103 | 27 | 27 | 0 PR | EXTERIOR MASONRY WALLS | 03JAN95 | 29JAN95 | 25JAN95 | 20FEB95 | 22 |
| .. 169* | 21 | 21 | 0 PR | SIDEWALKS | 30MAR95 | 19APR95 | 4JUL95 | 24JUL95 | 96 |
| .. 170 | 10 | 10 | 0 PR | ASPHALT PAVING | 30MAR95 | 08APR95 | 15JUL95 | 24JUL95 | 107 |
| .. 172 | 16 | 16 | 0 | TOPSOIL & FINE GRADING | 20APR95 | 09MAY95 | 25JUL95 | 09AUG95 | 96 |
| .. 174 | 5 | 5 | 0 SU | SELL JOB | 17AUG95 | 21AUG95 | 10AUG95 | 14AUG95 | -7 |
| .. 133* | 70 | 70 | 0 PR | INSTALL MECHANICAL EQUIPMENT | 11MAY95 | 19JUL95 | 18MAY95 | 26JUL95 | 7 |
| .. 140* | 42 | 42 | 0 PR | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 08JUN95 | 19JUL95 | 15JUN95 | 26JUL95 | 7 |
| .. 141 | 30 | 30 | 0 PR | INSTALL PLUMBING FIXTURES & EQUIPMENT | 08JUN95 | 07JUL95 | 27JUN95 | 26JUL95 | 19 |
| .. 161 | 45 | 45 | 0 PR | OUTSIDE PLUMBING | 28OCT94 | 11DEC94 | 18MAR95 | 1MAY95 | 141 |
| .. 162 | 90 | 90 | 0 PR | OUTSIDE ELECTRICAL | 28OCT94 | 25JAN95 | 1FEB95 | 1MAY95 | 96 |
| .. 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| .. 174 | 5 | 5 | 0 SU | SELL JOB | 17AUG95 | 21AUG95 | 10AUG95 | 14AUG95 | -7 |
| .. 156* | 7 | 7 | 0 PR | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| .. 172 | 16 | 16 | 0 PR | TOPSOIL & FINE GRADING | 20APR95 | 09MAY95 | 25JUL95 | 09AUG95 | 96 |
| .. 173 | 14 | 14 | 0 PR | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 09AUG95 | 7 |
| .. 174 | 5 | 5 | 0 | SELL JOB | 17AUG95 | 21AUG95 | 10AUG95 | 14AUG95 | -7 |
| .. 201* | 25 | 0 | 100 PR | NEG. CHANGE ORDER NO. 1 | 29SEP94A | 23OCT94A | | | |
| .. 202 | 30 | 26 | 13 | RESUB. HOSP. & MISC. EQUIP. | 24OCT94A | 22NOV94 | | 30NOV94 | 8 |
| .. 58* | 30 | 30 | 0 SU | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 1DEC94 | 30DEC94 | 8 |
| .. 201* | 25 | 0 | 100 PR | NEG. CHANGE ORDER NO. 1 | 29SEP94A | 23OCT94A | | | |
| .. 203 | 240 | 237 | 1 | DELIVER GOVT. FURN. HOSP. EQUIP. | 25OCT94A | 21JUN95 | | 28JUN95 | 7 |
| .. 152 | 35 | 35 | 0 SU | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |

6-23

Figure 6-8 Cont.

| ACTIVITY ID | ORIG DUR | REM DUR | % | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|----|--|-------------|--------------|------------|-------------|-------------|
| 40 | 30 | 21 | 30 | GOVERNMENT APPROVE BUILDER'S N | 19OCT94A | 17NOV94 | | 10NOV94 | -7 |
| 69 | 120 | 120 | 0 | DELIVER BUILDER'S HARDWARE | 18NOV94 | 17MAR95 | 11NOV94 | 10MAR95 | -7 |
| 108 | 14 | 14 | 0 | INSTALL METAL DOORS & ALUMINUM ENTRANCE | 18MAR95 | 31MAR95 | 11MAR95 | 24MAR95 | -7 |
| 116 | 14 | 14 | 0 | STUCCO | 1APR95 | 14APR95 | 25MAR95 | 7APR95 | -7 |
| 120 | 14 | 14 | 0 | CEILING SUSPENSION SYSTEM & INSULATION | 15APR95 | 28APR95 | 8APR95 | 21APR95 | -7 |
| 125 | 12 | 12 | 0 | PLASTER CEILING | 29APR95 | 10MAY95 | 22APR95 | 3MAY95 | -7 |
| 130 | 28 | 28 | 0 | 30% PAINT & FINISH | 11MAY95 | 7JUN95 | 4MAY95 | 31MAY95 | -7 |
| 139 | 45 | 45 | 0 | 50% COMPLETE PAINT & FINISH | 8JUN95 | 22JUL95 | 1JUN95 | 15JUL95 | -7 |
| 155 | 18 | 18 | 0 | 20% PAINT & FINISH | 23JUL95 | 9AUG95 | 16JUL95 | 2AUG95 | -7 |
| 156 | 7 | 7 | 0 | CLEAN UP BUILDING | 10AUG95 | 16AUG95 | 3AUG95 | 9AUG95 | -7 |
| 174 | 5 | 5 | 0 | SELL JOB | 17AUG95 | 21AUG95 | 10AUG95 | 14AUG95 | -7 |
| 93 | 20 | 12 | 40 | 30% UNDERFLOOR MECH. & ELEC. R | 20OCT94A | 8NOV94 | | 4NOV94 | -4 |
| 94 | 50 | 50 | 0 | FORM, PLACE, & CURE PAN SLABS & BEAMS | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 95 | 50 | 50 | 0 | 70% UNDERFLOOR MECH. & ELEC. R | 9NOV94 | 28DEC94 | 5NOV94 | 24DEC94 | -4 |
| 100 | 5 | 5 | 0 | ERECT STEEL COLUMNS & METAL BUCKS | 29DEC94 | 2JAN95 | 25DEC94 | 29DEC94 | -4 |
| 102 | 10 | 10 | 0 | ERECT STRUCTURAL STEEL & JOISTS | 3JAN95 | 12JAN95 | 30DEC94 | 8JAN95 | -4 |
| 109 | 12 | 12 | 0 | INSTALL ROOF DECK | 13JAN95 | 24JAN95 | 9JAN95 | 20JAN95 | -4 |
| 110 | 21 | 21 | 0 | ROOFING & SHEET METAL | 25JAN95 | 14FEB95 | 21JAN95 | 10FEB95 | -4 |
| 113 | 56 | 56 | 0 | AIRCONDITIONING DUCTWORK | 15FEB95 | 11APR95 | 11FEB95 | 7APR95 | -4 |
| 122 | 22 | 22 | 0 | CERAMIC TILE | 15APR95 | 6MAY95 | 12APR95 | 3MAY95 | -3 |
| 124 | 35 | 35 | 0 | ACOUSTIC & OTHER CEILINGS | 29APR95 | 2JUN95 | 27APR95 | 31MAY95 | -2 |
| 144 | 21 | 21 | 0 | INSTALL RESILIENT FLOORS | 8JUN95 | 28JUN95 | 8JUN95 | 28JUN95 | 0 |
| 152 | 35 | 35 | 0 | INSTALL HOSPITAL & MISCELLANEOUS EQUIPMENT | 29JUN95 | 2AUG95 | 29JUN95 | 2AUG95 | 0 |
| 68 | 90 | 90 | 0 | FABRICATE & DELIVER METAL WINDOWS | 28OCT94 | 25JAN95 | 30OCT94 | 27JAN95 | 2 |

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Figure 6-9

REPORT DATE 13JAN95 RUN NO. 276
 13:30
 TOTAL FLOAT LESS THAN 14 DAYS

PRIMAVERA PROJECT PLANNER PRECEDENCE REPORT

START DATE 1JUL94 FIN DATE 14AUG95*
 DATA DATE 26OCT94 PAGE NO. 2

| ACTIVITY ID | ORIG DUR | REM DUR | X | ACTIVITY DESCRIPTION | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|-------------|----------|---------|----|---|-------------|--------------|------------|-------------|-------------|
| 111 | 14 | 14 | 0 | INSTALL METAL WINDOWS | 26JAN95 | 8FEB95 | 28JAN95 | 10FEB95 | 2 |
| 121 | 14 | 14 | 0 | PLASTER WALLS | 15APR95 | 28APR95 | 20APR95 | 3MAY95 | 5 |
| 143 | 16 | 16 | 0 | INSTALL SOX MILLWORK | 8JUN95 | 23JUN95 | 13JUN95 | 28JUN95 | 5 |
| 146 | 16 | 16 | 0 | COMPLETE MILLWORK | 24JUN95 | 9JUL95 | 30JUN95 | 15JUL95 | 6 |
| 203 | 240 | 237 | 1 | DELIVER GOVT. FURN. HOSP. EQUIP. | 25OCT94A | 21JUN95 | | 28JUN95 | 7 |
| 133 | 70 | 70 | 0 | INSTALL MECHANICAL EQUIPMENT | 11MAY95 | 19JUL95 | 18MAY95 | 26JUL95 | 7 |
| 140 | 42 | 42 | 0 | INSTALL ELECTRICAL FIXTURES & EQUIPMENT | 8JUN95 | 19JUL95 | 15JUN95 | 26JUL95 | 7 |
| 173 | 14 | 14 | 0 | TEST MECHANICAL & ELECTRICAL EQUIPMENT | 20JUL95 | 2AUG95 | 27JUL95 | 9AUG95 | 7 |
| 202 | 30 | 26 | 13 | RESUB. HOSP. & MISC. EQUIP. | 24OCT94A | 22NOV94 | | 30NOV94 | 8 |
| 58 | 30 | 30 | 0 | GOVERNMENT APPROVE HOSPITAL & | 23NOV94 | 22DEC94 | 10DEC94 | 30DEC94 | 8 |
| 83 | 180 | 180 | 0 | DELIVER HOSPITAL & MISC. EQUIPMENT | 23DEC94 | 20JUN95 | 31DEC94 | 28JUN95 | 8 |
| 114 | 42 | 42 | 0 | INTERIOR PARTITIONS | 15FEB95 | 26MAR95 | 25FEB95 | 7APR95 | 10 |
| 151 | 24 | 24 | 0 | INSTALL CASEWORK | 29JUN95 | 22JUL95 | 10JUL95 | 2AUG95 | 11 |

6-25

Figure 6-9 Cont.

CHAPTER 7

ARROW DIAGRAMING SYSTEM

7-1. Arrow Diagraming.

a. **Activities.** The activities from the project breakdown are shown as arrows. An arrow on the diagram represents an activity requiring time flowing from the tail to the head of the arrow (Figure 7-1). The description of the activity is usually shown above the arrow. The arrow can be drawn in any direction; however, the conventional flow is from left to right. Durations are estimated just as in the Precedence system and are usually shown below the arrow.

b. **Events.** Any time period must begin at some point in time and end at some point in time. These points in time are called "events" or nodes and are shown as circles on the diagram. There must be an event, or node, at each end of an arrow (Figure 7-2). Each activity can start at only one event and end at one other event.

c. **Logic Diagraming.** Activities recorded on the diagram are interrelated through the events using the same considerations as in the Precedence system. An event can be the end point for one or more activities as well as the start point for others. Figure 7-3 indicates that "B" cannot be started until "A" is finished. Any two or more activities which can be started at the same point in time (Figure 7-4) or finished at the same point in time, (Figure 7-5), are said to be concurrent or parallel. In Figures 7-4 and 7-5, "C", and "D" are concurrent or parallel activities and "E" and "F" are concurrent or parallel. If "C" and "E" are in sequence and "D" and "F" are also in sequence, the path "CE" is parallel or concurrent with "DF" as shown in Figure 7-6.

d. **Restraints/Dummy Activities.** When two or more activities must be finished before another activity can be started, the restraining activities must terminate together at the event from which the succeeding activity begins. Figure 7-7 shows that "P" cannot start until both "M" and "N" are finished. If another activity "R" is introduced and is restrained by "N" only, "R" could not be shown starting from the common event without indicating a false restraint by "M". A restraint or dummy activity, shown as a dashed arrow, is used which indicates flow of dependency but not time or work. A restraint is quite similar to the arrows

used in Precedence. In Figure 7-8 the start of activity P continues to depend on the completion of both activities M and N while the start of activity R is restrained only by the completion of activity N. A restraint normally has 0 duration.

e. Activities are identified which will reveal the logic developed on the diagram. This is easily done by assigning numbers to the events on the arrow diagram. An activity then can be identified by the combination of the initial (i) event number at the tail of the arrow and the terminal juncture (j) node at the head, the i-j number serving to identify the activity. Unlike the Precedence system, this numbering should be done sequentially with the (j) event number always higher than the (i) number. Such numbering avoids logic errors called loops. Also the i-j number for each activity should be unique to that activity. At times a numbering dummy is inserted to accomplish this, when two activities would otherwise have the same i and j event numbers (See Figures 7-10 & 7-11). It is a good idea to skip numbers in a network to allow for adding logic without violating the numbering system.

7-2. Analysis. The breakdown of a project, development of logic, and estimates of duration times for individual activities can be done manually or using a computer. Analysis is normally accomplished by computer once the logic and durations are entered. The management data which results from the analysis in the Arrow diagramming system is very similar to that obtained in the Precedence system. There are some differences such as the logic can be understood from the (i) (j) listing and no predecessor-successor report is needed. There are Early Event Times and Late Event Times distinct from the Early and Late Starts and Finishes. Some of these are identical and some are not. The Arrow system does not have the Start-to-Start and Finish-to-Finish features of the Precedence system so, to duplicate this logic, activities must be broken into more detail. Dummies, used in logic development, should be erased from working reports where they serve no purpose but they should be retained in the i-j and the total float reports. The Critical Path consists of a chain of activities with 0 float. It may contain dummies.

DESCRIPTION →

Figure 7-1
Activity



Figure 7-2
Events or Nodes



Figure 7-3
Activities in Sequence

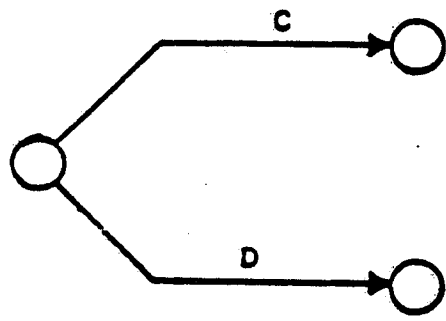


Figure 7-4 Figure 7-5
Concurrent or Parallel Activities

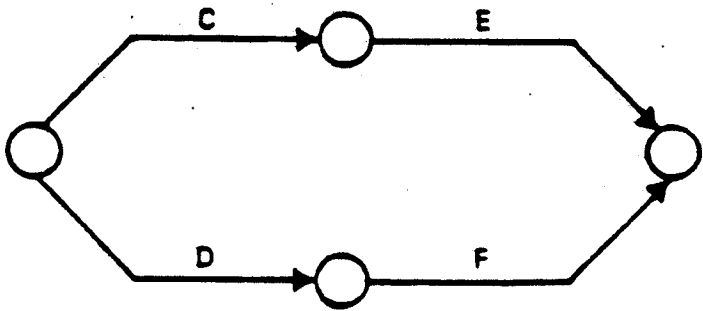
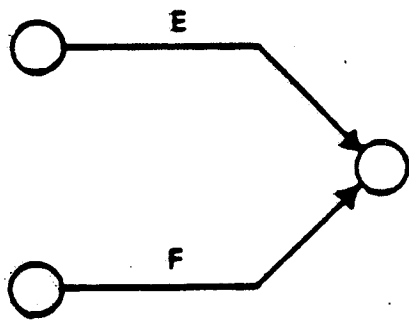


Figure 7-6
Concurrent or Parallel Paths

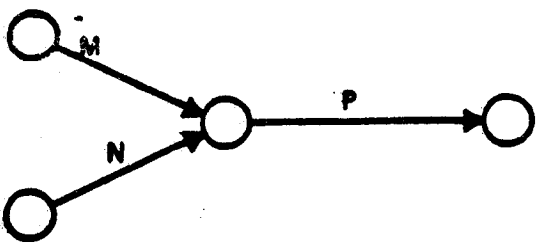


Figure 7-7
Two Activities Restraining One Activity

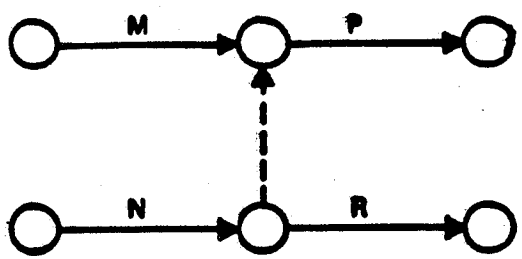


Figure 7-8
The Logic Dummy

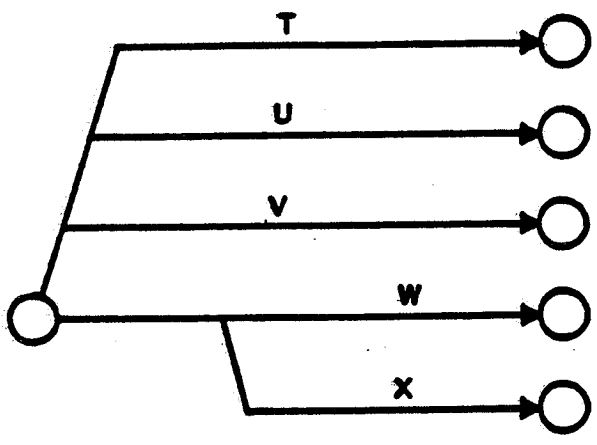


Figure 7-9
Common Lines - Separate Activities

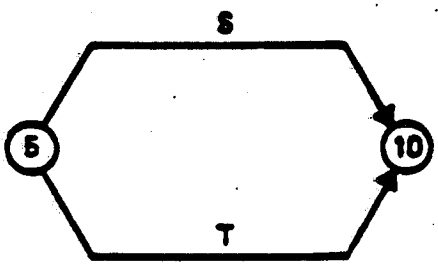


Figure 7-10
The Numbering Dummy

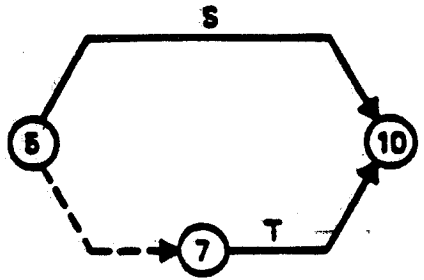


Figure 7-11

CHAPTER 8

SUMMARY

Summary. The above information is intended as a basic introduction to Network Analysis Systems. The figures are examples of the software scheduling programs which are on the market. All systems depend on accurate input schedule information. Once that is obtained, valuable information can be derived from the analysis. Examples have been included of management computer sorts which will be of different value for different managers. Other sorts and presentations are available or a specific report can be designed by the user. Each user must determine what information he/she needs and specify only that required. Techniques such as shortened versions of certain sorts are recommended in order to limit the volume of each report. Current software allows the design of almost any kind of data arrangement desired. The computer reports, if based on accurate input data, will project completion and display the causes of delay if the project is behind schedule. The manager can then use this information to decide on the most appropriate course of action under the contract. NAS schedules, properly used, can be a definite aid in executing the Government's responsibilities under a contract and requiring the contractor to execute his or her responsibility.

a. When the Work is Changed. It is very important that the logic diagram be revised to reflect any appropriate revisions of logic, restraints, new or deleted activities, revised durations, and monetary values. With progress data posted as of the next update the impact of these changes on the project can be evaluated. The determination of impact on time and money should be made concurrently; it must consider the status of the project at the time the change occurs; and it must not be delayed for later determination.

b. Time Scaled Diagrams. Network Diagrams can be constructed to a horizontal time scale. This is favored by some who see benefit in the visibility afforded by such a method. A vertical line representing the current date can be drawn and analysis made on whether posted progress is left or right, of the line. This is often a good briefing technique on a summary diagram. Also numerous computer plotting systems will generate time scaled and bar chart diagrams from the schedule information. These may be useful tools for briefing purposes. However, basic information necessary for project management should be obtained from the standard computer printouts illustrated previously.