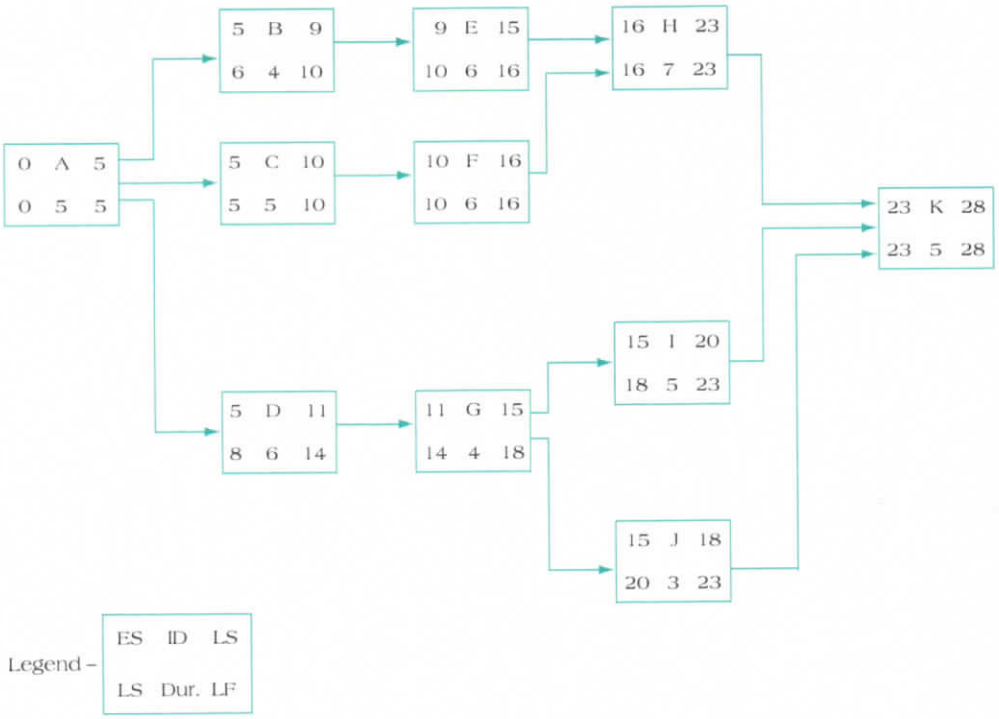

FIGURE 12.10 Sample Project Network with Early and Late Start Indicated

now possible to create a resource-loading table by combining the information we have in Figures 12.8 and 12.10 with one additional factor: the resources required to complete each project activity.

Naturally, there is a direct relationship between the resources we can apply to a task and its expected time to completion. For example, suppose that a task requiring one person working 40 hours per week is estimated to take two weeks (or 80 hours) to complete. Generally, we can modify the duration estimate, given adjustments to the projected resources available to work on the task. For example, if we can now assign two people to work full-time (40 hours) on the task, the new duration for the activity will be one week. Although the task will still require 80 hours of work to complete, with two full-time resources assigned, that 80 hours can actually be finished in one week of the project's scheduled baseline.

Table 12.4 identifies the activities, their durations, total activity float (or slack), and most importantly, the number of hours per week that we can assign resources to the tasks. The time value is less than full-time to illustrate a typical problem: Because of other commitments, project team

TABLE 12.4 Activity Float and Resource Needs for the Sample Network

Activity	Duration	Total Float	Resource Hours Needed per Week	Total Resource Hours Required
A	5	0	6	30
B	4	1	2	8
C	5	0	4	20
D	6	3	3	18
E	6	1	3	18
F	6	0	2	12
G	4	3	4	16
H	7	0	3	21
I	5	3	4	20
J	3	5	2	6
K	5	0	5	25
			Total	194