

Special Research Studies Title	Case Study of Labor Productivity of Pile Head Cutting, Footing, Column and RC. Flat Slab in Building Construction
Special Research Studies Credits	6
Candidate	Mr. Arnut Kittikulmetee
Supervisor	Dr. Suthi Pasiphol
Degree of Study	Master of Engineering
Department	Civil Engineering
Academic Year	2001

#### Abstract

The purpose of this research was to study the method of systematic data gathering on labor productivity in building construction. The steps of each task were investigated deliberately in accordance with the time spent on each activity. The analysis of this study can be used as a guidance for contractors in determination of cost controlling, cause of work delay, and other concerns of labor productivity in building construction.

The result reveals that labor productivity of pile head cutting would be varied depending on the pile head size (Labor productivity of diameter 0.6 m. is 5.3 and diameter 0.8 m. is 8.4 hours/pile head). Labor productivity of pouring column concrete on both 1<sup>st</sup> floor (1.21 hr./cu.m.) and 3<sup>rd</sup> floor (1.53 hr./cu.m) are higher than pouring footing concrete (0.6 hr./cu.m) due to the complicated working processes. The labor productivity of pouring concrete on RC. Flat Slab 1<sup>st</sup> floor is 0.8 hr./cu.m. and 1.11 hr./cu.m. on the 4<sup>th</sup> floor. For installing footing formwork, column and floor, it showed that installing footing formwork revealed the highest labor productivity comparing among the 3 activities. The labor productivity of footing, column and slab reinforcement assembly are 0.022, 0.055 and 0.01 hr./kg. respectively. The reasons for the highest labor productivity of column reinforcement assembly are working difficulty and plenty of stirrup.

**Keywords :** Labor Productivity / Labor Cost / Structural Building