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FIELD VISIT REPORT ON:

Study and understand Project Management Practices at Construction Site at Lonavala

COURSE NAME:

PROJECT MANAGEMENT AND ECONOMICS

CORSE CODE: CE23303b

NAME OF GUIDE: Dr. N. T. Suryawanshi

INTRODUCTION

A site visit was conducted to Lonavala, a rapidly developing hill station located between Mumbai and Pune, to study practical aspects of Project Management in construction projects. The visit aimed to observe the ongoing construction activities, understand site management techniques, resource allocation, and safety measures followed at the site.

OBJECTIVES OF THE VISIT

The main objectives of this site visit were:

- To understand the application of project management principles in real-time construction work.
- To study planning, scheduling, and execution of site activities.
- To observe site layout, materials management, and quality control.
- To learn about safety practices and workforce management on-site.
- To understand the construction economics associated with the projects.

Fig. 1 Group photo with the Project Engineer

SITE OVERVIEW:

The site consists of the construction of approximately five residential villas, each comprising a ground and first floor, designed with modern architectural features and open spaces. The surrounding area has been partially levelled and cleared to facilitate access and material storage. The villa construction project is expected to provide long-term benefits to the owners.

In comparison to cities like Baramati and Pune, the construction cost in Lonavala is nearly double. As discussed, the unavailability of construction materials in the nearby area necessitates procurement from Mumbai or Pune, leading to increased material, transportation, and equipment costs. Consequently, the overall construction cost is estimated to be around ₹5,000 per square foot.

Fig. 2 Temporary road access to site

OBSERVATIONS AT THE SITE:

a) Site Layout and Planning

The site layout was found to be poorly organized. Boundaries were demarcated, but material storage facilities were inadequate. Labour huts were located near each villa site. Basic facilities such as drinking water and electricity were available. However, materials were not properly stacked -steel and aggregates were placed close to the construction area. A site office was available, and site access roads were maintained to ensure smooth movement of vehicles and materials.

b) Safety Practices

A lack of safety practices was observed at the site. Workers were found working at heights without proper safety measures. Personal protective equipment (PPE) such as gumboots, safety belts, and helmets were not being used. Additionally, safety signage's were not displayed at the site.

c) Project Scheduling and Management

- Project activities were regularly monitored, and necessary corrective actions were implemented as required.
- Critical path activities, including foundation work and structural framing, were given priority.
- Regular progress review meetings and site inspections were conducted to ensure timely execution of work.

d) Materials and Equipment

- Materials such as cement, steel, and aggregates were not stored under covered sheds.
- Figure No. 3 shows that steel and shuttering materials were not properly stacked.
- Equipment such as JCBs, transit mixers, and drum mixers were being used efficiently.
- Concrete material testing was carried out at regular intervals.

e) Quality Control

- On-site quality engineers ensured that all works were carried out as per the approved design specifications.
- Daily quality control routines included concrete cube testing and reinforcement inspections.
- High standards of workmanship were maintained consistently throughout the structural construction phase.

f) Safety Measures

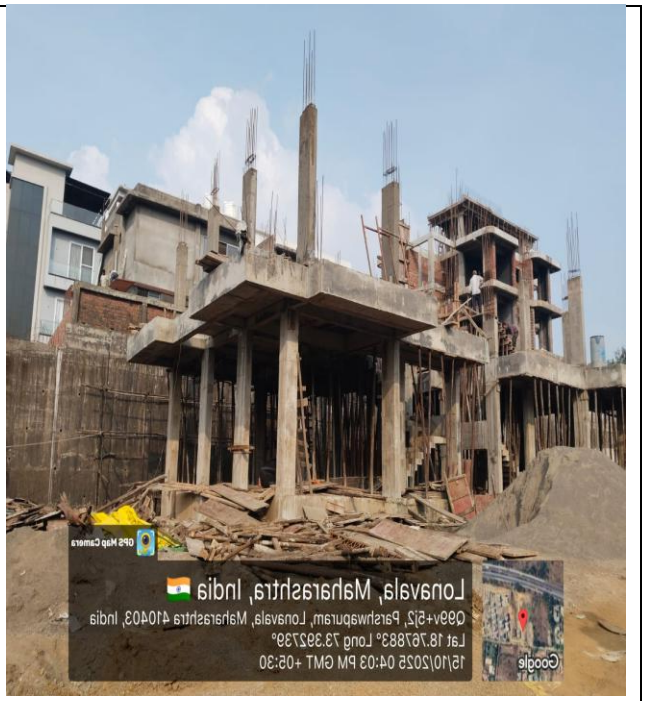
- Workers were not provided with adequate PPE kits such as helmets, gloves, and safety shoes.
- Safety signboards and barricades were not installed at the site.
- First-aid facilities and fire extinguishers were available in the site office.
- Figure No. 4 shows that workers did not follow any safety measures or precautions while working at elevated levels.

g) Environmental Management

- Dust control measures and proper waste segregation were not implemented properly.
- Noise levels were kept within permissible limits.
- Efforts were made to maintain the natural surroundings of Lonavala.

Fig. 3 Improper storage of Debris and steel

a. Person working without safety



b. Material stacked closed to site

c. Person working at higher level without safety

Fig. 4 (a, b, c) Lack of safety practices

LEARNING OUTCOMES:

Through this visit, students gained a practical understanding of:

- Real-time project scheduling and monitoring techniques.
- Resource allocation and labour management strategies.
- Importance of coordination between different teams on-site.
- Challenges faced in hilly terrain construction and their solutions.
- Lack of safety awareness among the workers.
- Significance of Ideal site layout. Bad site layout impacts on the project progress and would results in delays.
- Factors affecting on the Construction cost.

CONCLUSION:

The site visits to Lonavala offered valuable insights into the practical aspects of project management within the construction field, effectively bridging the gap between theoretical learning and real-world implementation. Major observations included inadequate safety practices and poorly organized site layout.