The Design and Construction a Warehouse by Tilt up Method

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Abstract:

A Warehouse and other low rise and mid rise building, which is built by conventional method, is a simple one, but running out a time and need more workers. By applying the tilt up method, construction time will be decreased and need fewer workers.

Definition of tilt up method is the construction method which is a concrete wall panel or other member concrete structure such as column or frame were cast in job site, horizontally, and erected to their final position in the structure, vertically.

The paper contents about design and construction especially a two-floor warehouse with 32x36-sq meter area. Specification of 20-cm thick wall panel and frame that contents 50x50 column and 40x50 beam is made of concrete with 50-MPa strength. Pre stress inverted tee beam as supporting floor and roof system with 16-m span is made on job site with strand from VSL. Double tee plate with 9 m span as floor level and roof system is ordered from the pre cast company. And a foundation for the structure is pile with 6-m length and 30-cm diameter that is connected by pile cap and tie beam. Construction method is discussed about time schedule since a design until a finished work.