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Steel Roof Works of Seyrantepe Stadium in terms of Construction Management

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Abstract

The period of steel roof works of Seyrantepe Stadium is being presented in this study in terms of construction management. Seyrantepe Stadium as a building complex is completed as a turnkey job in the first quarter of 2011 in Istanbul. The architectural and structural projects of the Stadium have been conceptually designed in Germany and constructional drawings have been prepared in Turkey. The steel roof has been structurally analyzed by including loads of retractable roof parts. Critical periods occurred in masterwork schedule in terms of construction management due to limited construction duration. The determinative main work item in masterwork schedule was steel roof works. Construction method and installation program of steel roof elements either at ground or above were conducted in a tight masterwork schedule. Steel roof works have distinguished as factory manufacturing, on site welding at ground of soccer field and lifting above to final location, final welding and finishing works. Completed constructional steel members in factory have started to shipment to construction site in order to be welded on the ground of soccer field. The main target was consisting of structural frame against to earthquake forces while positioning main girders of steel roof above the piers / super columns. On the other hand structural works required for steel roof works had to be completed in order to perform this task. Seyrantepe Stadium having congested mobilization area inside the soccer field is completed by a definite deviation from masterwork schedule planned initially due to steel roof works.

Keywords: *construction management, steel roof, stadium, prefabrication*