Diagnosis and Evaluation of Defects Encountered in Newly Constructed Houses in Erbil City, Kurdistan, Iraq

Abstract—This study investigated the types and profile of defects facing newly constructed houses through conducting a survey and analyzing defect records of data observed for 652 houses out of 1000 houses newly constructed for Salahaddin University academic staff in Erbil City. The result of analysis revealed that the overall of 6758 defects identified with the mean average of 10 defects per house. The overall percentage of defected houses for each type of defects and the location of the defect ranged from 10% to 67%. The most defected components found in the doors and windows, which comes in rank 1 with the highest percentage of defected houses reached to 76%, whereas coating and painting of doors come in rank 2 with percentage of 75%, and cracks in structural elements come in rank 3 with 73%. Analyzing the defects in terms of area and location showed that the finishing works representing the major defects area of 48%. While, the defects in the doors and window representing second highest defects of 42%. The results indicated that the quality performance in newly constructed houses is low due to poor workmanship and lack of experience and skills of construction staff and inadequate supervision.

Keywords—Diagnosis, Defects Evaluation, Erbil City, Newly Constructed, Residential Houses.

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