

Department : Civil

Year : 2016-2017

Group No: 15

Guided By

**PROF. FALGUNI
PATEL**

SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA

Project Title

EFFECTIVENESS OF DIFFERENT COMPOSITE SECTION IN THE MULTISTORIED BUILDING

Abstract:

This project is developed with an objective of increasing the construction speed along with keeping it economical; and to get the most effective cross section among the composite sections that are usually being used. The composite sections are the one made of two different types of material such as steel and concrete other than the reinforced bars used in usual RCC structures. They can be Concrete Composite Section or Concrete Filled Tubular Sections. In this project, initially we reviewed some literature explaining the composite structure and the composite sections. With the reviews of some papers it is seen that the composite sections are making the structure more economic with lesser construction time and the reduction of the cost as well. Moreover, the composite structures are giving the same strength as the RCC structure with lesser cross sectional area which is giving more carpet area to the building. Further, we have chosen the ETABS software for the analysis of the composite structure and have validated it with the manual calculations of a problem. And we also have collected the data from an ongoing site for the project work during this phase. Further, we applied non-linear dynamic and Uniaxial time history analysis in X direction on the structure and different type of load combination. This analysis are carried for two different criteria, in first criteria we used equal area composite sections and in second one we have used equal dimension of all the different composite sections After the whole analysis of the effectiveness of different composite section we are getting minimum value of base shear and total displacement in X direction and in Y direction for non cased rectangular section.

Prepared By:

Sr. No.	Student Name	Enrollment No
1	HIMANI B PATEL	130780106025
2	VIDHI M PATEL	130780106047
3	PINA N PATEL	130780106041

