



Activities of Topic 2

Discussion and Proposal for Activity 2

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Existing resources

- Existence of Codes, Guidelines and Manuals



NEPAL NATIONAL BUILDING CODE

NBC 109 : 1994

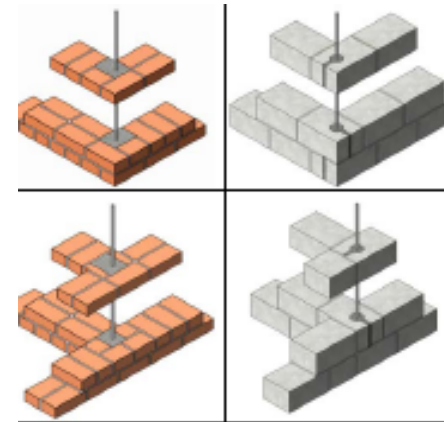


MASONRY : UNREINFORCED

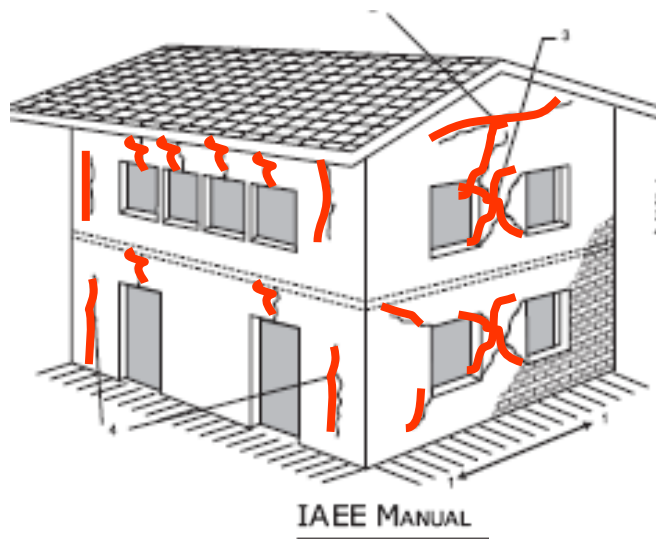
EARTHQUAKE SAFE CONSTRUCTION OF MASONRY BUILDINGS
Simplified Guideline for All New Buildings in the Seismic Zone V of India

Zone V

Introduction:



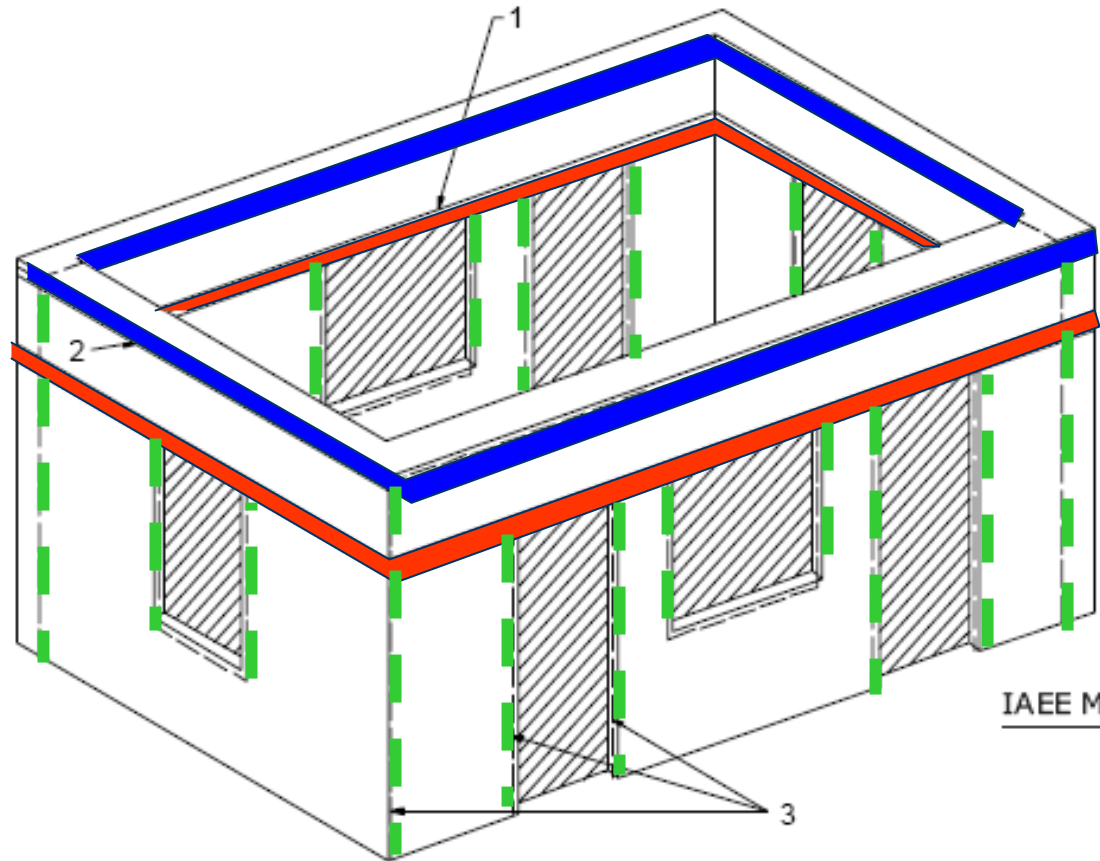
Cracking in bearing walls



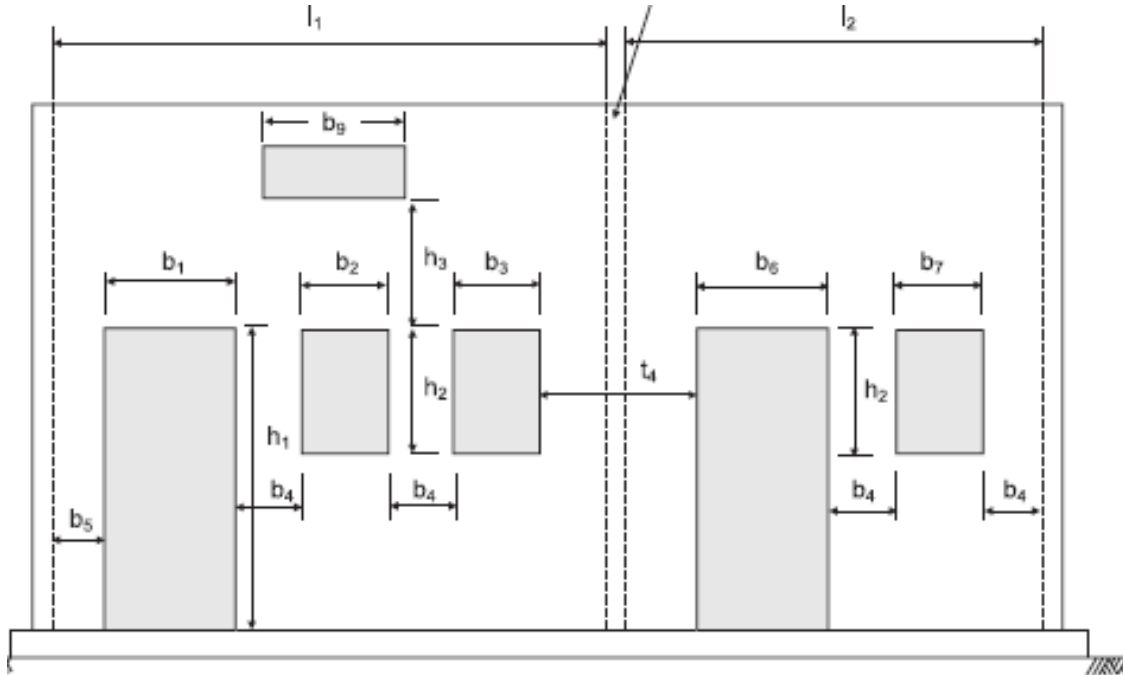
Horizontal crack
Diagonal cracks due to shear
Cracks due to bending of wall

Existing guidelines

- Lintel band
- Roof band
- Reinforcement bars

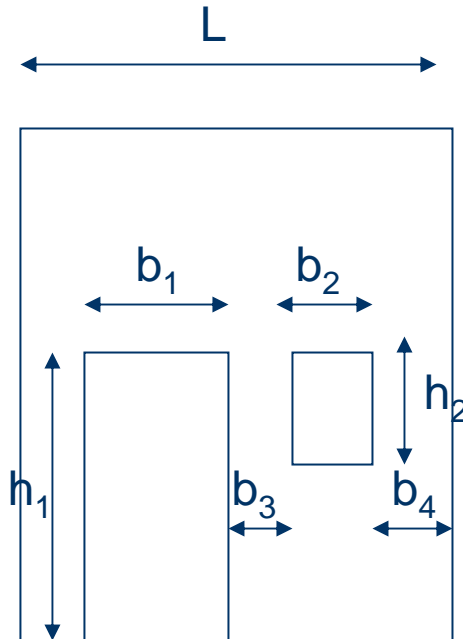


Existing guidelines



Recommended openings

Recommended openings



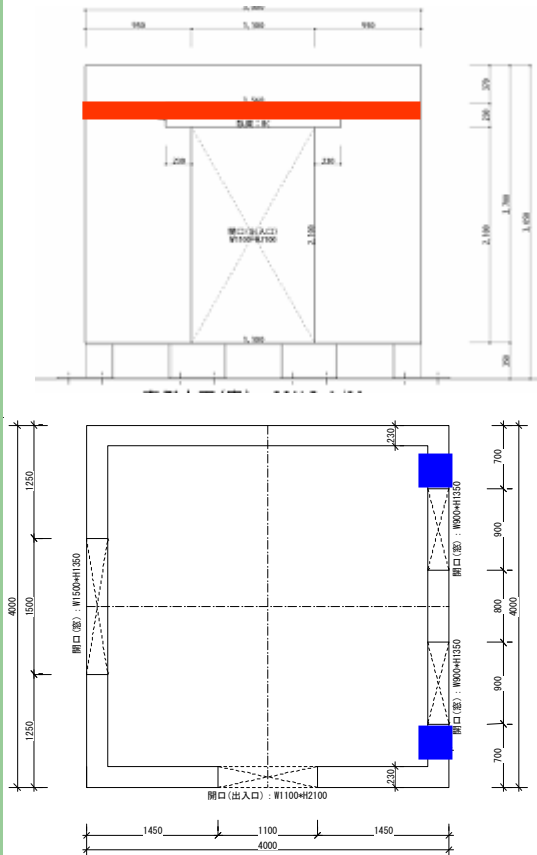
$b_1 + b_2 < 0.50 L$ for one storey
 $< 0.42 L$ for two storey
 $< 0.33 L$ for three storey

Modification in the proposed model

Buildings designed according to existing guidelines

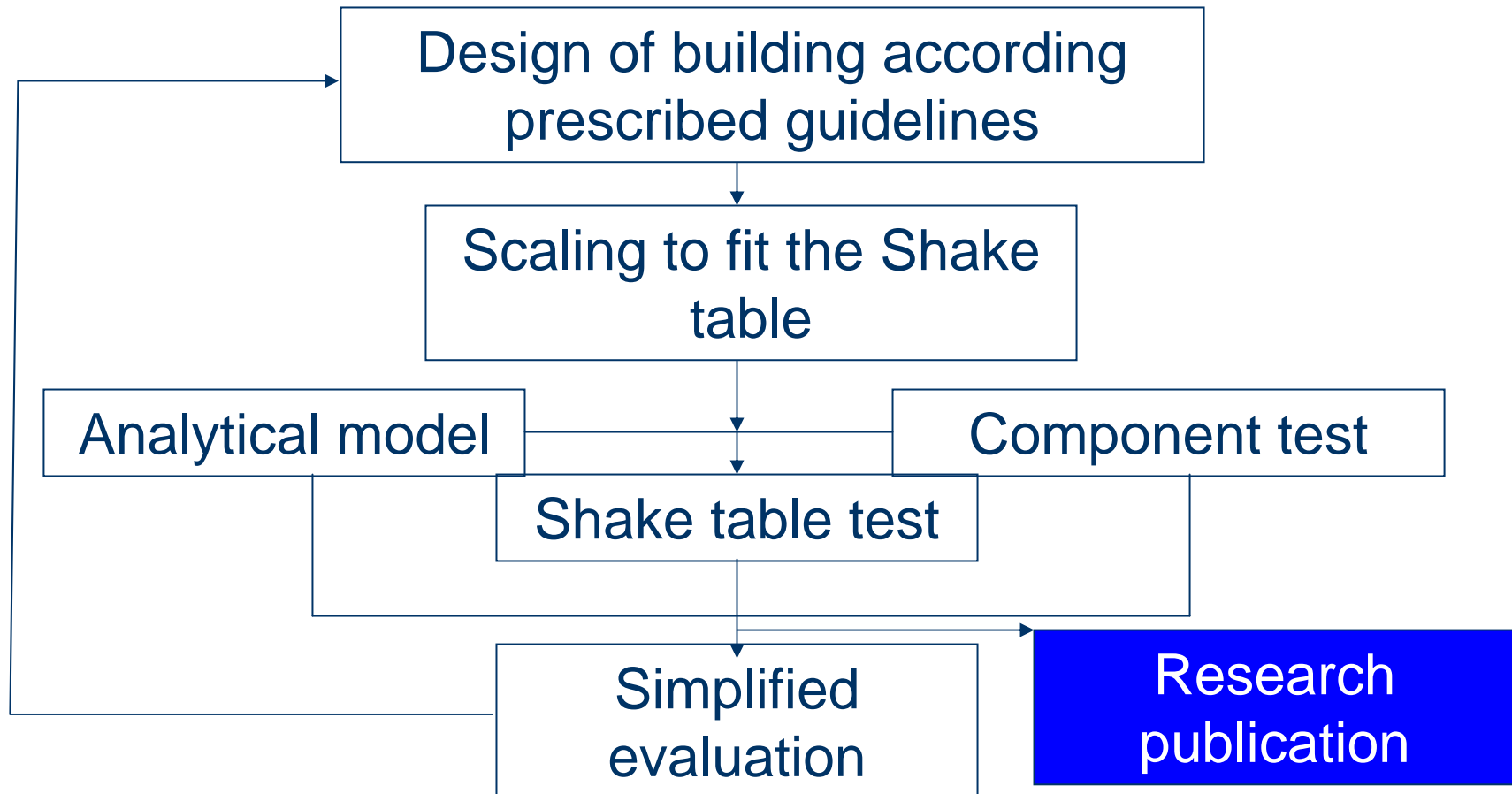
Lintel around the building

Openings according to the guidelines



試験体平面図 SCALE=1/30

Activities flow chart



Proposed studies at nec

- Evaluation of strength of past constructions
 - Collection of sample from dismantled buildings
 - Collection of information about age and other features
 - Static tests
- This will help in
 - Strengthening strategies
 - Vulnerability assessment
- Component studies
- Test of samples from construction sites



Analytical model

- Simplified analytical tools for masonry buildings
- Verification
 - Detailed analysis
 - Shake table test



THANK YOU