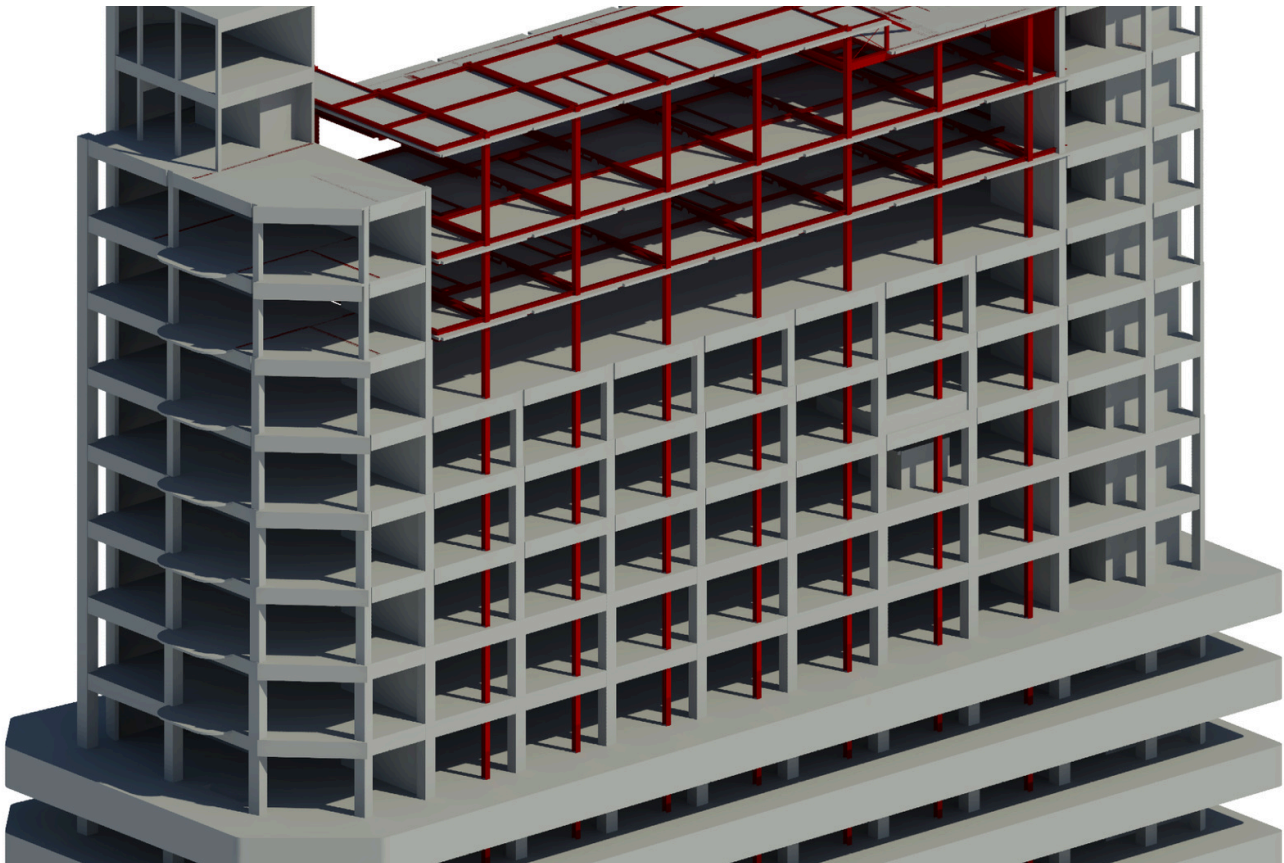


Refurbishment and change of use: Flowchart of the design assessment process

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The design assessment of an existing building, either for change of use or refurbishment, is often not a straightforward linear process and has to be undertaken in stages. This flowchart outlines the typical steps to give a general understanding of this process. Refer to an engineer for the specific requirements for a built.

A staged approach to structural assessment

The sequence on the following pages retains the decision points, investigations and project-team deliverables in the original flowchart.

Assessment and investigation

01 Establish available information

Are engineering drawings and design information available?

YES • Desktop design assessment

Depending on information available, determine the theoretical capacity of the existing structure and its capacity to accommodate the proposed use or refurbishment.

Engineer: report outlining the assessment and findings.

NO • Layout and dimensional survey

A building surveyor undertakes the survey. Slab thickness may not be determinable by this survey.

Surveyor: structural layout drawings with dimensions.

NO ROUTE • Basic desktop review

Using the survey drawings, undertake a basic review of the layout to understand potential implications of the proposed use or modification.

Engineer: report outlining observations made.

Both routes continue to the visual condition survey

02 Visual condition survey

Undertake a non-intrusive survey of the structural components that are visible and accessible at the time of the survey. Determine their general condition, identify visible defects and deterioration, and assist in determining further structural investigation.

Engineer: report outlining the observations made.

03 Determine further investigation

Use the findings of the desktop assessment and visual inspection to determine the structural investigation required. A comprehensive investigation is required if engineering drawings and design information are not available.

Engineer: scope of works and specification for the proposed investigation.

Detailed investigation and testing

The specialist contractor undertakes the investigation with oversight from the engineer.

Contractor: report outlining the investigation done and findings.

Review and design decisions

04 Review or update desktop assessment

The desktop design assessment previously done is reviewed and updated using the findings.

Engineer: updated assessment report.

05 Determine structural interventions

Is structural strengthening or a new local independent structure required?

NO

Design assessment complete.

YES

Proceed to determine whether a new foundation is required.

If intervention is required: is a new foundation needed?

NO

Undertake design.

YES

Undertake soil investigation, then undertake design.

Design assessment complete

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