

Revit Feasibility Building Massing

Revit

Site and Massing Study

1: Site/Controls

2: Building Massing

3: Design Options

4: Scheduling Areas

5: Shadow Diagrams



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Dynamo

Site Analysis

5: Face Analysis Grids

6: View Analysis

7: Sun Hour Analysis

8: Analysis Refinement

9: Power BI Report



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Power BI

Analysis and reporting

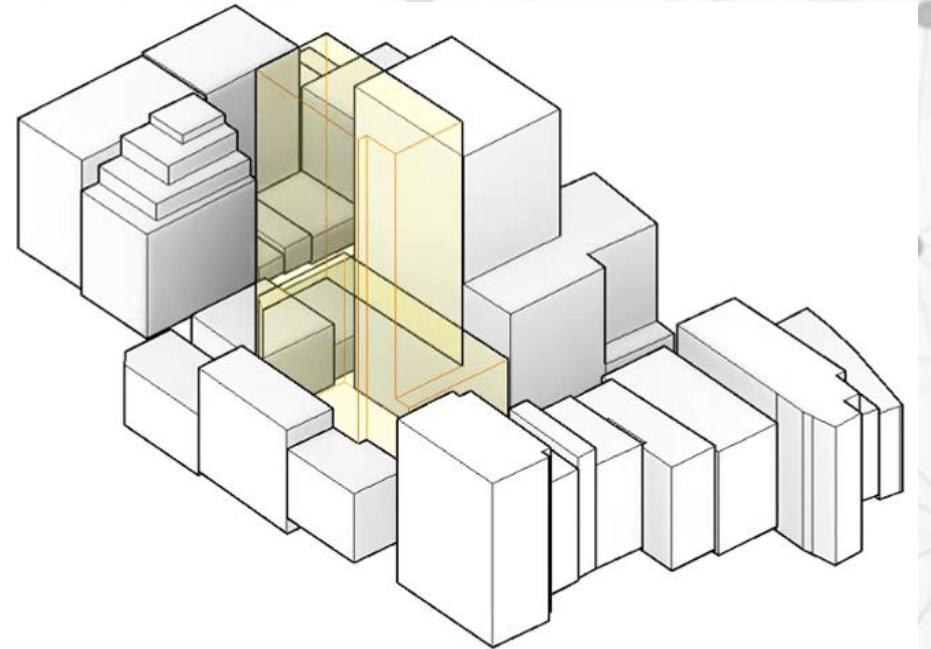
10: Power BI Report



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Types of Studies

- **Maximize site**
- Test fit
- Form finding
- Add/subtract



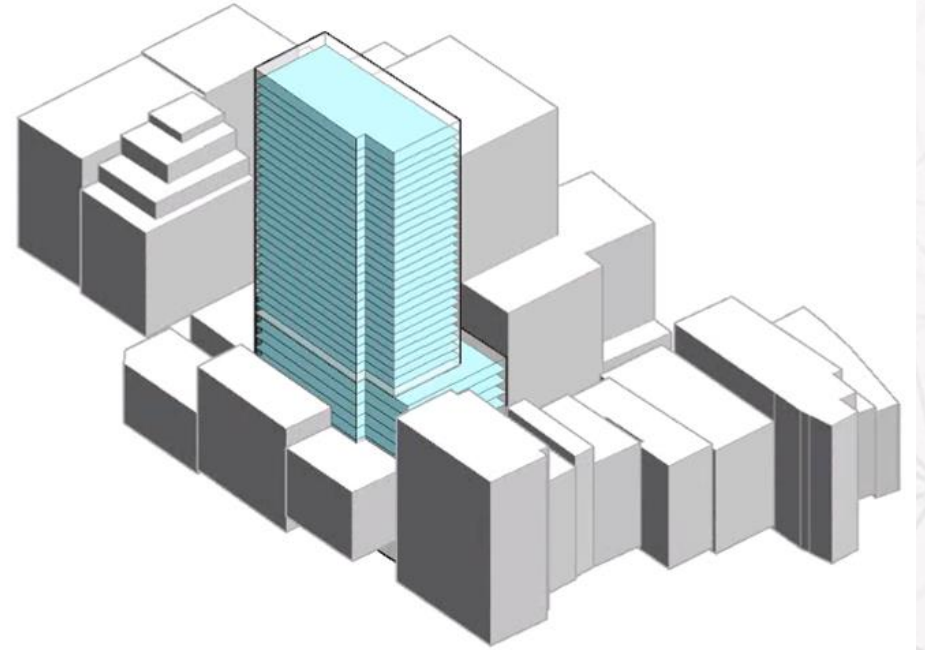
Some variables

- Fill out **frontage** zone (up to 45m)
- Fill out podium as **commercial**
- Remainder as **residential**
- Maximize lobby height (GF)
- Commercial @4M, residential @3.1M
- Basement later



The Workflow

- Set up **Control levels**
- Set up **Building levels**
- Set up **Design options**
- **Mass flooring** by level
- Calculate **maximum FSR**
(unconverted)



A fine art

We will not work *too* thoroughly
because

Usually it takes a lot of time/expertise

Not covered!

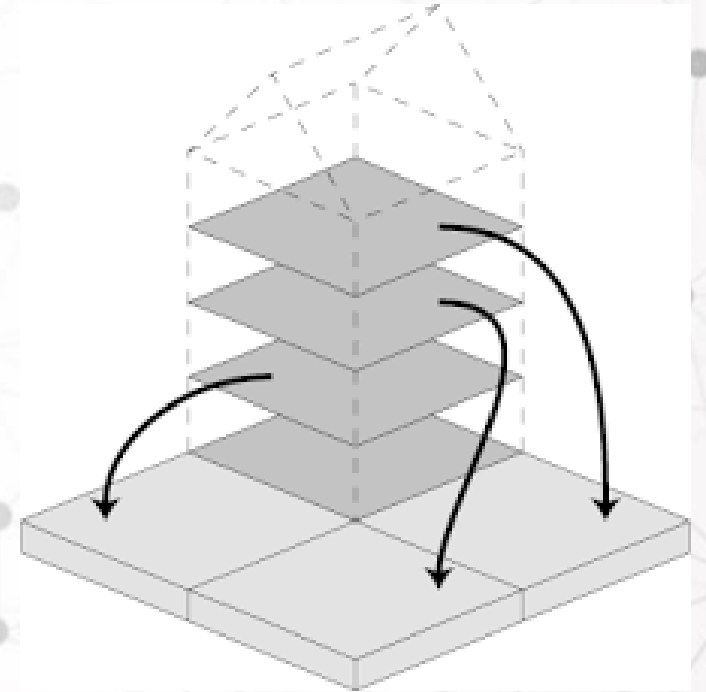


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FSR – what's that?

- Area/form control system
- Sydney specific

$$\text{FSR} = \text{GFA} / \text{Site Area}$$



$$\text{FSR} = 1:1$$



GFA – what's that?

- Area measurement system
- Less than GBA (gross building)
- Includes habitable areas
- External wall, internal face
- Exc. basement, lifts, stairs, store
- Exc. Balconies, terraces, carparks

The **gross floor area** is the sum of the floor area of each floor of a building measured from the internal face of external walls and includes:

- the area of a mezzanine
- habitable rooms in a basement or an attic
- any shop, auditorium, cinema, and the like, in a basement or attic.

but excludes:

- any area for common vertical circulation, such as lifts and stairs
- any basement, storage area or voids
- vehicular access, loading areas, garbage and services
- car parking to meet any requirements of the consent authority (including access)
- terraces and balconies with outer walls less than 1.4 metres high.



GBA to GFA – how?

We calculate **actual GBA** from our massing

....But...

We will work with **ratios** to **estimate GFA**

In Part 4



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A background network diagram consisting of numerous grey dots connected by thin grey lines, forming a complex web-like structure that fills the right side of the slide.

Without further ado...

Let's get started...



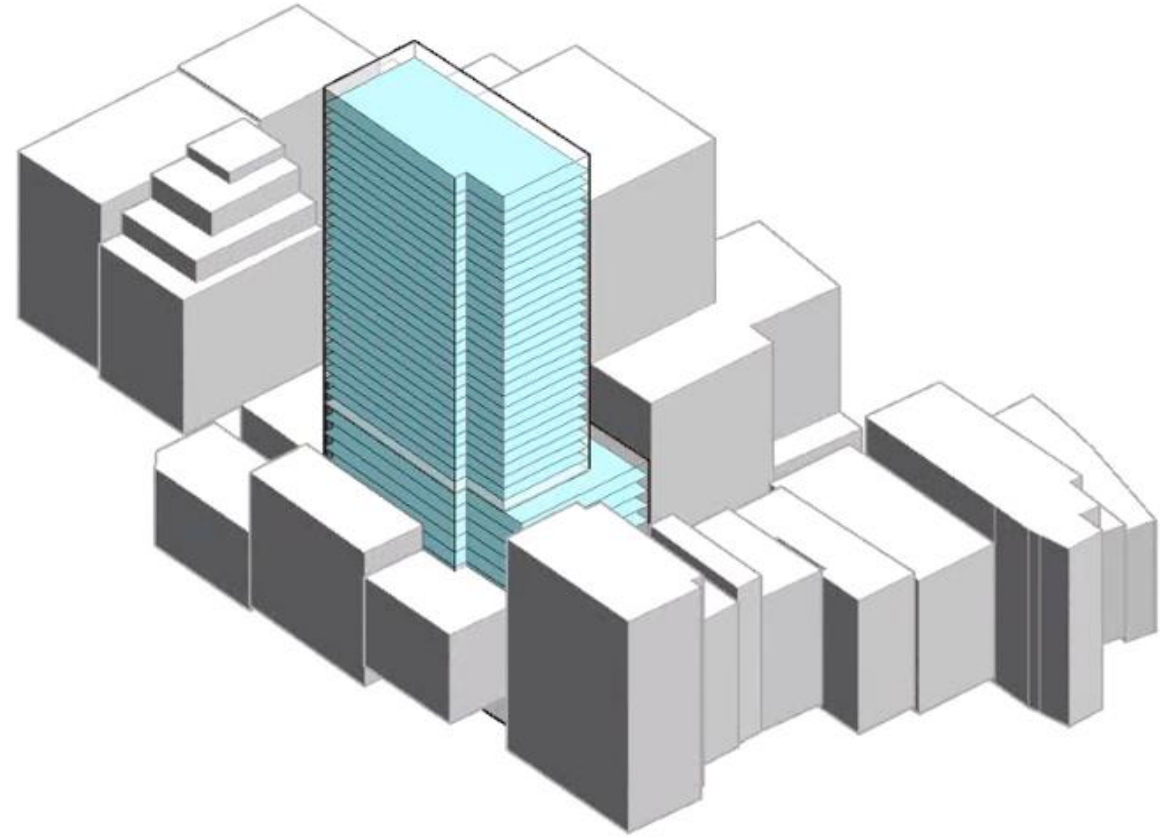
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Next: Part 3

Design Options



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