



ncio

Advanced  
Construction  
Information  
Development Ltd.





# Next Level of BIM – A.I. *Automation Intelligence*

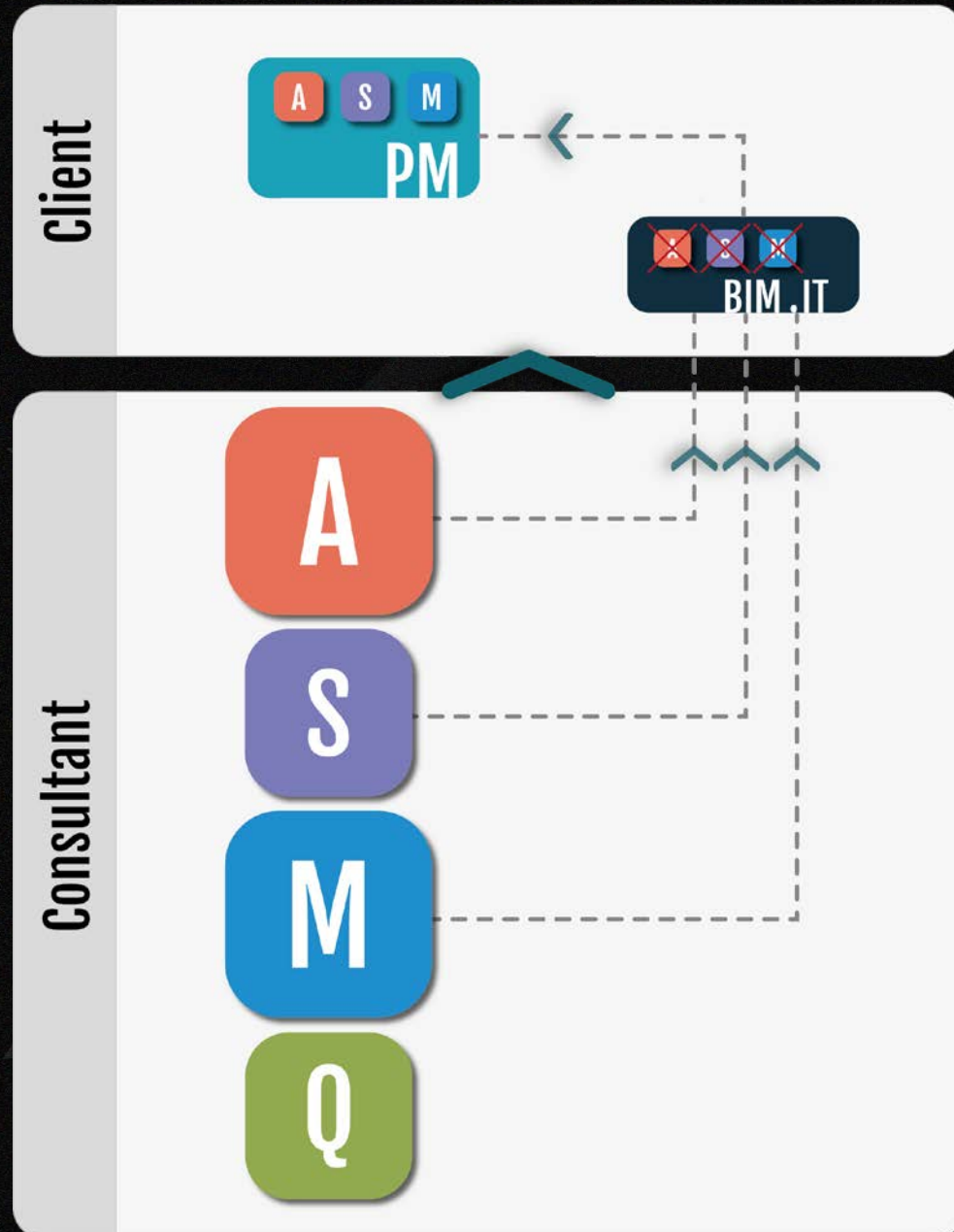
David Fung - *Architect*



# Era 1      2D Design to 3D



Low Level BIM  
Super BIM !









# Wrong Approach to BIM Consultancy

## 2. BIM Modeling services

### 2.1 Architecture and Structure Modeling Package

- To develop Architecture and Structure BIM models based on CAD drawings provided by Client according to BIM Requirement Specification for clash analysis and constructability review.
- Modeling duration: 2 weeks
- Deliverable: Architecture and Structure model for the basement car parks (including B1/F and B2/F) and podium for clubhouse and residential entrance lobbies (including G/F and 1/F) in Autodesk Revit Format

### 2.2 Detail M&E Modeling Package

- To develop detail M&E BIM models for all areas based on CAD drawings provided by Client according to BIM Requirement Specification for clash analysis and constructability review
- Modeling duration: 2 weeks
- Deliverable: Detail M&E model for the basement car parks (including B1/F and B2/F) and podium for clubhouse and residential entrance lobbies (including G/F and 1/F) in Autodesk Revit Format

### 2.3 Update Architecture and Structure Modeling Package (Maximum 5 times)

- To update Architecture and Structure BIM models based on updated CAD drawings provided by Client according to BIM Requirement Specification for clash analysis and constructability review
- Modeling duration: 1 week
- Deliverable: Updated Architecture and Structure model for the basement car parks (including B1/F and B2/F) and podium for clubhouse and residential entrance lobbies (including G/F and 1/F) in Autodesk Revit Format



Era 1      2D Design to 3D

Era 2      3D Design to 2D Documentation ..... and more



# Development Bureau (DevB) Technical Circular – BIM Adoption

香港特別行政區政府  
The Government of the Hong Kong Special Administrative Region  
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Ref : DEVB(W) 430/80/01  
Group : 2, 5, 6

1 December 2017

**Development Bureau**  
**Technical Circular (Works) No. 7/2017**

**Adoption of Building Information Modelling**  
**for Capital Works Projects in Hong Kong**

**Scope**

This Circular sets out the policy and requirements on the adoption of Building Information Modelling (BIM) technology.

2. This Circular applies to works either by in-house government staff, consultants or contractors.

**Effective Date**

3. This Circular takes effect on 1 January 2018.

**Effect on Existing Circulars and Circular Memoranda**

4. This Circular has no effect on existing circulars.

9. Capital works projects with project estimates more than \$30 Million<sup>1</sup> shall use BIM technology. The policy is applicable for projects in the investigation, feasibility, planning, design or construction stages in the Capital Works Programme irrespective of the modes of delivery as detailed in the ensuing paragraphs. For entrustment works, subvented capital works projects and works that are undertaken by private parties but will be handed back to the Government for maintenance, the BIM adoption policy is covered in paragraph 16.



# Development Bureau Technical Circular Requirements and Deliverables

Process  
↓  
Deliverable

	BIM Use	Investigation, Feasibility and Planning	Design	Construction
1	Design Authoring	O	M	M
2	Design Reviews	O	M	M
3	Existing Conditions Modelling	O	O	M
4	Site Analysis	O	M	
5	3D Coordination		M	M
6	Cost Estimation	O	O	O
7	Engineering Analysis		O	O
8	Facility Energy Analysis		O	O
9	Sustainability Evaluation	O	O	O
10	Space Programming	O	O	
11	Phase Planning (4D Modelling)		O	M
12	Digital Fabrication		O	O
13	Site Utilization Planning			O
14	3D Control and Planning			O
15	As-Built Modelling			M
16	Project Systems Analysis			O
17	Maintenance Scheduling			O
18	Space Management and Tracking			O
19	Asset Management			O
20	Drawing Generation (Drawing Production)		M	M

Legend:

M – Mandatory BIM Use for the mentioned stage, including that carried forward from previous stage.

O – Optional BIM Use

## Design Presentation

Architectural Design  
Structural Design  
MEP Design  
Landscape Design  
Civil Design .....

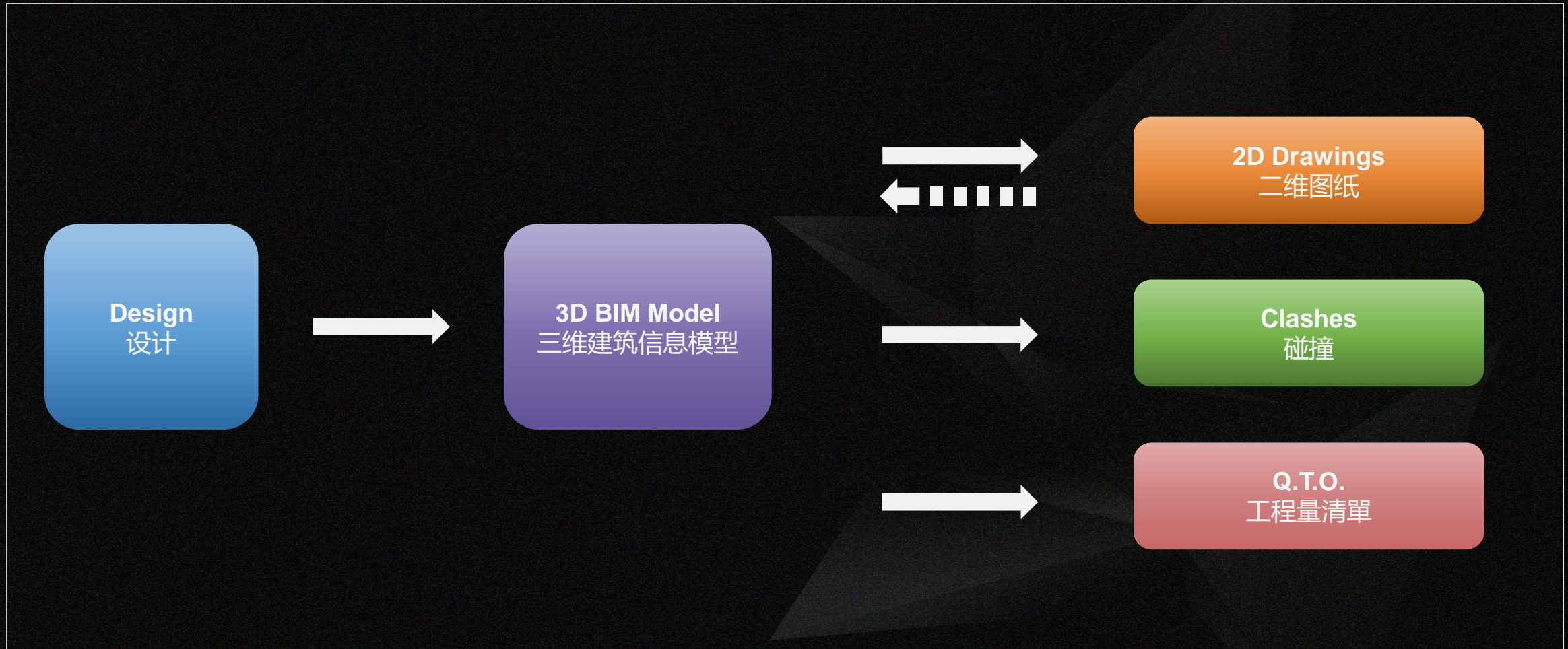
## Statutory Submission - Legal

General Building Plan,  
Curtain Wall submission,  
Demolition Plan, Site Formation Plan, Structural  
Submission,  
Drainage Submission, Utility Submission, .....

## Construction - Contractual

Tender Drawing, Construction Drawing,  
Shop Drawings,  
Combined Services Drawings,  
Combined Builder's Work Drawings,  
As – built drawings.....



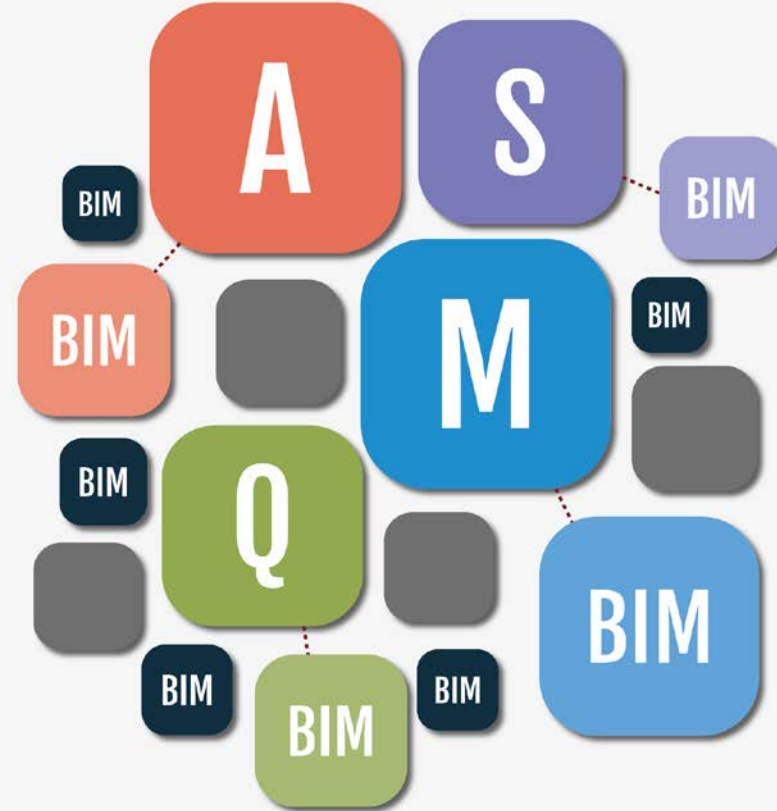




Client

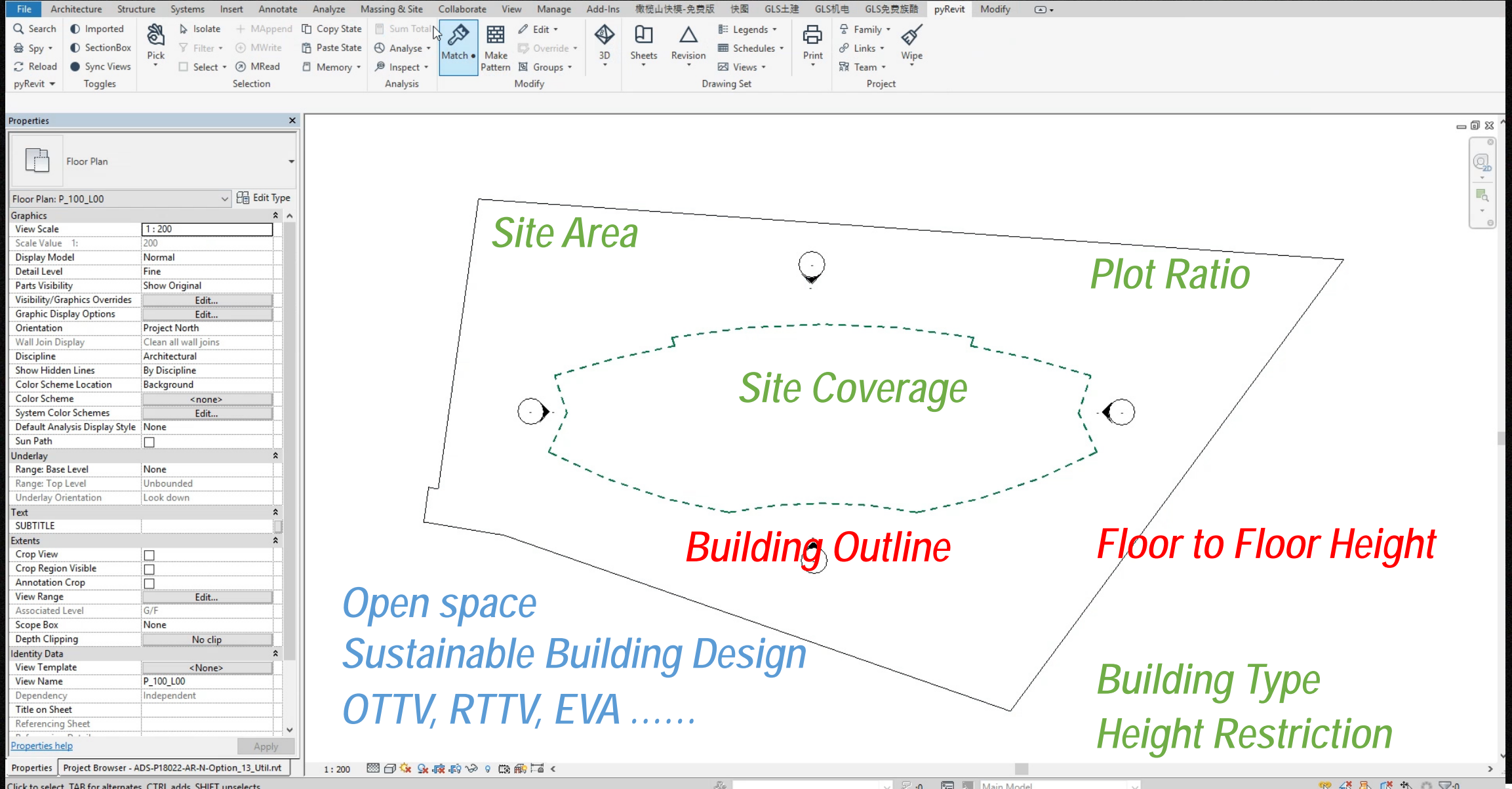


Consultant

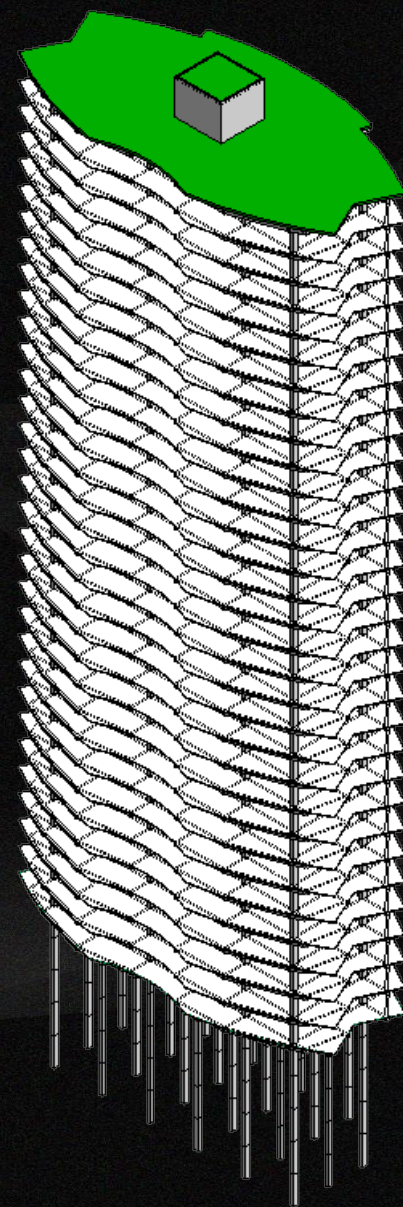
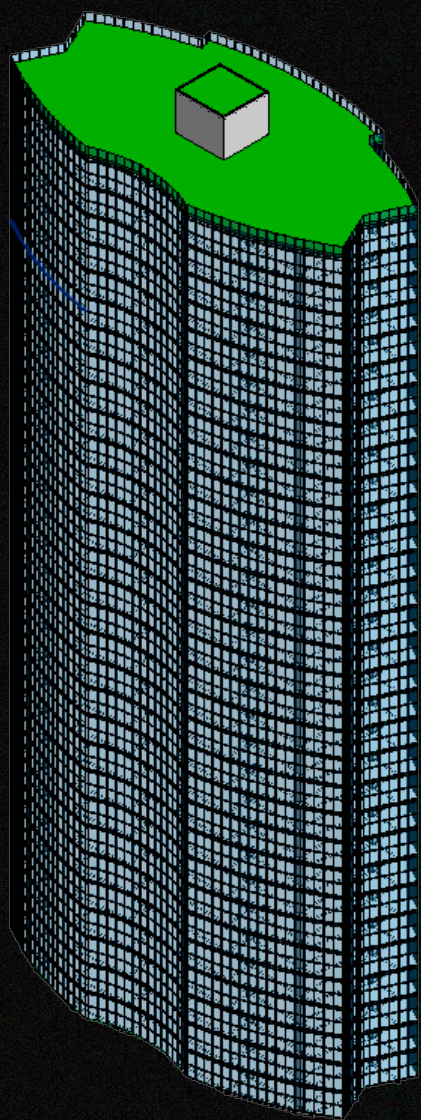


Specialized BIM  
High Demand

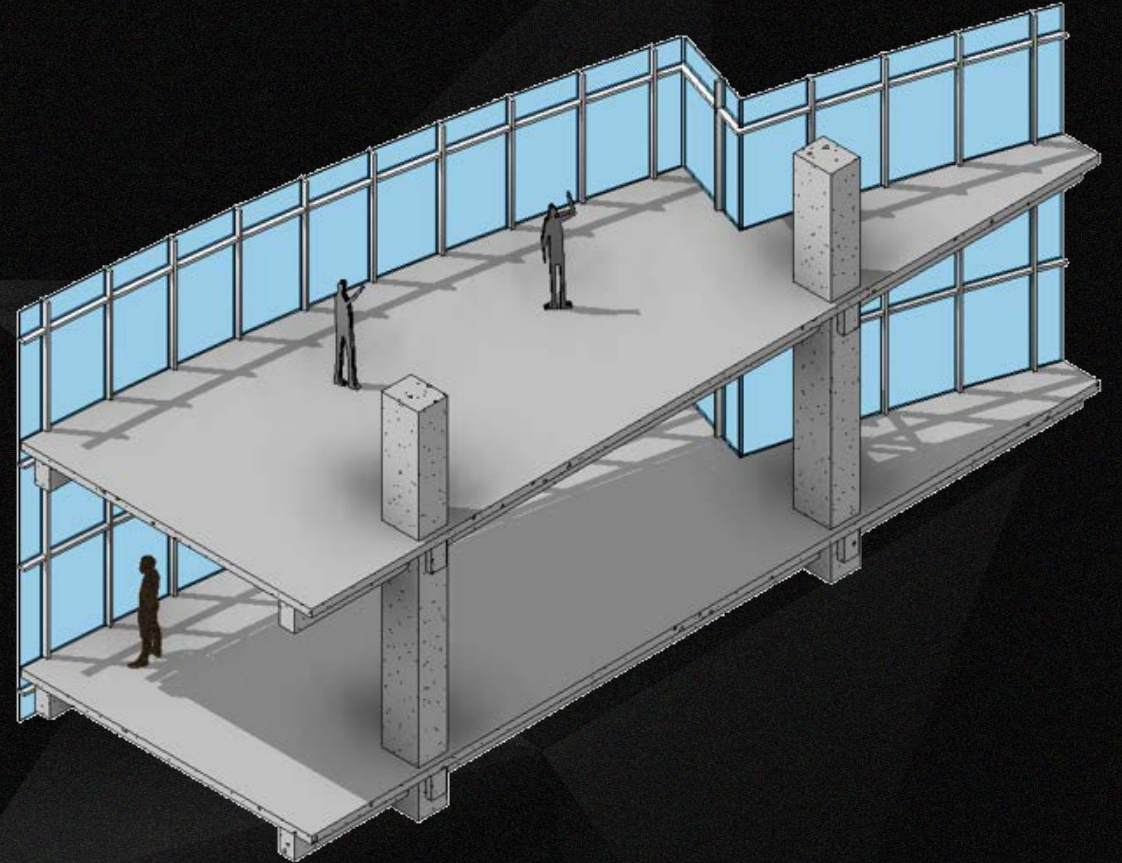
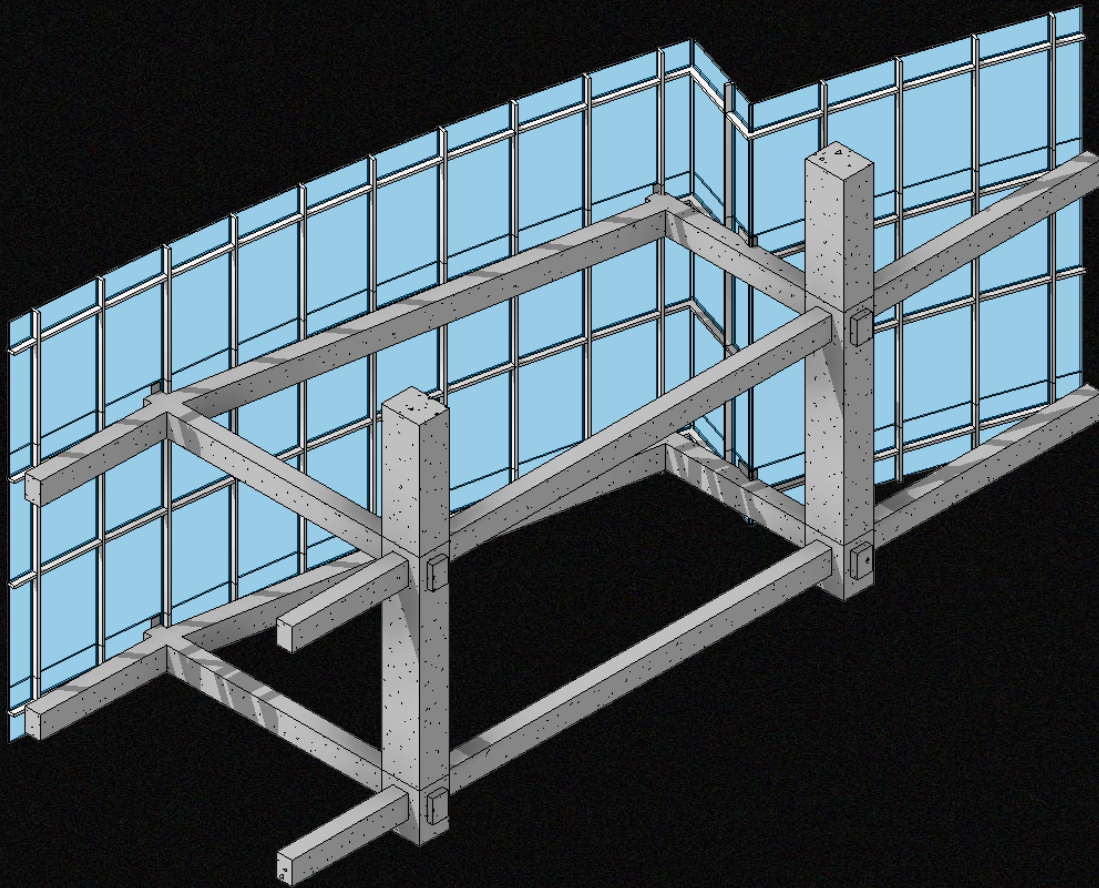




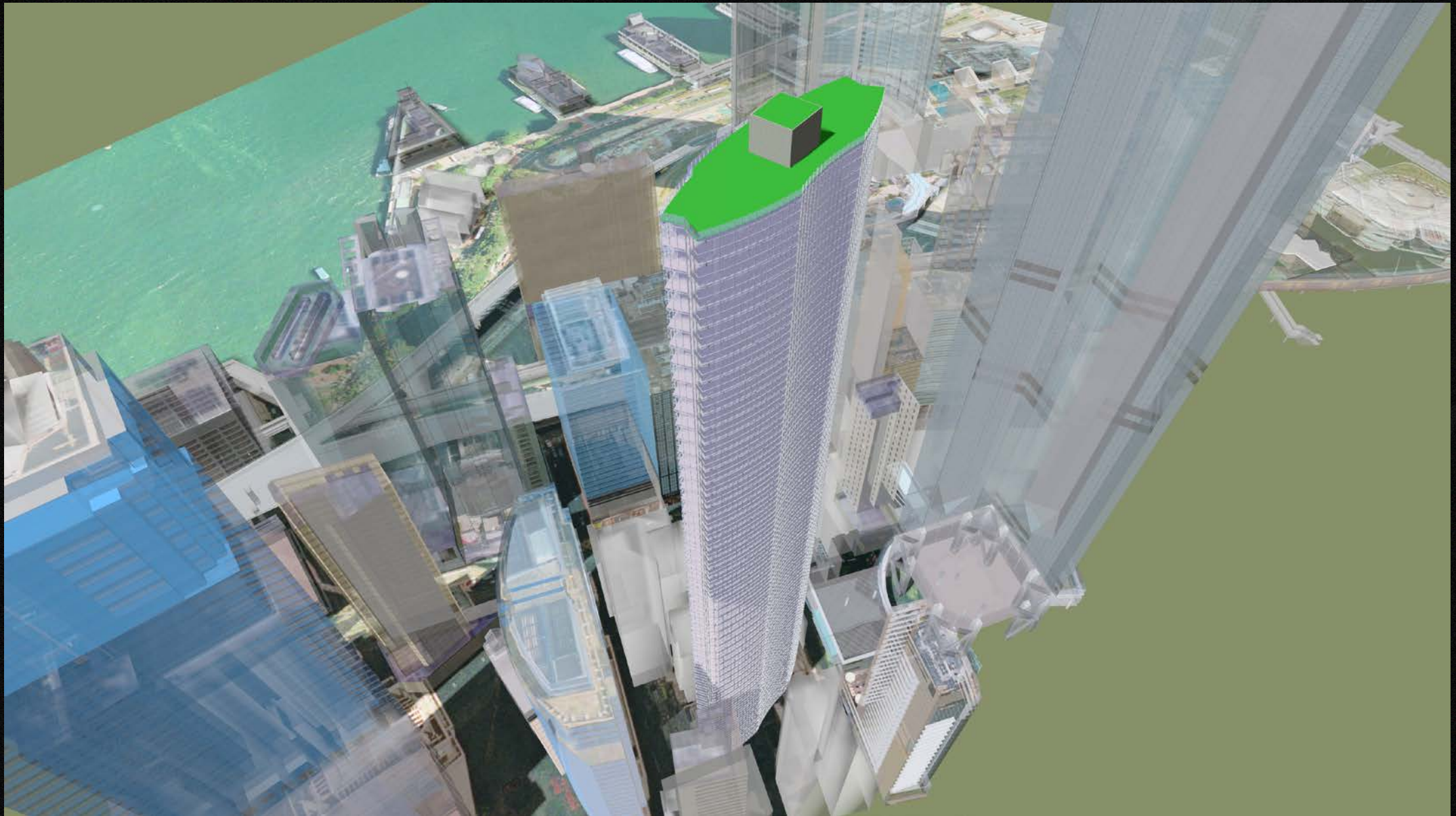




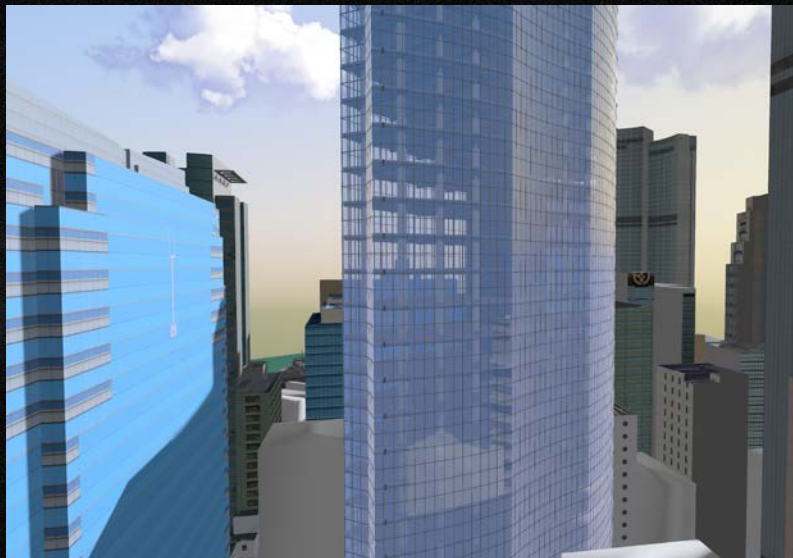
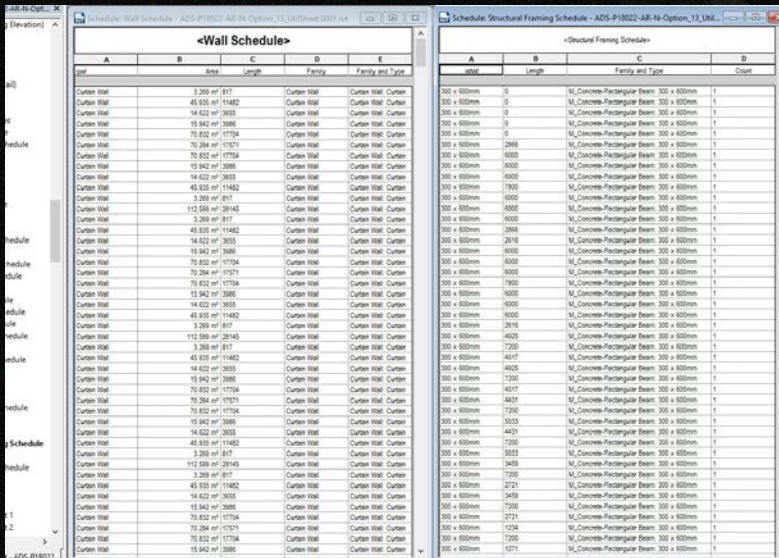
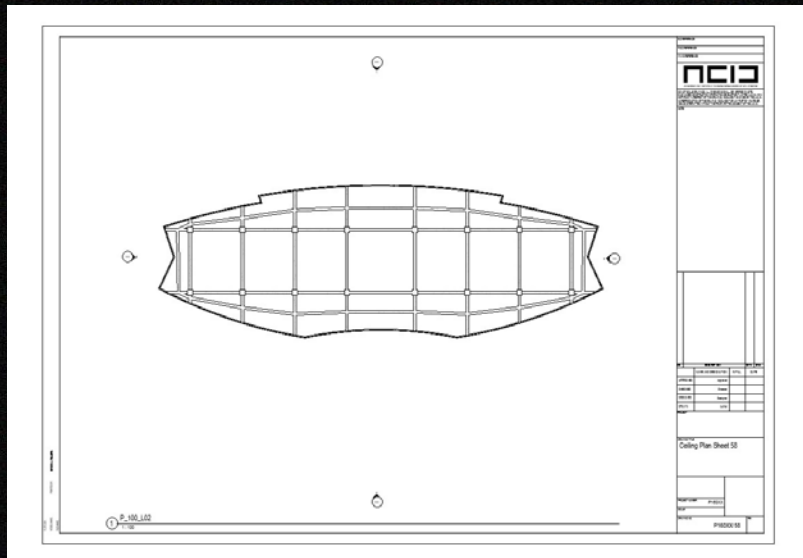
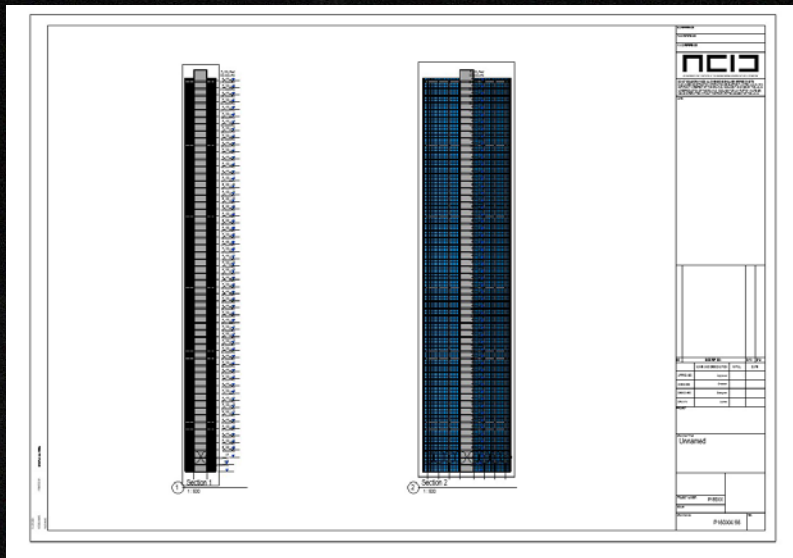
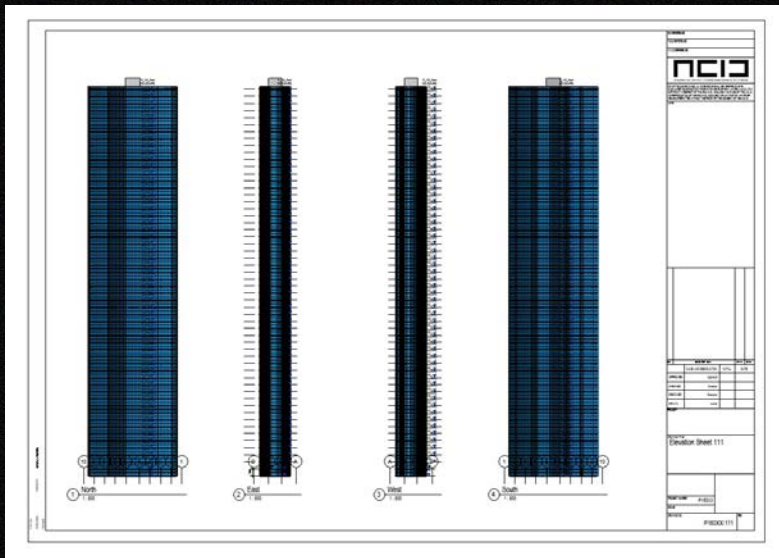
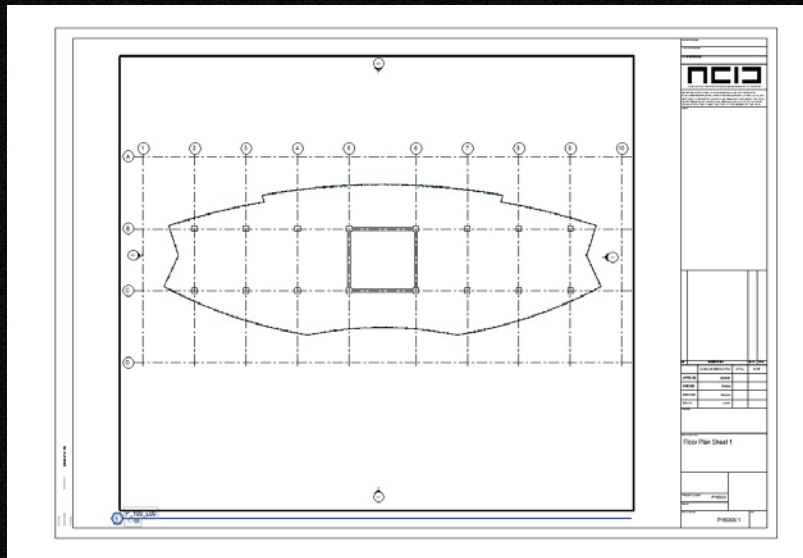












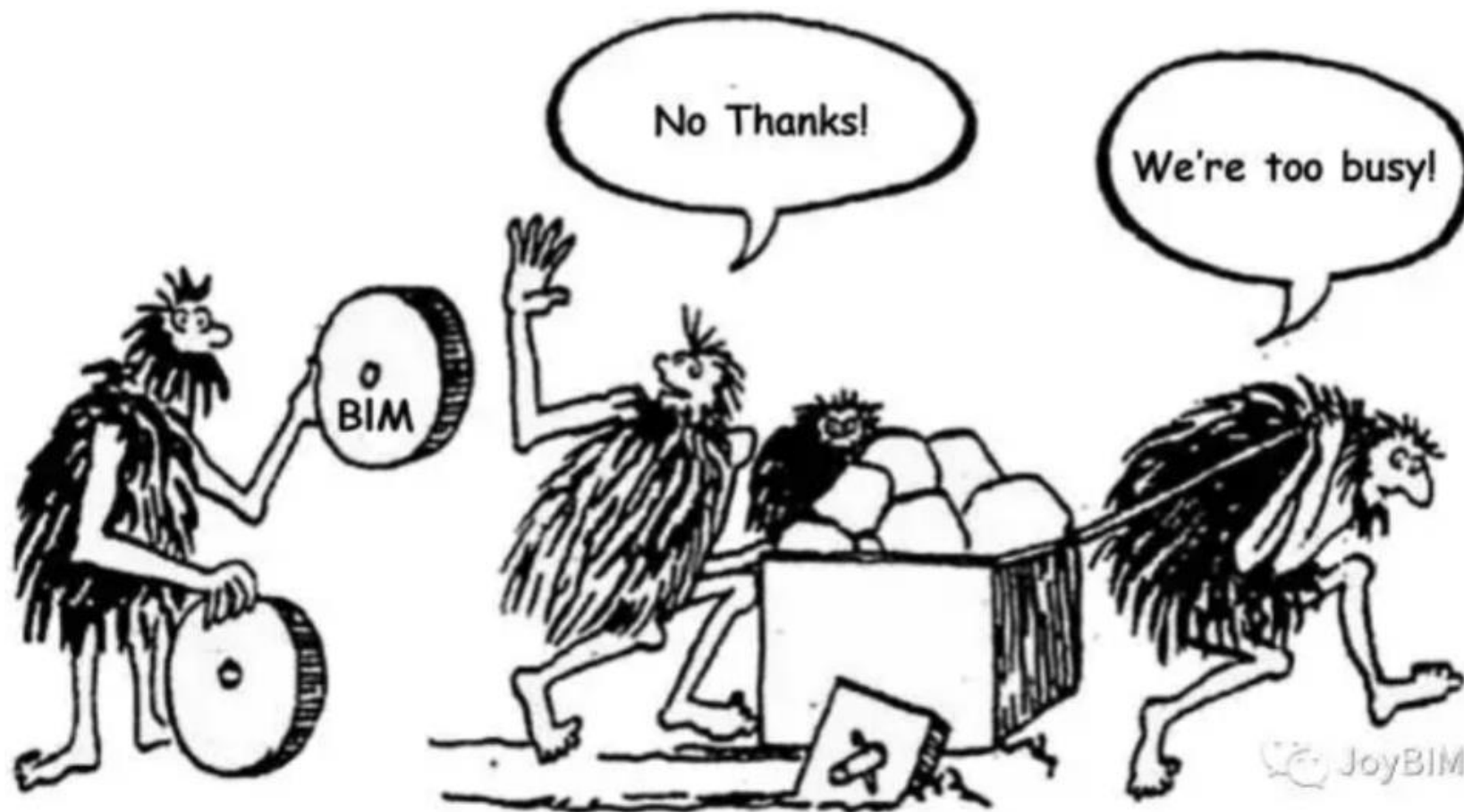


- Era 1 2D Design to 3D
- Era 2 3D Design to 2D Documentation ..... and more
- Era 3 Era of Automation Intelligence**



- Era 1 2D Design to 3D
- Era 2 3D Design to 2D Documentation ..... and more
- Era 3 Era of Automation Intelligence
- Era 4 Era of Artificial Intelligence .....**









■ THANK YOU !