

Project constraints, requirements and challenges

Site Location:
CIC-ZCP, 8 Sheung Yuet Road, Kowloon Bay

Building Usage:
Advancing Net Zero (ANZ) Hub
with additional educational and community facilities

Site Area:
Approximately 14,700 m2 .

Maximum Building Height:
14m

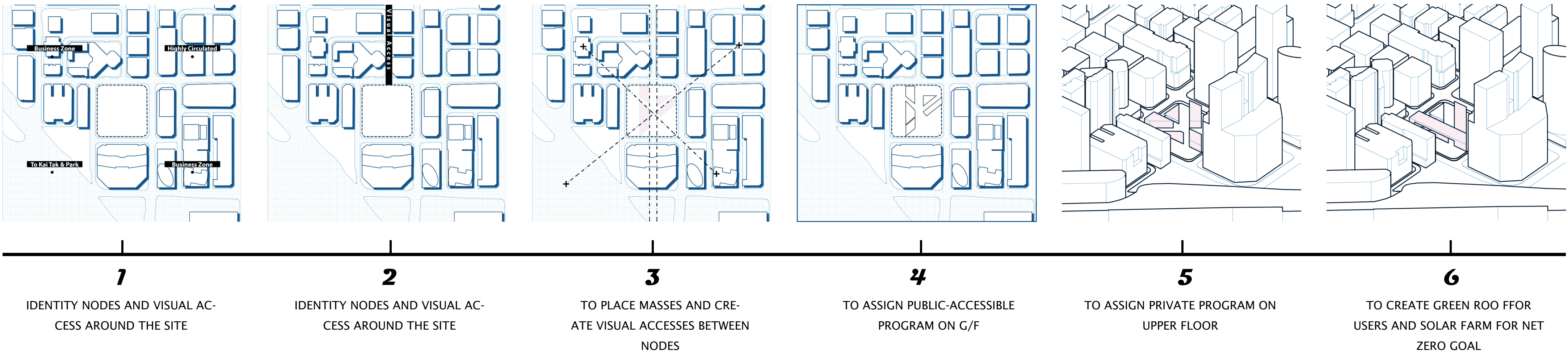
Maximum Site Coverage:
40%

Objective:
To promote and accelerate digital transformation for Smart City by enhancing the building / construction practices in AECOO industry, there is a need for the CIC to expand the existing facility of CIC-ZCP to provide more comprehensive overall support to the industry.

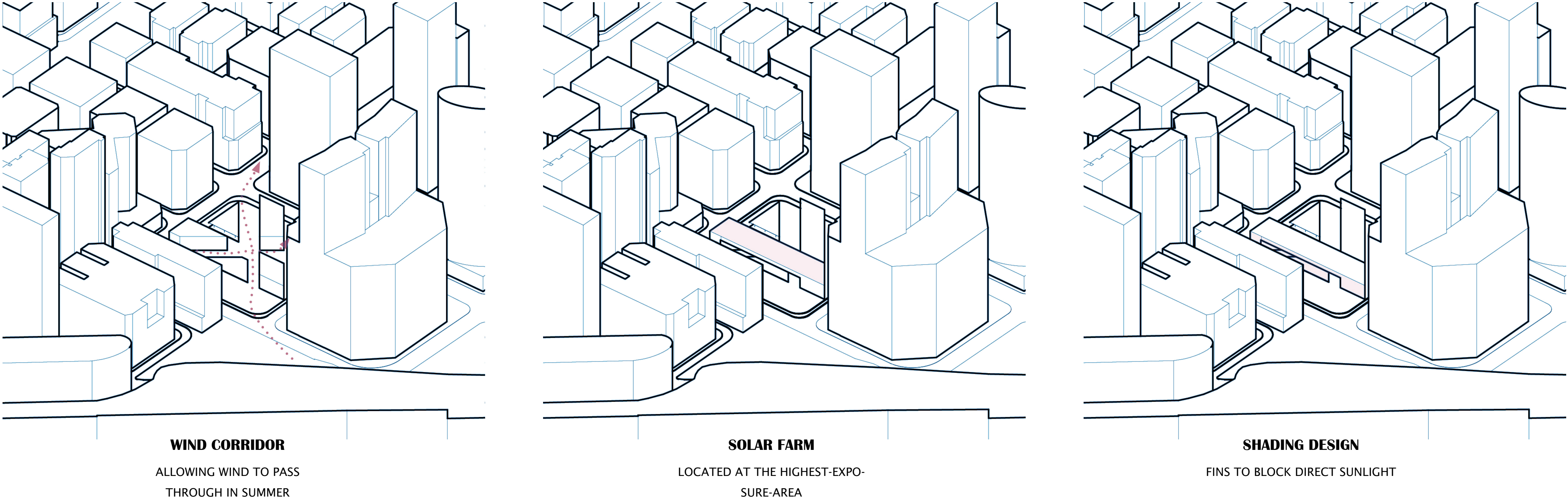
Key issues to be solved:

1. How to advance the sustainable design so as to achieve carbon net zero
2. How to promote stem effectively

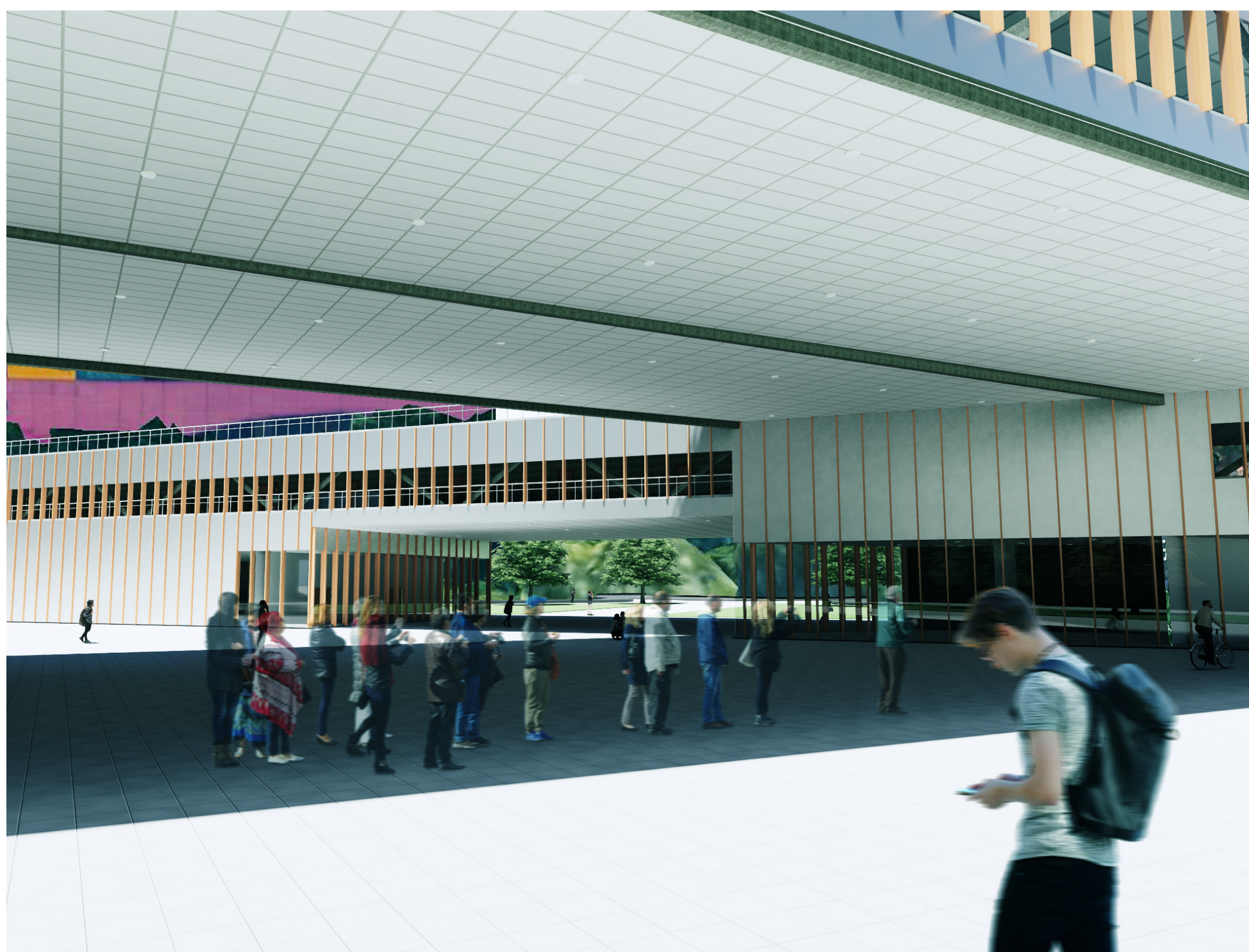
Design Development



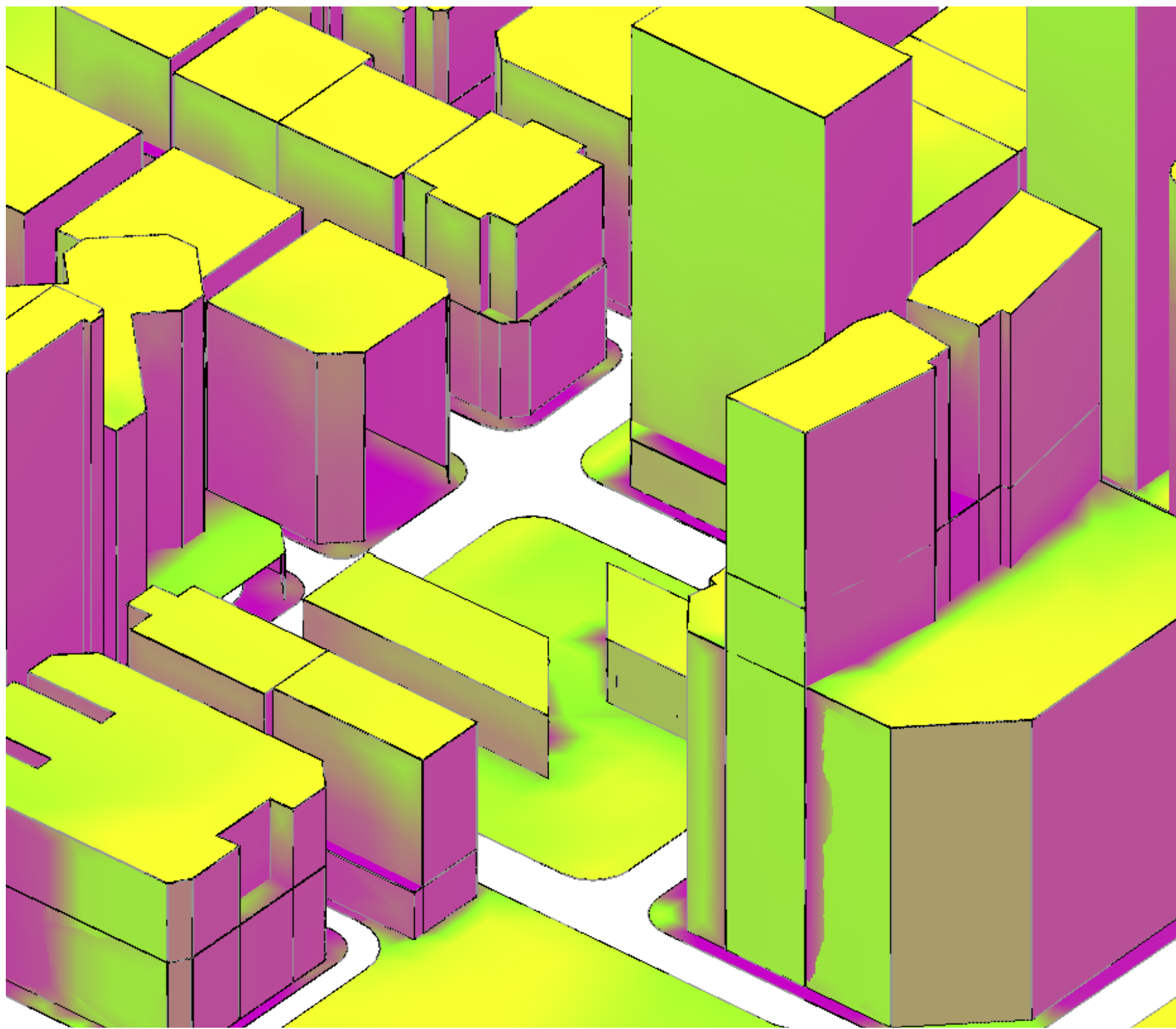
Passive Design for Sustainability



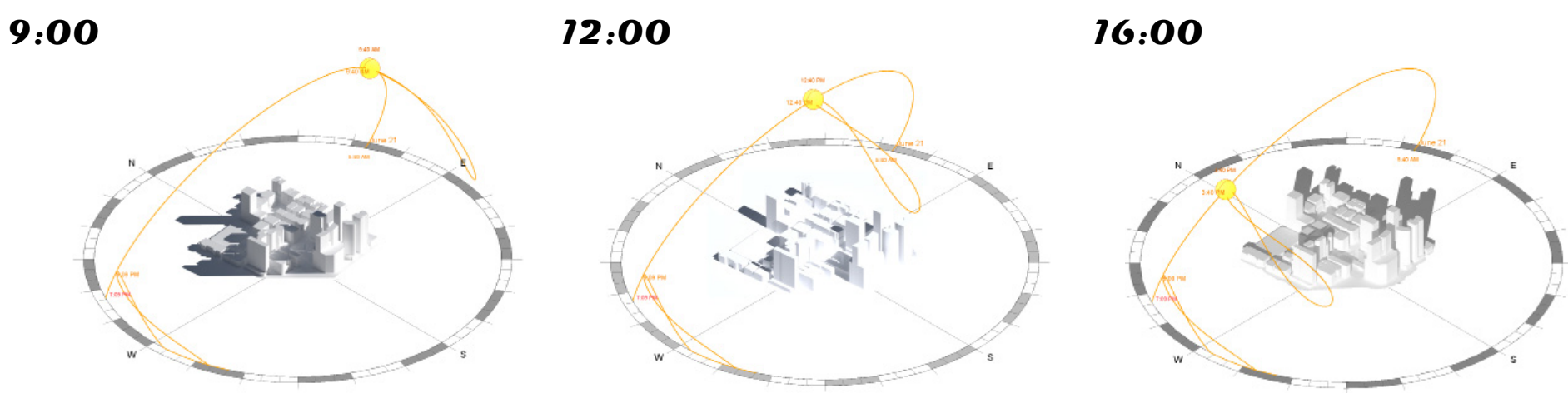
Street View



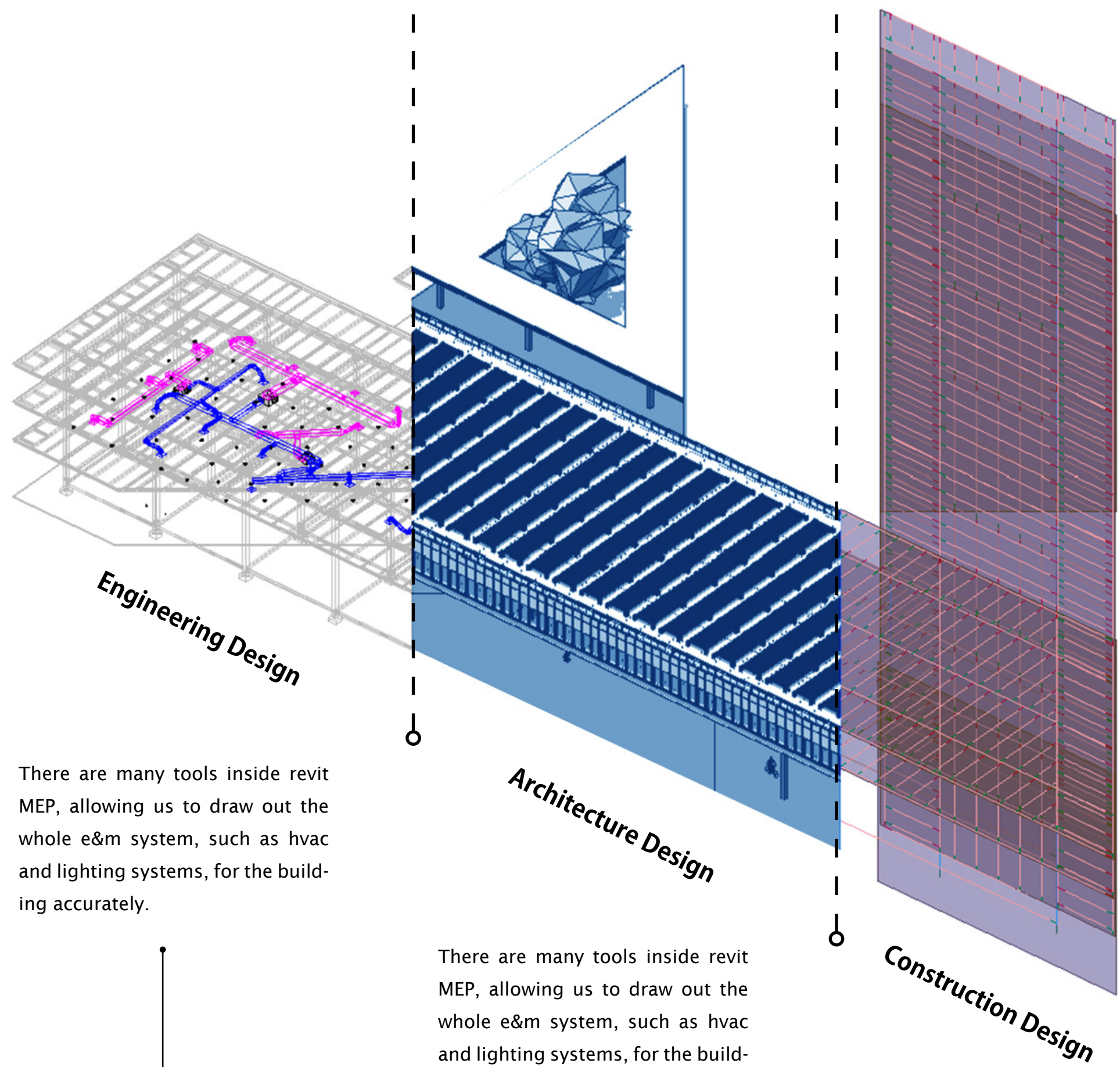
Passive Design for Sustainability



Thermal Analysis



Shading Study

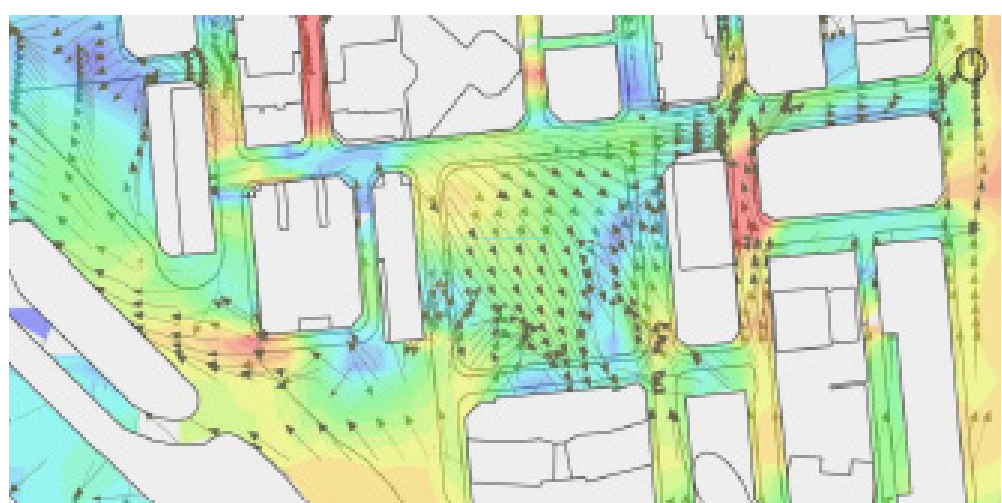


There are many tools inside revit MEP, allowing us to draw out the whole e&m system, such as hvac and lighting systems, for the building accurately.

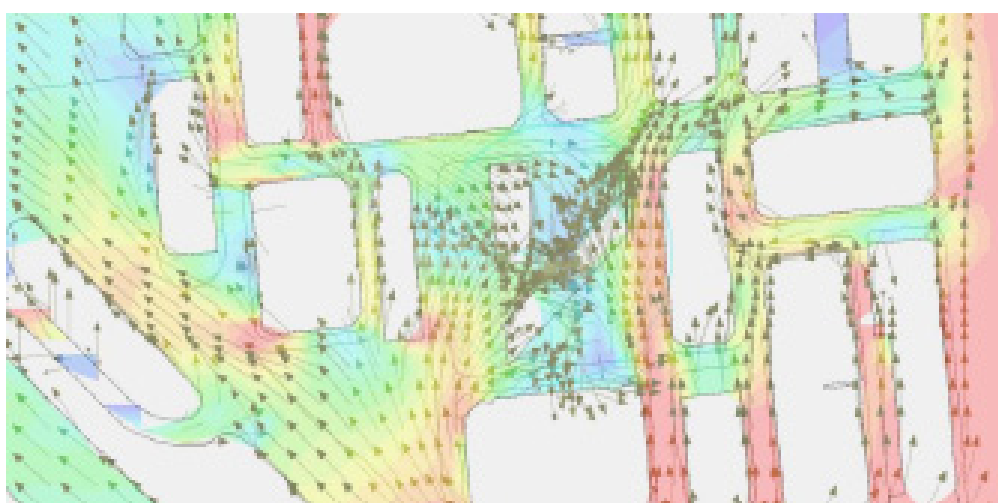
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For a structural analysis, we can convert from Revit file to Robot Structural Analysis software to obtain an actual values of the loading.

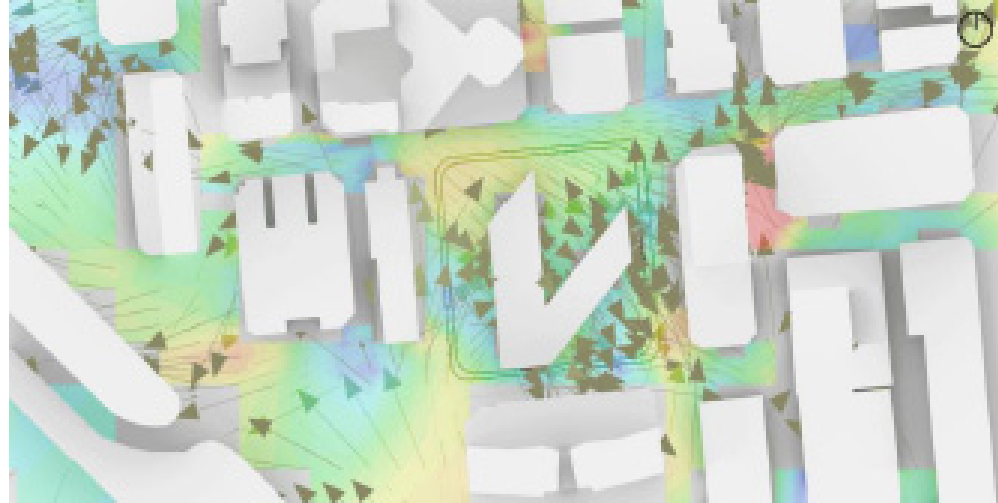
Passive Design for Sustainability



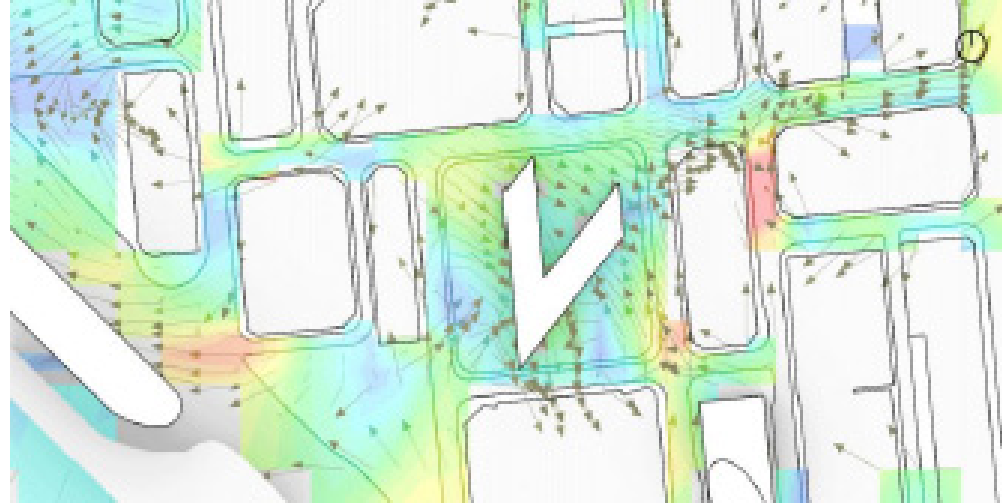
Site Condition on the level of +10mpd



Final result on the level of +10mpd

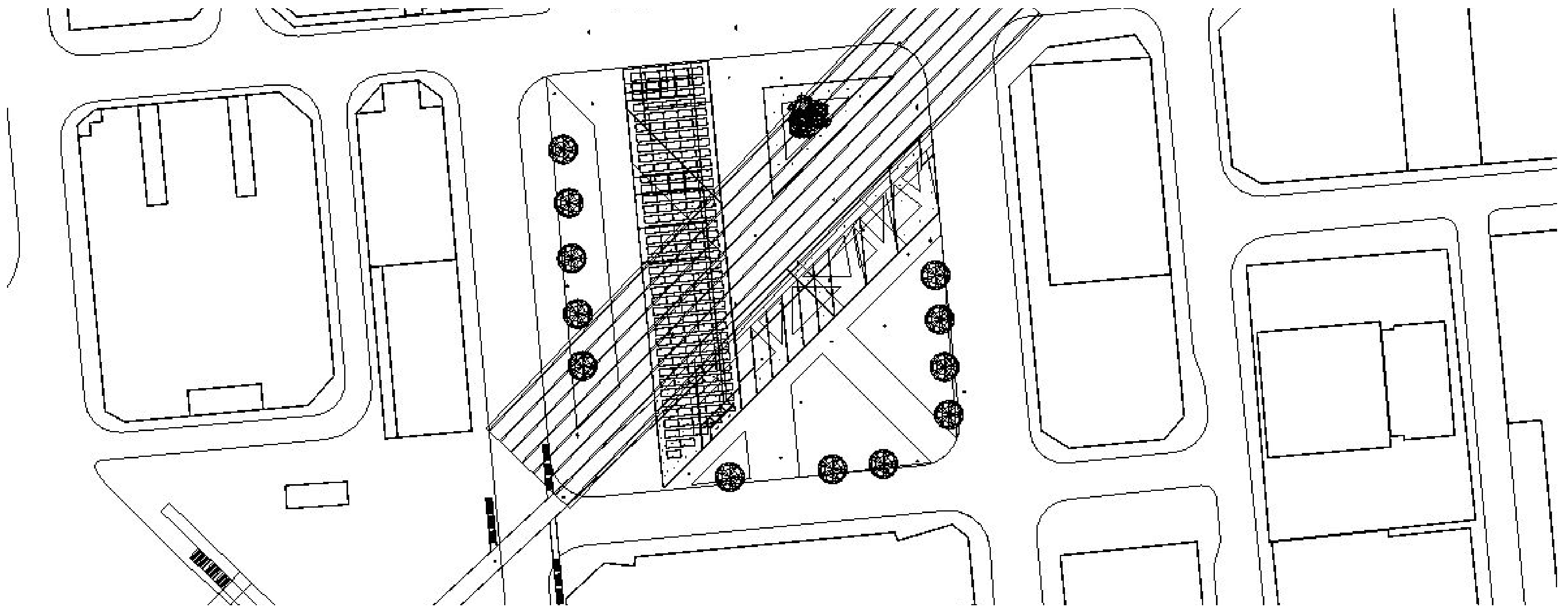


Design option 1, on the level of +20mpd

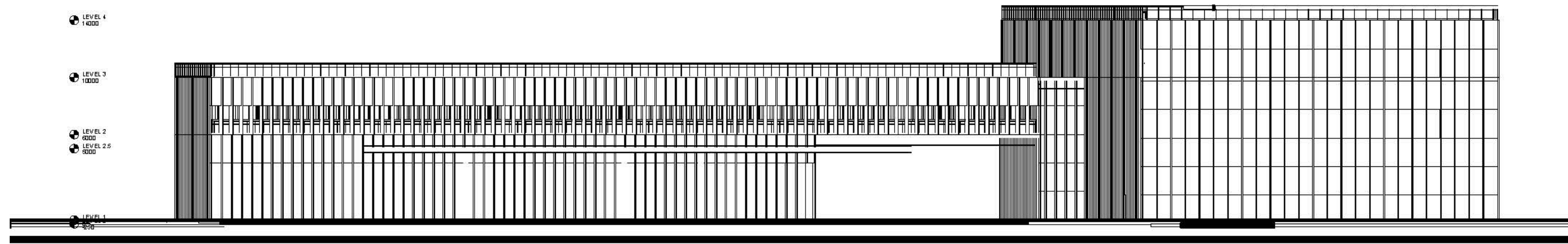


Final result on the level of +20mpd

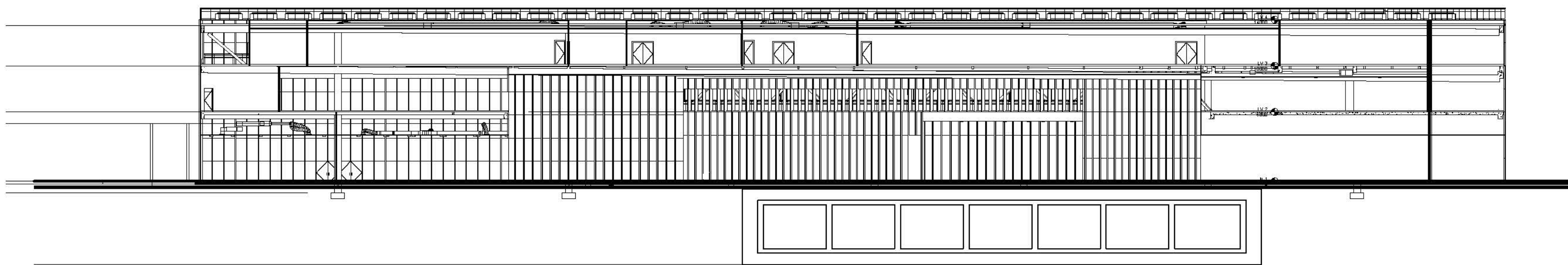
Wind Simulation (CFD)



Plan



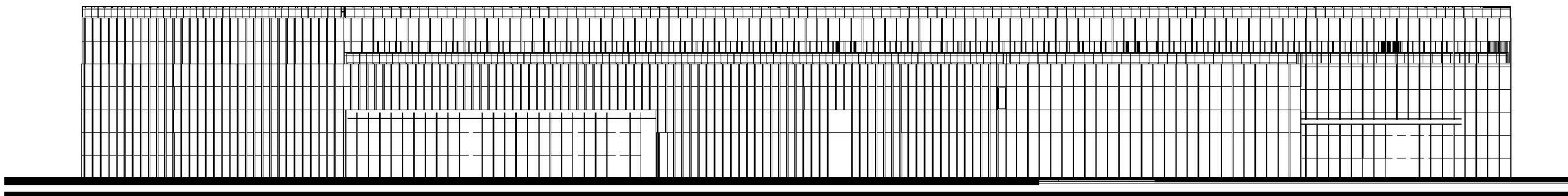
Elevation AA'



Section AA'



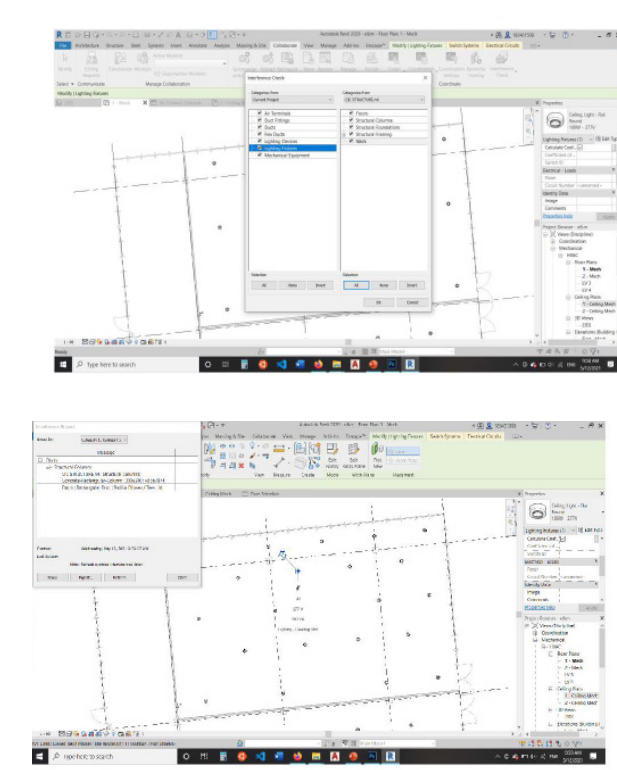
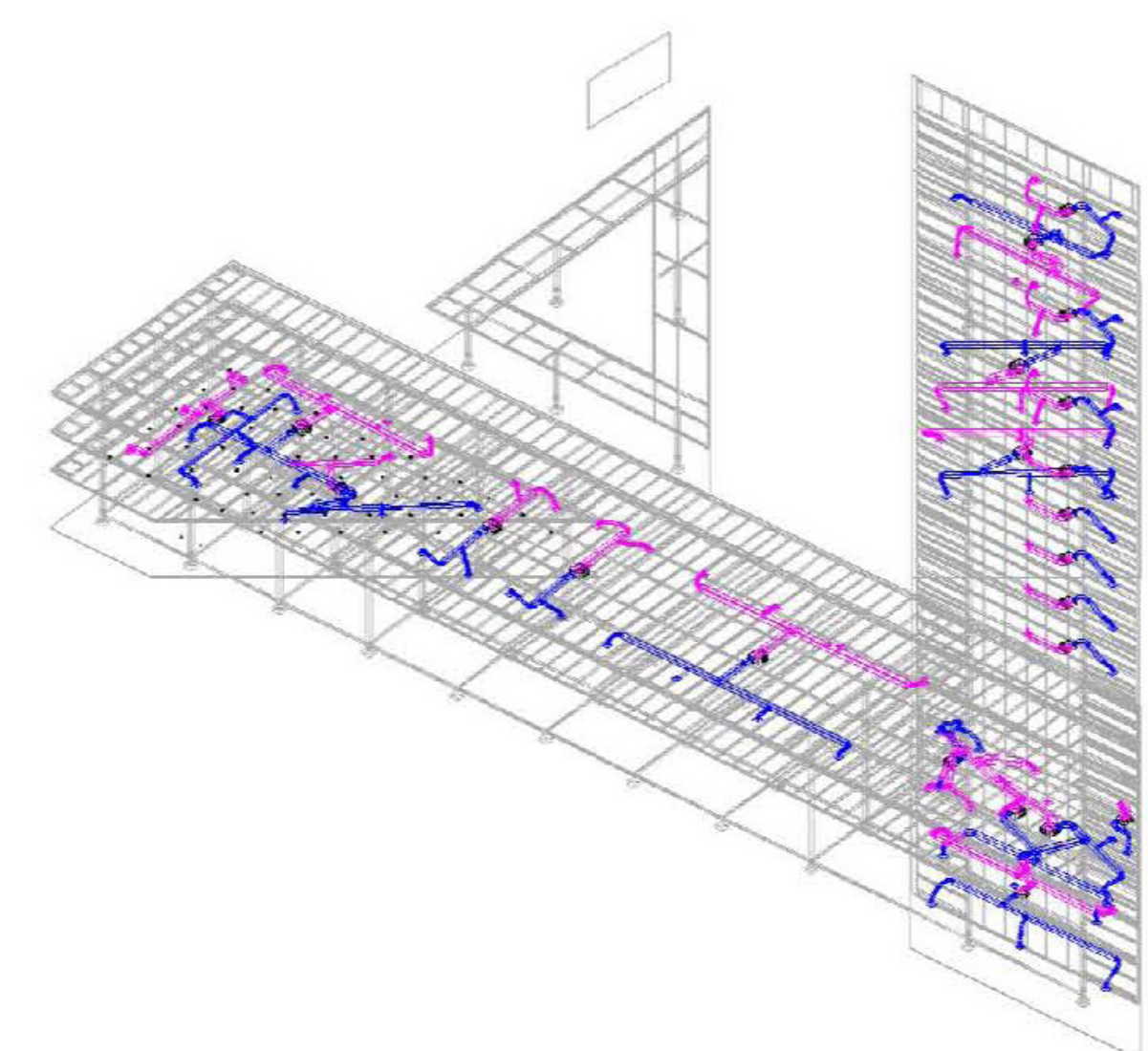
Section BB'



Elevation BB'

CIC BIM Competition 2021- Submission Poster Template

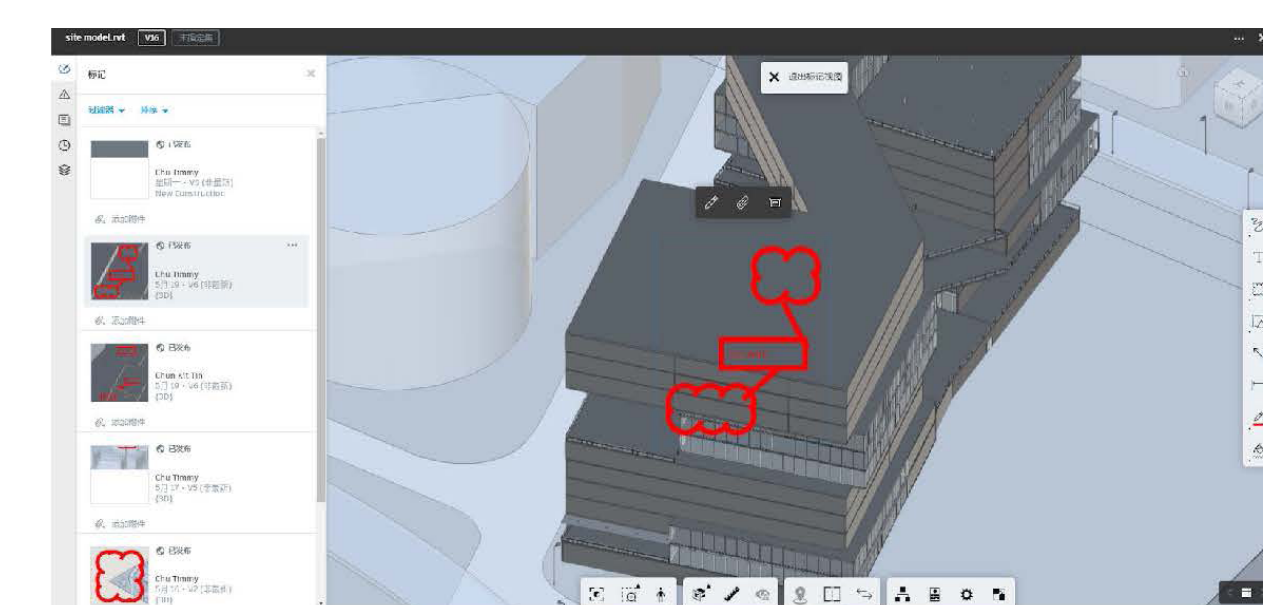
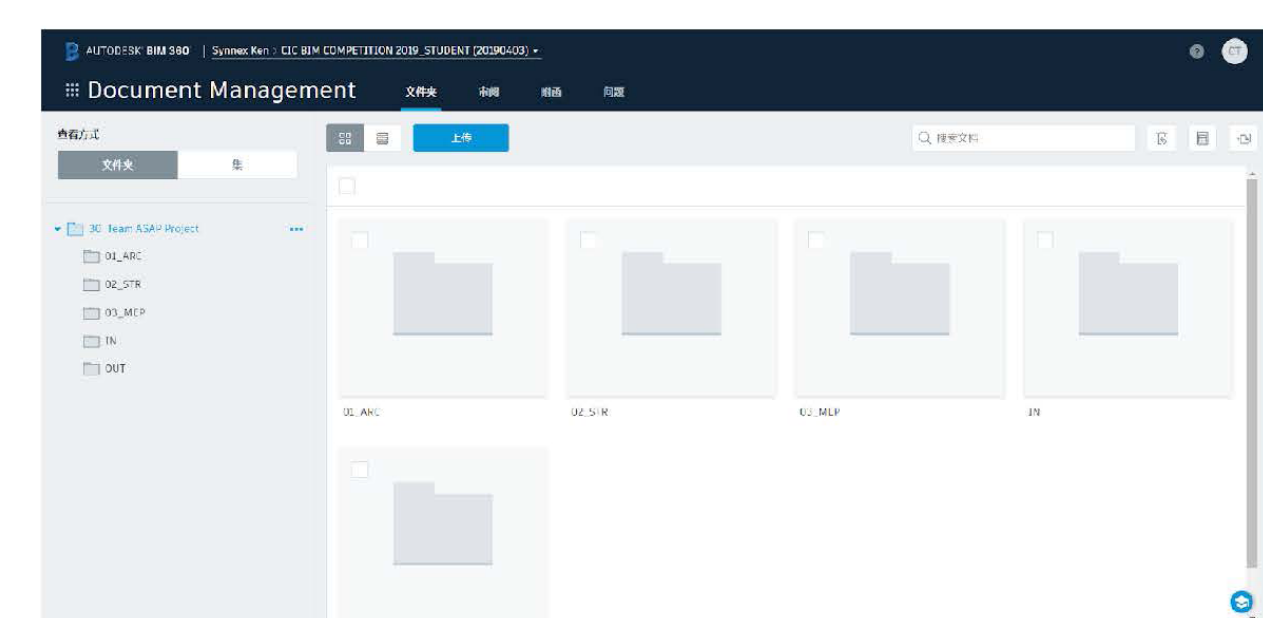
Engineering design illustration and development using BIM (MEP)



<Air Terminal Schedule>				<Duct Schedule>			
Family and Type	Level	Size	Length	Family and Type	Level	Size	Length
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Schedule of Quantities of the drawn elements allows us to design with better cost management. And there is a interface check function for each model, allowing better collaboration between parties.

Use of BIM platform and methodology of multidisciplinary design coordination – BIM 360



ARC



STR



MEP



We can upload the revit files and open them on the BIM 360 platform. View the design in 3D and check the 2D drawing after published in revit. Besides, teammates can add comments here for communication and improvement of the design.

List of Software

For 3d Modeling



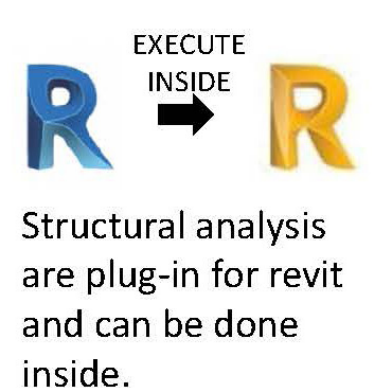
For Simulation



For Instant Rendering and video-making



Data transfer among BIM software



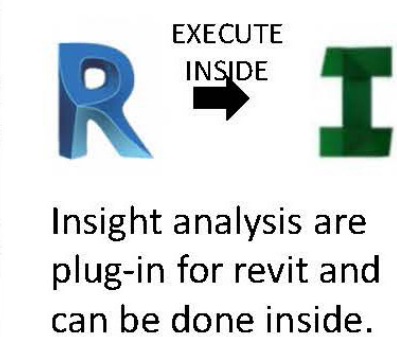
Revit MEP
For MEP Modeling

Revit Architecture
For Architectural Modeling

Revit Structure
For Structural Modeling



For Design Collaboration



Engineering creativity, innovation & technologies application

Revit – Clash Checking

