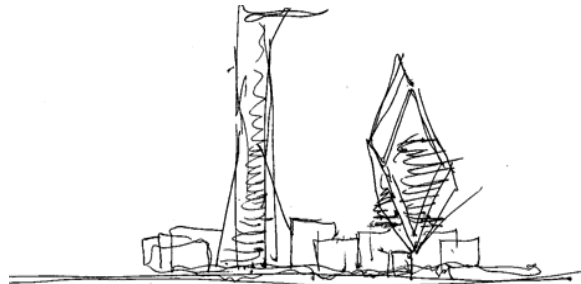


# knowledge capital project

*Smart Structure in Crystal Pyramid*

29. Aug. 2005

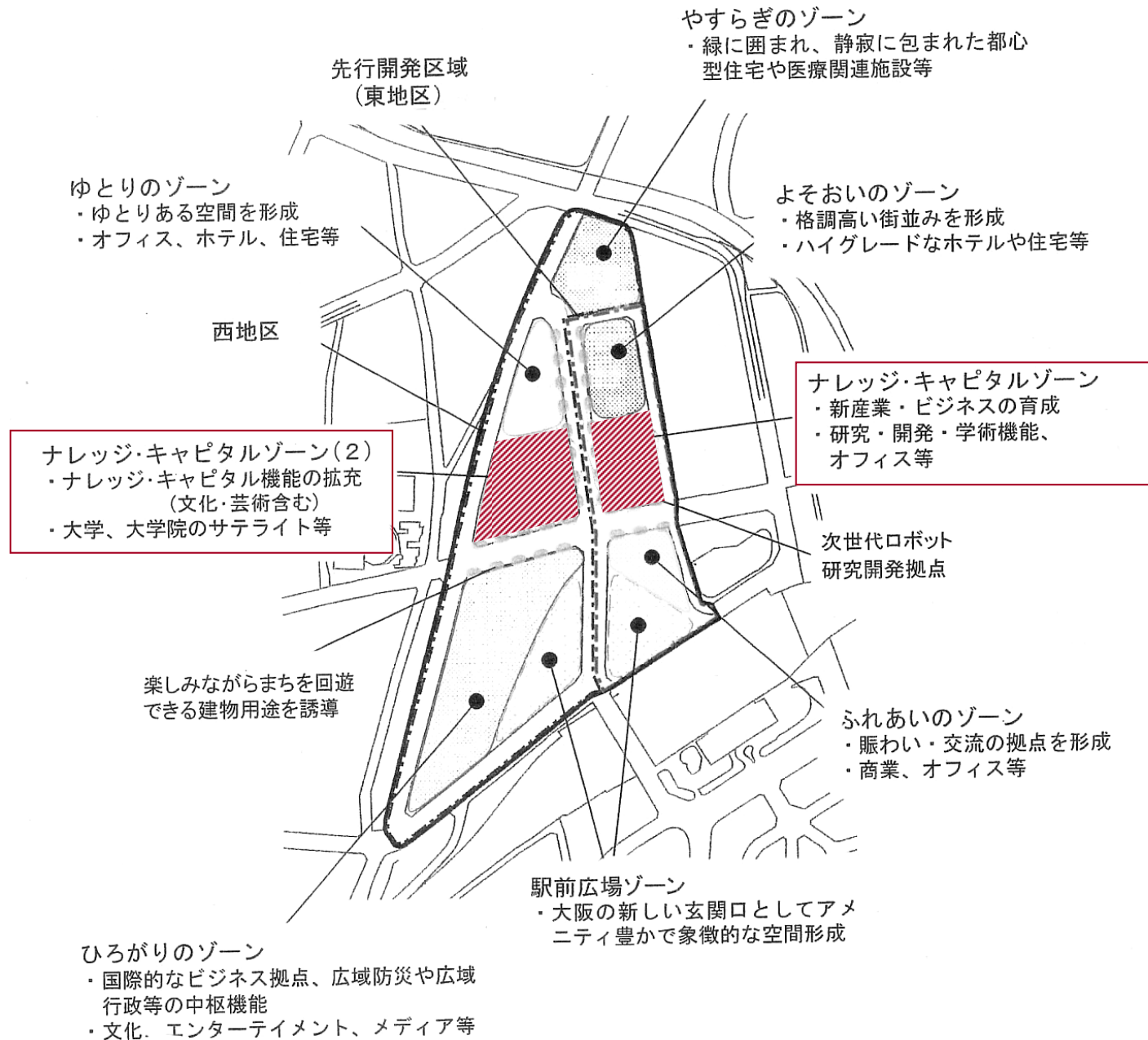


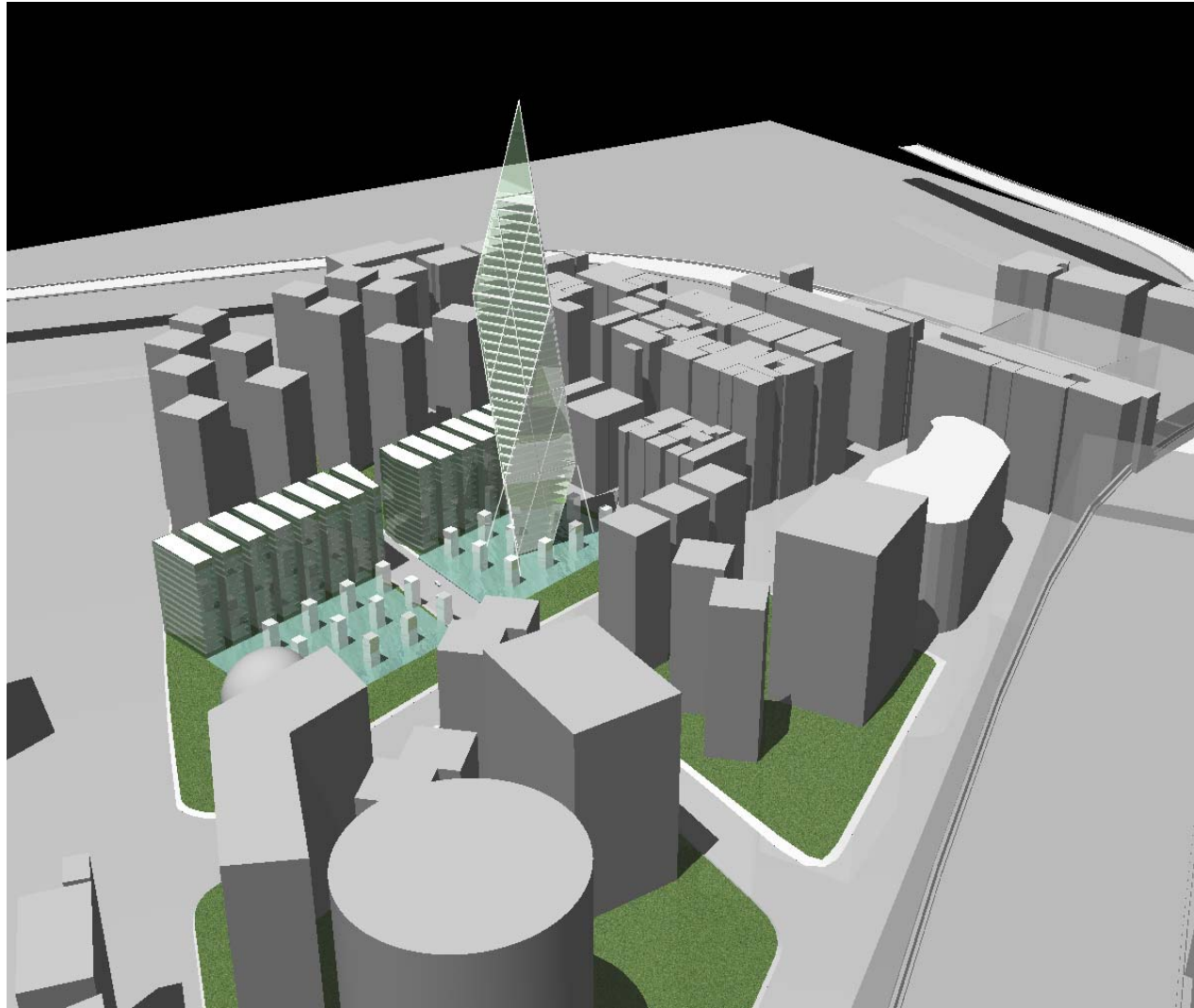
Cyber media Center & Architectural Eng. Division of Osaka University.

Hirokazu Abe Eizaburou Tachibana



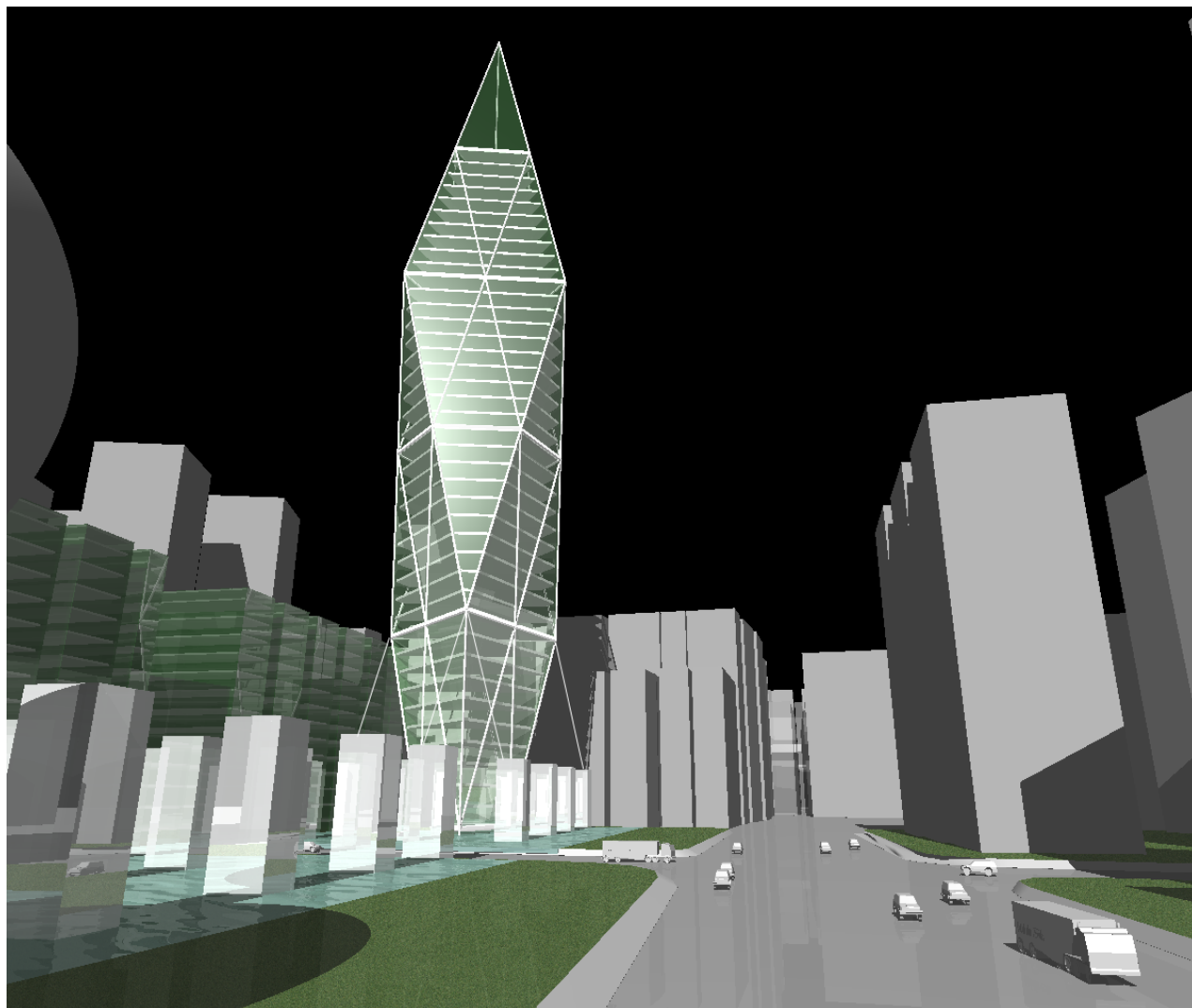
# Development Plan





Townscape of Knowledge Capital Area

北ヤード全体の景観



Townscape of Knowledge Capital Area

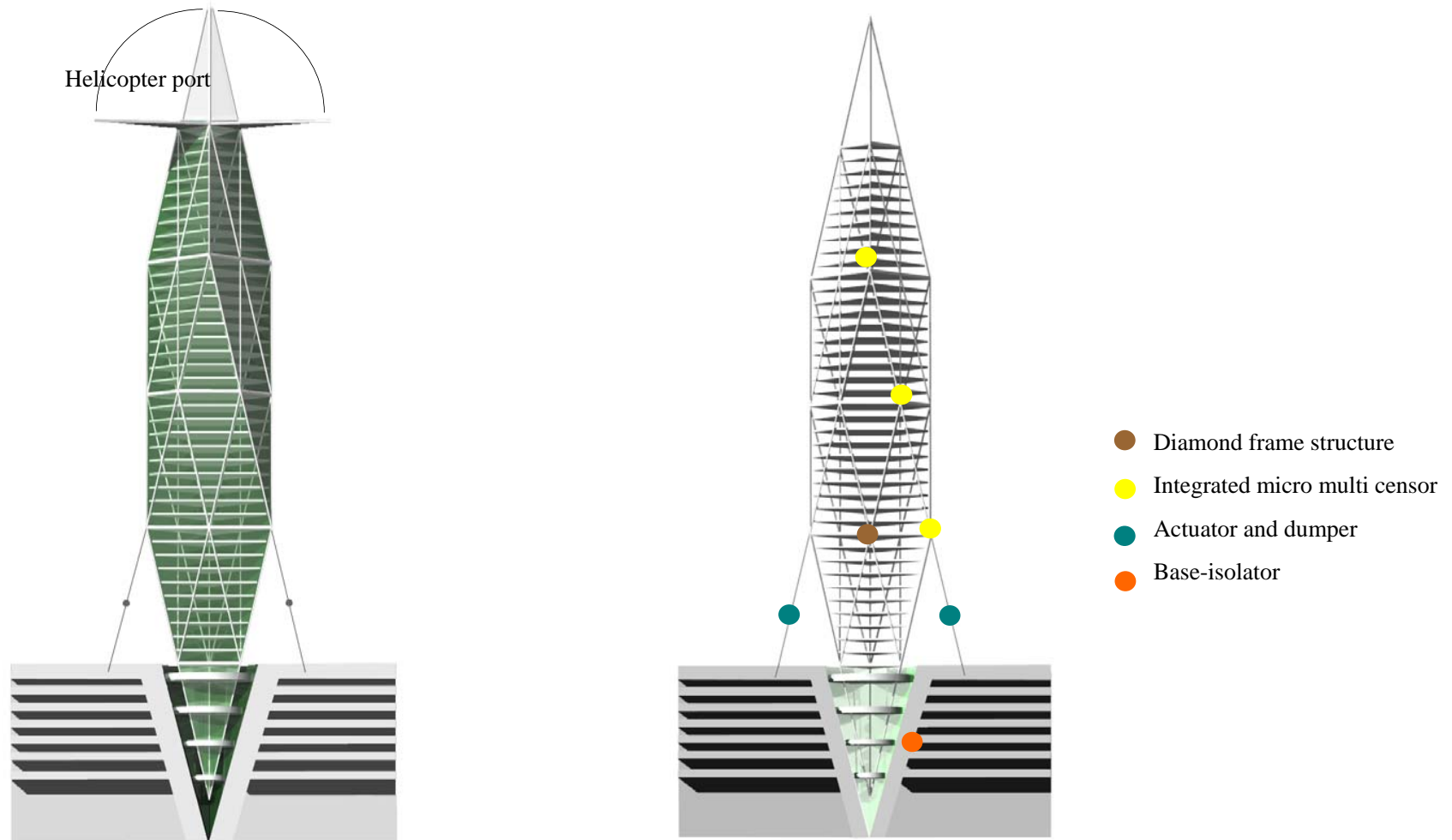
ナレッジキャピタルゾーンの景観



# Smart Structure and Earthquake Engineering

Smart Structure : new type of structure is being born named “smart structure”. They required various devices and systems .

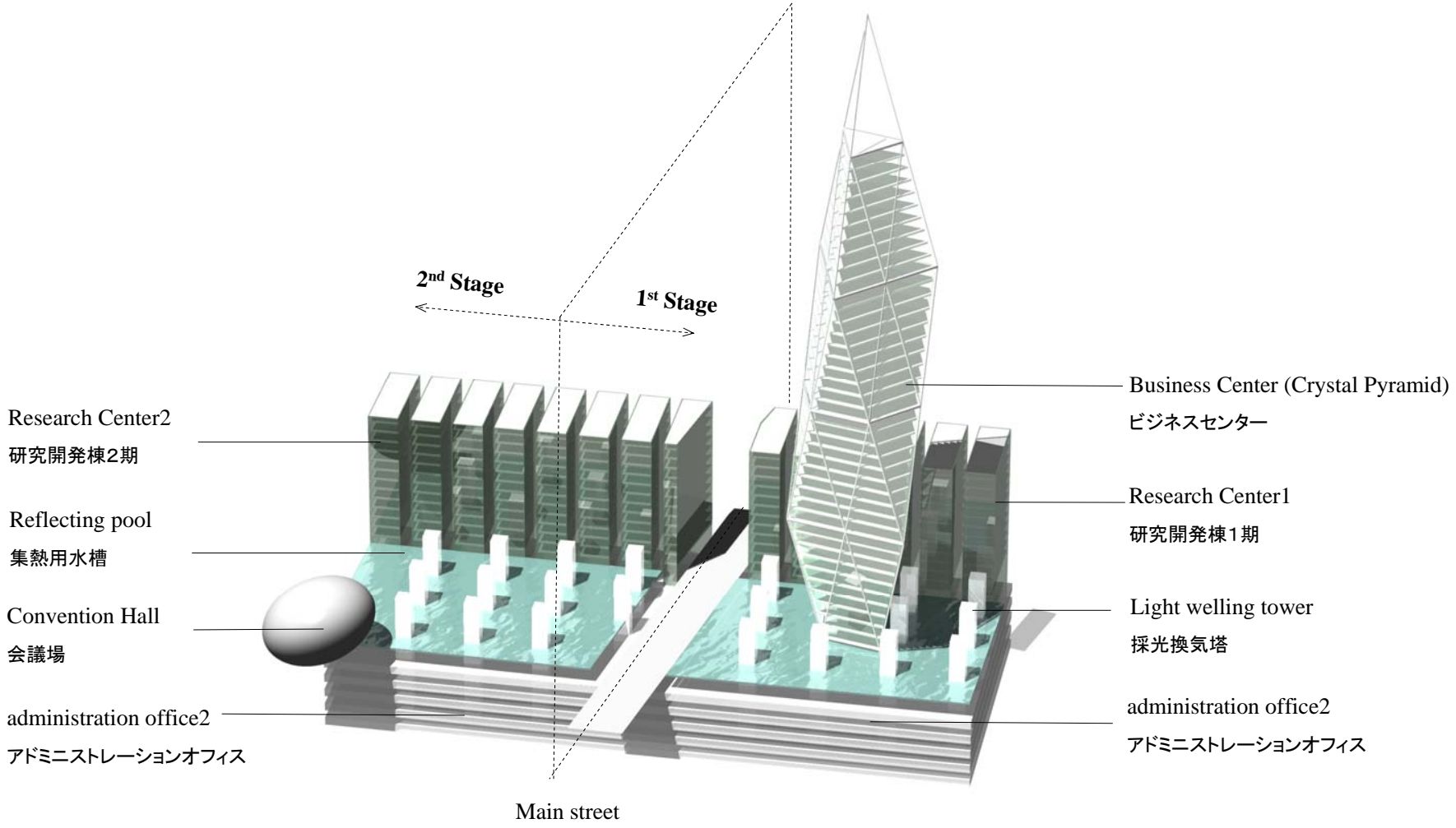
- 1) Implanted sensors for continuous health monitoring and for control of vibration,
- 2) Special cushions named base-isolators to avoid resonance,
- 3) Actuators, dampers like as muscles and ice bag.



スマートストラクチャーは様々なデバイスとシステムを組み込んだ新しいタイプの構造体です。

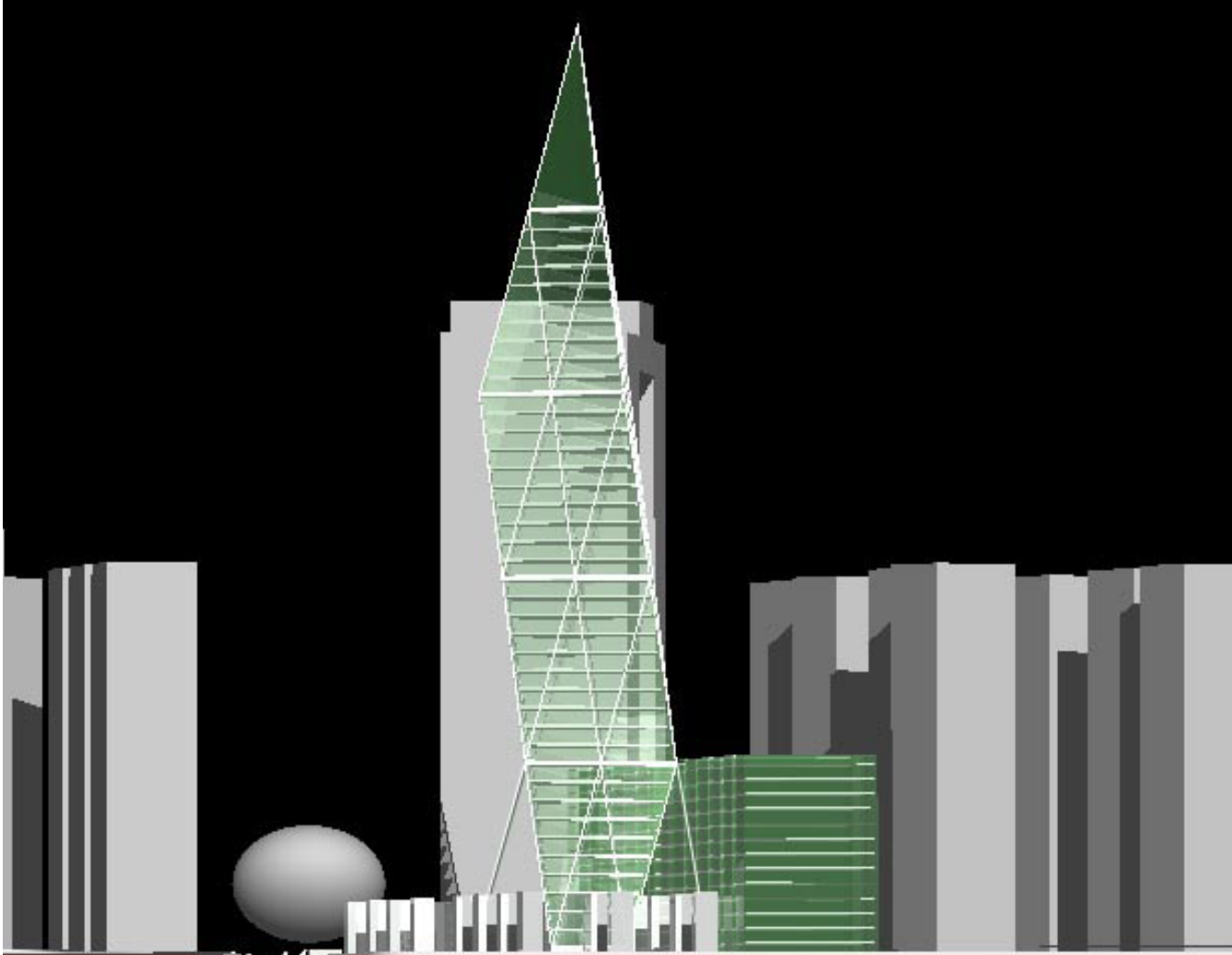
- 1) インパクトセンサー（建物の継続的モニタリングと振動制御）
- 2) ベースアイソレーター（振動を回避する特殊な緩衝材）
- 3) アクチュエーター、ダンパー（建物の筋肉として機能）

# Composition of Knowledge Capital Central Zoon



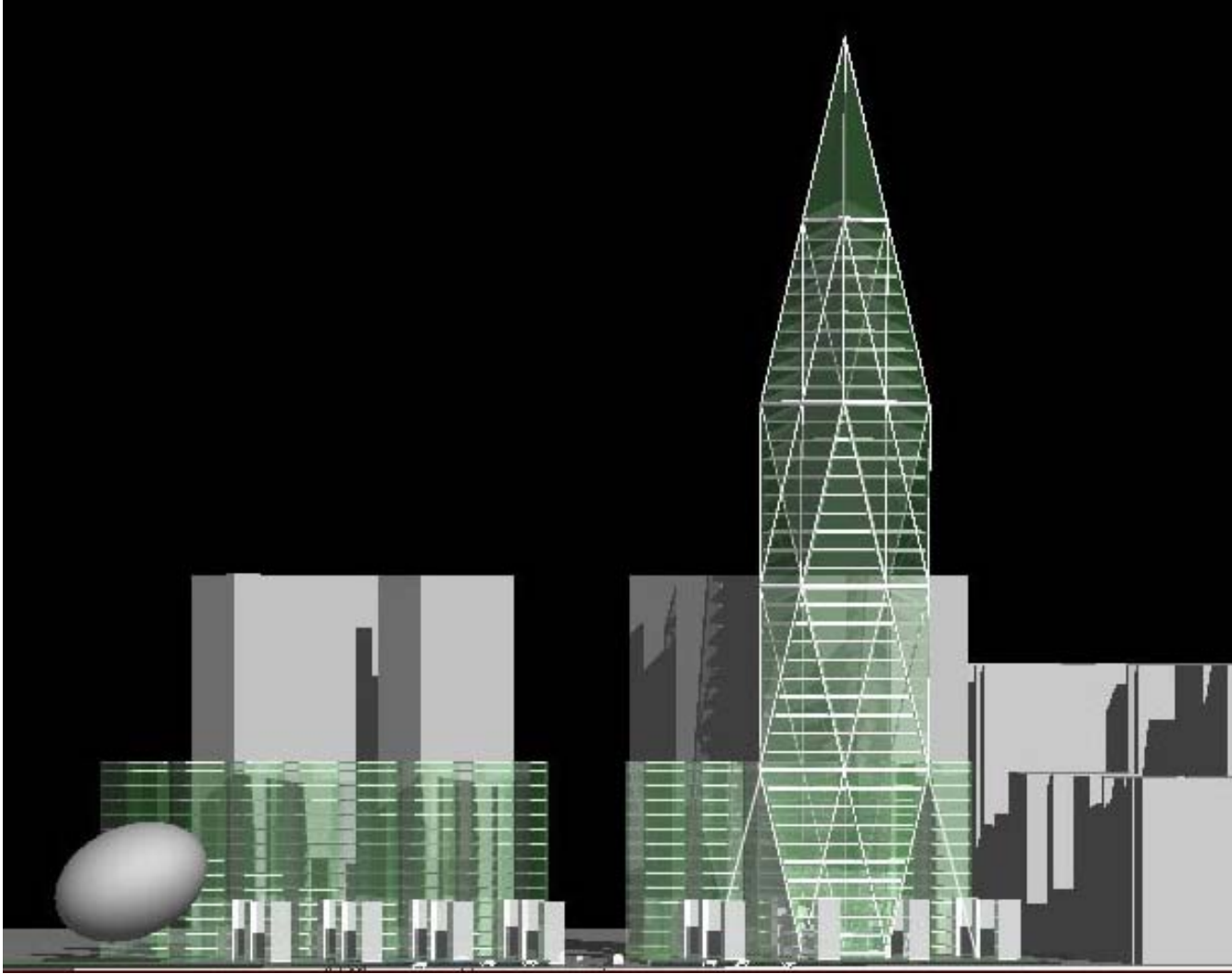
ナレッジキャピタルゾーンの街区構成





East Elevation Plan

東立面图

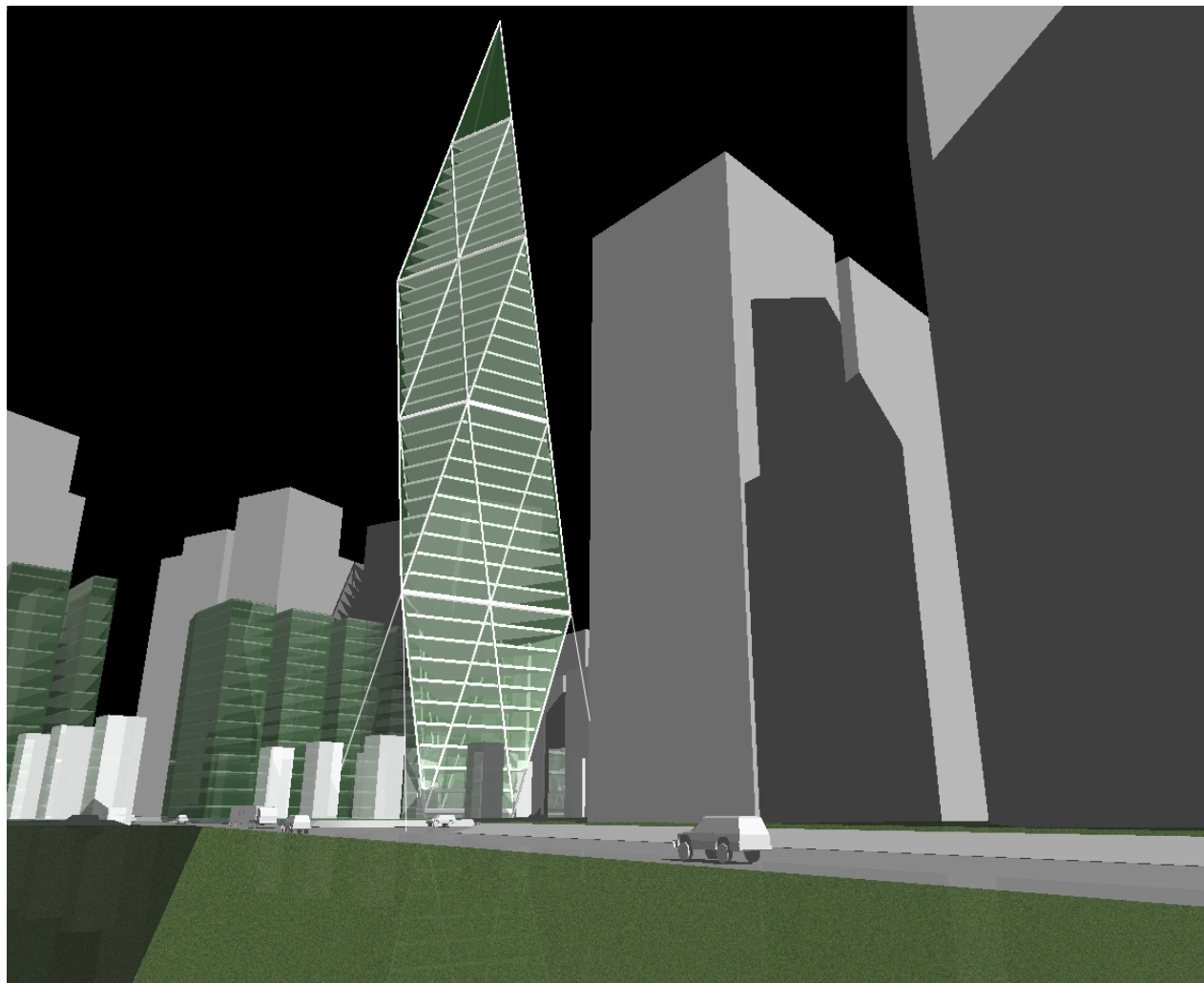


South Elevation Plan

南立面图







Townscape of Knowledge Capital Area

ナレッジキャピタルゾーンの景観