

High-tech Industrial Zone Master Planning Project



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Site area: 1500 acres

During the preparatory planning phase, I mainly contributed to the feasibility study to understand the site's geographic, historic, and environmental context. Firstly, I gathered any background reports deemed necessary and collected data from market research, censuses, and economic, social, and environmental studies. Secondly, I conducted the first assessment on existing conditions, including existing land use, community facilities, housing & employment, physical characteristics, environmental resources, and so on. Thirdly, I helped the team conducting field investigations, including taking site photos and flying a drone over the site and surrounding areas, and then presented my analysis and findings to the team.

During the strategic planning phase, my work mainly included two parts. On the one hand, I was responsible for highlighting the current zoning regulations and relevant planning policies and any crucial opportunities and constraints pertinent to the site. On the other hand, I was responsible for conducting the studies and analysis on economic development that were needed before entering the next phase. For example, I calculated and predicted the development scale and density through quantitative models. As a result, I provided the team with the area size range for different functions, like big shopping malls, retails, office buildings, hotels, etc. This helped the design team establish critical metrics relating to the site's economic context and surrounding areas.

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Based on the first two phases, the physical master planning process continues. I worked with architects, landscape designers, and environmental planners on the masterplan during this stage, and my responsibility focused on land-use planning. Firstly, I integrated the rest team resources, including transport, open space and the public realm, neighborhood character, biodiversity, water management, and utilities. Secondly, I established and developed different land-use planning scenarios based on the provided elements to ensure an overall holistic and successful land-use outcome that balances economic, social, and environmental values. To deliver effective and efficient communication, I used a graphical oriented method. I applied Computer-Aided Design (ArcView GIS, AutoCAD, and Adobe Illustrator) and hand-drawing while working on land-use planning and presenting different scenarios. Thirdly, I established a corresponding model for each scenario to evaluate the future impact on economic development, social cohesion, and environmental sustainability. Finally, I drafted plans and reports to the team before presenting analysis, proposals, and recommendations to the city council.

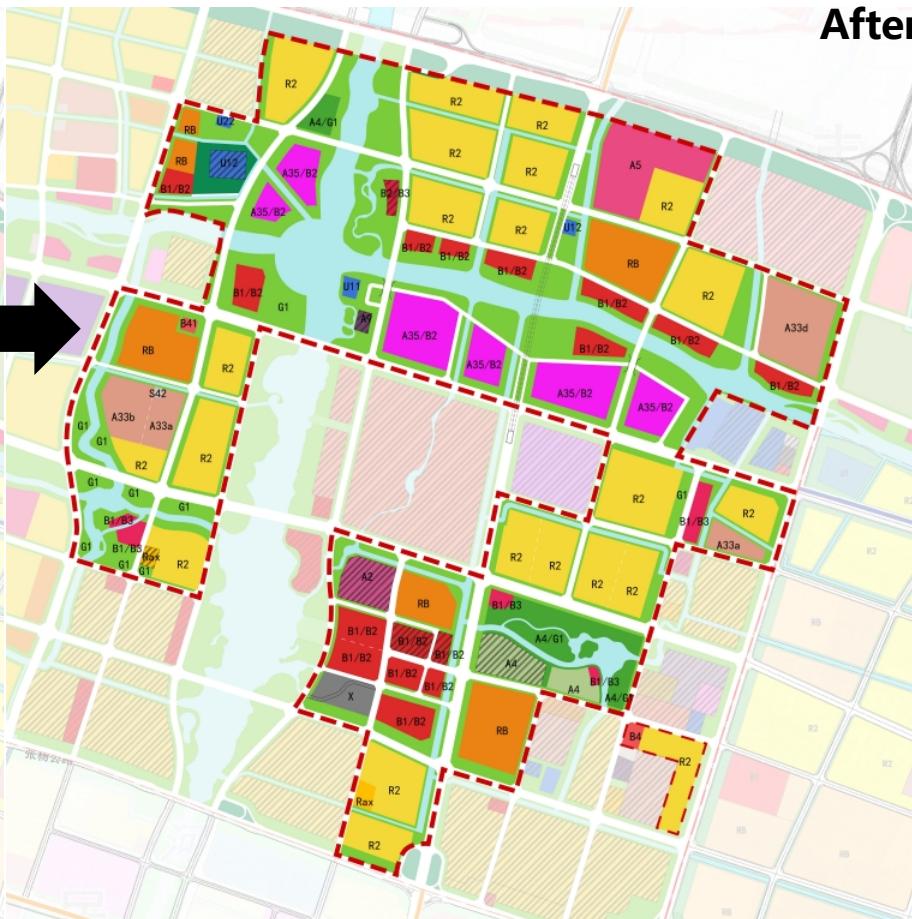
Through the whole multi-step master planning process, I cared about the public participation from residents and business owners. I learned about the different cultures, historical stories, transit behaviors, business needs, etc. I gathered the public voice and their needs and then informed my team to develop the community's vision and goals.

Rezoning

Before

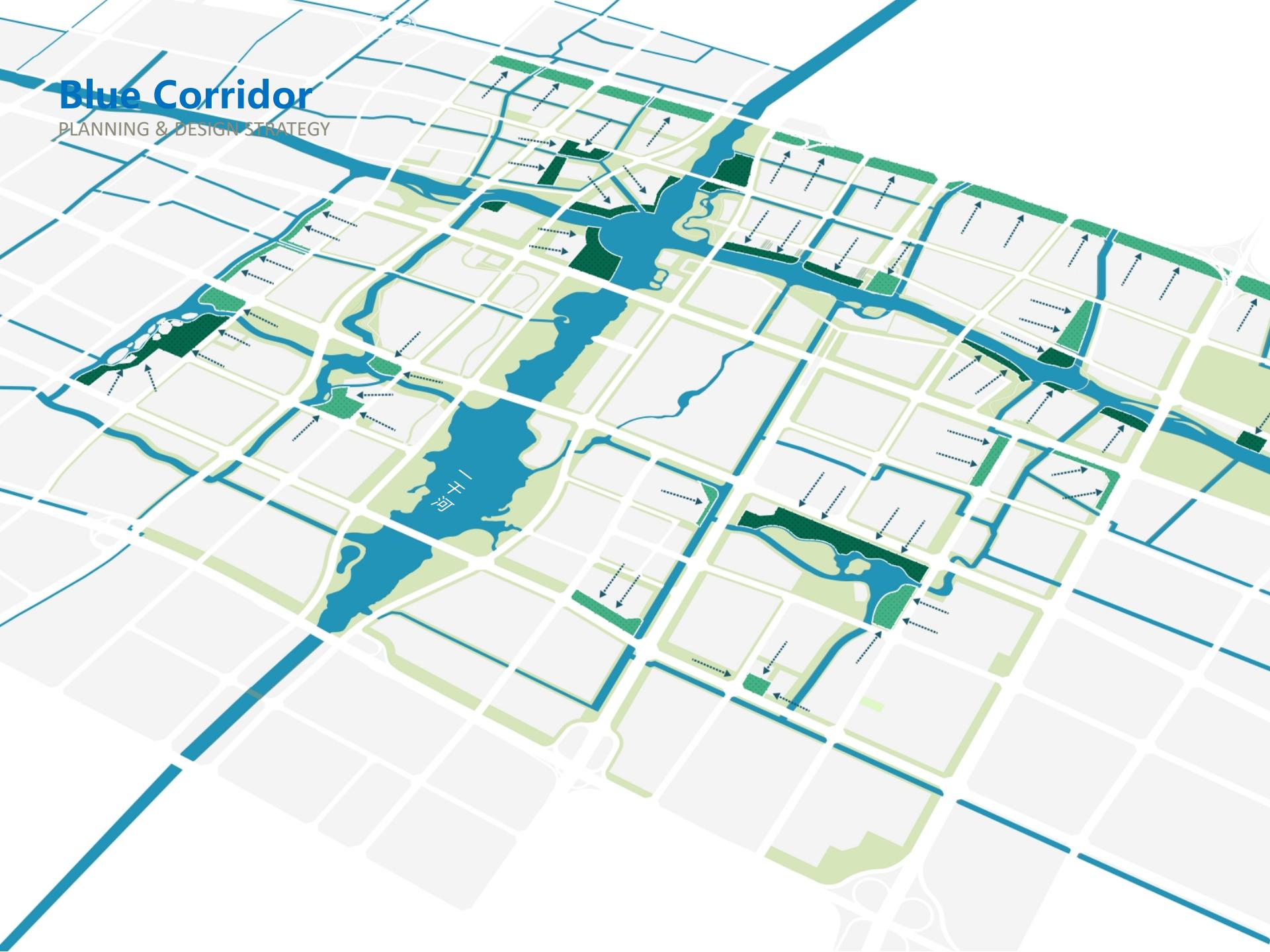


After



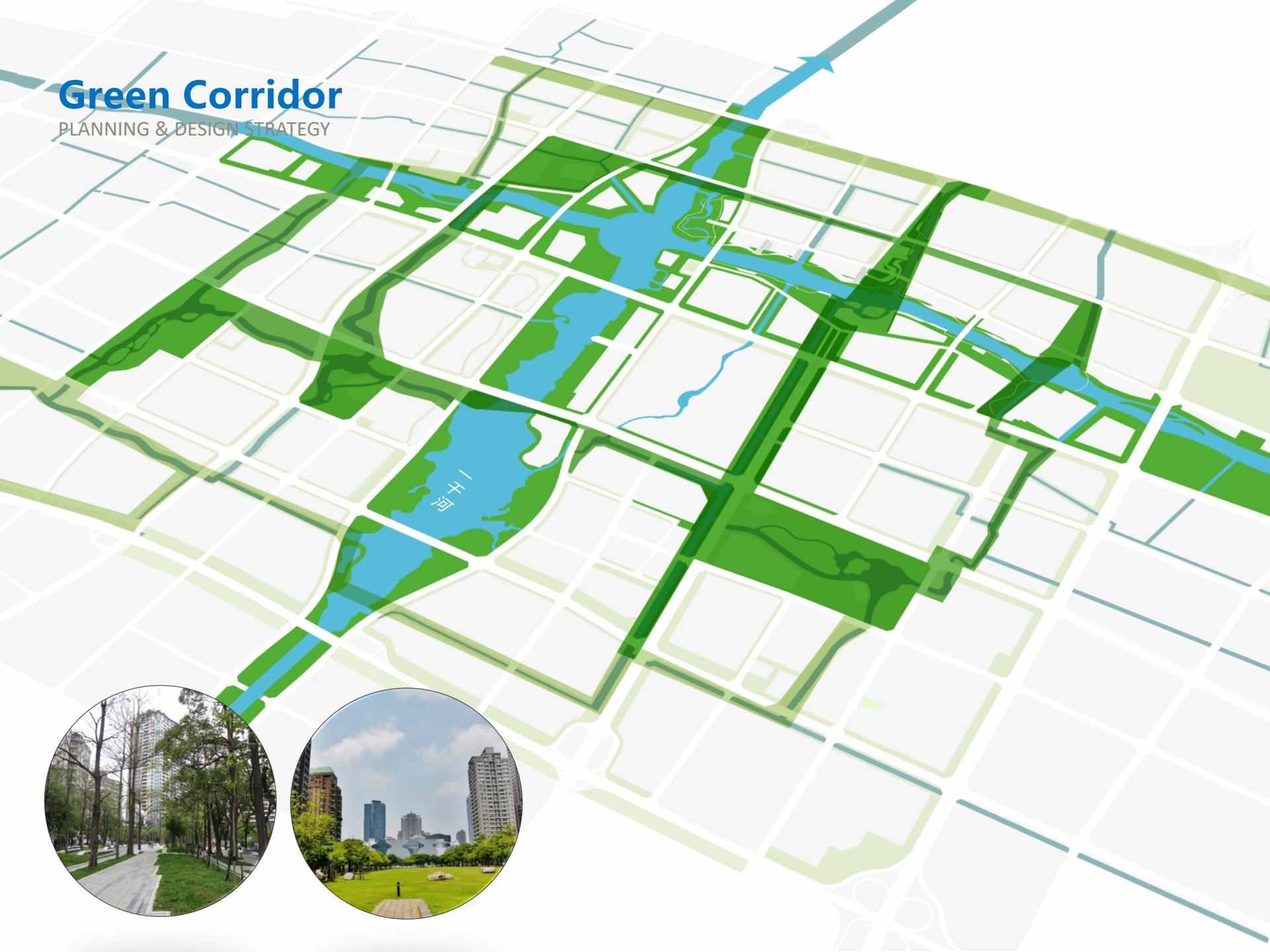
Blue Corridor

PLANNING & DESIGN STRATEGY



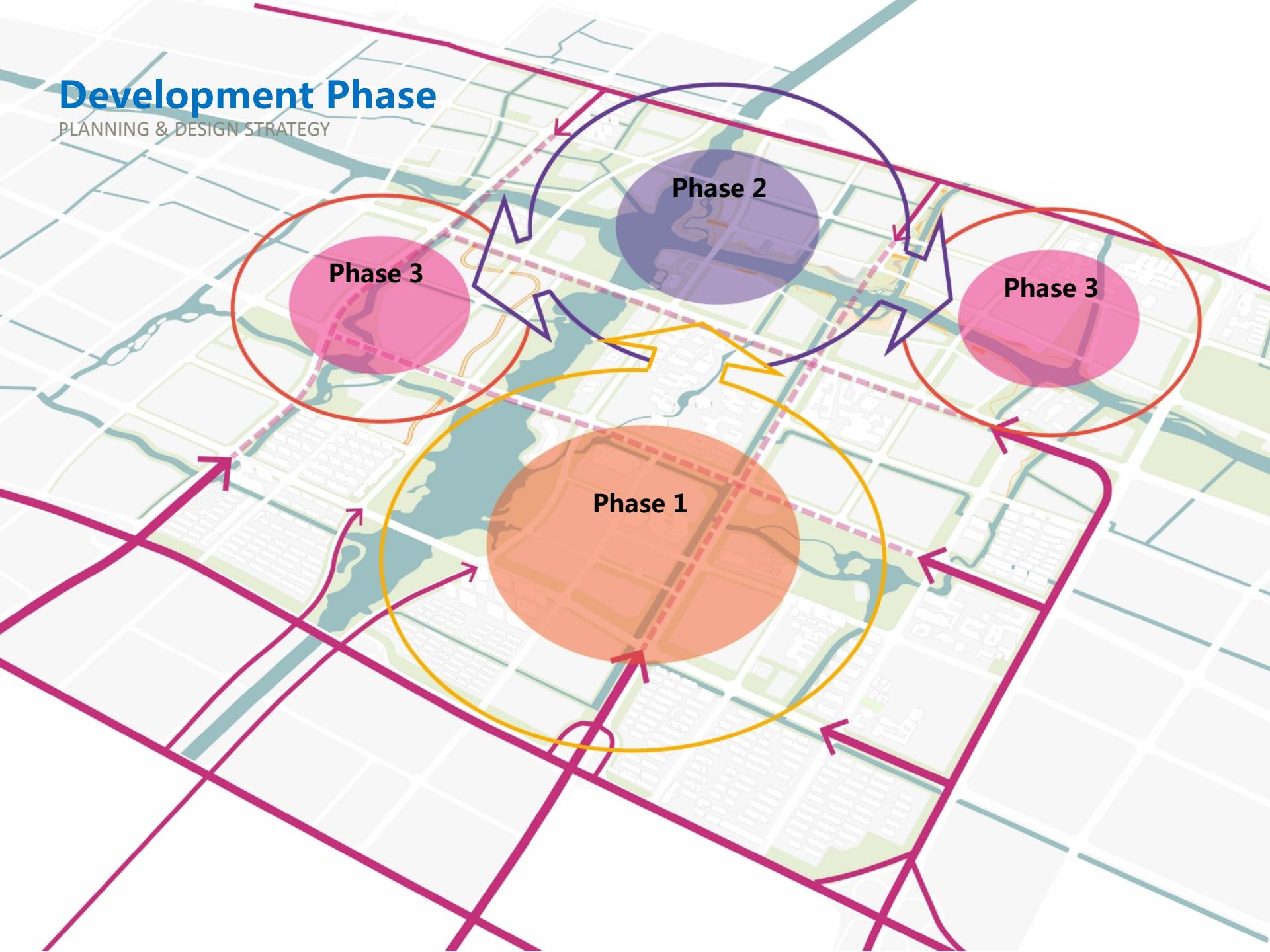
Green Corridor

PLANNING & DESIGN STRATEGY



Development Phase

PLANNING & DESIGN STRATEGY





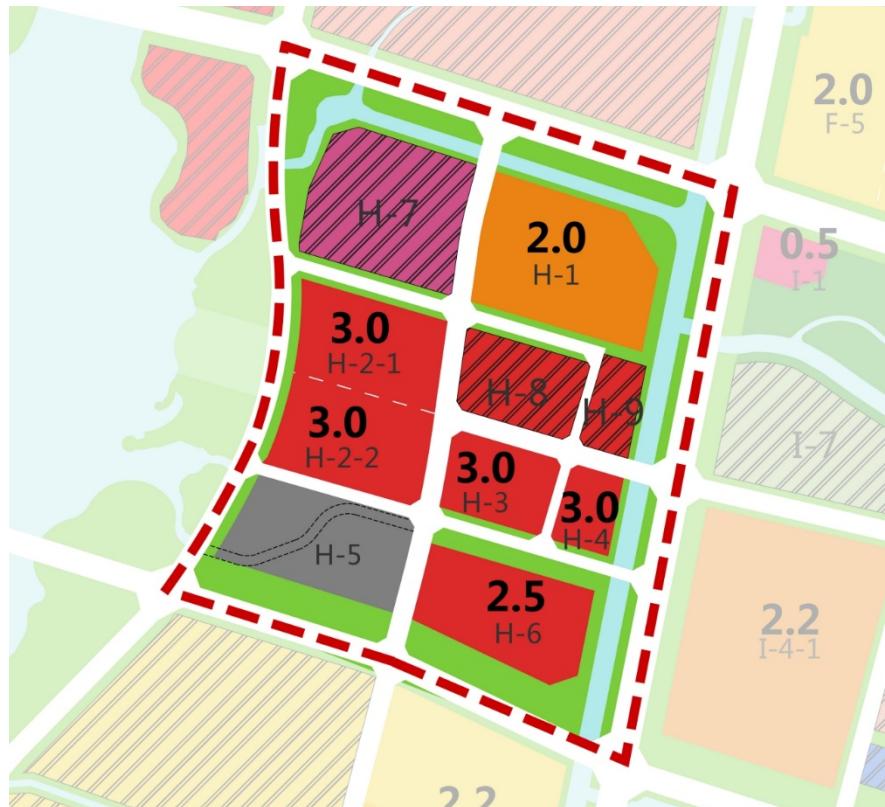
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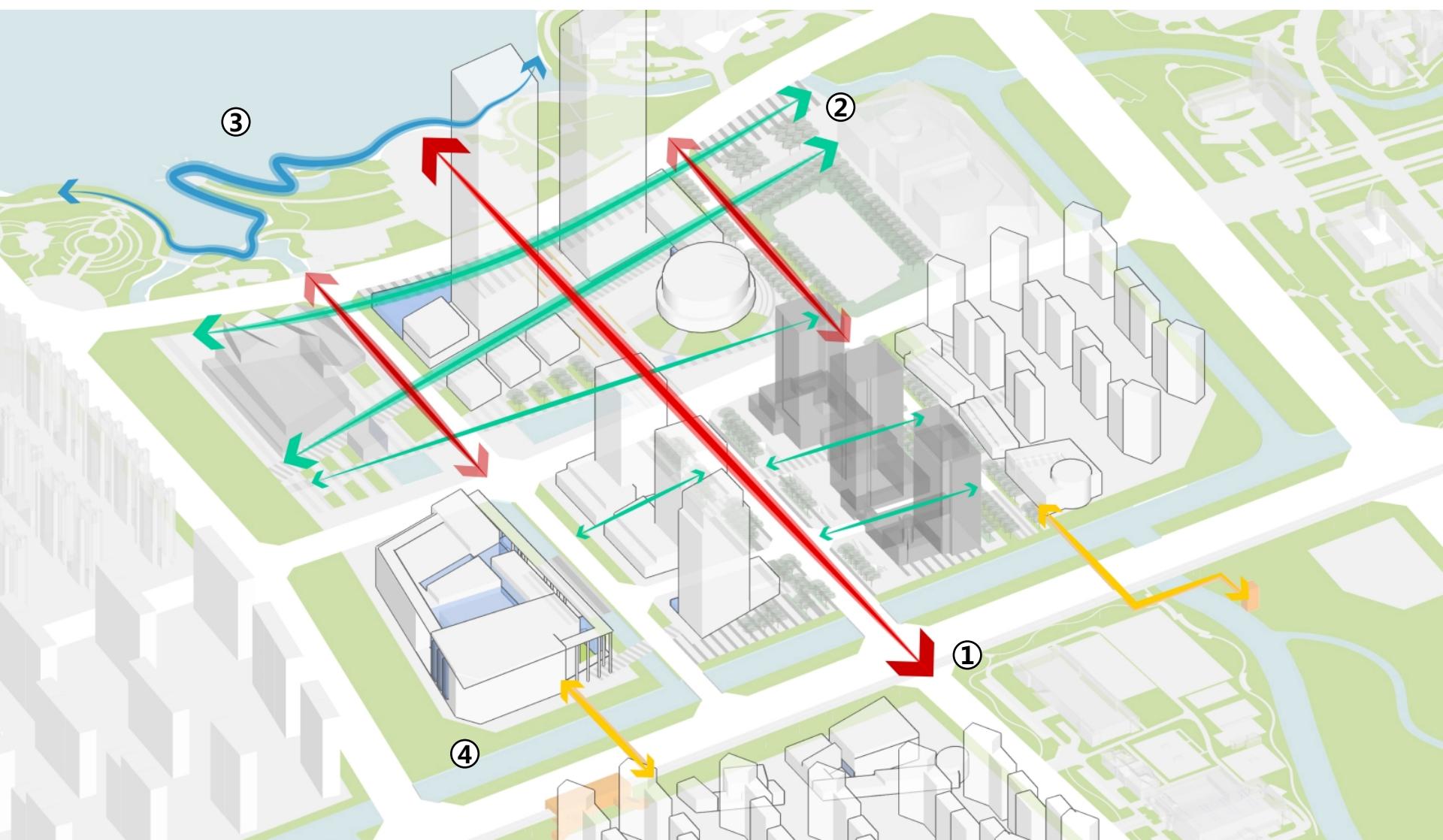
500m

1000m

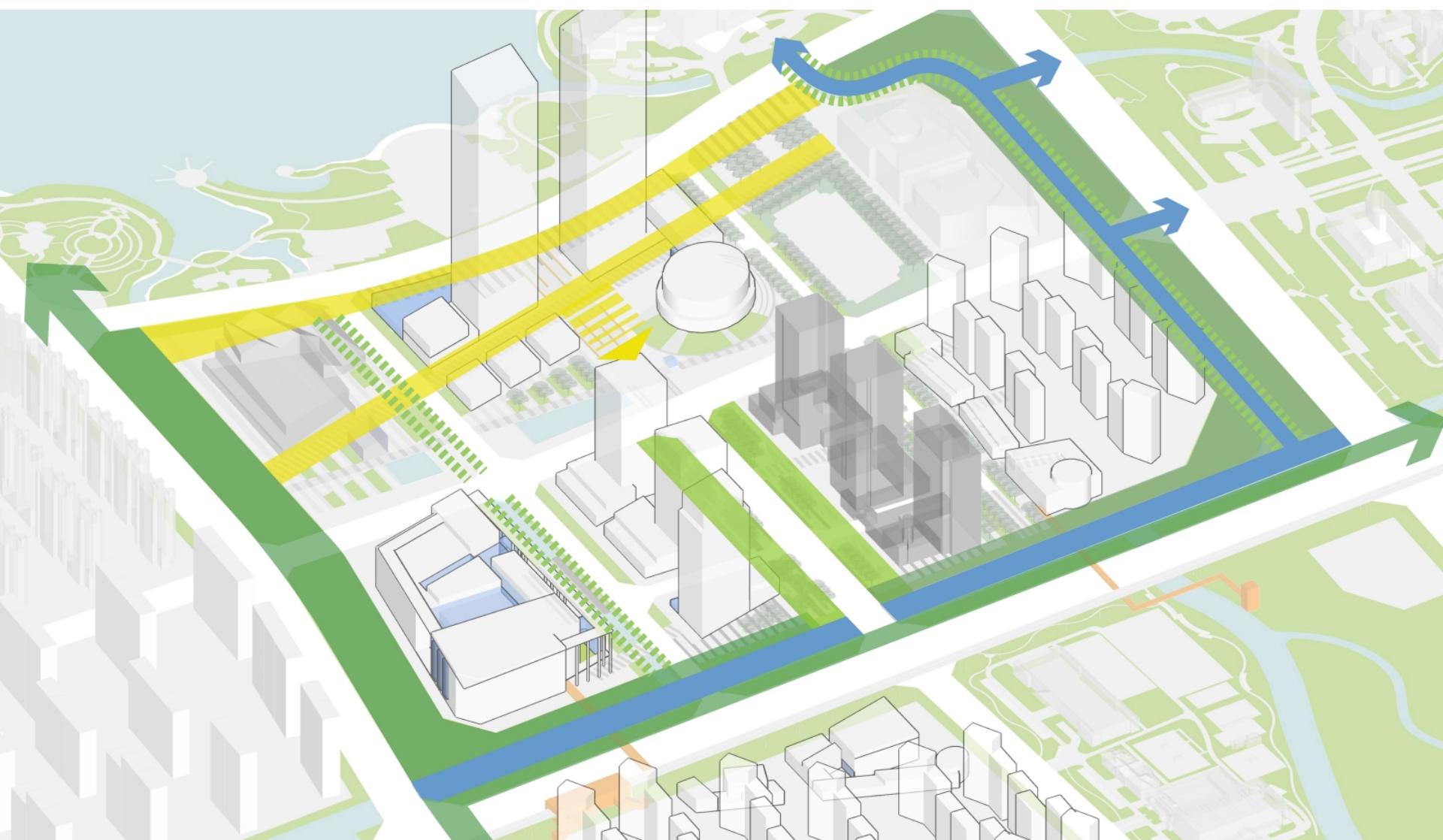
PHASE 2 LAND USE INDEX



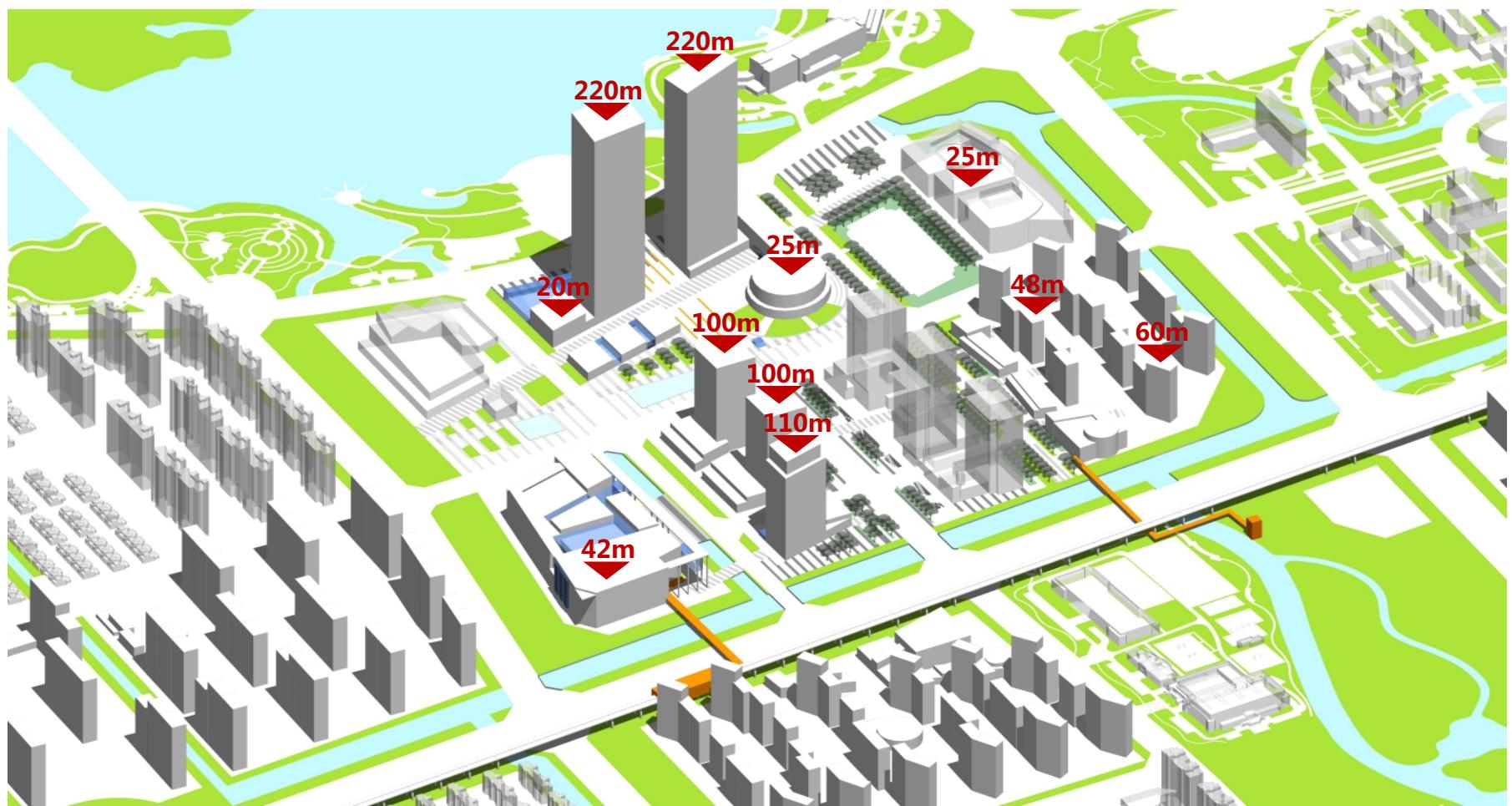
MAIN SPACE STRUCTURE



OPEN SPACE SYSTEM

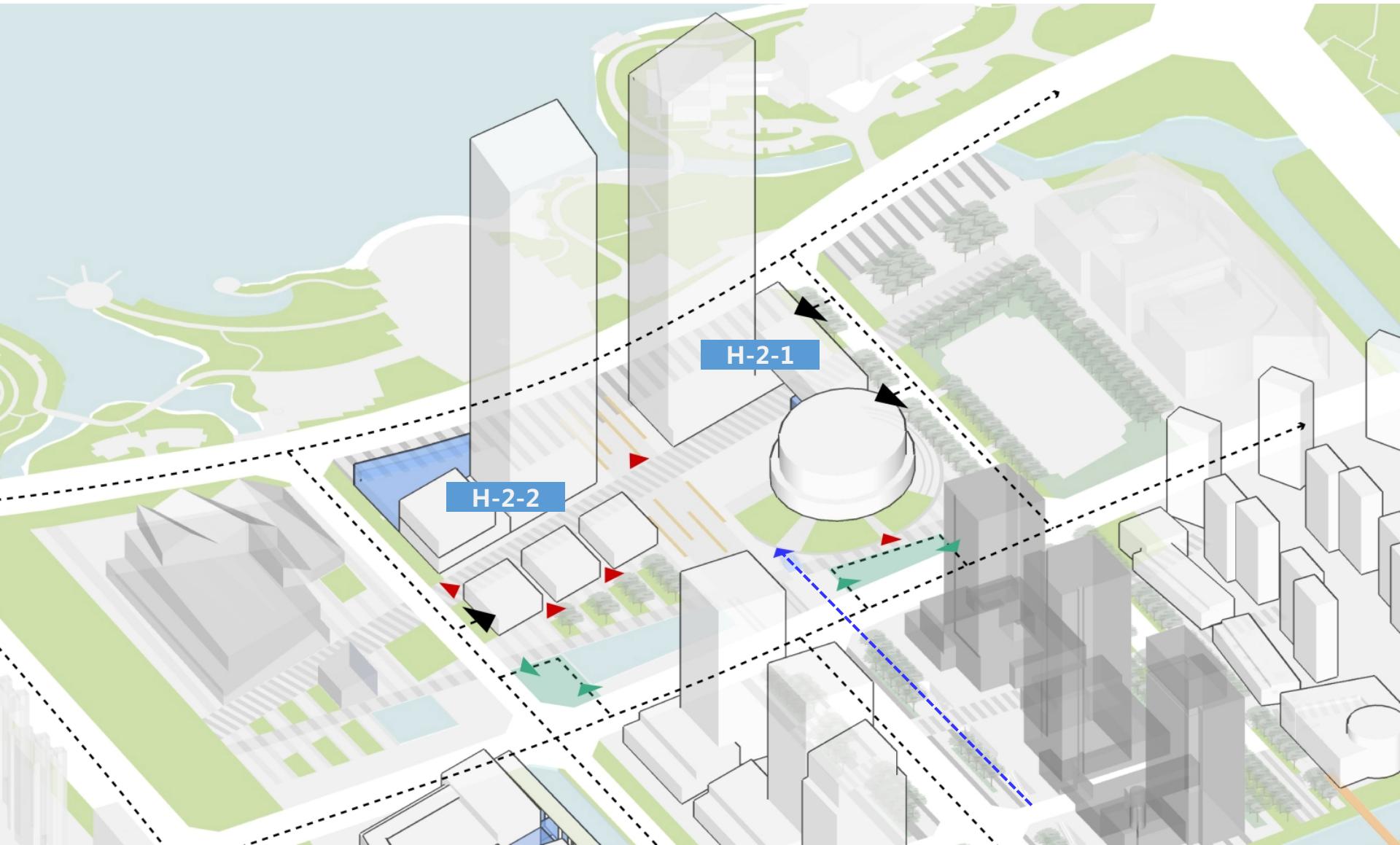


CORE AREA MASSING & HEIGHT





CORE AREA CIRCULATION





CORE AREA CIRCULATION

