

构建绿色低碳城市交通系统

何东全
中国可持续城市项目
能源基金会



China's Development Challenge

中国城市开发的挑战







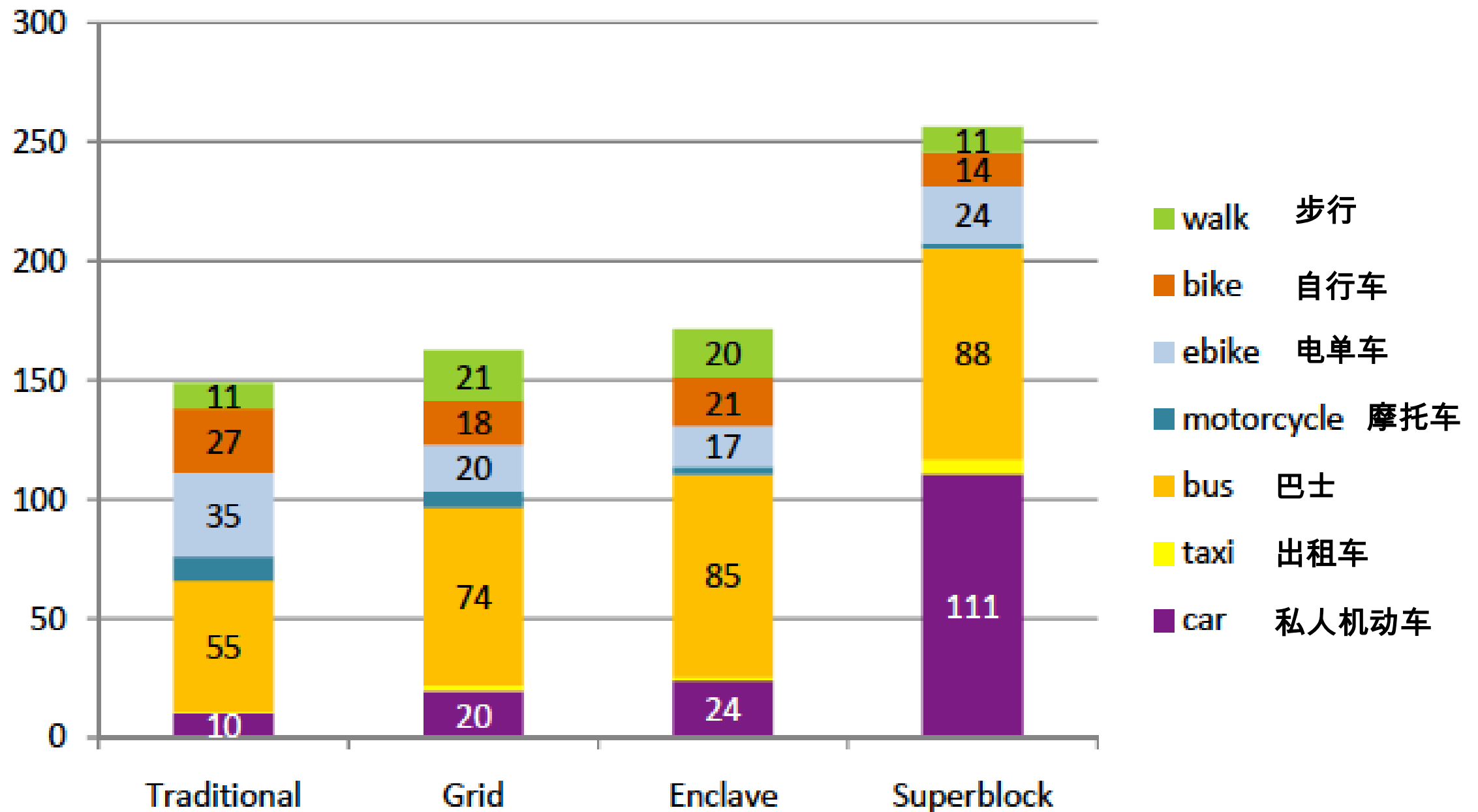
An aerial photograph of a city, likely Beijing, showing a dense urban landscape under a thick layer of smog. In the foreground, a complex multi-level highway interchange is filled with cars and buses. To the left, a tall, dark skyscraper with a distinctive rectangular cutout at the top is visible. To the right, another tall building with a pointed top stands out. The background is completely obscured by the haze, illustrating the severity of air pollution.

空气污染 Air Pollution

Travel Distance by Neighborhood Type

不同社区类型的出勤距离

Kilometers per HH per week



1

建设步行优先的邻里社区

Develop neighborhoods that promote walking



Chongqing, China

A. Shorten street crossings and emphasize pedestrian safety and convenience.

缩短街道穿行距离，保证行人安全和方便

B. Encourage ground-level activity and create places to relax along primary pedestrian routes

鼓励步行，为主要步行路沿街提供丰富的城市生活和休闲场所

2

优先发展自行车网络

Prioritize bicycle networks



Bike-prioritized Intersection

A. Design streets that emphasize bike safety and convenience

设计道路时突出自行车的安全和便捷

B. Create auto-free streets and greenways to encourage non-motorized travel

建设慢行道网络，鼓励使用非机动车

3

创建密集的道路网络

Create dense networks of streets and paths



Discouraged: Arterial-dominant street network

不提倡：宽马路为主的干道网络



Recommended: Dense networks of streets and paths

建议：创建密集的道路网络

4

支持高质量的 公共交通服务

Support high-quality transit



Guangzhou

5

建设多功能混合的 邻里社区 Zone for mixed-use neighborhoods



A. Encourage an optimal balance of housing and services through zoning codes.

通过控规指标来实现住宅与服务的最佳平衡

B. Provide a variety of accessible parks and open space.

提供各类有良好可达性的公园和开放空间

6

将土地开发强度和
公共交通承载力相匹配

Match density to transit
capacity



In Curitiba, high-rise development is focused within 200 meters of mass transit lines.

在巴西的库里提巴, 高层建筑距离大众公交线路不会超过200米。

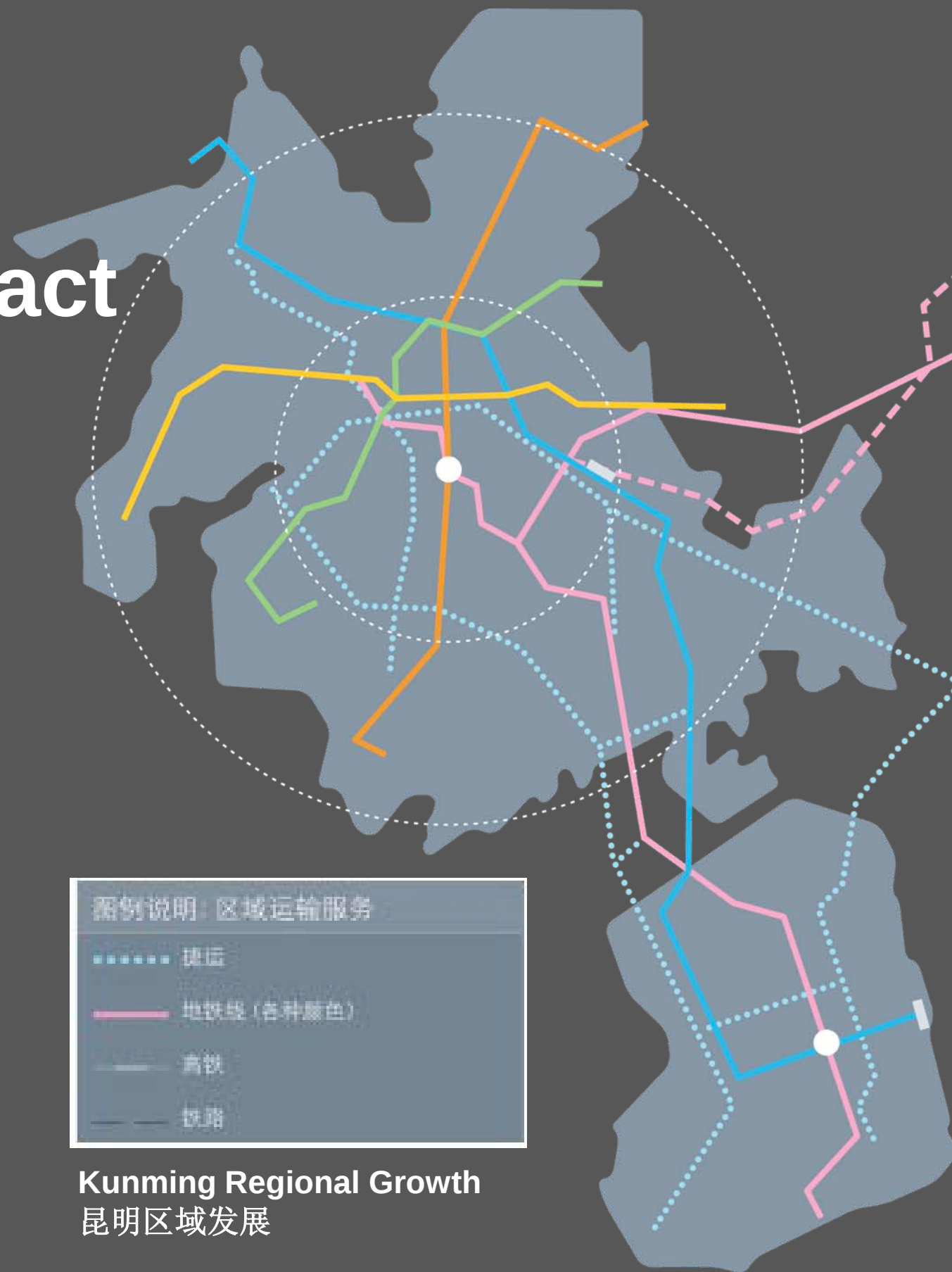
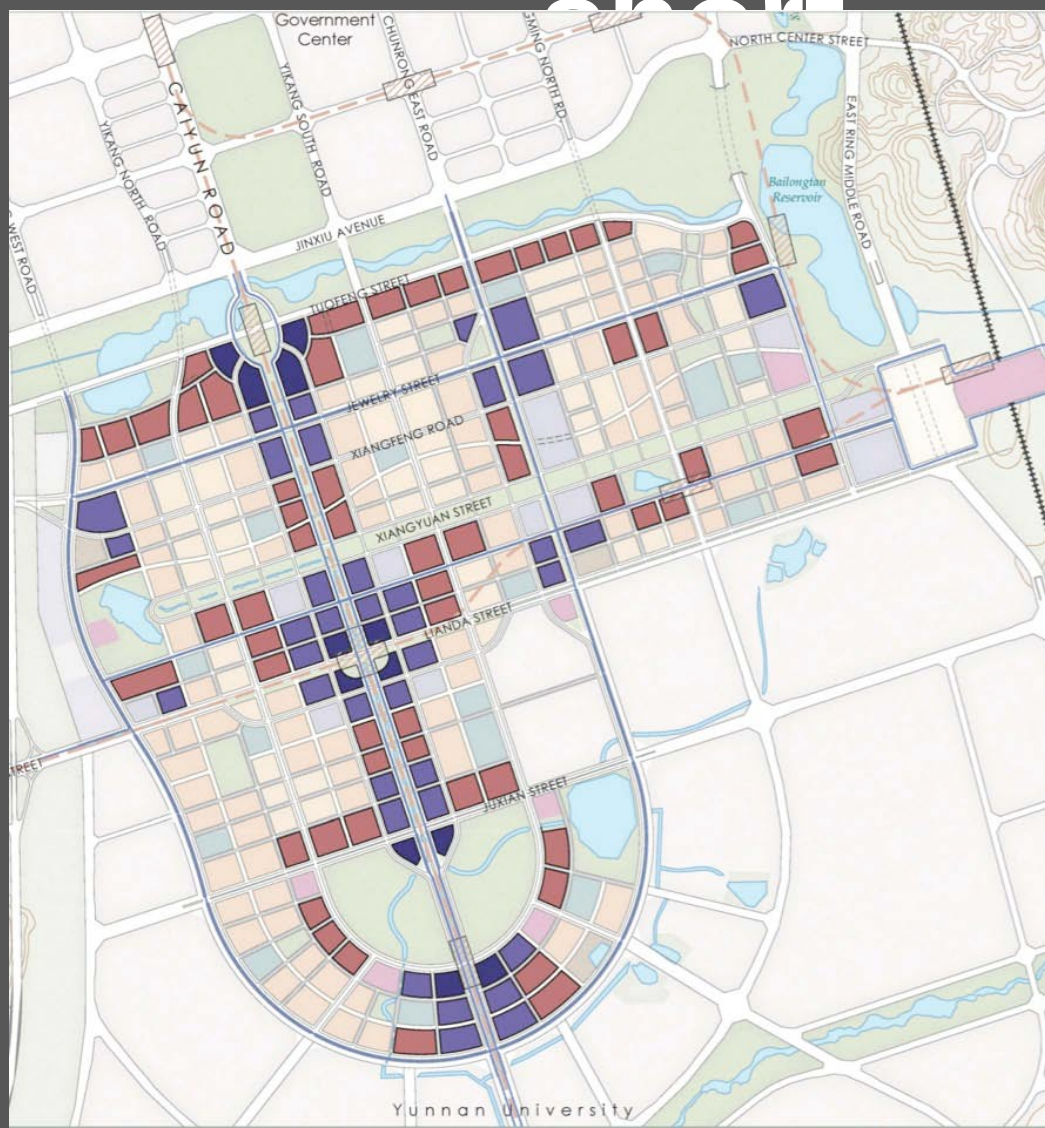
7

确保紧凑型发展，
提倡短程通勤

Create compact
regions with

short

es



图例说明：区域运输服务

..... 捷运

—— 地铁线 (各种颜色)

—— 高铁

—— 铁路

Kunming Regional Growth
昆明区域发展

8

规范停车和道路使用， 增加出行便利性

Increase mobility by regulating
parking and road use



Cities may choose to charge tolls for use of
overloaded roads.
城市可对拥堵路段征收过路费。



Singapore's Electronic Road Pricing system has cut
congestion and raised money for public transit and
other uses.
新加坡的电子道路收费系统可减轻拥堵情况

实施可持续城市交通规划的三个步骤

3 Steps for Sustainable Urban Transportation Planning

1. Identify potential 'Transit Oriented Districts' (TODs) within the City Master Plan based on levels of transit investments and type of land use

根据城市总体规划的公交系统和土地利用类型来划定“TOD地区”。并确定TOD开发强度

2. Within the Regulatory Plan, modify the circulation system within these TODs into an 'Urban Network' configuration to be more pedestrian, bike and transit friendly

在控制性详细规划层面，调整路网系统和小区形态及土地利用，以形成“城市格网”，从而使城市更为适宜步行、非机动车交通以及公交出行。

3. Within the Regulatory Plan, employ new mixed-use 'Block-Type' zoning with specific land-use and urban design standards to create more walkable urban environments.

城市设计构造优美有活力的人居环境，吸引绿色交通出行

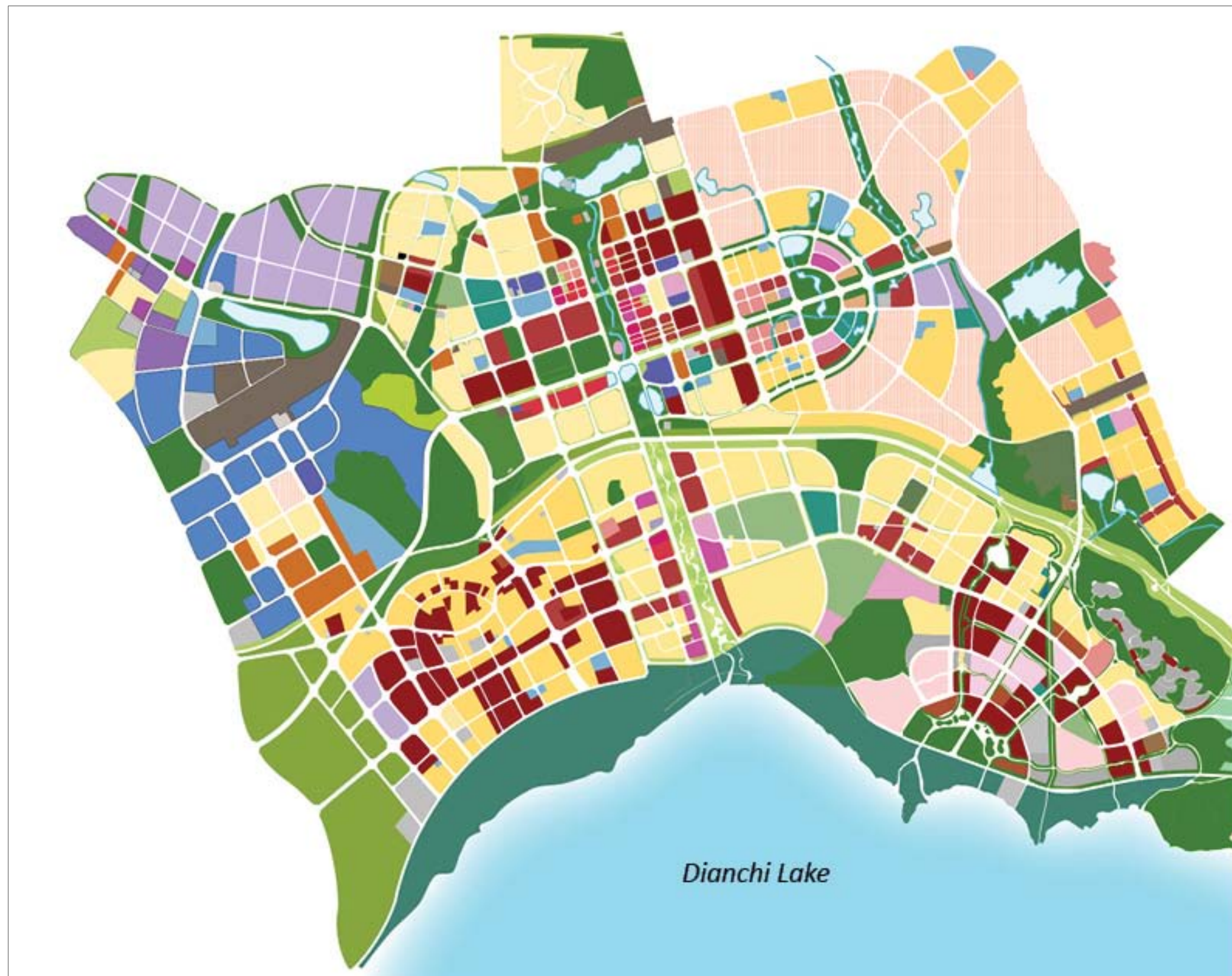
Previous Plan 现版控规

- Poor Transportation Distribution

公交站点布置不合理



Case Study: Chenggong New Town



Existing New Town Master Plan
现有新城总体总体规划

案例研究：呈贡新城

Case Study: Chenggong New Town

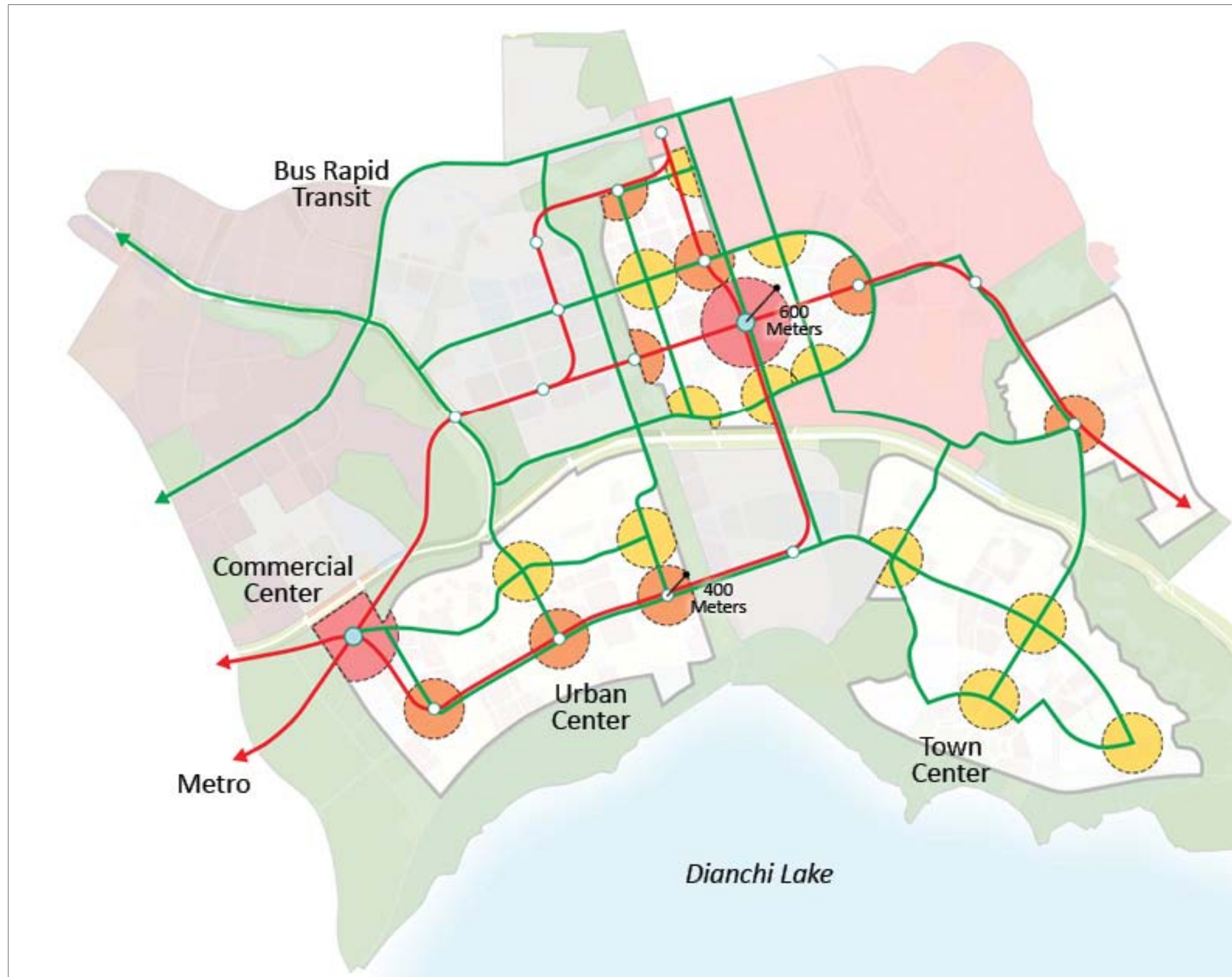
案例研究：呈贡新城



Transit Oriented District Locations
TOD 区位

案例研究：呈贡新城

Case Study: Chenggong New Town

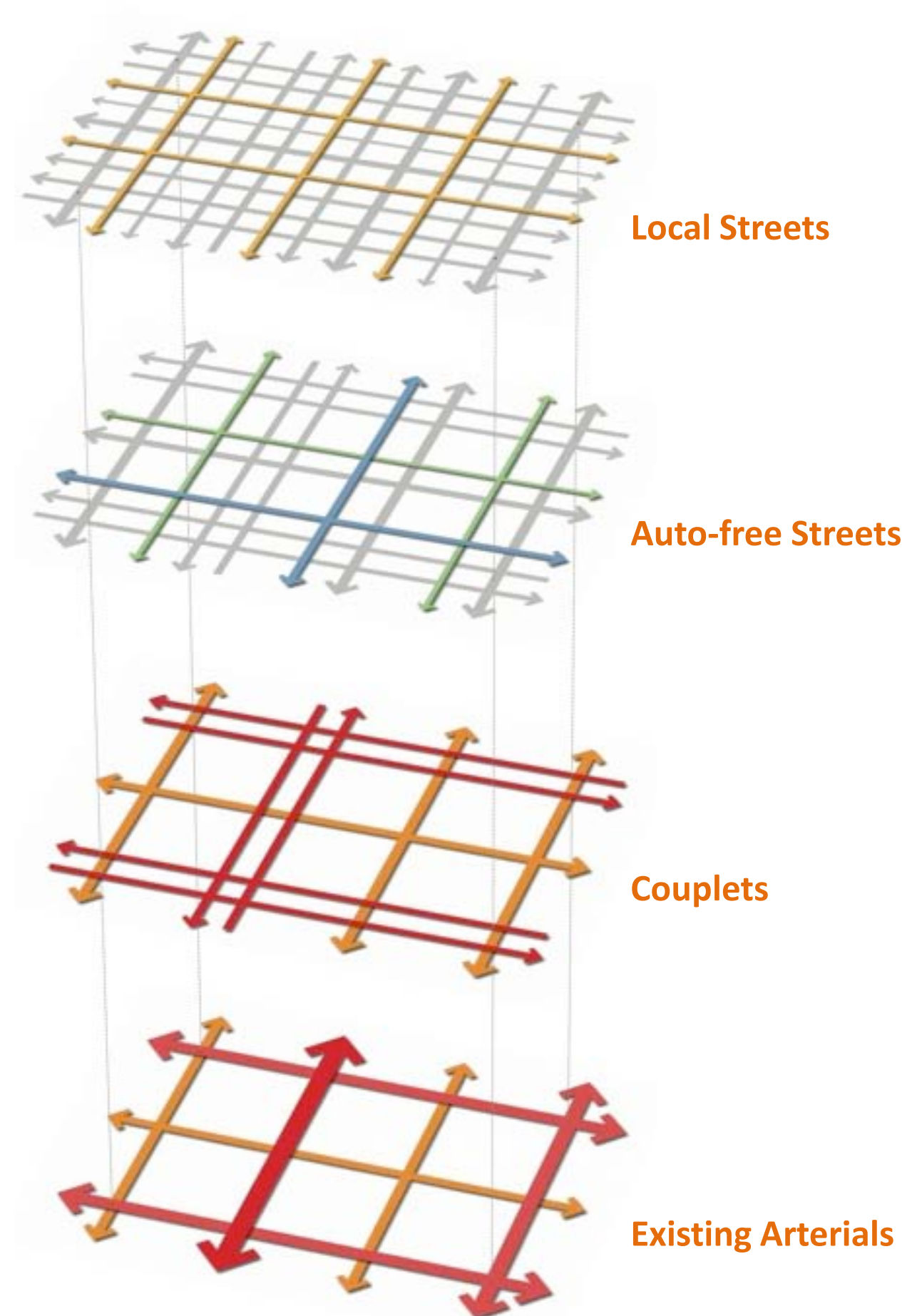


TOD Centers and Transit Lines
TOD 中心以及公交线路

案例研究：呈贡新城

Transformation of a Superblock Grid to an Urban Network

超大街区路网向城市格网的转变



Examples of Urban Network 城市格网实例



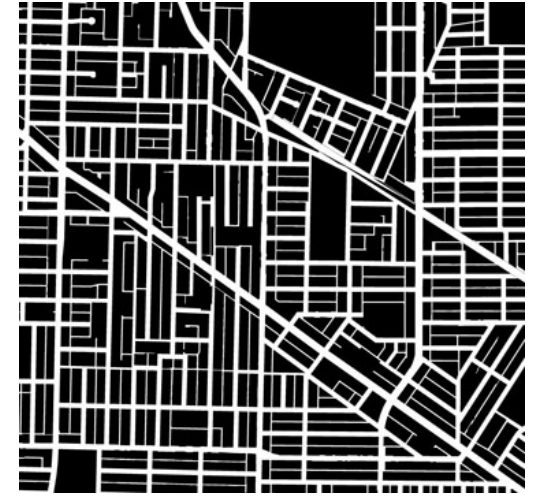
Chenggong: Superblock
呈贡：超大街区



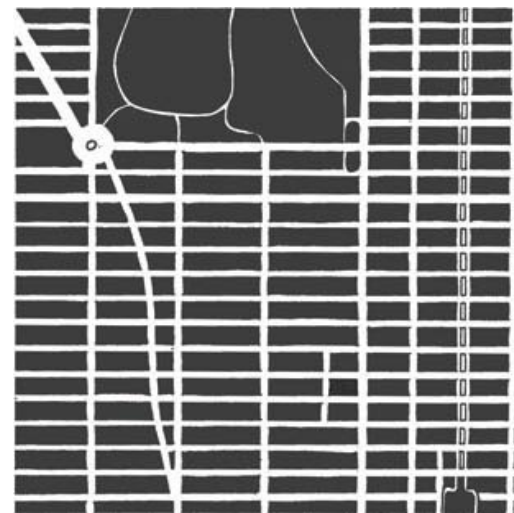
Chenggong: Urban Network
呈贡：城市格网



San Francisco 旧金山



Vancouver 渥太华



New York 纽约市



Portland 波特兰



Shanghai 上海



Beijing 北京

Block Standards



街区类型设计标准

Blocktype Standards

街区类型的设计标准

1. Mix uses and add street-side retail where possible. ^{1.}

在所有可行的地方设置混合土地利用和临街商业。

2. Mix building scales, configurations, and heights within each block

在一个街区之内混合搭配不同尺度、形式和高度的建筑。

3. Respect southern orientation and solar access.

建筑朝南布局并满足日照间距要求。

4. Develop private courtyard configurations.

开发街区内的私密庭院。

5. Carefully mixing high-rise and low-rise buildings can increase density.

周详的混合高层与低层建筑可以增加开发密度。

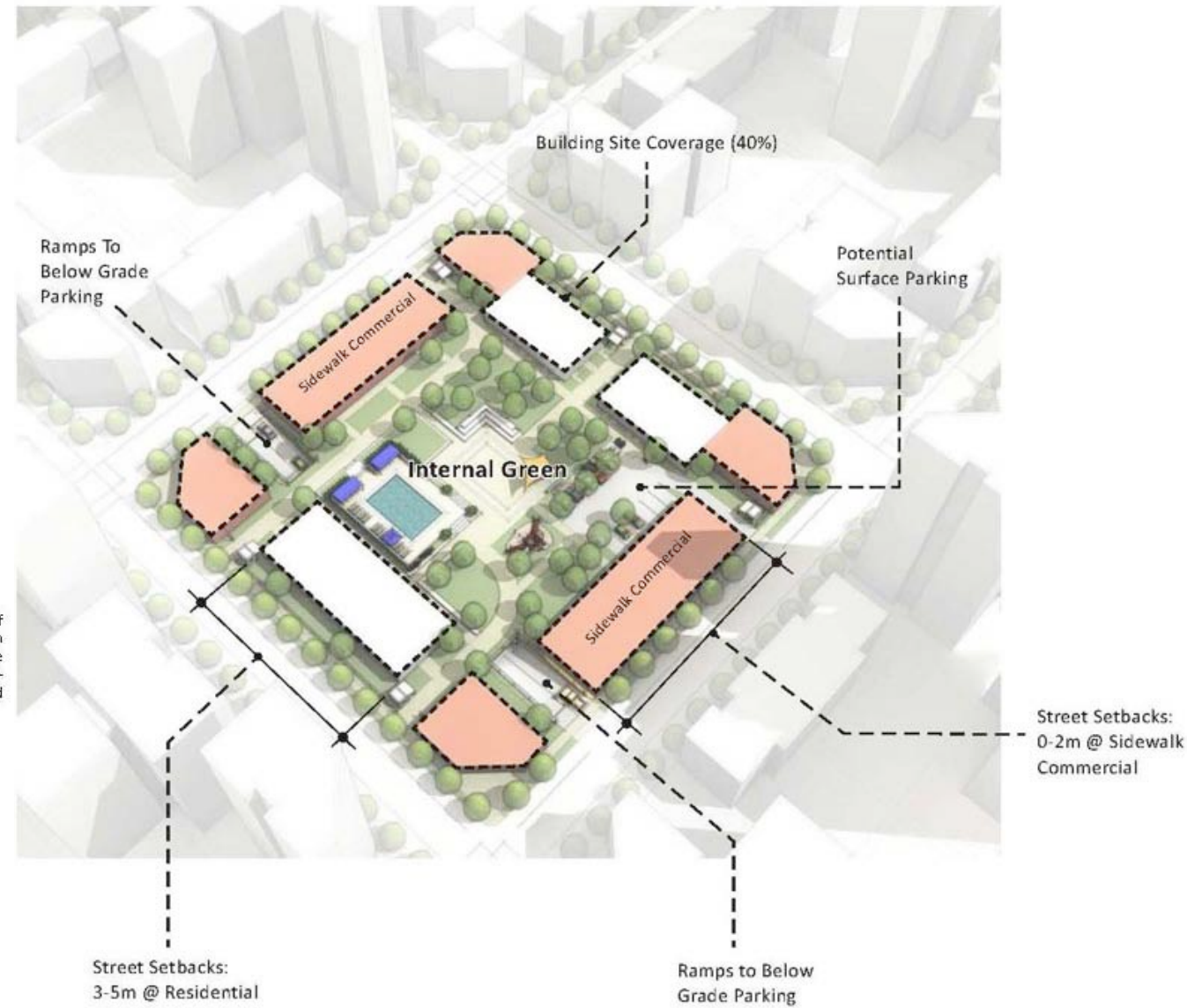
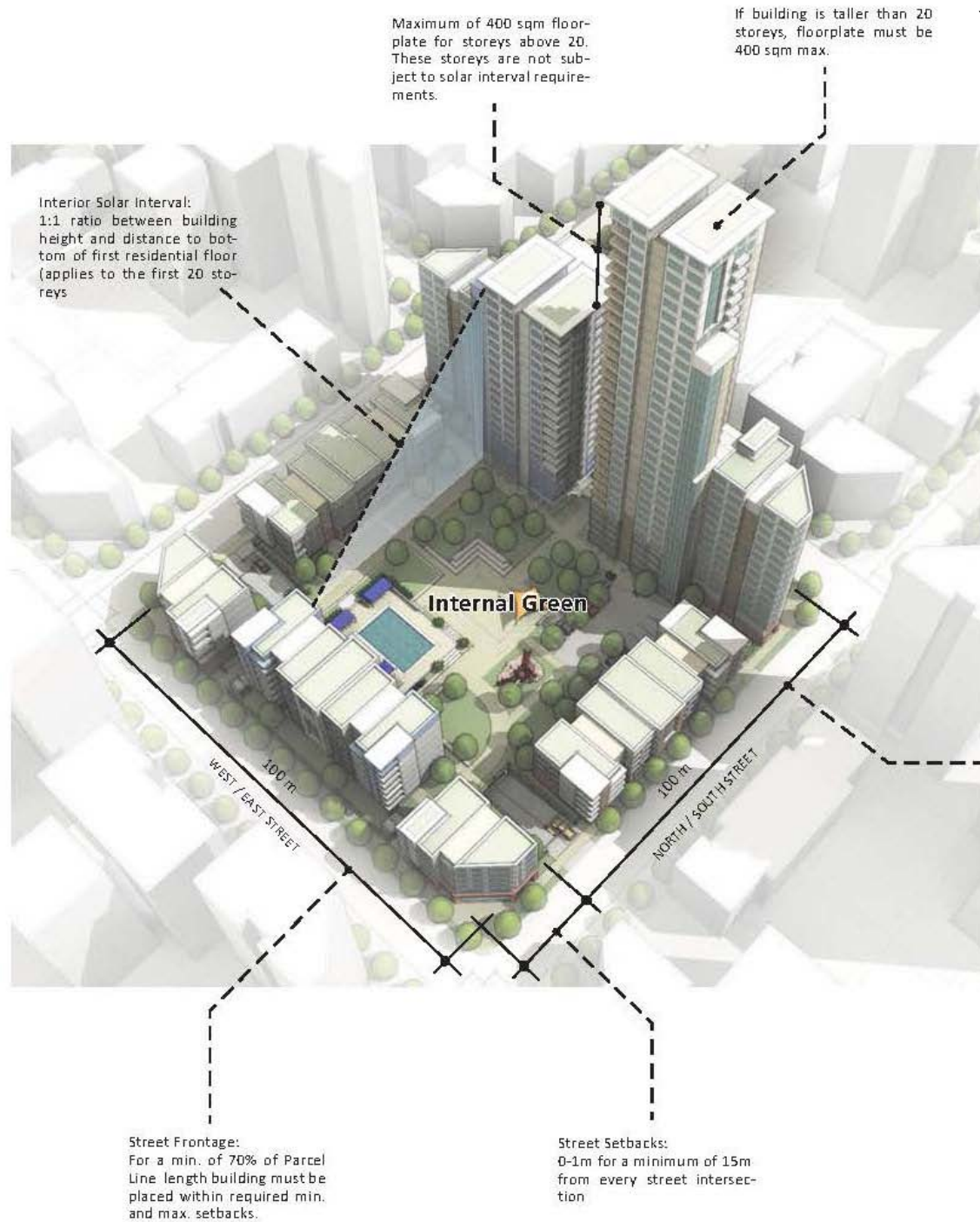
Typical Commercial Block

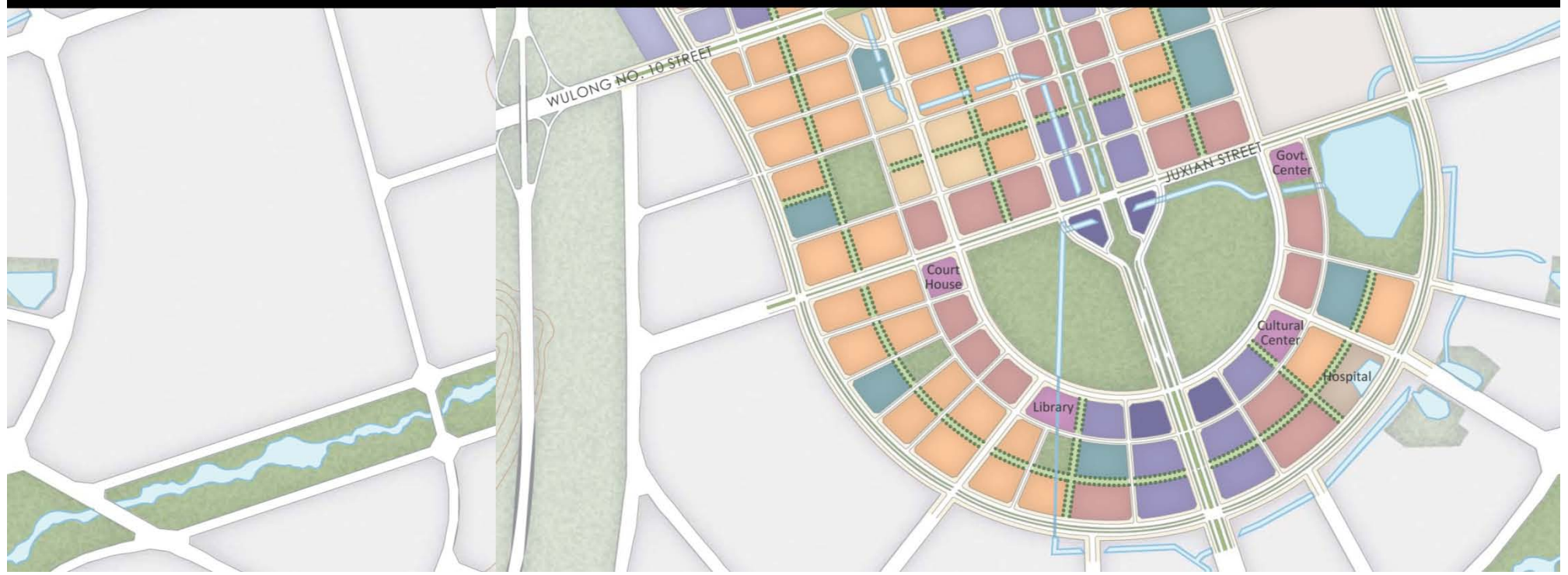
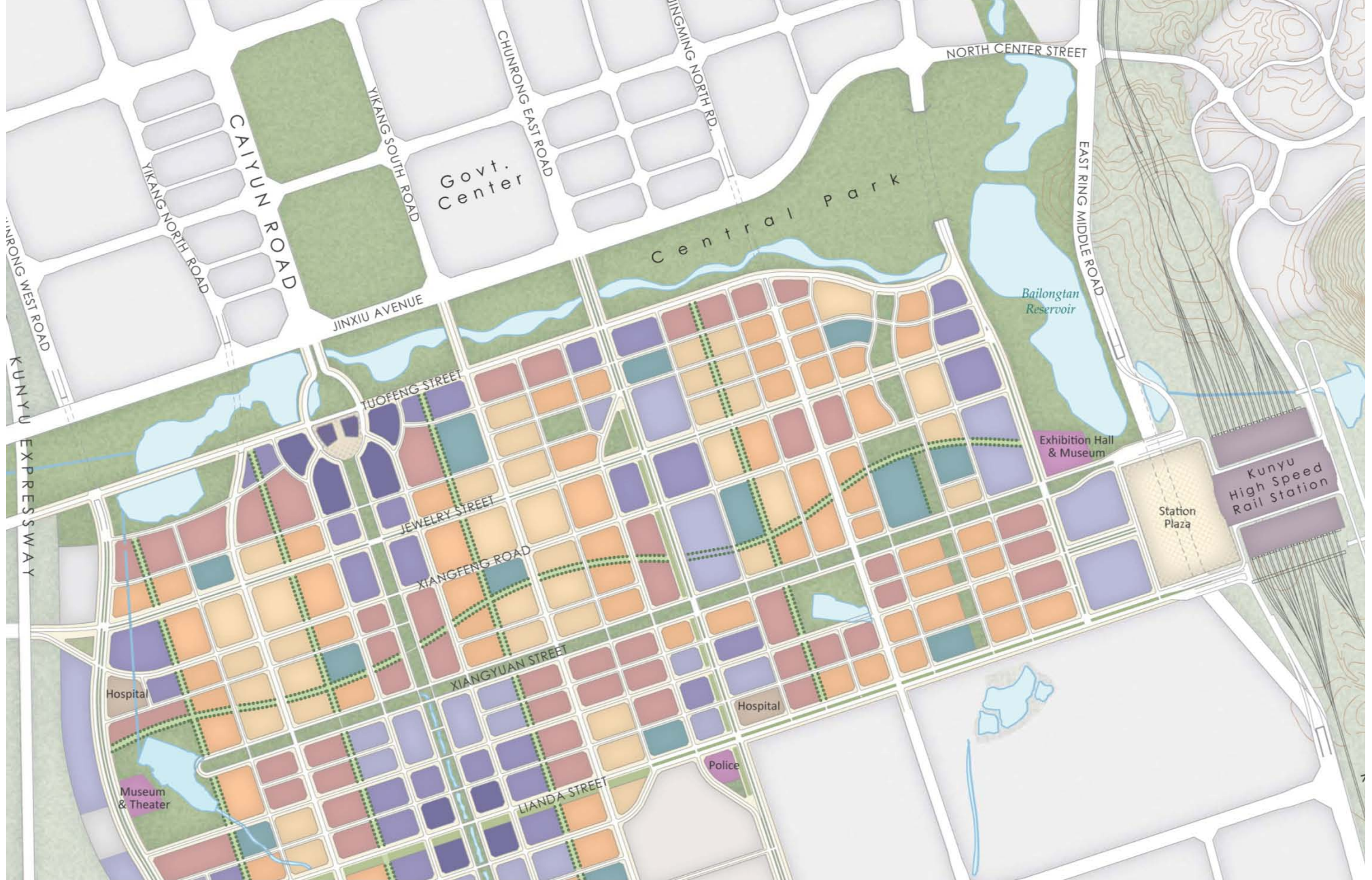
典型商业街区



Typical Residential Block

典型居住街区

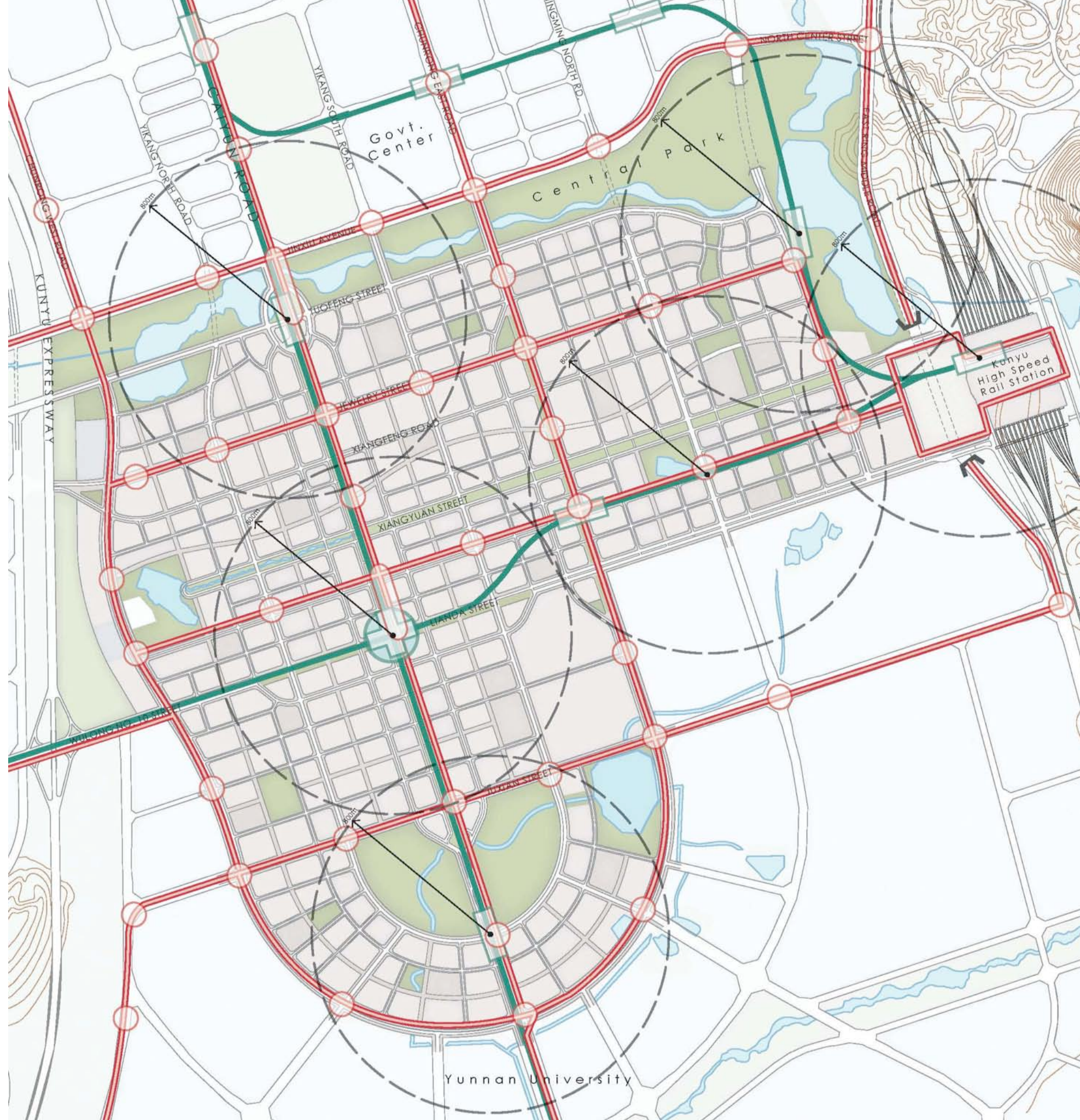


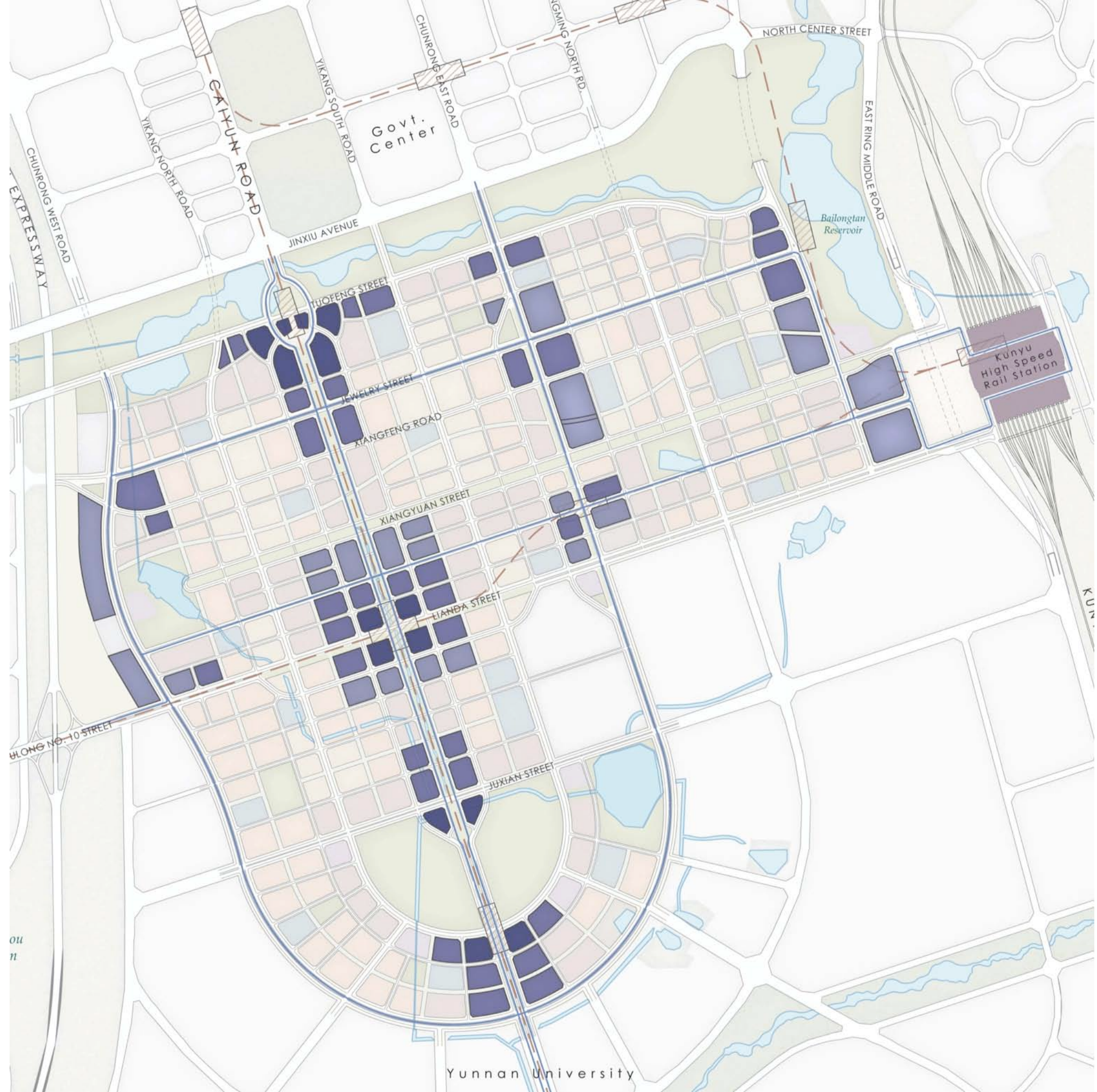




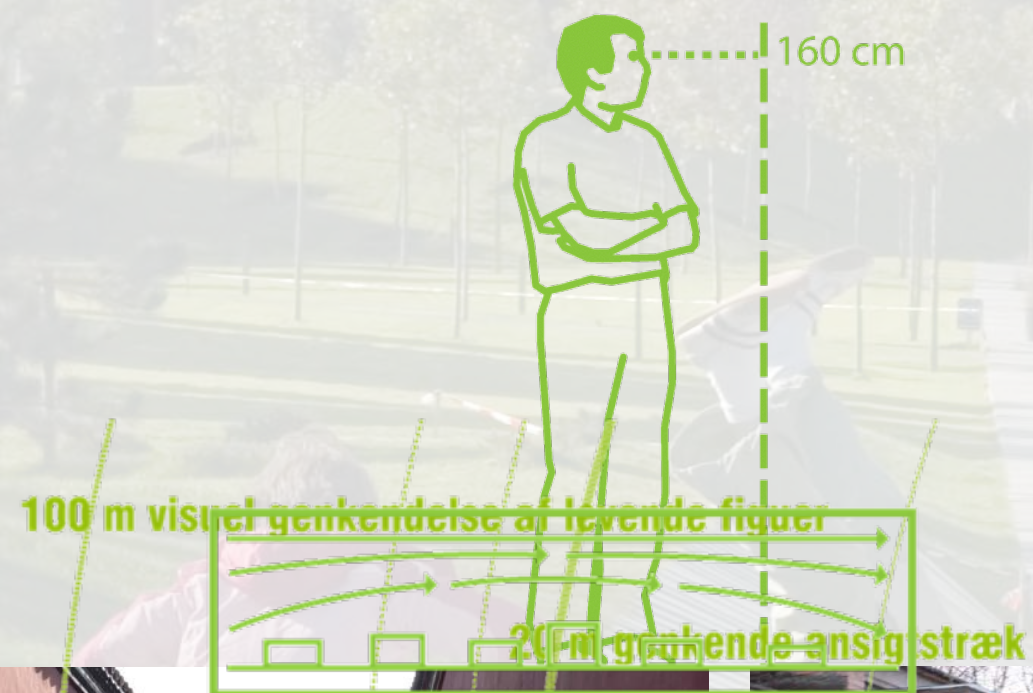












1-3 m samtale

2 m

40 cm

2 m lugt

42 m vejprofilen

35 m muligt at høre samtale

7 m gode lydforhold



没有结合交通枢纽开发的地区空空荡荡



整合自行车交通和公共交通
It is about bikes and public transport...



在这里设置公交车站意义何在？



城市让生活更美好



整合交通网络系统，提高服务质量

以人为本的公共空间设计方法

1. 运用人性化/人性尺度的设计
2. 贯彻行人、自行车优先
3. 采取混合用地开发
4. 整合公共交通系统
5. 营造积极的城市界面

为哥市织一张慢行友好的公共空间网络









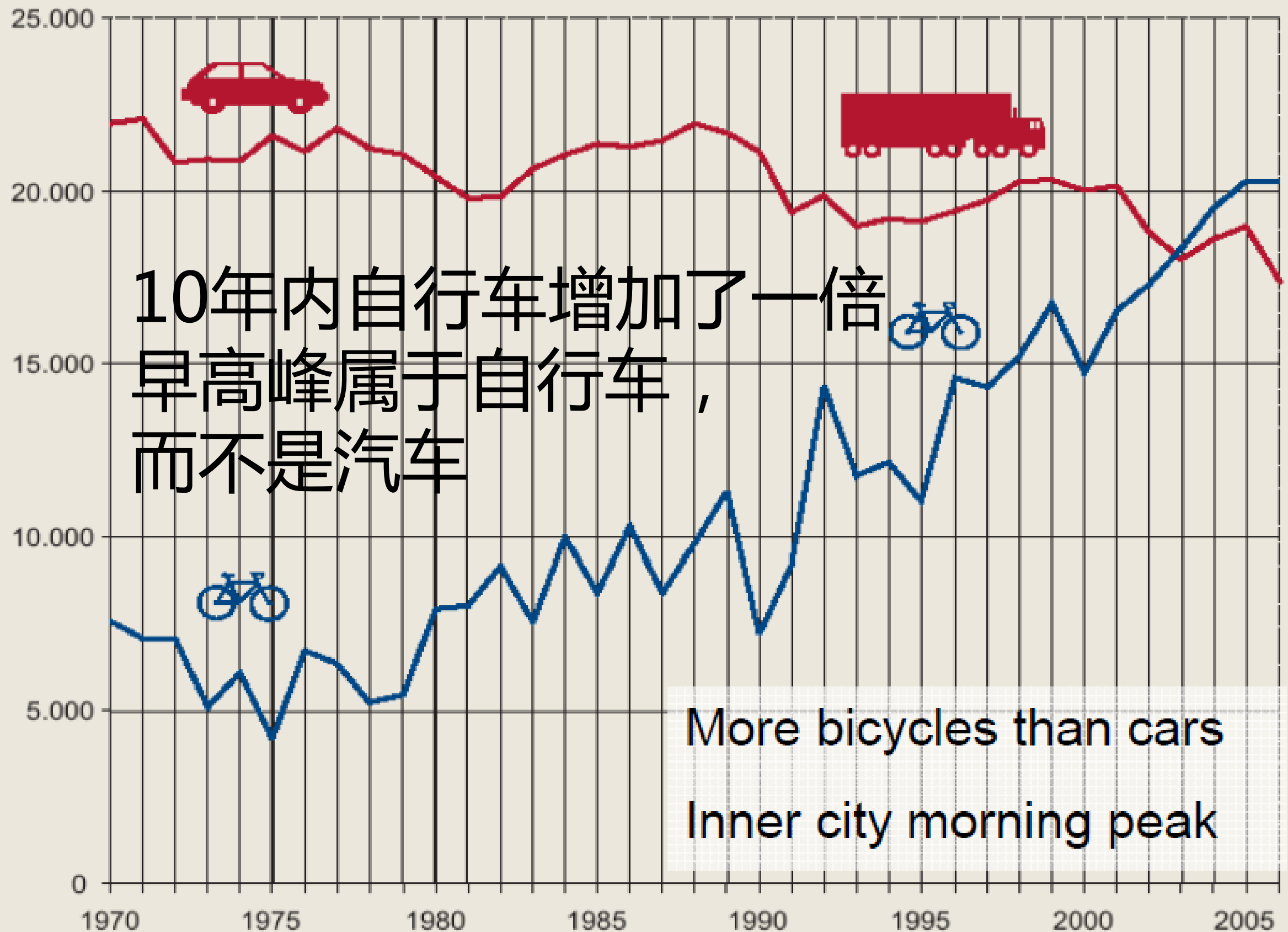
运用高科技使骑车更有趣



自行车流量统计牌



Bicycling has doubled in the last 10 years



纽约百老汇大道改造项目





项目效益

17% improvements in travel time 出行时间缩短

11% increase in pedestrian numbers 步行流量增

加

63% decrease in injuries 交通事故减少

35% decrease in pedestrian injuries 步行事故减少

74% say Times Square has improved dramatically
74%群众反映广场品质得到提升

29% raise in value while rest of NY dropped 6,5-

房地产价值得到提升，在周边普遍贬值的前提下

Thanks ! 谢谢 !