

Safe Systems Summit
Redefining Transportation Safety



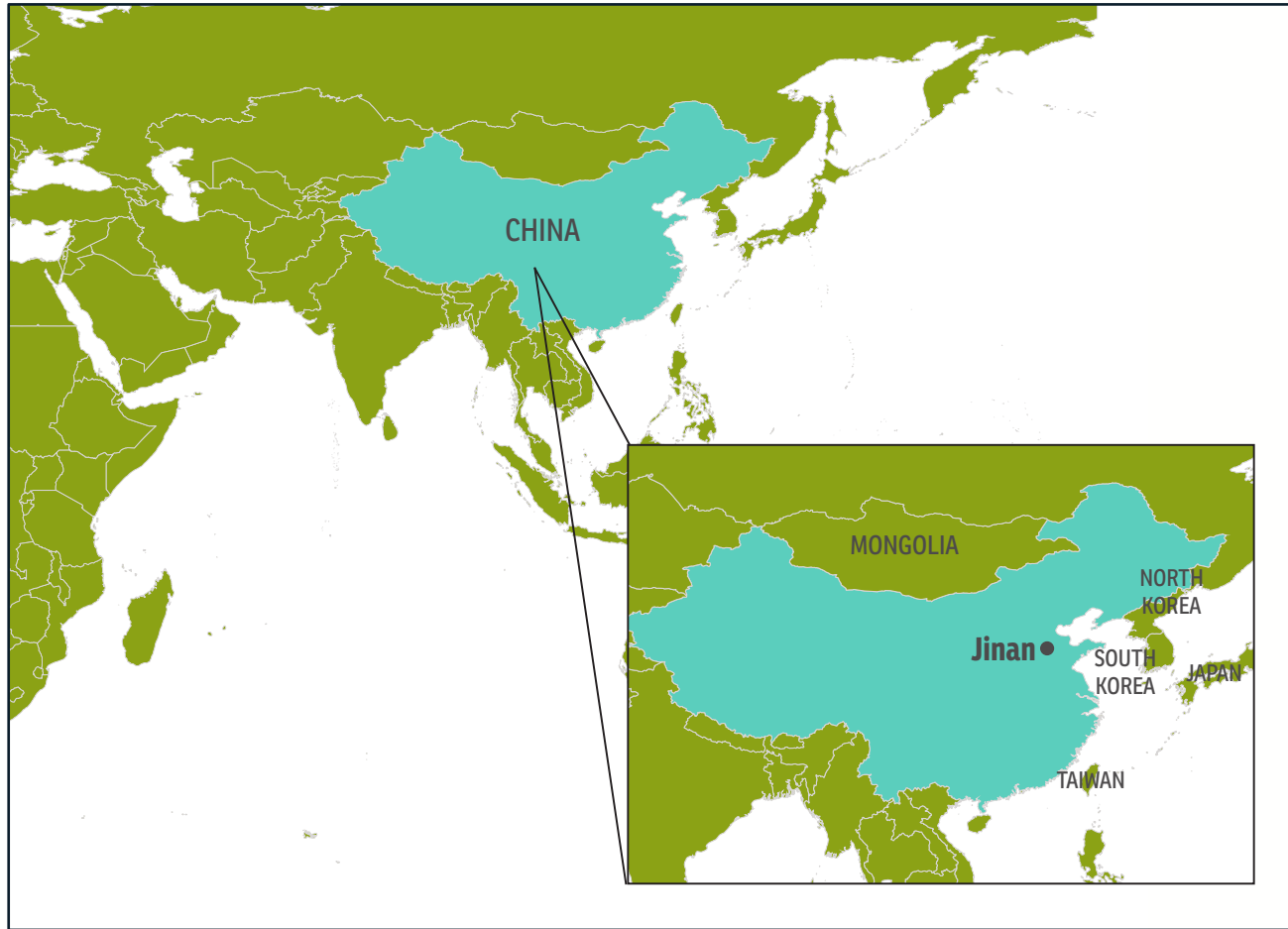
Lessons from China: Navigating collaboration

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Content

- Context of Transit-Oriented Development Project in Jinan
- Footwork
- Collaboration—what did it look like?
- Lessons learned



Jinan: Expansion of the urbanized area 1900 - 2004

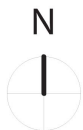
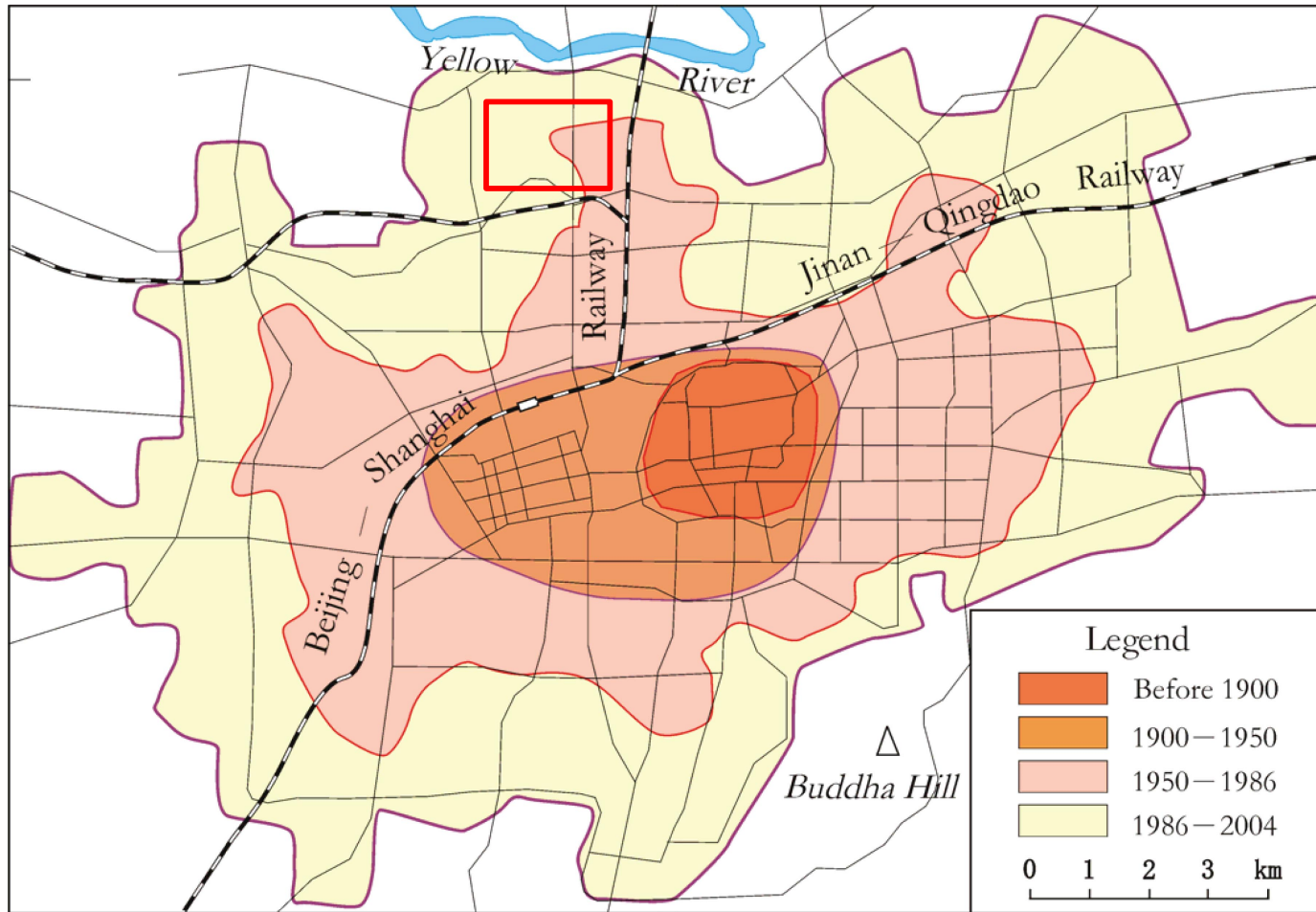
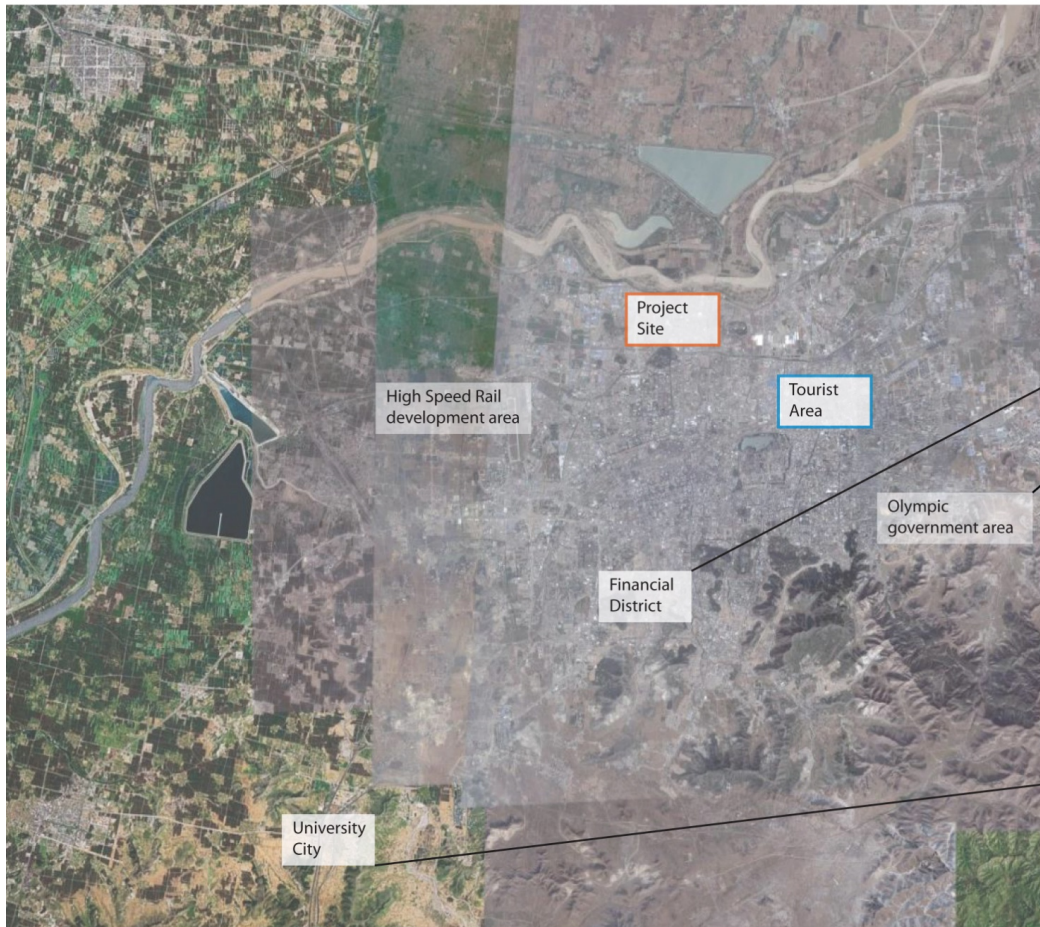


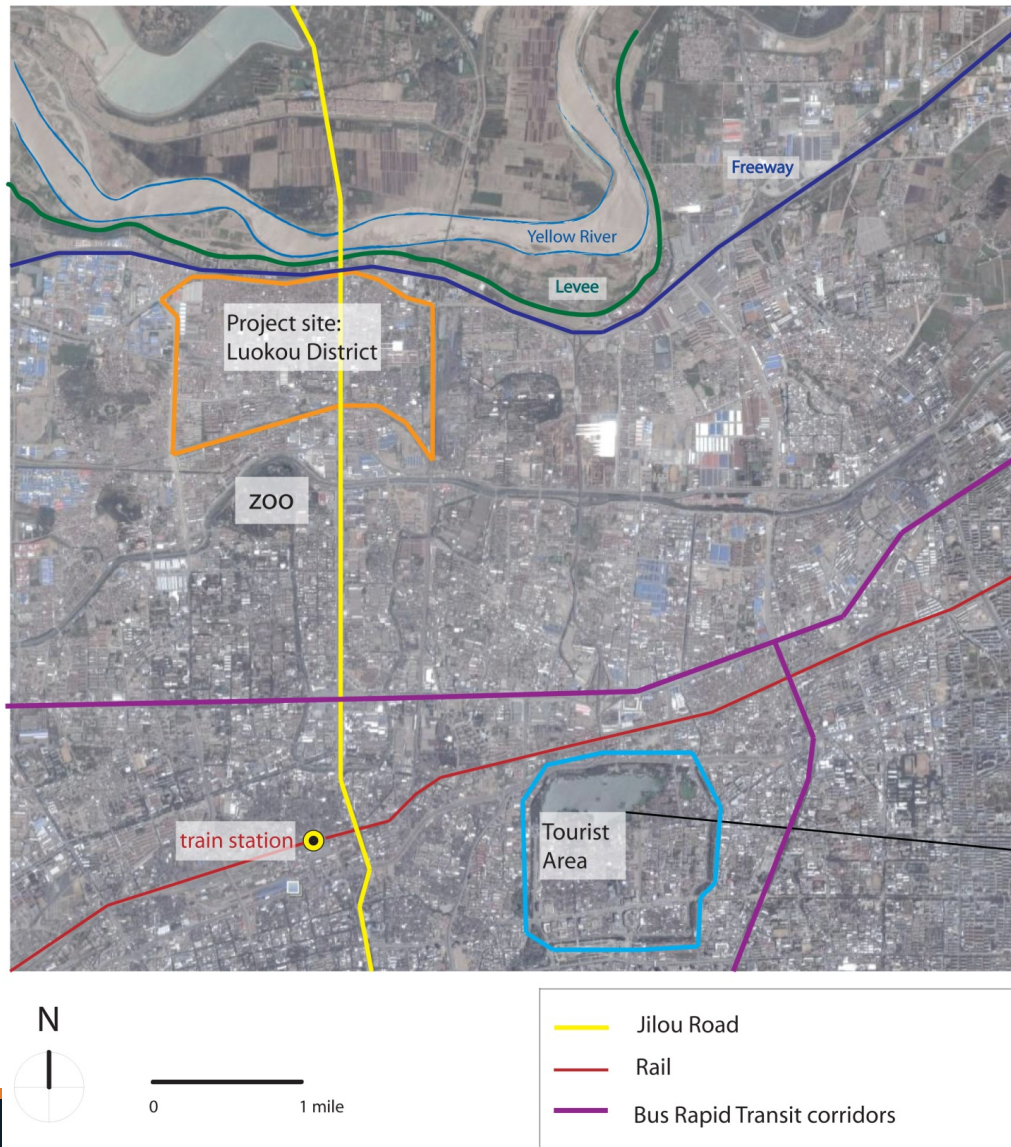
Image source: Luguang Jiang, Huixia Zhao, Zulu Zhang *Analysis on the Spatial Structure of Urban Land Use in Jinan City, China* Geoscience and Remote Sensing Symposium, 2005, IGARSS '05 Proceedings, 2005 IEEE International, pp. 2463-2466



Jinan: The regional context



0 5 miles



Jinan: Urban Context



Pedestrian crossing on a major street



Example of an intersection



Luokou Plan

Area: 3.3 square kilometers

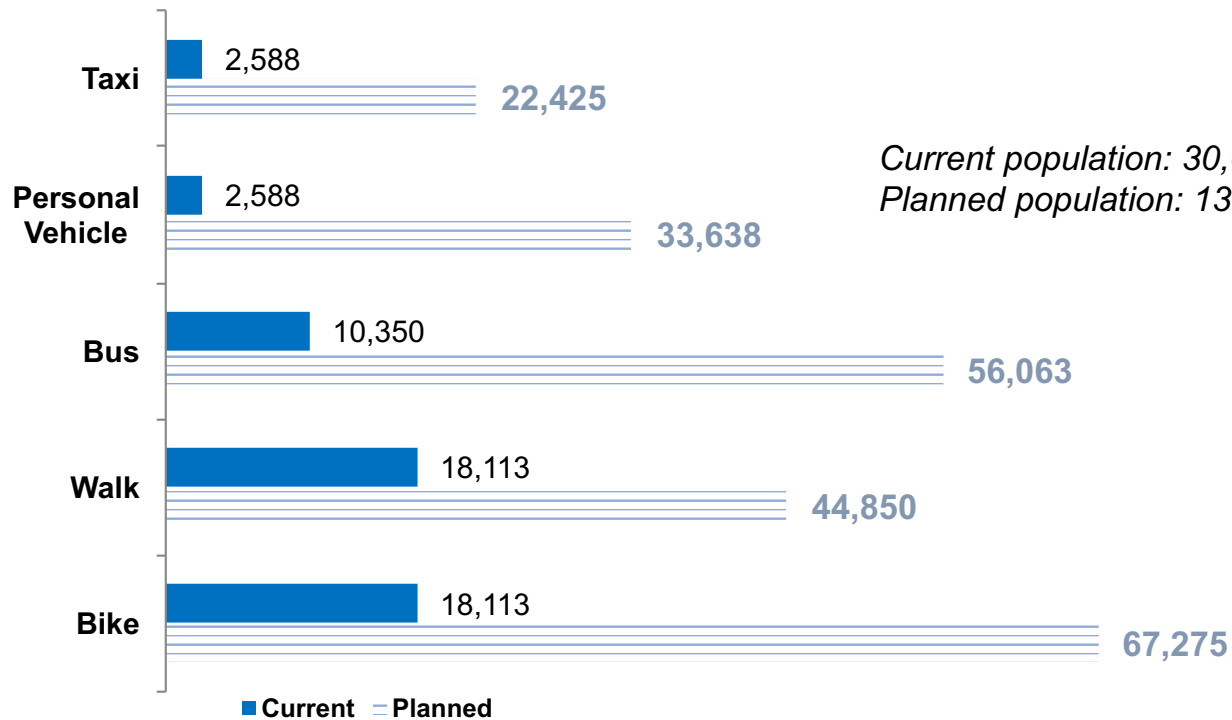
Planned Population: 130,000

Current Population: 30,000

Demographics: West side – middle-high income; East side- relocation housing, lower income.



Total Daily Trips (All trips inside/outside Luokou)



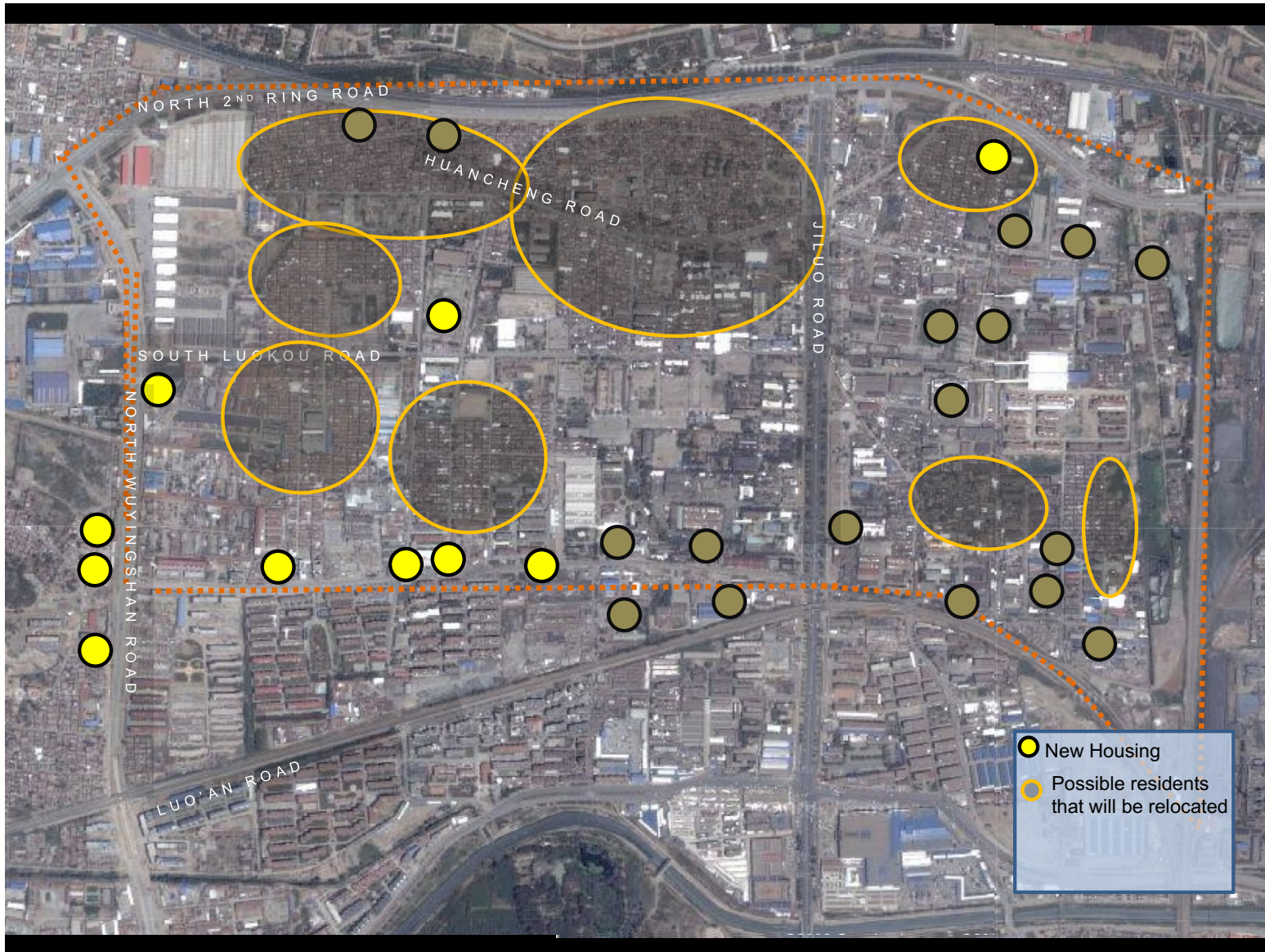
**Assuming 2.3 trips per mode. Similar rates found in Chengdu.*

**Daily trips were averaged over all incomes.*

*Current population: 30,000
Planned population: 130,000*

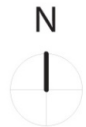
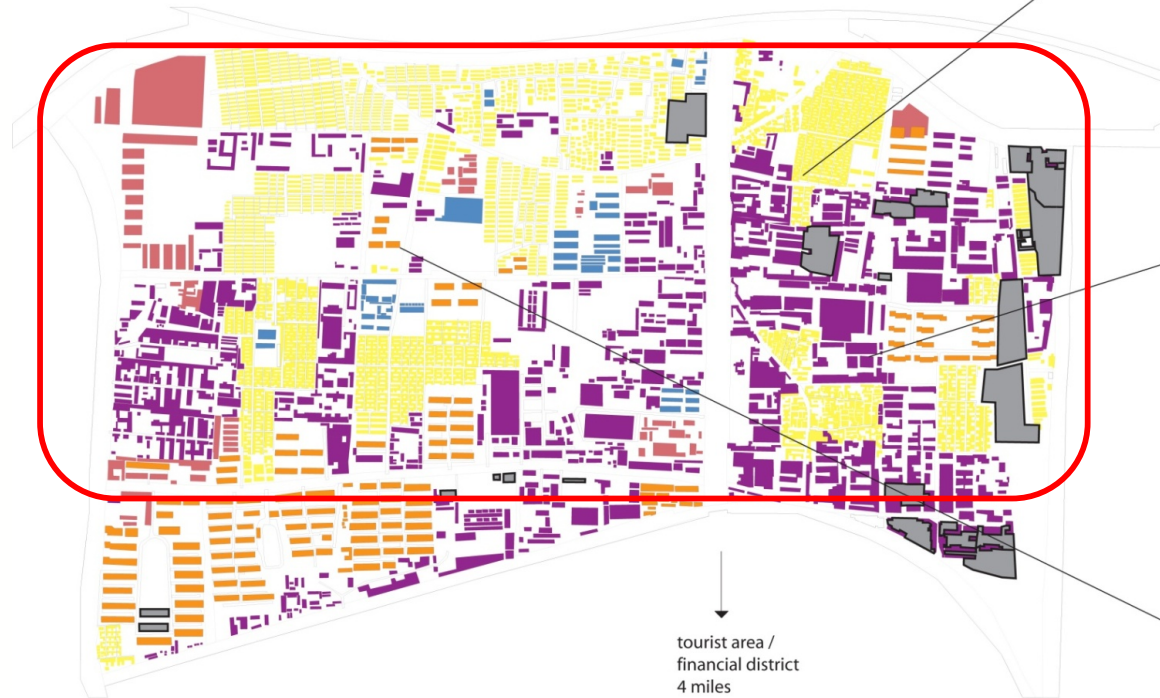
Assumptions: 75% of the population makes daily trips.

Of these, 30% of these trips are work trips *outside* of Luokou area. Another 20-30% can be non-work trips outside of Luokou.



4/24/19

Jinan, Luokou District - Land Uses



0 100m 500m
0' 500' 1000' 2000'

- public buildings
- small residential
- dense residential
- industrial buildings
- waste facilities
- retail



Low density housing



Industrial building. Such buildings are often placed right next to housing



Example of a more recent, higher density development

Low Density Residential Mid-Block Alleyways off of Erhuan Road





We spoke with several people who are laid off factory workers. They have had to take up small businesses or informal vending to make ends meet.

What did Collaboration look like?

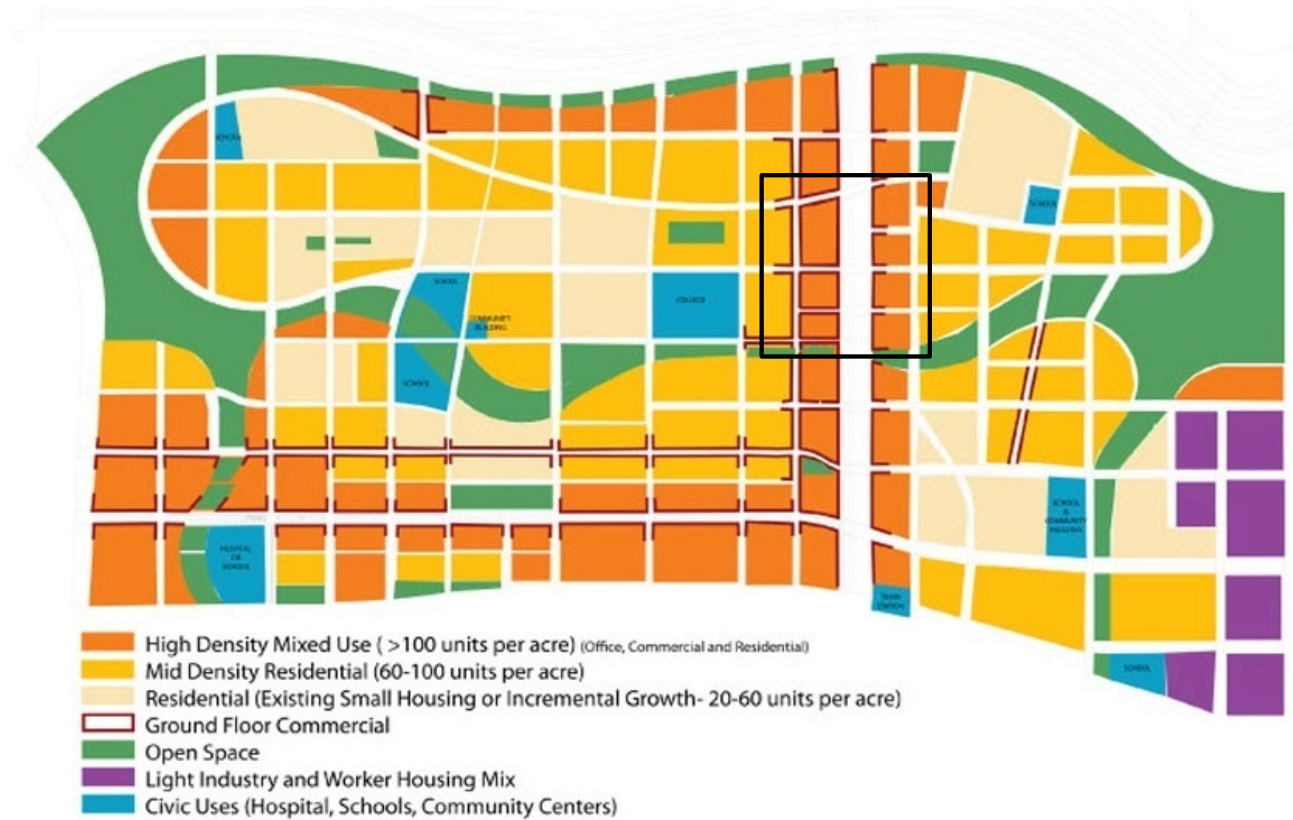
We spoke to locals as “young foreigners”, not as foreign experts.

Documented our findings –images, notes, etc. [not of the locals]

We kept their input and concerns foremost in our final designs and recommendations.

Urban Design Studio re-emphasized ways to keep them in local economy and provide them with context-sensitive housing.

This was in addition to working with local planning officials.



Land use plan to support density and transportation needs

4/24/19

Note proposed block structure with a clear hierarchy of streets

STREET TYPES: THE MAJOR ARTERIAL (100 m wide)

- Creating a multi-modal urban arterial, accommodating all transport modes
- Providing separate facilities for bicycles and electric bikes
- Integrating a Bus Rapid Transit (BRT) corridor



INTERSECTION DESIGN



STREET AND BUILDING DESIGN



Lessons learned

Footwork, footwork, footwork

Collaboration occurs at multiple levels, but that is culturally defined.

Know limitations and opportunities of your role as “foreign expert