

Introduction to the spatial data of **Shangdi Hi-tech District**

Ying LONG
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Data Contents

Overall

- **Shangdi_Data.gdb**
 - Analysis Area & the Site
 - Buildings
 - Roads
 - POIs
 - AOIs
 - Dianping Comments
 - Weibo Checkin
 - Weibo Post
 - Natural Blocks
 - Housing Price
 - Residential Communities
 - Urban Form

we have shared the raw data in the format of GIS (geographical information system). If you are familiar with any GIS software like the open software [QGIS](#), you can analyze the data quantitatively by yourself.

Download:

<https://cloud.tsinghua.edu.cn/f/0e5958c1b0c145db86c0/>

- **Street View Images**

Download:

<https://cloud.tsinghua.edu.cn/f/7008eec8676f4e7abeb0/>

(all street view images)

<https://cloud.tsinghua.edu.cn/f/bc4507d7fdf94847a6ee/>

(street view images within the design site)

- **Remote Sensing Images**

Download:

<https://cloud.tsinghua.edu.cn/f/021f70a592fb4bc681b0/>

Data has been visualized on Geohey, you can view through the website or scanning the QR code. You will be able to explore each layer (like zoom in/out and pan) and overlay them by yourself.

<https://geohey.com/apps/dataviz/e314eaa6cf7940e0b61a107fc9ee8aff/share?ak=NmUxYjFkN2VjZDQ5NGFiZGEzODhjNzA1NTc2MTA2ZGE>



Data Contents

1. Analysis Area & The Site

File Name:

analysis_area
the_site

File Type: Polygon

Amount: 1

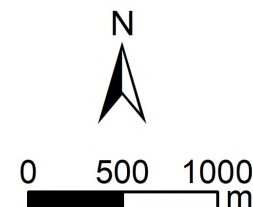
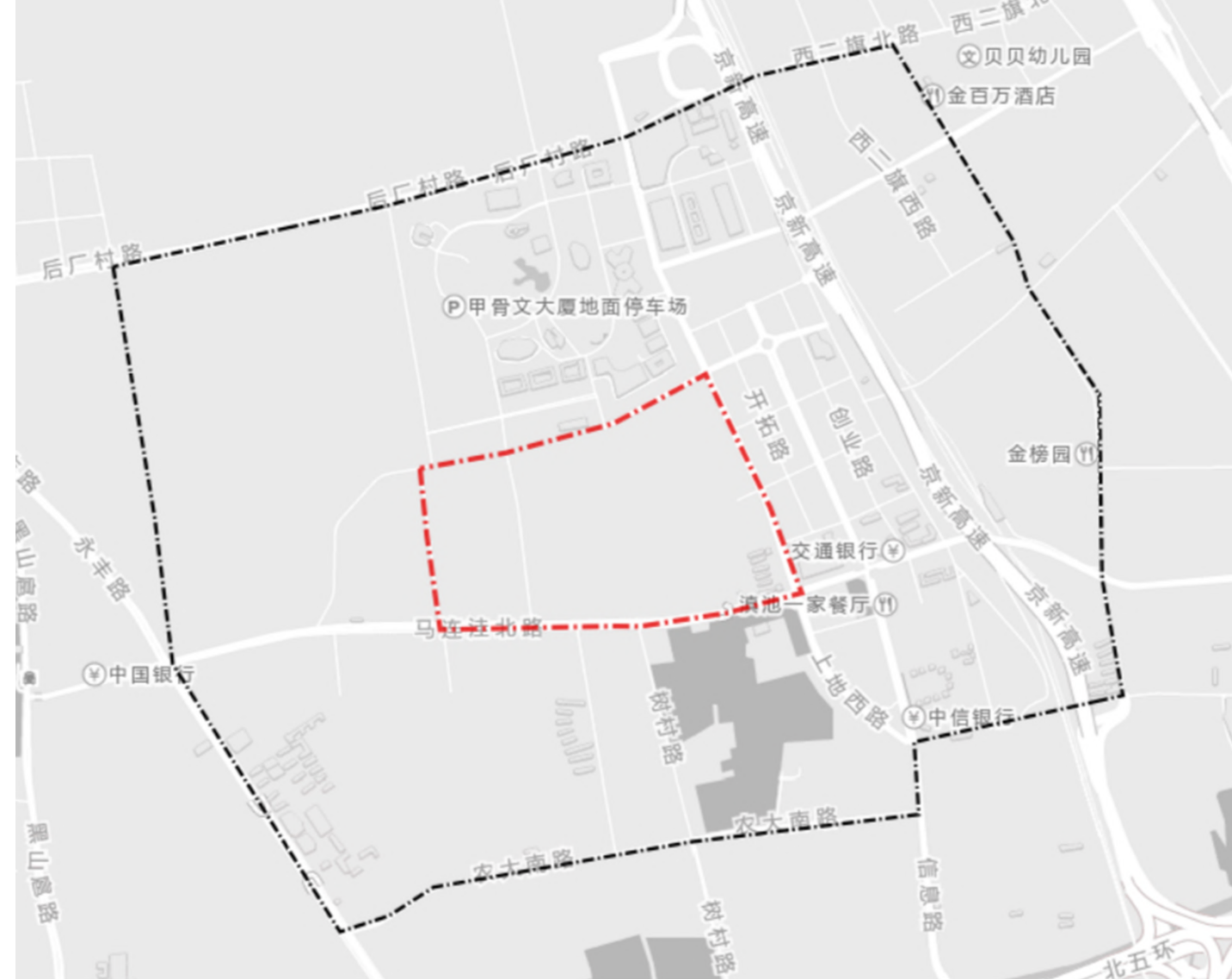
Key Elements:

- analysis_area

id	Area(m ²)	Perimeter(m)
1	22241083	18771

- the_site

id	Area(m ²)	Perimeter(m)
1	2394891	6432



Analysis Scope

The Site Scope

Data Contents

2. Buildings

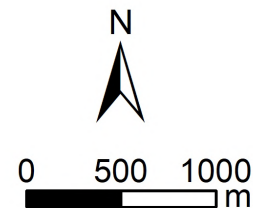
File Name: buildings

File Type: Polygon

Amount: 5080

Key Elements:

	Height(m)	foot_print(m ²)
example	12	1568



Analysis Scope
The Site Scope

Buildings Height

- >30
- 18-30
- 6-18
- 3-6
- 0-3

Data Contents

3. Roads

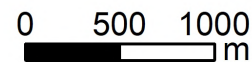
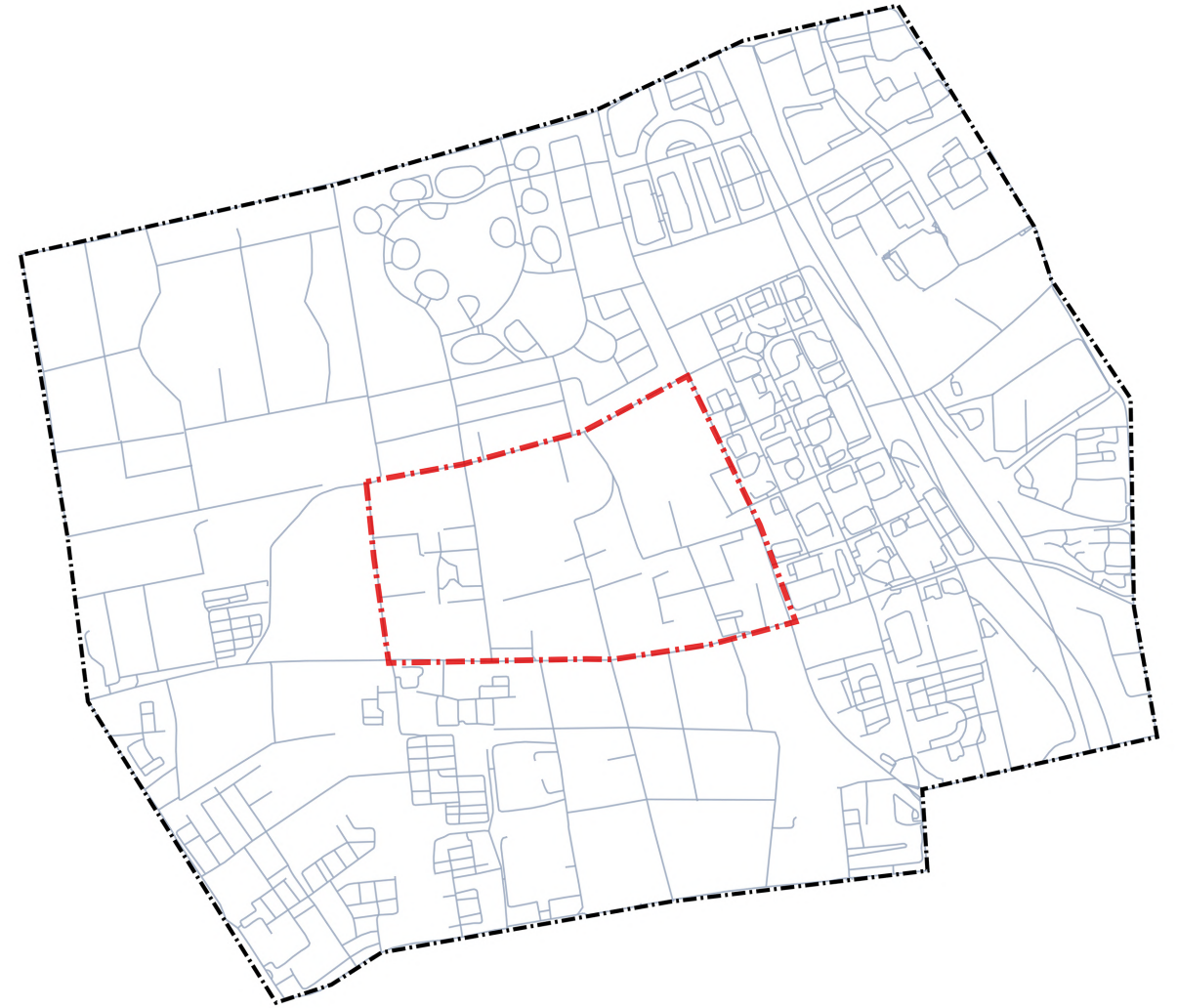
File Name: road_2019

File Type: Line

Amount: 1975

Key Elements:

	WIDTH(m)	LENGTH(m)
example	30	299



Data Contents

4. POIs

Categories:

name	amount	name	amount
<i>Accommodation Service</i>	99	<i>Automobile Servic</i>	79
<i>Commercial</i>	1189	<i>Communal Service</i>	67
<i>Company</i>	2609	<i>Domestic Service</i>	841
<i>Financial Insurance</i>	173	<i>Government Social Group</i>	288
<i>Medical Health Service</i>	113	<i>Office Building</i>	205
<i>Park and Sightseeing</i>	16	<i>Residential</i>	216
<i>Restaurant</i>	801	<i>Science Culture</i>	598
<i>Sports Leisure Service</i>	182	<i>Transportation Facilities</i>	1073

Key Elements:

	name	type
example	中复电讯	购物服务: 家电电子卖场; 手机销售

Data Contents

4. POIs

4.1 Accommodation Service

File Name: POI_accommodation service

File Type: Point

Amount: 99



0 500 1000 m

Analysis Scope

The Site Scope

POI Accommodation Service

Data Contents

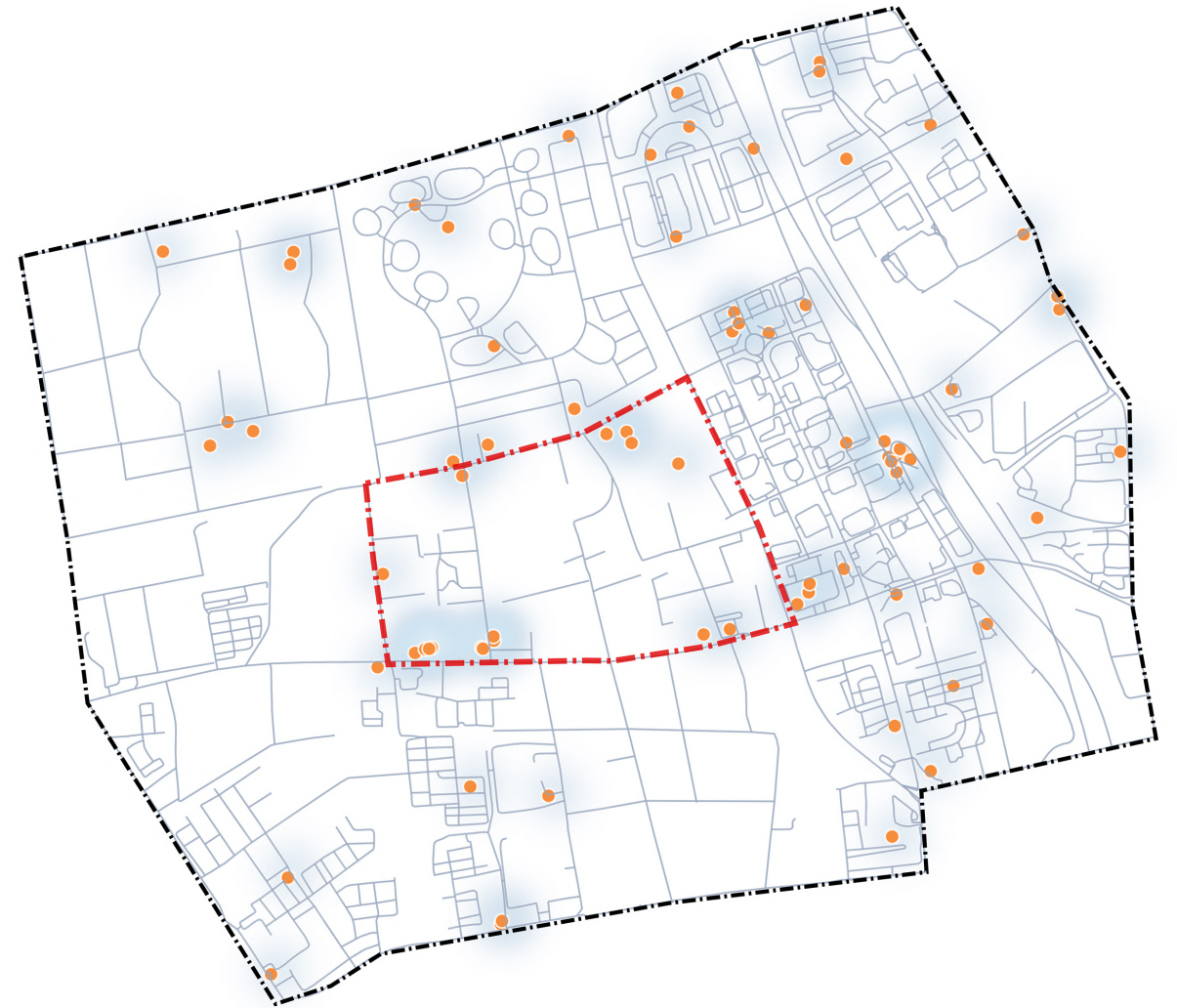
4. POIs

4.2 Automobile Service

File Name: POI_automobile_service

File Type: Point

Amount: 79



0 500 1000
m

 Analysis Scope

 The Site Scope

 POI
Automobile Service

Data Contents

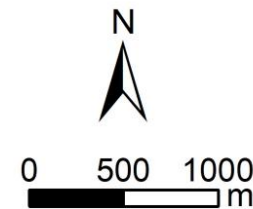
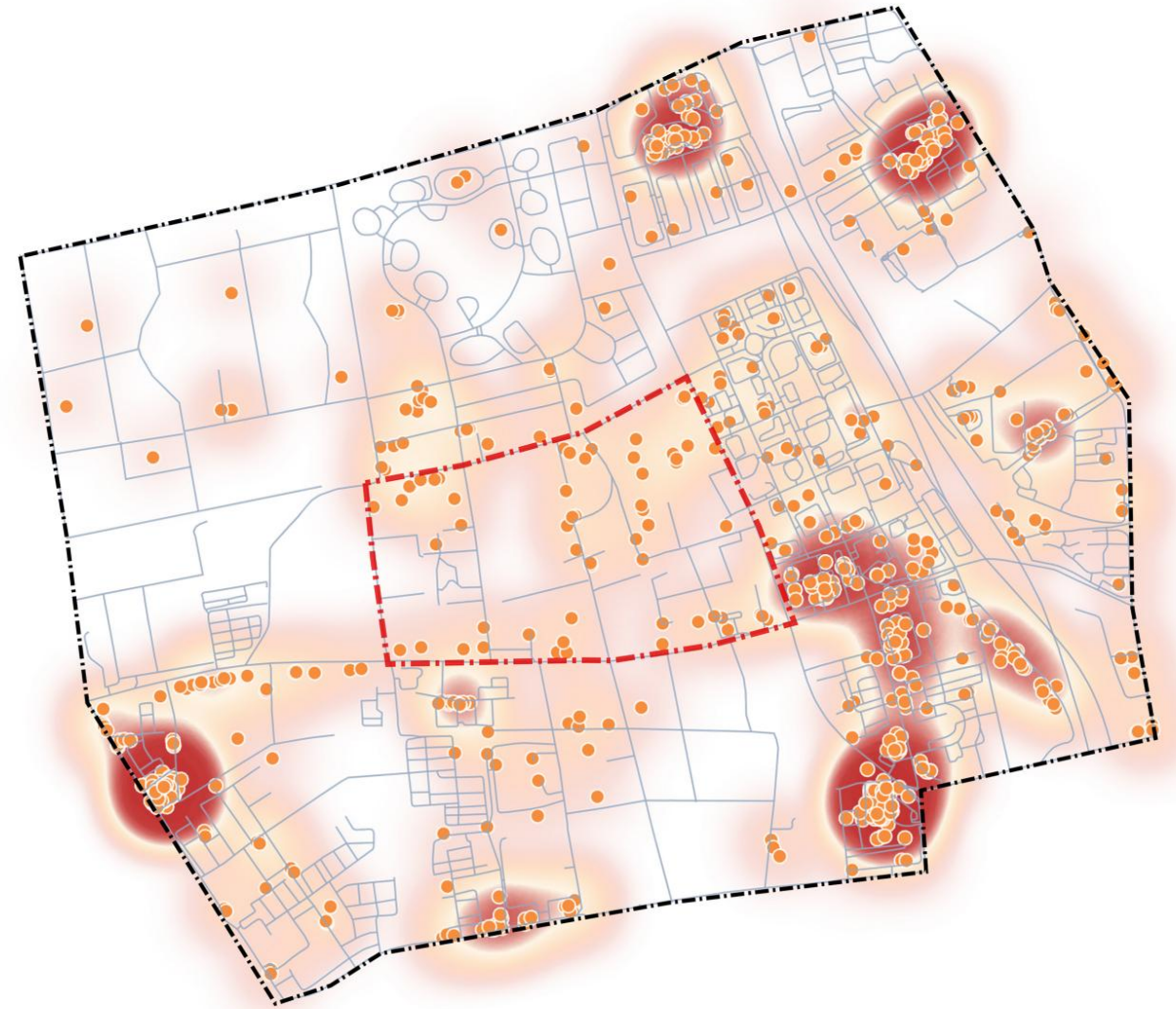
4. POIs

4.3 Commercial

File Name: POI_commercial

File Type: Point

Amount: 1189



Analysis Scope

The Site Scope

POI
Commercial

Data Contents

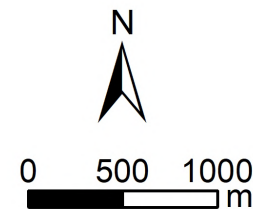
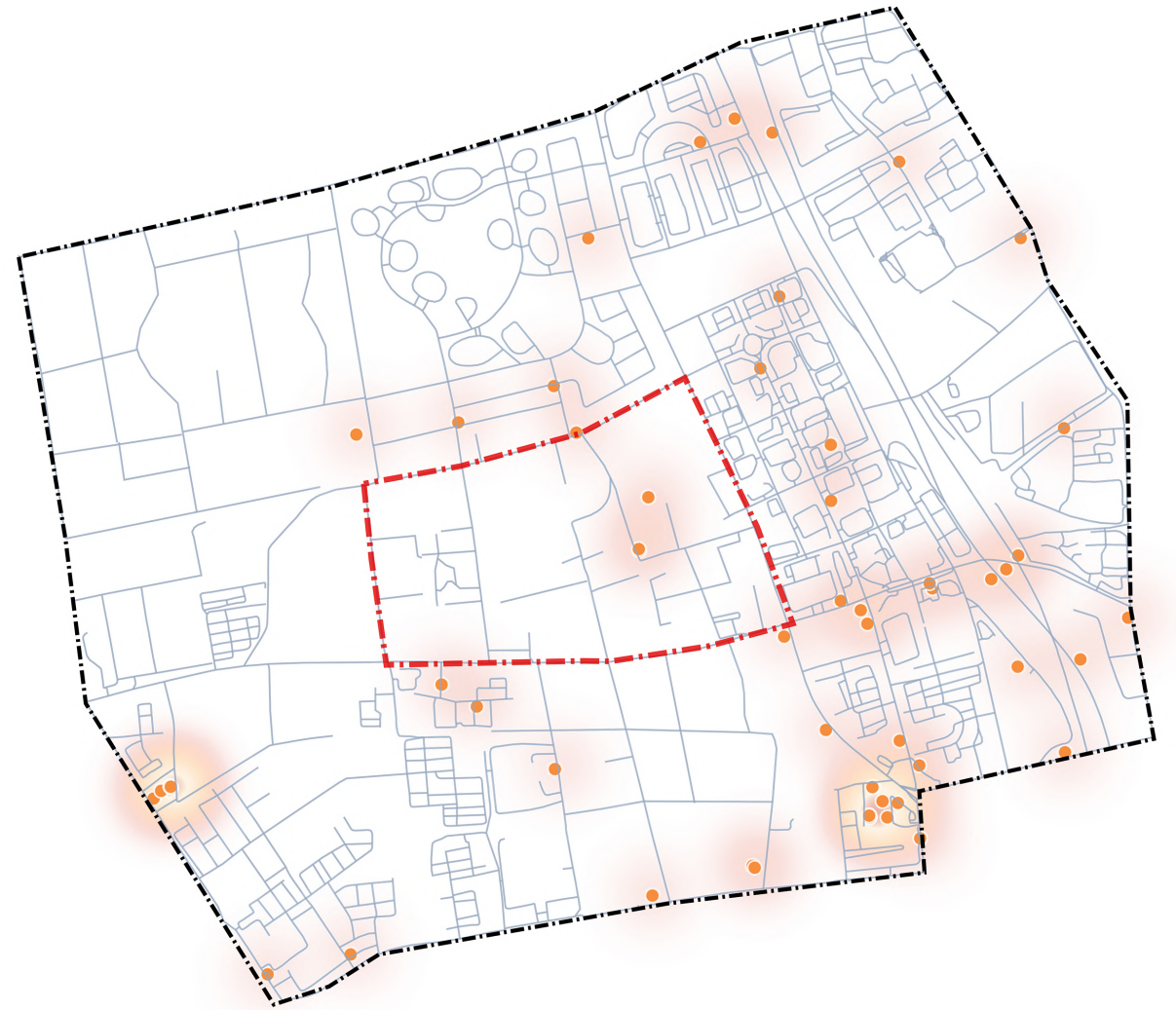
4. POIs

4.4 Communal Service

File Name: POI_communal_service

File Type: Point

Amount: 67



 Analysis Scope

 The Site Scope

 POI
Communal Service

Data Contents

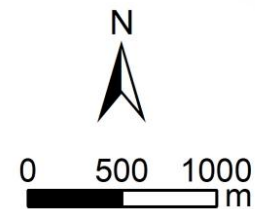
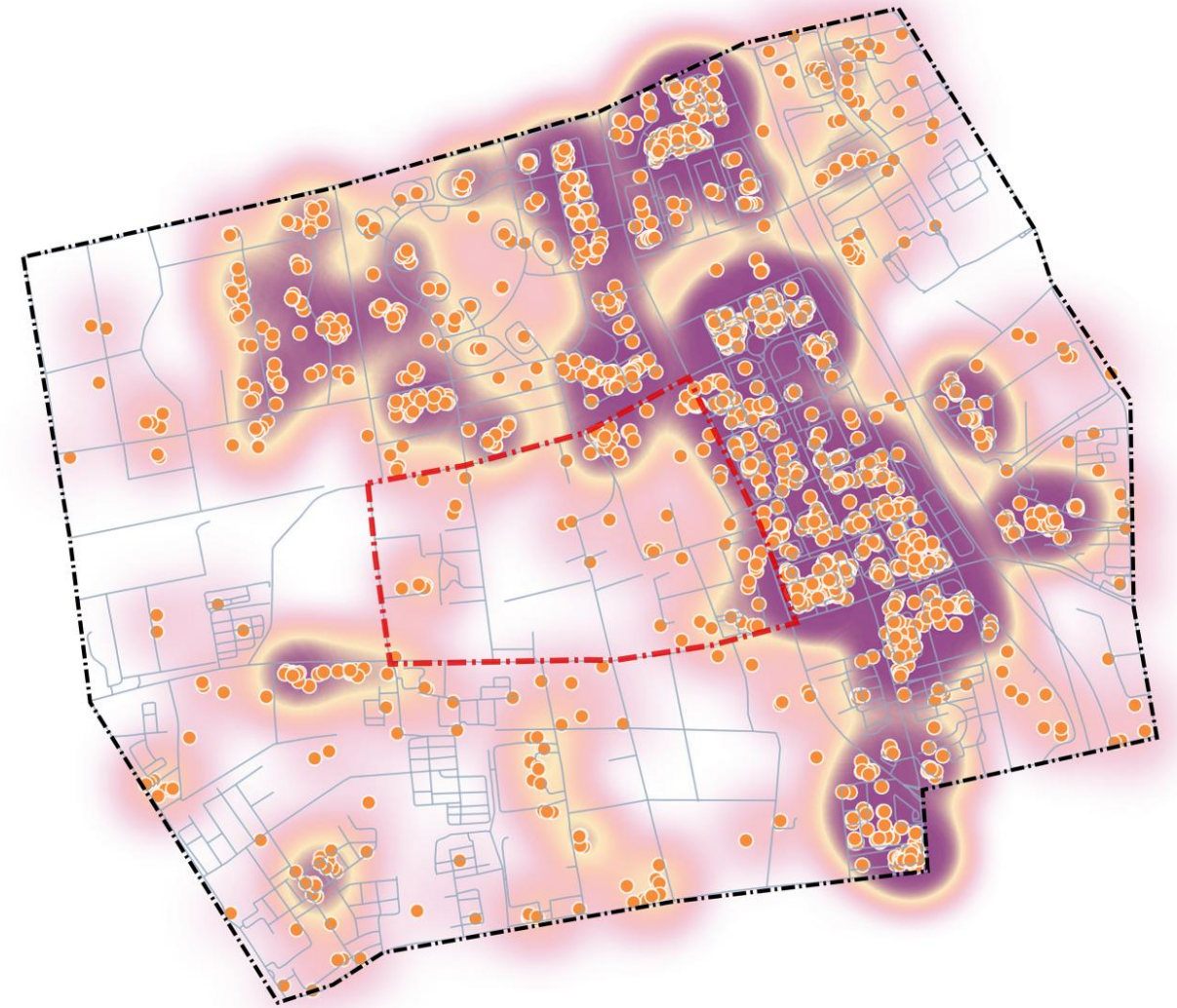
4. POIs

4.5 Company

File Name: POI_company

File Type: Point

Amount: 2609



Analysis Scope

The Site Scope

POI Company

Data Contents

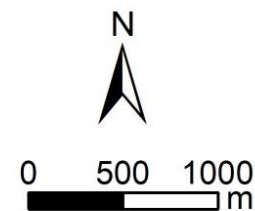
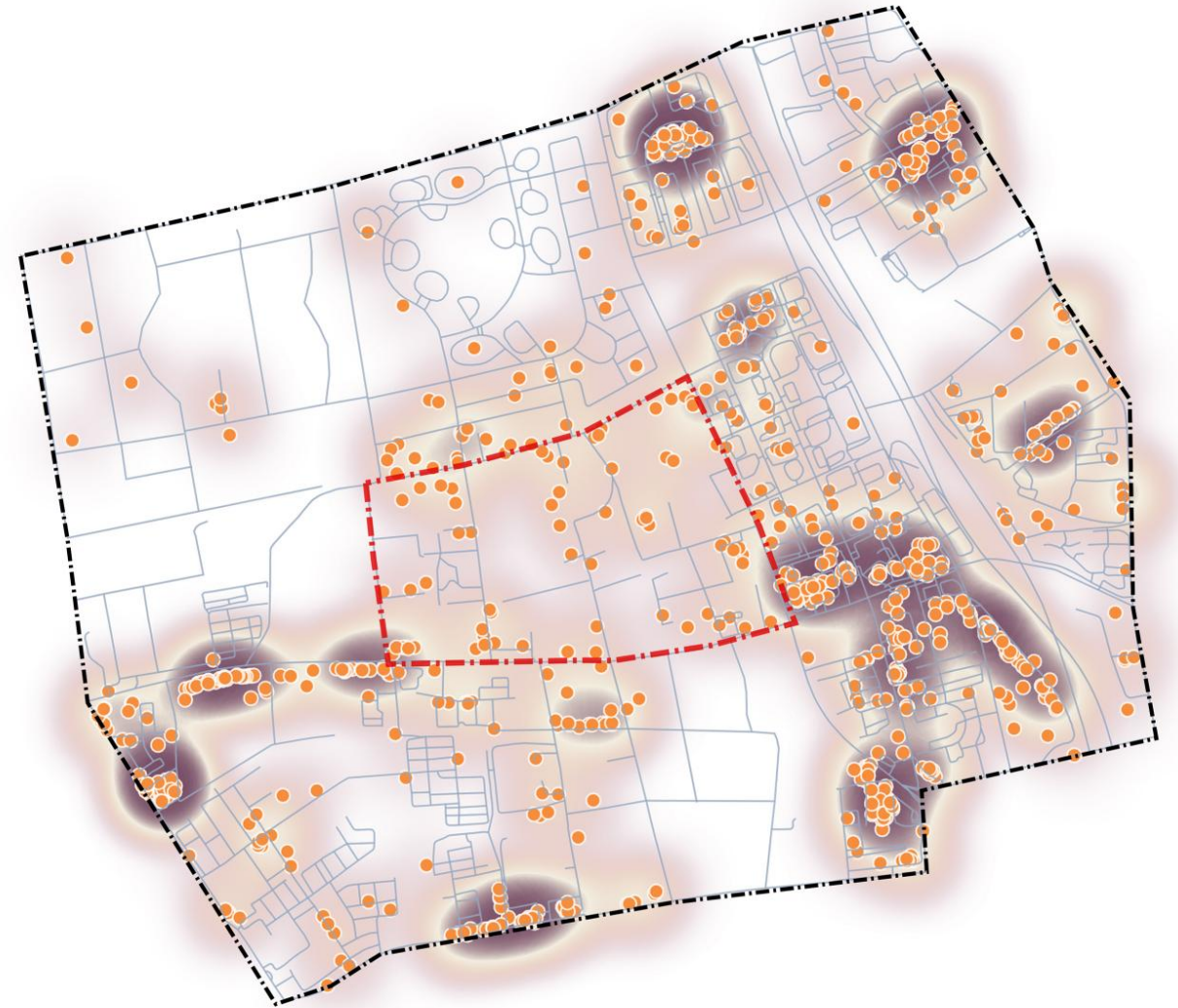
4. POIs

4.6 Domestic Service

File Name: POI_domestic_service

File Type: Point

Amount: 841



Analysis Scope

The Site Scope

POI
Domestic Service

Data Contents

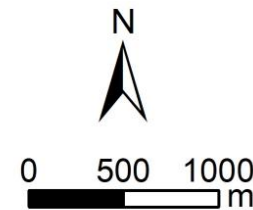
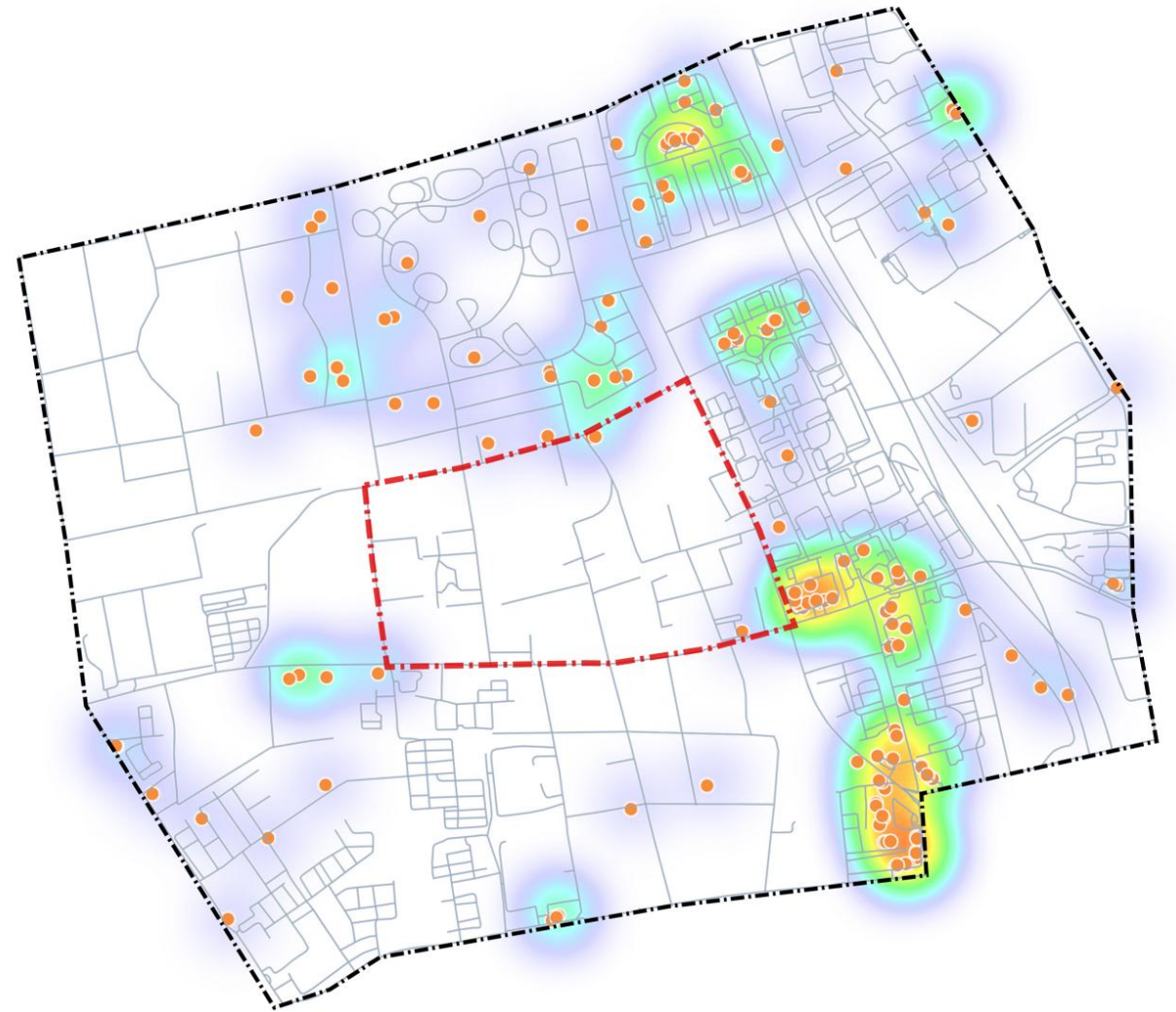
4. POIs

4.7 Financial Insurance

File Name: POI_financial_insurance

File Type: Point

Amount: 173



Analysis Scope
The Site Scope

POI
Financial Insurance

Data Contents

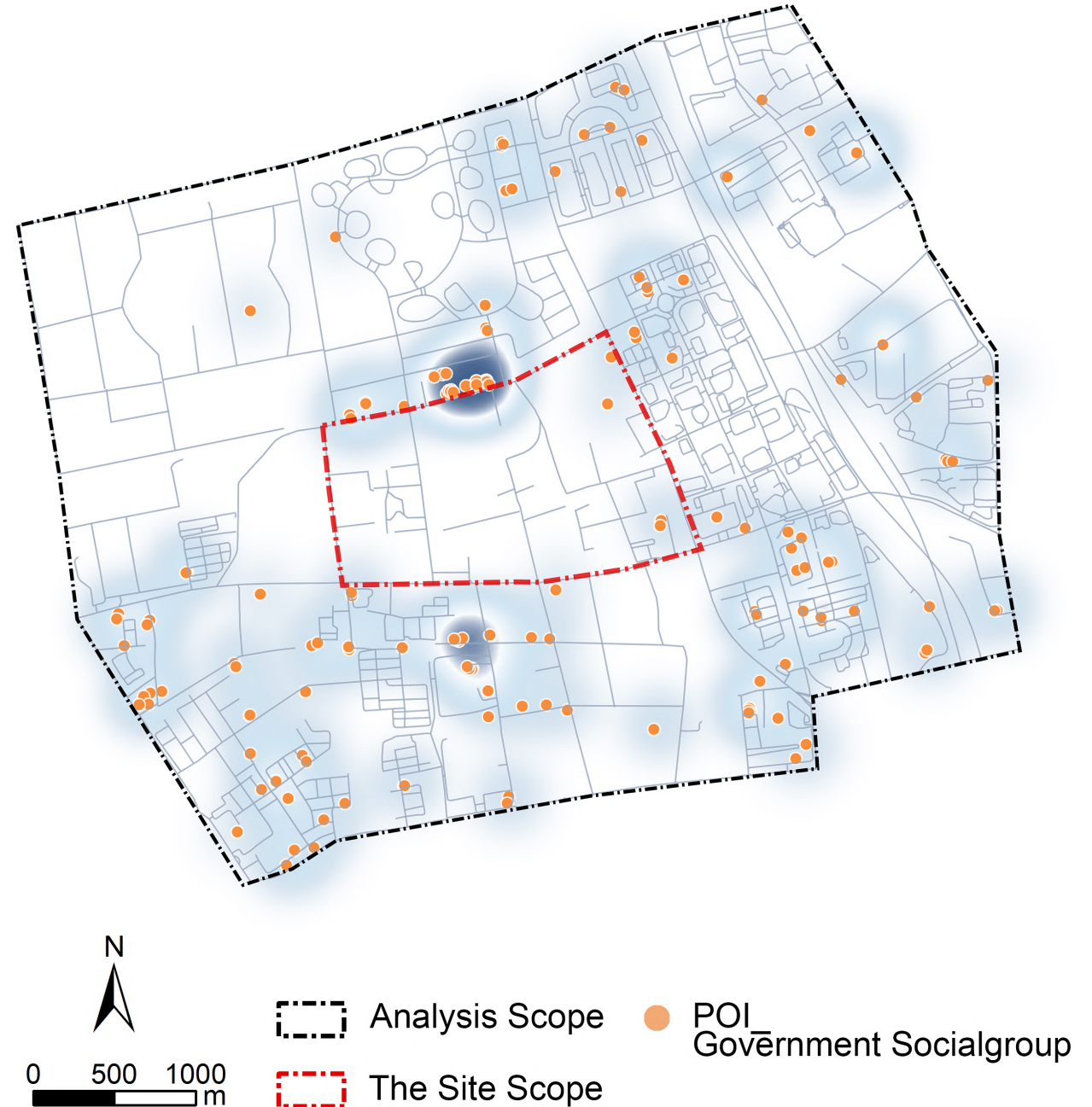
4. POIs

4.8 Government Social Group

File Name: POI_government_socialgroup

File Type: Point

Amount: 288



Data Contents

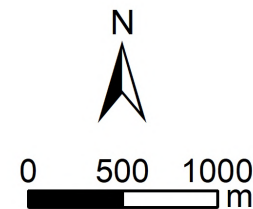
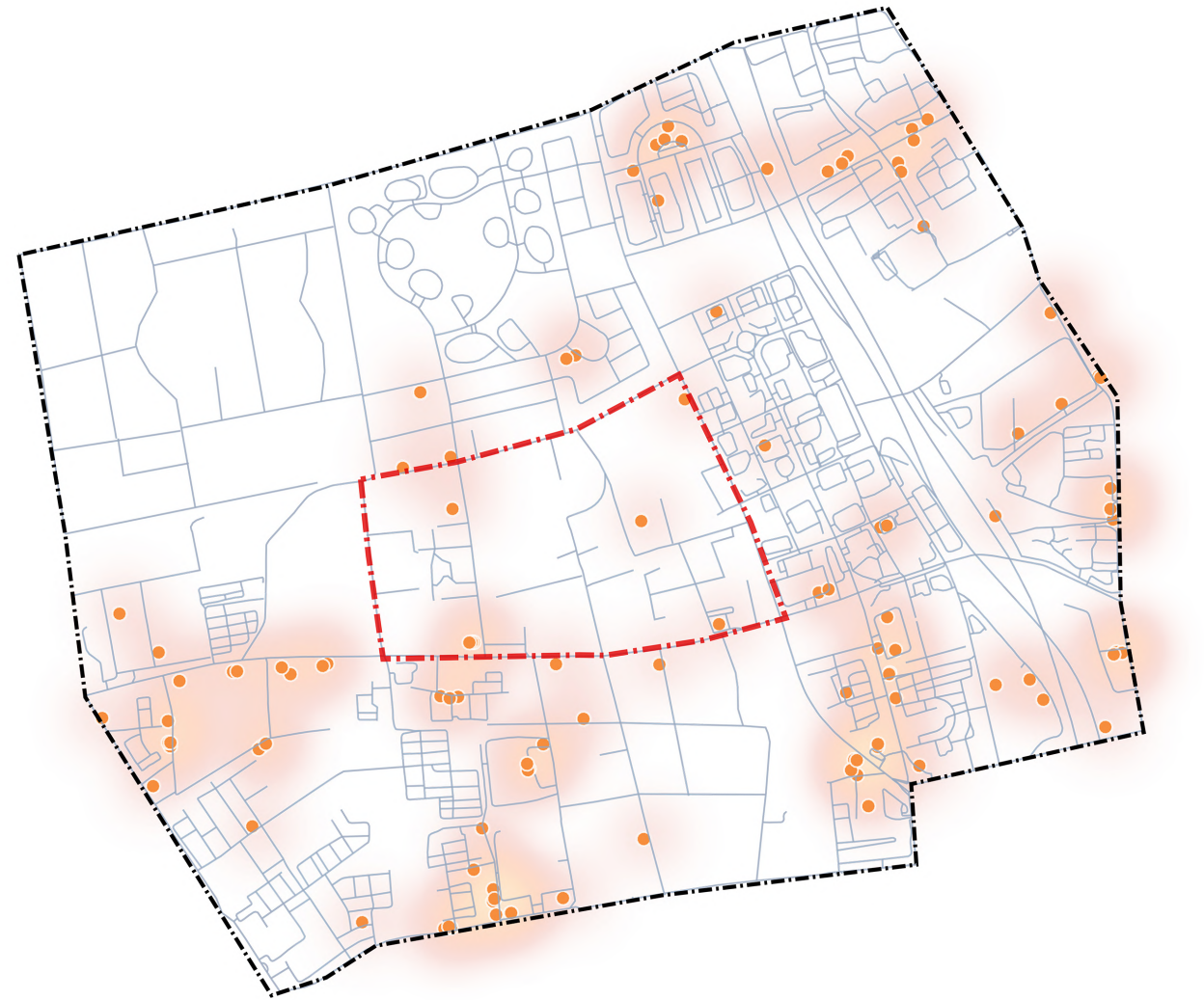
4. POIs

4.9 Medical Health Service

File Name: POI_medical_health_service

File Type: Point

Amount: 113



Analysis Scope

The Site Scope

POI
Medical Health Service

Data Contents

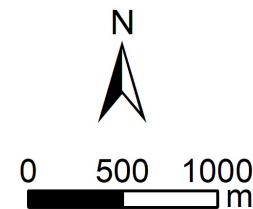
4. POIs

4.10 Office Building

File Name: POI_office_building

File Type: Point

Amount: 205



Analysis Scope

The Site Scope

POI Office Building

Data Contents

4. POIs

4.11 Park and Sightseeing

File Name: POI_park_and_sightseeing

File Type: Point

Amount: 16



0 500 1000
m



Analysis Scope



The Site Scope



POI
Park and Sightseeing

Data Contents

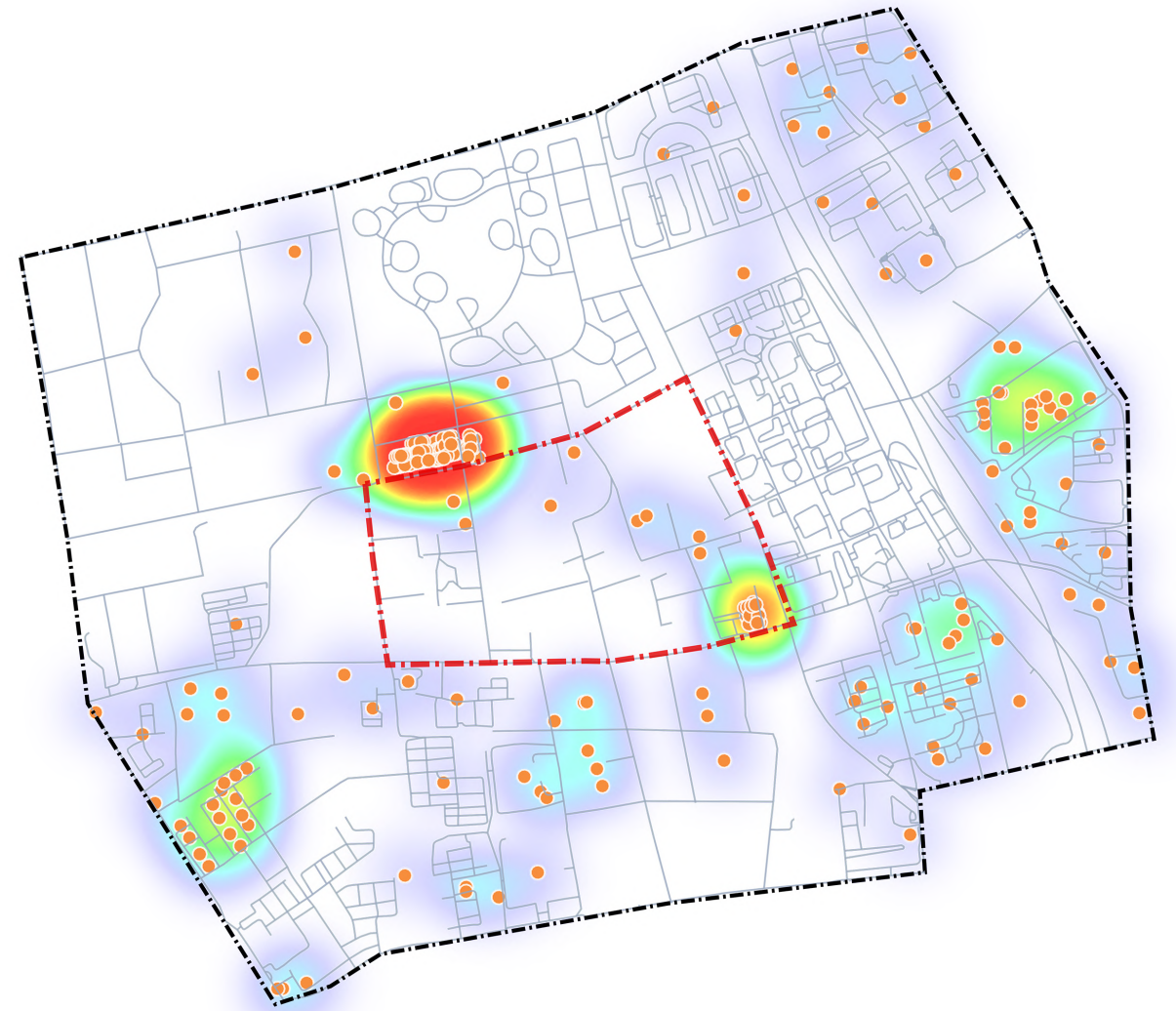
4. POIs

4.12 Residential

File Name: POI_residential

File Type: Point

Amount: 216



0 500 1000
m



Analysis Scope



The Site Scope



POI
Residential

Data Contents

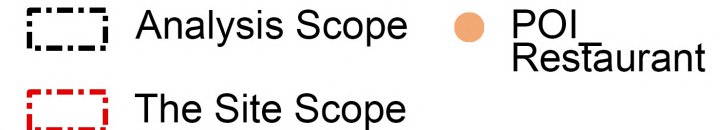
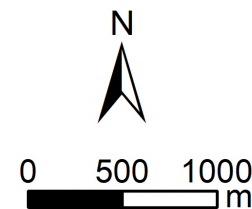
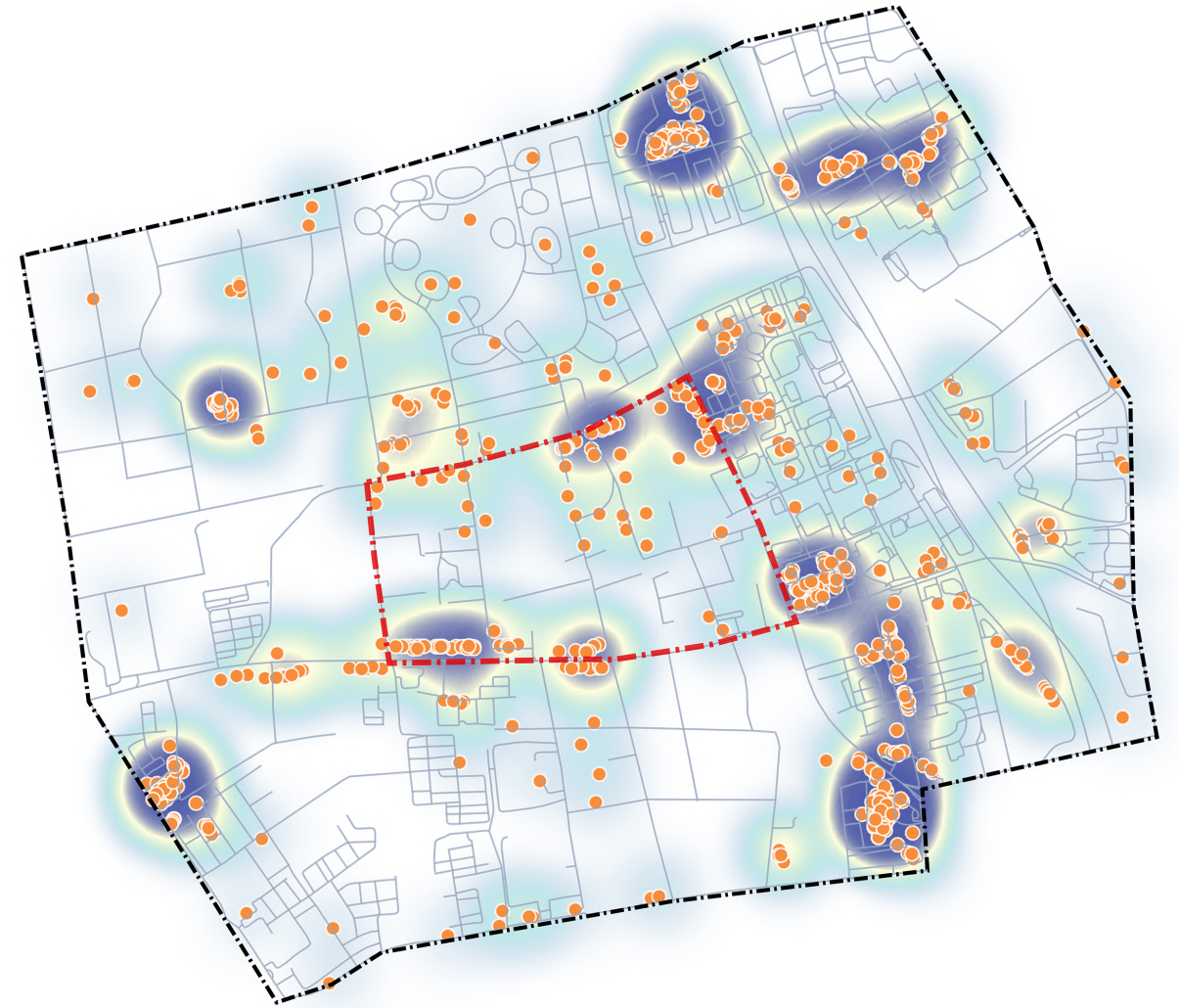
4. POIs

4.13 Restaurant

File Name: POI_restaurant

File Type: Point

Amount: 801



Data Contents

4. POIs

4.14 Science Culture

File Name: POI_science_culture_education

File Type: Point

Amount: 598



0 500 1000
m



Analysis Scope



The Site Scope



POI
Science Culture

Data Contents

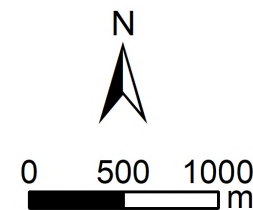
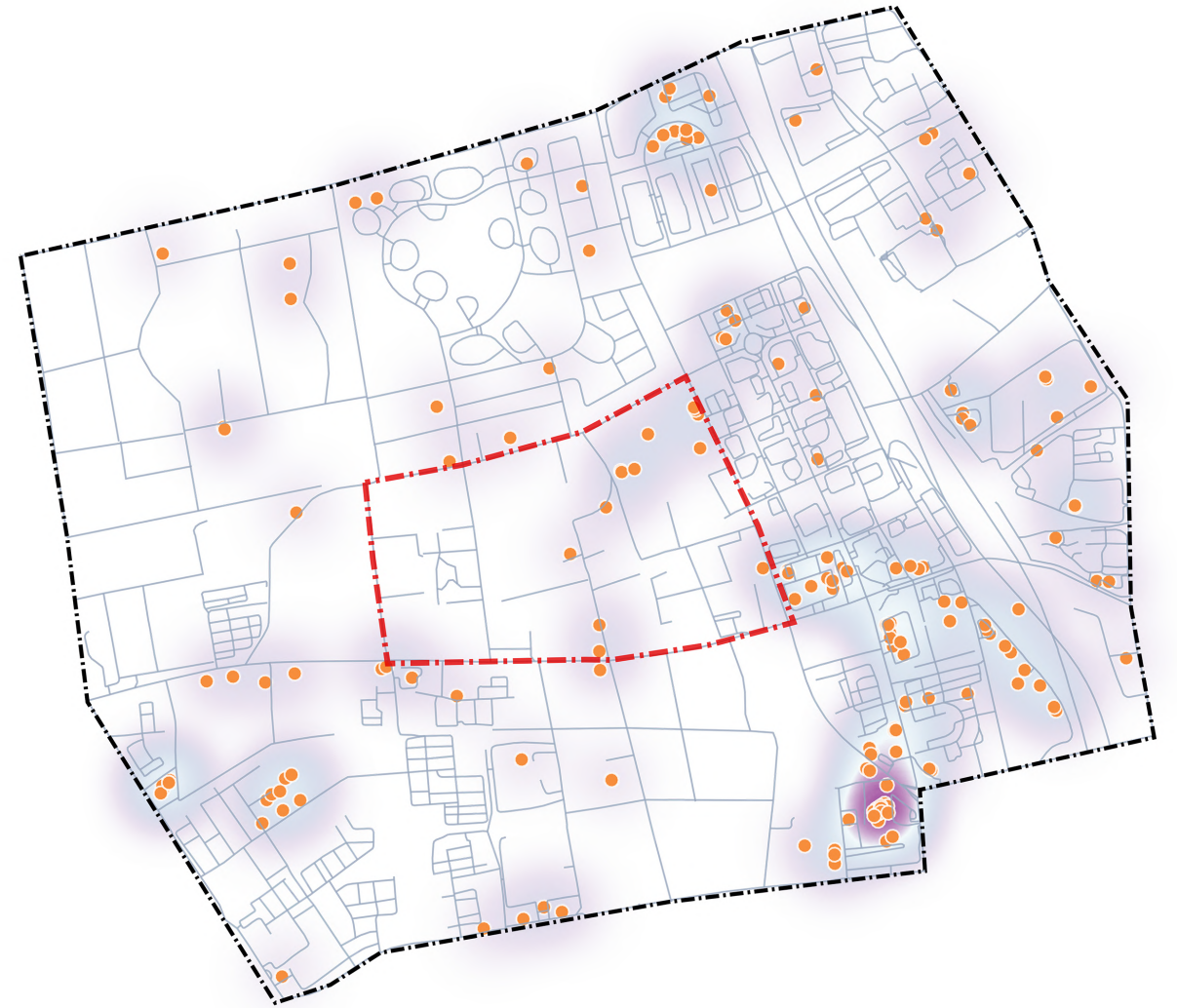
4. POIs

4.15 Sports Leisure Service

File Name: POI_sports leisure service

File Type: Point

Amount: 182



--- Analysis Scope
-.- The Site Scope

● POI Sports Leisure Service

Data Contents

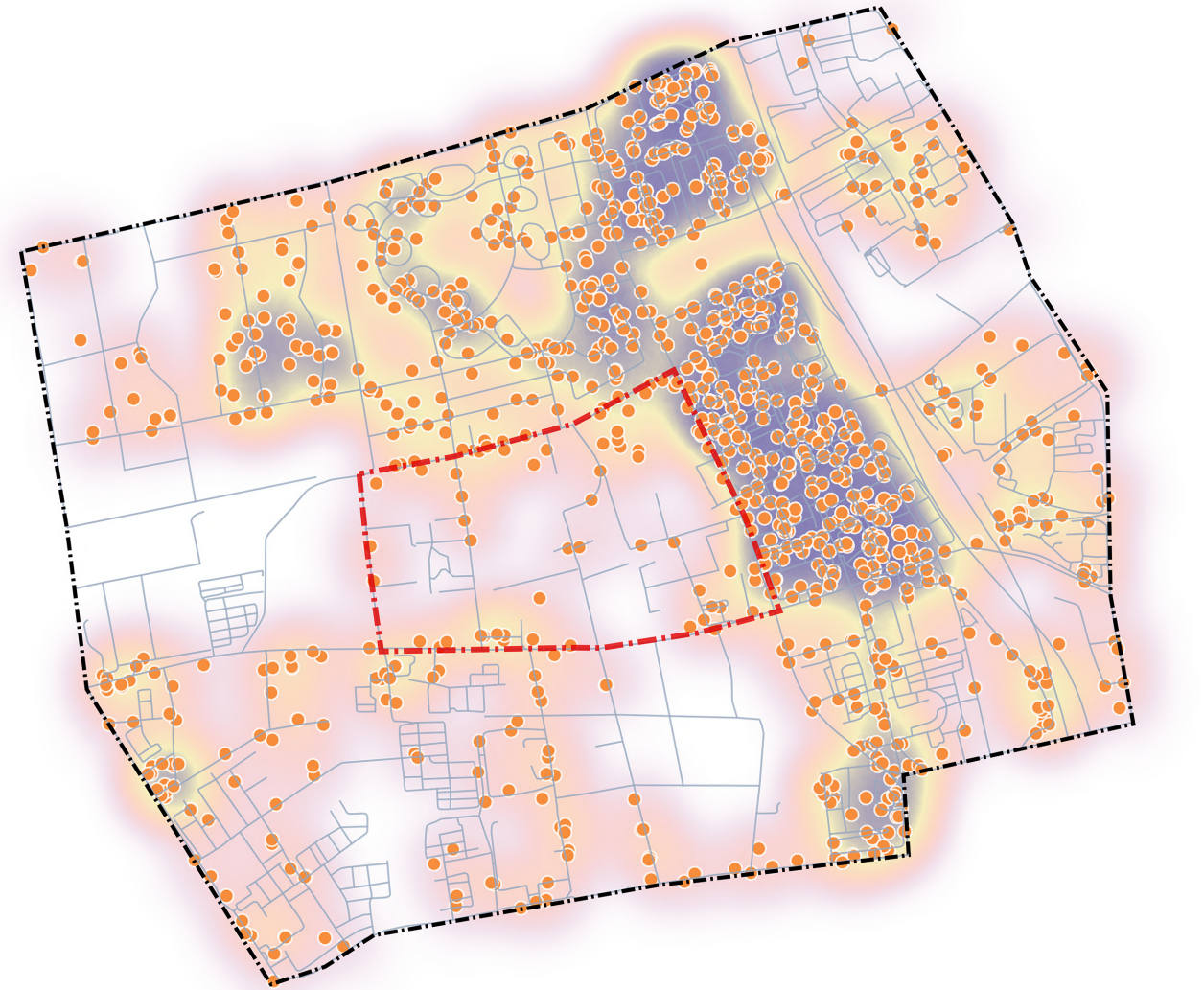
4. POIs

4.16 Transportation Facilities

File Name: POI_transportation_facilities

File Type: Point

Amount: 1073



0 500 1000
m



Analysis Scope



The Site Scope



POI
Transportation Facilities

Data Contents

5. AOIs

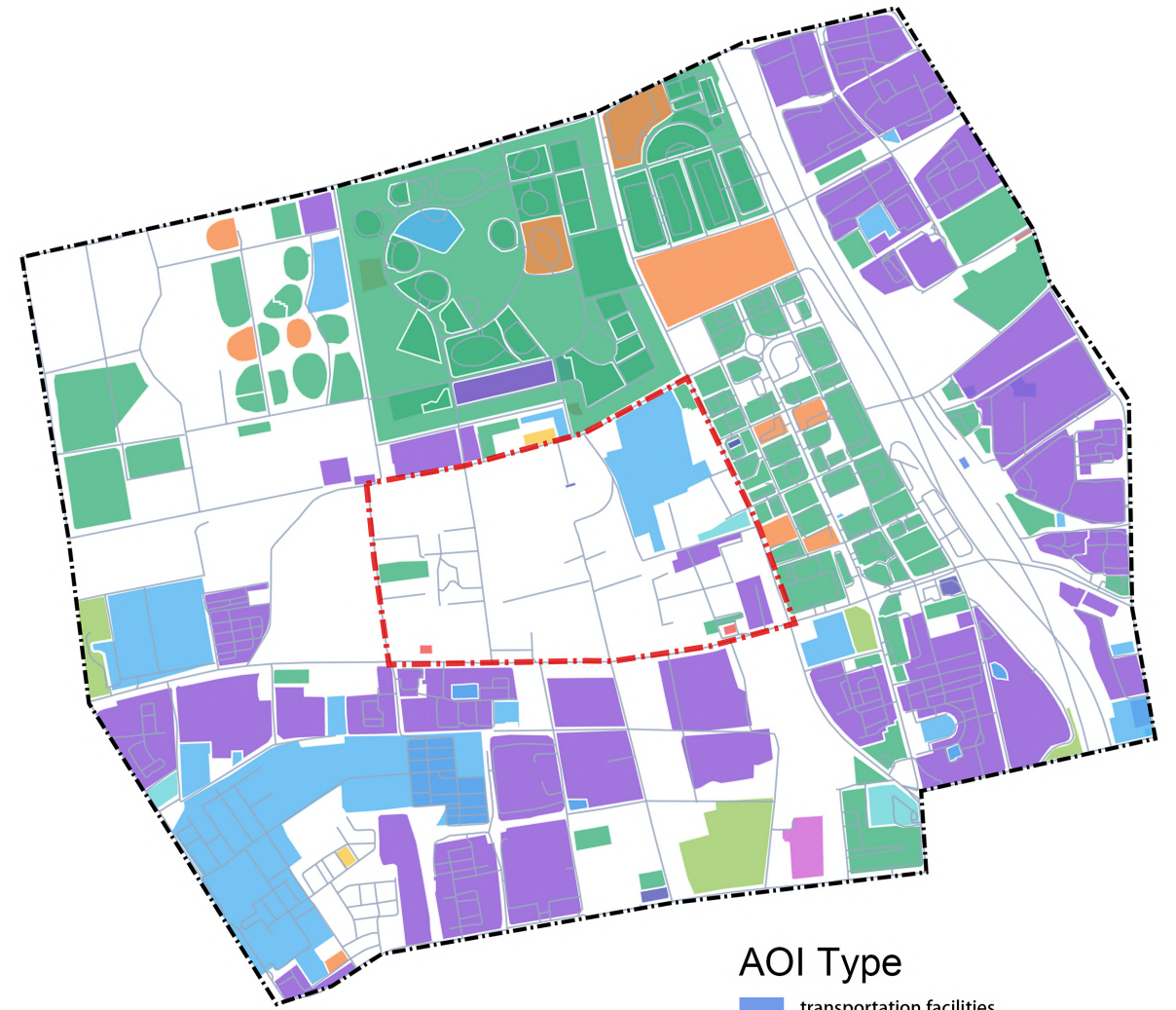
File Name: AOI_type

File Type: Polygon

Amount: 219

Key Elements:

	name	address	TYPE
example	群英科技园	上地创业路8号	office building



AOI Type

- transportation facilities
- sports
- sightseeing
- resident
- office building
- hotel
- government
- culture&education
- company
- commercial
- automobile service



0 500 1000 m

Analysis Scope

The Site Scope

Data Contents

6. Dianping Comments

File Name: dianping_2019

File Type: Point

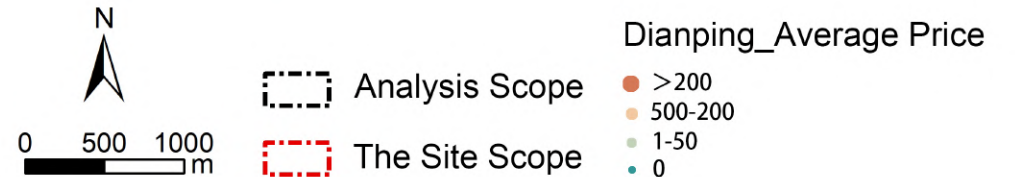
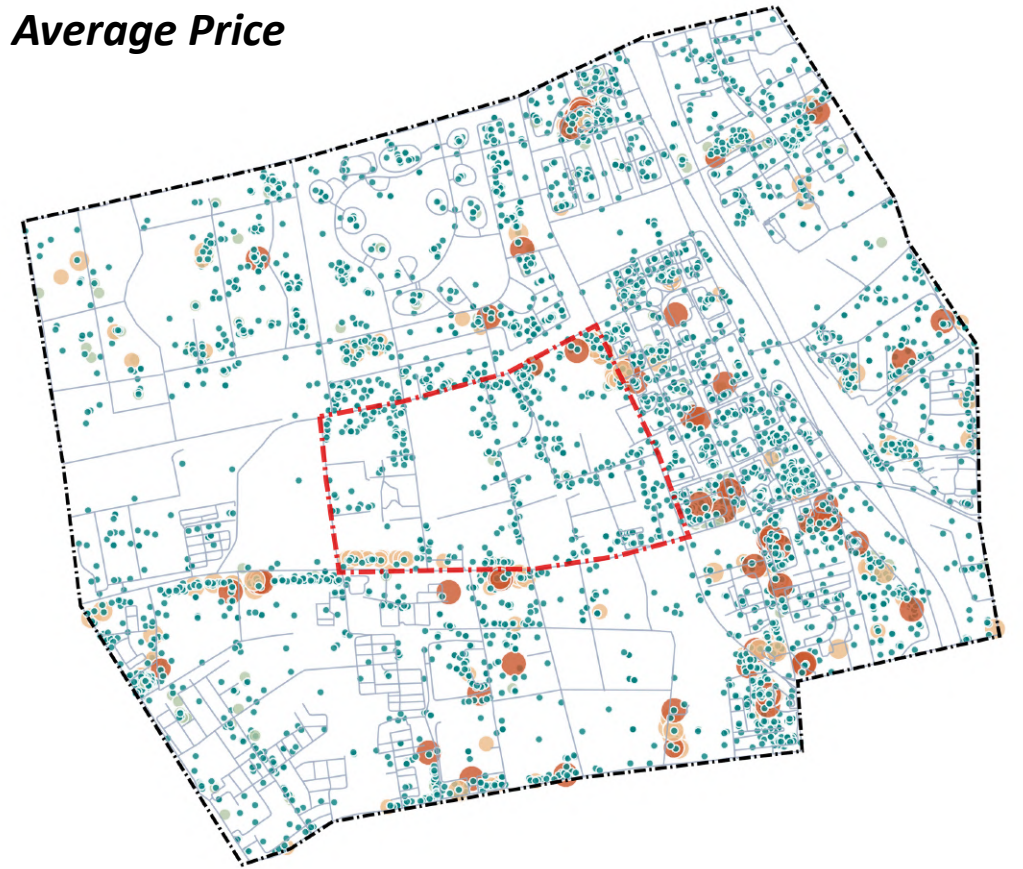
Amount: 8467

Key Elements:

	name	b_type	m_type	type
example	知岳骨汤面	美食	小吃快餐	restaurant

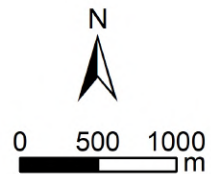
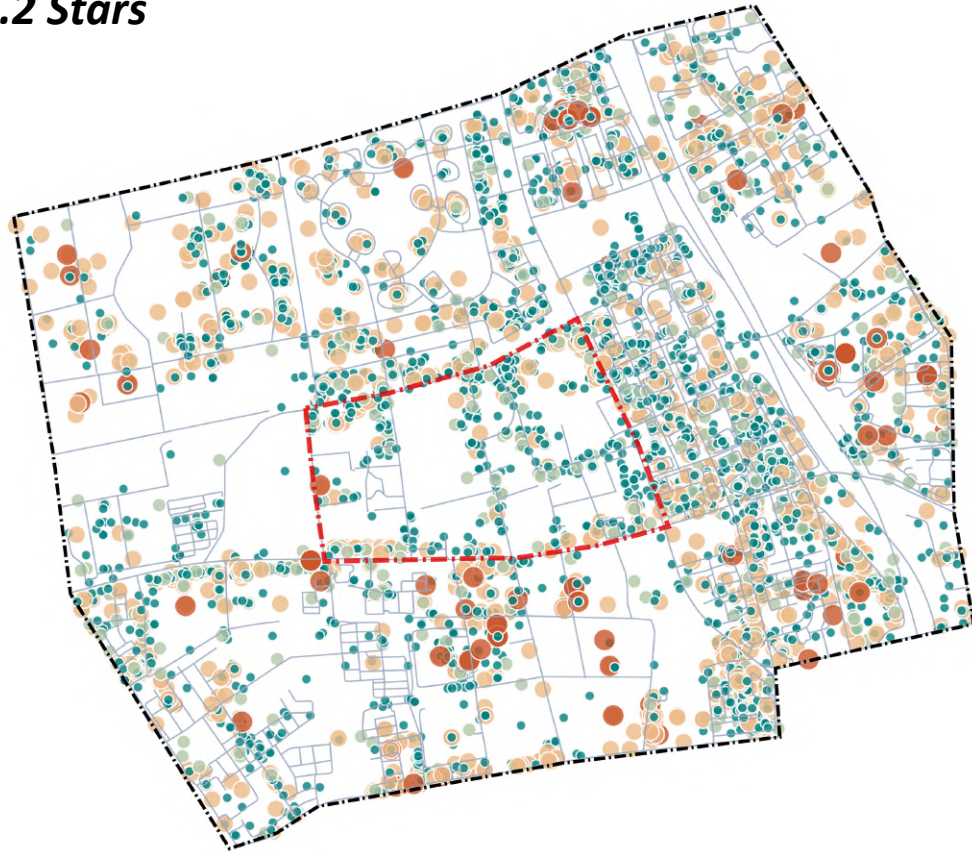
comment_with_stars	average_price	dianping_taste_rating	dianping_environment_rating	dianping_service_rating
4	41	7.4	7.7	7.7

6.1 Average Price



Data Contents

6.2 Stars

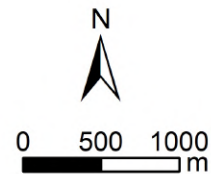
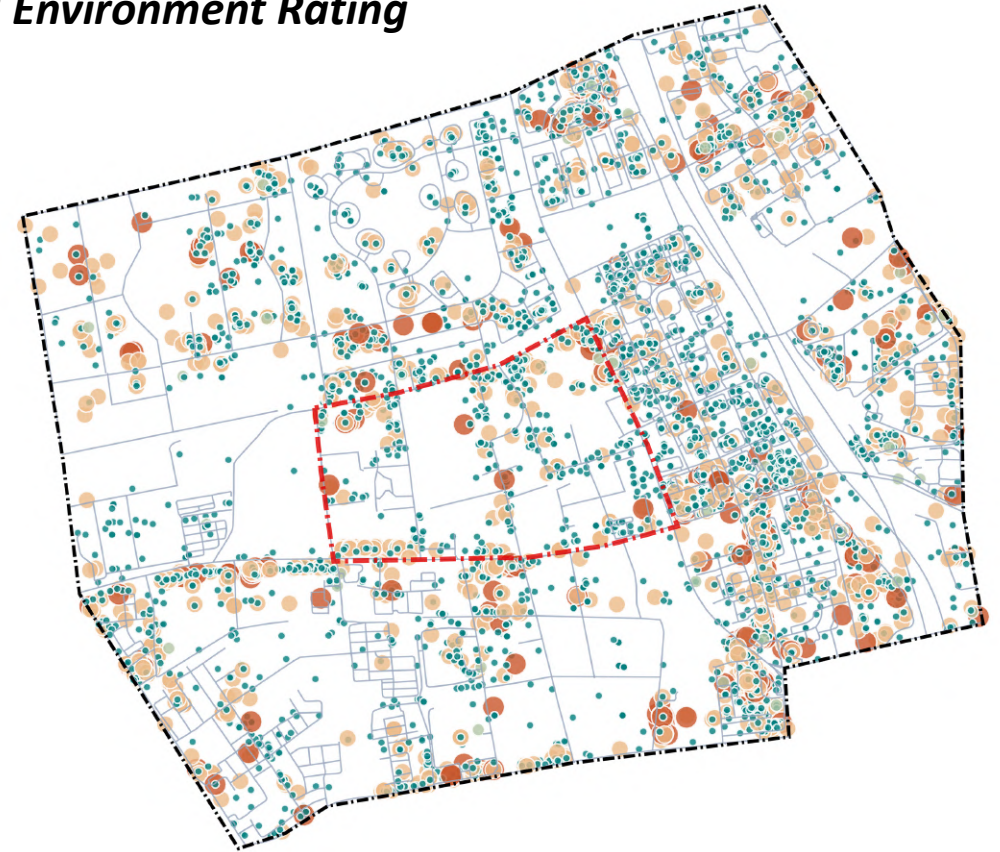


Analysis Scope
The Site Scope

Dianping_Score

4-5
3-4
0-3
0

6.3 Environment Rating



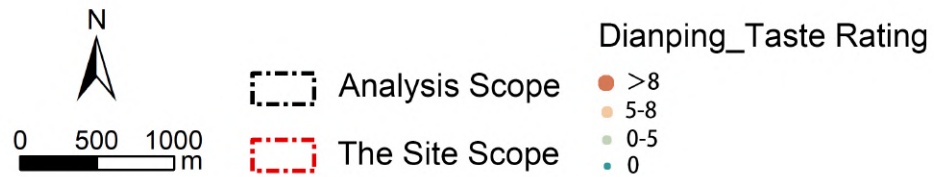
Analysis Scope
The Site Scope

Dianping_Environment Rating

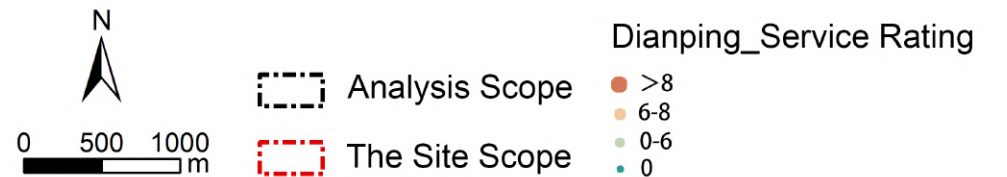
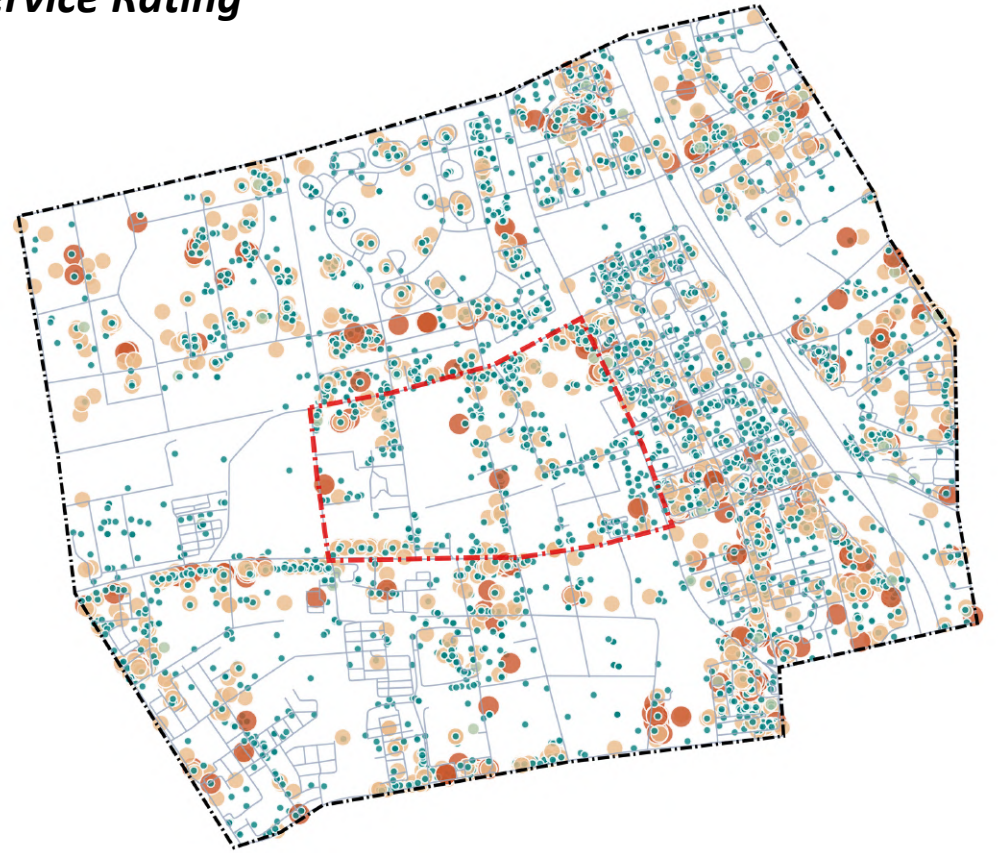
>8
6-8
0-6
0

Data Contents

6.4 Taste Rating



6.5 Service Rating



Data Contents

7. Weibo Checkin

File Name: weibo_checkin

File Type: Point

Amount: 2064

Key Elements:

	category_name	checkin_num	photo_num	title
example	楼宇	10231	4480	百度大厦

8. Weibo Posts

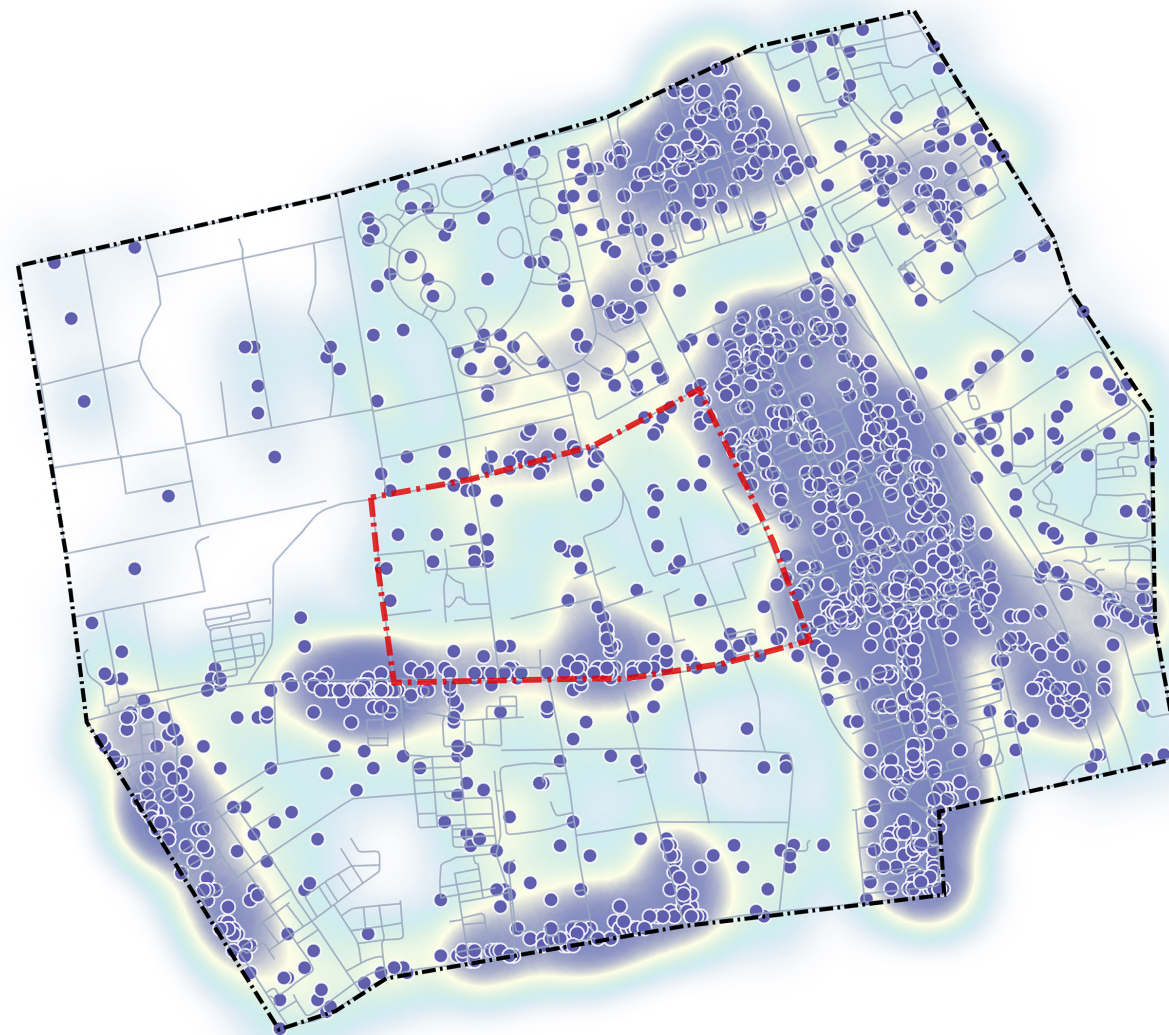
File Name: weibo_post

File Type: Point

Amount: 83729

Key Elements:

	tweet
example	丽江日出东方



Analysis Scope ● Weibo Checkin
The Site Scope

Data Contents

9. Natural Blocks

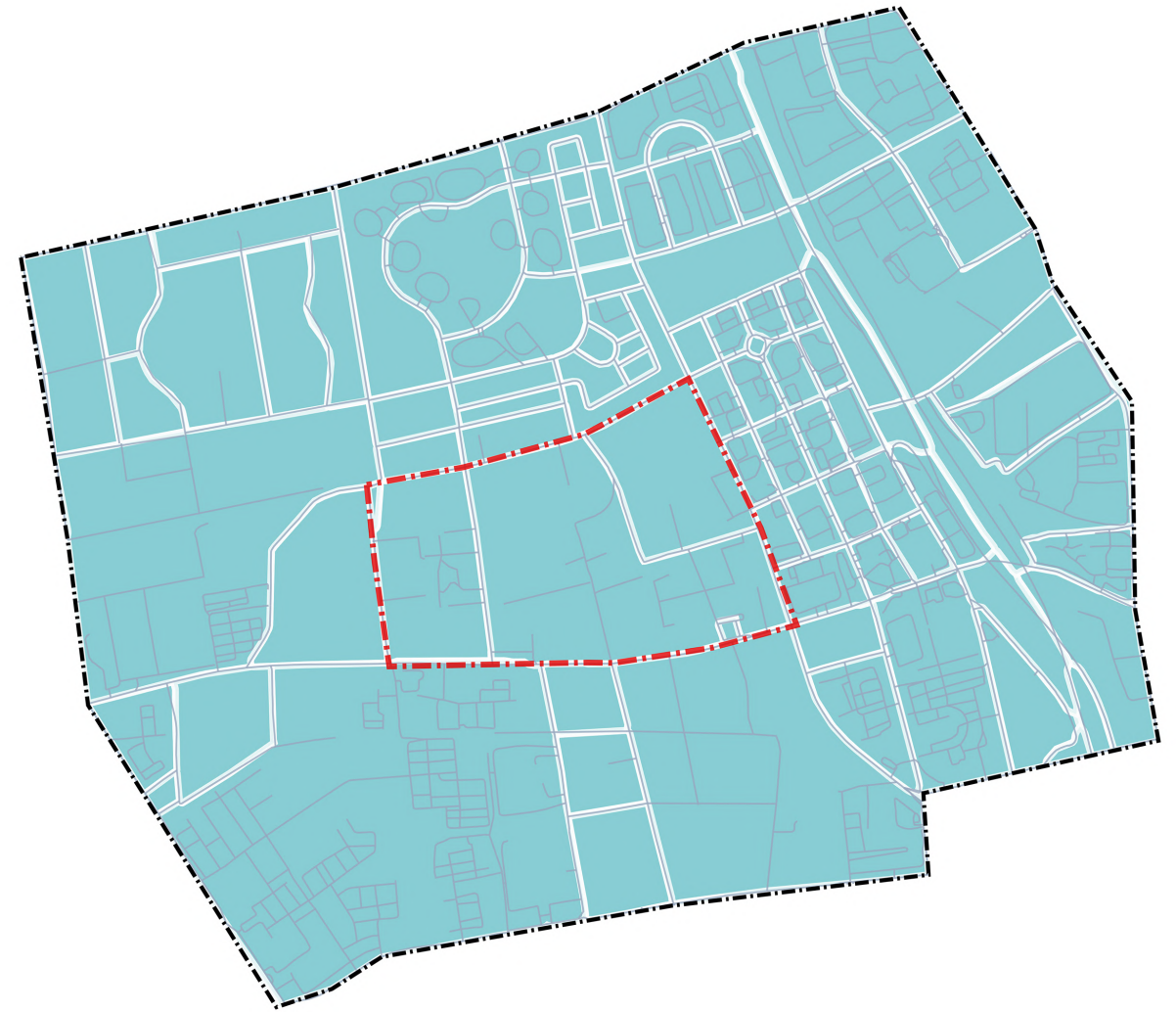
File Name: natural_blocks

File Type: Polygon

Amount: 113

Key Elements:

	ID	Area(m ²)
example	12	994



0 500 1000
m



Analysis Scope



Natural Blocks



The Site Scope

Data Contents

10. Housing Price

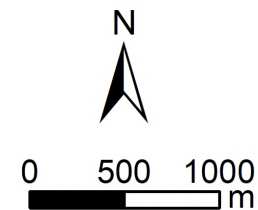
File Name: housing_price

File Type: Point

Amount: 67

Key Elements:

	name	Ave_price
example	宜品上层	32868



Analysis Scope
The Site Scope

Housing Price

● >90000
● 70000-90000
● 40000-70000
● 20000-40000

Data Contents

11. Residential Community

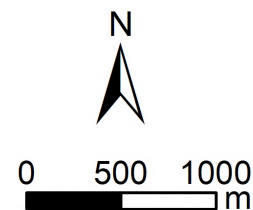
File Name: residential_community

File Type: Polygon

Amount: 61

Key Elements:

	name	Type
example	美和园西区	2



Data Contents

12. Urban Form

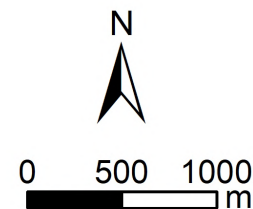
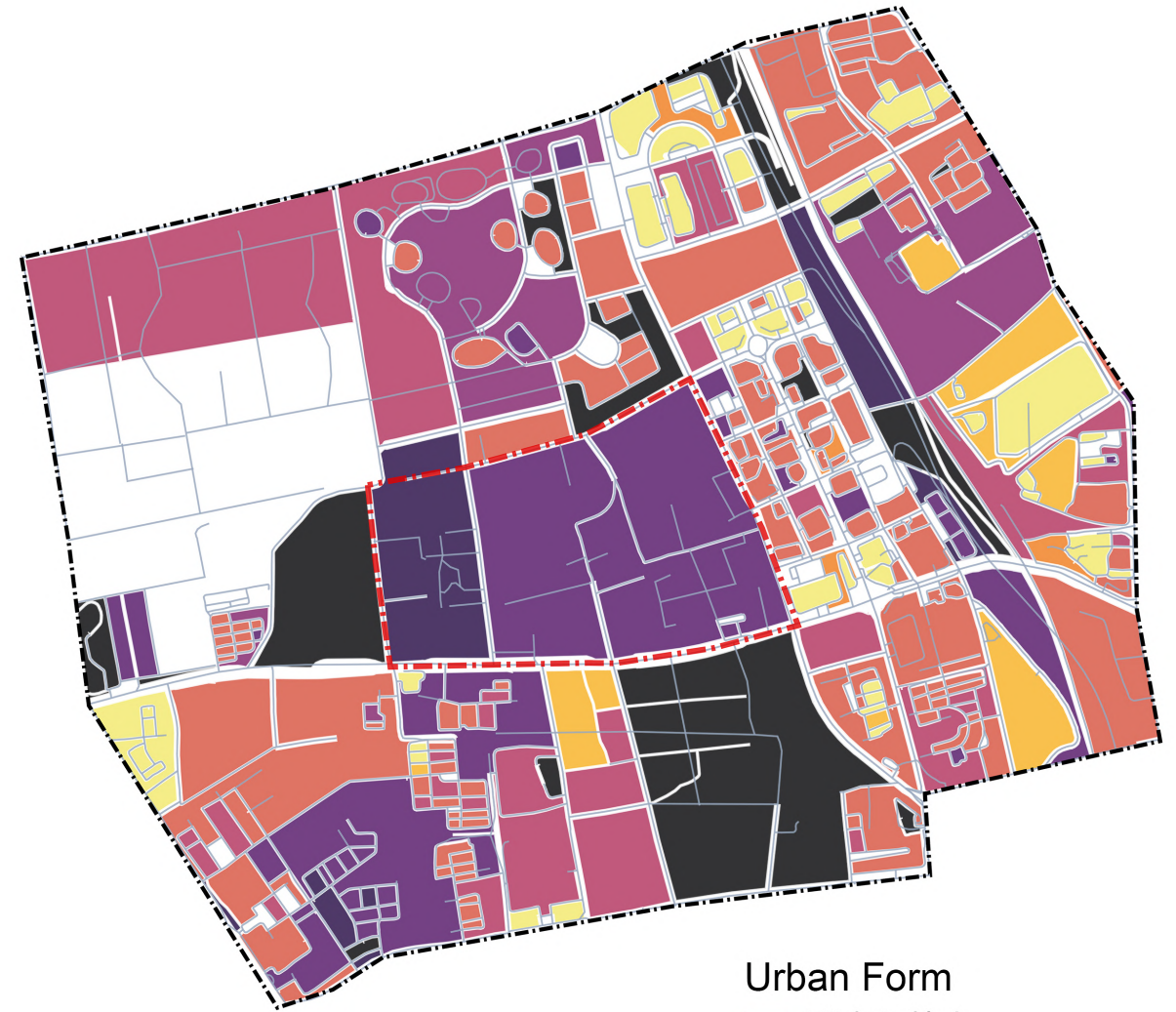
File Name: urban_form



File Type: Polygon

Amount: 294










Key Elements:

	DENSITY	BLD_Count	BLD_FLOORN	BLD_FAR	BLD_bldDen	FORM_TYPE
example	0.32	9	4	1.66	0.41	F:Middle-rise block



 Analysis Scope
 The Site Scope

Urban Form

-  I: High-rise block
-  H: High-rise stripe
-  G: High-rise point
-  F: Middle-rise block
-  E: Middle-rise strip
-  D: Middle-rise point
-  C: Low-rise block
-  B: Low-rise stripe
-  A: Low-rise point

Data Contents

13. Streetview Images

File Name: streetview_points

File Type: Point

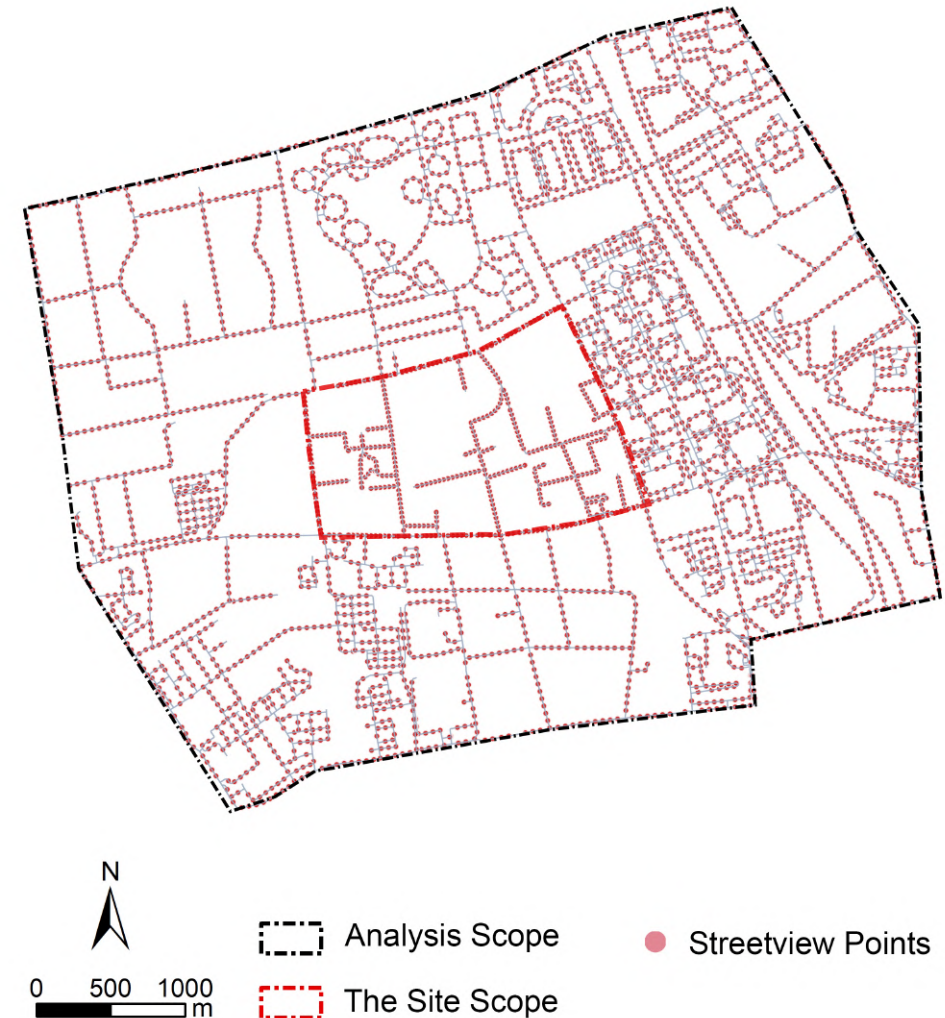
Amount: 3721

Key Elements:

	pointID	STREETVIEW
example	1 (is corresponding to the streetview picture name)	1: have streetview images 0: no streetview images

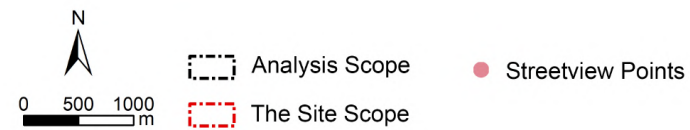
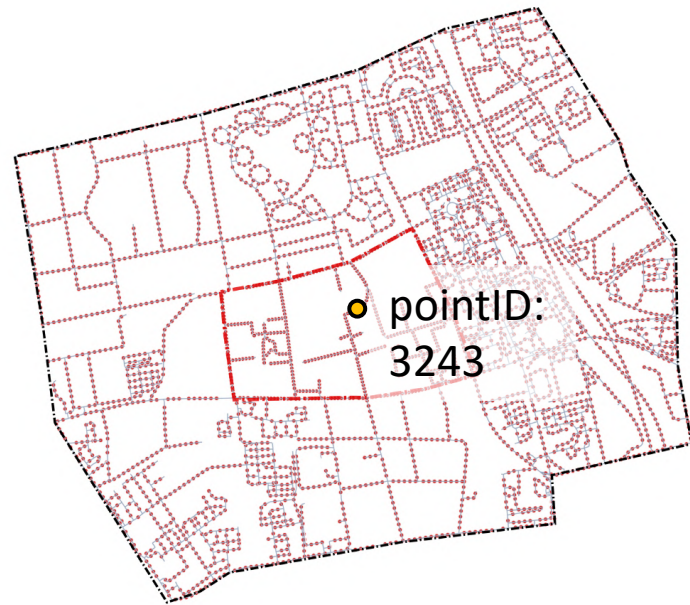
Download:

<https://cloud.tsinghua.edu.cn/f/7008eec8676f4e7a beb0/>



We picked an observation point every 30m in the site / every 50m in the rest of the analysis area to guarantee the streets of the whole site can be fully covered.

13. Streetview Images



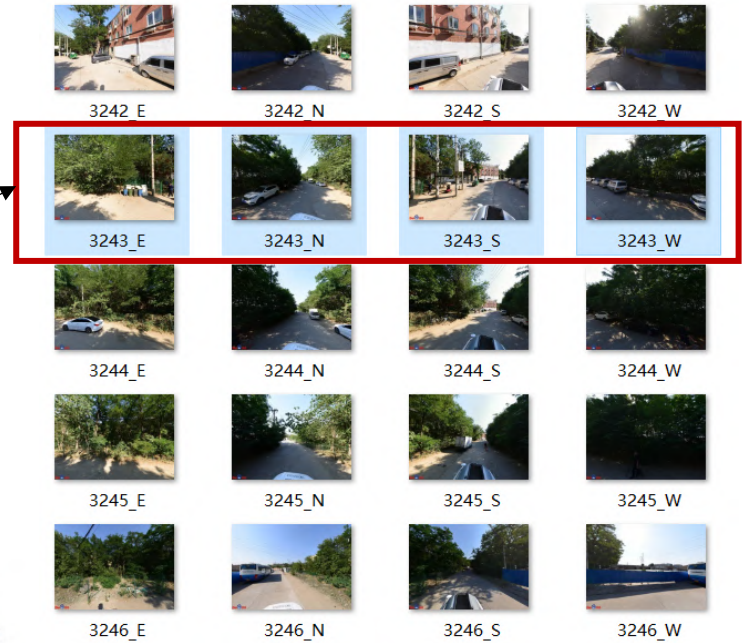
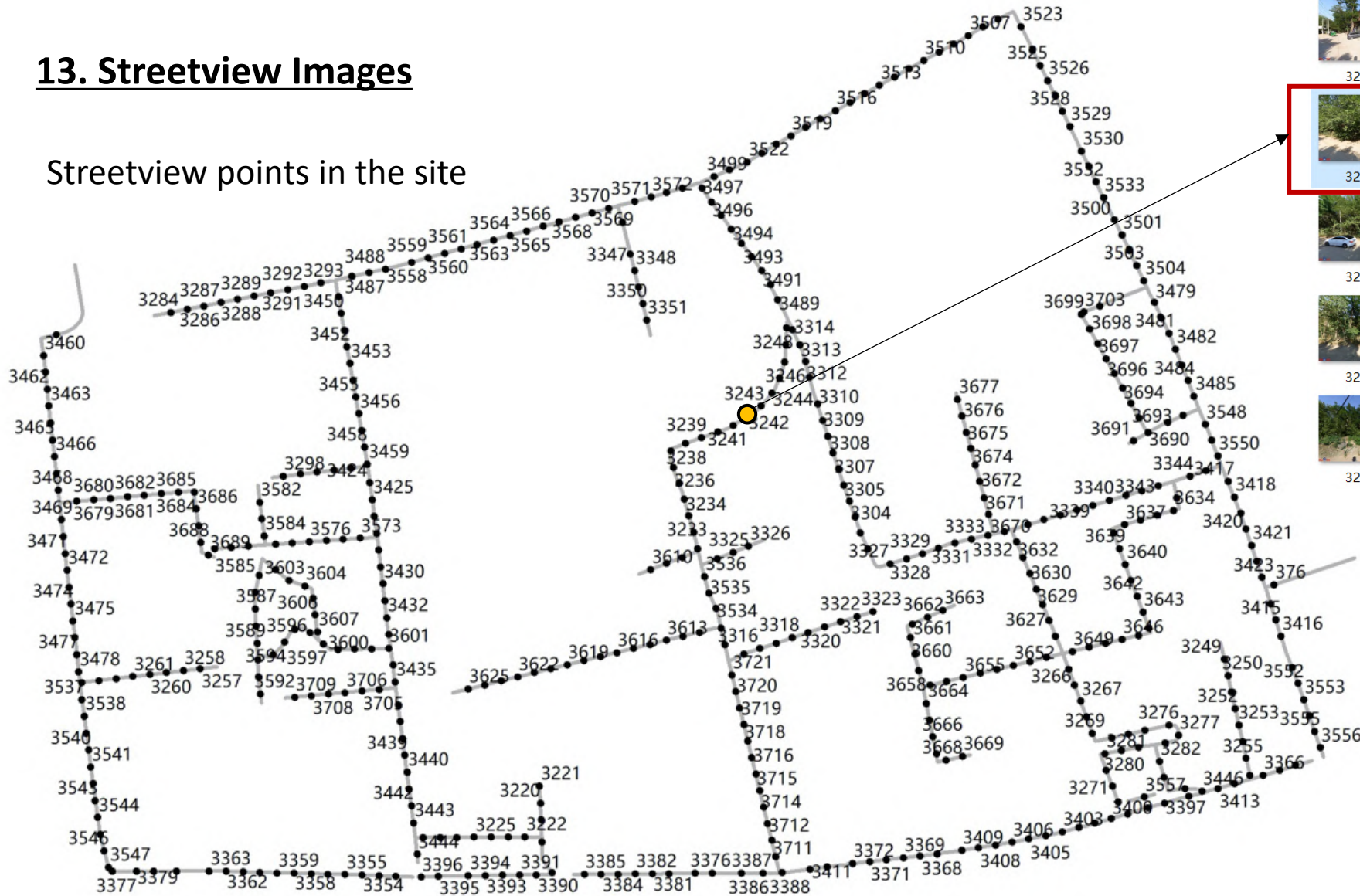
We selected four images for each observation point at various directions. The ID of each point is corresponding to the street view picture name directly.

Sample:



13. Streetview Images

Streetview points in the site



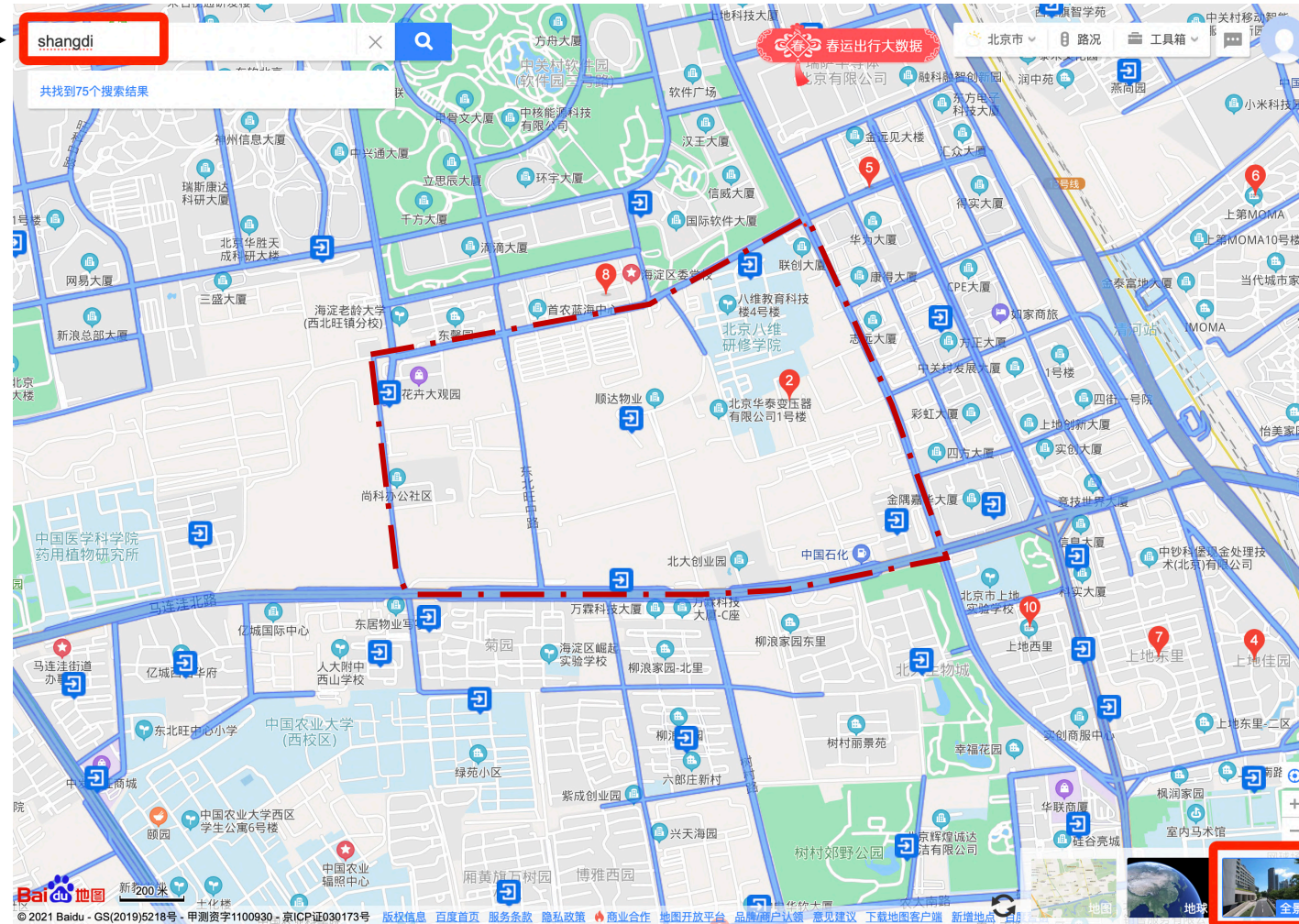
Considering the large amount of images in the data area, we are putting the images within our design site (around 500 points and 2000 images).

Download:

<https://cloud.tsinghua.edu.cn/f/bc4507d7fdf94847a6ee/>

13. Streetview Images – Baidu Map (<https://map.baidu.com/>)

Search “shangdi” →



click “全景” to look the online streetview

14. Remote Sensing Images

File Type: .tif

Time: 2005/2010/2015/2020

Size:

849M (high quality) /

22M (compressed)

Download:

<https://cloud.tsinghua.edu.cn/f/021f70a592fb4bc681b0/>



2005

14. Remote Sensing Images



2010



2015

14. Remote Sensing Images



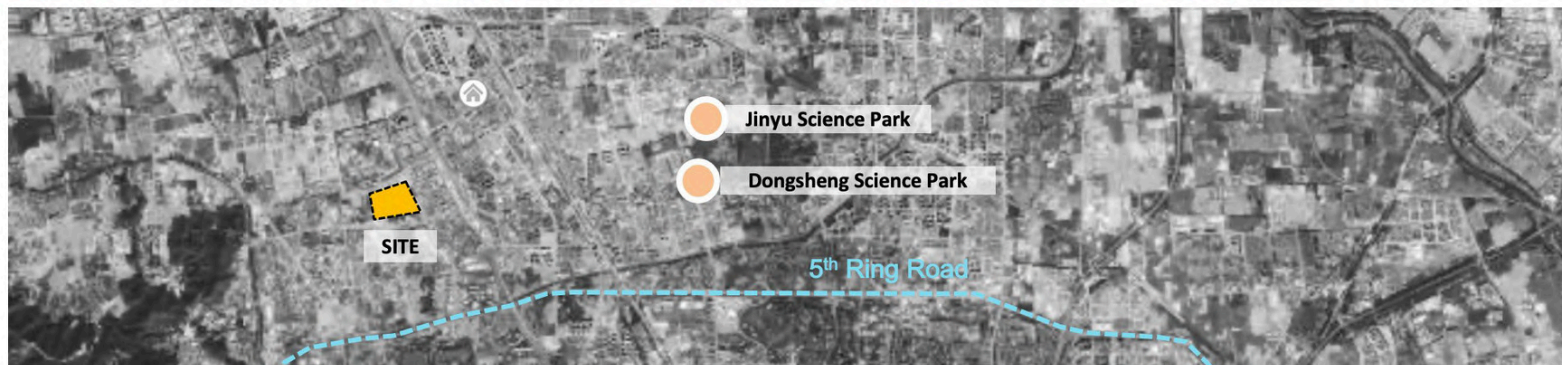
2020

- All data are available at <https://www.beijingcitylab.com/epma2021>



HOME PROJECTS MEMBERS DATA RELEASED COURSES WORKING PAPERS SLIDES
RANKING LINKS&PARTNERS ABOUT UPDATES

2021 EPMA urban design studio 3



ylong@tsinghua.edu.cn