

2024 年 8 月 26 日 9 時 30 分～12 時
9:30-12:00, August 26, 2024



[C 計画・設計・論文]
[C Planning/Design/Essay]

C－2 計画・設計
(専攻分野：都市計画)

C-2 Planning and Design
(Major Field of Study: Urban Planning)

受験番号

(Examination I.D.)

- (1) すべての答案用紙の所定の欄に、受験番号を記入しなさい。氏名を記入してはならない。
Write your examination I.D. on all the answer sheets.
Do not write your name.
- (2) 問題冊子に受験番号を記入しなさい。
Write your examination I. D. on this sheet.
- (3) 専攻分野として「都市計画」を希望するものは、C－2、C－3のいずれか1科目を解答しなさい。
If your major field of study is “Urban Planning,” then answer either C-2 or C-3.

C— 2 Planning and Design

Referring to the maps of Figure 1 and Answer sheet 1, read the following text carefully and propose a development plan for Block X (approx. 5.8ha).

■Background

City A is a city with a population of about 100,000, located near a metropolitan area surrounded by mountains and a scenic basin topography. During the Edo period, the city suffered from water shortage, and several initiatives were made to draw water from River B, which flows from the northeast to the southwest of the city. However, due to the severe topographical conditions and frequent flooding of River B, construction of a waterway was cancelled. Since the waterway was constructed in the Meiji period, it has been used for agricultural purposes and fire prevention. Most of them are now culverted.

The city center area of City A is around Station A. On the north side of Station A, a city hall and a station plaza with waterfront space regenerating a portion of the culverted waterway have recently been developed, and are connected to the south side of the station by an overpass (free passage). Although Shopping Street C is located on the southeastern side, the city center area is hollowing out. In recent years, due to climate change, the flooding of River B on the south side of Station A has become a problem, and the high summer temperatures, which were originally high, have risen even higher, making measures to prevent flooding and extreme heat urgent issues.

Based on these situations, City A decided to develop a specific redevelopment plan for the area in front of the south exit of Station A, which had been largely underutilized since the closing of the ceramics factory, when it was selected as a target site for a national model project to address climate change. It is assumed that soil contamination at the former factory site is not to be considered.

■Status of the target site, planning conditions and required plan documents

Under the planning conditions described below, draw a development plan for Block X that addresses both environmental issues such as flooding and extreme heat, and socio-economic issues such as declining commercial functions and decreasing population.

< Current Conditions of the Target Site: Block X and the Surroundings >

Block X is a flat area. As shown in Figure 1, the south side of Block X is bordered by River B. There is a 5m difference in elevation between Block X with the road to the south and the riverbed of River B. On the north side, Block X faces the newly built station plaza (including bus stops and taxi stands). Road D on the west side has heavy traffic as it serves as a route for buses used by commuters leaving and arriving in the station plaza. On the east side, Block X connects to Shopping Street C, which has been a street since early modern times and retains its historical townscape.

The summer prevailing wind flows almost parallel to the longitudinal direction of Block X. Its direction during summer days is southeast, and its direction during summer nights is northwest.

< Planning and Design Conditions >

• Collective housing complex:

Large unit for families (exclusive area: 100m²): 160 units

Medium unit for families (exclusive area: 80m²): 80 units

Unit for SOHO (exclusive area: 60m²): 40 units

Serviced senior housing unit (exclusive area: 40m²): 60 units

※280 parking spaces in total for large units for families, medium unit for families and units for SOHO shall be provided as surface parking spaces (mechanical parking is not permitted).

• Hotel

Guest room for families (exclusive area: 60m²): 60 rooms

Guest room for single persons (exclusive area: 30m²): 60 rooms

※60 parking spaces for hotel shall be provided as surface parking spaces (mechanical parking is not permitted).

※No guest rooms are permitted on the ground floor.

※As needed, a reception area, restaurant, banquet hall, swimming pool, hot tub facilities, etc., shall be provided as appropriate.

• Commercial facility

Floor space of about 2,000m².

Facilities need not be combined into a single building block.

Specific functions shall be proposed.

※Dedicated parking spaces for 20 cars shall be provided (mechanical parking and structural parking are not permitted).

• Library

Floor space of about 3,000m².

※Dedicated parking spaces for 30 cars shall be provided (mechanical parking and structural parking are not permitted).

- Parks and green spaces

Area of about 16,000m².

Parks and green spaces need not be combined into a single area.

Should be distinguished from the open space between residential buildings that is used only by residents of the housing complex.

- Reservoir

Area of about 6,000m², depth of about 2.5m. The purpose of the installation is to control the flooding of River B on the south side of the city block. You may change the area and the depth as long as the volume of 15,000m³ is secured.

- Other spaces necessary for housing complexes, such as bicycle parking lots, garbage collection areas, and meeting places, shall be provided as appropriate.

< Required Plan Documents >

-Answer Sheet 1: Development Plan for Block X (Drawing, 1:1000)

Provide a development plan with the following properly arranged.

- (1) Housing complex (footprint of buildings, location of entrances, number of floors, number of units for each dwelling type)
- (2) Hotel
- (3) Commercial facility
- (4) Library
- (5) Parking (distinguish between residents' and guests')
- (6) Parks and green spaces
- (7) Reservoir
- (8) Bicycle parking lots, garbage collection areas, and meeting places
- (9) Road and footpath for circulation in the block
- (10) Other open spaces
- (11) Vegetation

-Answer Sheet 2: Purpose and outline of the development plan for Block X (free format)

Provide an explanation of the purpose and outline of the development plan for Block X using text, diagrams, cross sections, sketches, etc. Note that the answer sheet may be used vertically.

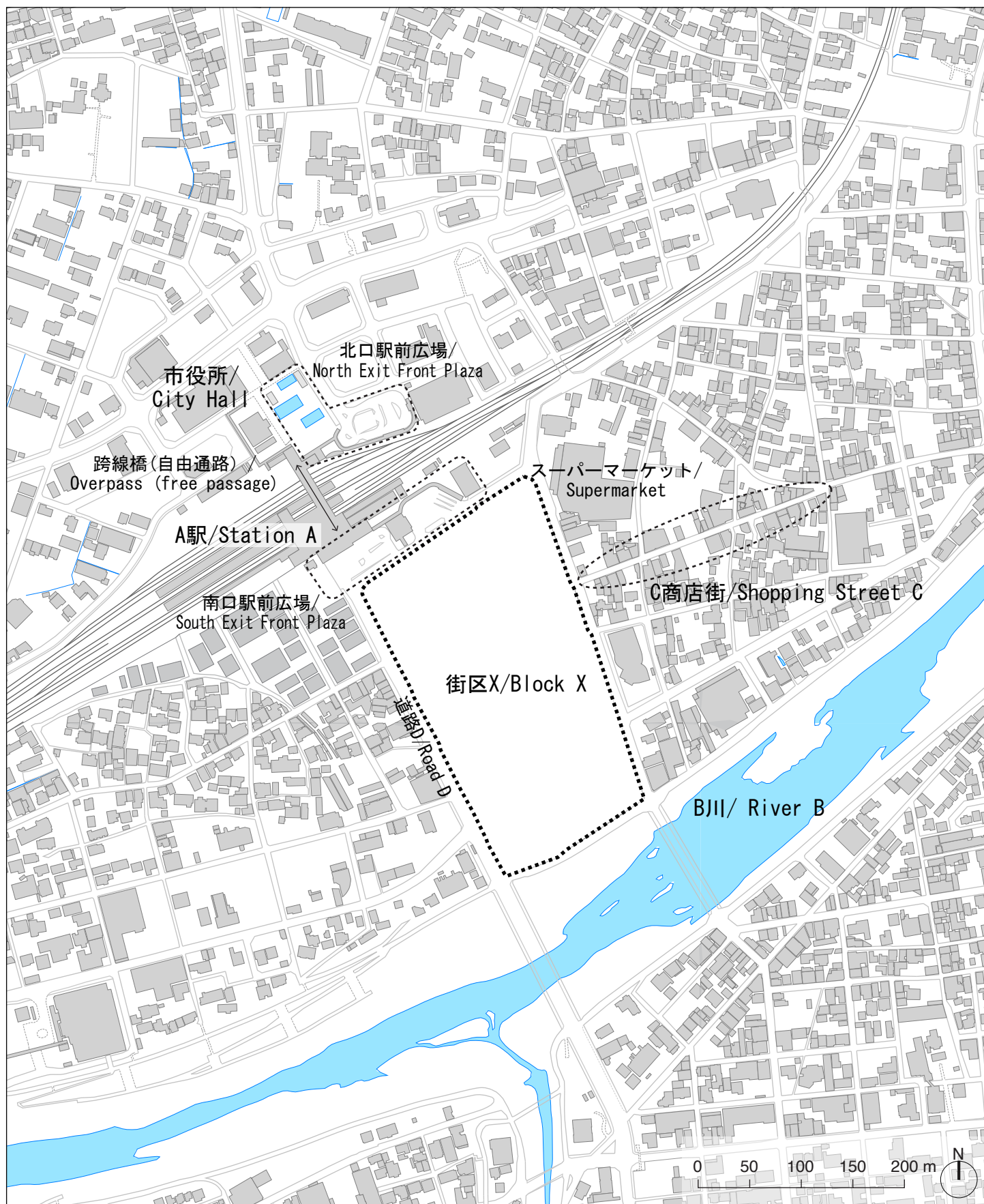
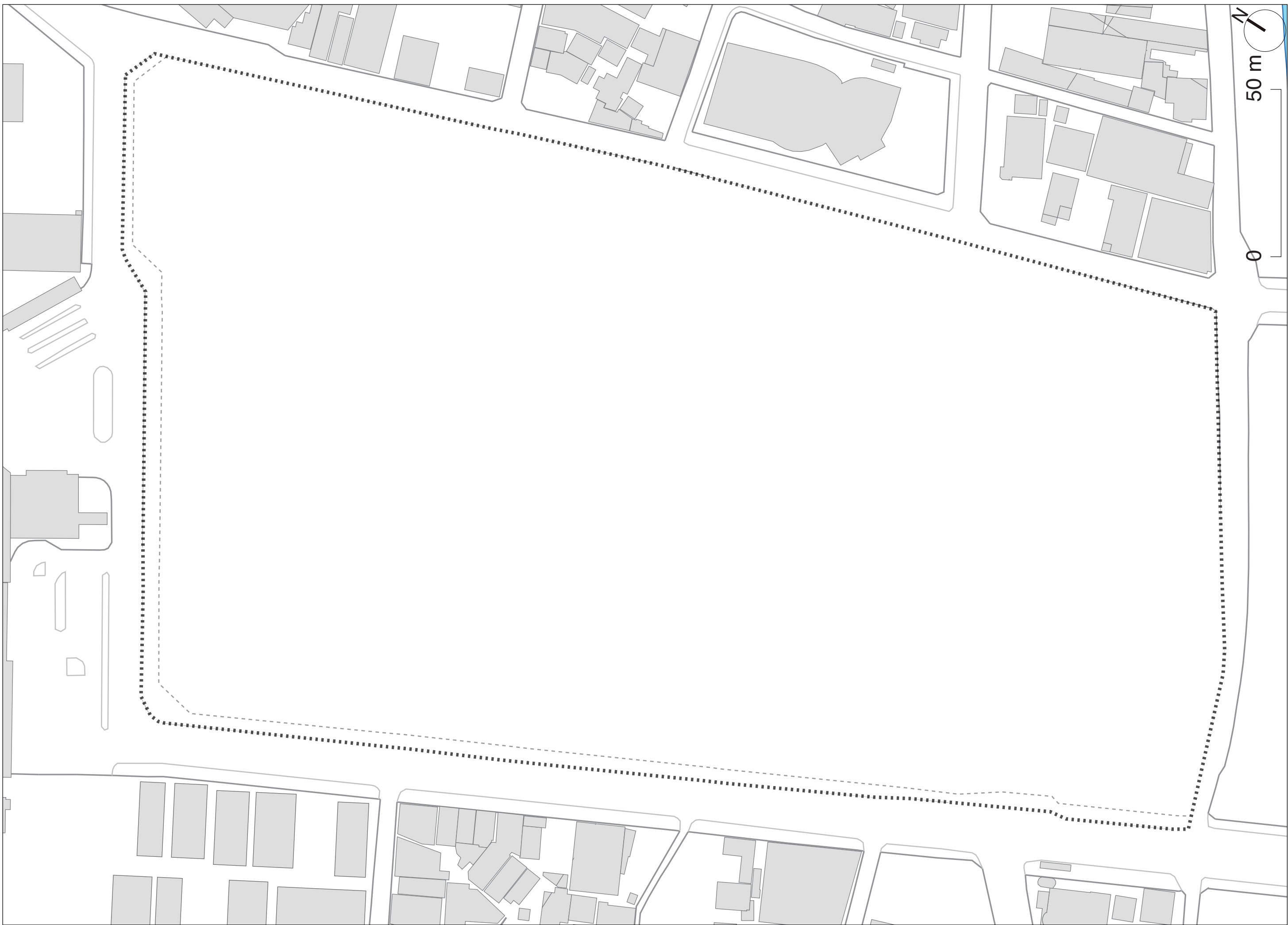


図1 A市A駅周辺の現況図 / Figure 1: Existing map around Station A in City A



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[C 計画・設計・論文]
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C－3 論文
(専攻分野：都市計画)
C-3 Essay
(Major Field of Study: Urban Planning)

受験番号
(Examination I.D.)

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C — 3 Essay

Most urban planning methods since modernization have been used in response to rapid population growth in cities. In the 21st century, however, many countries are experiencing the phenomenon of “shrinking cities,” in which the urban population is decreasing. Many of the methods that had been used to cope with the population growth are no longer effective in these cities.

For each of such urban planning methods with the following objectives (1) through (3), (a) name one of the methods, (b) describe the mechanism by which the method serves its objective during the population growth phase, (c) describe the problem(s) the mechanism faces during the population decline phase, and (d) discuss two countermeasures to the problem(s) listed in (c). Regarding (b)-(d), discuss in detail so that the specific relationships between the mechanism, problem(s), or countermeasures of the method and the increase or decrease in population can be understood. Use supplementary figures and tables, if necessary.

- (1) Development and expansion of urban infrastructure
- (2) Development of urban area
- (3) Control and prevention of unplanned urbanization (sprawl)