

C [計画・設計] ・ [論文]

C Planning, Design, Essay

- (1) すべての解答用紙と下書用紙の所定の欄に、問題番号、受験番号を記入しなさい。氏名を記入してはならない。
Write the question number and your examinee number in the specified place of all answer sheets and draft sheets. Do not write your name.
- (2) 都市環境工学専攻分野を志望する者は、C-1 を選択し、該当する解答用紙に解答しなさい。
Those who apply to the Urban Environmental Engineering should choose and answer question C-1.
- (3) 都市計画専攻分野を志望する者は、C-2、C-3 からいずれか 1 問を選択し、該当する解答用紙に解答しなさい。
Those who apply to the Urban Planning should choose and answer one question from C-2 to C-3.
- (4) 配布された解答用紙のみを使用すること。追加は認められない。
Answer only in the distributed answer sheets. The use of additional sheets is not allowed.
- (5) (オンライン受験者のみ) 問題ファイル (このファイル) は、答案アップロード終了後、指示に従い削除すること。削除していないことが判明した場合には不正行為となることがある。
(For online examinees only) After uploading your answer sheets, delete the question booklet file (this file) as indicated by the proctor. Not following this instruction will be regarded as misconduct.
- (6) (オンライン受験者のみ) 解答終了後は監督者の指示に従い、選択した問題の答案のみをアップロードすること。
(For online examinees only) Upload only the answer sheets of the chosen question following the instruction.
- (7) (オンライン受験者のみ) 問題のスクロールと拡大縮小のため、パソコンのマウスやトラックパッドの使用は認めるが、キーボードには触れてはならない。
(For online examinees only) Note that using a mouse or trackpad is allowed but touching a keyboard is prohibited.

E

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)

C—2 Planning and Design

Referring to Figure 1 ("Project Policy for the Revitalization of Town Center in Town A") and Figure 2 ("Current Situation of Block X and Surrounding Area"), read the following text carefully and propose a development plan for Block X (approx. 2.9ha).

■ Background

Town A is a small local city with a population of 34,000, located within a 70-kilometer radius of a metropolitan urban core. Town A is located on the fan of River B, which is known for its scenic beauty. Even today, along the road that runs east-west through the town since before modern times, narrow frontage lots and several historical merchant houses remain, which remind us of the bustle and townscape of bygone days. Station A is the terminal station of a private railway line that connects to a metropolitan city center station in 1.5 hours, and is also served by a JR local line. The town center area includes the south exit of Station A and this road. Public facilities such as the town hall are located at the north exit of Station A, which is connected to the south exit by an overpass (free passage). However, the commercial function of the town center is declining and the population is decreasing. A large factory of a major automobile manufacturer is located on the outskirts of Town A, near the second station on a private railway line from Station A.

In order to respond to the issues of the town center, such as improving the pedestrian flow between Station A and River B, revitalizing commerce, and promoting residence in the town center, Town A has been promoting projects based on the "Project Policy for the Revitalization of Town Center in Town A" (Figure 1).

As a part of these projects, the town decided to plan a redevelopment of Block X in conjunction with the opening of the station-front plaza and the city planning road. Block X is located in front of the south exit of Station A, and is dominated by town-owned land that has been underutilized since the out-of-town relocation of the local hospital approximately 20 years ago. Note that you need not consider the issue of soil contamination of the hospital's former site.

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

Based on the "Project Policy for the Revitalization of Town Center in Town A" (Figure 1) and

under the planning conditions described below, draw up a development plan of the housing complex for Block X in harmony with the surrounding area, which will include civic and tourist exchange facilities, a park that will serve as a disaster evacuation space, and a company dormitory. Block X is expected to realize "a lifestyle unique to the scenic Town A".

<Current Conditions of the Target Site: Block X>

Block X is a flat area. As shown in Figure 2, the south side of Block X is bordered by the old Road C. On the north side, it faces the newly built station-front plaza (including bus stops and taxi stands). On the west side, City Planning Road D (12m wide, of which 3m of sidewalks are included in Block X) was opened by widening the existing road. The east side is bordered by the existing Road E (4-8m wide, no sidewalks at present). Within Block X, Buildings F (2 stories, total floor area 1,000m²), a merchant house built in the Meiji period facing Road C, is registered as a cultural property. The town has taken the opportunity of this development to acquire that building and is considering preserving and utilizing it. All the other buildings were built after the war and are scheduled to be demolished due to their aging. Although some four-story buildings can be seen along Road C, the area surrounding Block X is basically a two-story low-rise residential/commercial complex. In recent years, apart from the town center revitalization projects, there have been several efforts to renovate old private houses into new shops and lodging facilities in the existing shopping area.

<Planning and Design Conditions>

- Collective housing complex:
 - ✓ Large unit for families (exclusive area: 100m²): 80 units
 - ✓ Medium unit for families (exclusive area: 80m²): 30 units
 - ✓ 110 parking spaces for housing units shall be provided as flat parking spaces within Block X (mechanical parking is not permitted).

- Dormitory for employees of an automobile manufacturer (relocated from the suburban area of Town A):
 - ✓ Total floor area shall be 2,500m².

- Civic and tourist exchange facilities:
 - ✓ The total floor area shall be 3,000m².
 - ✓ Specific details of the facility will be proposed by yourself.

- ✓ Facilities need not be combined into a single building block.
 - ✓ Dedicated parking spaces shall be provided as necessary.
- Commercial, medical, and business facilities
 - ✓ Floor space of about 1,500m².
 - ✓ Dedicated parking spaces shall be provided as necessary.
- Nursery school
 - ✓ Floor space of about 600m².
 - ✓ Site area of 1,500m² including yard.
 - ✓ Dedicated parking spaces shall be provided as necessary.
- Parks and green spaces
 - ✓ Area of about 5,000m²
 - ✓ 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.
 - ✓ Dedicated parking spaces shall be provided as necessary.
- 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. Note that the answer sheet may be used vertically.

- (1) Housing complex (footprint of buildings, location of entrances, number of floors, number of units per dwelling type)
- (2) Dormitory for employees of an automobile manufacturer
- (3) Civic and tourist exchange facilities
- (4) Commercial, medical, and business facilities
- (5) Nursery school
- (6) Parking lots (distinguish between those for visitors and those for residents)
- (7) Parks and green spaces
- (8) Various spaces required for housing complexes, such as bicycle parking lots, garbage

collection areas, and meeting places

(9) Road and footpath for circulation in the block

(10) Other open spaces

(11) Landscape

-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.

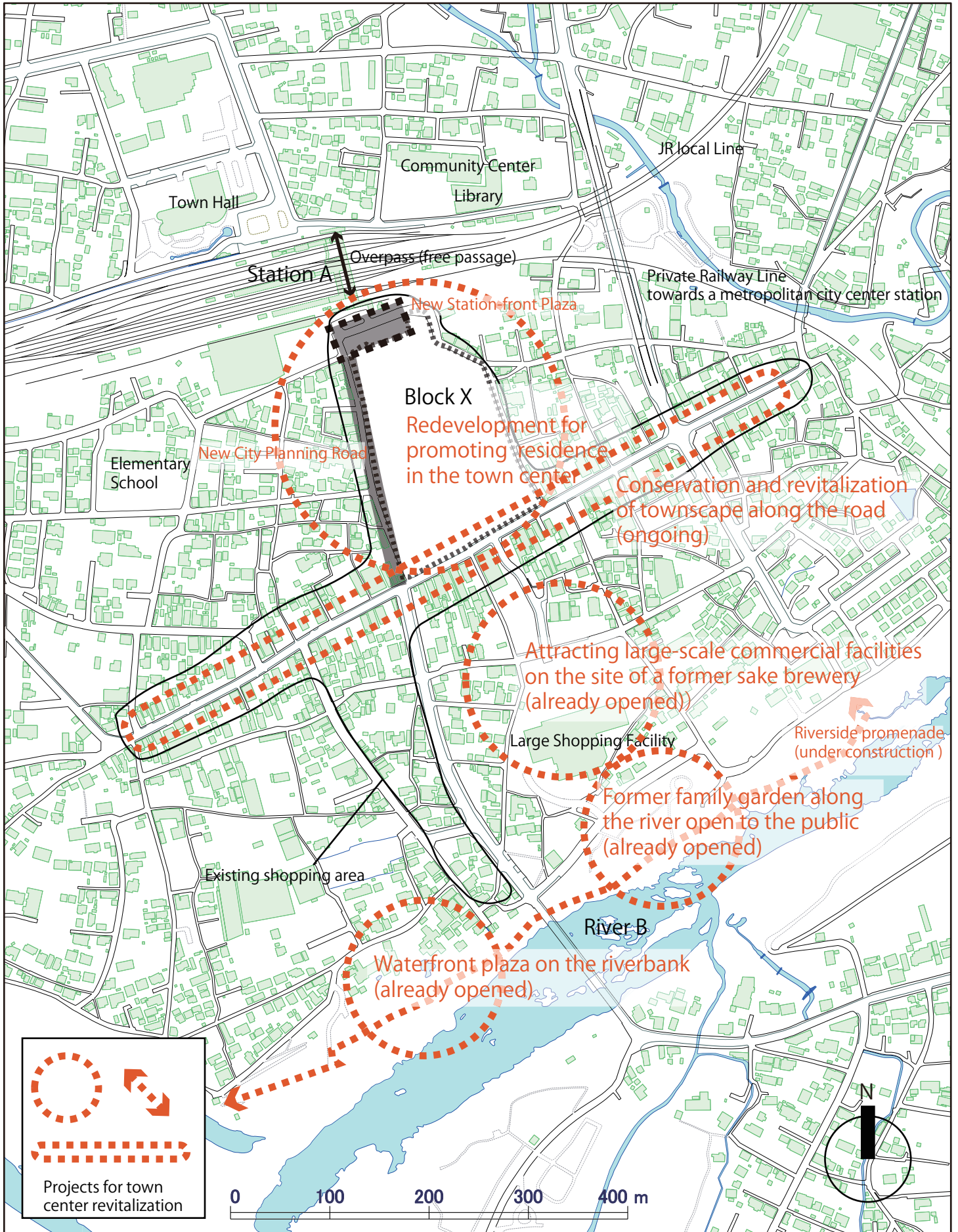


Figure 1 Project Policy for the Revitalization of Town Center in Town A

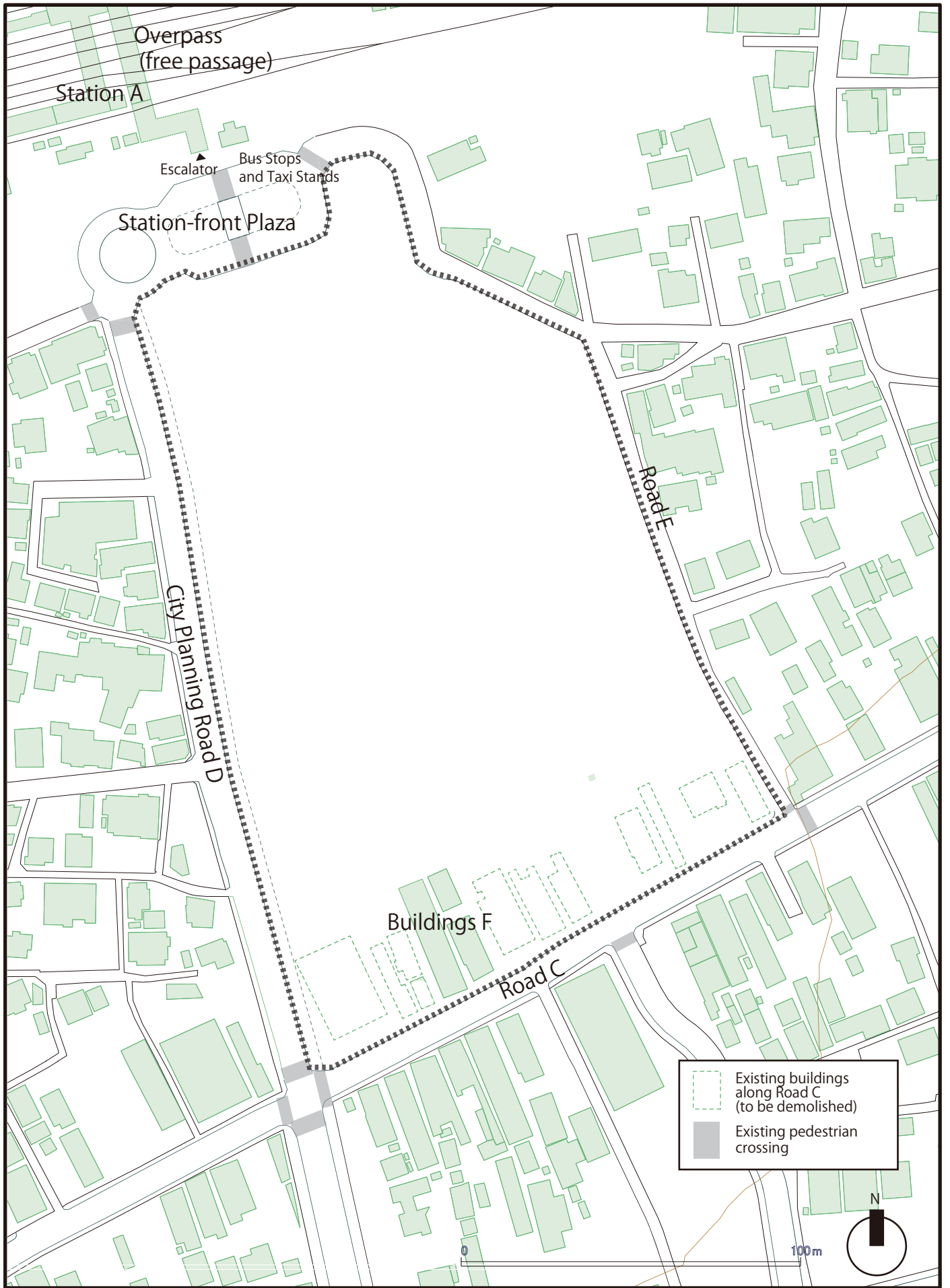


Figure 2 Current Situation of Block X and Surrounding Area

E

C-3 論文
(専攻分野：都市計画)

C-3 Essay
(Major field of study: Urban Planning)

C – 3 Essay (Urban Planning)

Global climate change is already affecting cities and urban life directly through heavy rain and snow, extreme heat, storm surge, etc. and climate change countermeasures are required in urban planning related fields as well. Answer to the following questions regarding this issue. You may use figures and tables supplementarily if needed.

- (1) Systematically present climate change countermeasures that can be implemented in urban planning related fields in general and explain how each measure can contribute to solving the issues related to climate change.

- (2) What kind of efforts or initiatives are required in urban analysis, planning, design and management in order to evaluate and implement the measures presented in (1) across sectors in a Japanese city with population of approximately one million? Concretely explain these efforts including its reasons and objectives.