

International competition for
National Museum Complex Master Plan of
Administrative City, Korea

Design Description Report



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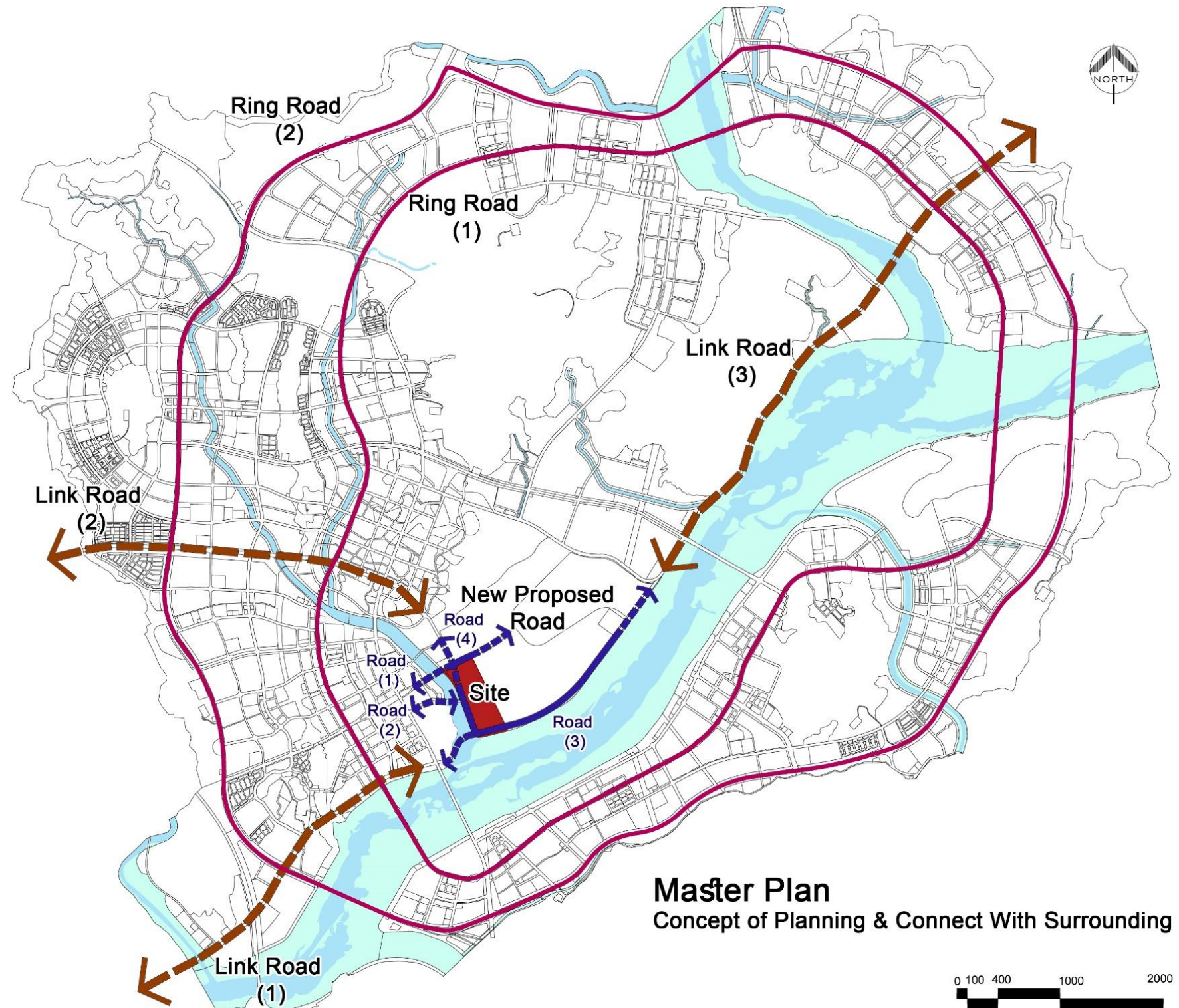
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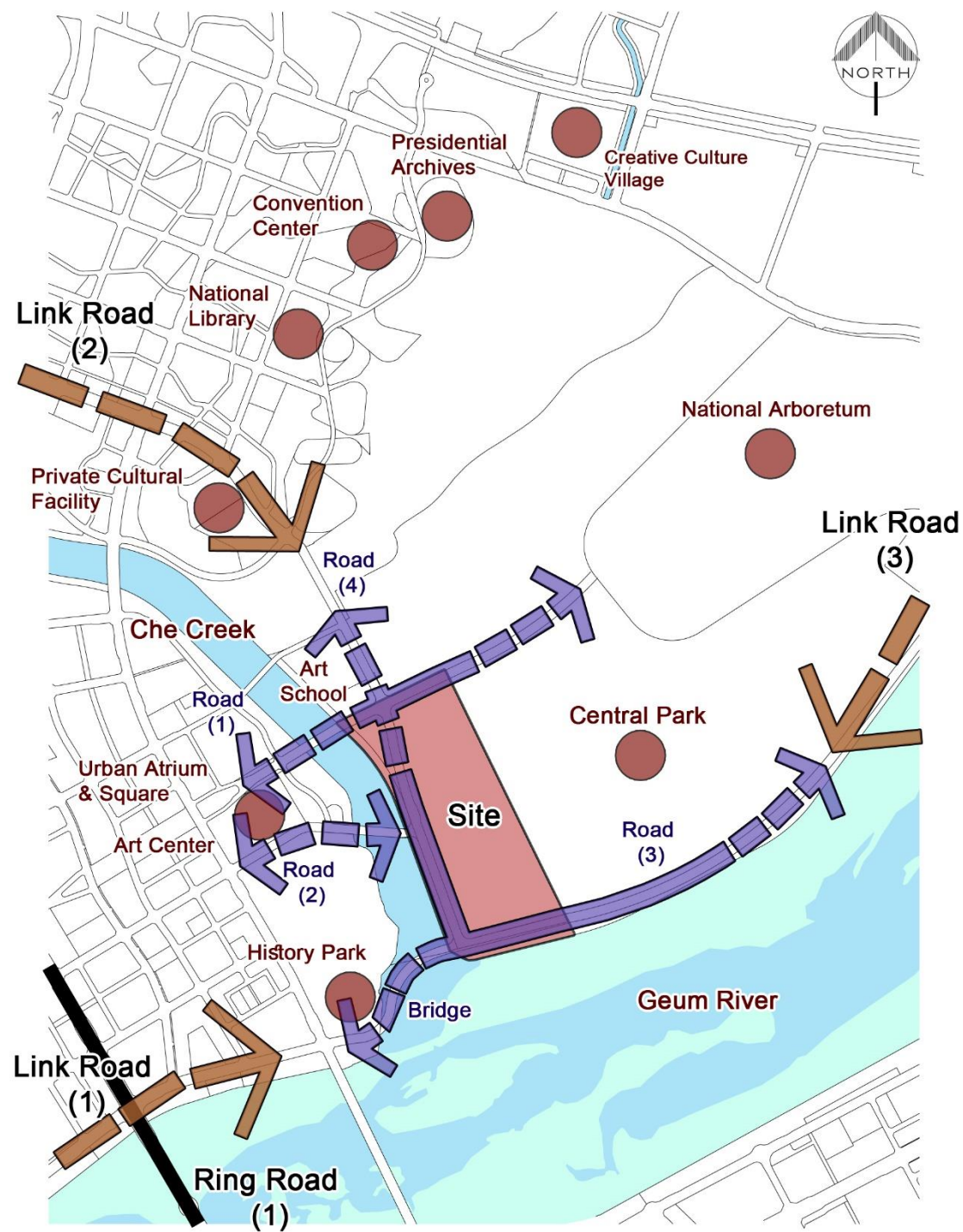
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A. Land use plan:

1. Concept of Planning and Connecting with surroundings:

Taking into consideration the planning of Sejong City and the city's current street network in general and the project's location specifically, we proposed a new axis for development and improve the surrounding street networks, to complement and continuation of movement in a way that is compatible with the planning and street networking as follows:





Master Plan
 Concept of Planning & Connect With Surrounding



- **Road (3):**
 The continuance of the street parallel to the Geum River that is vital for sustaining movement and connecting the outside of the city to the National Museum site, where it crosses the Historical Park by using a bridge in the beginning of the crossroad in the park's west. It crosses the Park and maintains the trees and nature in the place, and continues over Che Creek. Then it connects with the street parallel to Geum River to continue the movement in the eastern direction of the city, and this street form the Southern border of the project.
- **Road (4):**
 The continuance of the northern axis, adjacent to Art High School, with its deviation towards the west of the site, so it would be parallel to Che Creek. And this road form the western border for the project's location till it crosses Road (3).
- **Road (1):**
 Extend the road parallel to Art Center till we reach Road (4).
- **Road (2):**
 Extend the axis and the road, to make it an extension of Urban Atrium and Symbol Square. And it crosses Road (4) to links with The Central Park, which makes this road the northern border for the project's location.

With this suggestion of road mapping we achieved the following:

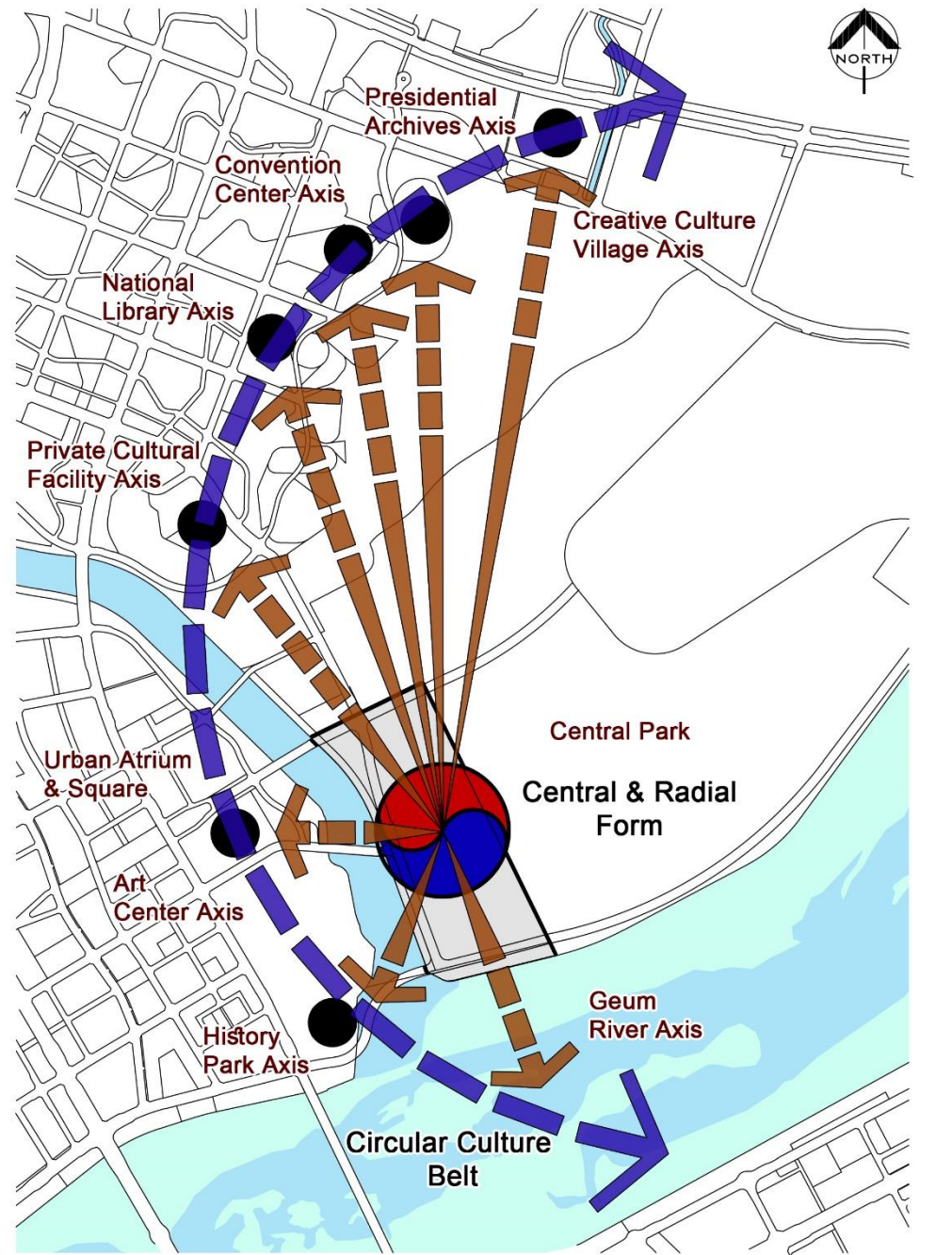
- Linking the project site with its surroundings.
- Flexibility in reaching the National Museum.
- Flexibility with the number of entrances that lead into the museum that is in concordance with the phased development plan.
- Preserving the largest site area possible without interruption from the public roads, which gives the maximum connection between the parts of the National Museum.
- The good relation with the National Arboretum and Central Park.

2. Design Concept:

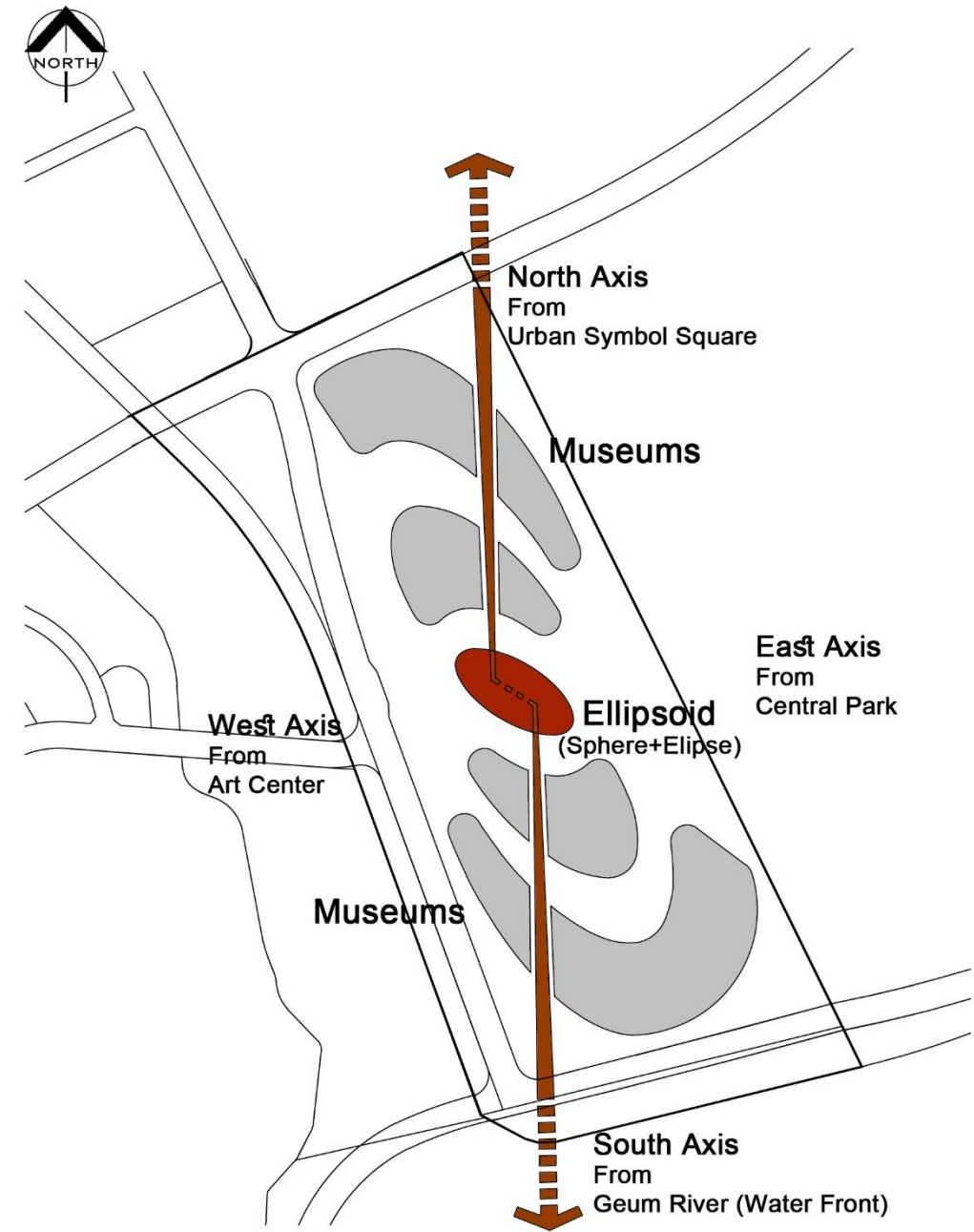
- **Form and Geometric:**

Looking at the Cultural projects that surround the site location which is make the Circular Culture Belt, our design and composition came up to join the central and radial form of the National Museum, where the center from Ellipsoid (Sphere + Ellipse).

The museums are spread in a radial form, going out from the center. And the project slit from bridge for pedestrian from the north till the south, and it helps the continuity of pedestrian traffic from Urban Symbol Square north till it reaches The Geum River south, and it goes through the museums that are in the National Museum.

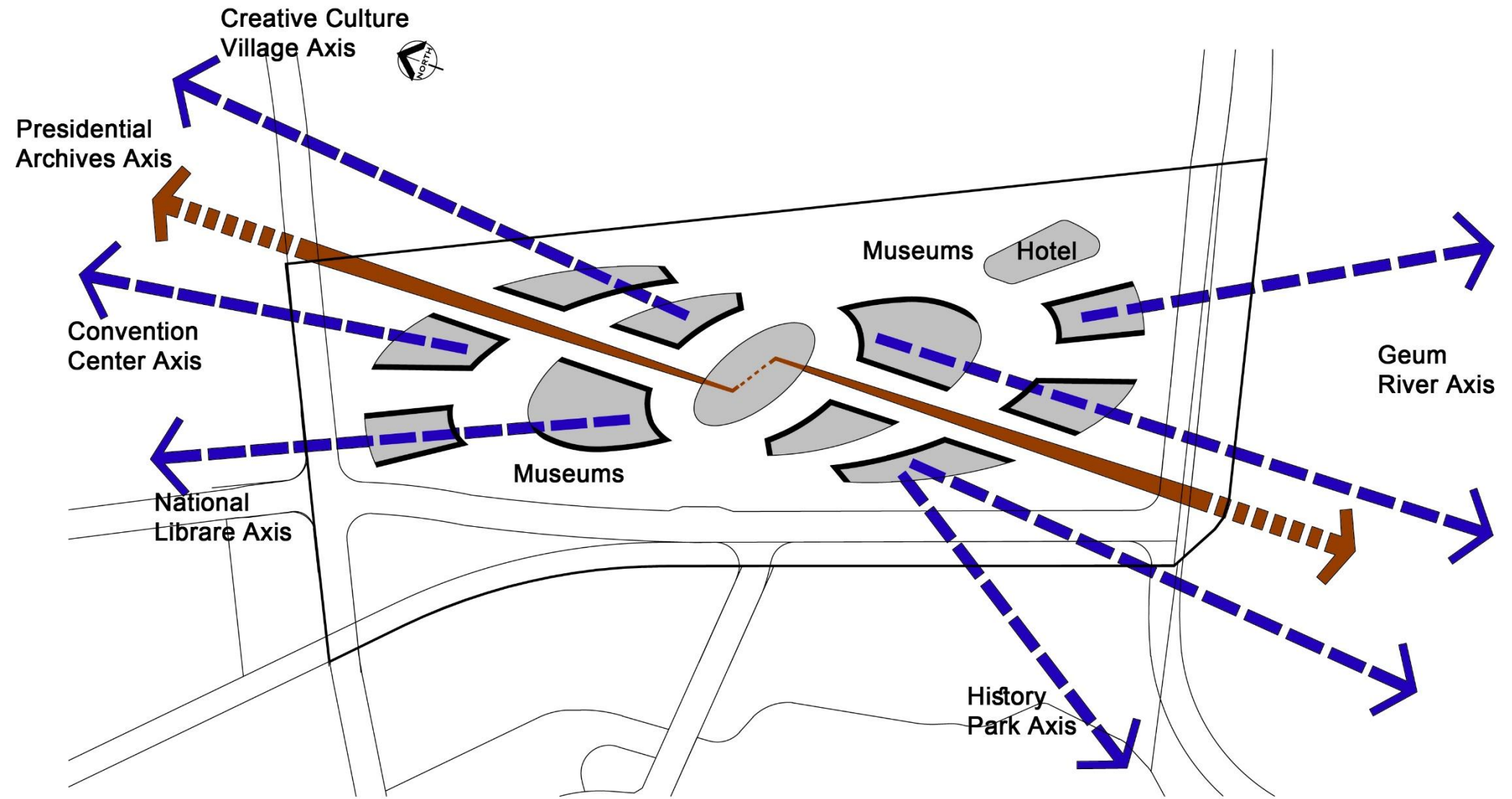


Master Plan
Form, Geometry, & Layout Design

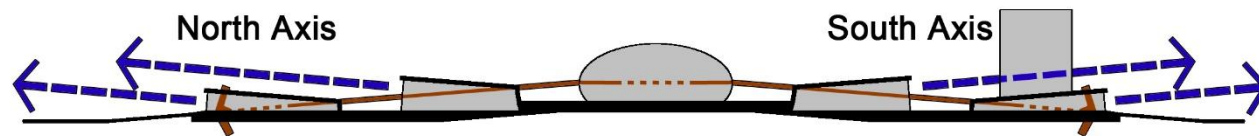


Master Plan
Form & Geometry

- Concept of Layout design:
Drive from the abstract of simple lines which used in the Korean Flag, which is Korea's -in extension the National Museums - symbol and identity, and join that lines with the central and radial form.
- Museum Location Concept:
The define of the identity for each building that makes the Culture Belt around the project, the suggestion is to spread the museums in a way in which each building is across from the one closest to it in function. The museums should be raised by steps from the top down the more we are further from the center. And all the museums will have a rotation of mass and glass front in the direction across the surrounding buildings to strengthen the contact between them.
- Additional Comforts and Amenities for the complex:
There is a suggestion of making a shopping center and a group of restaurants and cafes in the southern part that is near the river and the museum simultaneously. In addition a Hotel above this podium. And these functions are to serve the National Museum.



Master Plan
Layout & Location Concept



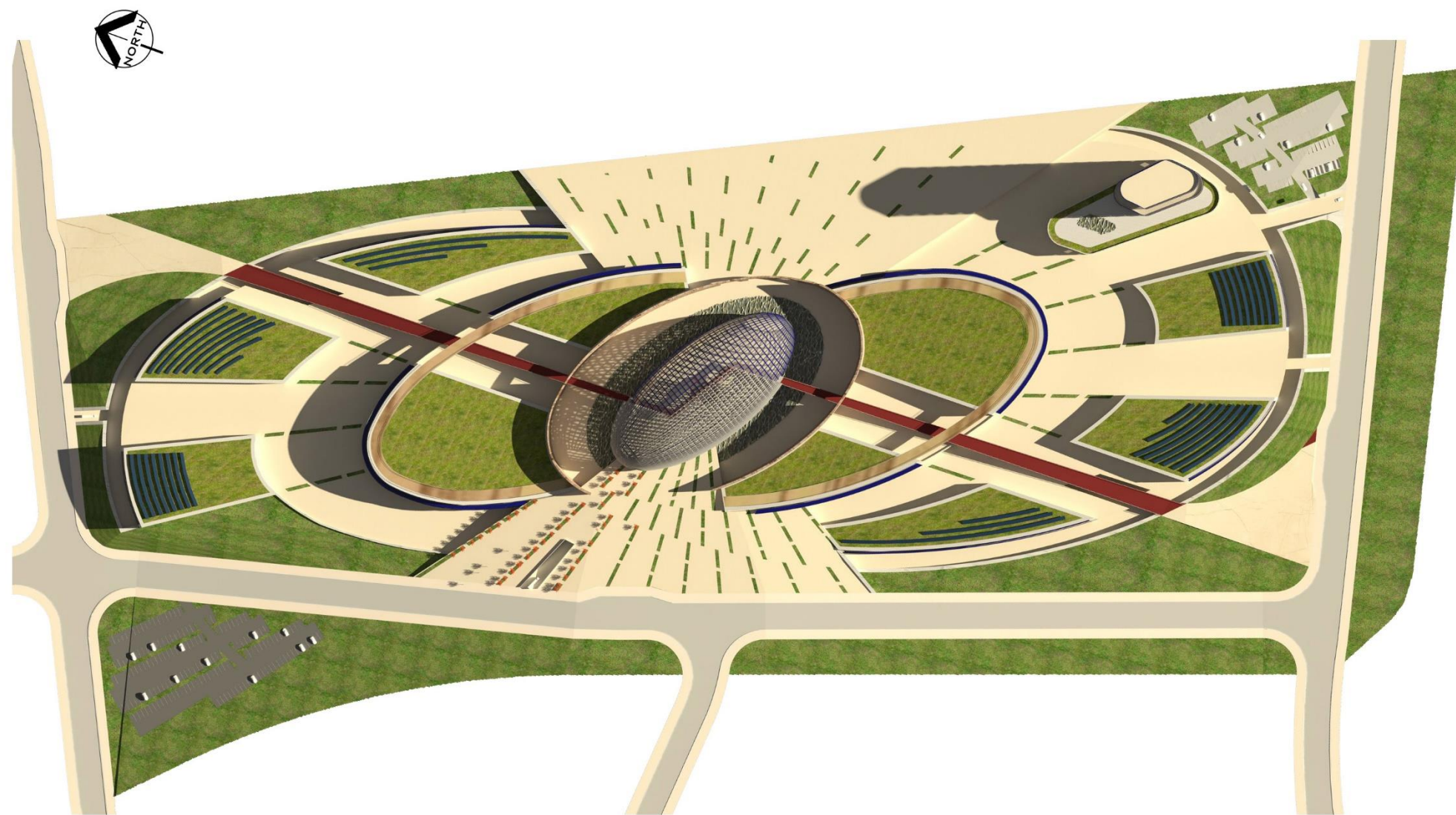
Section
View & location Concept

3. Landscape Design:

In harmony with the spirit of the place and the natural elements that are available in the green areas, forests and water surfaces, the suggestion is made that the design is compatible with the accordance and incorporation of the project and proposed buildings with nature in the form of: the height of buildings, the direction of horizontal expansion of spaces and functions that are in accordance with the phases of working on the project.

In addition to making the roof gardens on top of the museums, visitors and citizen can access to them from the outside and the inside of the project.

With the creation of green spaces with evergreen trees that are an extension of Water front Recreation Lot around the Geum River and the Che Creek from the south and west of the location, and an extension of the surrounding of the project. So these areas protect the site from the surrounding roads that will most likely bring pollution and sound contamination.



Master Plan
Landscape Design

0 12.5 50 100m

4. Circulation Design:

The suggestion of editing the street networking surrounding the location of the project, which leads to having roads parallel to the locations northern, western and southern border, gives great flexibility in movement and access to and into the project. And it is possible to disconnect all kinds of transportation and applying the Phased Development Plan as follows:

- The movement of public and private transportation:

Three main entrances have been suggested in the design; a main entrance in the west, a main entrance in the northern side and another southern with a drop off zone for public and private cars. And these entrances connect with the phasing of construction the project.

Also, it was suggested that the parking lots in the northern sector should be in the space across the street, as well as the southern part for parking lots, too.

- Pedestrian traffic:

Three main entrances were suggested for the pedestrian that connect with the axis of movement and the buildings spaces surrounding the site.

- Delivery, Loading and unloading circulation:

Three entrances were suggested for the loading and unloading movement; an entrance on every road surrounding the location, and connects to the central storehouse below the complex core.

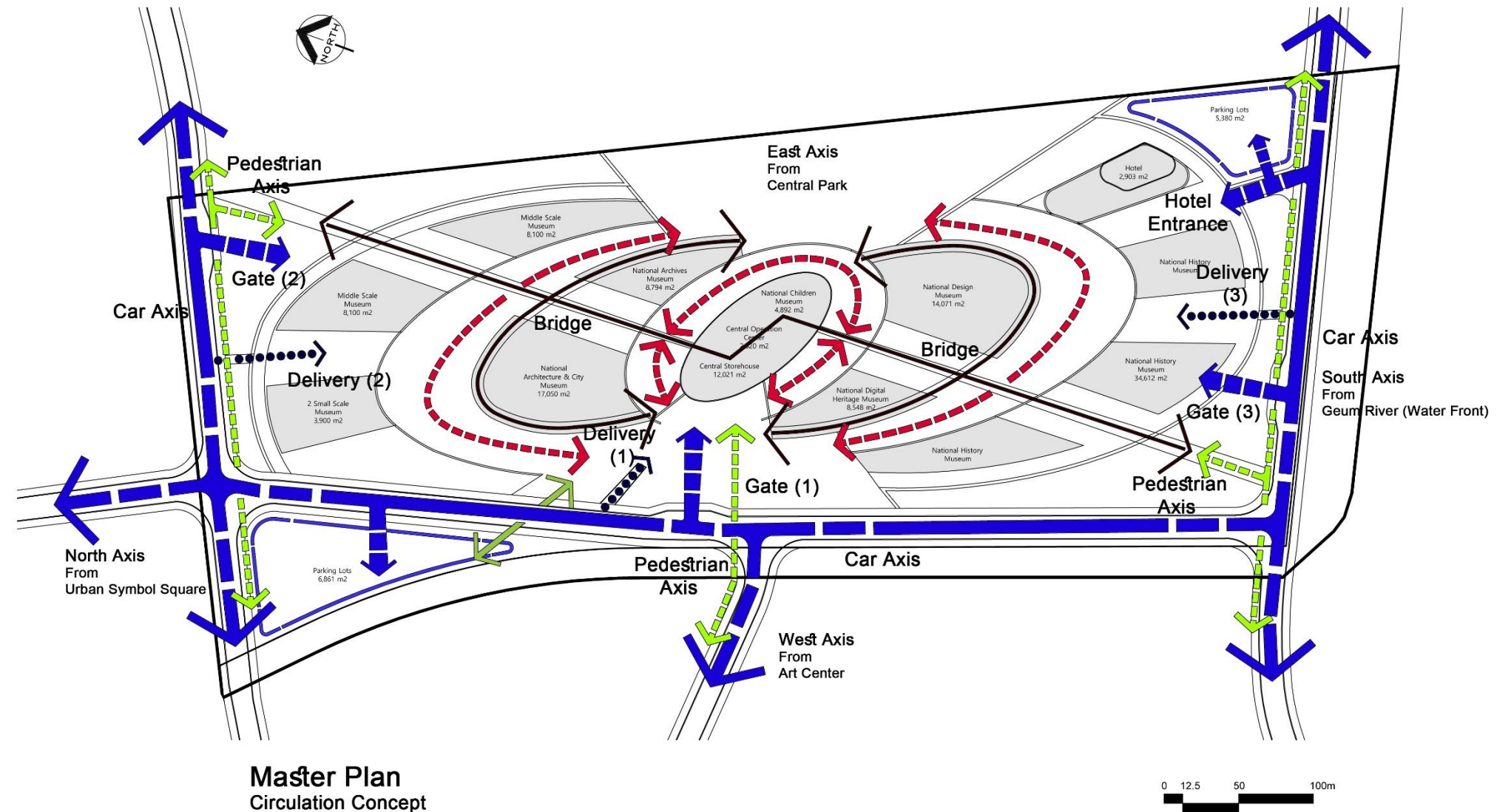
- The entrance for the hotel and shopping center:

Adding to the fact that there is a private entrance for the hotel from the southern Road (3) directly, there is an entrance from the inside of the museum location.

- Inner movement:

It was suggested that a diagonal bridge connects the entrances together and with the inside of the National Museum Complex; where it stretches north to south and crosses the center of the project.

In addition, a circular walkway above the museums, and perpendicular on the bridge, will complete the movement of the visitors and citizen.



5. Outdoor Space Design:

From the Competition Committee vision, in addition to our faith in the importance of giving priority the largest open spaces possible for the visitors and the citizen; from there came the idea of designing open and different spaces, starting from the frontal entrances plaza, the spaces that make up the National Museum, the different inner areas between museums, the green areas on rooftops, the green isolator area surrounding the project and achieving the connection and incorporation with the Central Park and National Arboretum.

And the design of these areas came in a way that is confirming the Central form in design and the entrances to the National Museum with the conservation of areas for shade and suitable sittings with the moving water elements that users interact with it, especially children.



6. Phased Development Plan:

The design concept and form of the National Museum Project was thought of in a way to take into consideration the gradation of development the complex and the phased required according to the competition, where the formation consists of a central core (The Ellipsoid) surrounded with two rings of museums towards the North and south integrated with the shape of the land as follows:

1. Phase 1 / 1st Construction step:

The core and center of the Museum complex that has three functions:

- National Children Museum
- Central Operation Center
- Central Storehouse

That is connected with the main entrance Gate (1) and the road with the parking lots in the northwest of the project, where these function on three levels.

2. Phase 1 / 2nd Construction step:

The first ring in the National Museum Complex, which is around the center, from both the North and the South, which contains the following museums:

- National Archive Museum
- Design Museum
- Architecture Museum
- City Heritage Museum

That is connected with the center by bridge and plaza, where these function on four levels.

3. The 2nd phase of the project:

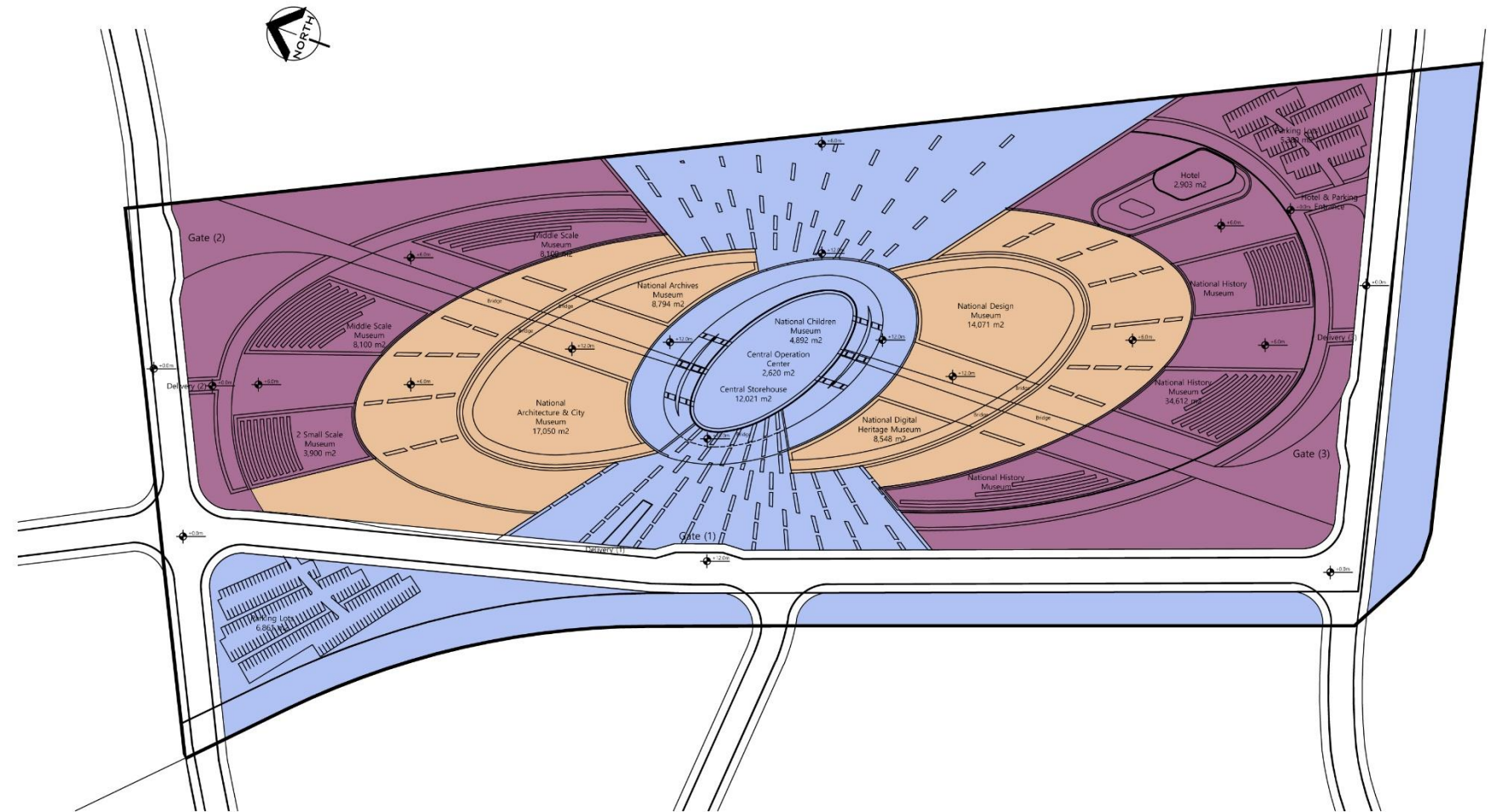
The second ring in the National Museum Complex, which contains the following:

- Natural History Museum divided on three pavilions share with its podium.
- Large and small museums

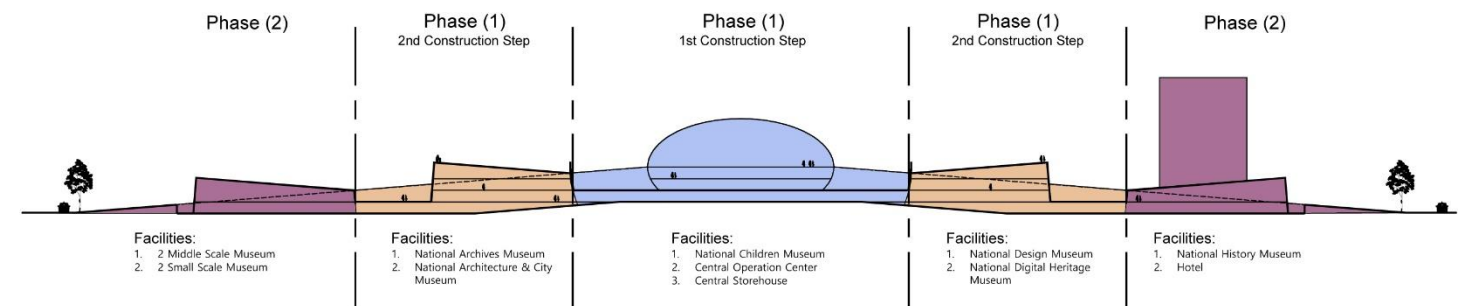
It also contains the Hotel, Shopping center, restaurants and cafes, the northern and southern entrances, the Hotels special entrance and the southern parking lot; where these buildings are dispersed in accordance to area on two levels for museums and fifteen levels for hotels.

The distribution for these functions are including horizontal areas in between all of them; so it would be computable with the phased of execution, the functioning of the National Museum and to easily separate these areas while construction.

In addition, it connects the museums from the bottom; to give easy movement for these museums, and that is by placing the Central Storehouse in the bottom and fulfillment of the security required for the masterpieces and their transportation, with connecting it with three entrances for delivery, loading and unloading from the three surrounding roads.



Master Plan
Phased Development Plan



Section
Phased Development Plan

7. Environmental Aspects:

1. Renewable energy:

Working on incorporating and taking advantage of renewable and clean energy sources; like the usage of sun rays to generate enough electricity to operate the National Museum. That way the museum will be environment-friendly by using Photovoltaic cells that cover the Ellipsoid, so it would be a part of the curtain walls system, to power the first phase of the National Museum. Placing photovoltaic cells on the roofs of the Museums in a way that is in harmony with the architectural formation and with the roof garden, to power the second phase of the National Museum.

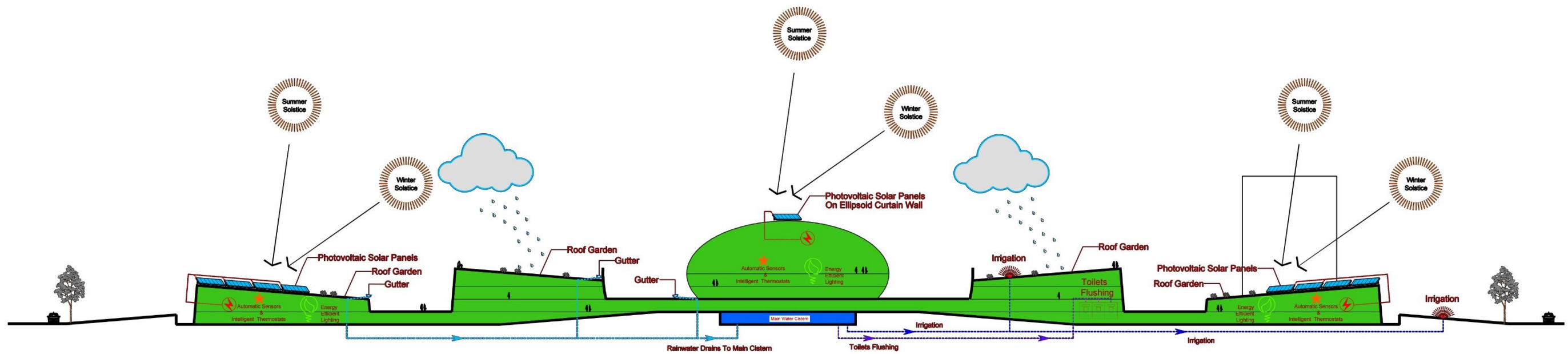
In addition to placing sensors to measure the nature lights brightness, and judging how much to use artificial light, and other sensors to reveal the use of spaces, and turning off the artificial light from unused spaces; which is to rationalize the consumption of energy.

2. Water collecting:

Make a system to collect the rain water that drop on the project and storing it to reuse in watering the plants, toilets flushing and interactive water services.

3. The Roof Gardens:

Taking advantage of green roofs and the layers beneath it, on the roof, to make a thermal isolator between the inner spaces and the surrounding environment. Also, what this cover could achieve in the reduction of cobbled surfaces, reduction of sun reflection and compensate the land tracts that are used for building.



Section
Environmental Aspects

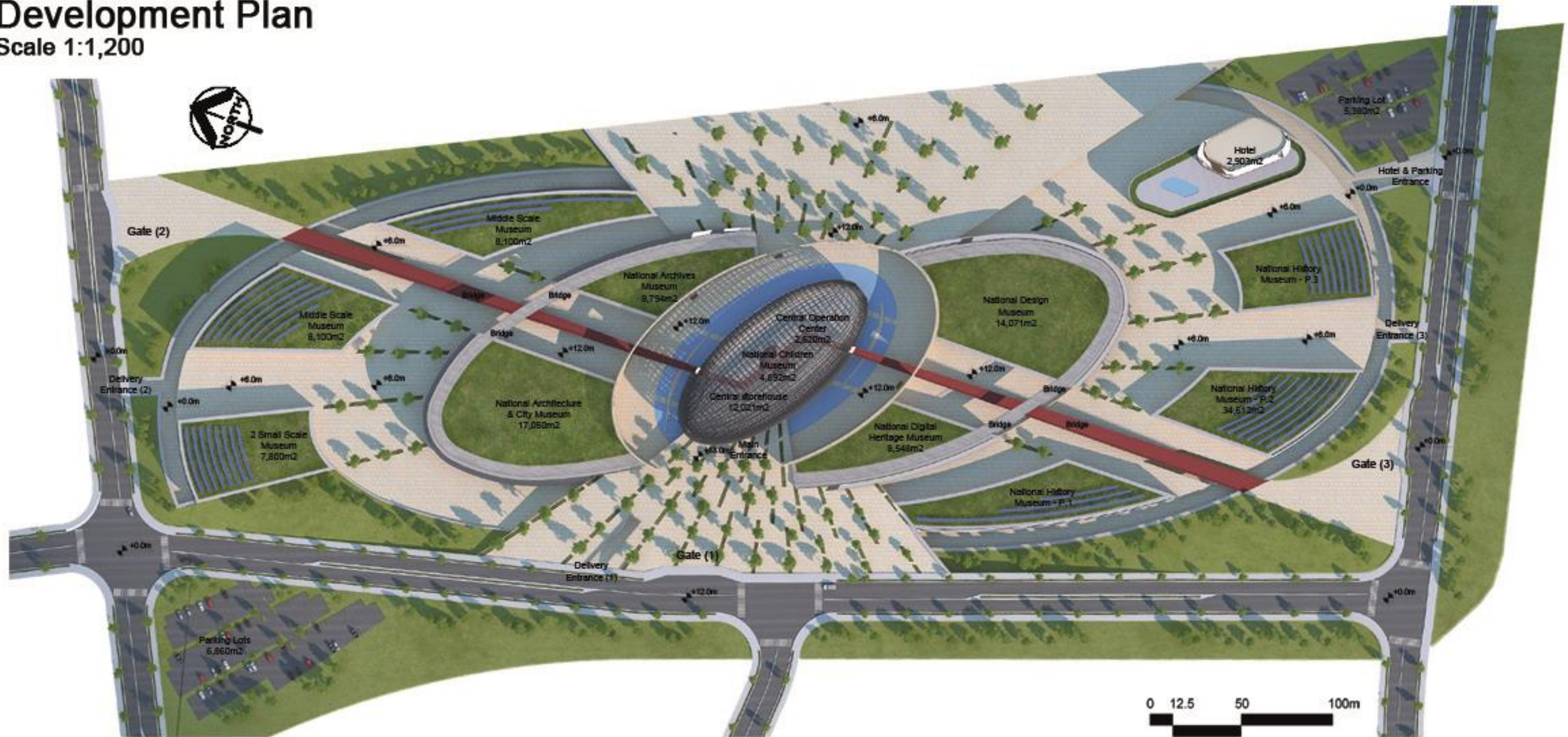
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C. Master plan:

1. Site Plan:

Development Plan

Scale 1:1,200



2. Shots:





