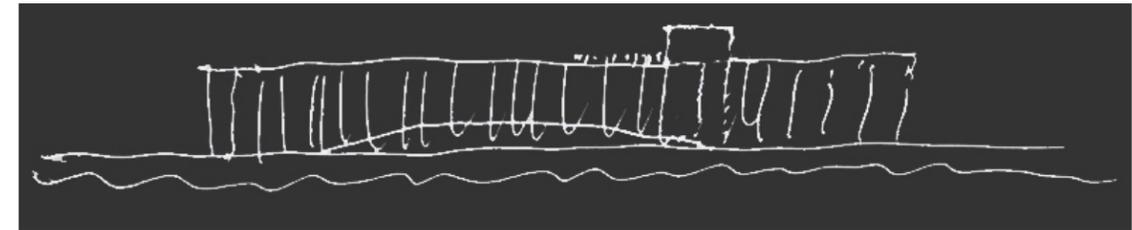


Helsinki Museum of Art

Competition entry for a new Guggenheim on the waterfront



D'AMBROSIO
architecture + urbanism

Guggenheim, Helsinki , Finland
International Competition
September 05, 2014 #1415

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Introduction

On June 4th, 2014 the Solomon R. Guggenheim Foundation announced an international competition for a new art museum on the Eteläsatama, Helsinki's south harbour. The harbour is of great national and cultural significance and this project joins the region's ambitious effort of renewal and development of its central core. The site is now a surplus part of a busy international ferry terminal and is located between the

Tahititornin, a urban park and the historic city centre. In addition to creating an attractive new arts and cultural centre the city-endorsed design competition seeks to refresh and enliven the urban environment along the waterfront.

The following pages are part of an entry submitted by *D'Ambrosio A+U*. The submission is one of 1715

received entries from 77 countries, a record-setting number for an architectural design competition. The contents of the entries were strictly specified with digital base drawings and photographs as context for exterior views supplied to each competitor, along with the space and functional program requirements. The drawings and text in this document follow specified guidelines and prescribed topic titles.

<http://designguggenheimhelsinki.org/en/>



Panoramic View of the South Harbour

DAU Statement

Conceived as both attraction and connection, the proposed museum is a distinctive framework for a new cultural institution that will be synergistic with its host city.

The proposed Helsinki art museum will join the distinguished architectural ensemble of the harbour with a calm, rhythmic gesture, in a modern

interpretation of a classical idiom, the colonnade. The repeating structural frame encloses and supports internal spaces while on the exterior, the frame tectonically defines its place with and allows views of its inner volume. The museum interior is organized around an armature of day-lit concourses and atria that serve as the public circulation systems, contain visitor services and amenities, and provide exhibition spaces.

The controlled-environment exhibition galleries are contained in two discrete volumes accessed from the first and second floors. A third volume contains administration offices and the restaurant. Public events and program rooms, collections storage and management, maintenance, operations and other back-of-house functions are accommodated on the ground and sub-level.



Figure-Ground Diagram

Cityscape

Urban Design

The Helsinki Museum of Art is proposed as both a museum and an instrument for connection and enhancement of the west harbour quay. Located on a site shared with marine and ground transportation infrastructure, the museum, with the integrated terminal at its south end, is designed as a linkage of existing and anticipated pedestrian and bicycle networks. The new building and its site-works will contribute to the repair of a rent in the urban fabric caused by roads and the necessarily exclusive functions of the port.

The landscape is conceived as an extension and elaboration of the Harbourside Quay. It adopts the geometry of the quay, which is that of the historic street grid of the western part of the old city. The concrete planters of varying depths are configured to create a hill topography, with pathways rising to the street level and a bridge to the south and west.

The building has been kept below the level of vantage points of Tahtitornin Vuori Park and the surrounding buildings. At this height, the museum is highly visible without obscuring views of important urban landmarks.

Although it will replace a large dockside warehouse now extant on the quay, the new museum will have a significant visual presence on the cityscape. We believe that it will be appropriate in scale for both the local context and the intended role of the museum as a cultural institution and public attraction.

The colours and textures of people moving inside the building and the installed artworks in the day lit galleries will be visible to passersby in every direction. The warm glow of the interior light will be a gentle lantern set against the shadow of the northern winter sky, during the summer twilight and against the dark green backdrop of the Tahtitornin Vuori Park.

Through the changing seasons, the array of graceful light coloured concrete structural frames will cast a filigree of shadows, and the glass of the outer wall will reflect movement and images of people, surrounding buildings and harbour activity. These mutable effects will make the new Guggenheim a dynamic player on the Helsinki harbour stage.



Site and Urban Design Plan

Key and Objectives

1. Suggested designation of the open area to the south of the old Market Hall as a location for a periodic and seasonal outdoor arts and crafts market that would animate and draw visitors through the old food market, to the quay and the northern approach to the museum.

2. Suggested provision of pedestrian access to the quay south of the Market Hall and Eteläinen Makasiinikatu.

3. A new museum square and sculpture garden with landscaped 'islands' inspired by the Finnish Lakeland (Jarei Suomi), will create areas for public seating as well as programmed and casual activities.

4. A covered outdoor area that includes a stepped portico and sunken plaza that can be a venue for summer museum related events, flooded to create a large reflecting pool, and frozen in the winter to make a skating rink.

5. A second public pathway through a constructed, terraced landscape between the water's edge and the east side of the museum, continuing up to and through the breezeway at the south end of the museum to connect the proposed deck expansion of the walkway beside Laivasillanankatu Rd.

6. Here, from the new walkway and sculpture terrace overlooking the terminal and dock, a future pedestrian bridge will connect the museum waterfront to the network of paths through Tahtitornin Vuori Park and west to the streets of the design district.

7. The new museum square at the north leads to a path south through a terraced landscape, along the western façade of the museum, across a foot-bridge over the

museum loading bays and joining up with the widened walkway along Laivasillanankatu Rd. and the Olympia Terminal, as well as with the pedestrian bridge to the park and beyond.

8. A road from the Eteläinen Makasiinikatu intersection that is required to access the maritime terminal will be shared by the museum. It will be the only vehicle access to the front entrance court for taxi, bus and private vehicle drop-off. Parking for physically challenged visitors to the museum will also be off the entry court at the new museum square. The new lane will be the driveway to special guest and museum staff parking and all loading facilities for the museum on the west side.

9. The new museum bridge arching west over Laivasillanankatu Rd. to the park, springs from an observation terrace at the intersection of the new pedestrian deck along this major thoroughfare and the south pathway through the museum arch east of the quay. This junction is marked by a sculpture terrace visible from the park, the road and the terminal.

10. The new deck along Laivasillanankatu Rd. expands the pedestrian realm, bicycle path and landscaping. This 5m wide expansion will be landscaped and well appointed with seating and lighting. It will become a frontage for new buildings of the terminal.

11. The new terminal building that forms part of the museum proposal has south-facing frontage on the terminal quay.



Bird's Eye View South



Entry Perspective Looking South

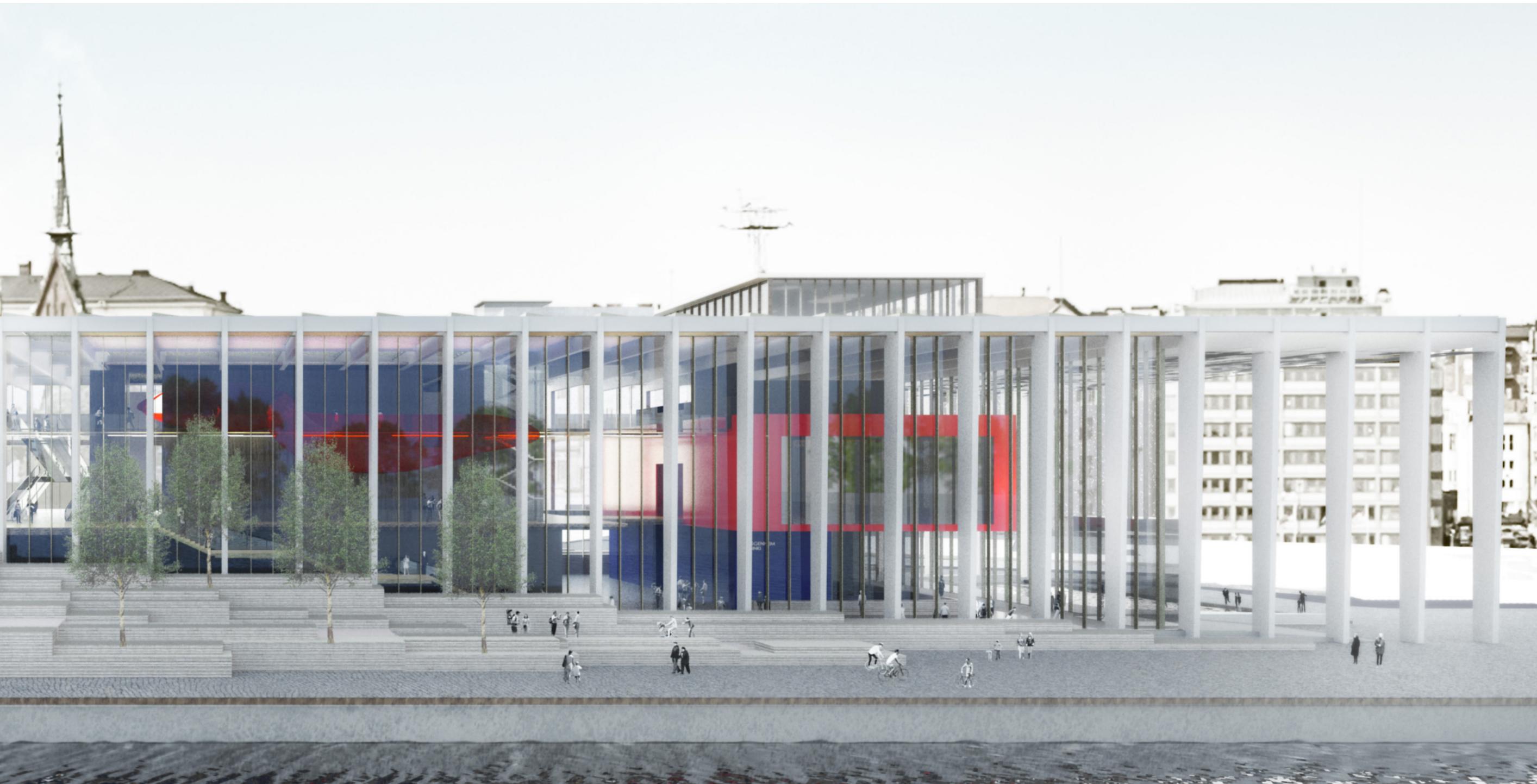
Architecture

Concept: An Urban Frame

Conceived as both attraction and connection, the Guggenheim Helsinki is a distinctive framework for a new museum that will be synergistic with its host city. Set on the edge of this spectacular urban harbour, it is both a framing proscenium arch and a participant in an urban context that is rich in local history and important in international design culture. The urban frame concept of the new GH is complimentary to this city of classic urban form, on a harbour that is an international gateway to the country.

The proposed GH will join the distinguished architectural ensemble of the harbour with a calm, rhythmic gesture, in a modern interpretation of a classical idiom, the colonnade. The repeating structural frame encloses and supports internal spaces while on the exterior, the frame defines its place and allows views of its inner volumes and tectonics.







Harbour View - Looking South



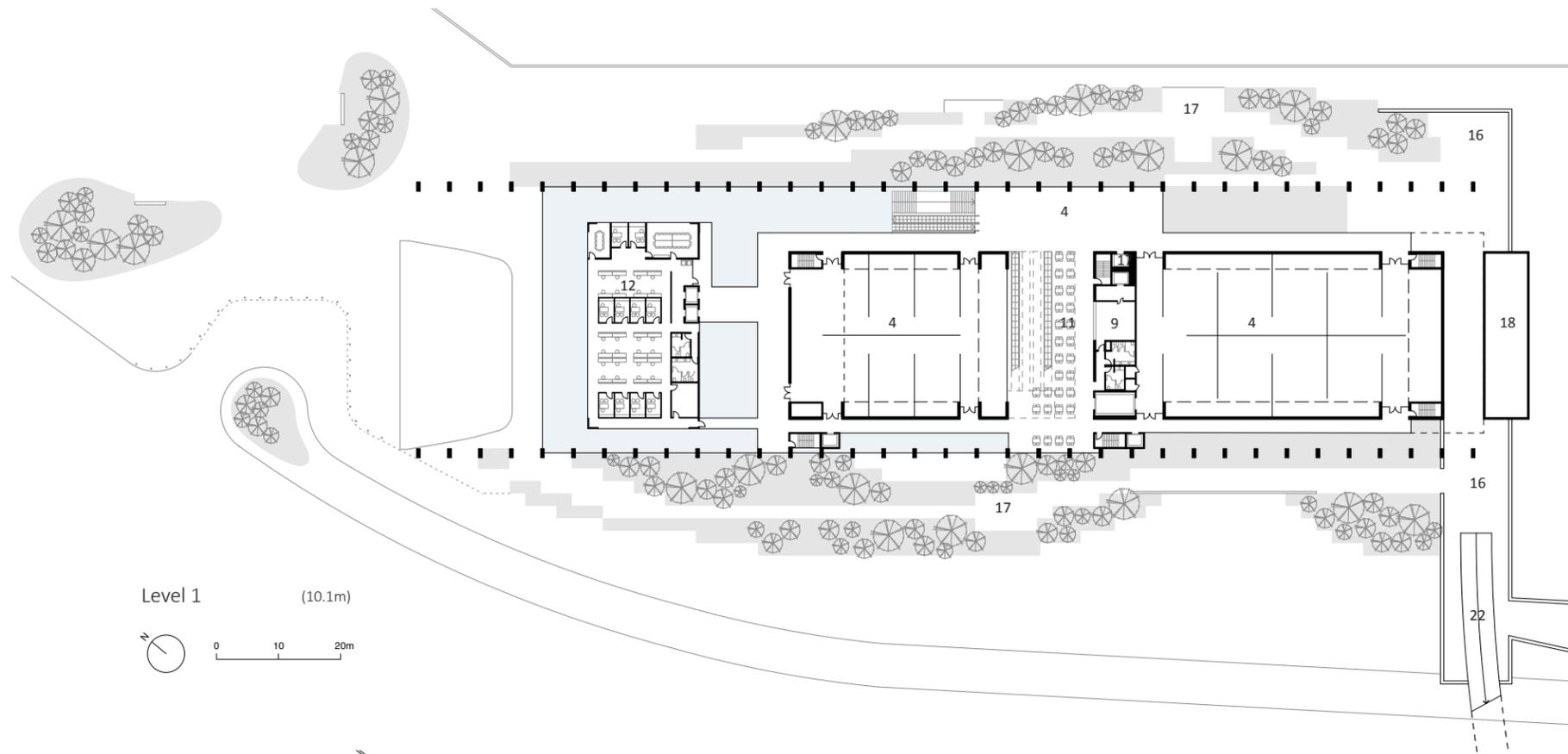
On the Terminal Facility

The museum building will be a catalyst for activity and public access to a previously closed water's edge. In addition, this proposal offers an idea for the incorporation of a new 1000m² terminal facility as suggested in the competition brief. The new terminal will have a discrete arrival hall with its own identity south façade. It is physically separated from the museum by a public breezeway that traverses the building east to west, at level 8.1m. The terminal

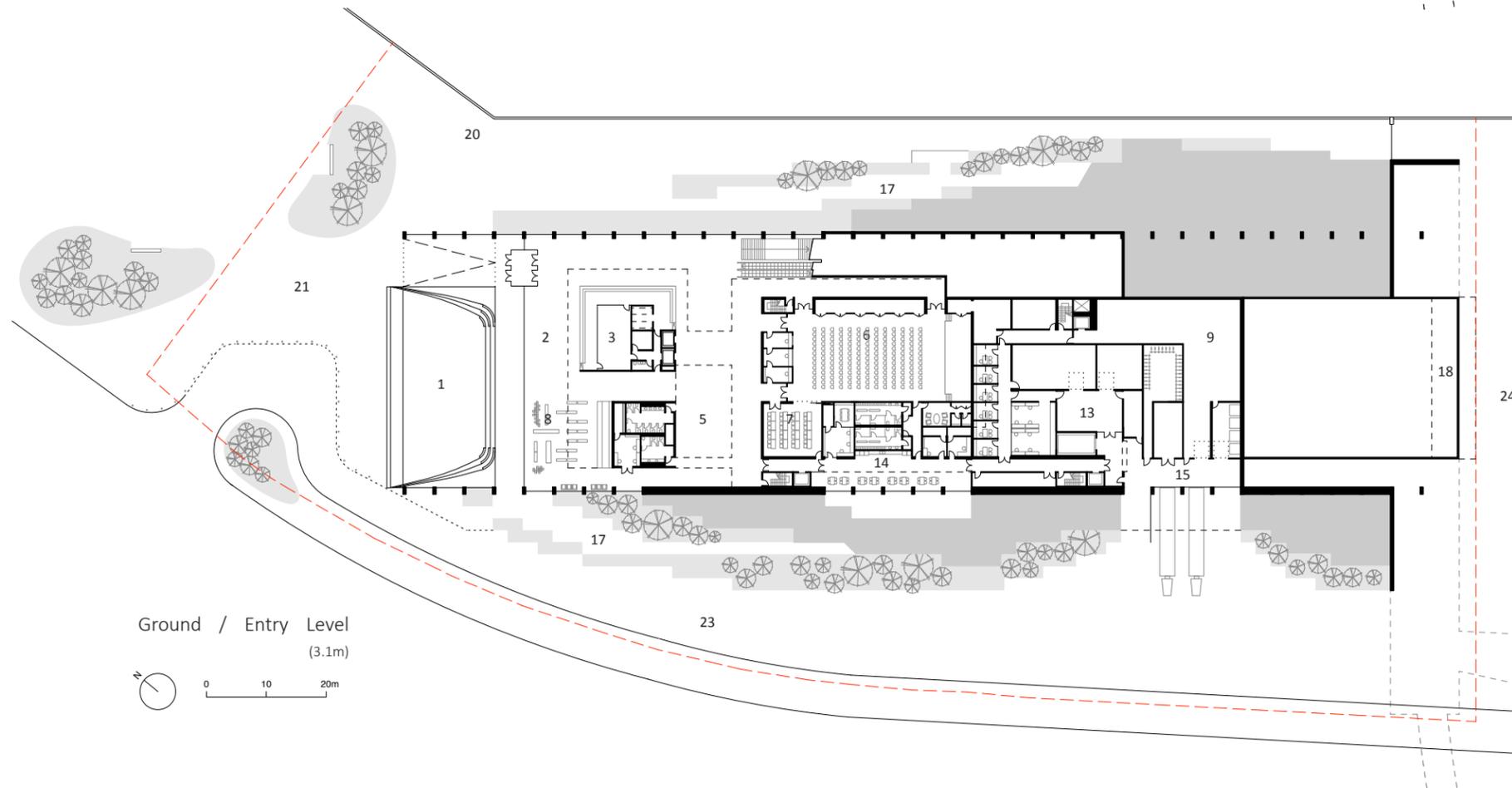
functions would be accommodated on quay level (3.1m), that is below the southern 1/5th of the first floor of the museum. The inclusion of the terminal facility in this proposal is a conceptual response to the competition brief, but it is also consistent with the environmental principle of the sharing of limited urban land area (especially waterfronts), for cultural and utilitarian public infrastructure and efficient use of resources to contribute to the vitality and resilience

of the city. In the absence of functional program information other than the gross floor area, the design of the terminal is schematic. If it is decided that incorporating it within the framework of the museum is not viable, the architectural concept and site design of the museum would change little. In this event, it is proposed that the quay-level residual area could be occupied by internal shipping/receiving, expanded art storage, and additional staff and guest parking.

View from
Tahititornin Vuori Park



Level 1 (10.1m)



Ground / Entry Level (3.1m)



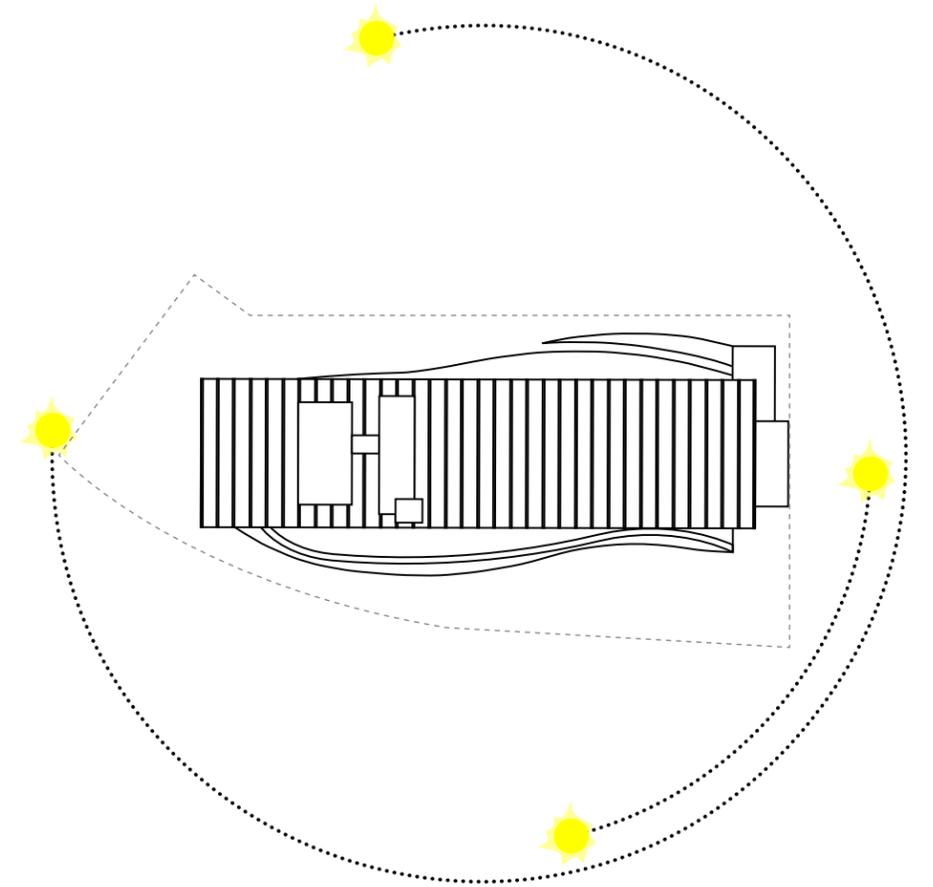
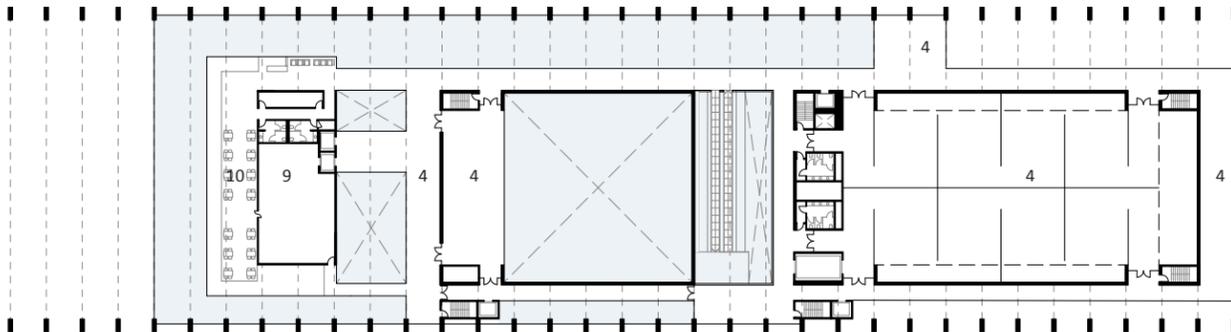
KEY to Floor Plans

- 1 Sculpture Plaza / Reflecting Pool / Skating Rink
- 2 Entrance Lobby
- 3 Visitor Services
- 4 Exhibition Gallery
- 5 Programs & Events Zone
- 6 Flexible Performance / Conference Hall
- 7 Multifunction Classroom / Lab
- 8 Museum & Design Store
- 9 Dining Services
- 10 Formal Restaurant
- 11 Cafe / Bar
- 12 Administrative Offices
- 13 Collections Storage & Management
- 14 Maintenance & Operations
- 15 Loading Docks
- 16 Pedestrian Deck
- 17 Landscaped Area / Public Path
- 18 Terminal Building
- 19 Arts & Crafts Market Area
- 20 Pedestrian Access to Quay
- 21 Museum Square Sculpture Court
- 22 Pedestrian Museum Bridge
- 23 Access Road to Museum & Maritime Terminal
- 24 Frontage on Terminal Quay
- 25 Observation Deck
- 26 Artist Commissioned Glass Canopy

Roof Level (26.1m)



Level 2 (18.1m)



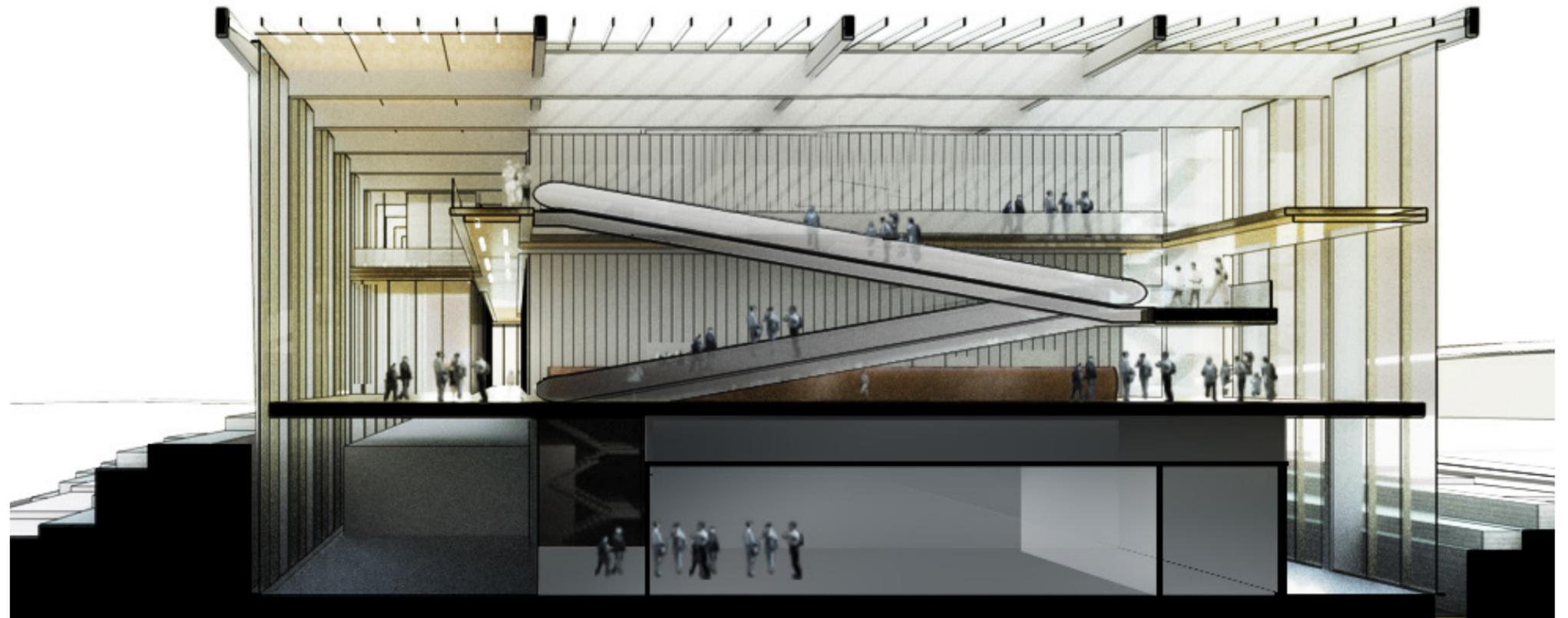
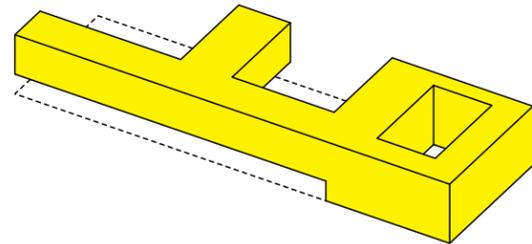
Interior

Network of Atria

The museum interior is organized around an armature of day lit atria that serve as the main public circulation systems. They also contain visitor services, amenities, and exhibition spaces in a variety of volumes.

The main north-south Harbourfront Galleria runs from the museum entrance, up through the first and second levels, to the south gallery facing the ship terminal. Elevators and stairs are also part of the four level system.

The entrance atrium at the north end contains vertically stacked spaces for programmed events, reception, security and museum shop at the quay level, administration offices at the first floor, and the restaurant with roof deck access. The central atrium has the main travelators to the second floor, and the cafe / bar.



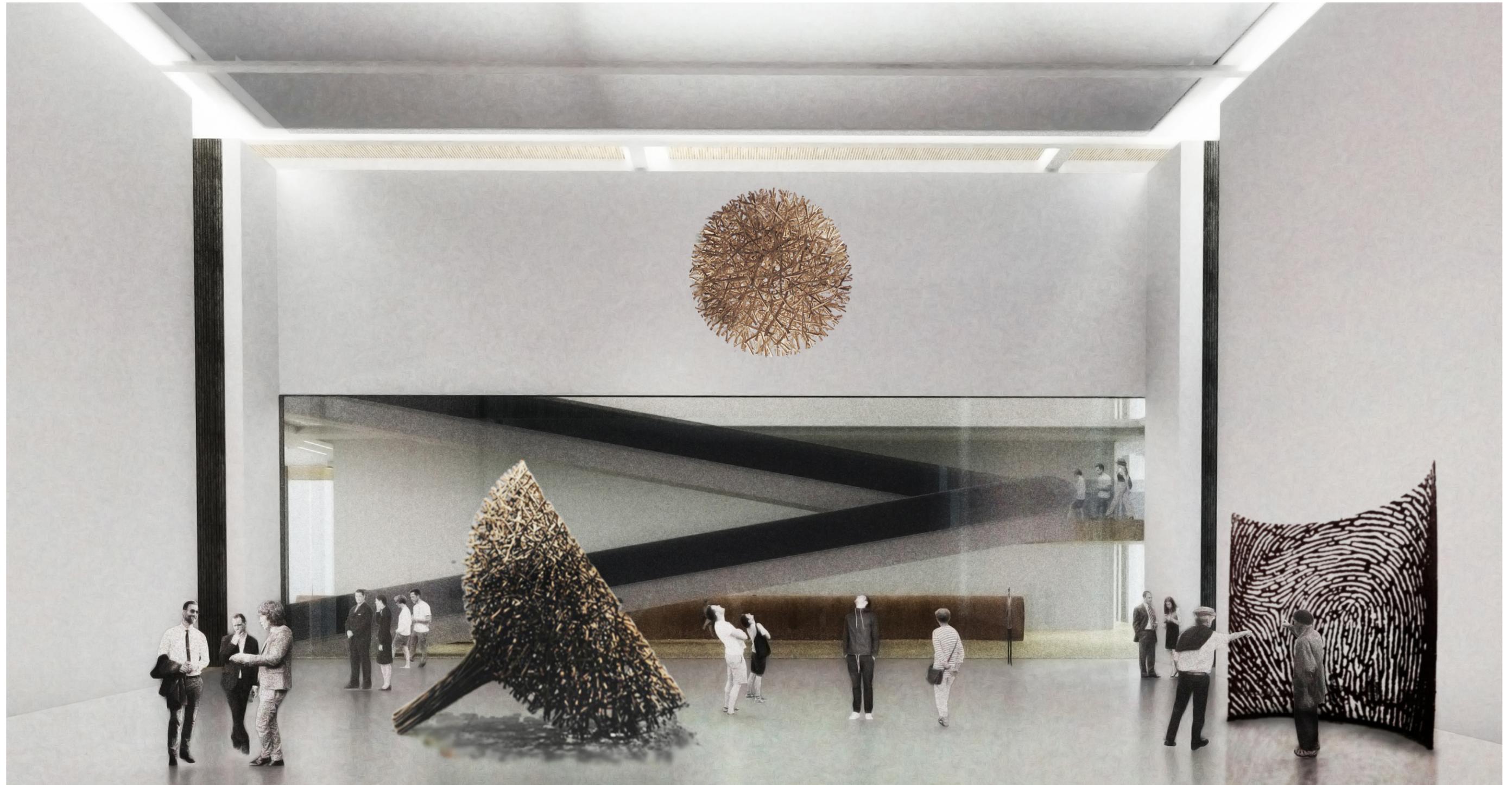
Section C



Harbour Galleria from Entry



Central Atrium

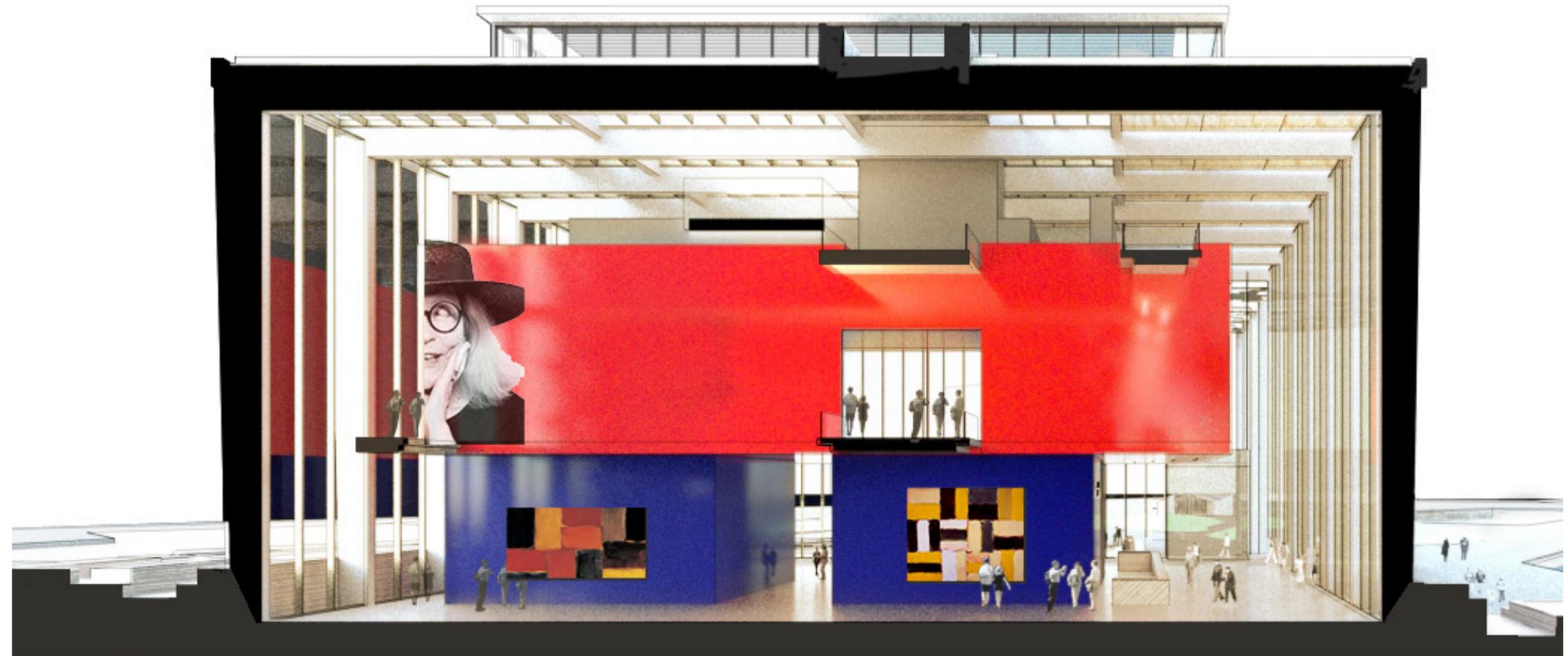
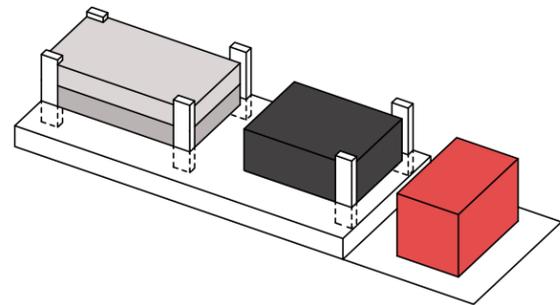


Main Exhibition Gallery

Three Volumes

The climate-controlled exhibition galleries are contained in two discrete volumes accessed from the first and second floors. The visitor services, administration and food services are in a volume of three floors. Public events and program spaces, shipping / receiving, art storage, maintenance, mechanical systems, bike spaces and all other service functions are accommodated on the ground or quay level.

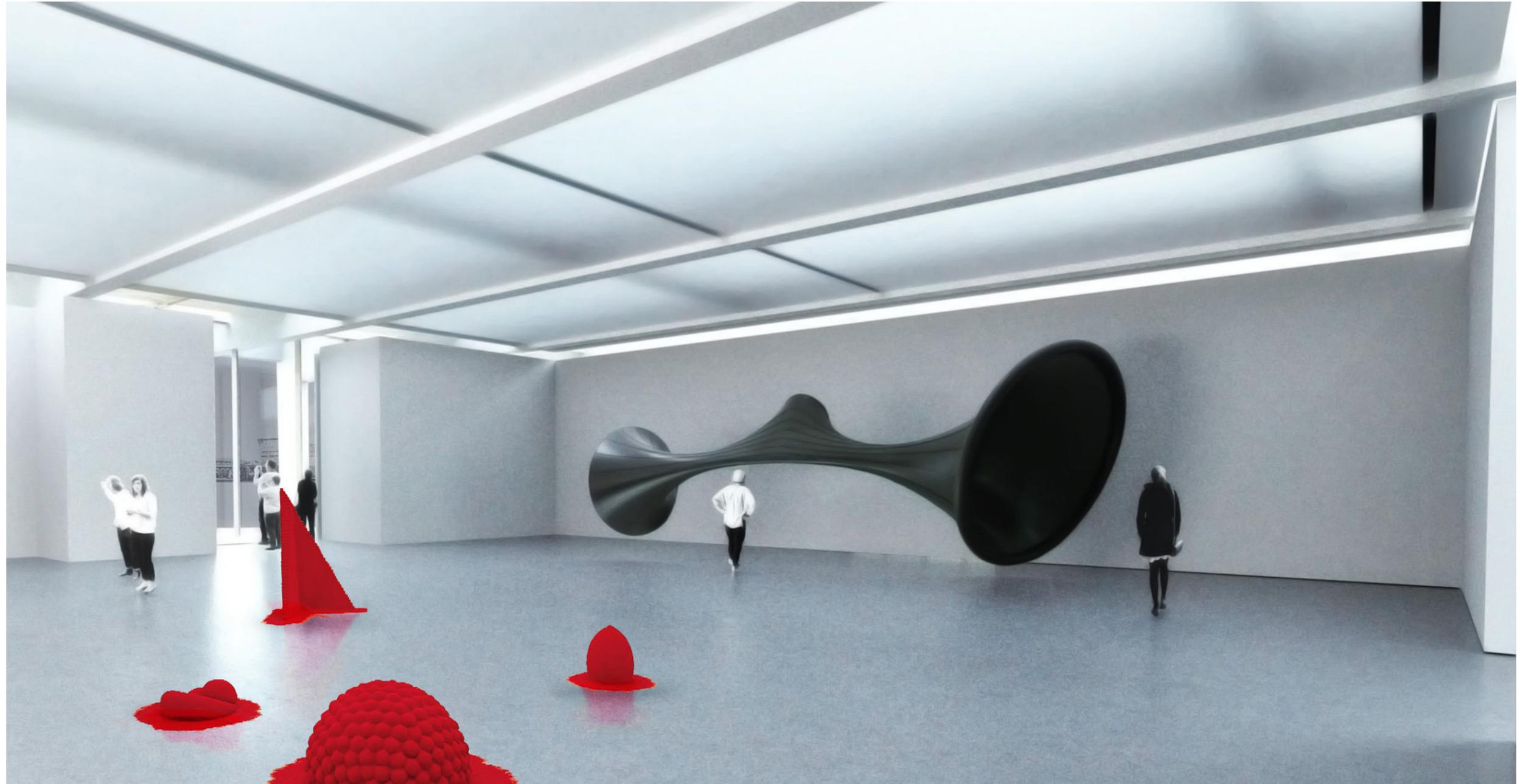
Please note that this proposal includes a concept for the 1000m² shipping terminal to be part of the quay level of the museum structure with a double height south facing entry hall at the north edge of the terminal staging area.



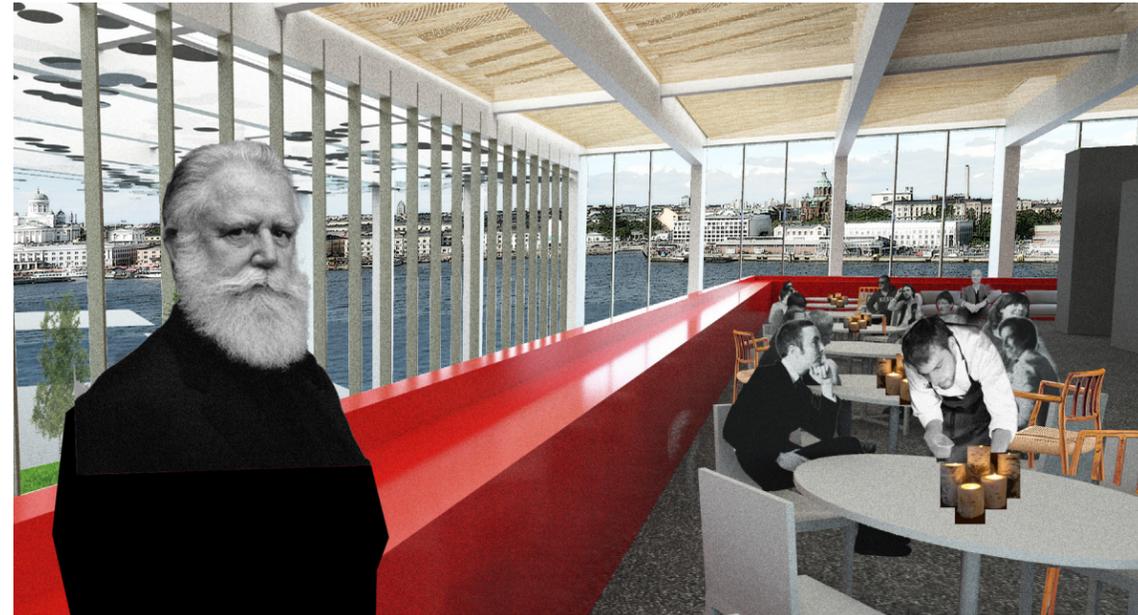
Section B



Harbour Galleria from Level 2



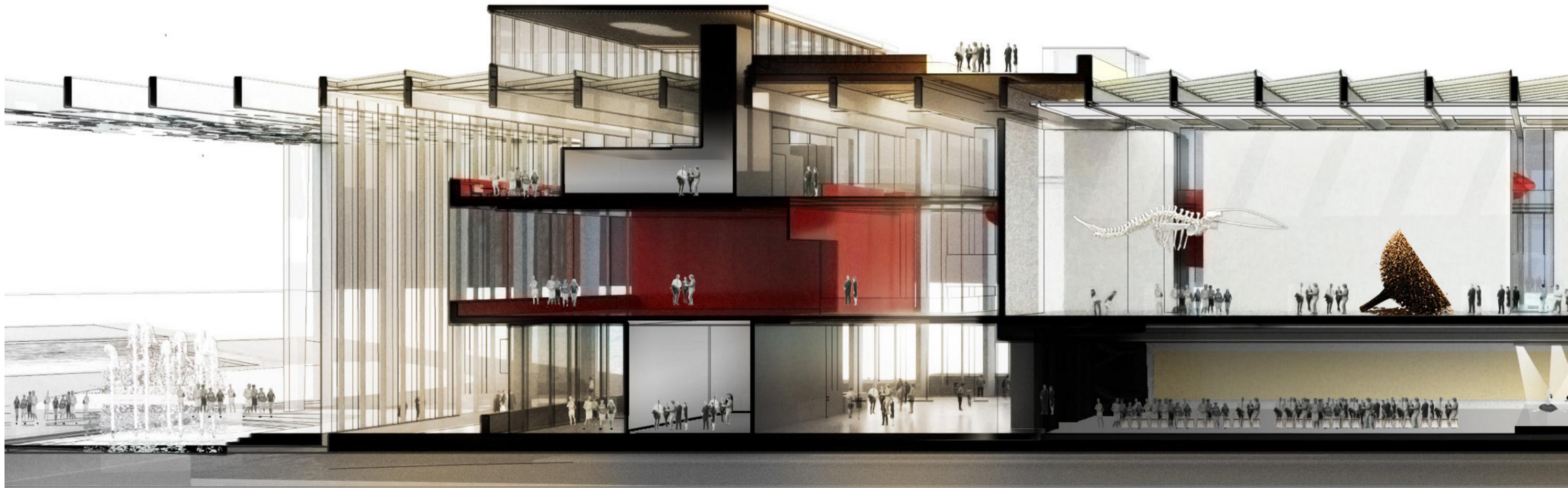
Exhibition Gallery



Formal Restaurant



Observation Deck



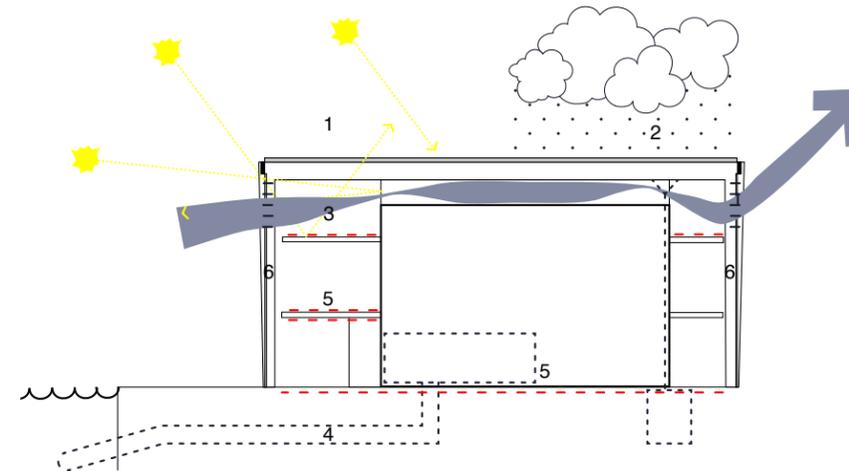
Section A



Sustainability and Structure

Environmental Strategies

1. Passive solar collection (if viable) and north-facing skylights with sun-shading control over the public circulation atria and gallery plenums.
2. Rainwater collection for watering of landscape and flushing water closets.
3. Atria used as wind towers to allow natural ventilation in public circulation and day lit areas.
4. Ocean-loop thermal exchange for building cooling.
5. In-floor and ceiling hydronic heating and cooling with 100% fresh-air intake for ventilation.
6. Double facade assembly with interstitial space used as circulation outside of climate-controlled inner exhibition galleries.

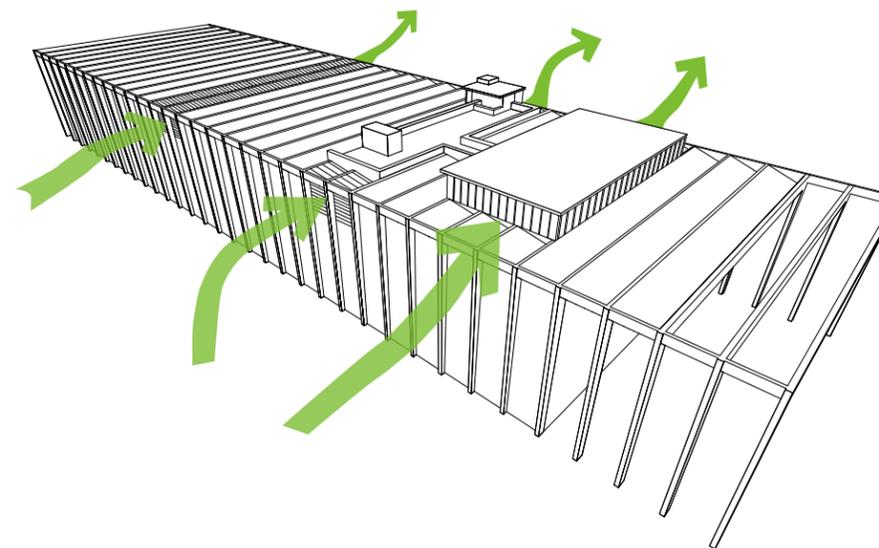


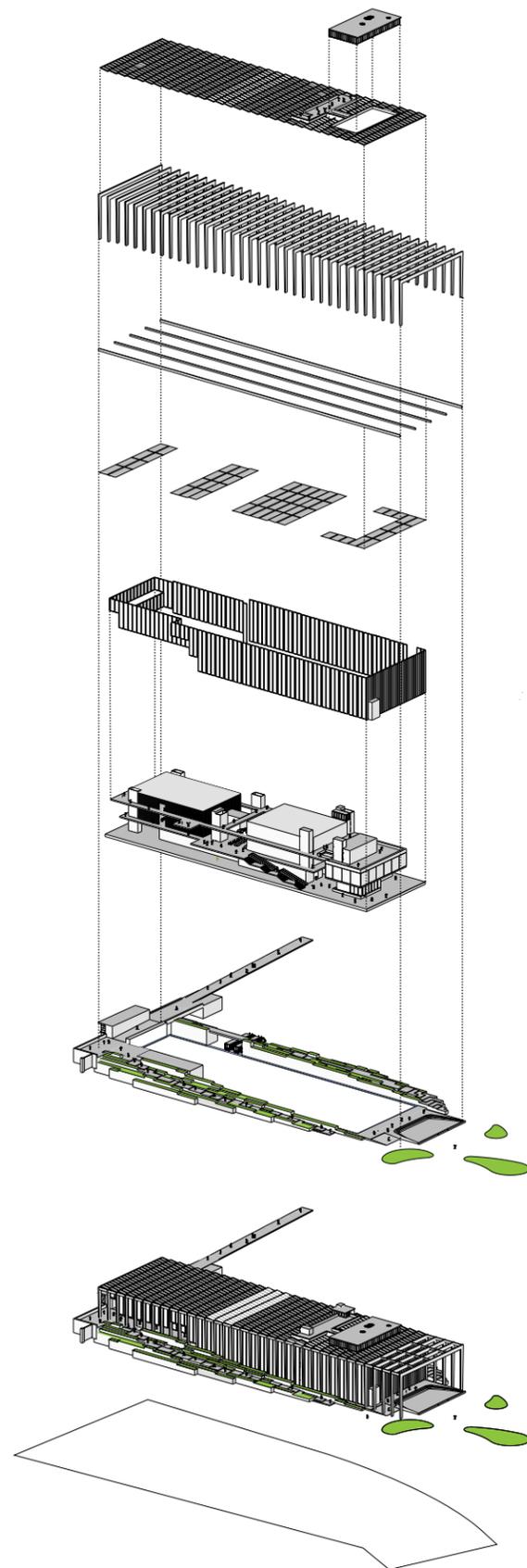
Green Building Considerations

For the purpose of gauging the performance of the new Guggenheim Museum in terms of energy and green house gas production, a proven third party metric is proposed. The North American Green Building Council's Leadership in Environmental and Energy Design (L.E.E.D.) program has been considered, and its Finnish equivalent is proposed, as a way to achieve and verify a high level of environmental responsibility and quality for the new Guggenheim. The following are the categories and credit targets for what could be achieved by our design to obtain a LEED Platinum Certification.

L.E.E.D. Category	No. of Credits Targeted
1. Sustainable Sites	26
2. Water Efficiency	10
3. Energy and Atmosphere	20
4. Materials and Resources	5
5. Indoor Environmental Quality	11
6. Innovation & Design Process	6
7. Regional Priority	4

Total potential credits for the proposed Guggenheim Helsinki Museum 82
(Platinum certification requires 80)





Exploded Axonometric

Exposed hybrid wood and steel, restaurant roof and skylight structures

Low-e glazed skylights and zinc-clad Cross-Laminated Timber (CLT) structural roof deck

Reinforced concrete columns and beams of main structural frame and its foundations

Reinforced concrete purlins

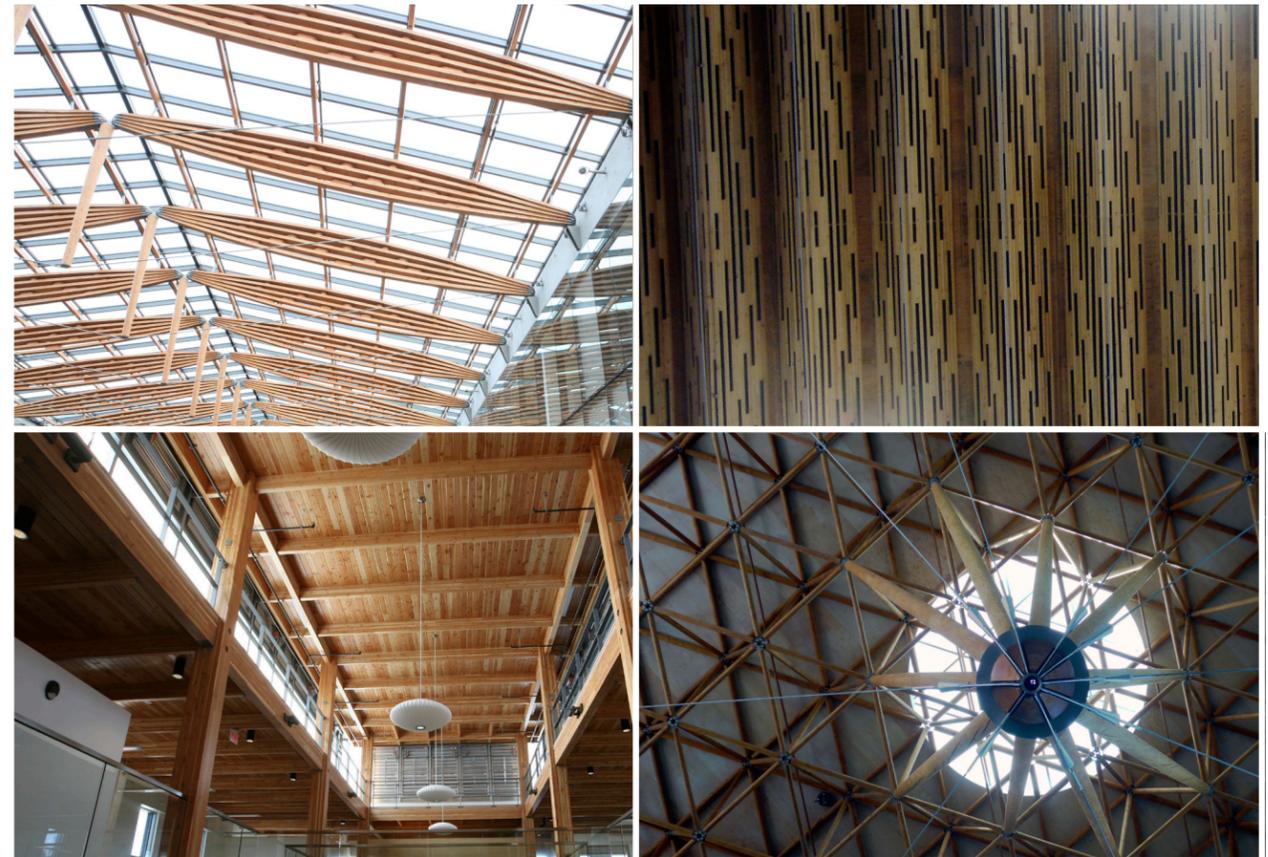
CLT decking between concrete beams and purlins

High performance, tripleglazed exterior curtain wall assembly

The galleries, offices and other areas requiring separate indoor environmental control are enclosed by the second climatic and acoustic control walls and special glazing.

Sculpted ground plan with raised main floor, bermed landscape and recessed pool/plaza and skating ice.

Stone and concrete pavement, concrete planters for shrubs, trees and rain gardens for stormwater drainage and collection.



Exposed wood structure is envisioned over public day lit areas. These are examples of small dimension lumber, lenticular trusses and cross-laminated timber structural deck by our team.