

# **WAALSE KROOK**

Masterplan for the Waalse Krook Area and the Construction of a Library for the Future and Center for New Media in Ghent

**ID CODE OO 1801 D**

# Contents

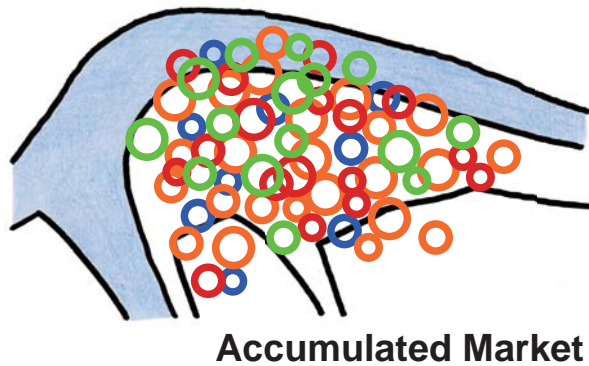
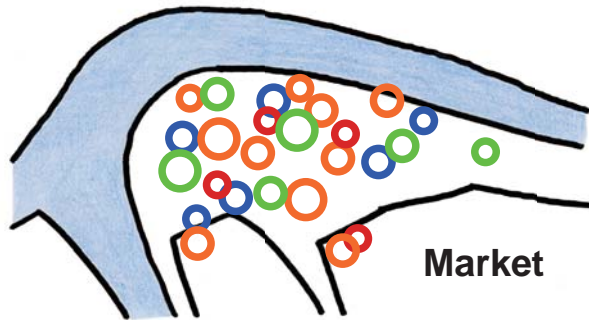
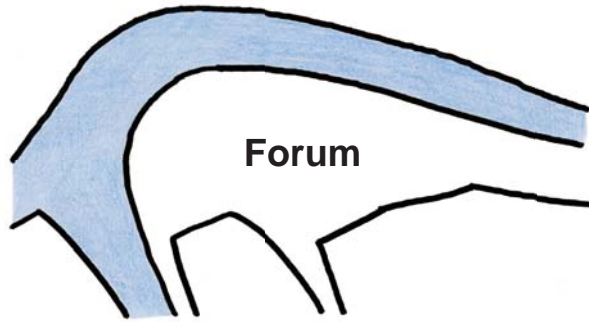
<b>Concept</b>	Design Concept ..... p01
	Site Analysis ..... p02
	Masterplan ..... p03
	Building Configuration & Circulation ..... p04
<b>Drawing</b>	Section S=1:200 ..... p05
	GF Plan S=1:300 ..... p06
	1F Plan S=1:300 ..... p07
	2F Plan S=1:300 ..... p08
	3F Plan S=1:300 ..... p09
	RF Plan S=1:300 ..... p10
	-1F Plan S=1:300 ..... p11
	East Elevation S=1:300 ..... p12
	South Elevation S=1:300 ..... p13
<b>System</b>	Structural System ..... p14
	MEP System ..... p15
	Tube System ..... p16
	Library Furniture Image 1 ..... p17
	Library Furniture Image 2 ..... p18
	Book Transport & Management System ..... p19
	Structure, Environmental & MEP Planning ..... p20
	Durability 1 ..... p21
	Durability 2 ..... p22
<b>Floor Area &amp; Cost</b>	Floor Area Chart ..... p23
	Overall Cost & Fee Estimation ..... p24
	<b>Winter Circus Renovation</b> ..... p25
	<b>Outline of Planning Process</b> ..... p26
	<b>Schedule of Planning Process</b> ..... p27
	<b>Monitoring of Cost Management</b> ..... p28
	<b>Design Team Proposal</b> ..... p29



View from South



**View from Ketelvest**



### 1. This proposal is about designing an urban forum rather than simply a building.

The Waalse Krook, located in the heart of Ghents city centre, is a symbolic place with a rich social and cultural inheritance. The project intends to build upon this history by ‘transforming’ this part of the city into Ghents urban ‘forum’. A place where people gather for discussion and participation, where people meet and talk, exchange experiences and knowledge.

1. Het voorstel gaat meer over het ontwerpen van een stedelijk forum dan over het maken van een gebouw.

De Waalse Krook, gelegen in het hart van Gent, is een symbolische plek met een rijke sociale en culturele achtergrond. Het project wil voortbouwen op deze geschiedenis door dit stadsdeel om te vormen tot het ‘forum’ van Gent. Een plaats waar mensen samenkomen voor gesprek en participatie, een plek voor ontmoeting en gesprek, uitwisseling van ervaringen en kennis.

### 2. The Library and Media Centre will consist of a collection of exchange places – called ‘media markets’ - all combined into a ‘forum’.

The various media will be organised in ‘media markets’ through which people can stroll freely or search with purpose. The organisation of the markets enables formal and informal exchange, individual and independent focussing and collective, open interconnection. The spirit of the media markets is one of intellectual and physical openness and vibrant activity.

2. De bibliotheek en het media centrum worden een collectie van plekken voor uitwisseling – ‘media markten’ genoemd – samengebracht tot een ‘forum’.

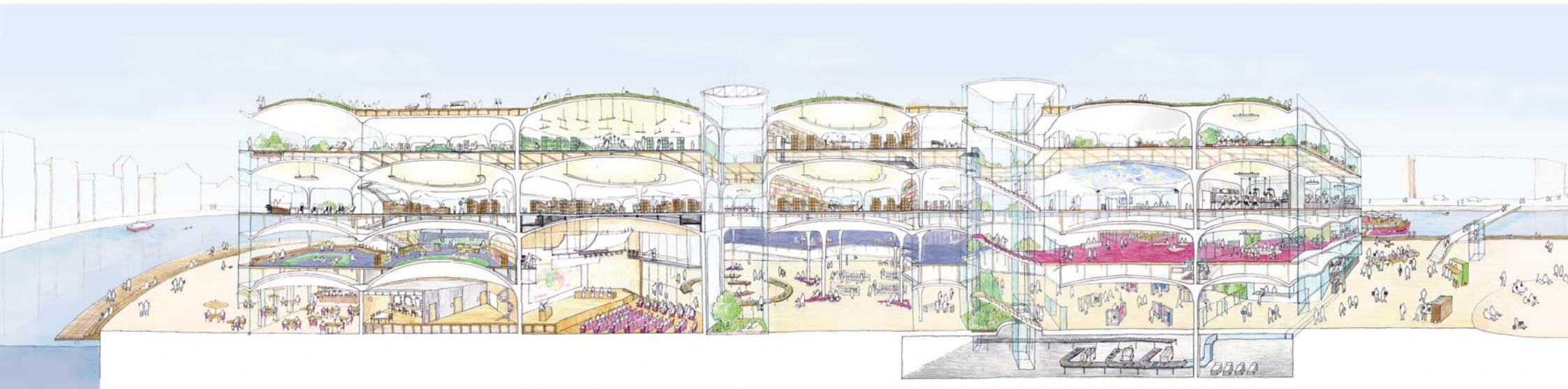
De diverse media worden georganiseerd in ‘media markten’ waardoor mensen vrij kunnen flaneren of doelbewust en gericht zoeken. De organisatie van de markten geeft aanleiding tot formele en informele uitwisseling, individuele en onafhankelijke focus en collectieve, open verhoudingen. De media markten ademen een sfeer van intellectuele en fysieke openheid en meeslepende activiteit.

### 3. The media market typology is based upon innovative and continuous structural units inspired by ‘classic’ architectural typologies.

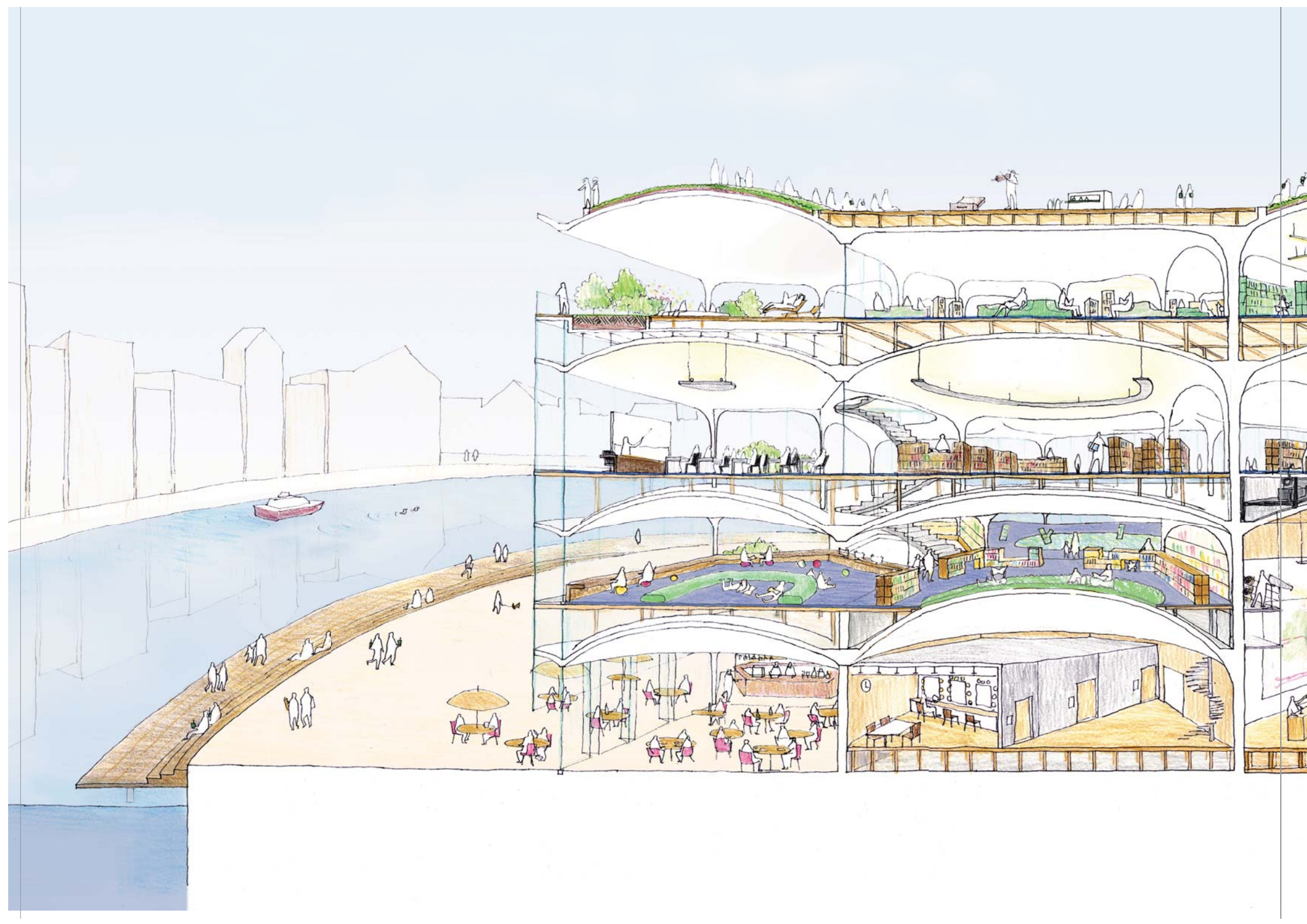
The spatial organisation and proximity of the circular/hexagonal market units emphasizes multiple relationships between neighbouring market activities and market offerings. The variation in unit dimensions supports alternative activity-fields. The covering of the market zones with domes creates a subtle and understated spatial autonomy of the units within the market conglomerate. This organisation is inspired on traditional market building typologies. In addition, the repetition of similar entities is the basis for rationalising and optimising building structure and construction process.

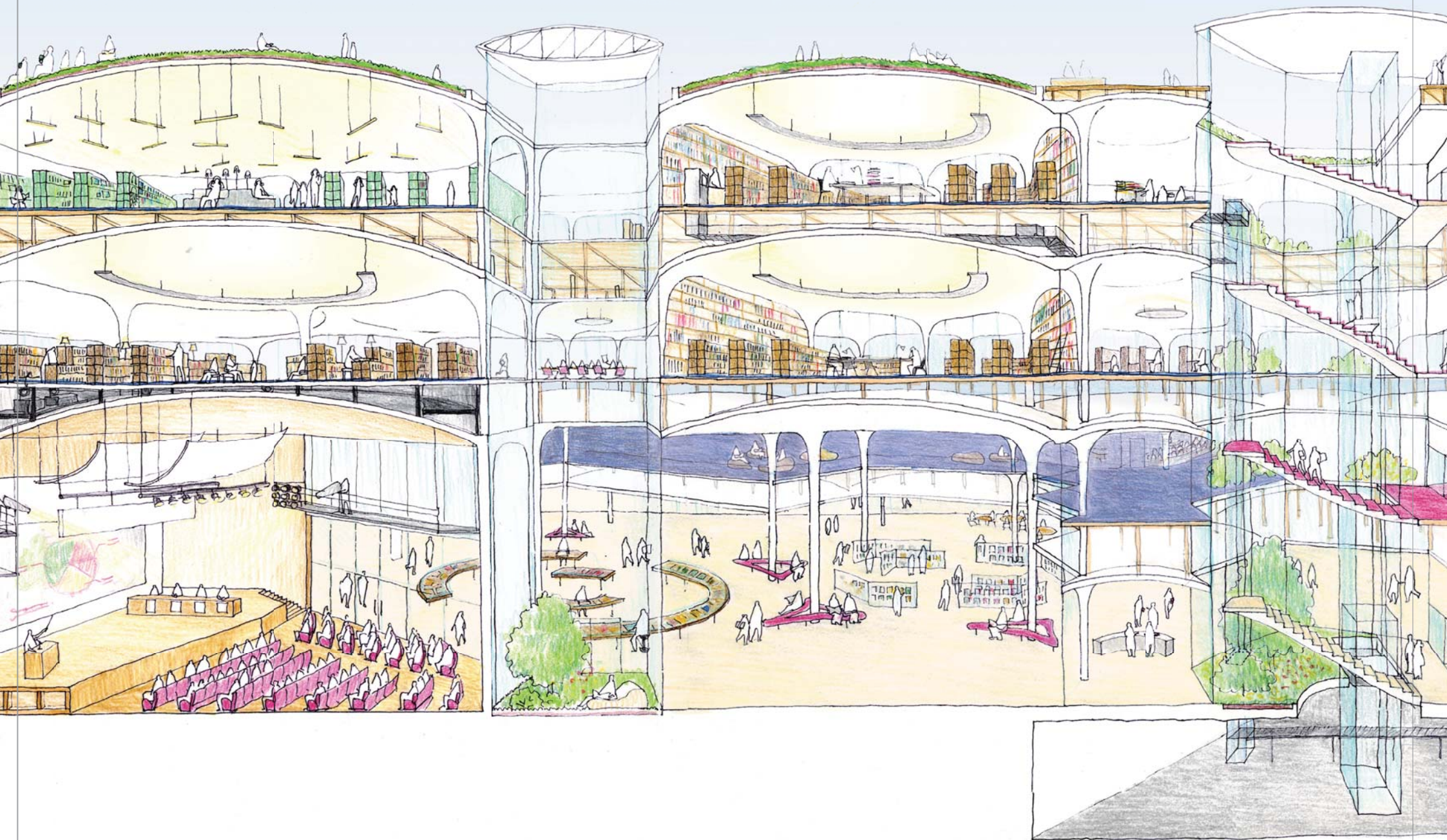
3. De typologie van de media markt is gebaseerd op innovatieve en repetitieve structurele elementen geïnspireerd door klassiek architecturale typologieën.

De ruimtelijke organisatie en nabijheid van de cirkelvormige markt units benadrukken de mogelijkheid van eenvoudige relaties tussen naburige marktactiviteiten en -aanbod. De maatvariëaties van de units vormen de basis voor de organisatie van alternatieve velden van activiteit. De overlapping van de marktzones met koepels creëert een subtiele ruimtelijke autonomie van de units binnen het conglomeraat van marktzones. Deze organisatie vindt zijn inspiratie in traditionele typologieën van overdekte markten. Bovendien is de repetitie van similaire entiteiten de basis voor de rationalisatie en optimalisatie van de structuur van het gebouw en het bouwproces.

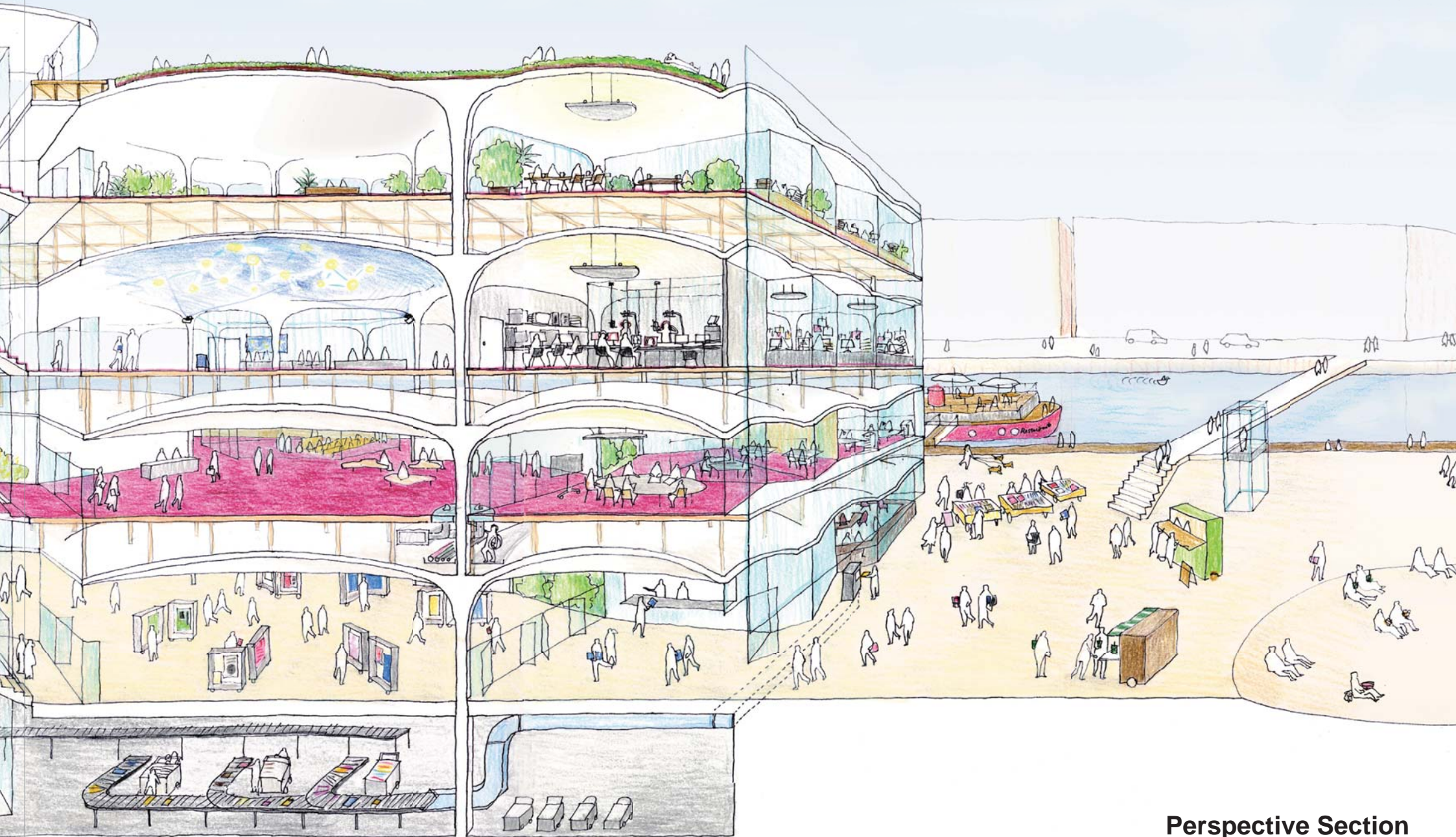


**Perspective Section**





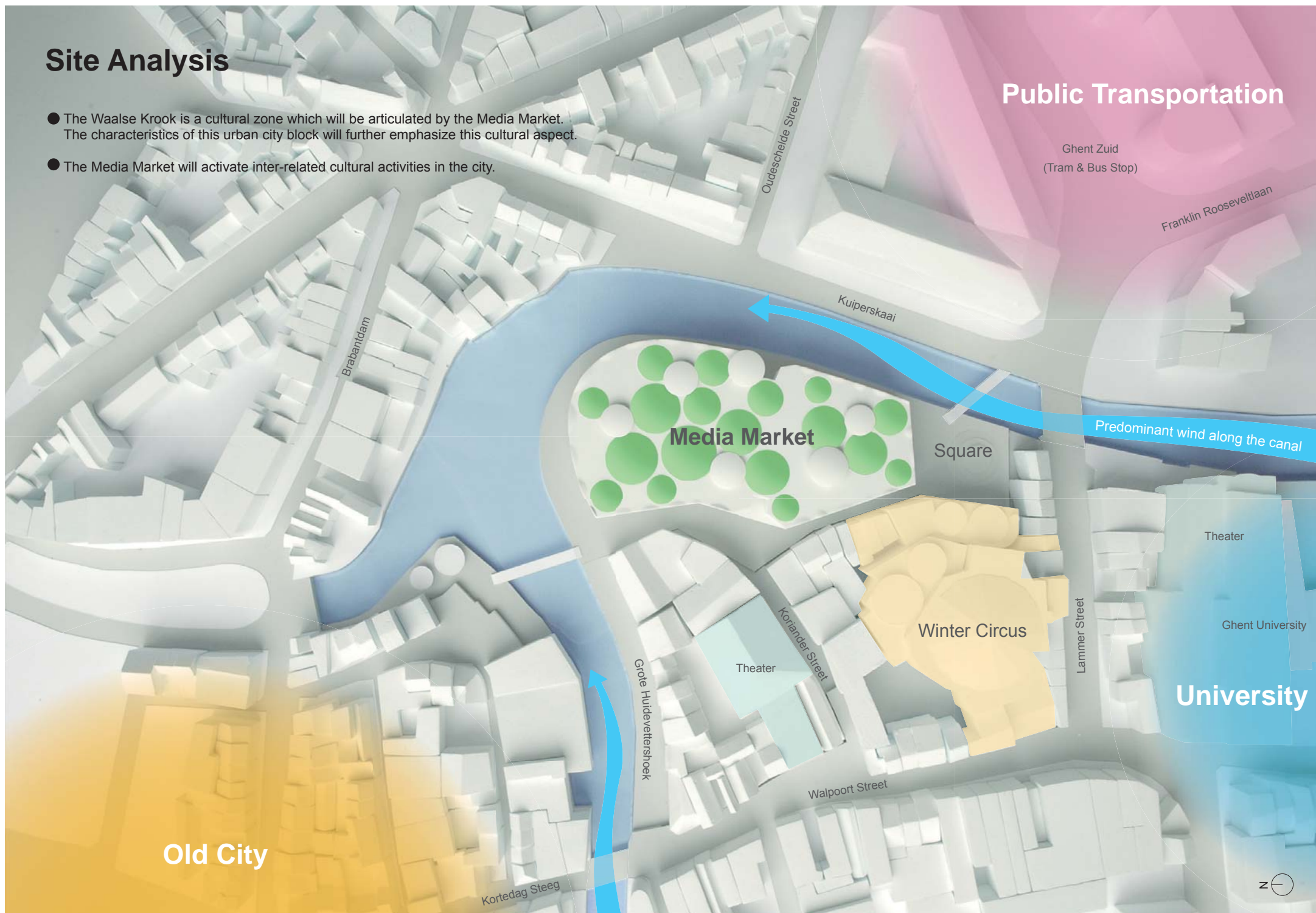




Perspective Section

# Site Analysis

- The Waalse Krook is a cultural zone which will be articulated by the Media Market. The characteristics of this urban city block will further emphasize this cultural aspect.
- The Media Market will activate inter-related cultural activities in the city.



## Public Transportation

Ghent Zuid  
(Tram & Bus Stop)

Media Market

Square

Winter Circus

University

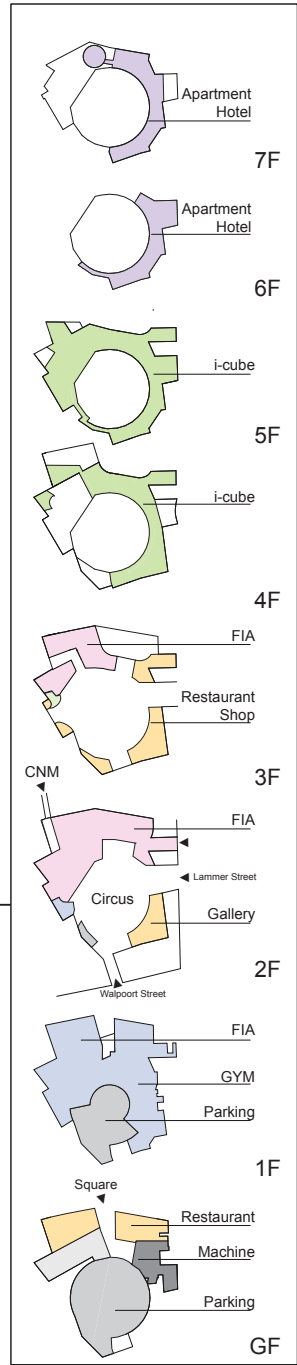
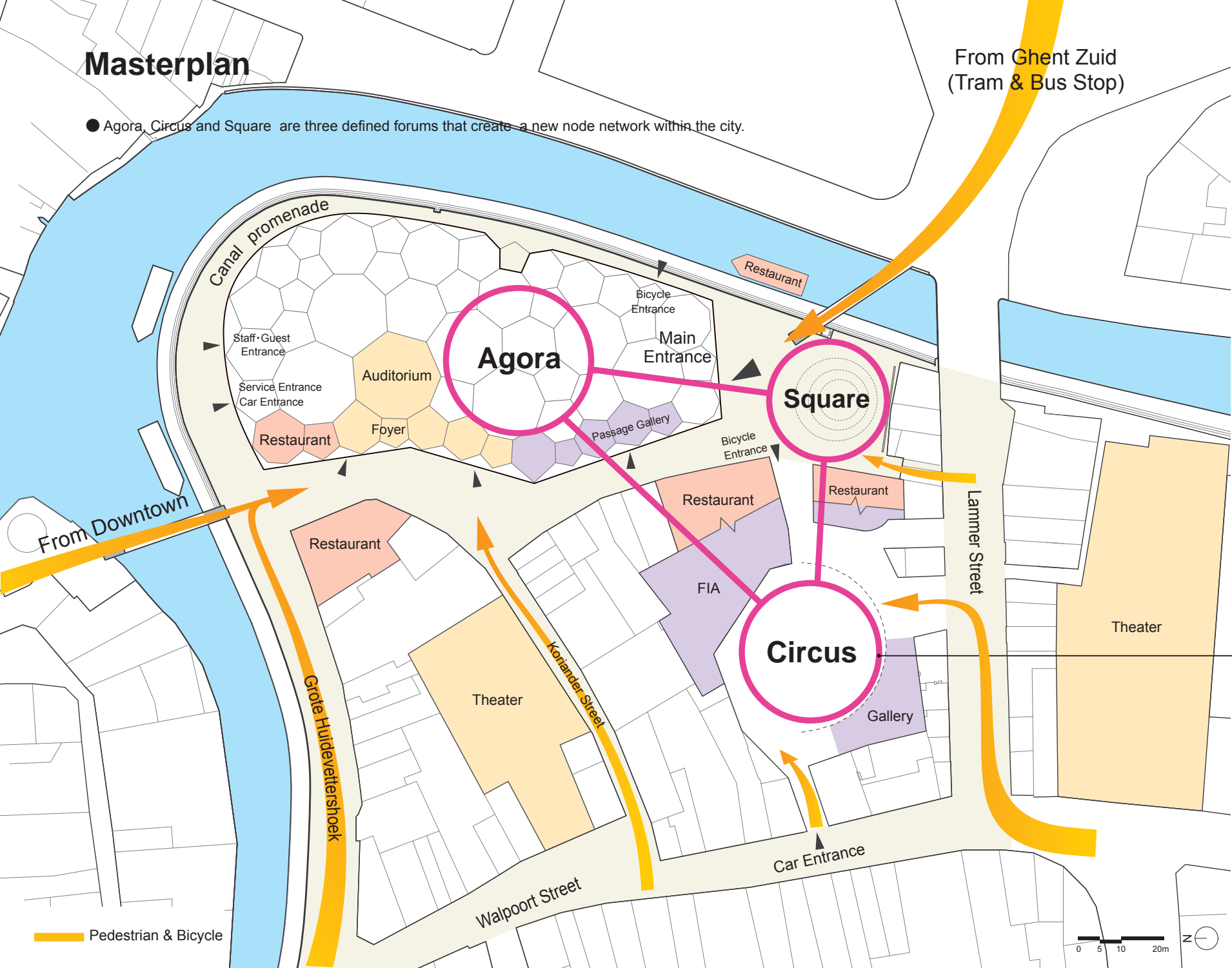
Old City

# Masterplan

● Agora, Circus and Square are three defined forums that create a new node network within the city.

From Ghent Zuid  
(Tram & Bus Stop)

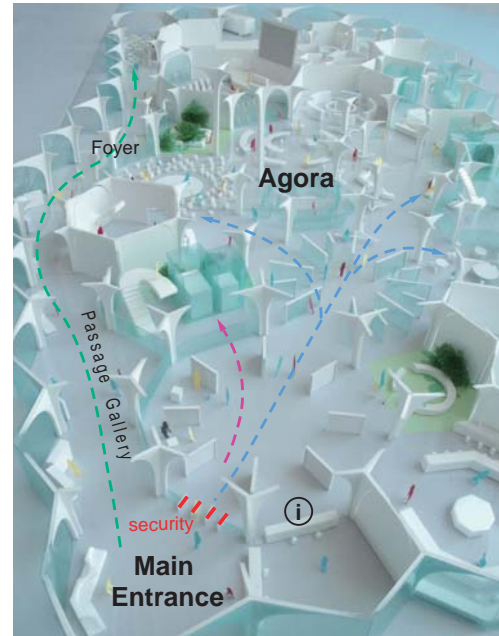
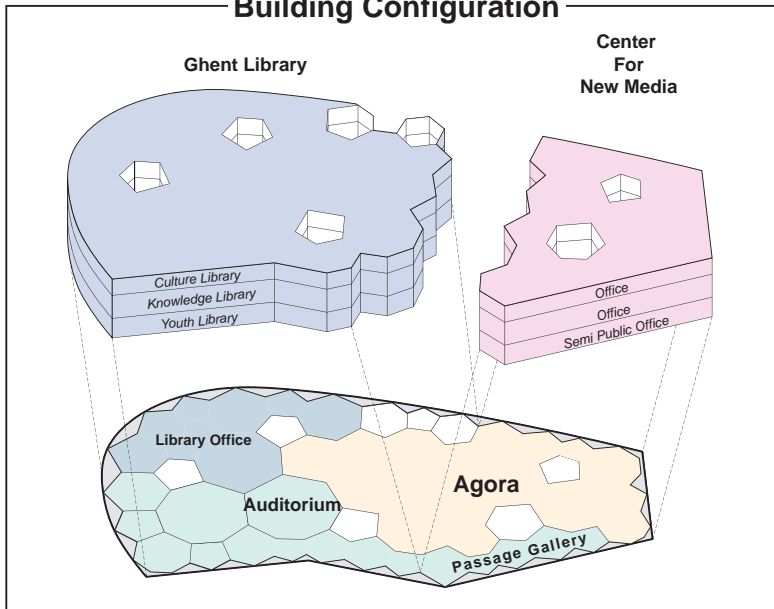
## Winter Circus



Yellow arrow: Pedestrian & Bicycle



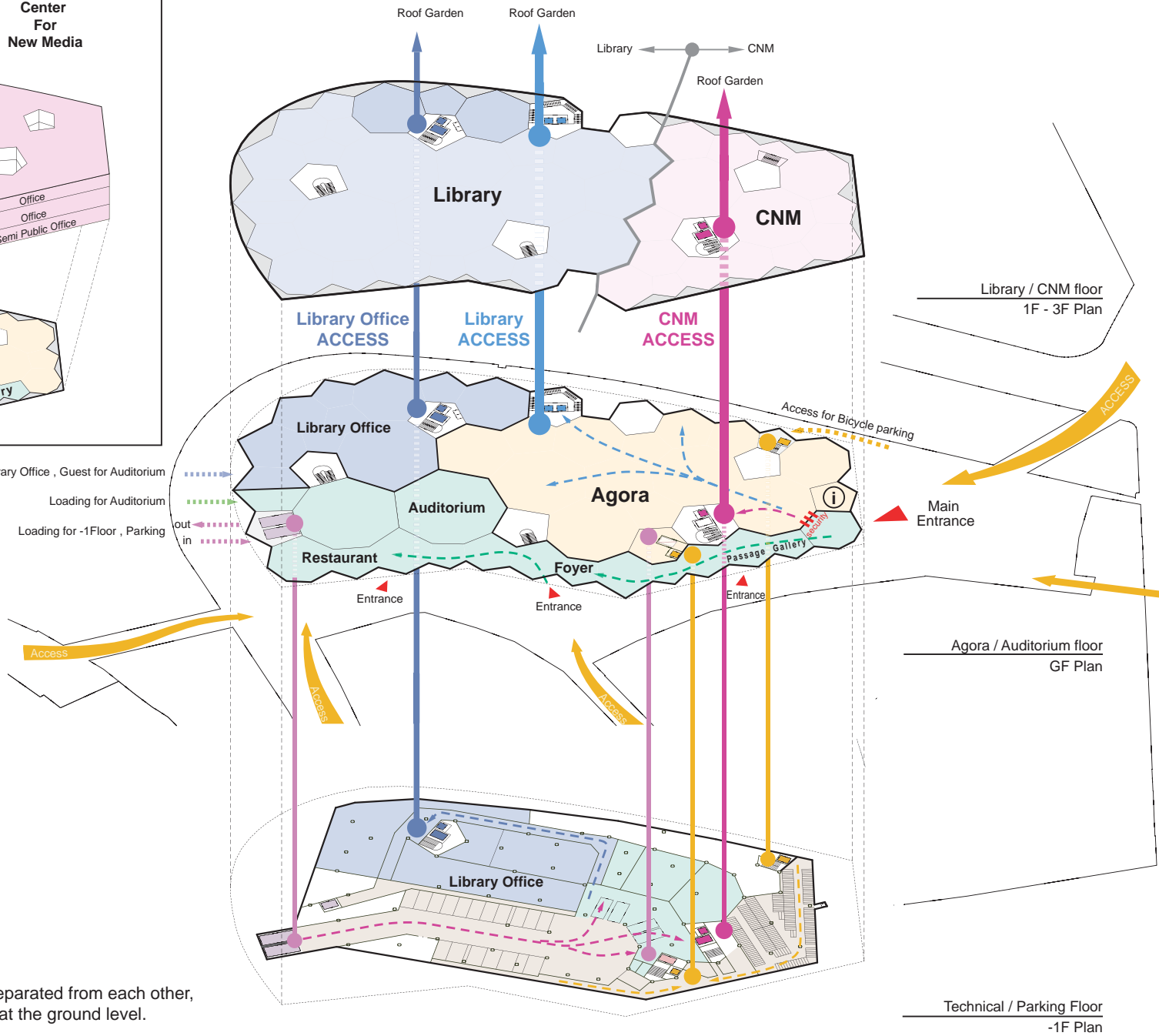
# Building Configuration



Entrance for Library Office, Guest for Auditorium

Loading for Auditorium

Loading for -1Floor, Parking



● Although the Library and Center for New Media are separated from each other, they share the same structural system and the agora at the ground level.

# Longitudinal Section

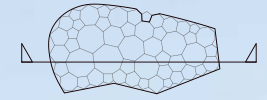
- Media Market is made up of a culmination of discrete units; arches and domes evoke a continuous body.
- Vertical voids (Tube) and horizontal voids (Vein) work together to form a serving network for people, equipment, light, air and green.



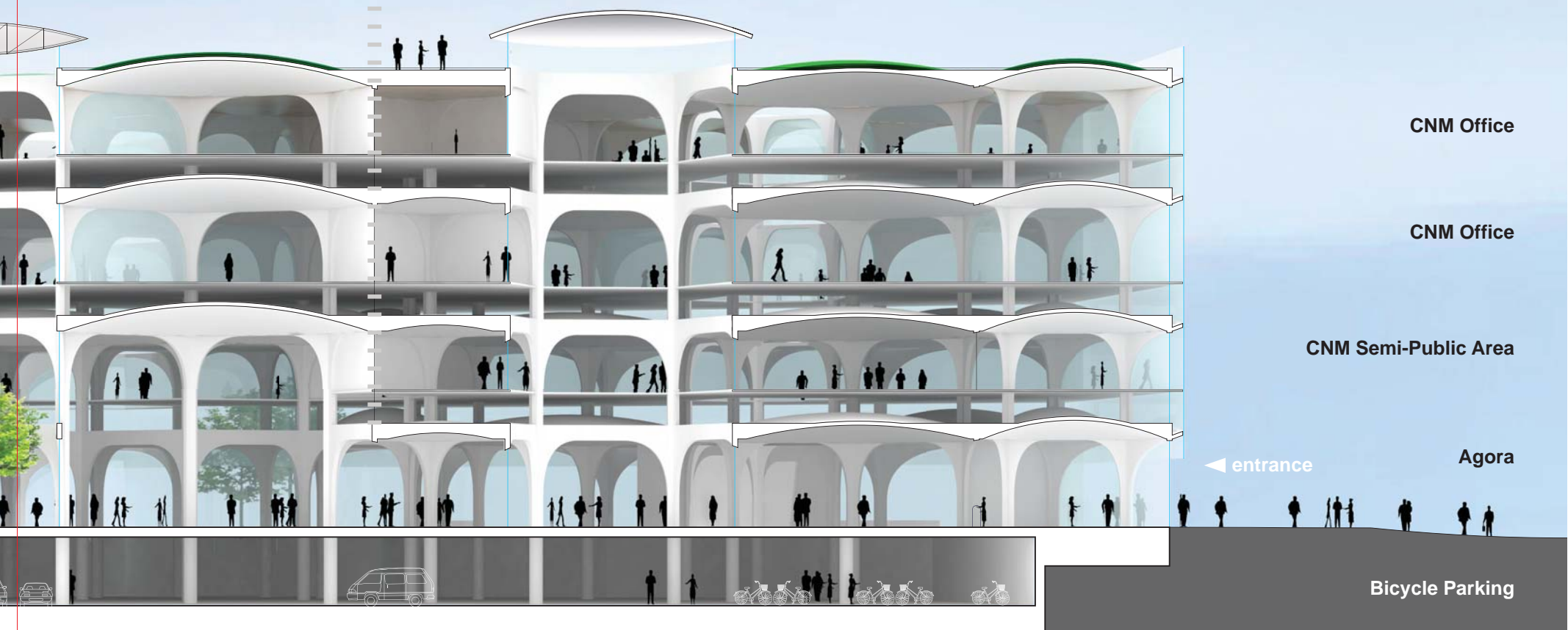
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Library ◀ ▶ CNM



CNM Office

CNM Office

CNM Semi-Public Area

◀ entrance

Agora

Bicycle Parking





**View from Agora (GF)**





**View from Event Forum (GF)**



View from reading room (2F)

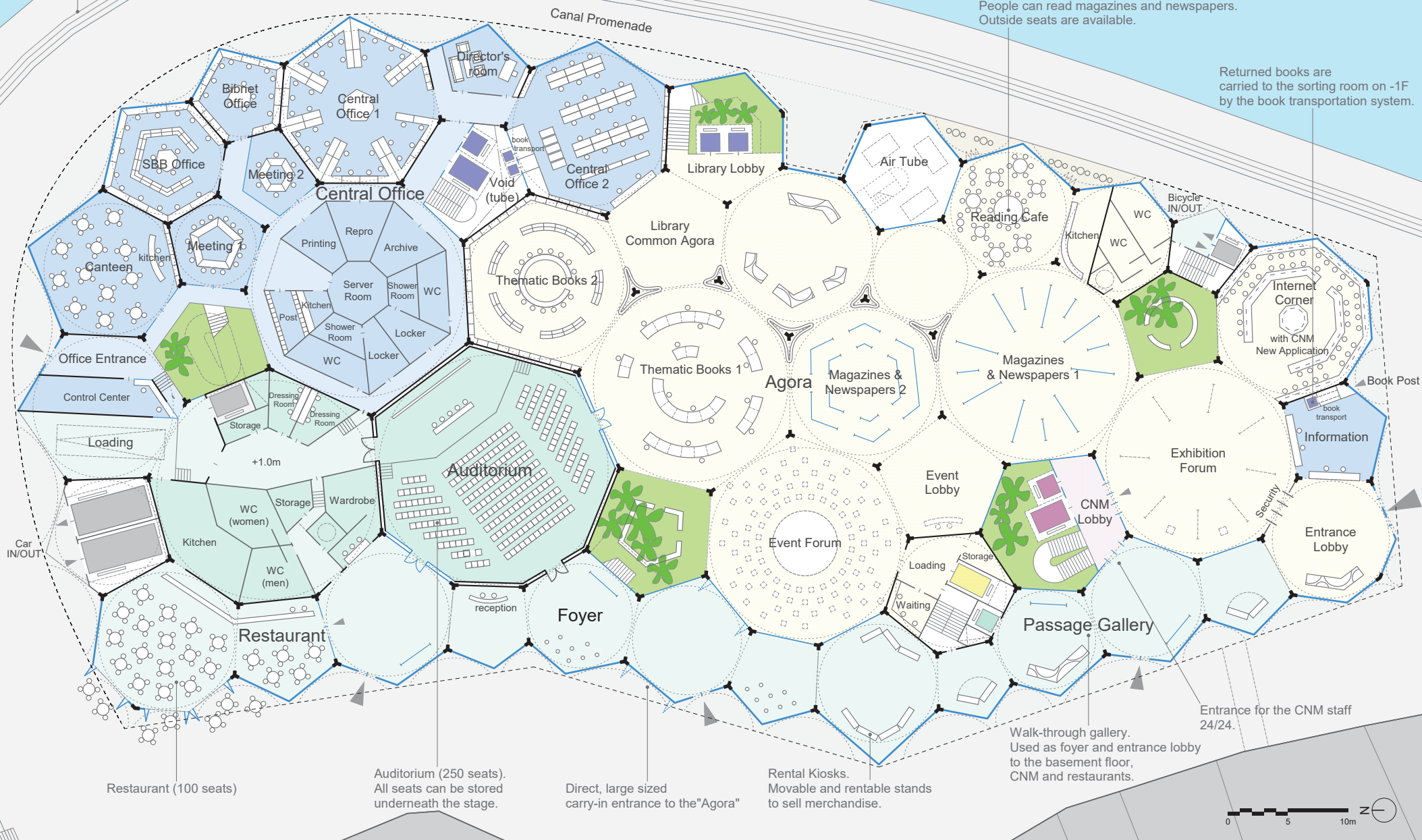
# AGORA + AUDITORIUM + RESTAURANT + CENTRAL OFFICE

Media Market maintains continuous relationships with the city, as an urban square.

New piers along the existing city block enhance the flow and activity of people.

Cafe (50 seats).  
People can read magazines and newspapers.  
Outside seats are available.

Returned books are carried to the sorting room on -1F by the book transportation system.



Restaurant (100 seats)

Auditorium (250 seats).  
All seats can be stored underneath the stage.

Direct, large sized carry-in entrance to the "Agora"

Rental Kiosks.  
Movable and rentable stands to sell merchandise.

Walk-through gallery.  
Used as foyer and entrance lobby to the basement floor, CNM and restaurants.

Entrance for the CNM staff 24/24.

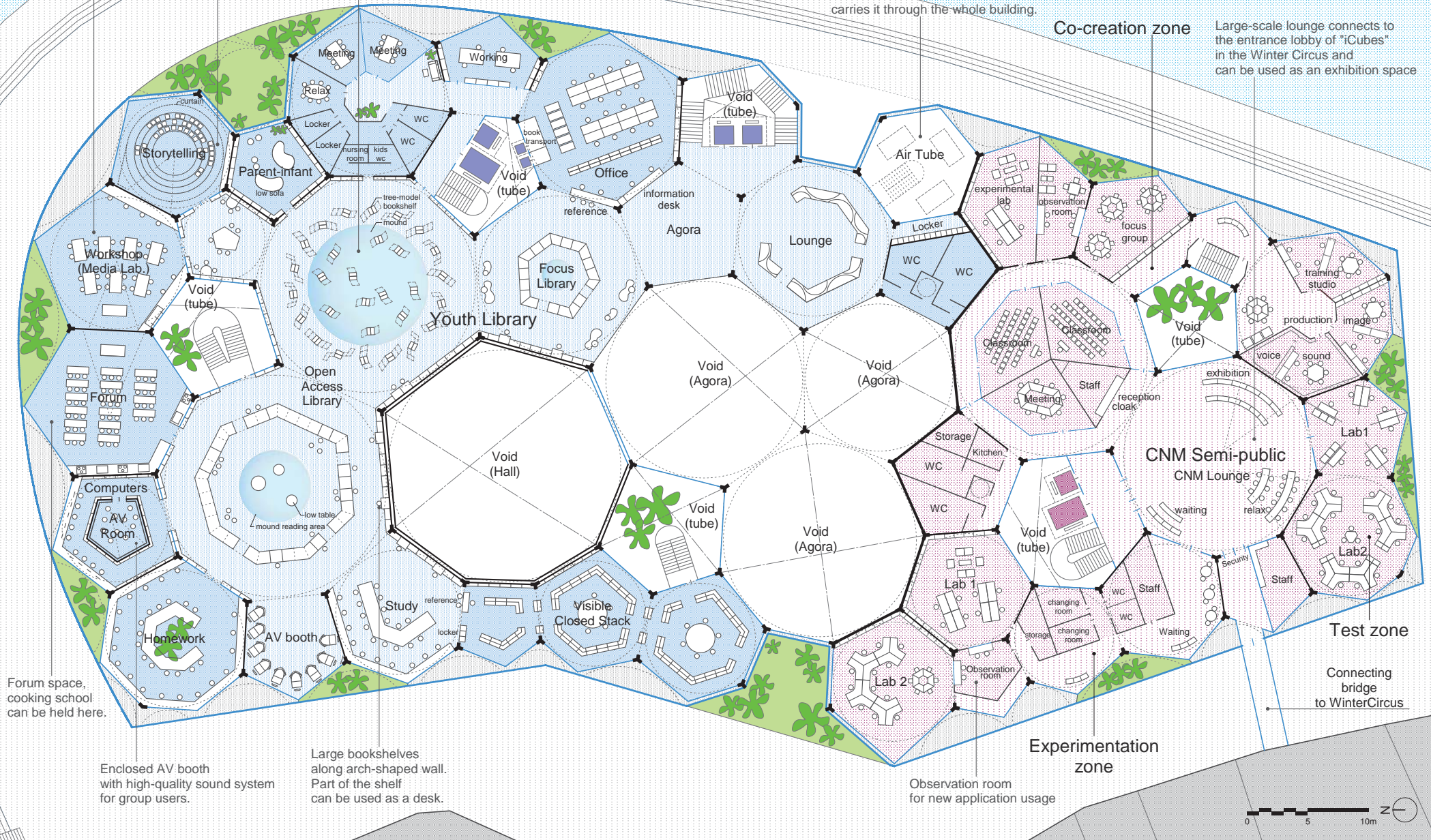
# YOUTH LIBRARY + CNM SEMI-PUBLIC

Media Market embodies a continuum of unit spaces.

Workshop space, equipped with a variety of tools.  
 Concave shape with steps: storytelling corner.  
 Dome-shaped mound over the floor.

Air Tube breathes fresh air over the canal and carries it through the whole building.

Co-creation zone  
 Large-scale lounge connects to the entrance lobby of "iCubes" in the Winter Circus and can be used as an exhibition space

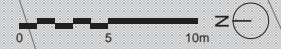


Forum space, cooking school can be held here.

Enclosed AV booth with high-quality sound system for group users.

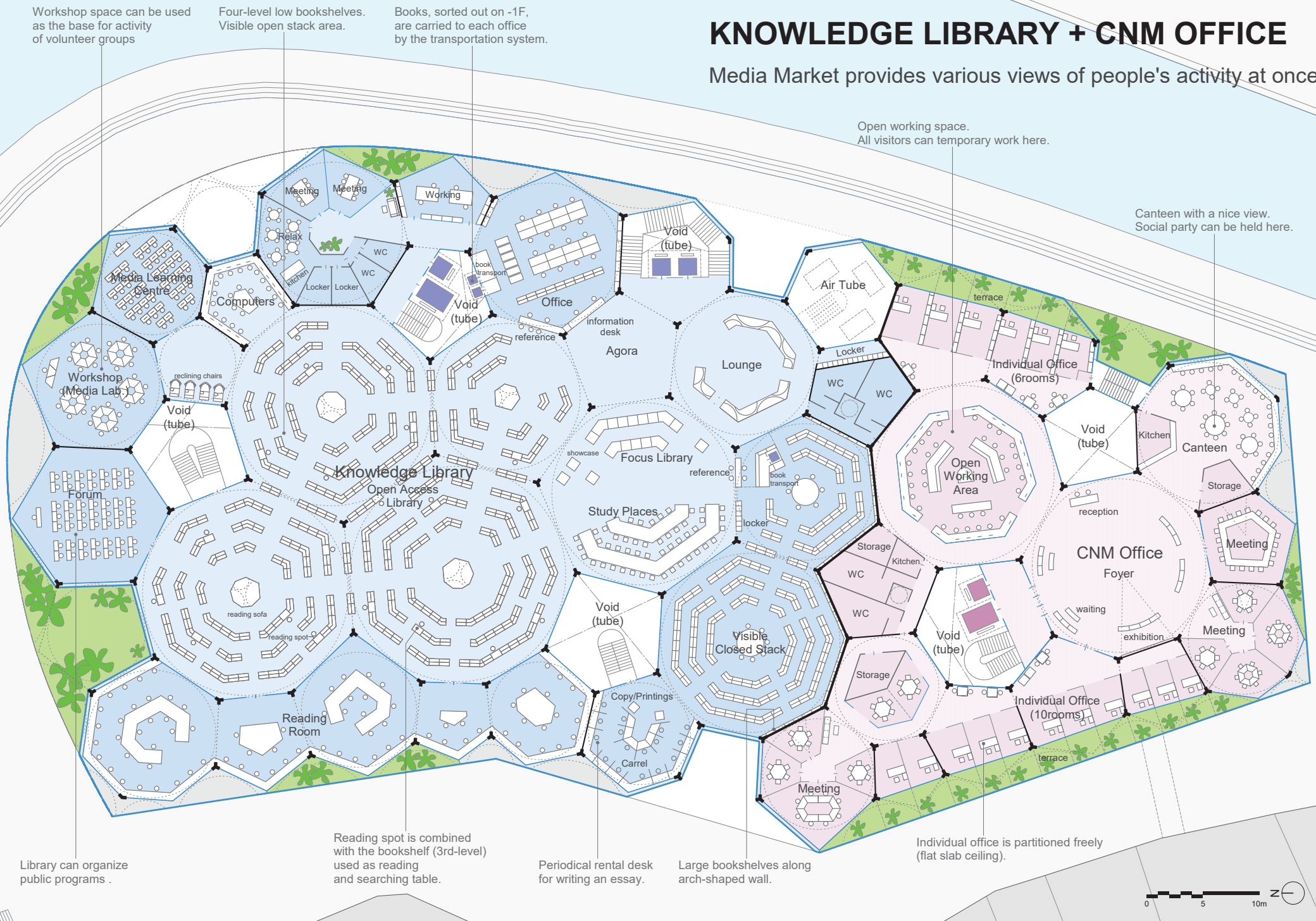
Large bookshelves along arch-shaped wall. Part of the shelf can be used as a desk.

Observation room for new application usage



# KNOWLEDGE LIBRARY + CNM OFFICE

Media Market provides various views of people's activity at once.



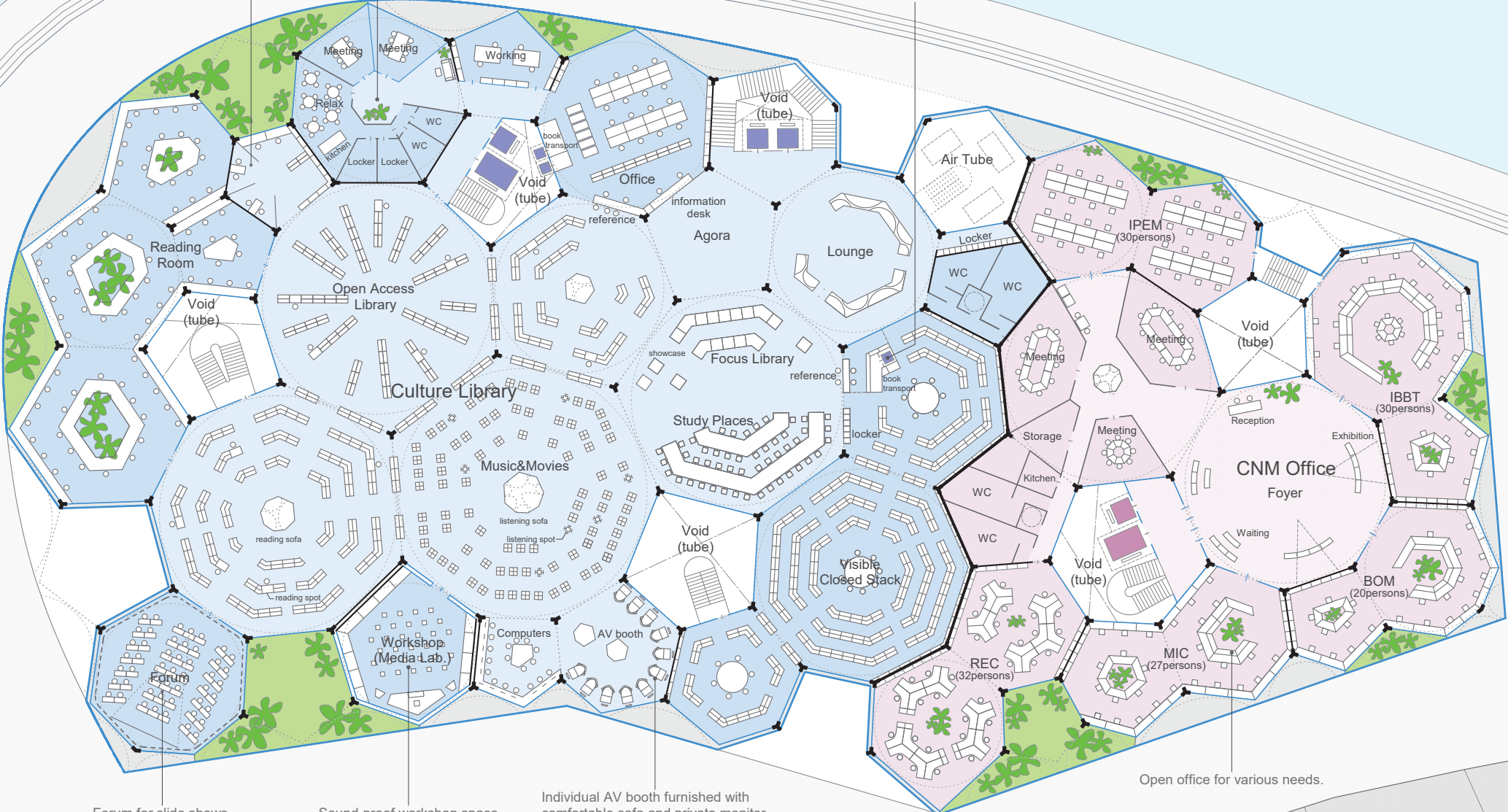
# CULTURE LIBRARY + CNM OFFICE

Media Market interconnects with various activities.

Space for the visually impaired.  
Audio books and story-telling  
take place in this room.

Sufficient staff room is  
provided at the each floor.

Books, sorted out on -1F,  
are transported to each floor  
and delivered to the closed stack shelves.

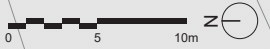


Forum for slide shows  
and lectures.

Sound-proof workshop space  
for playing music.

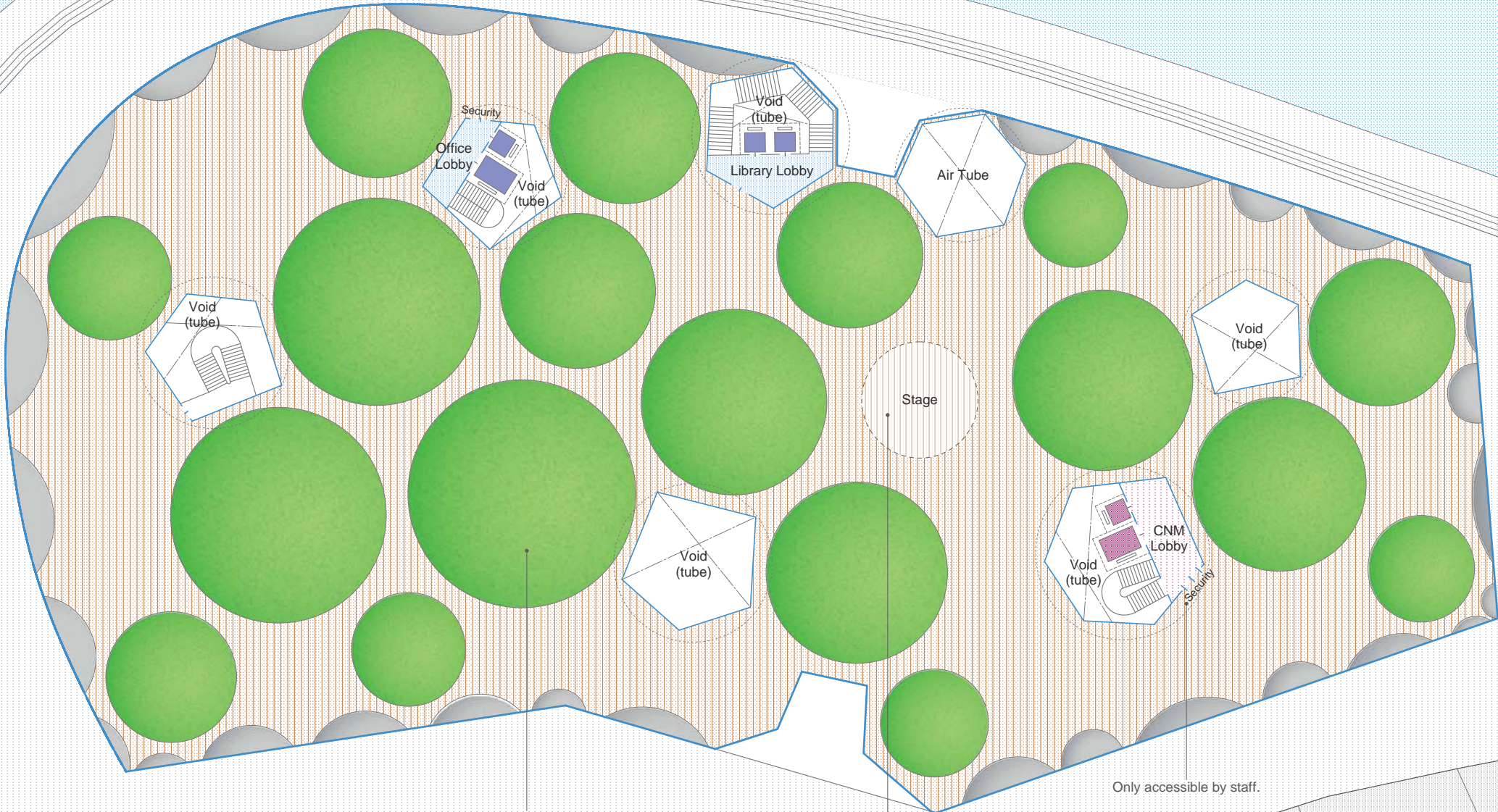
Individual AV booth furnished with  
comfortable sofa and private monitor.  
It gives a sense of luxury.

Open office for various needs.



# ROOF GARDEN

Media Market represents an accumulation of squares, open to the city.



Overlooking the canal, relaxing on the green mound, and reading books here.

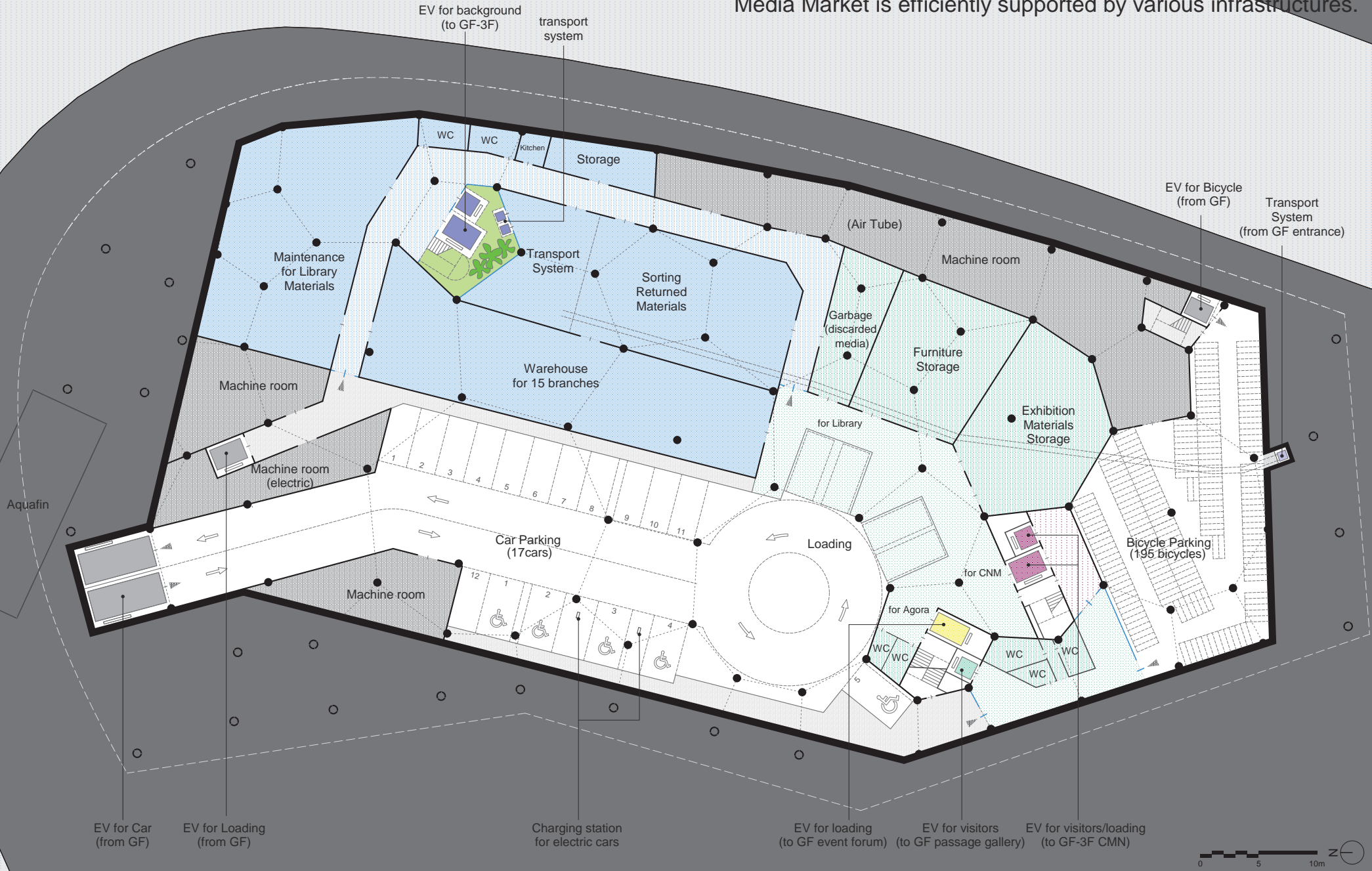
On the mound, events can be performed to the audience.

Only accessible by staff.



# TECHNICAL AREA + LOADING + PARKING

Media Market is efficiently supported by various infrastructures.





# East Elevation



# East Elevation



▲ Square

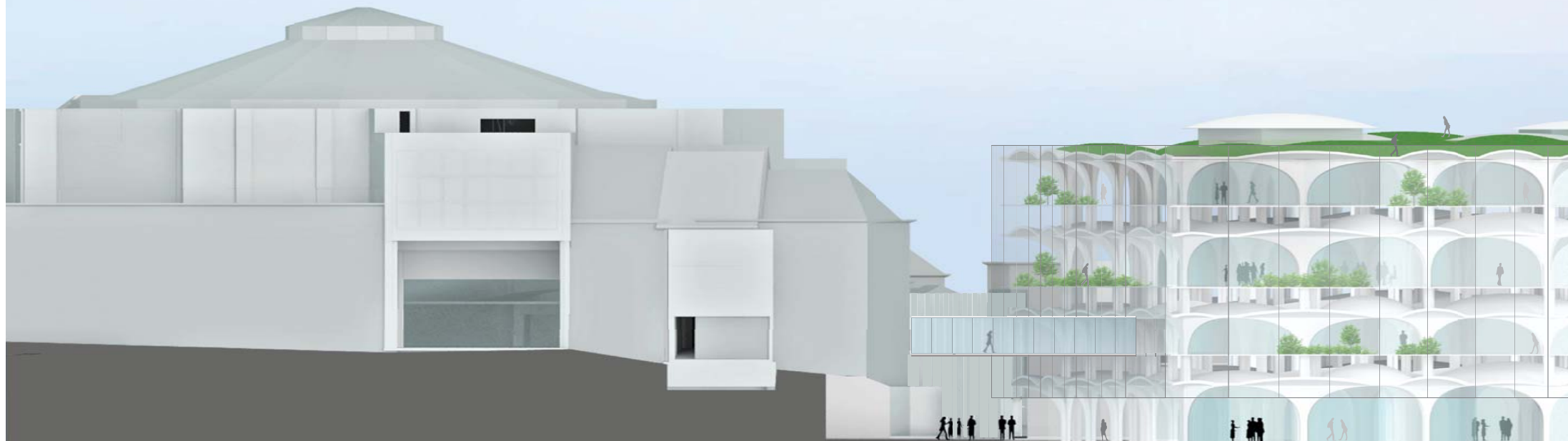
▲ WAALSE KROOK



# South Elevation



# South Elevation



▲ Winter Circus  
Entrance

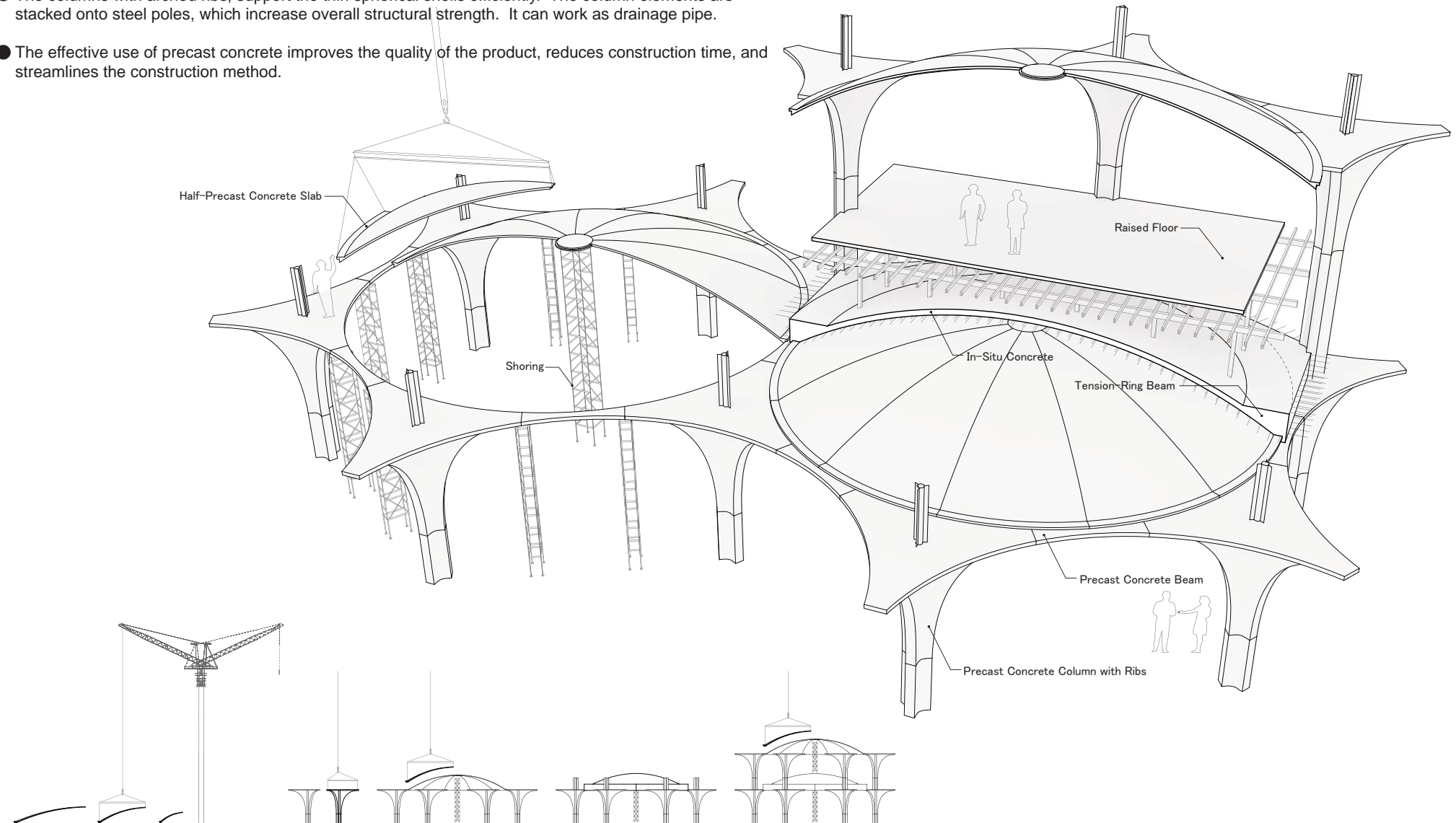
▲ Main Entrance



South Elevation | S=1:300 | Page 13

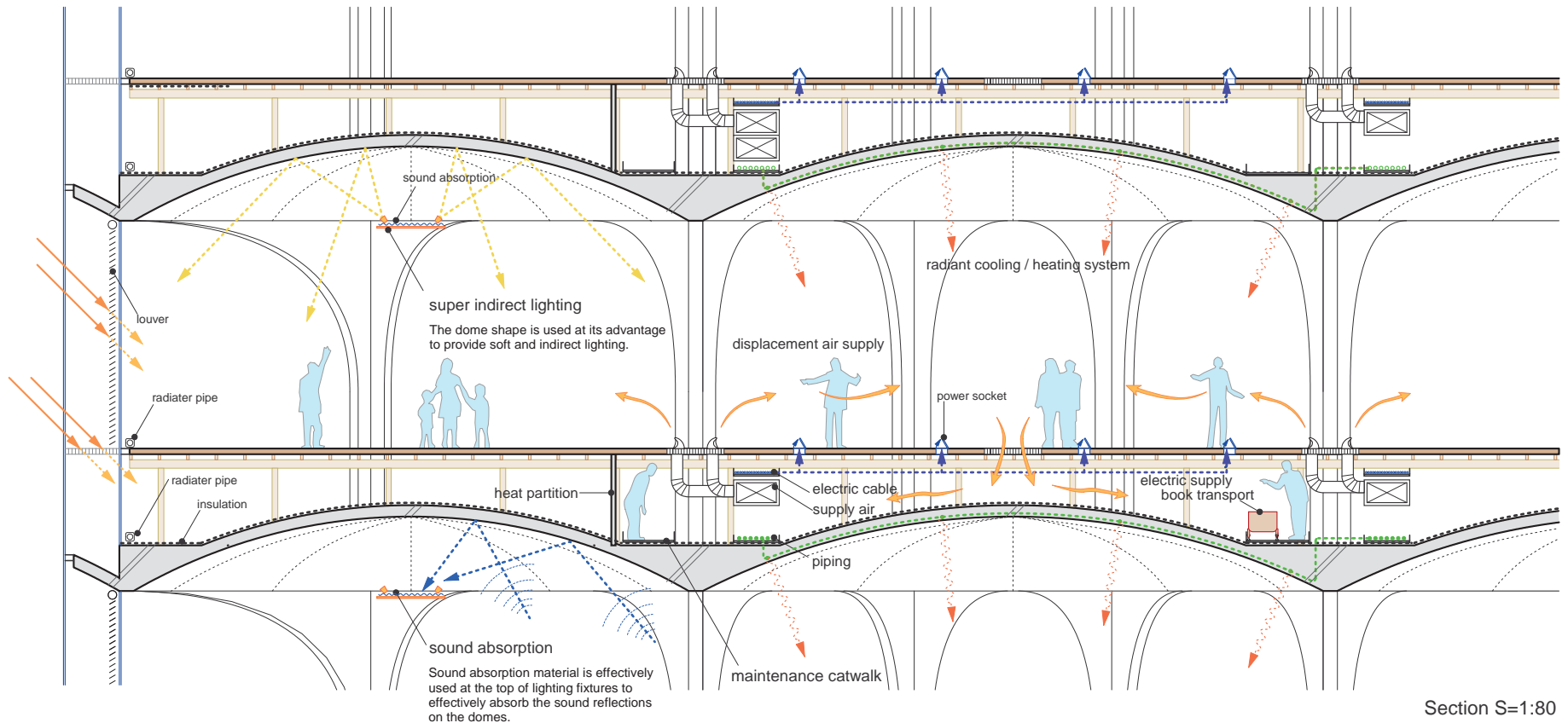
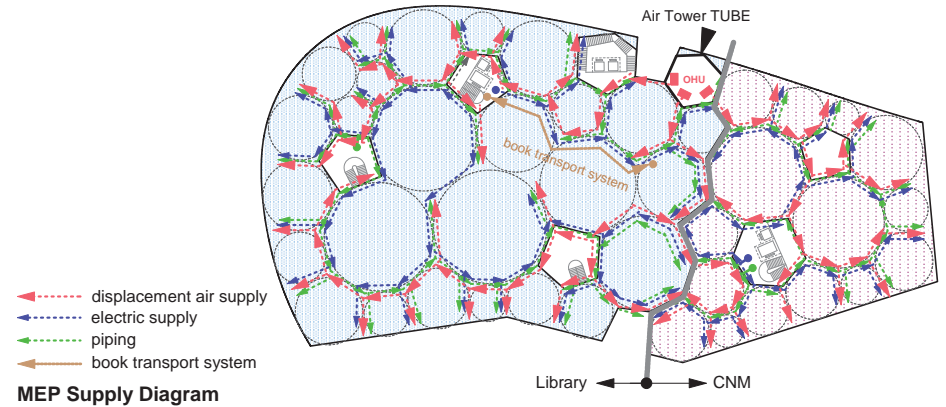
# Innovative Structural Unit System

- We propose using classical structural elements innovatively in combination with arches and spherical shells of reinforced concrete and raised floor.
- Through the use of spherical shells, which efficiently resist axial forces, the building achieves long-span slab by means of a light weight structure.
- The columns with arched ribs, support the thin spherical shells efficiently. The column elements are stacked onto steel poles, which increase overall structural strength. It can work as drainage pipe.
- The effective use of precast concrete improves the quality of the product, reduces construction time, and streamlines the construction method.



# Hyper Infrastructural Veins

- The space in-between the finished floor slab and spherical shell is more than just a raised floor. It provides a living space with: air-conditioning, information network system, electricity, hot and cold water, a book transport system. The infrastructural veins provide high efficiency and easy maintenance.
- In order to supply the interior environment with a comfortable climate, 60 to 70 percent of the HVAC system uses a radiant heating and cooling system. The remaining 30 to 40 percent uses a displacement air-conditioning system, that releases fresh air at slow speed.
- Various energy supply ducts, cables and pipings are placed along the maintenance route, at the valley of the spherical shell. This placement allows a greater duct dimension to serve the entire building.





# Seven Tubes for People, Equipment, Light, Green and Air

Tubes are formed with void layers of cells to create vertical shafts.

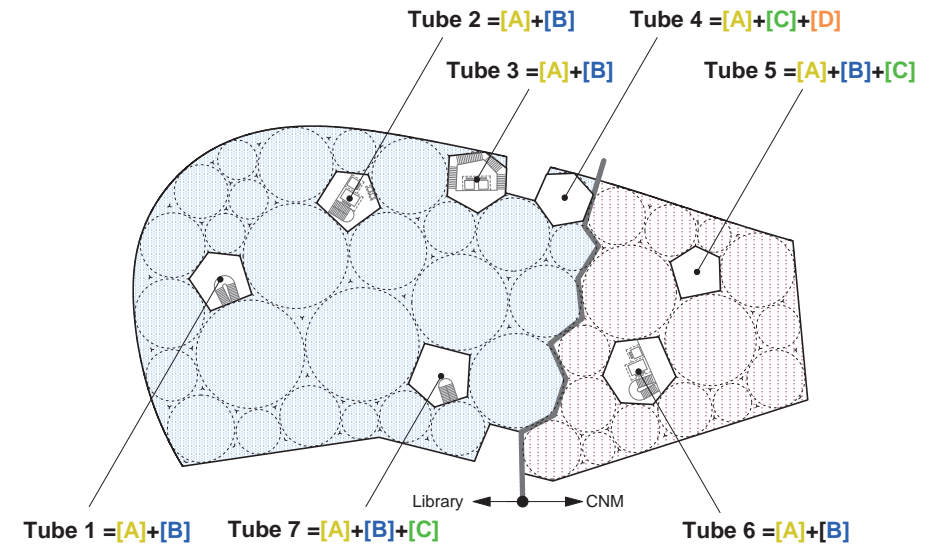
Natural light propagates on the inside of tube type **[A]** also allowing greenery on different floor levels.

Tube type **[B]** allows vertical transport for stairs, elevators and book delivery system. This tube type moves people and equipment between the different floor levels.

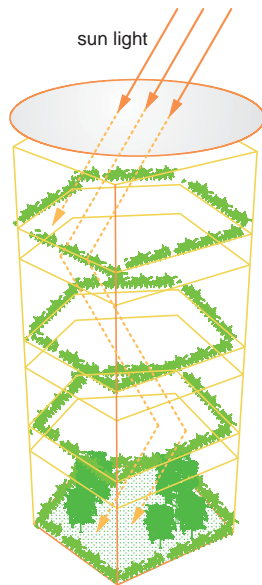
Tube type **[C]** extracts air from inside the rooms and discharges vertically. The fin situated at the top of the tube will release the excess air using an induction effect, natural wind forces, and chimney effect.

Tube type **[D]** is used for conditioning air between layers by means of installations. These installations are placed within the raised floors and in the machine room below ground level. This tube type will supply conditioned air and collect dusty air.

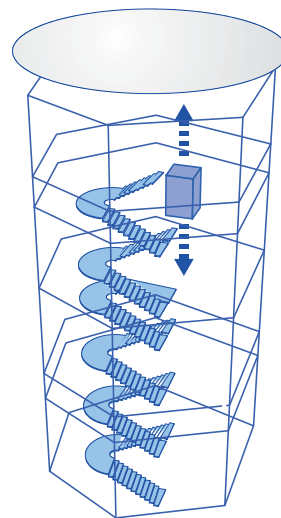
There are four types of features that can be combined with the above specifications. On the floor-plan of the Library and CNM, there is a total of seven vertical tube shafts.



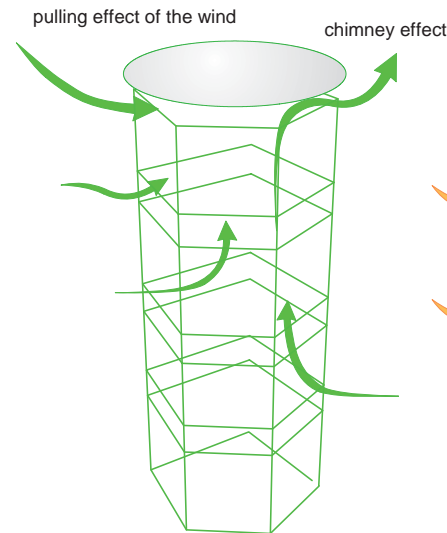
## Tube Type Diagram



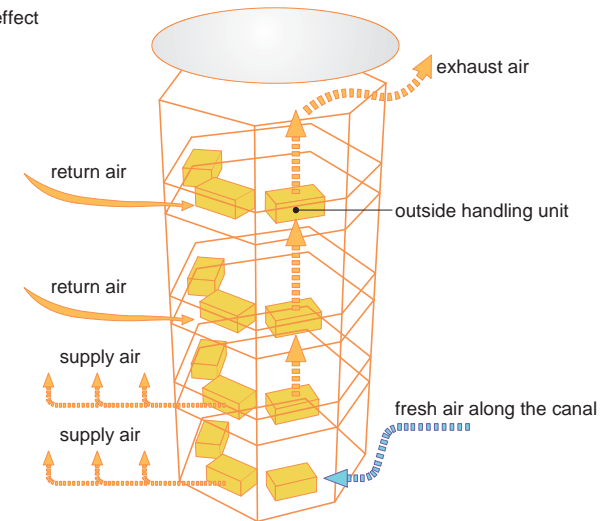
**[A]** Light / Green



**[B]** Elevators / Stairs



**[C]** Exhaust Air



**[D]** Air Tube

# Library Furniture Image 1



Reading Spot  
2F.3F Open Access Library



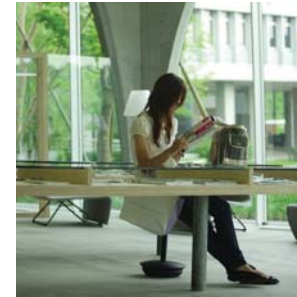
Window Seat  
2F.3F Reading Room



Long Sofa  
All Lounge



Book Gallery  
All Focus Library



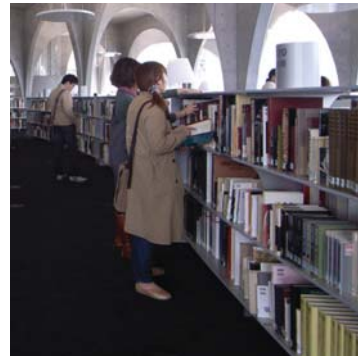
Book Table  
1F Thematic Books 1



Media Seat  
3F AV Booth



Study Table  
All Study Space



Low Bookshelf  
2F.3F Open Access Library



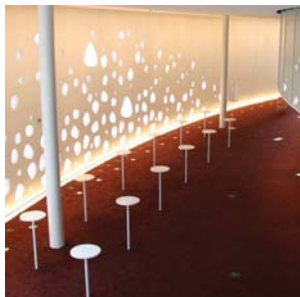
Lounge Sofa  
All Lounge



Media Bar  
GF Internet Corner



2F.3F Open Access Gallery



Foyer Stool  
GF Foyer



Magic Carpet



Magazine Shelf  
GF Magazine&Newspapers



Reading Bench

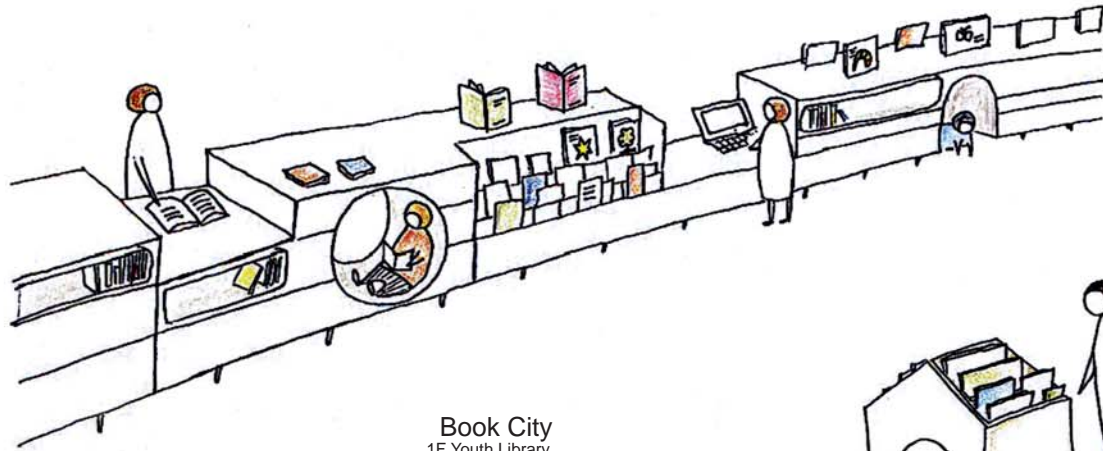


GF Reading Cafe



Big Table

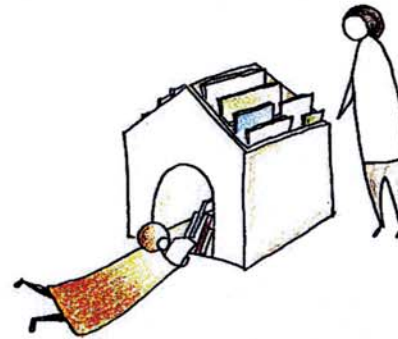
# Library Furniture Image 2



Book City  
1F Youth Library



Listening Sofa  
3F Music&Movies



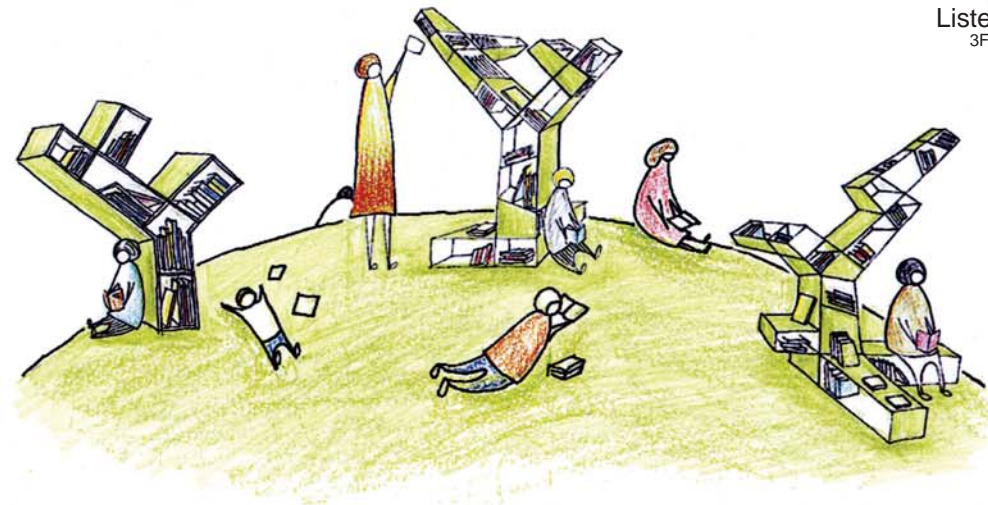
Book House  
1F Youth Library



Listening Spot  
3F Music&Movies



Movable Kiosk  
GF Passage Gallery



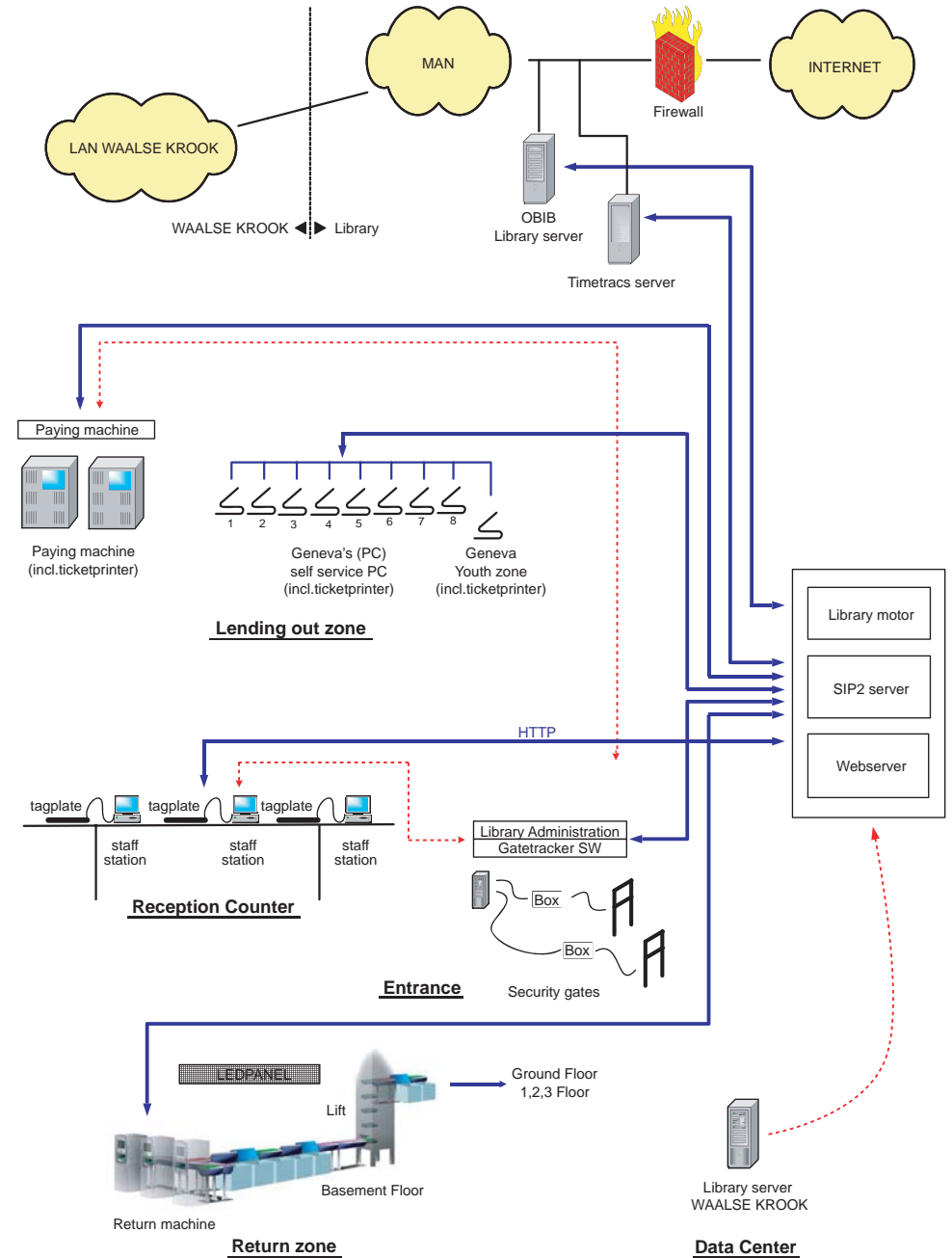
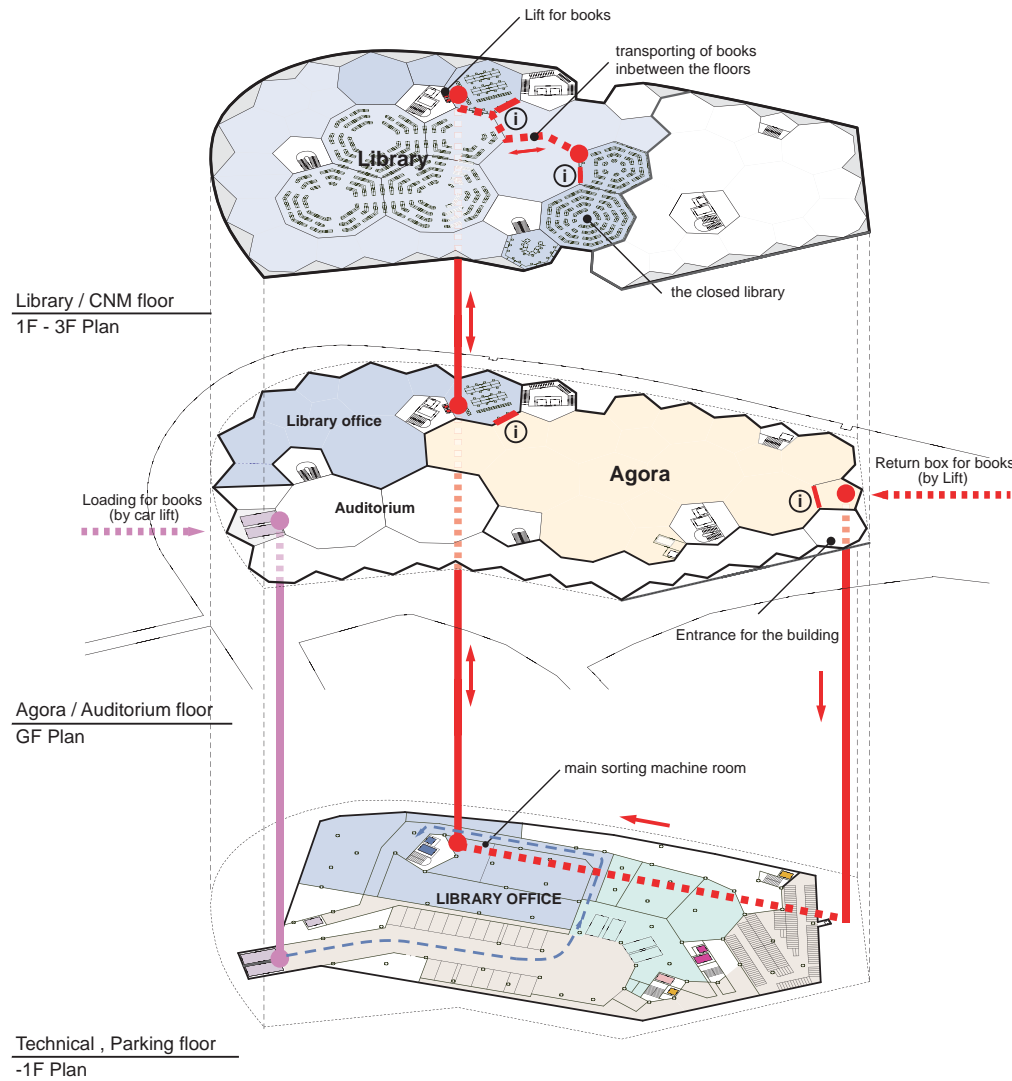
Reading Mound  
1F Youth Library



**Various activities of the agora with Furniture**

# Book Transport & Management System

Z/R - system WAALSE KROOK



# Structure, Environmental and MEP Planning

## Structure System

### Basic Concept :

The building consists of varied sized circular modules (about 8-19meter diameter), which are connected together horizontally and vertically. By making a spherical shell slab, the structural framework (body) achieves both a lightweight and considerable span. Moreover, precast component parts are advantageous in the construction process as they provide an improved quality of finish and a reduced construction period. Being more carefully built, precast components also provide slimmer structural dimensions.

### (1) Structure above the ground

The Superstructure (structure above the ground) is made by reinforced-concrete. The overall structure consists of four layers of spherical shell units supported by columns with ribs. The spherical shell-slab has a thickness of 220mm (half precast plate 60mm + site cast concrete 160mm). Since spherical shells have an ideal section shape to resist axis force, they accomplish a big span equivalent to that of a flat slab just in their bending moment. The largest spherical shell size is 19m-diameter, 2m-rise, and 48m-radius curvature. There is sufficient space in between the finished floor and the spherical shells for technical equipment. The spherical shell causes thrust which does not occur in a flat slab. However by applying a tension ring beam, the spherical shell achieves both rigidity with no stress. In cross section, each column has three ribs, and is equipped with steel pipe inside ( $\varphi 150$ ). Within these steel pipes, a downspout (downpipes) can be installed to dispose of rain water. By attaching ribs along three-pronged from the center of each columns, arches are created in between the columns. Consequently, the spherical shell-slabs are supported by a relatively small number of components.

### (2) Columns in the basement

Columns in the basement (rounded reinforced-concrete columns  $<\varphi 700>$ ) are placed on the corresponding grid location as the above superstructure and spans for a maximum length of 10m. The slab has a thickness of 450mm on the first floor, and is made out of flat reinforced concrete. The foundations are placed at -10m, where a secure stronghold exists. A double layer foundation will be built on top of the stronghold soil. The soil will be ameliorated to provide a strong supportive layer.

### (3) The Spherical shell-slabs and columns with ribs

The Spherical shell-slabs, columns, and ribs are precast components that achieve improved quality and reduced construction period. By applying a method of half-precast for the spherical shell-slab, on-site moulds of concrete are not necessary thus reducing the number of construction workers. The curvature radius of spherical shell have been reduced to three different spans (Large:48m, Medium:24m, Short:10m) to minimize the number of half-precast component panels. The shape of columns and ribs have also been optimized to only 3 patterns which are controlled by geometrical rules to simplify the production of precast components. Since a grey water down-pipe can be installed within the central steel pipes, an assembly piece will be used to maintain quality control.

## Environmental and MEP Planning

### Policy: Comfort Environment to Occupants and Saving CO2 at the same time

#### (1) Load Reduction by Skin System

##### a) Skin with high heat resistance

Concerning the requirement of thermal insulation in the winter period, the building installs double skin structure system (inside skin is insulated glass), and heat partition inside raised floors creates insulated division. Within the zone of double skin system, it also has a louver system to cut the solar radiation for the summer time. Overall K-level by using system is assumed less than K26.

##### b) Concrete Structure with thermal capacity

Building's heating system is based on radiant air conditioning system to heat concrete structure. Thermal capacity of concrete structure prevent temperature drop of building structure so that interior keeps average temperature to make a comfortable space even in the winter time. Consequently, consumption of energy result of preheat condition is minimized, and heat loss is reduced.

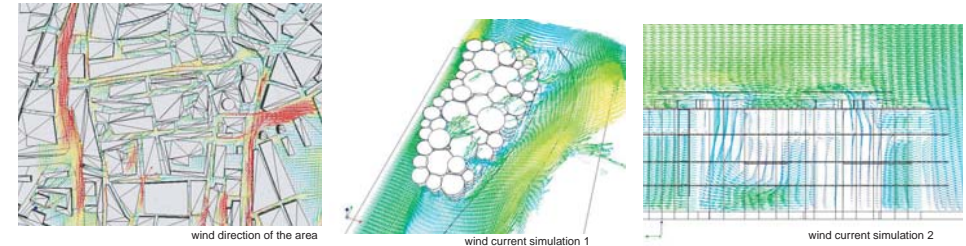
#### (2) Use of constant breeze from canal for natural ventilation

##### a) Wind environment of circumference

By analyzing an annual wind direction, we simulated the wind circumstance at site in relation to canal location, existing buildings and open spaces. Wind direction is from South to West and wind circumstance flows along the canal up until 30m. At the west side of site, wind circumstance is influenced by winter circus and other buildings and the flow of wind is formed along the new proposal exterior lines. Based on this basic wind study, we propose natural ventilation system by enhancing existing air circumstance around the site.

##### b) Plan for the natural ventilations

Summer and middle season, the building take wind along the canal into inside by passing operable exterior skin and ventilate out from four tubes that locates within the building.. On the top of tube, dorm-like roof is placed to accelerate natural ventilation from tube. Moreover, natural ventilation operates in the night time to circulate air from ceiling space and interior to tube. Thus, concrete structure and interior space are cool down and reduce the cost of air conditioning during the day time.



#### (3) Indoor facility system for pleasant use

##### a) Cooling and Heating Radiant System

By applying coil (can be bridged polyethylene pipe for semi-permanent use) within the concrete ceiling structure, the building operates air conditioning by radiant system. The building create pleasant thermal environment for users by keeping surface temperature calm. We set this type of air conditioning covers about 70% of operation. As mentioned before, the high heat capacity of concrete enables temperature change moderately.

##### b) Displacement Air-conditioning system

By using displacement air-conditioning system, the building supply fresh air from outside. Air blows near floor slab and returns from the louvers located at center of the floor slab. This air flows within the space under the floor, and is collected as exhaust system. This displacement air-conditioning provides comfortable interior conditions and save energy consumptions by providing air conditioning to only the place where people use.

##### c) Indirect Lighting System Jointly used with Natural Sunlight

Natural sunlight can easily be taken through the glass tubes and the glass panels. Together with that, indirect lighting system which utilizes the dome ceiling is adopted. These features enable the users to read and browse books and materials under the soft and delicate light environment while also using desk lamps.

#### (4) MEP System

##### a) Heat recovery Ventilation System

Heat exchanger for ventilation takes fresh air from the outside, then has heat exchange with exhausted air, and supply conditioned air to the each rooms. When warmer, exhausted air can directly be ventilated from the tube.

##### b)Heat source system

Heat source is utilized by district heating. Underground heating is a partially used for making heating source for cooling system.

##### c) Electric equipment

Substation, power facility, efficient illumination lamp, controlled lighting sensors people and natural day lighting, power socket, general broadcasting

##### d) Water supply and drainage / sanitary facilities

Toilet with system of conservation of water, two supplies of tap-water and recycled-water, use of rain water storage

##### e) ICT System

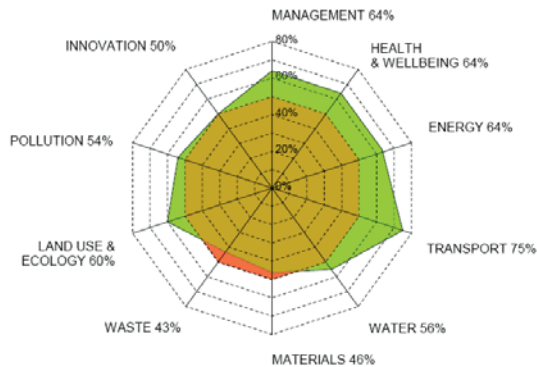
Telephone line and LAN network system, easy access to information by wireless  
Audio and visual machines and network system at auditorium and meeting room

##### f) Disaster prevention facility

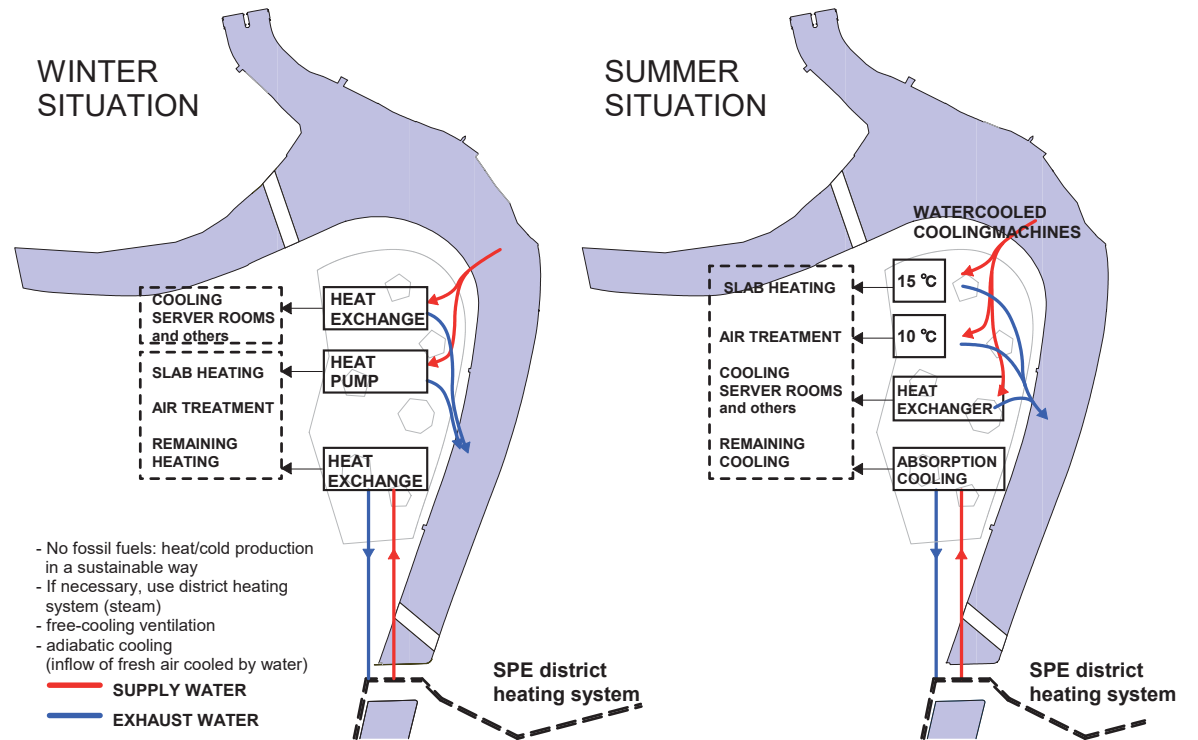
Sensor, emergency lighting, emergency exit lighting, fire hydrant, sprinkler, route for fire trucks, monitor by security office.

# Durability 1

This project has:  
 K-level: 26  
 E-level: 50  
 Breeam score: 64,19 %  
 "VERY GOOD"



In the attached document more explanation is given concerning the Breeam topics: site, comfort, energy, water, materials, waste, ...



## Energy Level + BREEAM

## Using water Muinkschelde as a cold / heat source



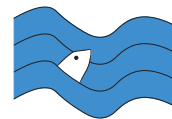
- Maximizing daylight**
- all-around glass
  - void of tubes
  - inside lighting regulated according to daylight (reducing light pollution)
  - visual comfort



- Green terraces**  
**Green in tubes**
- visual comfort
  - freedom
  - relation to nature



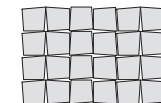
- Green roof**
- CO2 buffering
  - biodiversity
  - natural landscape



- Water Muinkschelde**
- cold / heat source
  - free-cooling
  - adiabatic cooling
  - passive climatization
  - heat exchanger
  - no fossil fuels

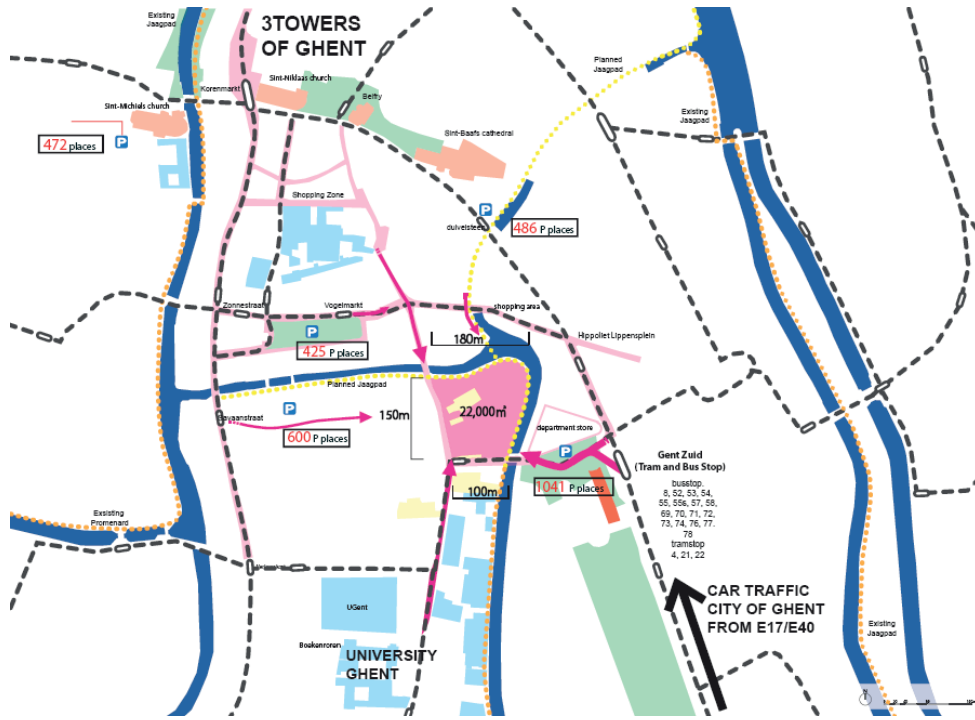


- Rain water buffering**
- for green roof
  - for maintenance roof
  - for grey water circuit

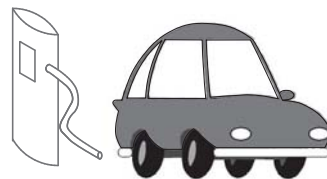
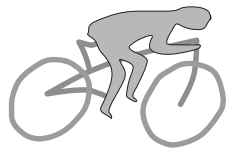


- Plaza with cobble stone**
- better drainage of rainwater into soil
  - relation to city of Ghent

# Durability 2



Central location (transport)



### Good accessibility

- nodal point of public transport
- safe pedestrian route
- urban square
- walking route along the canal

### Inviting for cyclist

- two bicycle parkings
- car is being discouraged
- limited access to the site
- car access for disabled people

### Charging point for electric car

- encourage city of Ghent to use electric cars
- lower CO2 emission
- ecologically friendly
- optional: use solar cells for charging

### Structure: dome

- optimal use of space with high zone inside building
- with variable heights in between floors
- atmospherical comfort

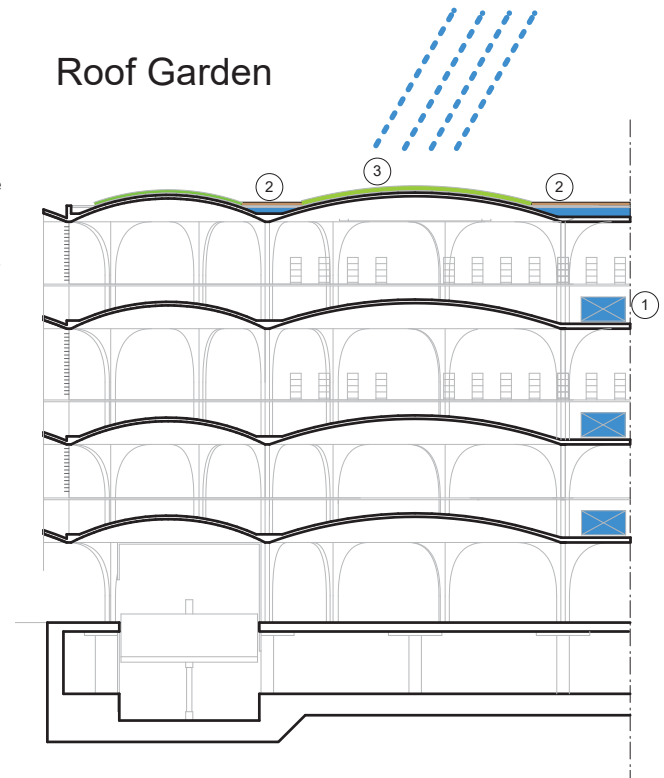
### Material: concrete

- slab heating
- optimal use of concrete (only 22 cm thickness for span of 19m)

### In between zones between two floors

- book transport
- all technical equipment
- soil for plants
- plenum
- rainwater buffer
- visual comfort in spaces below/above

# Roof Garden



### Rainwater storage system

- 1 Storage in grey water tanks inside the raised floors for sanitary use
- 2 Water storage layer on rooftop above the waterproofing
- 3 Storage in substrate of green roof

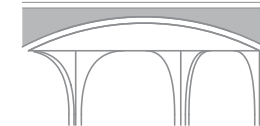
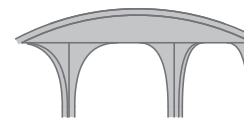
### Double skin

- buffer for cold in winter
- buffer for heat in summer
- integrated sunscreen
- acts as sunshade

### Materials

- materials are chosen related to their lifespan
- LCA gives insight in environmental impact during production, before and after its use
- use of recycled materials
- use of recyclable materials
- limitation of transport to the site, use of local materials
- interior finishing with low emission of damaging elements (as VOC)
- durable and maintenance friendly materials
- use of certified indigenous wood, not treated where possible

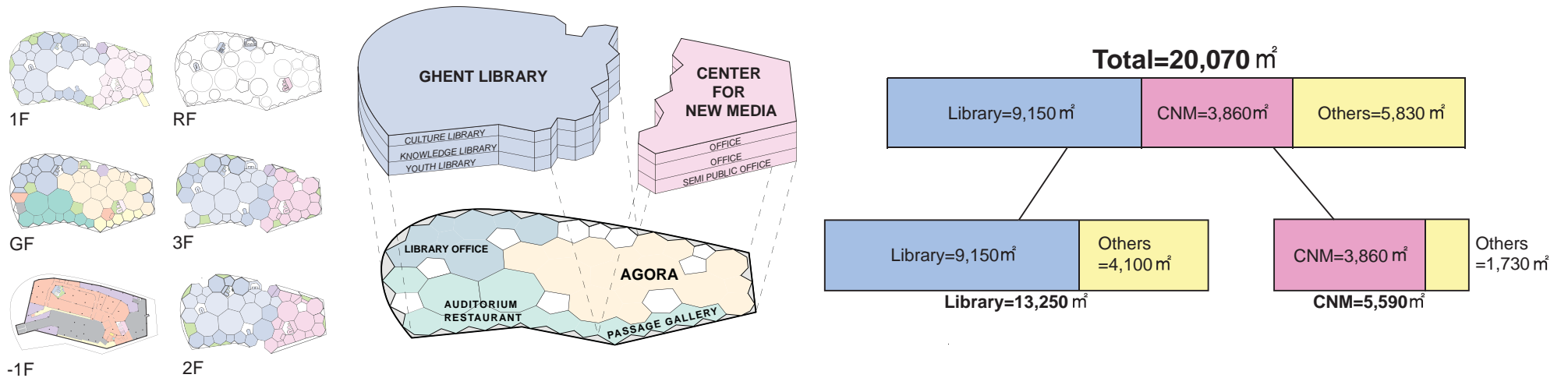
Rainwater buffering





# Floor Area Chart

	Library					CNM		Others						(m <sup>2</sup> )		
	Youth Library	Library of Culture	Library of Knowledge	Shared Stack Room +Reading Room	Library Offices	Semi-public (CNM)	CNM (offices)	Agora (Library+CNM)	Auditorium Restaurant	Technical Spaces	Machine space	Public Space (tube/terrace)	Pass	Total	Bicycle racks Parking Server Room	Total
ROOF		80			30		50							160		160
3F		1,810		730	340		1,230					120		4,230		4,230
2F			1,850	750	340		1,210					90		4,240		4,240
1F	1,660			180	340	1,270						80	20	3,550		3,550
GF					1,010	60		1,750	970	120	60	260	280	4,510	70	4,580
-1F					30	40				1,290	500	30	260	2,150	1,160	3,310
<b>Total</b>	1,660	1,890	1,850	1,660	2,090	1,370	2,490	1,750	970	1,410	560	580	560	<b>18,840</b>	1,230	<b>20,070</b>
	<b>9,150</b>					<b>3,860</b>		<b>5,830</b>								
	Building Area:												<b>5,550</b>			
	Assignable Area:															
Gross Floor Area:																





**View from Ketelvest**



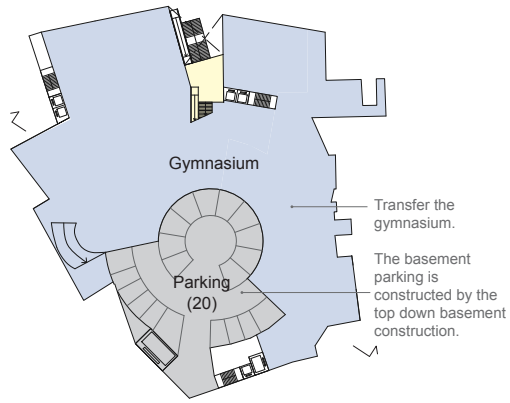
**View from Wilsonplein**



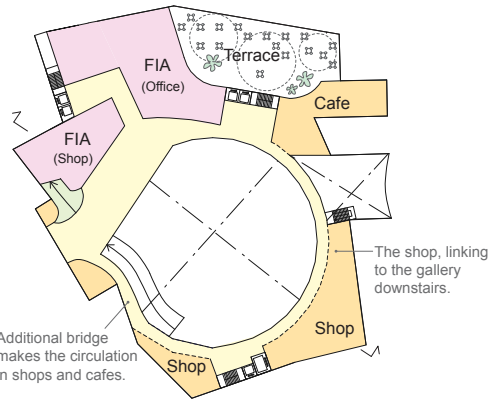
**View from Francois Laurentplein**

# Winter Circus Renovation

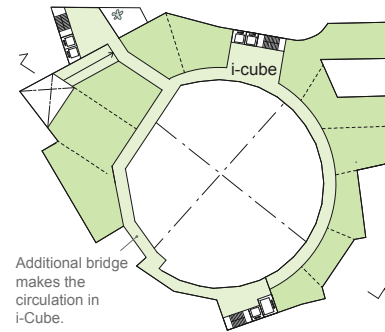
Circus Plaza is a meeting place for old and new media.



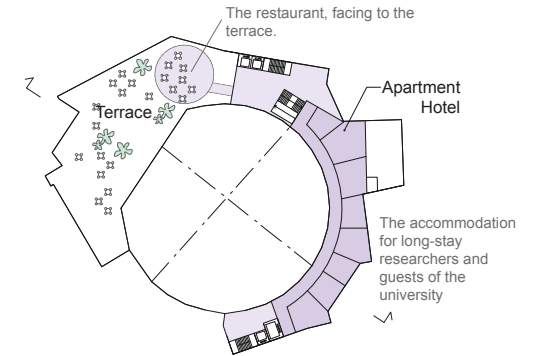
**Gymnasium 1F**



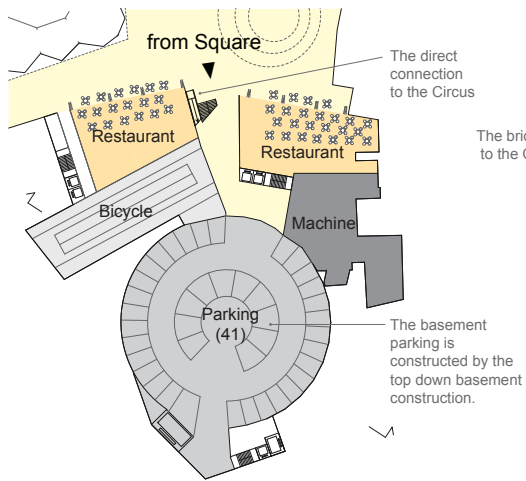
**Gallery Shop & Cafe 3F**



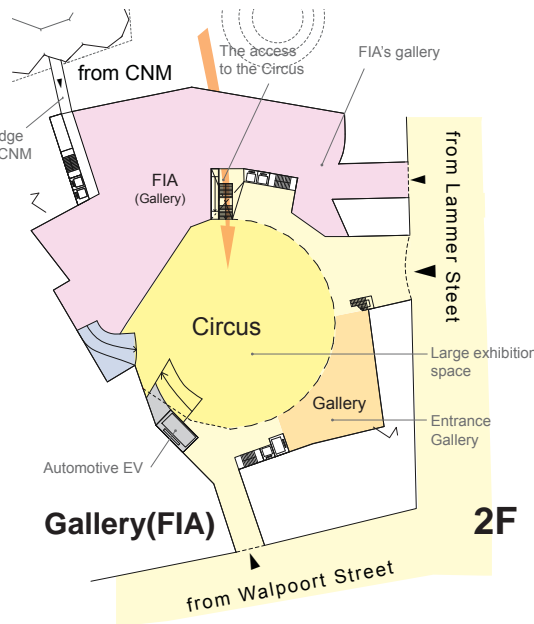
**i-cube 5F**



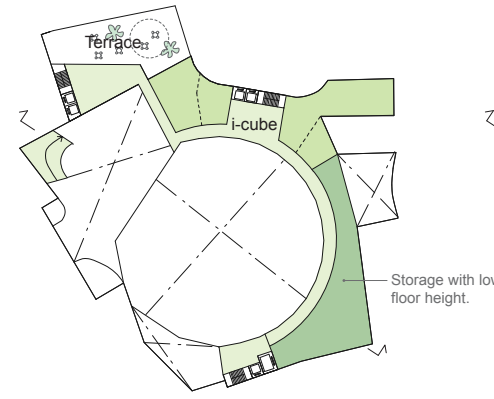
**Apartment Hotel 7F**



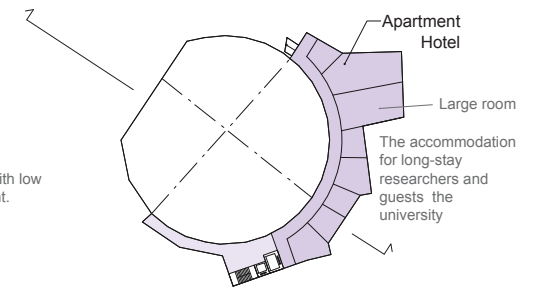
**Plaza & Restaurant GF**



**Gallery(FIA) 2F**



**i-cube 4F**



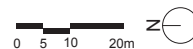
**Apartment Hotel 6F**

5RF	+21.13
5FL	+16.43
3FL	+10.64
2FL	+6.59
1FL	+3.34
GFL	+0

7FL	+23.39
6FL	+20.0
5FL	+15.5
4FL	+13.2

FIA	2055.2m <sup>2</sup>	Gym	2426.7m <sup>2</sup>
i-cube	2764.8m <sup>2</sup>	Pubic	1338.8m <sup>2</sup>
Apartment Hotel	1292.8m <sup>2</sup>	Bicycle	418.6m <sup>2</sup>
Restaurant Cafe Shop	1686.8m <sup>2</sup>	Parking	2092.4m <sup>2</sup>
Circus	1142.6m <sup>2</sup>	Machine	340.5m <sup>2</sup>

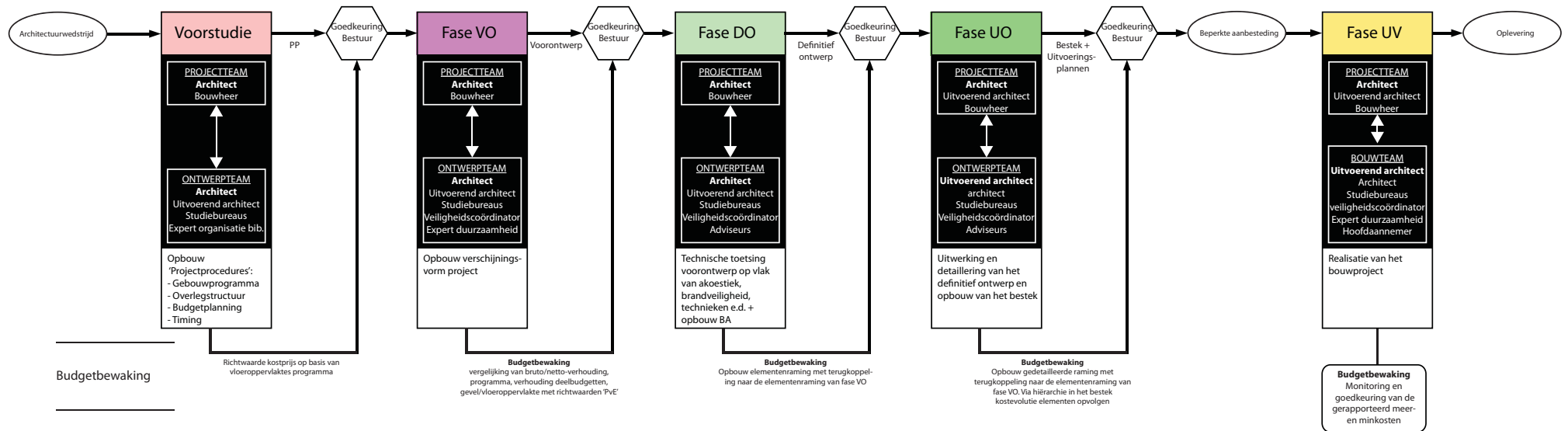
- Winter Circus is regenerated as an archive for the video media (FIA) and as a satellite of the CNM.
- The Circus at the center of Winter Circus is open to the city and works as a main circulation connecting the existing city and the Media Market.
- At the same time, the Circus is a public and large exhibition space.



# Procesgerichtheid en procesbereidheid

## Opbouw van het proces

Fase Voorstudie	Fase Voorontwerp	Fase Definitief Ontwerp	Fase Uitvoeringsontwerp	Fase Uitvoering
<p><b>Inhoud:</b> Het ontwerpteam doorgrondt samen met een kernteam van de bouwheer de vooropgestelde ambities, het programma van het gebouw en het weerhouden concept met het opstellen van de projectprocedures (PP) tot doel.</p> <p>Het ontwerpteam betreft een extern specialist bibliotheekwerking. De procesbeheerder stuurt de fase en structureert het resultaat.</p> <p><b>Acties:</b></p> <ul style="list-style-type: none"> <li>• Teamleden en externe actoren verfijnen het bouwprogramma</li> <li>• Vastleggen comforteisen</li> <li>• Aanstellen van aanspreekpunten en verantwoordelijken voor de betrokken actoren (intern en extern)</li> <li>• Afstemmen procesplanning, ijkingsmomenten, termijnen nazicht, ....</li> <li>• Nazicht coherentie bouwbudget en raming open oproep</li> </ul> <p><b>Termin:</b> 45 werkdagen</p> <p><b>Resultaat = Projectprocedures (PP):</b></p> <ul style="list-style-type: none"> <li>• Definitief programma</li> <li>• Comforteisen</li> <li>• Projectgerichte communicatieschema's</li> <li>• Procesplanning met aanduiding ijkings- en goedkeuringsmomenten</li> <li>• Protocol m.b.t. meetcodes, netto- en bruto oppervlaktes, ...</li> <li>• Te volgen richtlijnen, verschillend van wettelijke voorschriften</li> <li>• Vooropgestelde inhoud (fase)-rapporten</li> <li>• Opvolgingsmethodiek voor wijzigingen tijdens het proces</li> <li>• Budgetgerelateerde indicatoren i.f.v. opvolging (zie document kostenbeheersing)</li> </ul>	<p><b>Inhoud:</b> Het definitief programma wordt conceptueel uitgewerkt tot een ontwerp, waarbij de conceptstudies van de studie- en adviesbureaus in rekening worden gebracht.</p> <p>Het ontwerp wordt uitgewerkt door de architect, geadviseerd door studie-bureaus in eigen land. De algemene projectarchitect stuurt de fase. Het ontwerpteam betreft specialisten in bibliotheekwerking en duurzaamheid en indien nodig geacht een specialist brandveiligheidsconcept De lokale studie-bureaus informeren en controleren het ontwerp.</p> <p><b>Acties:</b></p> <ul style="list-style-type: none"> <li>• Conceptstudies i.f.v. correcte ruimtelijke planindefining</li> <li>• Ruimtelijke en planmatige ontwerpstudie</li> <li>• ..., in overeenstemming met de projectprocedures</li> </ul> <p><b>Termin:</b> 75 werkdagen</p> <p><b>Resultaat:</b></p> <ul style="list-style-type: none"> <li>• Ruimtelijke en planmatige uitwerking definitief programma</li> </ul>	<p><b>Inhoud:</b> Technische uitwerking voorontwerpplannen. De projectarchitect coördineert met de architect. De architect integreert de (bouw)technische gegevens in de grafische documenten. De plannen worden voorgelegd aan de vergunningverlenende instanties. De adviezen worden vervolgens verwerkt.</p> <p>Door actieve participatie van de verschillende lokale studie-bureaus en specialisten, wordt de informatie zowel technisch als programmatrisch uitgebreider en meer gedetailleerd. De uitvoerend architect neemt actief deel aan de studies. De input van en terugkoppeling met de verantwoordelijke van de bouwheer wordt essentieel. De projectarchitect organiseert en stuurt de werkgroepvergaderingen. Experts worden geconsulteerd waar nodig, o.a. op vlak van duurzaamheid, fire safety engineering e.d. Daarenboven beroept het ontwerpteam zich op de expertise van een specialist voor het bepalen van de aanbestedingsprocedure. In de werkgroep worden de mogelijkheden geanalyseerd en de procedure bepaald.</p> <p><b>Acties:</b></p> <ul style="list-style-type: none"> <li>• Vastleggen dimensies structuur</li> <li>• Omzetten comforteisen naar effectieve technische installaties</li> <li>• Bepalen afwerkingmaterialen</li> <li>• Integratie technische uitwerking in grafische documenten</li> <li>• Vastleggen van wand- en vloerpakketten, incl. afwerking</li> <li>• ..., in overeenstemming met de projectprocedures</li> </ul> <p><b>Termin:</b> 60 werkdagen</p> <p><b>Resultaat:</b></p> <ul style="list-style-type: none"> <li>• Ruimtelijke en planmatige uitwerking definitief programma met integratie van structuur, technische installaties, akoestische eisen, bouwtechnische eisen, ...</li> <li>• Opbouw van de verschillende bouwelementen (incl. afwerkmaterialen)</li> <li>• Afwerkstaat</li> <li>• Basisdocumenten voor opmaak aanvraagdossier stedenbouwkundige vergunning</li> <li>• Nota aanbestedingsprocedure</li> <li>• Conceptnota en afmeting structuur</li> <li>• Conceptnota technische installaties</li> <li>• ..., in overeenstemming met de projectprocedures</li> </ul>	<p><b>Inhoud:</b> Na goedkeuring van het definitief ontwerp maakt de architect het aanvraagdossier voor de stedenbouwkundige vergunning op. De bouwheer dient de aanvraag in. De plannen en nota's worden omgezet in een gedetailleerd bouwvoorsier.</p> <p>Per discipline werken de lokale studie-bureaus een hoogwaardig bouwvoorsier uit. De architect verfijnt het ontwerp op detailniveau, de uitvoerend architect verzorgt het uitvoeringsdossier. Samen met de projectarchitect coördineert hij de verschillende deeldossiers. De projectarchitect bewaakt de architecturale coherentie, de uitvoerend architect de technische kwaliteit.</p> <p><b>Acties:</b></p> <ul style="list-style-type: none"> <li>• Gedetailleerde technische uitwerking</li> <li>• Detailontwerp bouwkundige aansluitingen</li> <li>• Opstellen uitvoeringsplannen</li> <li>• Doorgedreven detailcoördinatie van de verschillende deeldossiers</li> <li>• Ontwerp op detailniveau</li> </ul> <p><b>Termin:</b> 136 werkdagen</p> <p><b>Resultaat:</b></p> <ul style="list-style-type: none"> <li>• Aanbestedingsdossier</li> <li>• ..., in overeenstemming met de projectprocedures</li> </ul>	<p><b>Inhoud:</b> Na aanbesteding en gunning der werken wordt de effectieve uitvoering gestart. De uitvoerende architect superviseert de werken. Per discipline worden de werken opgevolgd door projectmedewerkers van de respectievelijke studie-bureaus. De projectarchitect communiceert op zeer frequente basis met de architect. De architect volgt de architecturale kwaliteit kort op. De uitvoerende architect bewaakt de planning. De opvolging wordt beheersbaar door het voorafgaandelijk vastleggen van ijkingsmomenten op het einde van belangrijke bouwfases.</p> <p><b>Termin:</b> 540 werkdagen</p> <p><b>Acties:</b></p> <ul style="list-style-type: none"> <li>• Technische opvolging bouwwerken</li> <li>• Opvolging uitvoeringsplanning</li> <li>• Bewaken en sturen uitvoeringsbudget</li> <li>• ..., in overeenstemming met de project-procedures</li> </ul> <p><b>Resultaat:</b></p> <ul style="list-style-type: none"> <li>• Efficiënte en gebruiksklare multimediale site</li> </ul>



# Procesgerichtheid en procesbereidheid :

## - Teamfilosofie

### Algemeen

Het ontwerpteam vormt een multidisciplinair team werkend binnen een duidelijke structuur. Via een procesmatige aanpak, ondersteund door de brede kennis binnen het team, vertaalt een 'projectdefinitie' zich in de realisatie van een nieuwe multimediale site conform de verwachtingen van de opdrachtgever. De projectprocedures (PP), opgesteld bij aanvang van het project, structureren en organiseren gedurende het ganse proces het ontwerp, de teamcommunicatie, de planning en het budget.

### Ontwerpteam

Het ontwerpteam is opgebouwd uit ontwerpers (architect, projectarchitect en uitvoerend architect), en studiebureaus (stabiliteit, technieken, ...). Voor specifieke expertise doen de teamleden beroep op door het ontwerpteam aangetrokken specialisten.

Het ontwerpteam wordt gestuurd door de projectarchitect. De projectarchitect coördineert de internationale ontwerpstudies (aan hem gecommuniceerd door de architect) en de lokale studiebureaus. Voor de ontwerpstudie doet de architect beroep op technische expertise in eigen land. Binnen het ontwerpteam berust de programmatische en esthetische verantwoordelijkheid bij de architect. De uitvoerend architect en lokale studiebureaus staan in voor de conformiteit met stedenbouwkundige regelgeving, technische voorlichtingen en normen. Het accent verschuift tijdens het proces van de architect in ontwerpfasen naar de lokale studiebureaus en de uitvoerende architect in uitvoering.

Voor de opvolging van het proces en het databaseer wordt de projectarchitect bijgestaan door de proces-beheerder. De proces-beheerder opereert vanuit en binnen het ontwerpteam, bijgevolg is de werkmethode en communicatie eenduidig.

De projectarchitect fungeert als het aanspreekpunt (Single Point of Contact) voor de bouwheer. Gerichte projectinformatie wordt uitgewisseld tussen de verantwoordelijken van de bouwheer en de lokale studiebureaus en specialisten op door de projectarchitect en bouwheer aangestuurde werkvergaderingen.

### Databeher

Alle teamleden hanteren voor hard-copy en digitale projectinformatie een eenduidig systeem qua documentenreferentie, lay-out en organisatiestructuur. De documenten zijn vlot uitwisselbaar en eenvoudig te traceren in het proces.

Verdeling van de projectinformatie gebeurt via een projectwebsite. Toegang- en schrijfrechten worden vastgelegd in de beheerstructuur.

### Proces

Het proces wordt opgedeeld volgens een heldere en strikte fasering. Binnen één fase worden tussentijdse specifieke ijk- en goedkeuringsmomenten vastgelegd. De fasetermijnen, ijkpunten en goedkeuringsperiodes, evenals de timing en inhoud van overleg met externe partijen, wordt gedetailleerd vastgelegd bij aanvang van het proces. De geambieerde procesplanning wordt opgevolgd en bijgewerkt door de procesbeheerder.

### Controle

Documenten, nota's en berekeningen van de werkgroepen, evenals tussentijdse ijkmomenten, worden gevalideerd door de bouwheer en gerapporteerd aan de projectarchitect.

Elke fase wordt afgesloten met een rapport opgesteld met grafisch materiaal, oppervlaktetabellen, volume- en budgetopvolging, conceptnota en fasespecifieke documenten (uitgewerkt programma, bestekken, duurzaamheidsrapporten, ...).

Het rapport wordt onderbouwd door de geïntegreerde studies stabiliteit, speciale technieken, akoestiek, etc. Binnen een aangehouden format wordt de raming faseafhankelijk uitgewerkt van volume- en oppervlakteraming tot elementenraming en gedetailleerde raming.

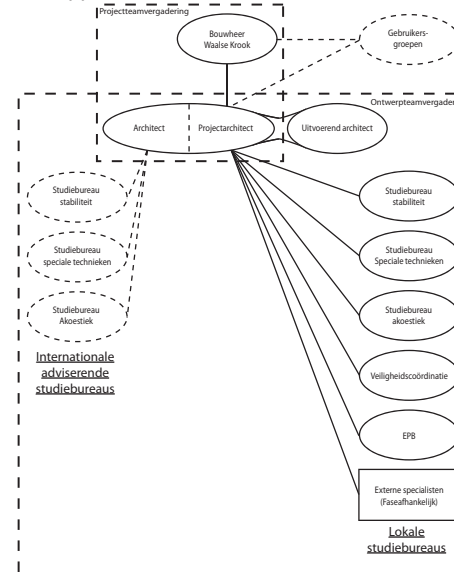
Het rapport documenteert en beargumenteert opgetreden afwijkingen t.o.v. de vooropgestelde ambities beschreven in de projectprocedures. Waar mogelijk worden uitgewerkte varianten opgenomen.

Na afronding van elke fase wordt een formeel goedkeuringsmoment ingepland waarin de bouwheer op basis van het faserapport de ontwerpevolutie kan beoordelen.

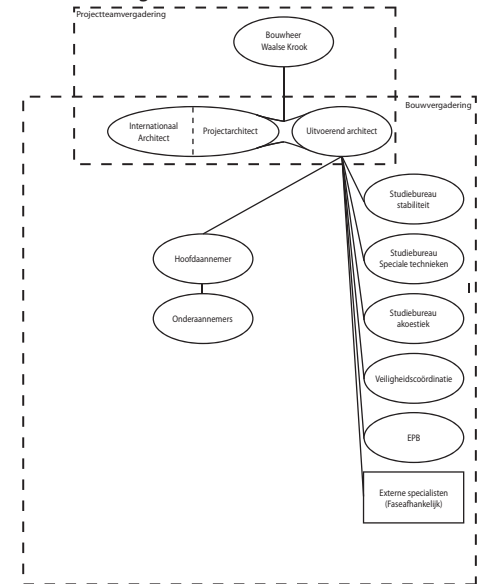
Aan het einde van elke fase wordt het rapport formeel goedgekeurd. Het goedgekeurde faserapport vormt, samen met de projectprocedures, de basis voor de volgende fase.

### Teamsamenstelling:

#### Ontwerpproces



#### Uitvoering



### Communicatie

