



# PRESENTATIE VOORLOPIG ONTWERP

**DAVID GIANOTTEN** *MANAGING PARTNER - ARCHITECT*

**OFFICE FOR METROPOLITAN ARCHITECTURE**

**4 MAART 2019**



# PERS PRESENTATIE

## Voorlopig Ontwerp

4 maart, 2019

David Gianotten, Managing Partner - Architect OMA

© OMA & Lola landscape





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NEW STADIUM PROPOSALS



2005 - MVRDV



2008 - KCAP



2011 - VVW



2012 - MVSA

©OMA



2014 - P&O



2014 - BENTHEM CROUWEL



2014 - EEA



2014 - KCAP



2014 - MOLENAAR & CO



2014 - MVSA



2014 - ZWARTS JANSMA





## Uitdagingen FEYENOORD



### # Oud stadion

Unique atmosfeer maar rigide in exploitatie



### # Slechte bereikbaarheid

Chaotische mobiliteit



### # Budget

Extra spelersbudget voor kwaliteit



©OMA





## Uitdagingen ROTTERDAM ZUID



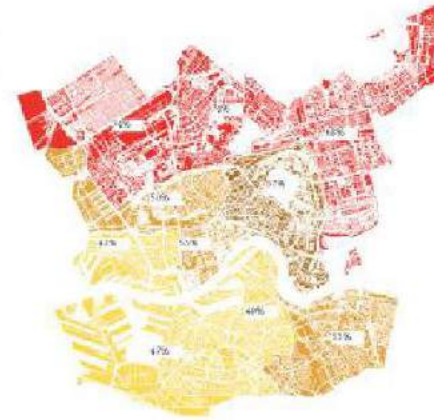
# Onderwijs  
Laag opleidingsniveau



# Werk  
18% bewoners werkeloos



# Gezondheid  
Veel obesitas en  
andere problemen



# Sport  
60% van mensen sport  
niet of nauwelijks



# Publieke Ruimte  
Weinig bruikbaar en weinig  
groen



# DE AMBITIES FEYENOORD EN GEMEENTE ROTTERDAM

©OMA



**Supercharger van  
connectiviteit**



**Icoon aan de  
Maas**



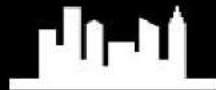
**Nieuw leven voor  
De Kuip**



**Transformatie van  
publieke ruimte**



**Impuls voor  
duurzaamheid**



**Nieuwe  
mogelijkheden  
woningbouw**



**Verbetering  
mobiliteit langzaam  
en auto verkeer**



**Succesvolle  
samenwerking**



CONTEMPORARY STADIUMS - ISOLATION FROM CITY

©OMA





DE KUIP

©OMA



DE KUIP, 1937, CAPACITY 65,000



# Stadion als onderdeel van de stad

ORIGINAL WARSAW STADIUM (1955-2008)



OLYMPIASTADION, MUNICH (FRIE OTTO)



# Bijzondere architectuur

©OMA

DE KUIJ, ROTTERDAM



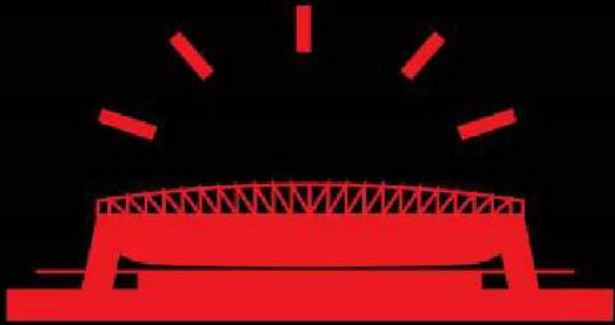
EMIRATES STADIUM, LONDON



CIVIC ARENA, PITTSBURGH

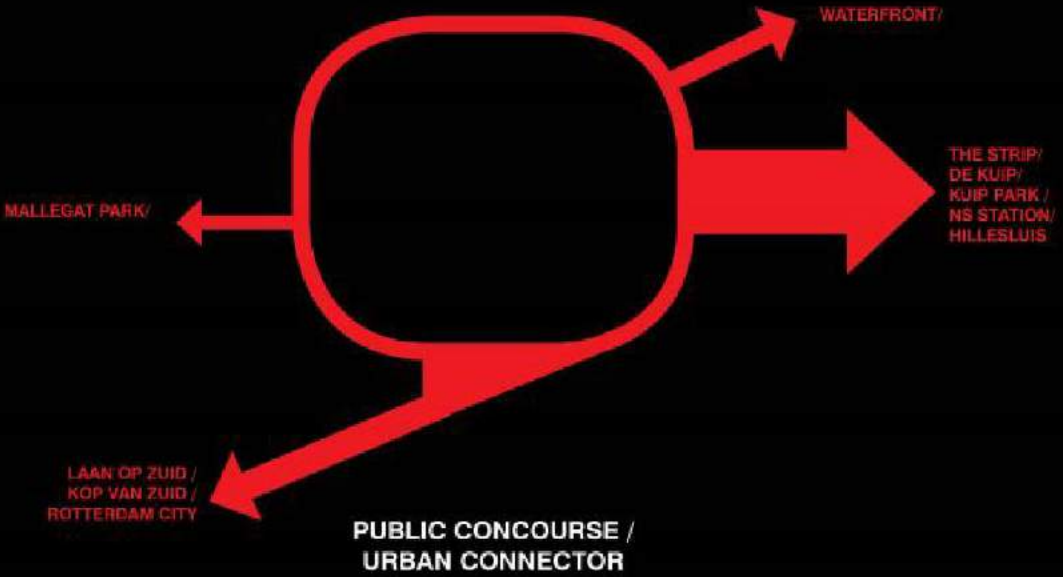






ICON / STADIUM

+



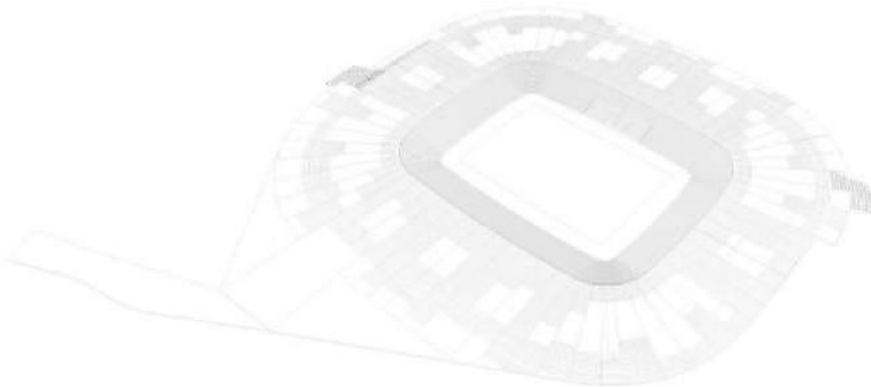




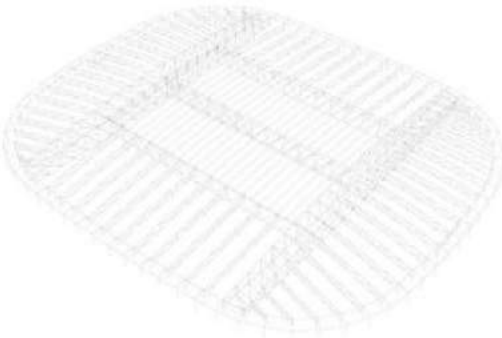




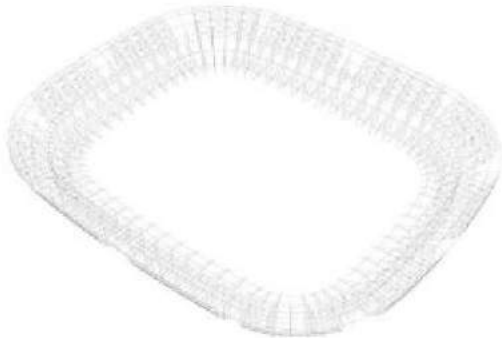
TIER 2 + 3



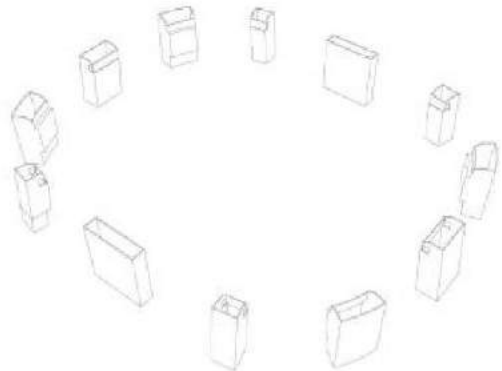
CONCOURSE + TIER 1



ROOF STRUCTURE



BOWL STRUCTURE



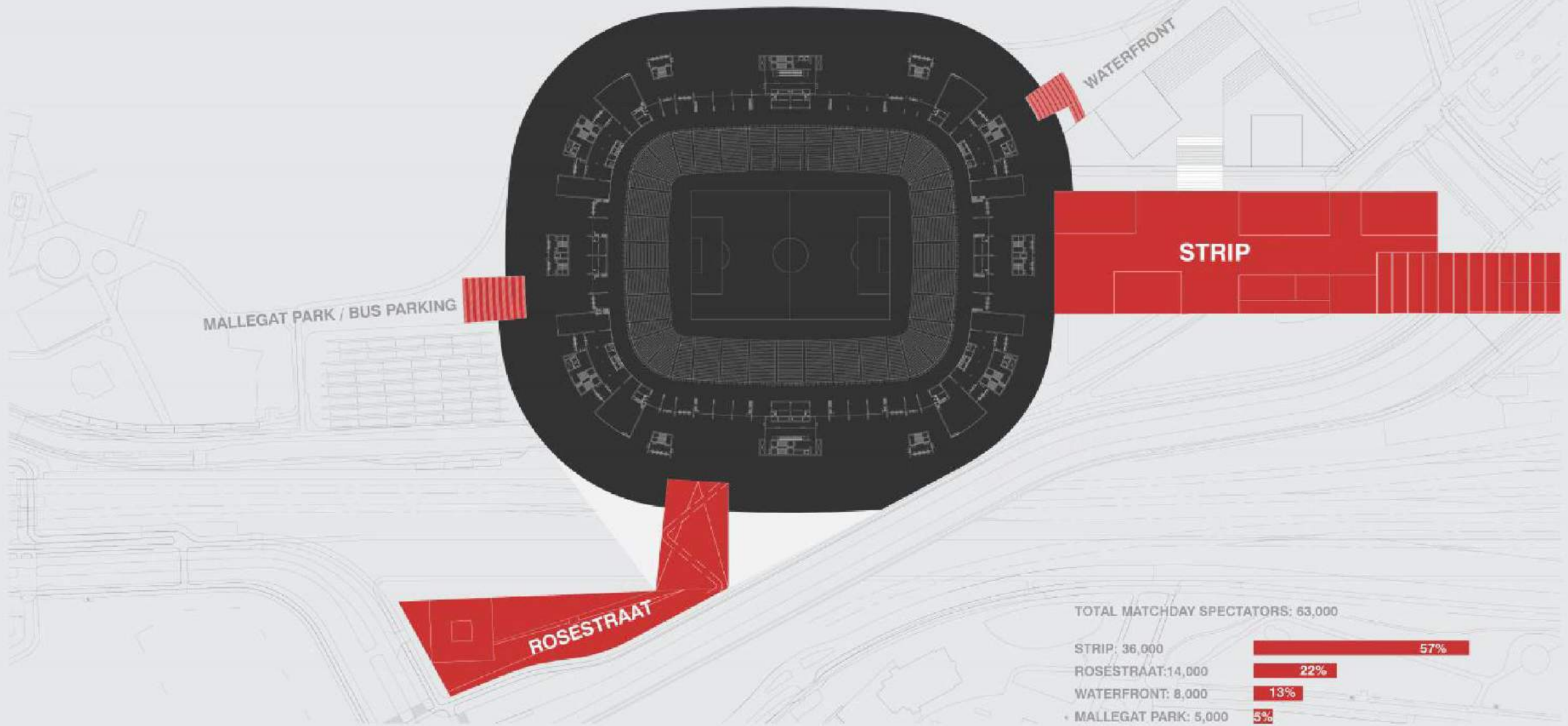
CORE



©OMA







TOTAL MATCHDAY SPECTATORS: 63,000

STRIP: 36,000	57%
ROSESTRAAT: 14,000	22%
WATERFRONT: 8,000	13%
MALLEGAT PARK: 5,000	5%

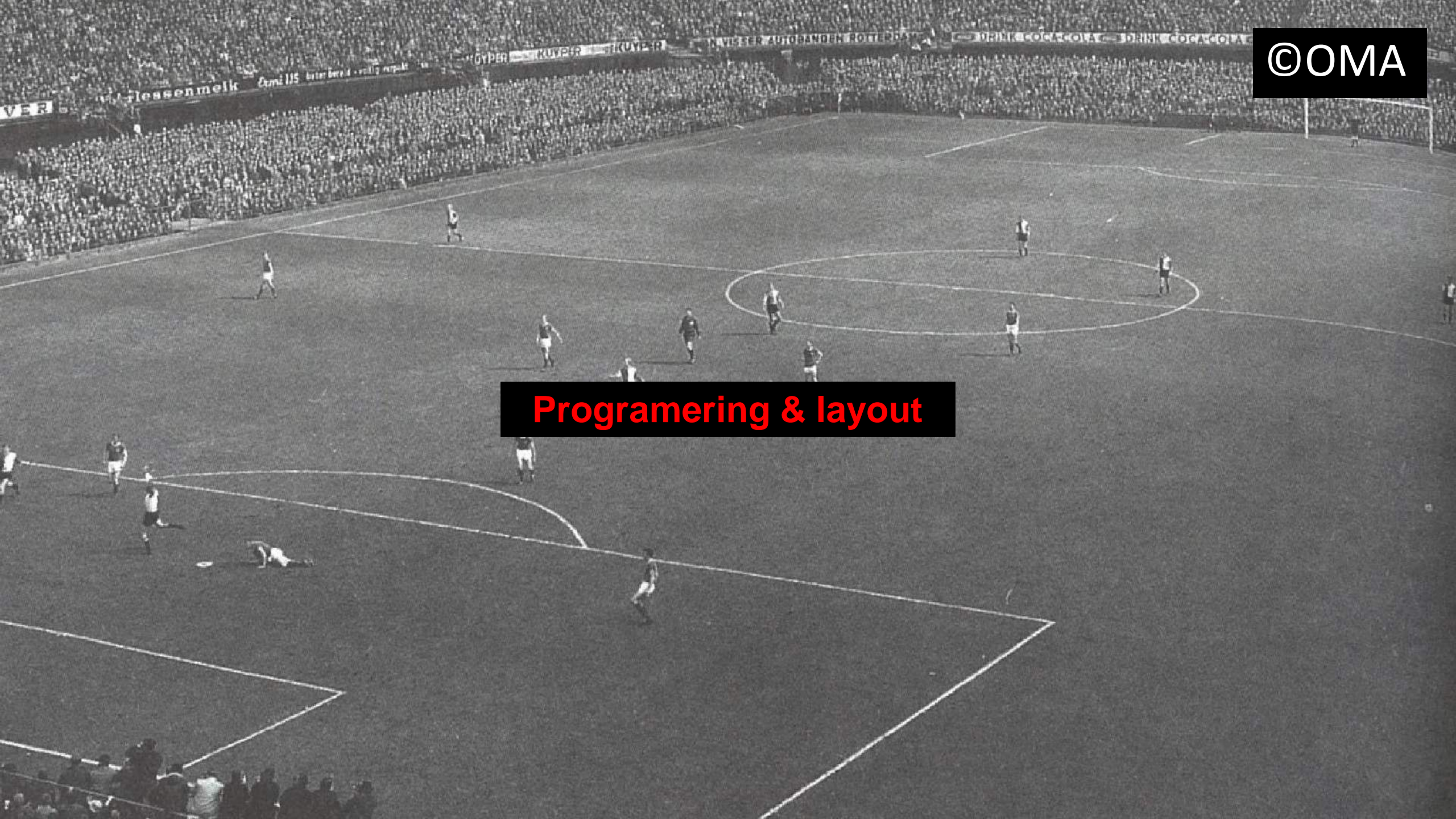






©OMA

**Programering & layout**





OFFICIAL OPENING GAME  
NETHERLANDS VS. BELGIUM  
1937

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DAVID BOWIE  
CONCERT  
1983



©OMA



# Program

## New Stadium Public Functions

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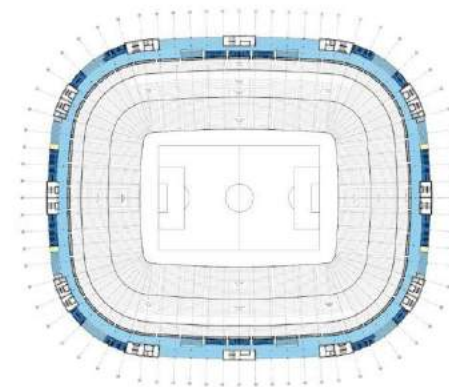
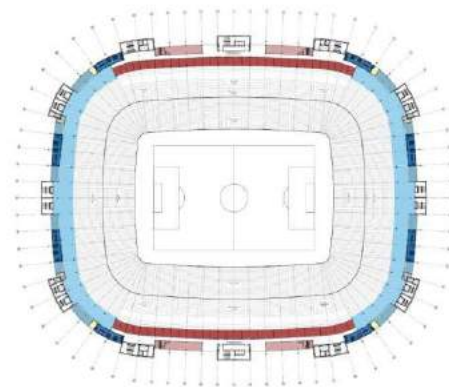
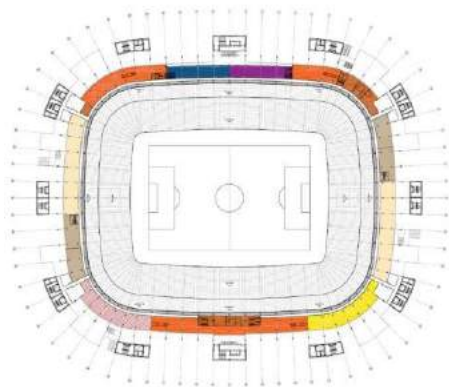
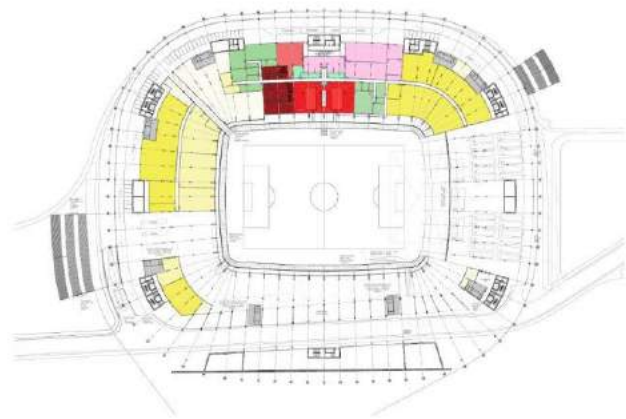


**73%**  
Stadium Functions  
GFA 57.067m<sup>2</sup>

**27%**  
Public Functions  
GFA 21.275m<sup>2</sup>

New Stadium (October 2018)  
**Total GFA 78.341m<sup>2</sup>**







SECTION - AA

1:750 0 5 10 20

50m



- PLAYERS' TUNNEL
- MEDIA
- BUSINESS HOSPITALITY
- BUSINESS HOSPITALITY CORRIDOR
- CONCOURSE
- CONCOURSE FACILITIES
- PARKING





SECTION - BB

1:750 0 5 10 20

50m



- RENTABLE SPACE
- RENTABLE SPACE CORRIDOR
- RESTAURANT
- RESTAURANT FACILITIES
- CONCOURSE
- CONCOURSE FACILITIES
- PARKING





FLOATING BOWL

©OMA





©OMA

## Historie; De Kuip





Leen van Zandvliet



Jan Wils



Johannes Brinkman



Leendert van der Vlugt

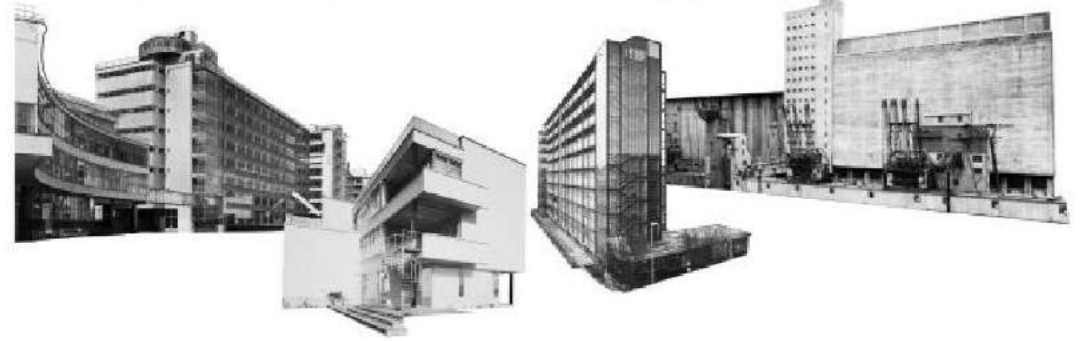


Kennemergarage - 1912

Jozef Israëlsplein - 1925

De Dubbele Sleutel - 1919

Olympic Stadium - 1928

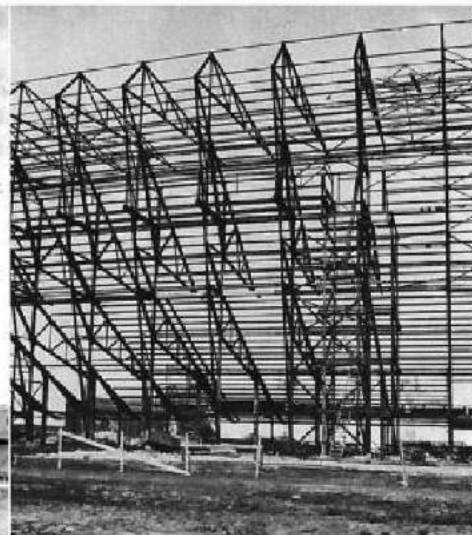
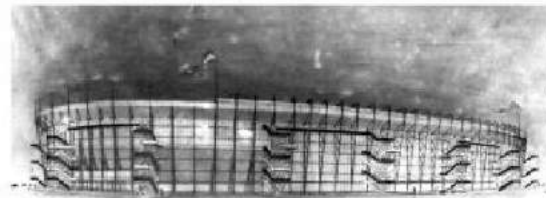
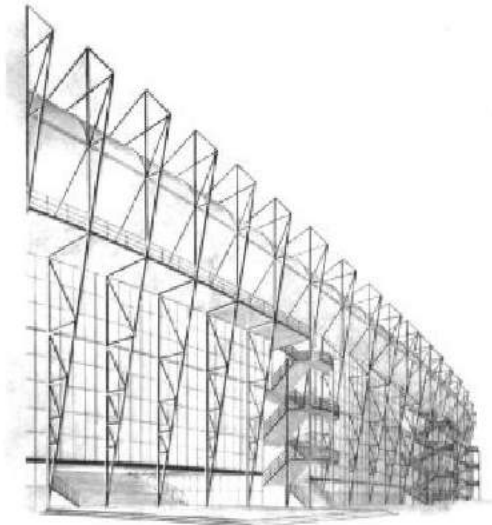


Van Nette Factory - 1931

Sonneveld House - 1933

Bergpolderflat - 1934

Grainsilo Maashaven - 1930





# Preservation Strategy

De Kuip

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Facade structure



Roof structure



Skybox



1993-1994 Renovation  
(to demolish)

1937 Original design  
(to preserve)



Staircase cores



Lobby interior  
stained glass



Stadium geometry



Lamp post

**Alzijdigheid & zichtlijnen**









©OMA







Wereldclub met een Rotterdamse mentaliteit

Bekerwinnend in 1930, 1935, 1965, 1969, 1980, 1984, 1991, 1992, 1994, 1995 en 2006

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ASR verzekeringen

www.feyenoord.nl

FEYENOORD



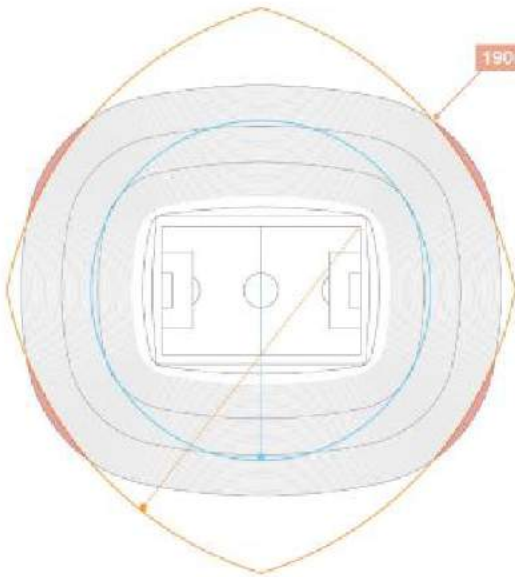
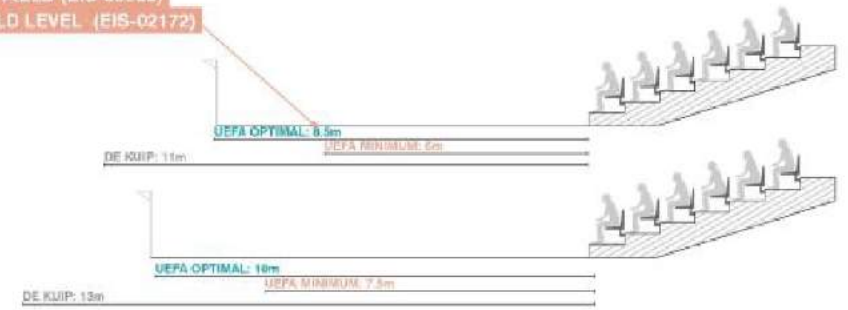


ID	PvE	DESCRIPTION
EIS-00074	C-Value	Minimum C-Value as 90mm, optimal as 120mm as UEFA suggested
EIS-00256	Rake Angle	Rake angle must comply with the "Green Guide", which states max. 34degree (or 35degree)
EIS-00032	190m / 90m from the field	63,000 total capacity for high-quality football venue with 60,000 seats within 190m distance from the field
EIS-00068	Tribune Distance to the Field	The tribune should be placed as close to the field as possible
EIS-02172	First Tribune Row at Field Level	The design of the stadium should ensure that the first stand is at field level (or 30cm above)
EIS-01807	Advertising Board	Advertising board should not obstruct the sightline
EIS-00039	De Kuip Atmosphere	Atmosphere of De Kuip must be taken over and improved where possible
EIS-00340	Preservation of De Kuip	Preservation of the authentic experience of De Kuip
EIS-00065	Oval Ring Structure	The inside of the stadium must be as oval as possible and the stands must have the same continuous ring structure as De Kuip
EIS-00007	Preserving the Unique Atmosphere	The stadium must retain the unique atmosphere





TRIBUNE DISTANCE TO THE FIELD (EIS-00068)  
 FIRST TRIBUNE ROW AT FIELD LEVEL (EIS-02172)



190m / 90m FROM THE FIELD (EIS-00032)

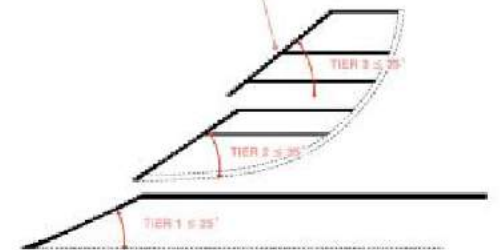


OVAL RING STRUCTURE (EIS-00065)  
 DE KUIP ATMOSPHERE (EIS-00039)  
 PRESERVATION OF DE KUIP (EIS-00340)  
 PRESERVING THE UNIQUE ATMOSPHERE (EIS-00007)

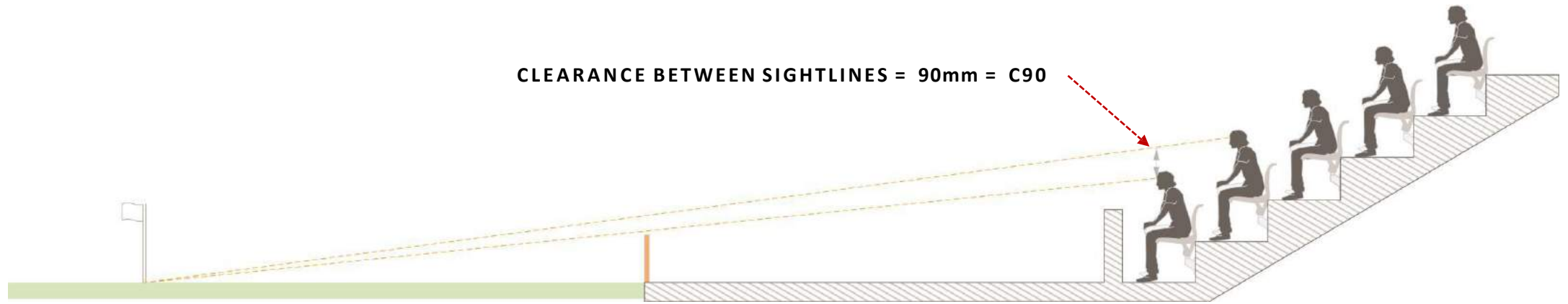
ADVERTISING PANEL (EIS-01807)



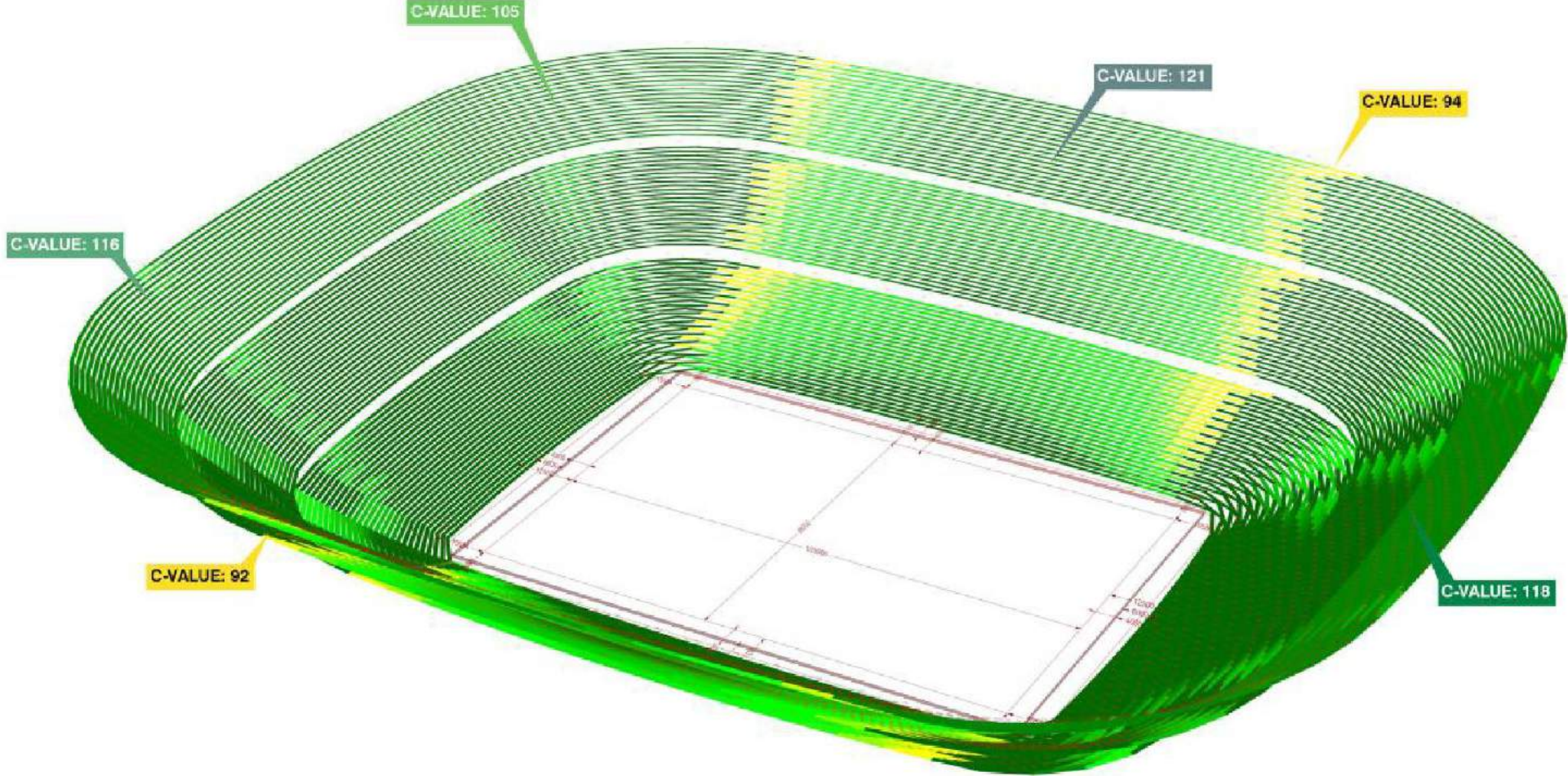
RAKE ANGLE (EIS-00256)







UEFA REGURATION : MIN.C90





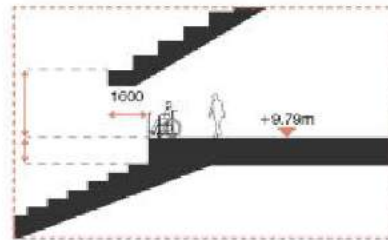
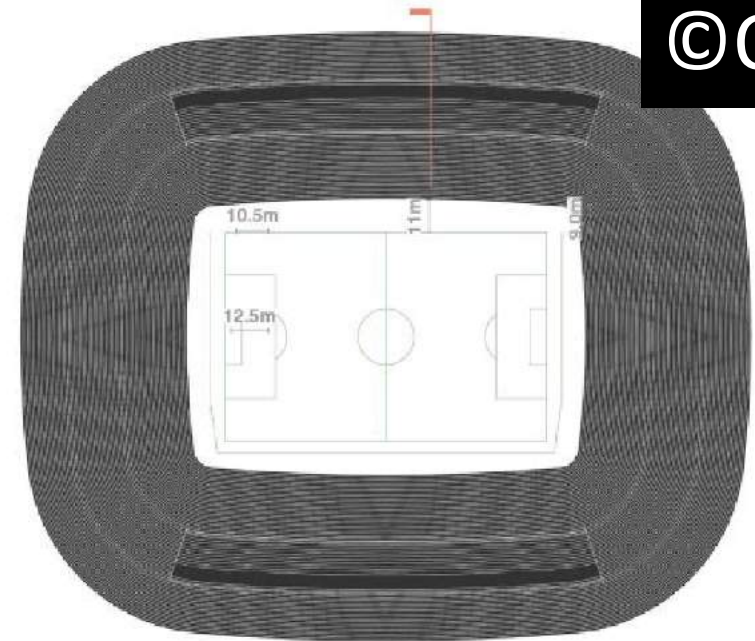
## OPTION 2 - CURVED LINE: OFFSET FROM TIER 1-3

(SELECTED OPTION)

CRITERIA - PVE	
C-Value	✓
Rake Angle	✓
190m / 90m from the field	✓
Tribune Distance to the Field	✓
First Tribune Row at Field Level	✓
Advertising Board	✓
De Kuip Atmosphere	✓
Preservation of De Kuip	✓
Oval Ring Structure	✓
Preserving the Unique Atmosphere	✓

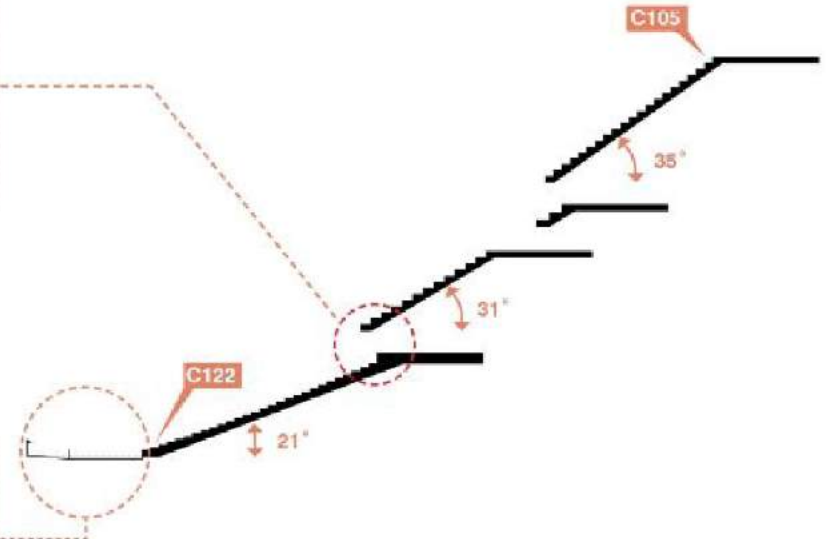
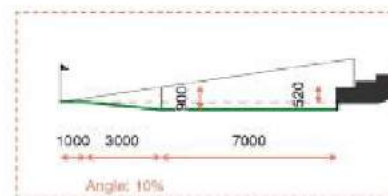
ADDITIONAL CRITERIA	
First Tribune Height from Field Level	520mm
Pitch Slope for Advertisement - Long Side	10%
Pitch Slope for Advertisement - Short Side	8%
Tread Dimension - Tier 1	800mm
Tread Dimension - Tier 2	800mm
Tread Dimension - Tier 3	800mm

©OMA



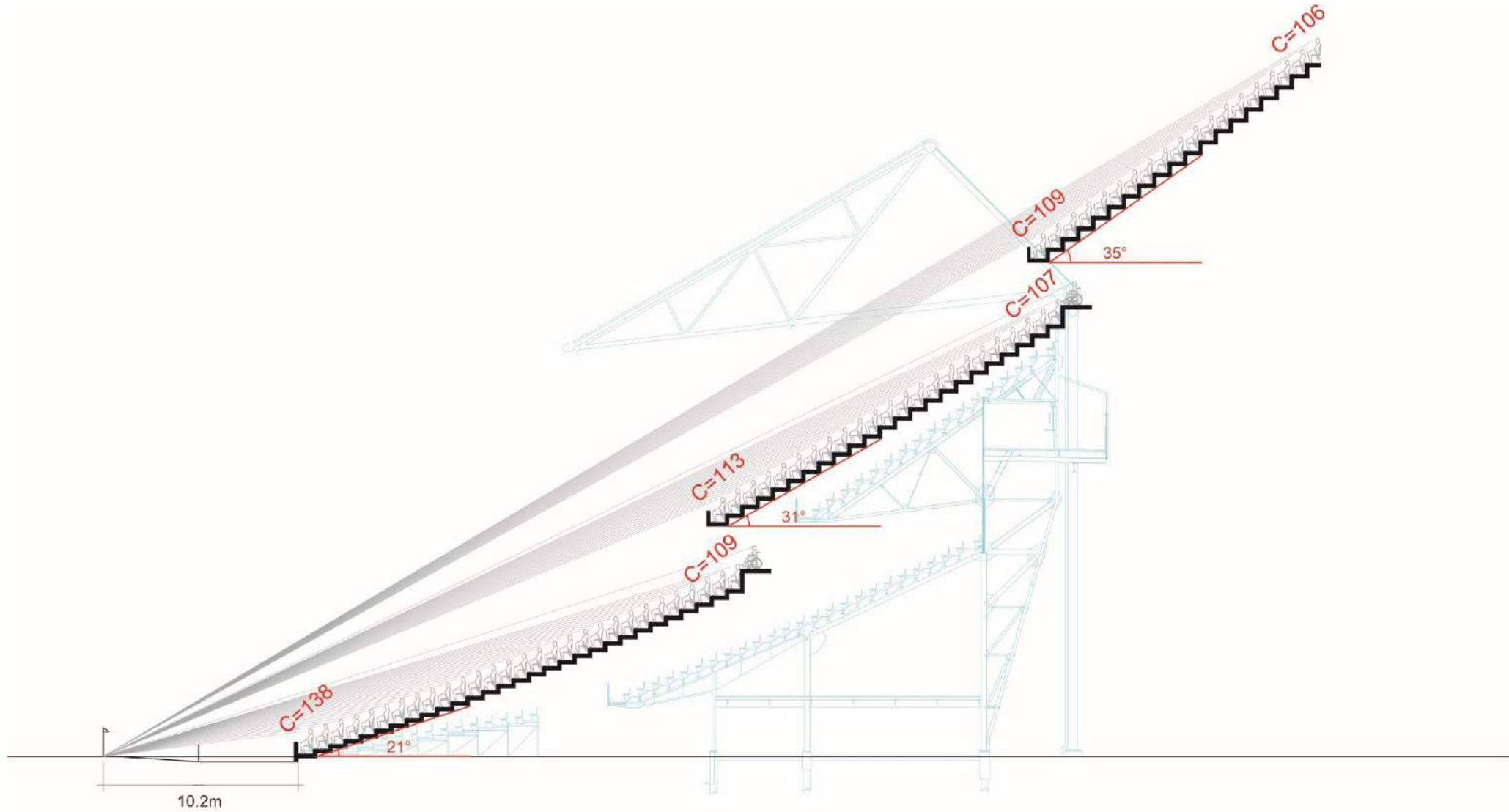
REMARKS ON LC2:  
SUPER RISER HEIGHT AS CONSISTENT IN 360°

REMARKS ON PITCH LEVEL:  
10% SLOPE REQUIRED FOR NON-OBSTRUCTED  
VIEW BY ADVERTISING PANEL



# C VALUE – NEW STADIUM

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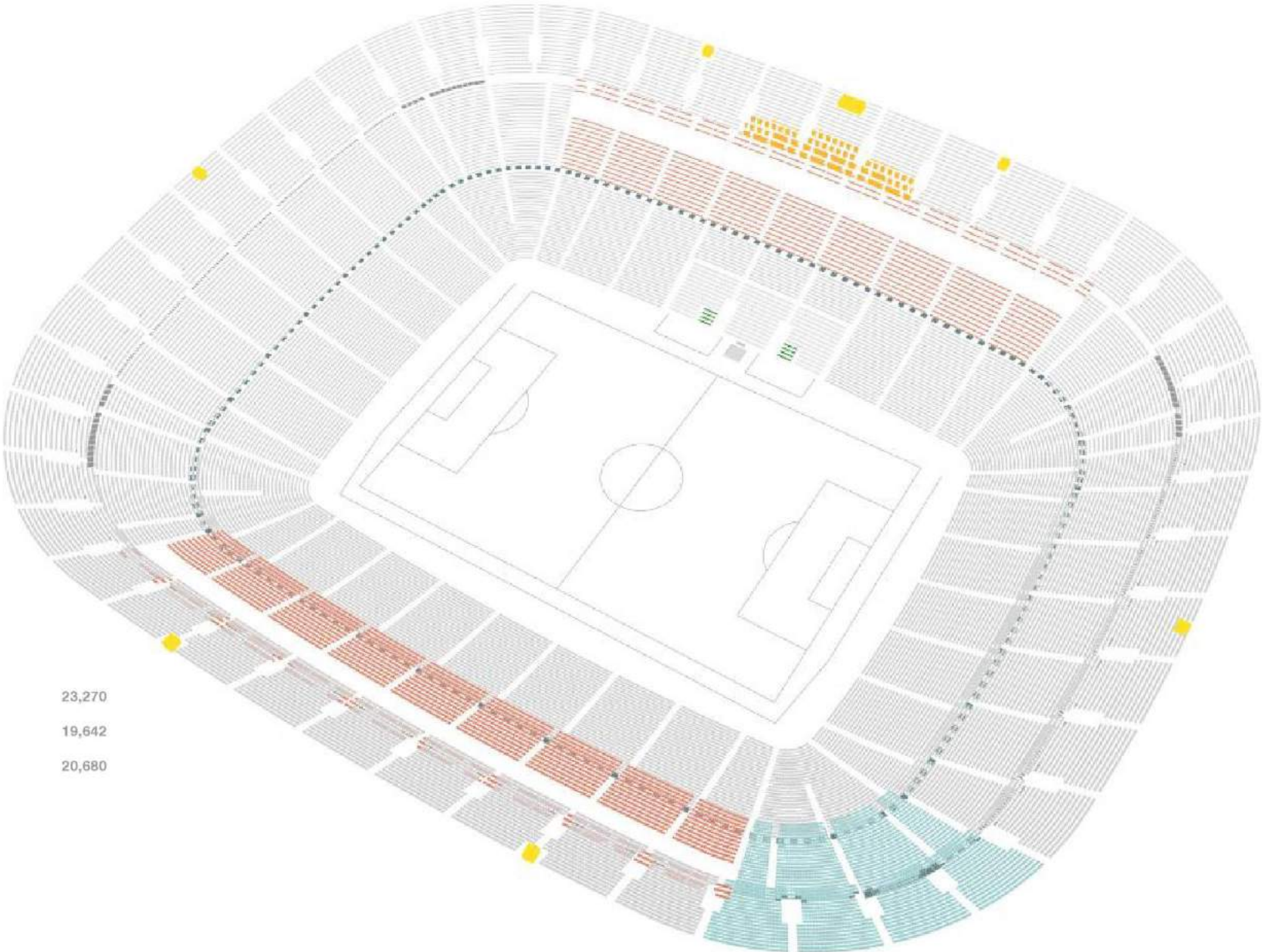


ALL SEATS ABOVE C90









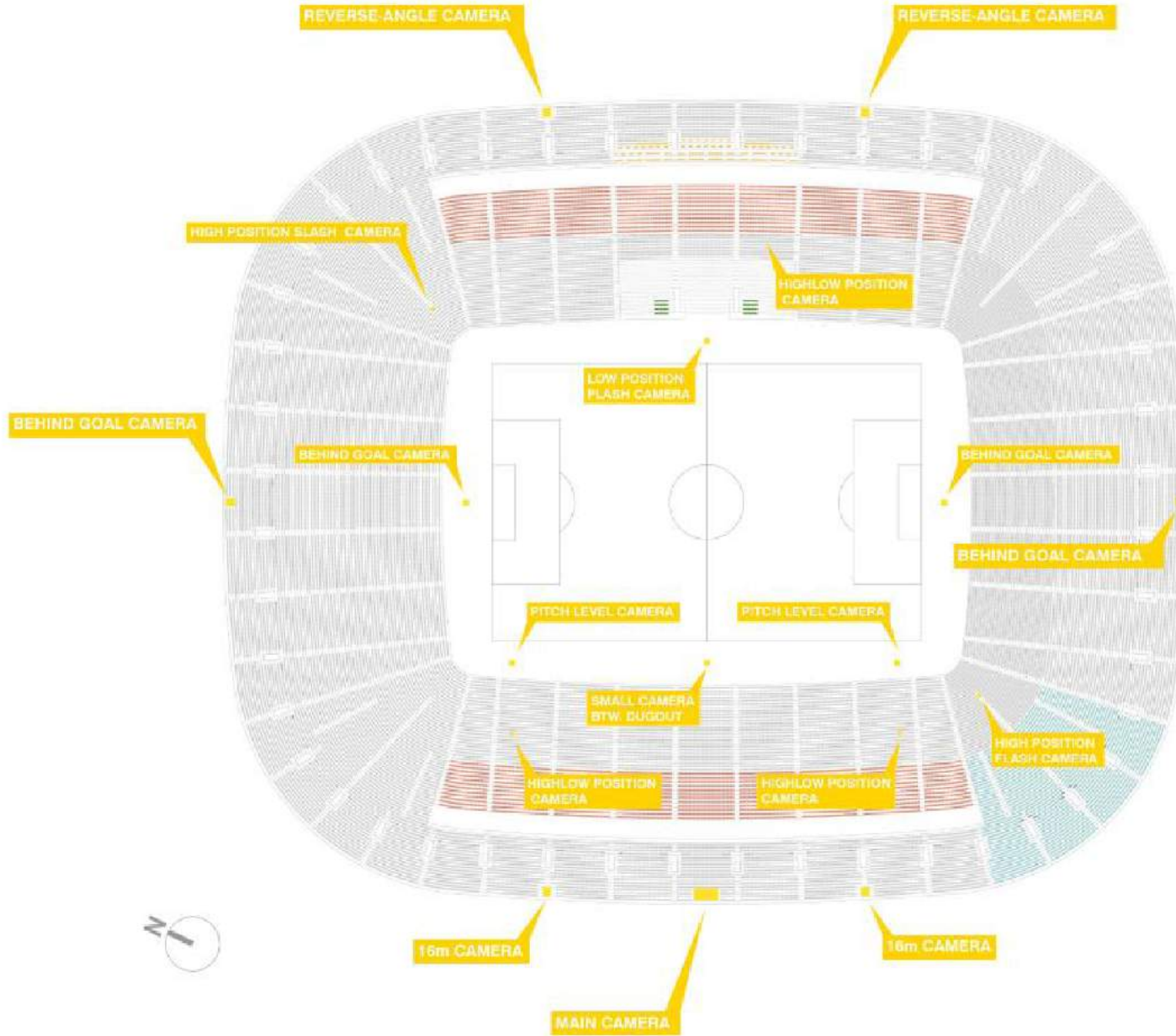
TIER 1:	23,270
TIER 2:	19,642
TIER 3:	20,680

TOTAL: 63,542



# TYPES

## CAMERA POSITION



©OMA

stadion feyenoord

Concourse





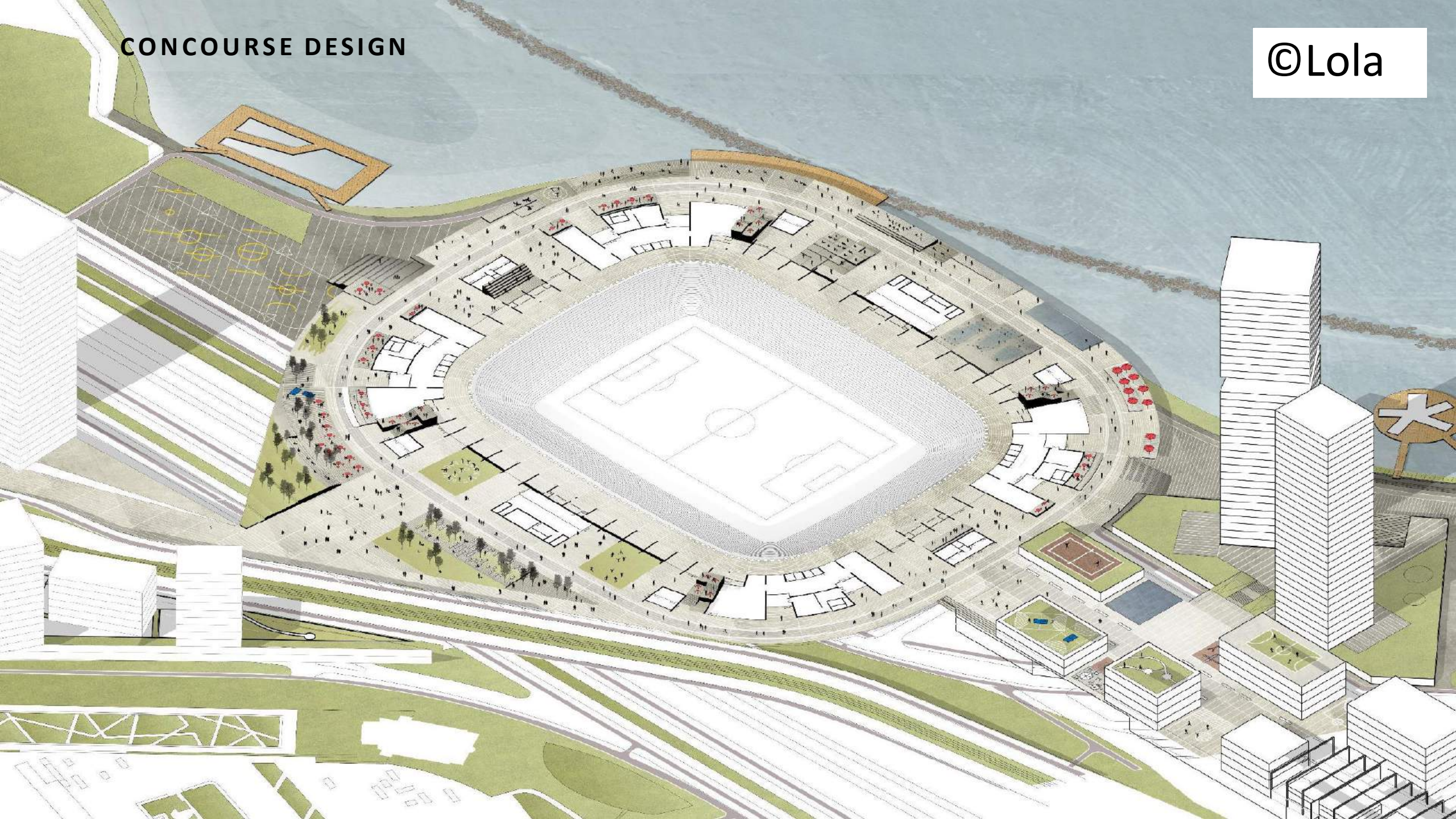
©OMA



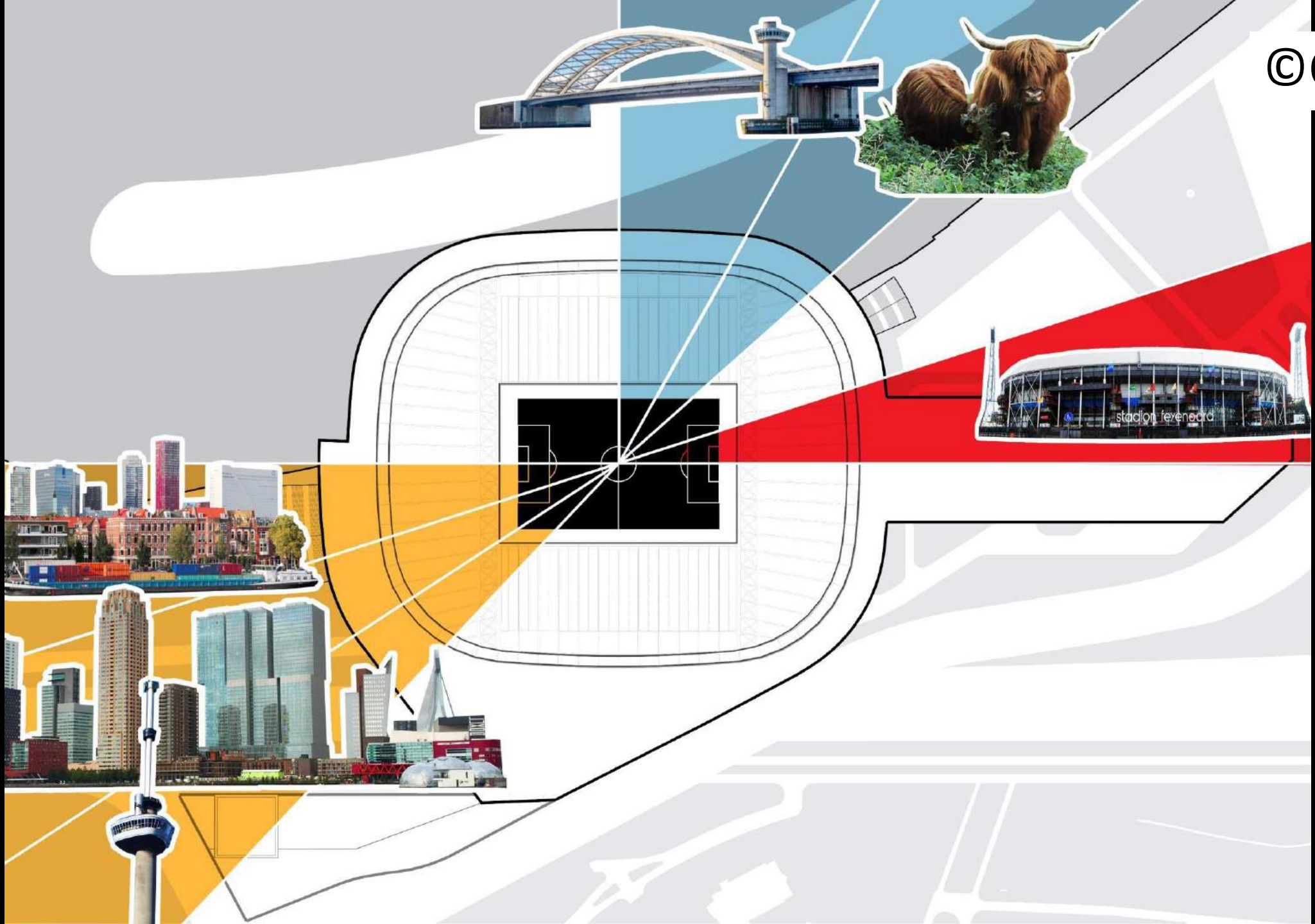


CONCOURSE DESIGN

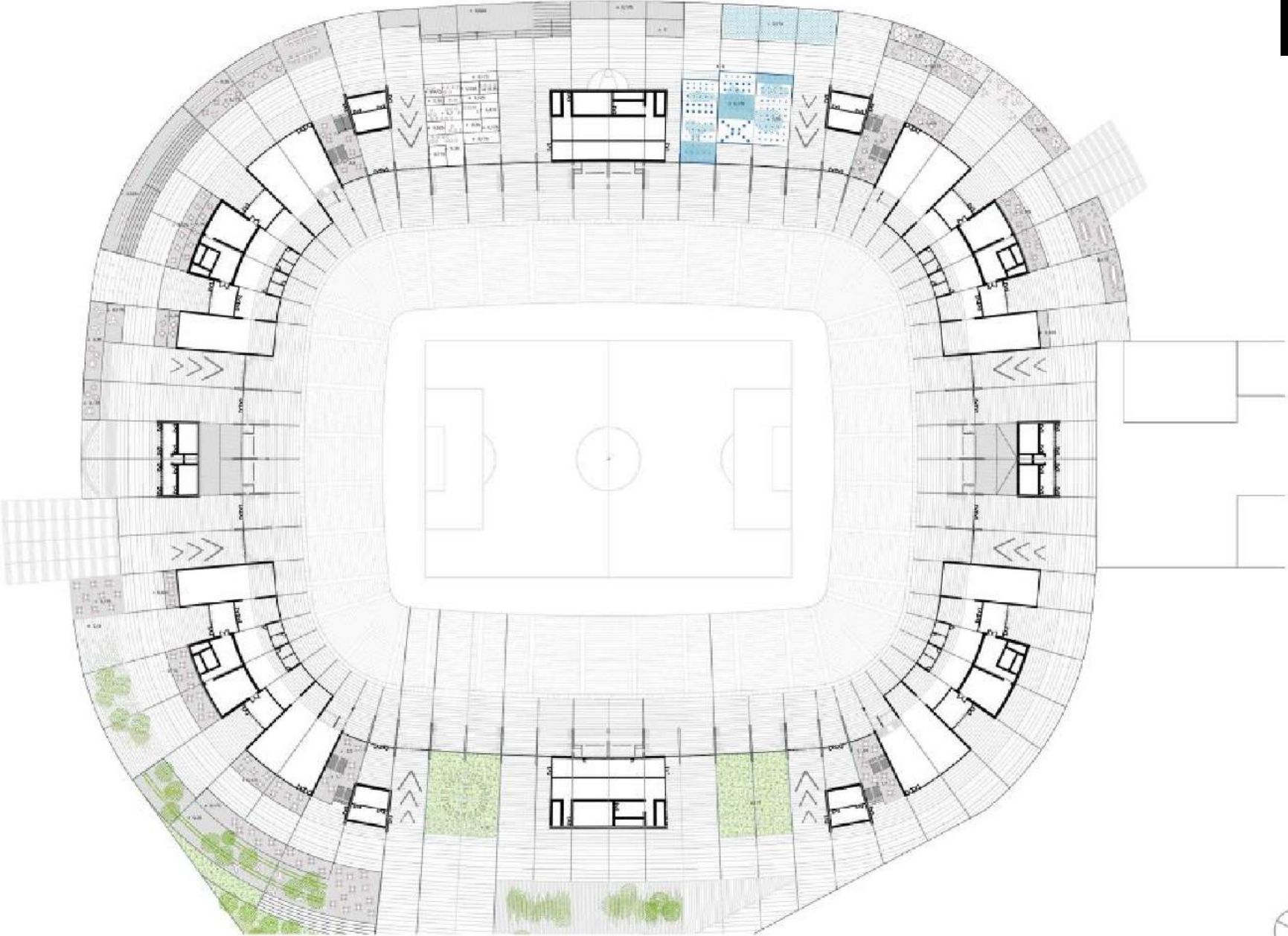
©Lola







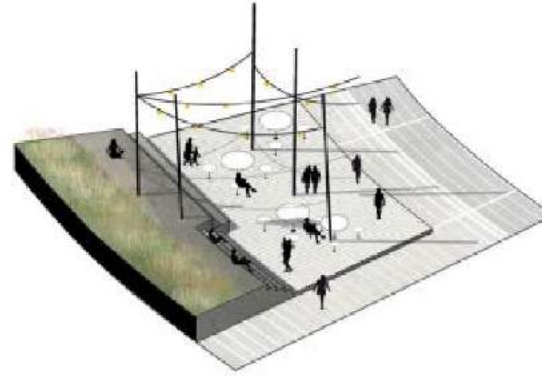




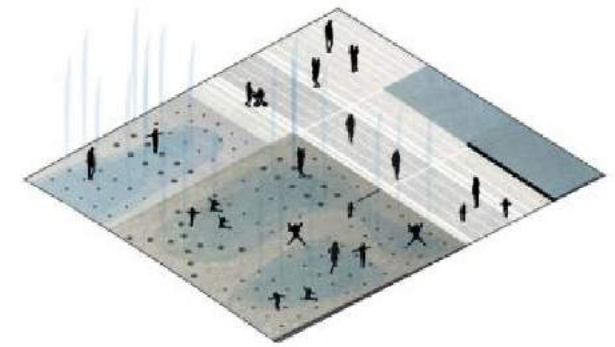




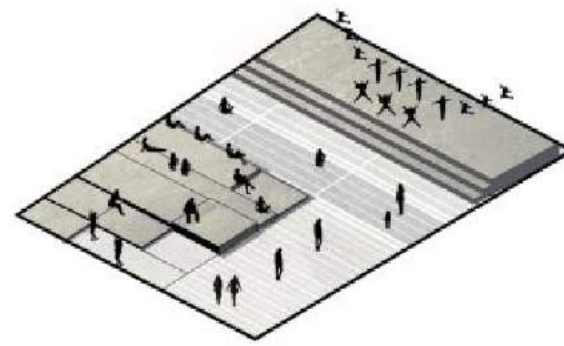
BEERGARDEN



WATERFEATURES ON



AMPHITHEATRE





QUALITY OF PUBLIC SPACE



OPERA HOUSE, OSLO



PLACE DE LA REPUBLIQUE, PARIS



WATER FEATURE, BORDEAUX



OPERA HOUSE, OSLO



WORLD FORUM, THE HAGUE



MAAT, LIEBON



YOGA ON THE CONCOURSE AT NON-MATCH DAYS

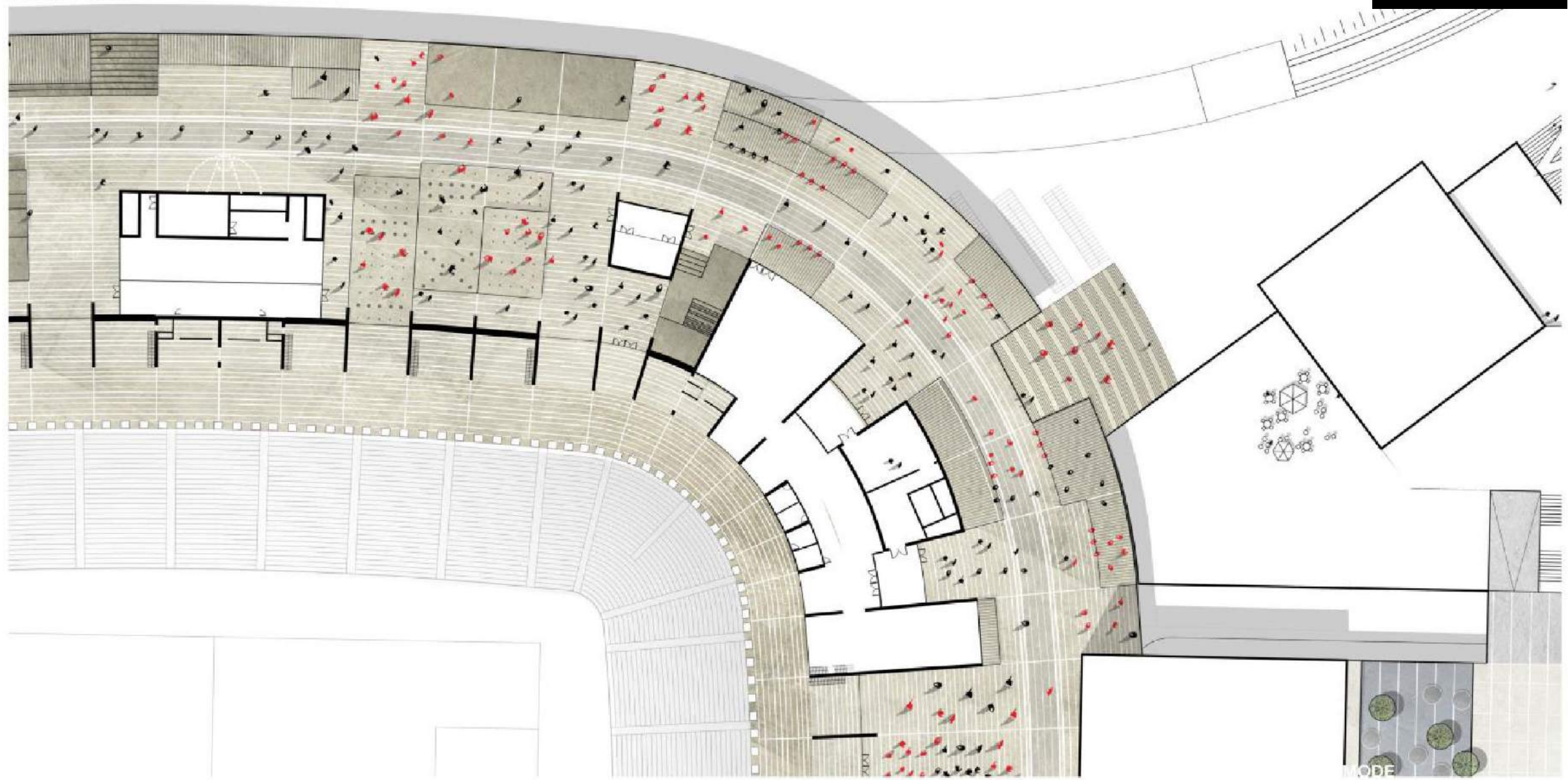




USAGE

MATCH MODE

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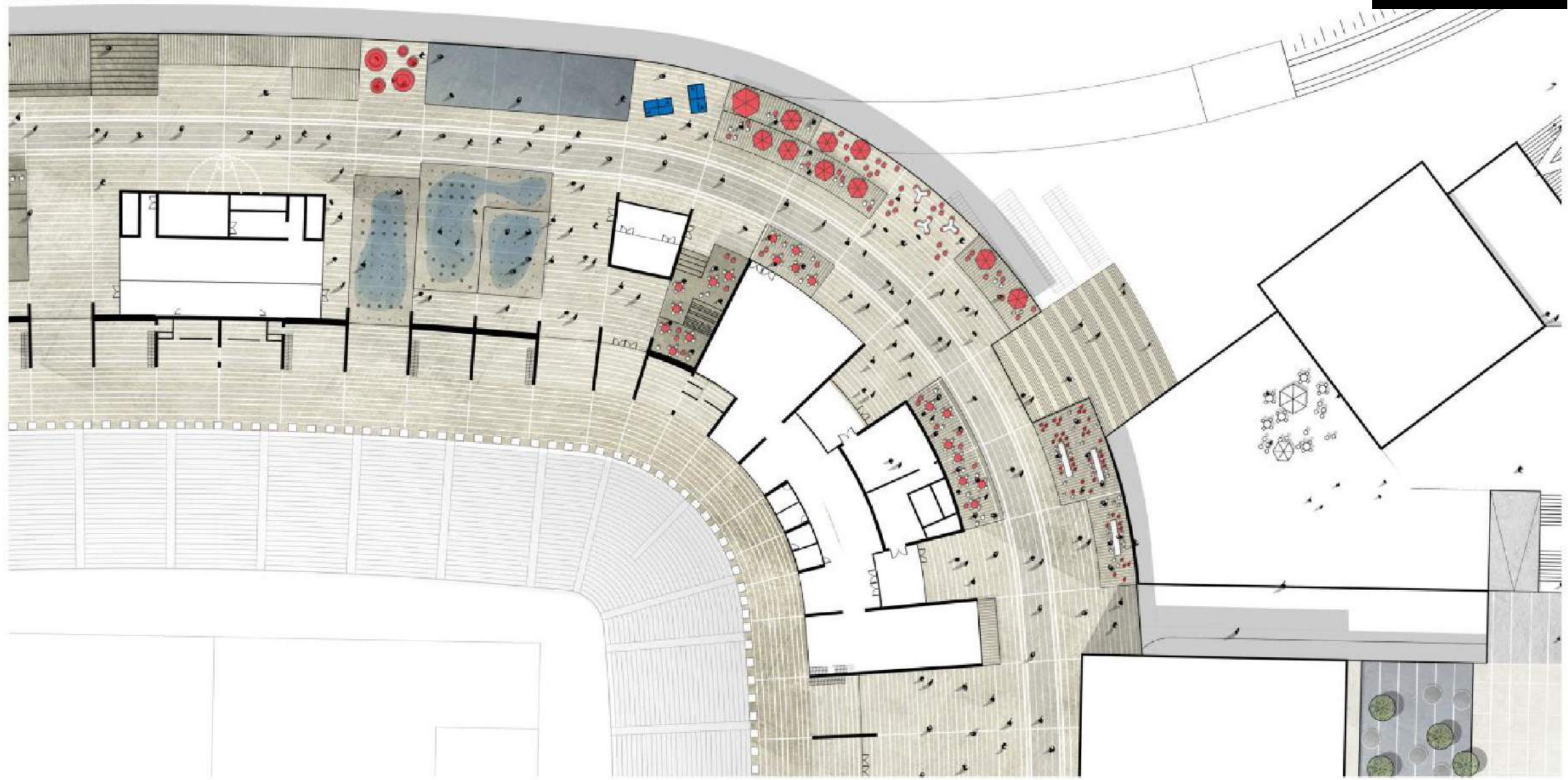




USAGE

NON MATCH MODE

©Lola





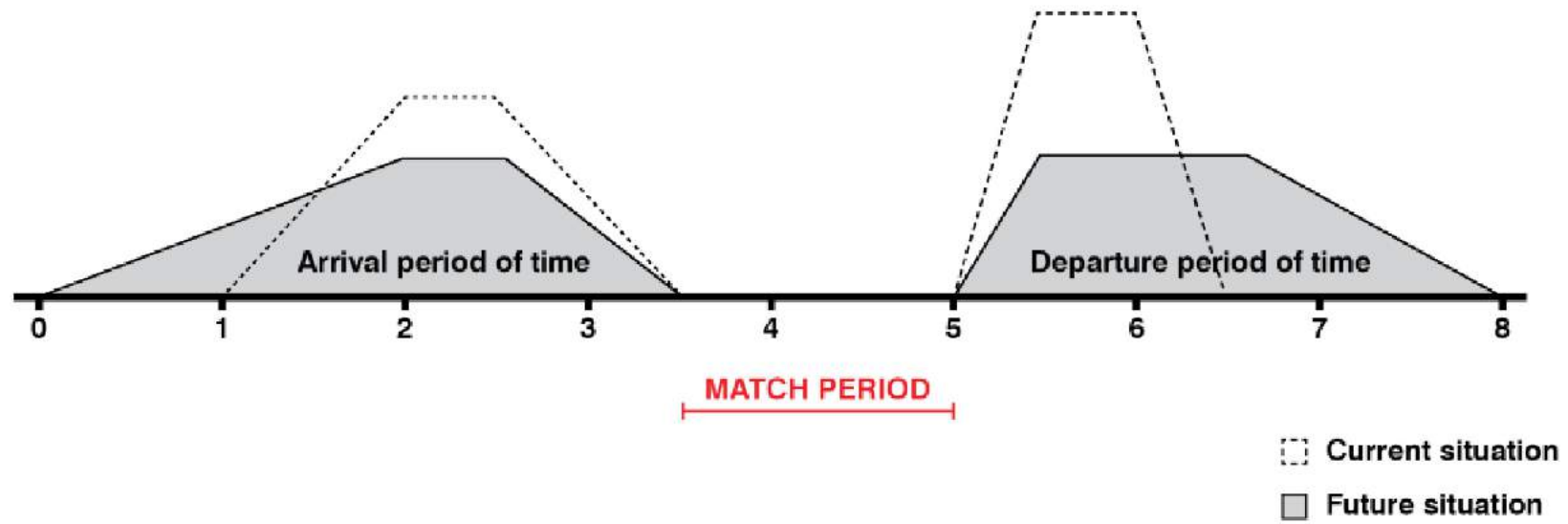
©OMA





**Naar het stadion & het stadion in**

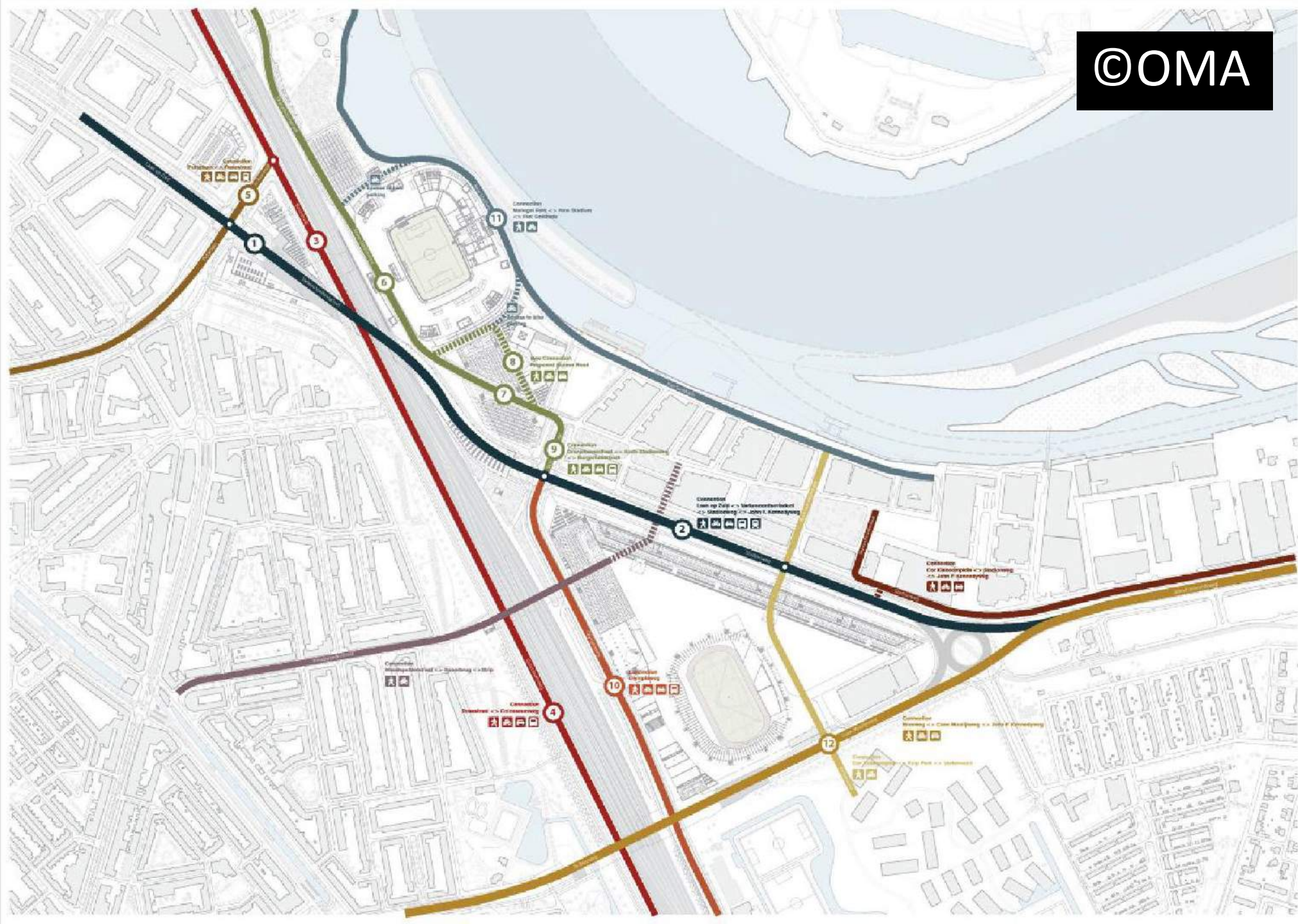






**MOBILITY**

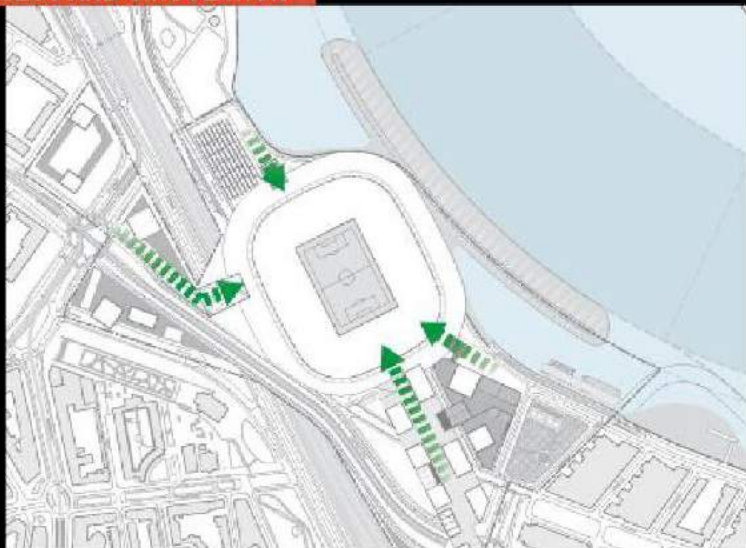
**PRIMARY CONNECTIONS  
OVERVIEW**





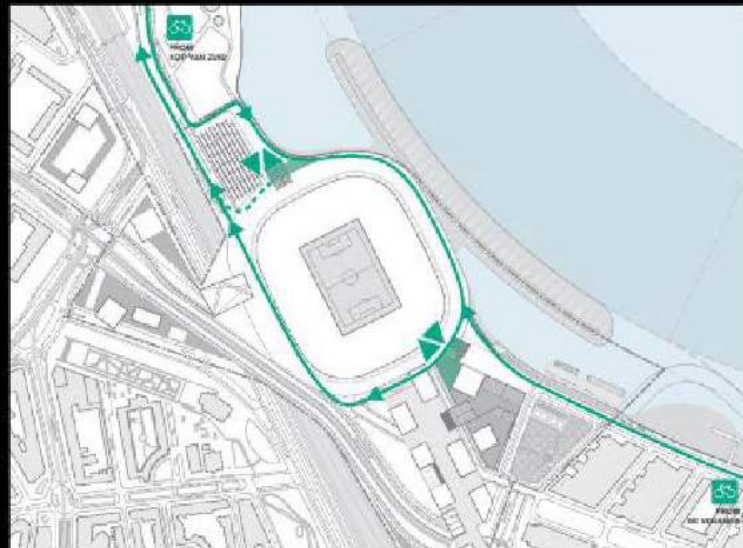
## ACCESS AND CIRCULATION

©OMA



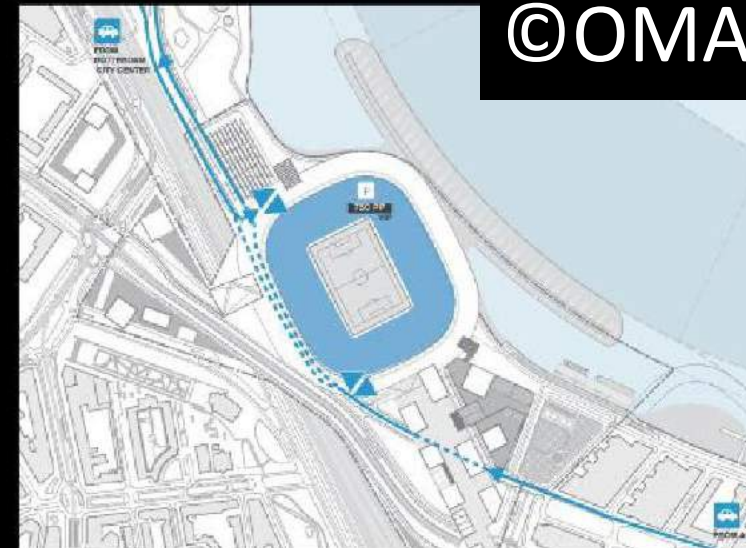
### PEDESTRIANS

The New Stadium has 4 main connections which form the access points for pedestrians coming from every direction.



### BIKES

Bikes can access and traverse the stadium from two main routes: the waterfront route and the urban bridge route which connects Laan op Zuid to De Veranda. Bike storages are located under the stair connections on the waterfront and Mallegat Park.



### CARS

A parking is located within the Stadium for 765 cars and is accessed via Korte Stadionweg.



### ACCESS

The New Stadium is accessed along a perimeter of cores which distribute spectators on the various tiers.



### PUBLIC TRANSPORT

The stadium is easily accessible via public transport with tram and train networks, organized buses and water taxis.



### SERVICE AND LOGISTICS

Service and logistics vehicles can access the stadium at the ground level via Korte Stadionweg on non-match days.



**IMPRESSIONS**

**VIEW FROM TRAIN TOWARDS  
OLYMPIAWEG STRIP FACADE**

STRATEGIES FOR ACTIVATION OF OLYMPIAWEG

**©OMA**





**IMPRESSIONS**

**VIEW ON STATION BRIDGE TOWARDS  
THE STRIP**

NEW STADIUM

**@OMA**





**IMPRESSIONS**

**VIEW STRIP NORTH TOWARDS THE NEW STADIUM**

**©OMA**







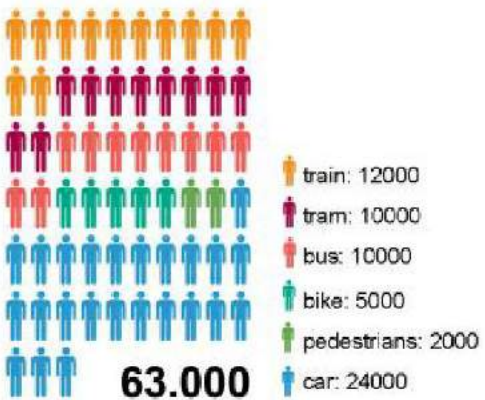




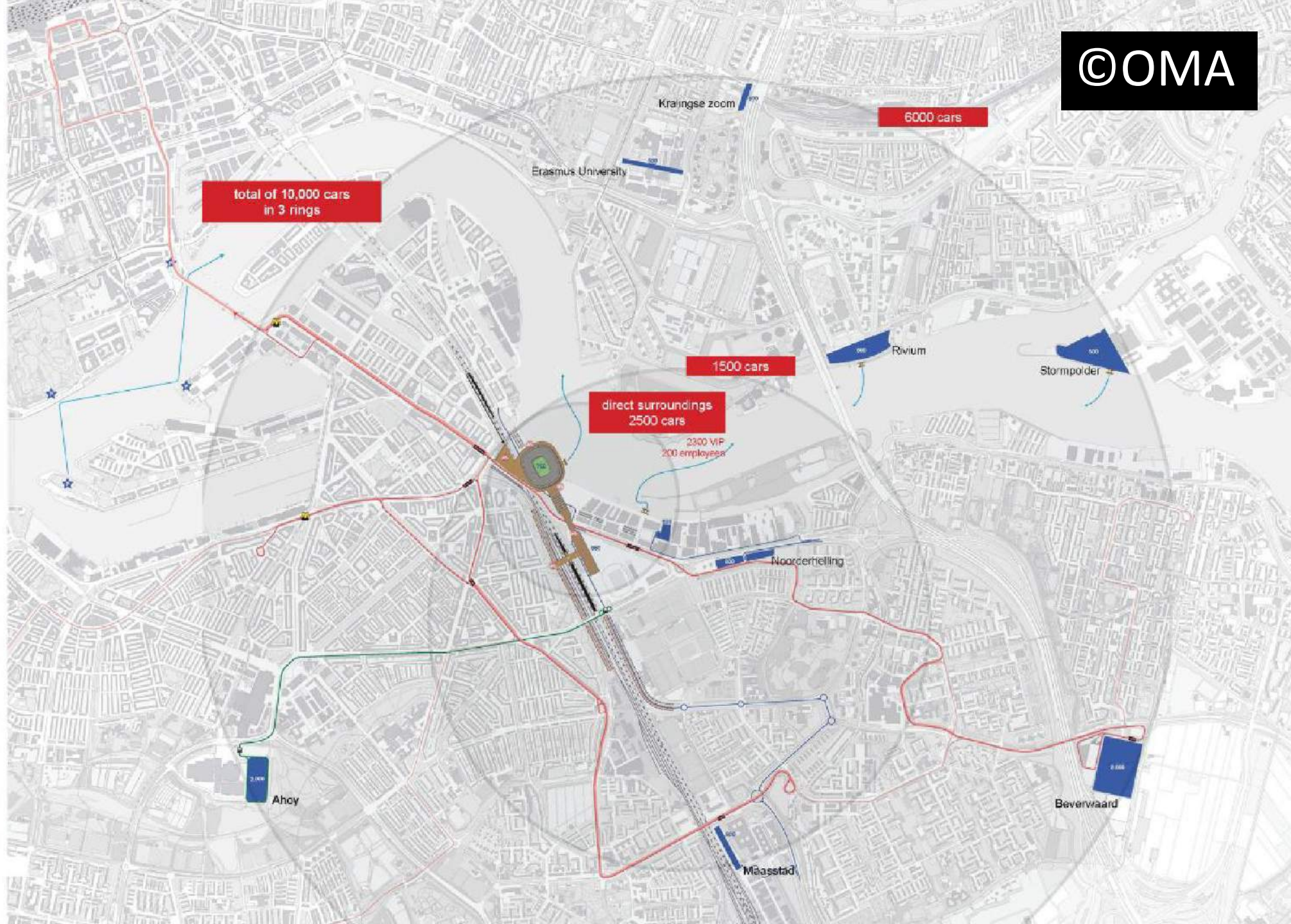


**MOBILITY**  
**MOBILITY PLAN**

SOURCE: GEMEENTE ROTTERDAM  
/ MOBILITEITSPLAN VERSIE 1.0,  
OKTOBER 2016

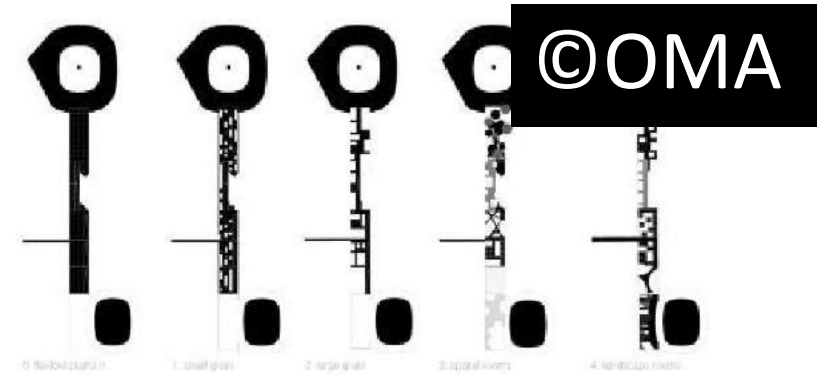


envisioned division transport modes (gebiedsvisie)





DESIGN PRINCIPLES  
FLEXIBILITY



In the near future mobility systems undergo a radical transformation in which car usage will decrease. Anticipating on this, parking facilities must be designed as flexible buildings, able to accommodate other functions when needed.

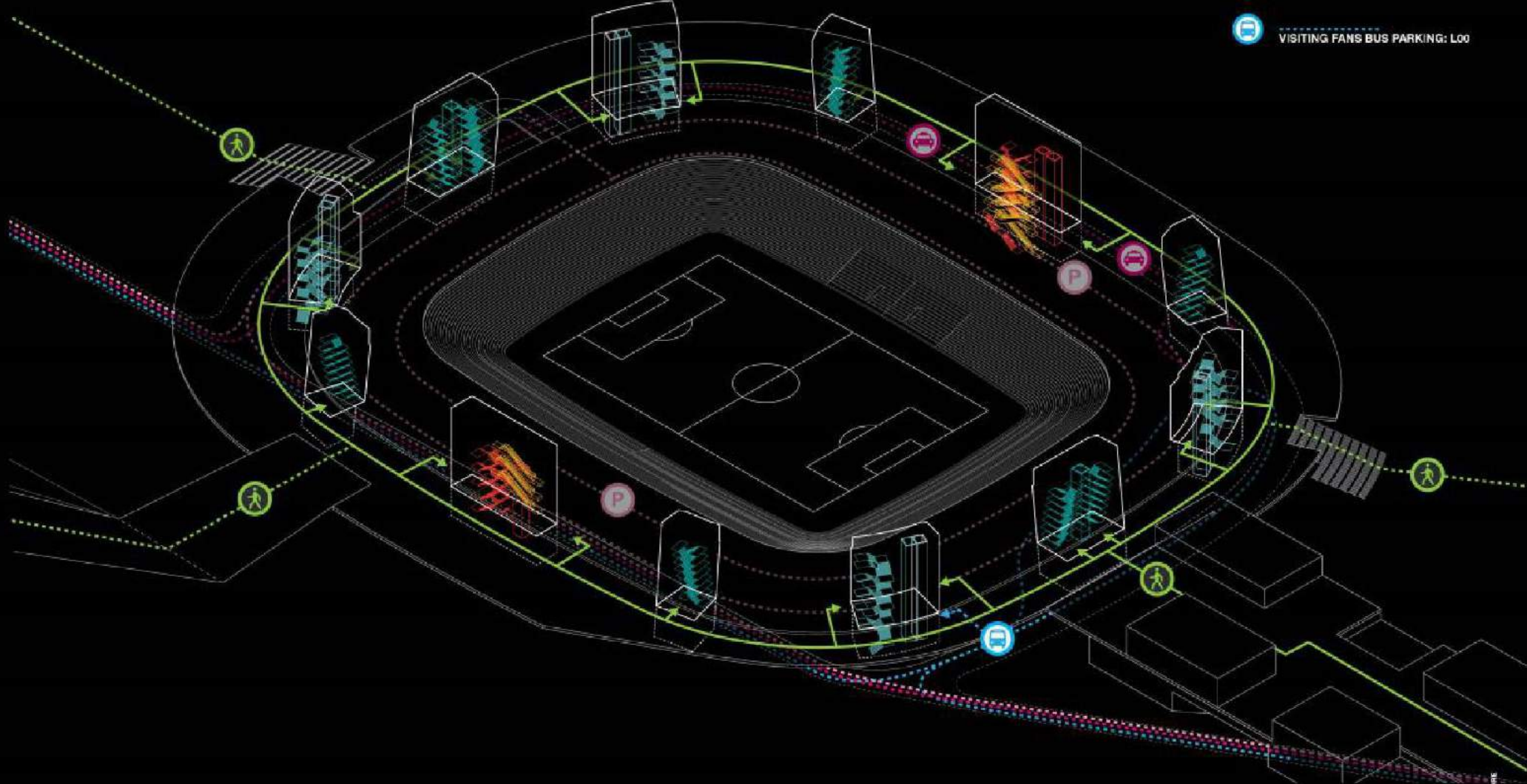




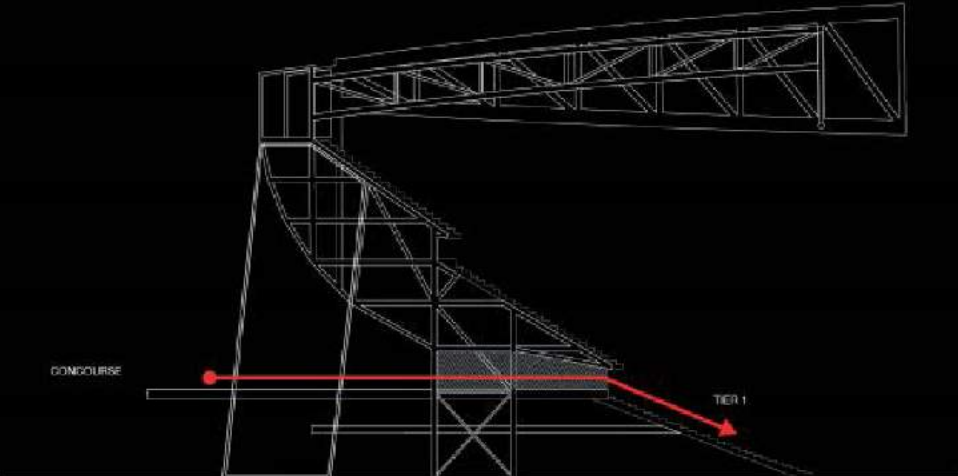
# VERTICAL TRANSPORTATION

©OMA

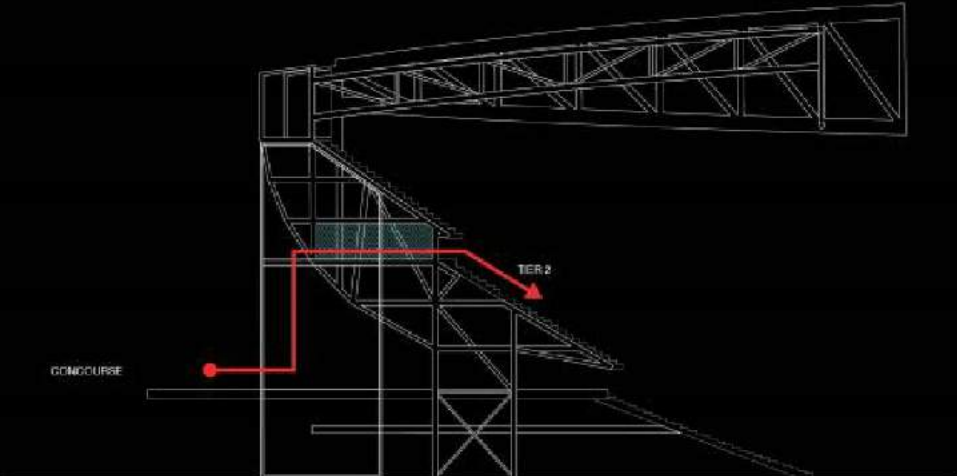
-  CONCOURSE APPROACH: L01
-  CONCOURSE FLOW : L02
-  PARKING ACCESS: L01
-  TAXI DROP OFF: L00
-  VISITING FANS BUS PARKING: L00



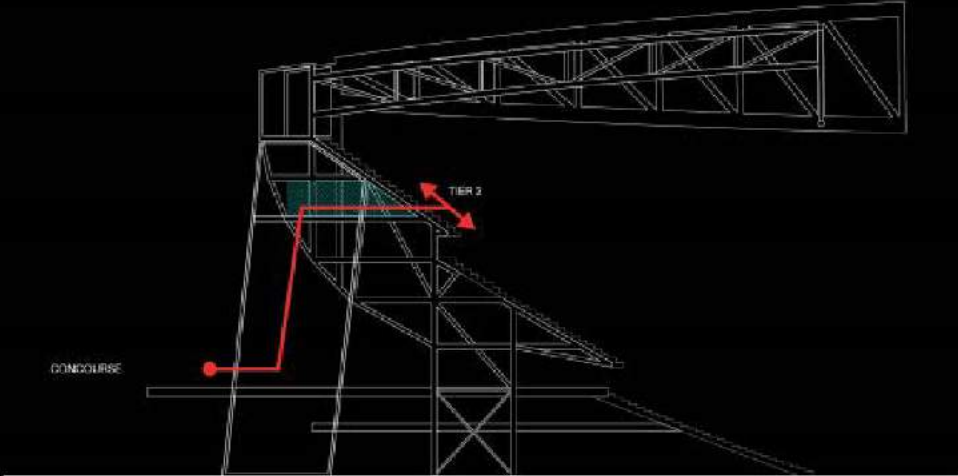




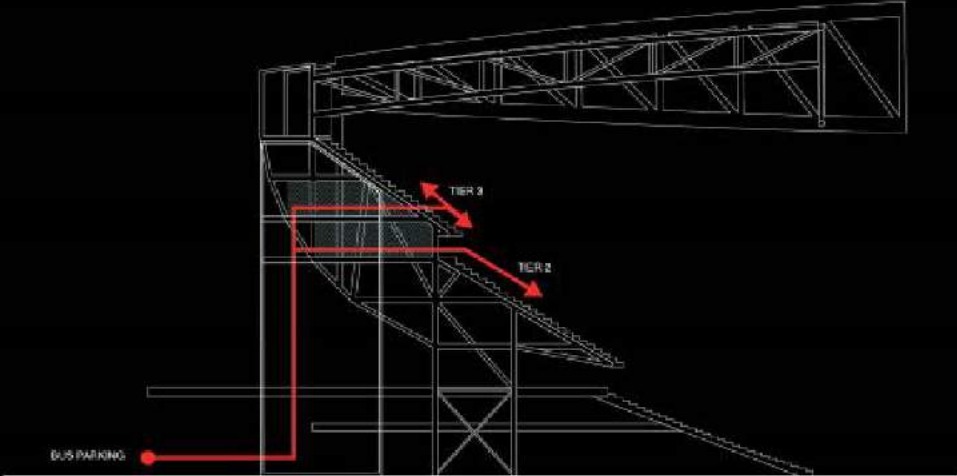
GA: TIER 1



GA: TIER 2



GA: TIER 3



GA: VISITING FANS



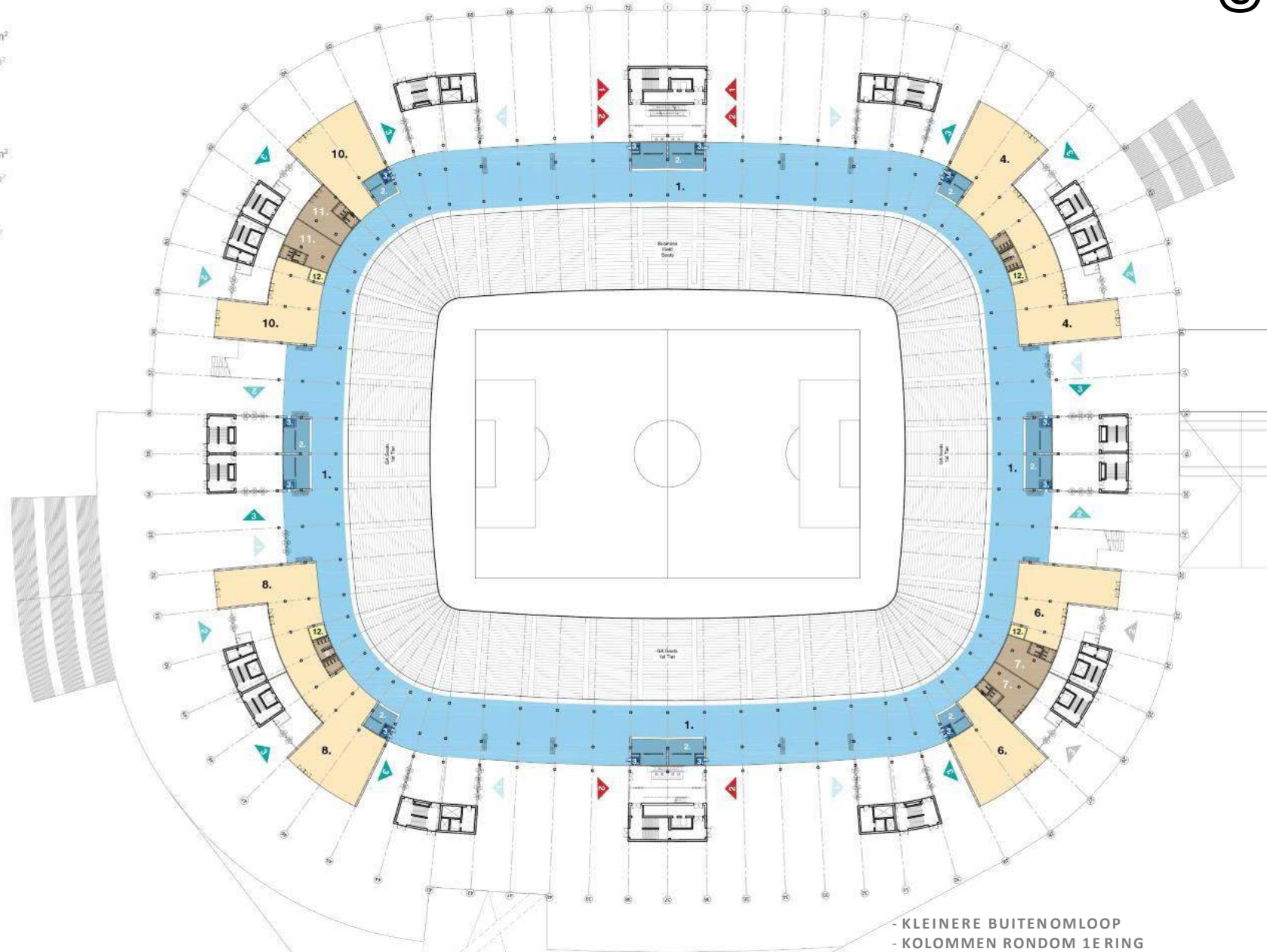


**CONCOURSE FACILITIES** ■■■ 8,457m<sup>2</sup>

- 1. Concourse 7,711m<sup>2</sup>
- 2. Concessions 688m<sup>2</sup>  
Counter length 114m (188m)
- 3. Toilets 58m<sup>2</sup>  
Non- & Match Day  
MIVA 16 (13)

**PUBLIC FACILITIES** ■■■ 4,500m<sup>2</sup>

- 4. Bev. Concept 2 (FOH) 1,094m<sup>2</sup>
- 5. Bev. Concept 2 (BOH) 44m<sup>2</sup>
- 6. Restaurant 3 (FOH) 859m<sup>2</sup>
- 7. Restaurant 3 (BOH) 226m<sup>2</sup>
- 8. Bev. Concept 1 (FOH) 1,094m<sup>2</sup>
- 9. Bev. Concept 1 (BOH) 44m<sup>2</sup>
- 10. Restaurant 4 (FOH) 659m<sup>2</sup>
- 11. Restaurant 4 (BOH) 226m<sup>2</sup>
- 12. Medical Points 54m<sup>2</sup>



- Business Tier 1
- Business Tier 2
- GA Tier 1
- GA Tier 2
- GA Tier 3
- NON-Feyenoord Match Tier 2
- NON-Feyenoord Match Tier 3

- KLEINERE BUITENOMLOOP
- KOLOMNNEN RONDOM 1E RING
- RESTAURANTS L02-L03 VERDEELD IN 3 APARTE UNITS
- CAMERA POSITIES VAN 3E RING NAAR L02







CONCOURSE FACILITIES

L05 - CONCOURSE

©OMA





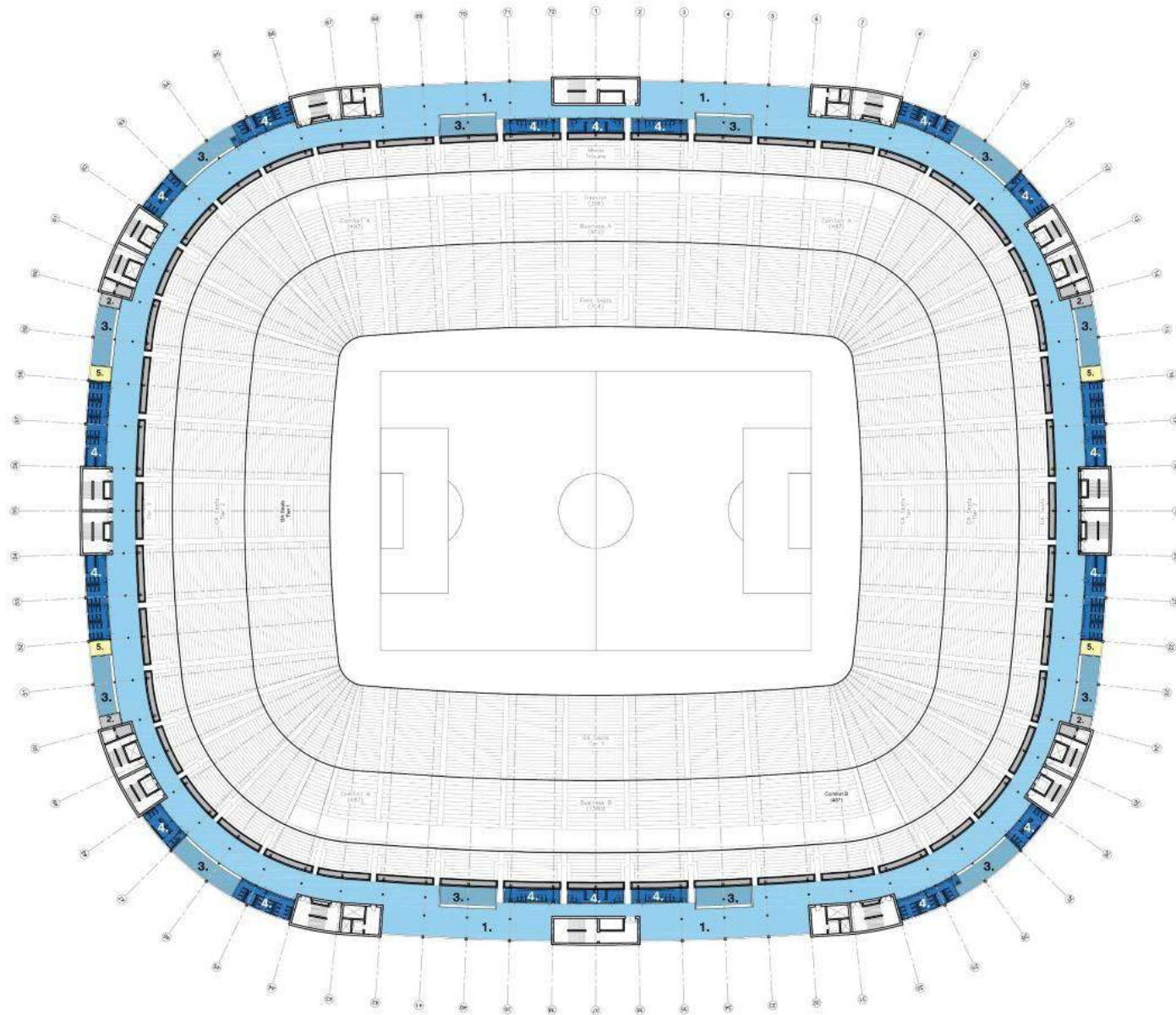


CONCOURSE FACILITIES ■■■ 7,384m<sup>2</sup>

1. Concourse	5,174m <sup>2</sup>
2. Safe Heaven	112m <sup>2</sup>
3. Concessions	1,187m <sup>2</sup>
Counter length 171m (171)	
4. Toilets	911m <sup>2</sup>
Match Day	
Male	78 (72)
Urinals	184 (169)
Female	124 (123)
MIVA	4 (2)
Non Match Day	
Male	40 (39)
Urinals	184 (169)
Female	164 (156)
MIVA	4 (2)

PUBLIC FACILITIES ■ 72m<sup>2</sup>

5. Medical Points	72m <sup>2</sup>
-------------------	------------------





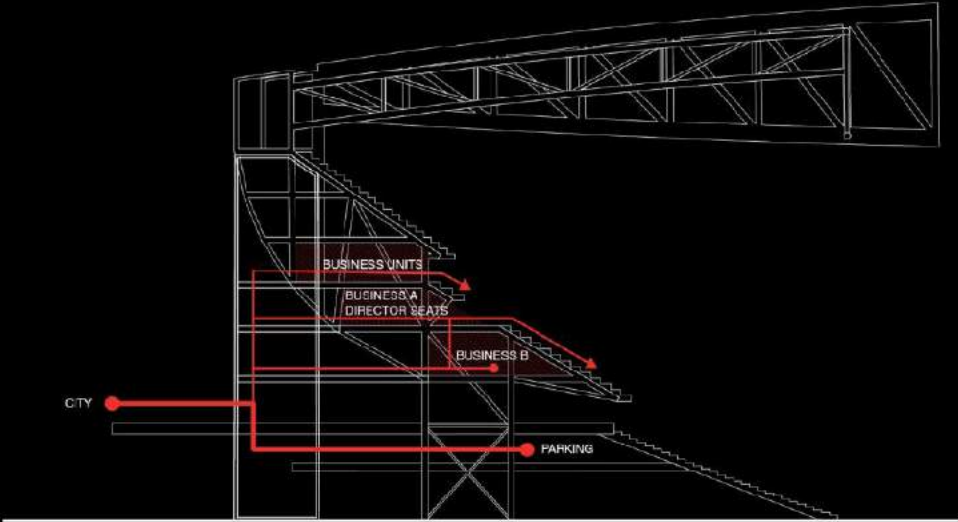
CONCOURSE FACILITIES

L06 - CONCOURSE

©OMA







BUSINESS EAST (WATER)



BUSINESS WEST (CITY)

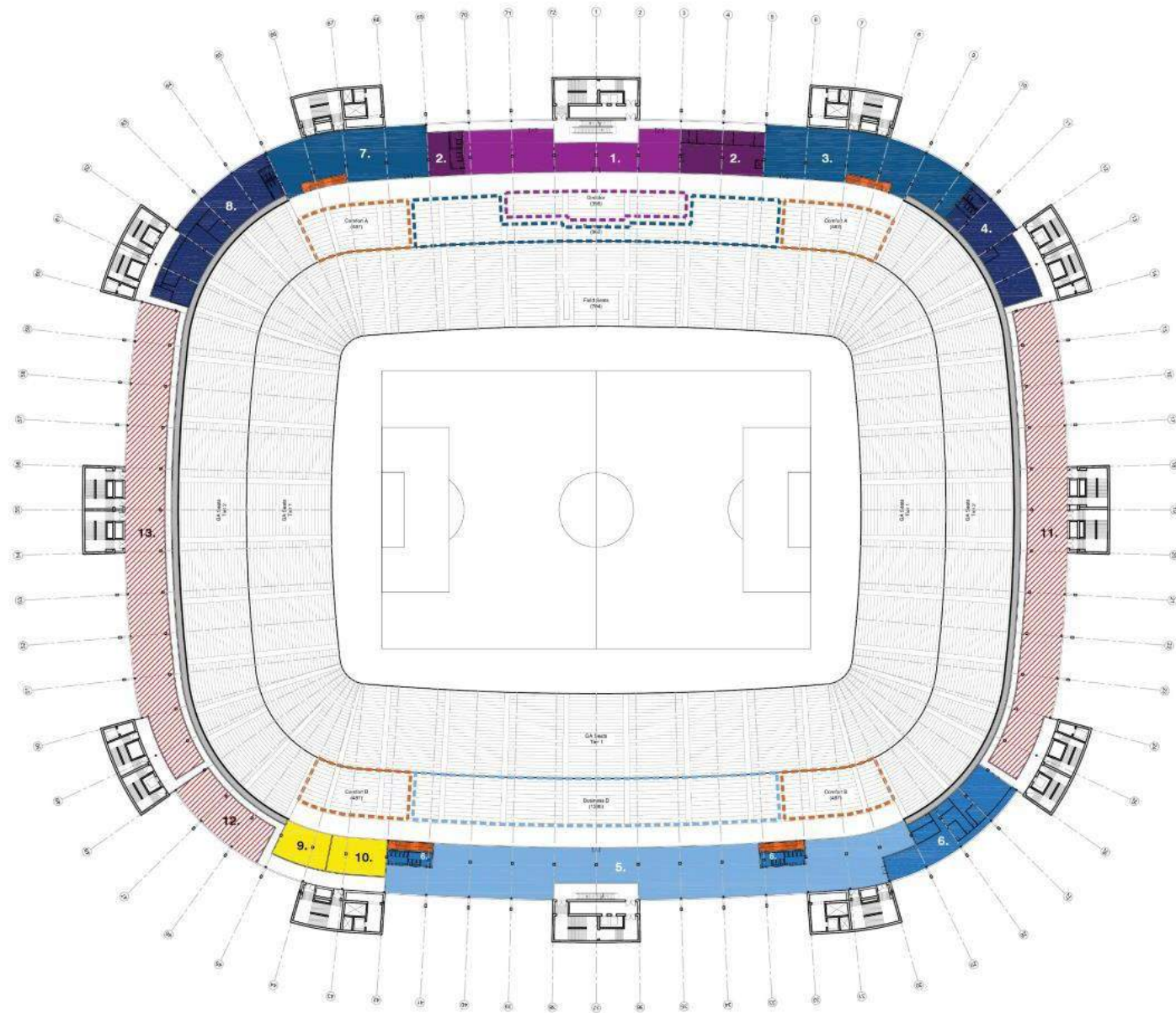


# L04

1:1000 0 25 50 100 150m



<b>BUSINESS</b> <span style="color: orange;">■</span> <span style="color: blue;">■</span> <span style="color: purple;">■</span> <span style="color: red;">■</span>	<b>4,372m<sup>2</sup></b>
1. Director (FOH)	487m <sup>2</sup>
2. Director (BOH)	302m <sup>2</sup>
3. Business A1 (FOH)	593m <sup>2</sup>
4. Business A1 (BOH)	301m <sup>2</sup>
5. Business B (FOH)	1.382m <sup>2</sup>
6. Business B (BOH)	418m <sup>2</sup>
7. Business A2 (FOH)	454m <sup>2</sup>
8. Business A2 (BOH)	435m <sup>2</sup>
<b>FACILITIES / STAFF</b> <span style="color: yellow;">■</span>	<b>235m<sup>2</sup></b>
9. Regie	111m <sup>2</sup>
10. Comando	124m <sup>2</sup>
<b>RENTABLE SPACES</b> <span style="color: red;">▨</span>	<b>2,409m<sup>2</sup></b>
11. Rentable Space 1	1.087m <sup>2</sup>
12. Rentable Space 2	235m <sup>2</sup>
13. Rentable Space 3	1.087m <sup>2</sup>



**TIJDENS /NA DE WEDSTRIJD PASSEN ALLE DIRECTOR /BUSINESS A SEATS BEZOEKERS IN DE HOSPITALITY RUIMTES OPL04**

- BUSINESS HOSPITALITY VERGROOT
- AANTAL BUSINESS SEATS VERGROOT
- EXTRA VERHUURBARE RUIMTE

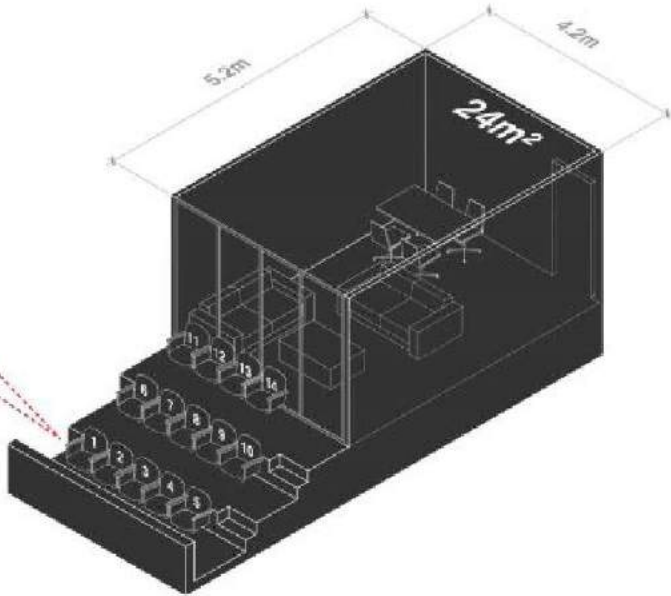
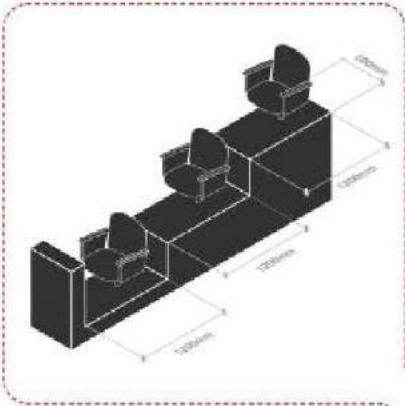
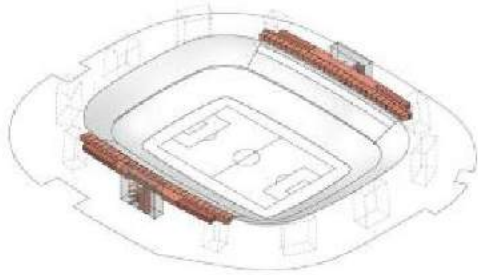




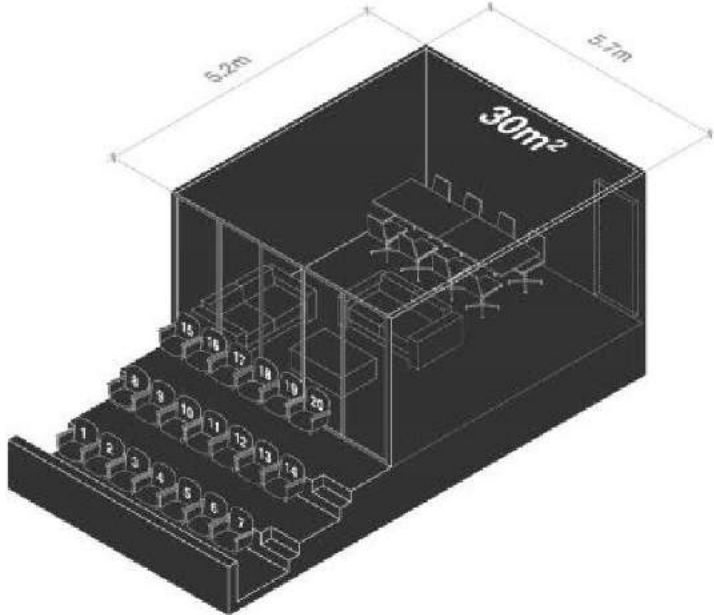








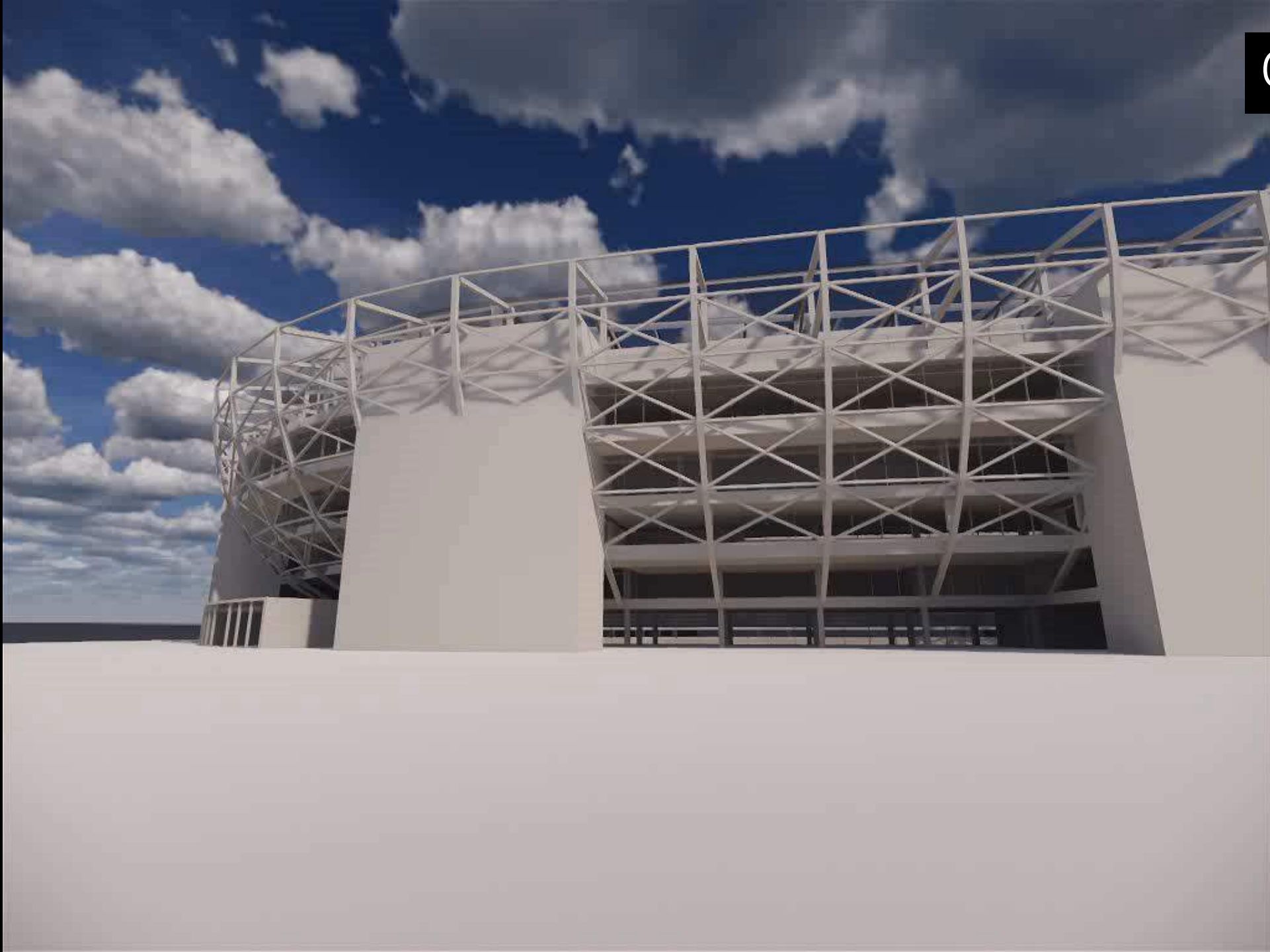
UNIT TYPE A (8 UNITS)



UNIT TYPE B (48 UNITS)



©OMA





**Multifunctionaliteit & uitbereiding**





CONGRESS SPACE EXAMPLES

EMIRATES STADIUM, LONDON

©OMA



Temporary Partition Wall

Temporary Screen



Temporary Screen

Curtains



Partition Wall



Partition Wall

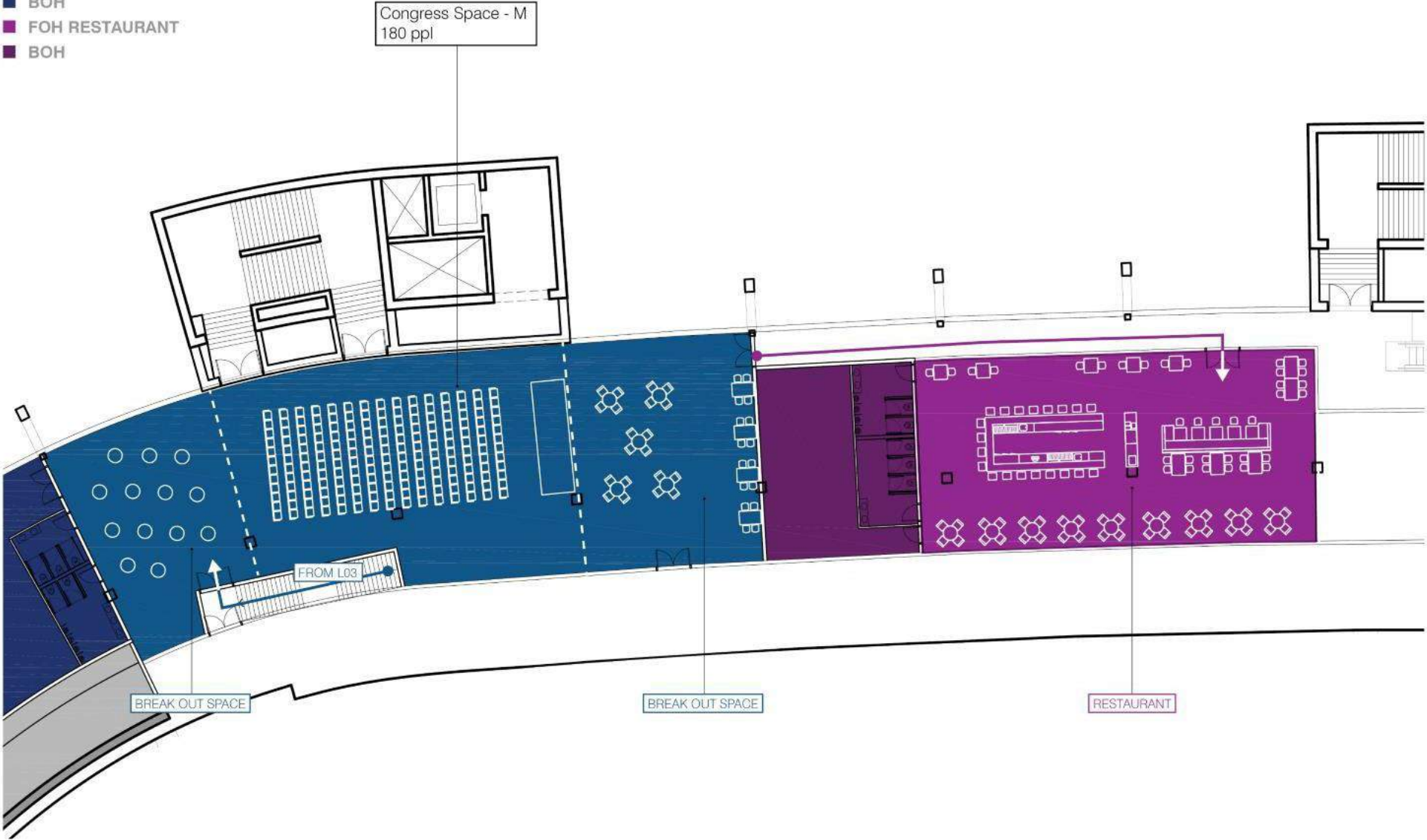
Curtains



CONGRESS - M









L04 - DIRECTOR / BUSINESS A

- - - - PARTITION CURTAIN
- FOH
- BOH
- FOH RESTAURANT
- BOH





QUARTER-FINALISTS

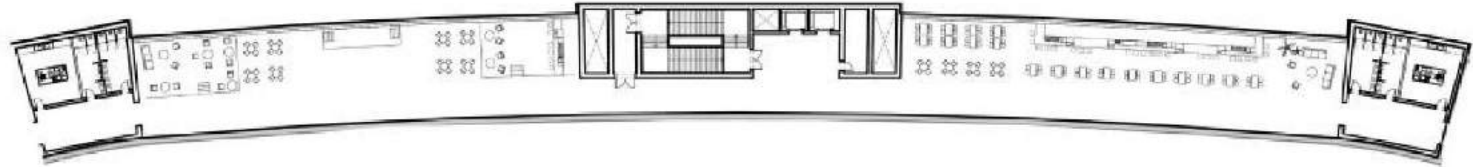
	ATLÉTICO DE MADRID (ESP)
	FC BARCELONA (ESP)
	FC BAYERN MÜNCHEN (GER)
	JUVENTUS (ITA)
	AS MONACO FC (FRA)
	PARIS SAINT-GERMAIN (FRA)
	FEYENOORD (NED)
	REAL MADRID CF (ESP)



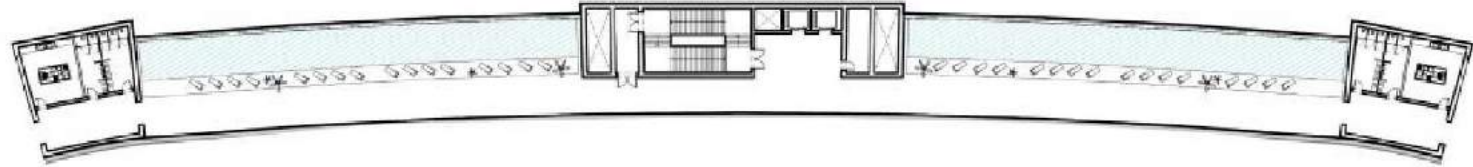


# FUTURE EXPANSION

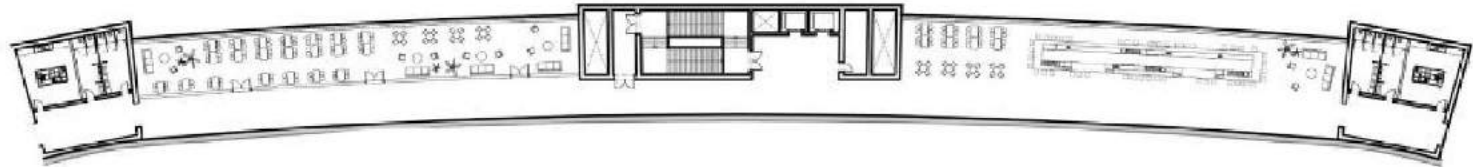
## POTENTIAL ADDITIONAL PROGRAMS



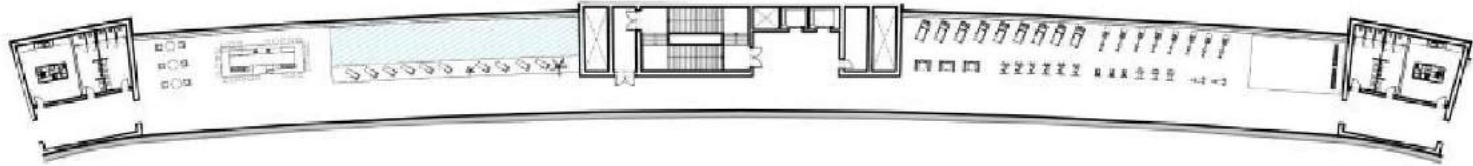
TYPE A: BAR / NIGHT CLUB



TYPE B: INFINITY POOL



TYPE C: RESTAURANT



TYPE D: SPORTS CLUB



FUTURE EXPANSION



HOTEL SOFITEL VIENNA

©OMA



PUBLIC HOTEL



A'DAM TOREN CLUB



MARINA BAY SANDS



©OMA

**Gevel & structuur**







CURTAIN WALL



GLASS



FRIT / FROSTED GLASS



CONCRETE WALL



CORRUGATED ALUMINIUM



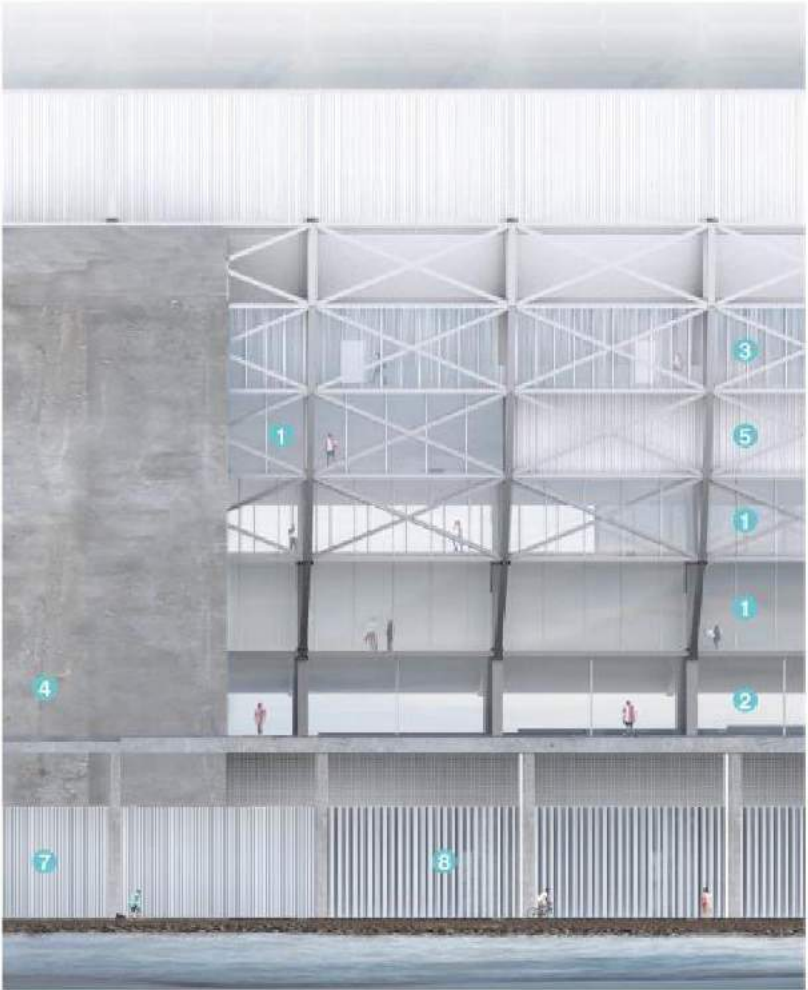
FLAT ALUMINIUM



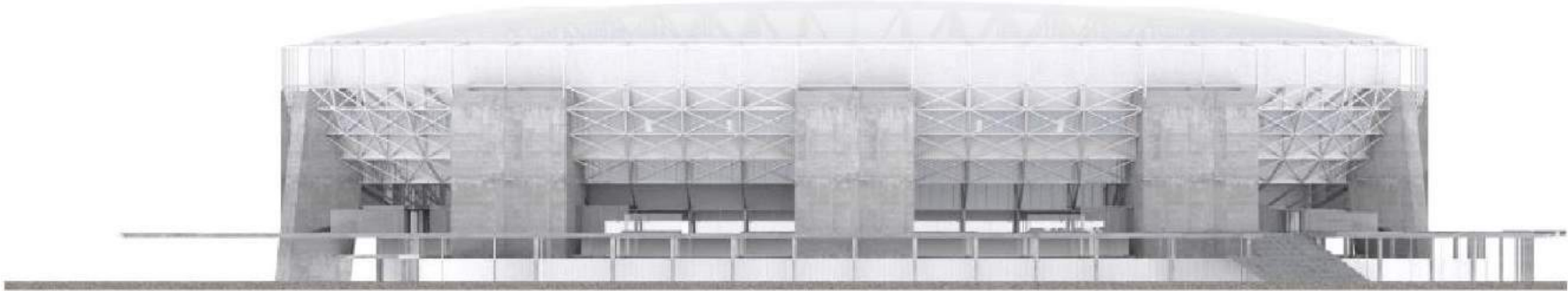
ALUMINIUM TUBE: CLOSE



ALUMINIUM TUBE: OPEN











stadion feyenoord

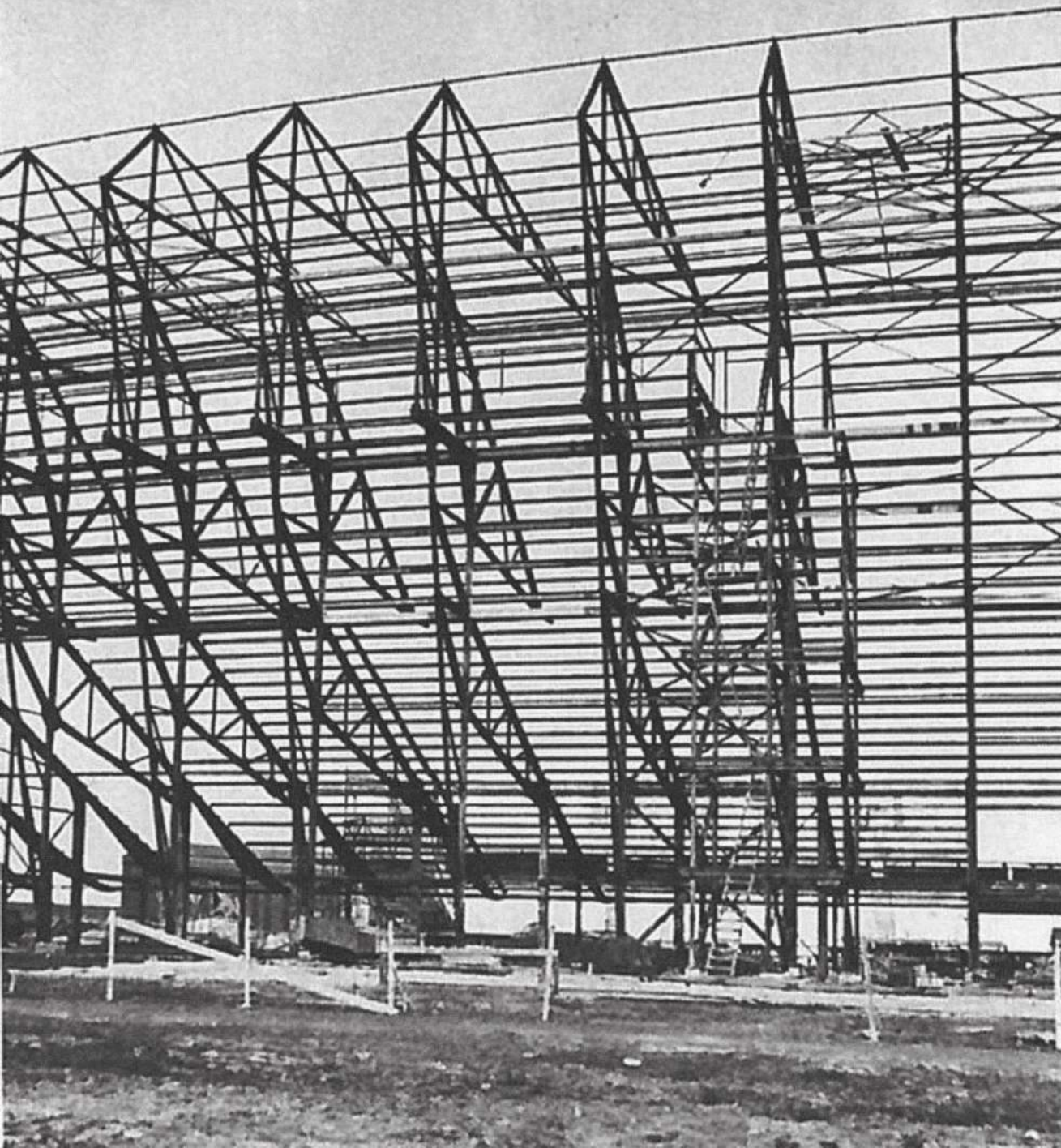


©OMA





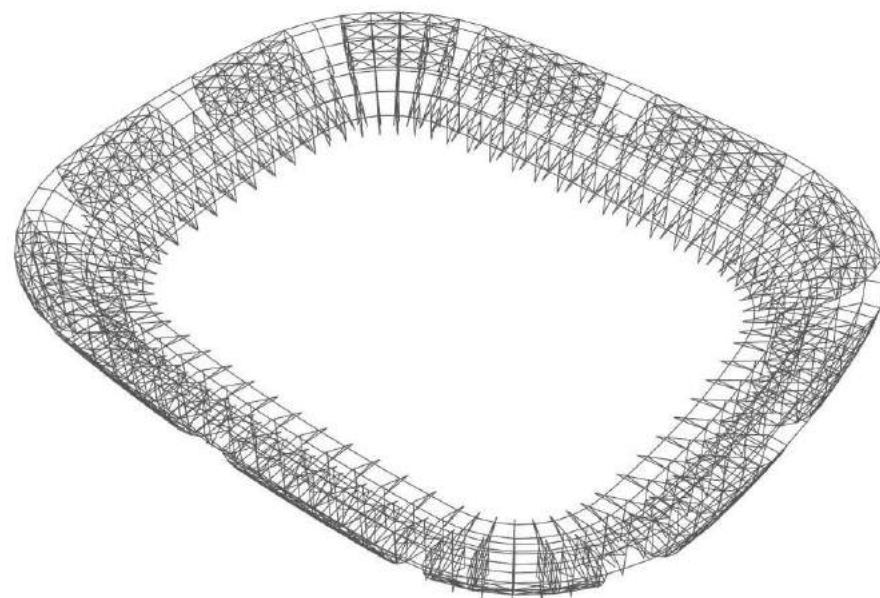
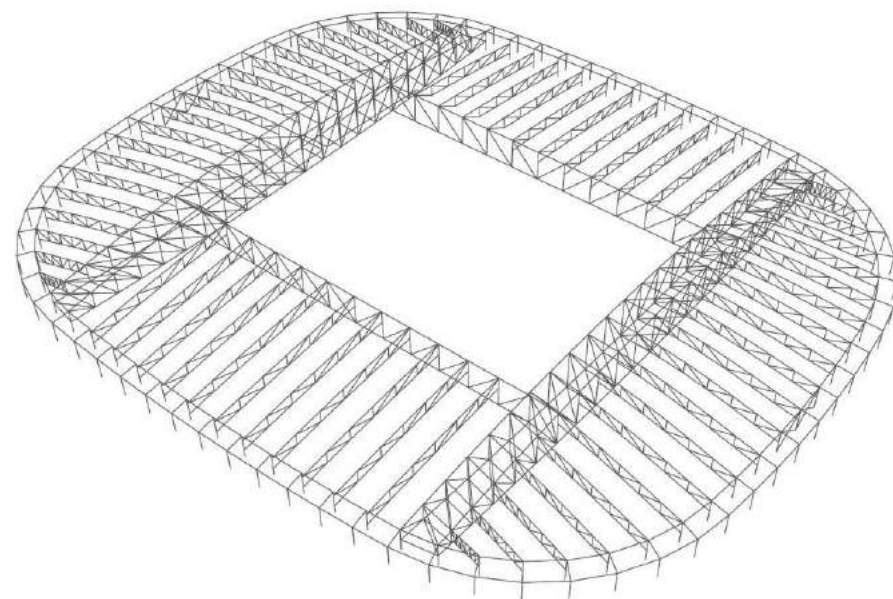
©OMA





**STEEL STRUCTURE  
- NEW STADIUM**

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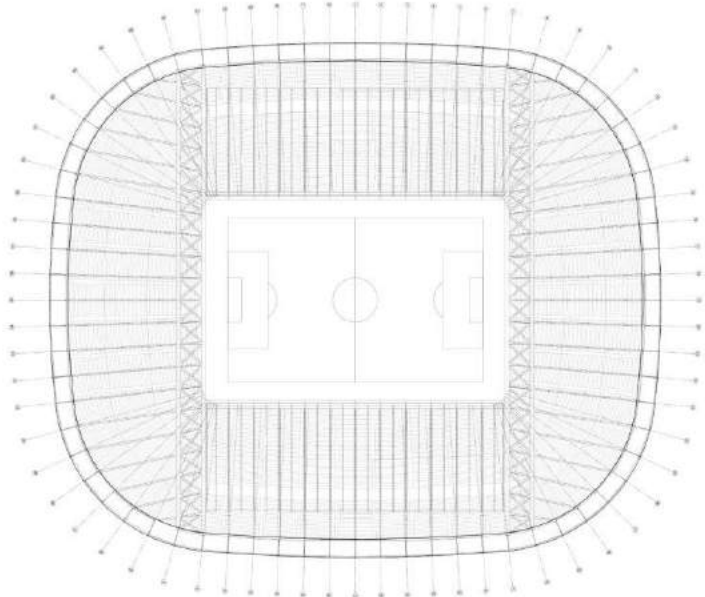




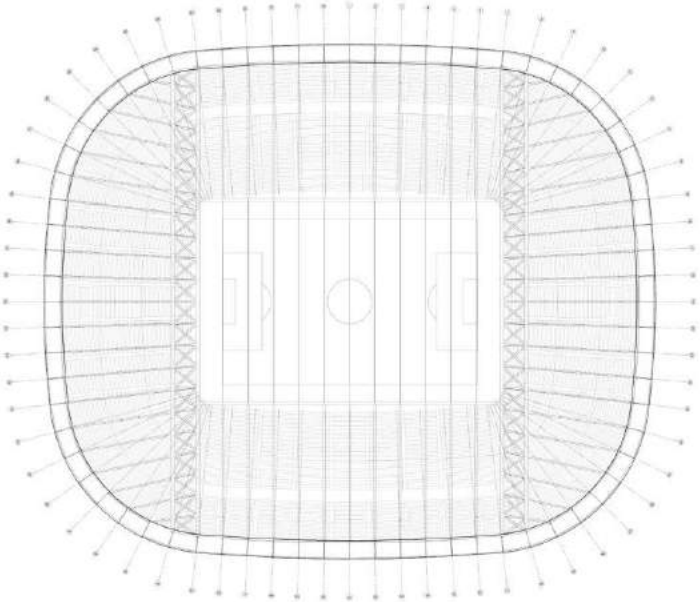
©OMA



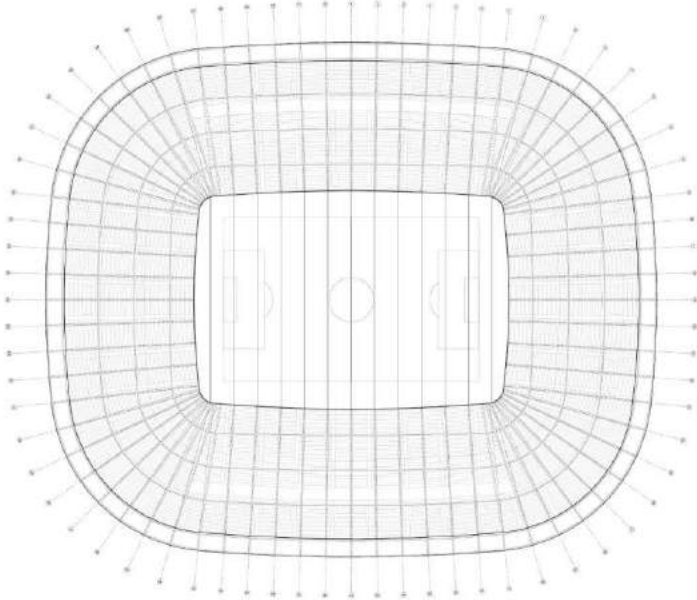




MEGATRUSS ROOF + RETRACTABLE



MEGATRUSS ROOF + CABLES



CANTILEVER ROOF + CABLES



**Sustainability Vision**  
RHDHV



**Sustainable development**  
Infrastructure and buildings

**Sustainable user**  
Lifestyle, health and wellbeing



**Process towards a sustainable design**  
minimum requirement 'Very Good'  
ambition 'Outstanding'

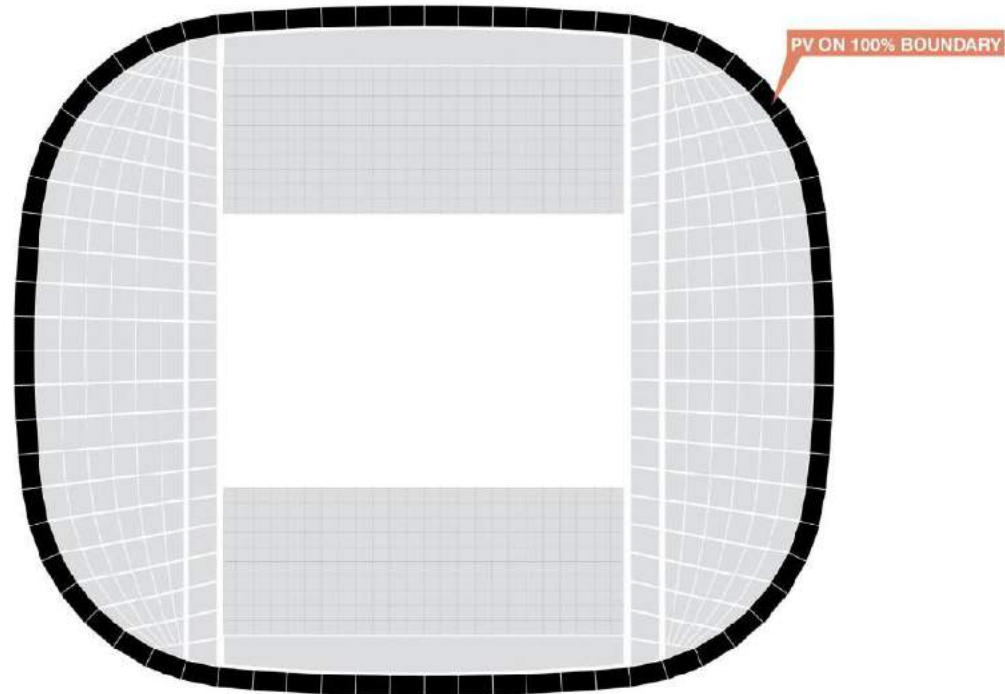
BREEAM-nl  
AREA DEVELOPMENT

**Sustainable use**  
Mobility, cooperation and environment



WELL  
CERTIFICATION



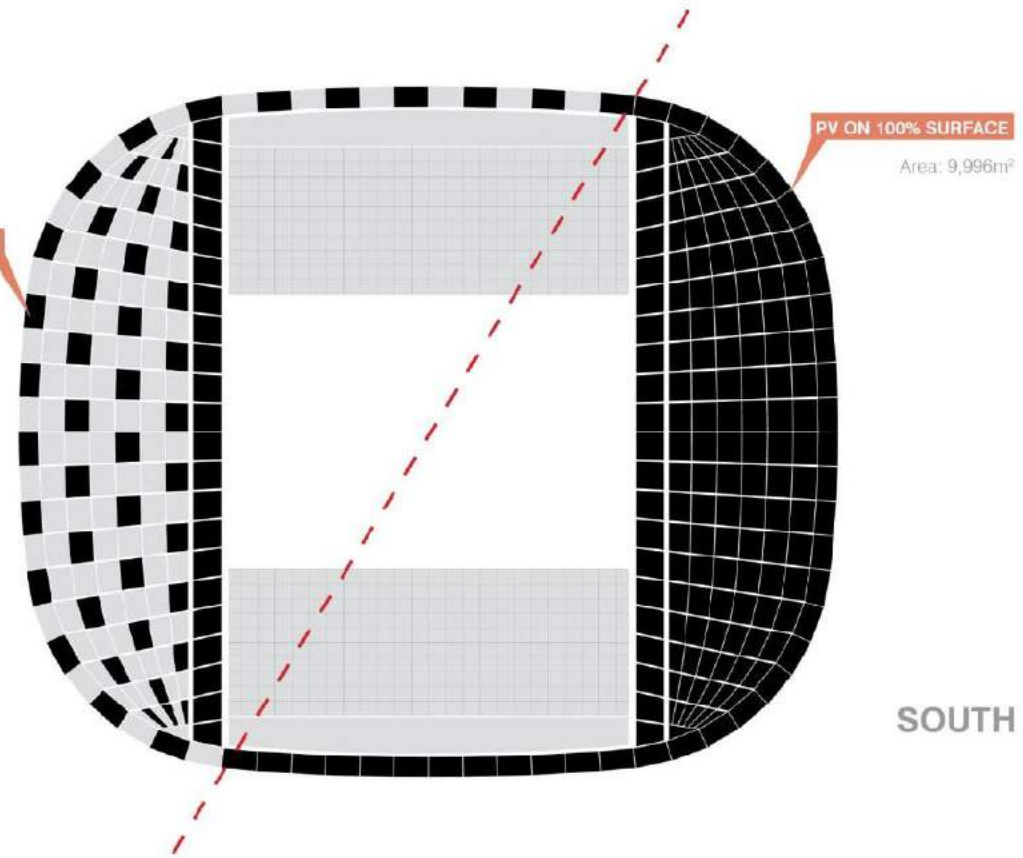


**OPTION 01:**  
TOTAL AREA FOR THE PV PANELS:  
4,552m<sup>2</sup>

NORTH

PV ON 35% SURFACE

Area: 4,174m<sup>2</sup>



**OPTION 02:**  
TOTAL AREA FOR THE PV PANELS:  
14,170m<sup>2</sup>



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**DANK U!**

# **PERS PRESENTATIE**

## **Voorlopig Ontwerp**

4 maart, 2019

David Gianotten, Managing Partner – Architect OMA

© OMA & Lola landscape

