Bridging the Divide.
Accommodating City life in the Zuidas.

Sie-Syen-Syung Joe Platt
4188535

Tutors:
Nelson Mota
Ype Cuperus

P5 Presentation
26th June 2013
Zuidas.
The Project.
Contents.

1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Retail Spaces

Office Spaces
Split of residential and high rise Zuidas
Large scale corporate offices
Residential and
Small scale shops
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Creating Context for Living.
*Mixed Use Dwelling Initiatives.*

Social Interaction through programmatic definition

How can architecture serve a community?

How a community can serve architecture?
images

Resident
Swimming pool
Inner garden

Inner garden
ArchitectuurNL (2008) De Vrijburcht Amsterdam IJburg, CASA Architecten, Amsterdam. nr 1, p. 34

figure 10. Inner garden
figure 11. Greenhouse

figure 12. Theater entrance

VLUP, Vrijburcht. Collective and Private Patronage – also list public space.
The Problem Statement.

Zuidas exists on a large scale, a _fragment_ of Amsterdam Zuid. A look at the urban fabric of the Zuidas within the larger scope of Amsterdam’s urban fabric shows the large blocks of built form that dominate the masterplan. The most apparent issue that exists in Zuidas is the monotone _business usage_ of the site. As a district that is supposed to become the second centre of Amsterdam it does not yet have a diverse enough programme to sustain itself and attract people to it. Although there are a number of diversifying programmes cropping up in the Zuidas they nevertheless exist to serve the people who work there and tend to operate in tandem with office hours, leaving the region devoid of activity outside of office hours.

In response to these issues, I propose that my _intervention_ in the Zuidas masterplan will provide a link in terms of programme and dwelling typology, that provides for the different _social_ and _programmatic divide_. By containing my design as a separate and self sustaining entity I propose that this will define a small, tangible frame to attract a more diverse population and program that when appropriate, will outgrow its shell. By providing limits to the site a clear _identity_ is given to the programme within and when this limit is no longer enough, there will be enough _activity and programme_ that will spill into the surroundings helping the Zuidas on its way to becoming
The Problem Statement.

Fragmented Amsterdam Zuid

Monotone business usage

Social and programmatic divide

Provide a clear intervention and identity

Provide a link socially and programmatically

Create a community that bridges the divide
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Dwelling Towers

Communal Roof

Podium
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
1 Open - Office
2 Library
3 Theatre
4 Pool & Wellness
5 Day Care
6 Restaurant
7 Studios
Typical Floor Plan
<table>
<thead>
<tr>
<th>Zuidas Proposed Density</th>
<th>Amsterdam City Centre Density</th>
<th>Proposed Design Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3.5 - 4.5</td>
<td>3.8 (exc. Basement)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.7 (inc. Basement)</td>
</tr>
</tbody>
</table>
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Concrete Structure
Steel Structure
Hybrid Structure
1. Site
2. Research
3. Design Concept
4. Design
5. Structural System
6. The Housing Concept
7. Systems & Facade Design
8. Construction Details
9. Conclusion
Dwellings Composition
Flexibility Concept

Permanent Structure
Flexibility Concept

Semi Permanent
Flexibility Concept

Services Future Flexibility
Flexibility Concept

Flexible Interior Partitions
The Dwelling within the Community

The Community within the City

Identity in Diversity
Stacking
Half Floor Work Live
116 m²

Half Floor Young Professional
116 m²

Duplex Work/Live Family
231 m²

Work/Live Cluster Types
Work/Live Dwelling
Work/Live Dwelling
Young Professionals Dwelling
Work/Live Family Dwelling
Work/Live Family Dwelling
Work/Live Family Dwelling
Work/Live Family Dwelling
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Efficient, Low Energy System
Passivhaus standard
Use in Summer & Winter
Uses partial warmth of ground
Matches dwellings design
Good air quality
Need for flexibility
Ground Source Heat Pump
Heating
Ground Source Heat Pump
Cooling
Natural Ventilation
1. Site

2. Research

3. Design Concept

4. Design

5. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Site Section East West
Podium Details

1.5

Intensive Sedum Roof
- 200mm Soil/Planting
- Bauder Filter Fleece
- 60mm Bauder PLT60 Board
- Protection mat
- P.E. Foil
- Capping sheet
- Underlayer

Roof Construction
- 20mm Plywood board
- Rigid insulation
- 80-100mm Concrete
- Steel decking
- 254mm Steel I beam (Embedded)
- 70mm Concrete
- 170mm Suspended wood panel ceiling

1st Floor Construction
- 60mm Concrete
- Under/floor heating system
- 40mm Rigid insulation
- Slimline System
- 80-100mm Concrete
- Steel decking
- 254mm Steel I beam (Embedded)
- 70mm Concrete
- 170mm Suspended wood panel ceiling

Ground Floor Construction
- 60mm Concrete
- Under/ floor heating system
- 180mm Rigid insulation
- 430mm Concrete
- Steel decking

Parapet Construction
- Zinc/flashings
- Waterproof membranes
- 20mm Plywood Board
- 220mm Steel Stud Construction
- Insulation
- Steel Plate

Curtain Wall
- Okalux OKATECH Insulated glass
- Copper Mesh interlayer

Railing
- 1100mm Black Steel railing
- 100mm Vertical baluster spacing
- Timber capped railing
Intensive Sedum Roof
200mm Soil/Planting
Bauder Filter Fleece
60mm Bauder PLT60 Board
Protection mat
P.E. Foil
Capping sheet
Underlayer
Roof Construction
20mm Plywood board
Rigid insulation
80-100mm Concrete
Steel decking
Slimline Roof System
254mm Steel I beam (Embedded)
70mm Concrete
170mm Suspended wood panel ceiling

1st Floor Construction
60mm Concrete
Underfloor heating system
40mm Rigid insulation
Slimline System
80-100mm Concrete
Steel decking
254mm Steel I beam (Embedded)
70mm Concrete
170mm Suspended wood panel ceiling

Parapet Construction
Zinc / Flashing
Waterproof membranes
20mm Plywood Board
220mm Steel Stud Construction
Insulation
Steel Plate

Ground Floor Construction
60mm Concrete
Underfloor heating system
180mm Rigid insulation
430mm Concrete
Steel decking

Paving
70mm Bricks
30mm Sand
Waterproof Membrane

300mm Round Concrete Column

Curtain Wall
Okalux OKATECH Insulated glass
Copper Mesh interlayer

Railing
1100mm Black Steel railing
100mm Vertical baluster spacing
Timber capped railing
Intensive Sedum Roof
200mm Soil/Planting
Bauder Filter Fleece
60mm Bauder PLT60 Board
Protection mat
P.E. Foil
Capping sheet
Underlayer

Roof Construction
20mm Plywood board
Rigid insulation
80-100mm Concrete
Steel decking
Slimline Roof System
254mm Steel I beam (Embedded)
70mm Concrete
170mm Suspended wood panel ceiling

1st Floor Construction
60mm Concrete
Underfloor heating system
40mm Rigid insulation
Slimline System
80-100mm Concrete
Steel decking

Zinc flashing
Waterproof membranes
20mm Plywood Board
220mm Steel Stud Construction
Insulation
Steel Plate

Ground Floor Construction
60mm Concrete
Underfloor heating system
180mm Rigid insulation
430mm Concrete
Steel decking

Paving
70mm Bricks
30mm Sand
Waterproof Membrane

Curtain Wall
Okalux OKATECH Insulated glass
Copper Mesh interlayer

Railing
1100mm Black Steel railing
100mm Vertical baluster spacing
Timber capped railing
Intensive Sedum Roof

200mm Soil/Planting

Bauder Filter Fleece

60mm Bauder PLT60 Board

Protection mat

P.E. Foil

Capping sheet

Underlayer

Roof Construction

20mm Plywood board

Rigid insulation

80-100mm Concrete

Steel decking

Slimline Roof System

254mm Steel I beam (Embedded)

70mm Concrete

170mm Suspended wood panel ceiling

1st Floor Construction

60mm Concrete

Under/floor heating system

40mm Rigid insulation

Slimline System

80-100mm Concrete

Steel decking

254mm Steel I beam (Embedded)

70mm Concrete

170mm Suspended wood panel ceiling

Parapet Construction

Zinc flashing

Waterproof membranes

20mm Plywood Board

220mm Steel Stud Construction

Insulation

Steel Plate

Curtain Wall

Okalux OKATECH Insulated glass

Copper Mesh interlayer

Ground Floor Construction

60mm Concrete

Under/floor heating system

180mm Rigid insulation

430mm Concrete

Steel decking

Paving

70mm Bricks

30mm Sand

Waterproof Membrane

300mm Round Concrete Column

Curtain Wall

Okalux OKATECH Insulated glass

Copper Mesh interlayer

300mm Round Concrete Column
Floor Construction
- 60mm Concrete
- Underfloor heating system
- 40mm Rigid insulation
- Slimline System
- Steel decking
- 254mm Steel I beam (Embedded)
- 70mm Concrete

Wall Construction
- 85mm Leno Cross laminated Timber
- 140mm Rockwool Flexi
- Sarnafil Polyethylene waterproof membrane (as protection & finish)

Bifold doors
- Solarlux S/S 97
- Thermally broken frame
- External aluminium frame
- Internal wood frame

Perforated Metal Skin
- Hawa Frontego 30/matic
- Wind rated shutter system
- Outward folding
- Electric operation
- Expanded Cor-Ten Sheet shutter panel

Structural Isolation
- Isokorf KST 22
- Steel to Steel isolation system
- Steel I beam
  - 840x520mm
- Steel Plate to beam
  - With stiffeners
- Round Steel column
  - Concrete filled
  - 1100mm diam (at centre)
- Stiff bolted connection
- 254mm Universal Steel Column
Floor Construction
- 60mm Concrete
- Under/ floor heating system
- 40mm Rigid insulation
- Slimline System
- Steel decking
- 254mm Steel I beam (Embedded)
- 70mm Concrete

Wall Construction
- 85mm Leno Cross laminated Timber
- 140mm Rockwool Flexi
- Samadhi Polyethylene waterproof membrane (as protection & finish)

- Bi-fold doors
- Solarlux SL 97
- Thermally broken frame
- External aluminium frame
- Internal wood frame
- Perforated Metal Skin
- Hawa Frontego 30/matic
- Wind rated shutter system
- Outward folding
- Electric operation
- Expanded CorTen Sheet shutter panel

Balcony Construction
- 25mm Timber decking
- 100mm Supporting structure
- Steel decking
- 254mm Tapered Steel I beam

Structural Isolation
- Isokorf KST 22
- Steel to Steel isolation system

- Round Steel column
- Concrete filled
- 1100mm diam (at centre)
- Stiff bolted connection

- 254mm Universal Steel Column
1. Site

2. Research

3. Design Concept

4. Design

6. Structural System

6. The Housing Concept

7. Systems & Facade Design

8. Construction Details

9. Conclusion
Bridging the Divide.
Accommodating City life in the Zuidas.

Sie-Syen-Syung Joe Platt
4188535

Thank you for your time.

Tutors:
Nelson Mota
Ype Cuperus

P5 Presentation
26th June 2013