2. Masterplan

3. Project's Catalyzing Elements

4. Building Program and Functions

5. Plans, Sections and Visual Experiences

6. Materiality and Detail

7. Climate Design
Midway Airport Introduction
Midway Airport Surrounding’s

What it used to be

What it is now.
Midway Airport Annual International Operations

source: Federal Aviation Administration (FAA), Air Traffic Activity Data System (ATADS), January 2014
operations consist of arrivals and departures as reported by Air Traffic Control Towers (ATCTs). It does not include overnight
Since 2000

Passengers: +30%

Aircraft Operations: -16%
Currently there are 252,000 Operations in Midway which means there are approximately 25,000,000 passengers per year.
Lack of Services - Monocentrality
Future Local Connectivity
Local, Regional, National, and Global Connectivity

- **CHICAGO**
  - Direct connection High Speed train
  - Indirect connection Air-travel (O'Hare)

- **MID-WEST**
  - Internal Chicago City connection
  - 20 min

- **USA**
  - Direct connection Air-travel
  - 90 - 150 min
  - 90 - 240 min

- **GLOBAL**
  - HUB Connection intercontinental
  - 7 - 15 hrs

Connections:
- **HOU** to **N.OL**
- **HOU** to **ATL**
- **MDW** to **DET**
- **ORD** to **LOO**
- **LOU** to **DET**
- **BUF** to **TOR**
- **LAX** to **TOR**
- **MXC** to **AUH**
- **NYC** to **BOS**
- **LON** to **PAR**
- **HOU** to **BIR**
- **BLT** to **TOK**
- **SHA** to **PEK**
- **CAN** to **TOR**
- **JOH** to **HOU**
- **KSC** to **LOO**

*Note: Lines represent various connections with different durations and modes of travel.*
Improvement of Surrounding Neighbourhoods
Masterplan
Midway Airport Train Connections
Masterplan Accessibility
Masterplan Accessibility - Major Streets
Masterplan Accessibility - Airport Entrance
Masterplan Accessibility - Secondary Roads
Masterplan Accessibility - Pedestrian Platform
Building Program
Building Program - Park
Building Program - Transit Hub
Building Program - Midway Airport
Building Program - Offices
Building Program - Retail
Schiphol Business District

- 167,600m² Offices (42%)
- 45,000m² Hotels (12%)
- 65,000m² Convention Center (15%)
- 85,000m² Constructed Parking (21%)
- 8,400m² Transit Hub (3%)
- 30,000m² Retail (7.5%)
## Midway Business Hub

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices</td>
<td>48%</td>
<td>158,000m²</td>
</tr>
<tr>
<td>Hotels</td>
<td>8%</td>
<td>21,600m²</td>
</tr>
<tr>
<td>Convention Center</td>
<td>10%</td>
<td>31,500m²</td>
</tr>
<tr>
<td>Constructed Parking</td>
<td>24%</td>
<td>75,000m²</td>
</tr>
<tr>
<td>Transit Hub</td>
<td>4%</td>
<td>10,500m²</td>
</tr>
<tr>
<td>Retail</td>
<td>6%</td>
<td>18,500m²</td>
</tr>
</tbody>
</table>
Project’s Catalyzing Elements
Enabler Activities of Collaboration
Design Catalyzer - Collaboration

- Foyer
- Circulation
- Shared Workspace
- Offices
- Entry
- Rooms
- Public Facilities
- Circulation
Form Disposition Reasoning
Form Disposition Reasoning - Central Axis and Tripartite
Form Disposition Reasoning - Sun Suites and Terraces
Form Disposition Reasoning - Foyers
Form Disposition Reasoning - Circulation
Form Disposition Reasoning - Collaboration Spaces
Building Program and Functions

Hotel
Hotel Building Program Surface Areas

85 Rooms 6287 m²
Premium Restaurant + Bar 244 m²
Kitchen for Premium Restaurant 110 m²
Executive Dining 85 m²
Lounge Bar 214 m²
Informal Restaurant + Bar 184 m²
Informal Restaurant’s Kitchen 74 m²
Lobby + Reception + Lower Ground Circulation 1,112 m²
Hotel Shop + Storage 138 m²
Public Use Washrooms 197 m²
Circulation 1414 m²
Sum of Room Service per Floor 238 m²
Collaborative Spaces 717 m²
Spa 453 m²
Deliveries 96 m²
Employee Washrooms and Changing Rooms 110 m²

Total: 11,670 m²
Building Program and Functions

Offices
Office Buildings Program Surface Areas

- Office Space 5560 m²
- Foyer + Reception 547 m²
- Ground Floor Commercial 642 m²
- Washrooms 380 m²
- Circulation 2160 m²
- Hanging Collaborative Spaces 515 m²
- Storage 200 m²

Total: 10,004 m²
Plans, Sections, and Visual Experiences
Ground Floor
Hotel | 1st Floor
1st Floor Bridge Section
Hotel Staircases Section
Hotel’s Foyer Section
Hotel Rooms and Shafts Section
Parking Level
Materiality and Details
Hotel’s Facade Construction

Roof Construction
- Cement tiles: 50 mm
- Gravel: 40 mm
- Waterproof Membrane: 150 mm
- Thermal Insulation: 20-80 mm
- Vapour Barrier: 300 mm
- Levelling Mortar: 10 mm
- Concrete Slab: 300 mm
- Plastering: 10 mm
- Total: 570-630 mm

Facade Construction
- Aluminium Honey-Comb Travertine Panel: 25 mm
- Interlocking Panel Attachment: 37 mm
- Steel Stud: 16 mm
- Insulation and Sequential Steel Studs: 150 mm
- Concrete Wall: 20 mm
- Plastering: 10 mm
- Total: 258 mm

1st Floor Floor Construction
- White Oak Flooring: 24 mm
- Battens: 30 mm
- Felt Layer: 2 mm
- Plastic Separation Layer: 1 mm
- Concrete Slab: 300 mm
- Total: 357 mm

Ground Ground Level Floor Construction
- White Oak Flooring: 24 mm
- Battens: 30 mm
- Felt Layer: 2 mm
- Vapour Barrier: 150 mm
- Thermal Insulation: 506 mm
- Concrete Slab: 506 mm
Roof Parts

1. Metal Sheet
2. Interlocking Panel Attachment
3. Aluminium Honey-Comb Travertine Panel
4. Steel Stud
5. Insulation
6. Concrete Wall
7. Plastering
8. Metal Support
9. Gypsum Board
10. Roller Curtain
11. Waterproof Membrane
12. Vapour Barrier
13. Levelling Mortar
14. Gravel
15. Cement Tiles
Window-sill and Flooring Parts

1. Aluminium Honey-Comb Travertine Panel
2. Interlocking Panel Attachment
3. Steel Stud
4. Insulation
5. Sloped Blocking
6. Panel Adhesive Attach
7. Metallic Railing
8. Aluminium Sliding Window Frame
9. Plastering
10. Concrete Wall
11. Wooden Battens
12. White Oak Flooring
1. Concrete Slab
2. Levelling Mortar
3. Waterproof Layer
4. Cement tile
5. Metallic Levelling Batten
6. Prefabricated Concrete Element
7. Wooden Window Attachment Frame
8. Aluminium Window Frame
9. Mortar
10. Radiant Heating Tubing
Hotel’s Foyer Glass Roof Construction

Hotel’s Foyer Glass Coverage Construction

Glass Coverage Parts

1. Steel Rod
2. Rollable External Sunscreen
3. Aluminium Window Frame
4. Detan Rod System

Wall Construction

Plastering 10 mm
Concrete Wall 20 mm
Insulation and Sequential Steel Studs 150 mm
Steel Stud 16 mm
Interlocking Panel Attachment 37 mm
Aluminium Honey-Comb Travertine Panel 25 mm
Total 248 mm
Climate Design
Climate Design | Fresh and Exhaust Air

- Fresh air in and out
- Shaft

Legend:
- Yellow: Shaft
- Red: Fresh air in and out
Climate Design | Heating and Cooling of Offices

- Fresh Air Duct
- Exhaust Air Duct
- Hot or Cold water supply
- Shaft
- Air Handling Unit

Legend:
- Yellow: Shaft
- Blue: Fresh Air Duct
- Red: Exhaust Air Duct
- Green: Air Handling Unit
- Blue Arrow: Fresh Air
- Red Arrow: Exhaust Air
- Red Circle: Hot or Cold water supply
Climate Design | Heating and Cooling of Ground Floor

- Heating or Cooling radiant floor slab
- Hot Air expelled through upper part of roof
- Geothermal Wells
- Geothermal Tank
- Heat Exchanger