DRAWING SET
Hotel New York - Federica Longoni

complex projects
fall semester
Site plans
Floor Plans
Sections
Interior Fragment
Envelope Fragment
Critical Details
Structure & Climate

INDEX
Site plans

Floor Plans
Sections
Interior Fragment
Envelope Fragment
Critical Details
Structure & Climate
Site plans

Floor Plans

Sections

Interior Fragment

Envelope Fragment

Critical Details

Structure & Climate
Floor Plans

1:200, Level +30 m
Floor Plans

1:200, Level +45 m
Floor Plans

1:200, Level +50 m
Floor Plans

1:200, Level +105 m
Floor Plans

1:200, Level +125 m
Site plans
Floor Plans
Sections
Interior Fragment
Envelope Fragment
Critical Details
Site plans
Floor Plans
Sections & Elevations
Interior Fragment
Envelope Fragment
Critical Details
Envelope Fragment

1:20 Tower

- Envelope Fragment
- 1:20 Tower
- Resin Screed 40 mm with floor heating
- Acoustic Insulation 40 mm
- Galvanized steel decking with reinforced concrete 200 mm
- IPE 200
- HEA 200
- Shading sliding panel
- Glass railing
- Thermal break
- Suspended ceiling
- Radiant cooling ceiling panel
- Intake air for ventilation
- Lighting to be inserted in the ceiling
- Glazed aluminium panel to let air in
Envelope Fragment

1:20 Workshop

+0
Ground Level

+5m
First Floor

+10 m
Second Floor

+15 m
Third Floor

+25.2 m
Rooftop

- Tiles
- Insulation 160 mm
- Screed 30 mm
- Galvanized steel decking with reinforced concrete 200 mm

- Resin
- Screed 40 mm with floor heating
- Acoustic Insulation 40 mm
- Galvanized steel decking with reinforced concrete 200 mm
- Radiant cooling
Site plans
Floor Plans
Sections
Interior Fragment
Envelope Fragment
Critical Details
Structure & Climate
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1:5 Workshop facade + Interior facade + Entrance facade

- GFRC 25 mm thick (Glass Fiber Reinforced Concrete panels)
- Rockwool insulation
- U-shape Metal stud
- Water barrier
- Metal framing
- Solid Insulation
- Sealing
- Double Glazing window

INTERIOR

EXTERIOR

U-shape Metal stud
Metal framing
Solid Insulation
Sealing
Double Glazing window

120mm 275mm
280mm
120mm
Critical Details

Balcony Floor Plan Detail

- Air Intake to Ceiling
- Gypsum wall: 2 layers 12.5 mm thick
- Acoustic insulation 30 mm
- Lightweight wall with metal studs
- HEA 200
- Wood Stud
- Insulation 150 mm
- Metal framing for supporting Aluminium Panels
- Aluminium panel
- Floor edge
Site plans
Floor Plans
Sections
Interior Fragment
Envelope Fragment
Critical Details
Structure & Climate
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Structural scheme

- **Cores**
- **Corrugated metal sheet topped with reinforced concrete**
- **Primary structure: IPE beams**
- **Stability walls**
Critical Details

Ventilation

Natural cross ventilation + Mechanical

Mechanical ventilation using CORE SHAFT

WATER TO AIR: Hot water pipe makes the cold fresh air warm, preheating the air taken from outside before letting it to the apartment unit

AIR TO WATER: Stale hot air is taken from wet areas (kitchen and bathroom) into the heat exchange to warm up the water pipe.

Warm fresh air in

Fresh air in

Stale air out

Corridor
Structure & Climate

Floor heating and radiant cooling

- Subsurface used as heat source
- Subsurface acts as heat sink
- Geothermal heat pump
- Water storage tank

Diagram showing floor heating and radiant cooling system.
THANK YOU.

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