



# AAR4907 Assignment \_ group: Envelope

## Responsibles: Arild

Guidan Steinar, Luca

### PD#4 PROJECT DRAWINGS

#### 2 ARCHITECTURAL (AR)

- AR-301 Window Schedule and Details (Included thermal transmittance)
- AR-311 Door Schedule and Details (Included thermal transmittance)
- AR-321 Floor Construction Details (Included thermal transmittance)
- AR-331 Roof Construction Details (Included thermal transmittance)
- AR-341 Wall Sections and Construction Details (Included thermal transmittance)
- AR-351 Partitions Details

### PM#4 PROJECT MANUAL

#### 2. CONTEST SUPPORT DOCUMENT

- 2.2.2 Constructive design
- 2.5. Industrialization and Market Viability Report**
  - 2.5.1 Design report
  - 2.5.2 Construction report
- 2.6. Innovation Report**
  - 2.6.2 Innovation in Engineering and construction
- 2.7. Sustainability Report**
  - 2.7.5 Materials

#### 6. COST ESTIMATE AND PROJECT FINANCIAL SUMMARY

- 6.2. Cost estimate

#### 10. CONSTRUCTION SPECIFICATIONS

- 10.5 Enclosure
- 10.6 Openings
- 10.7 Partitions
- 10.8 Finishes



# AAR4907 Assignement \_ group: Electrical and PV

Responsibles: Elif + Lars (?)

## PD#4 PROJECT DRAWINGS

### 1 GENERAL (GE)

GE-201 General Symbols. (Define symbols and list notes used throughout the entire drawing set.)

GE-301 General Abbreviations. (List of abbreviations used throughout the entire drawing set).

### 10 ELECTRICAL (EL) Please refer to note 1.

EL-001 Grid interconnection

EL-201 DC wiring diagram

EL-301 Power plan

EL-401 Lighting plan

EL-501 One-line Diagram

EL-601 AC Circuit layout

### 11 PHOTOVOLTAIC SYSTEM (PV) Please refer to Note 2

PV-001 Photovoltaic system: general

PV-011 Photovoltaic system: DC circuits

PV-021 Photovoltaic system: AC circuits

PV-031 Photovoltaic system: grounding system

## PM#4 PROJECT MANUAL

### 2.6. Innovation Report

2.6.3 Innovation in Energy efficiency

### 2.7. Sustainability Report

2.7.1 Introduction: sustainability concept applied

2.7.6 Solar Facilities

2.7.7 Equipment

## 6. COST ESTIMATE AND PROJECT FINANCIAL SUMMARY

6.2. Cost estimate

## 7. ELECTRIC AND PHOTOVOLTAIC CHART

## 10. CONSTRUCTION SPECIFICATIONS

10.15 Electrical

10.16 Solar Systems – Photovoltaic and thermal

### Notes:

- 1 The ELECTRICAL (EL) drawings must include electrical layouts, a detailed electrical components information and complete electrical diagrams of the conventional electrical installation showing all elements and protections (including those of the interface between the Photovoltaic system and the electricity distribution network).
- 2 The PHOTOVOLTAIC SYSTEM (PV) drawings must include electrical diagrams describing all components (equipments), wiring and protections. The general diagram of the photovoltaic system (PV-001) shall include the interface with the electrical installation of the house and the electrical distribution network. See PV Chart (Rule 36.5)-

# AAR4907 Assignement \_ group: Mechanical

## Responsibles: Vojslav (Natasa + H.M. theory)

Guidance: Jens, Hans Martin, Laurraine G.

### PD#4 PROJECT DRAWINGS

#### 1 GENERAL (GE)

GE-201 General Symbols. (Define symbols and list notes used throughout the entire drawing set.)

GE-301 General Abbreviations. (List of abbreviations used throughout the entire drawing set).

#### 9 MECHANICAL (ME)

ME-001 HVAC distribution Plan

ME-011 HVAC equipment

ME-021 Heating

ME-031 Cooling

ME-041 Ventilation

ME-101 Mechanical room elevations

ME-201 HVAC System Schematic drawings

ME-211 Heating mode Schematic drawings

ME-221 Cooling mode Schematic drawings

ME-231 Controls

ME-301 Isometric Distribution

### PM#4 PROJECT MANUAL

2.3.3.2 Section II - Influence on House Design and Competition Strategy

Influence on the house design

Influence on the HVAC system and optimization

#### 2.5. Industrialization and Market Viability Report

2.5.1 Design report

2.5.2 Construction report

#### 2.6. Innovation Report

2.6.3 Innovation in Energy efficiency

#### 2.7. Sustainability Report

2.7.1 Introduction: sustainability concept applied

2.7.6 Solar Facilities

2.7.7 Equipment

### 6. COST ESTIMATE AND PROJECT FINANCIAL SUMMARY

6.2. Cost estimate

### 10. CONSTRUCTION SPECIFICATIONS

10.11 Systems Installations

# AAR4907 Assignement \_ group: Monitoring

## Reponsibles: Hans Martin

Theory: Hans Martin, Natasa (?) \_ Guidance: Hans Martin, Jens, Laurraine

### PD#4 PROJECT DRAWINGS

#### 1 GENERAL (GE)

GE-201 General Symbols. (Define symbols and list notes used throughout the entire drawing set.)

GE-301 General Abbreviations. (List of abbreviations used throughout the entire drawing set).

#### 12 TELECOMMUNICATIONS AND BUILDING AUTOMATIZATION SYSTEM (BAS)

BAS-001 Wiring plan

BAS-101 Schematic diagram

BAS-201 Equipment

#### 13 SDE INSTRUMENTATION DRAWINGS (ID) Please refer to Note 3

ID-001 Site plan

ID-101 Floor Plan

### PM#4 PROJECT MANUAL

2.5.1 Design report

2.5.2 Construction report

#### 2.6. Innovation Report

2.6.3 Innovation in Energy efficiency

2.6.4 Innovation in Communication and Social Awareness

#### 2.7. Sustainability Report

2.7.1 Introduction: sustainability concept applied

2.7.7 Equipment

#### 6. COST ESTIMATE AND PROJECT FINANCIAL SUMMARY

6.2. Cost estimate

#### 10. CONSTRUCTION SPECIFICATIONS

10.9 Appliances

10.11 Systems Installations

10.14 HVAC

10.17 Telecommunications and Building Automatization

#### Notes:

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The INSTRUMENTATION DRAWINSS (ID) must show de location of all the sensors, meters and dataloggers of the SDE Monitoring System and indicate the wires routes and the feed-throughs to pass the instrumentation wires from the interior to the exterior of the house. Also must include the location of the house appliances and electronic devices (clothes washer, clothes dryer, dishwasher, TV, computer, DVD, refrigerator, freezer, oven and house workstation) as well as technical room or closet, and the electrical panel.

# AAR4907 Assignement \_ group: Water + plumbing

## Responsibles: (We did not find for the plumbing)

Guidance: Helene (water cycle?) \_ Matthias (Solar thermal), products: VELUX

### PD#4 PROJECT DRAWINGS

#### 1 GENERAL (GE)

GE-201 General Symbols. (Define symbols and list notes used throughout the entire drawing set.)

GE-301 General Abbreviations. (List of abbreviations used throughout the entire drawing set).

#### 7 PLUMBING (PL)

PL-001 Plumbing Plan. Supply and removal (cold and hot water)

PL-011 Grey Water

PL-021 Drain / Waste / Vent

PL-101 Schematic diagram

PL-201 Supply and removal Isometric (cold and hot water)

PL-211 Grey water Isometric

PL-221 Drain/Waste/Vent Isometric

#### 8 SOLAR WATER HEATING (SW)

SW-001 Plan

SW-101 Isometric

### PM#4 PROJECT MANUAL

2.2.3 Plumbing system design

2.2.7 Solar Thermal Design

2.2.8 Building integrated Solar Active systems

#### 2.3. Energy Efficiency Design Narrative

2.3.1 Technical project summary

2.3.2 Appliances report  
house and systems description

#### 2.5. Industrialization and Market Viability Report

2.5.1 Design report

2.5.2 Construction report

#### 2.6. Innovation Report

2.6.3 Innovation in Energy efficiency

#### 2.7. Sustainability Report

2.7.1 Introduction: sustainability concept applied

2.7.3 Water

2.7.6 Solar Facilities

2.7.7 Equipment

#### 6. COST ESTIMATE AND PROJECT FINANCIAL SUMMARY

6.2. Cost estimate

#### 9. DETAILED WATER BUDGET

#### 10. CONSTRUCTION SPECIFICATIONS

10.13 Plumbing

10.16 Solar Systems – Photovoltaic and thermal

10.17 Telecommunications and Building Automatization