



Sudan University of Science and Technology

College of Architecture and Planning

Fifth year Bachelor

Graduation project



Student: Abdallah Basheir Mohammed Basheir

Supervised by: Uz. Mohamed Abdel Majeed

Elementary , Middle School and Teachers' Housing

Working Drawing

Remark



All Dimension are in meters

Windows Schedule

Type	Width	Height	Description
N1	1.2	1.8	Sliding Window
N2	0.9	1.2	Double Window Panel
N3	2.5	1.5	Sliding Window

Doors Schedule

Type	Width	Height	Description
D1	1.3	2	Double Door
D2	2	2	Sliding Door
D3	0.9	1.8	Single Door

Walls Finishes

W1	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - D.P.C 3layer - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick white splash (5cm thick)
	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick splash (5cm thick) (Gray colour)
	Layer of poly wood (3cm thick) Metal sheet mesh for fixing wood (5cm) Layer of poly wood (3cm thick)
W2	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick splash (5cm thick) (Gray colour)
	Layer of poly wood (3cm thick) Metal sheet mesh for fixing wood (5cm) Layer of poly wood (3cm thick)
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W3	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick splash (5cm thick) (Gray colour)
	Layer of poly wood (3cm thick) Metal sheet mesh for fixing wood (5cm) Layer of poly wood (3cm thick)
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Floors Finishes

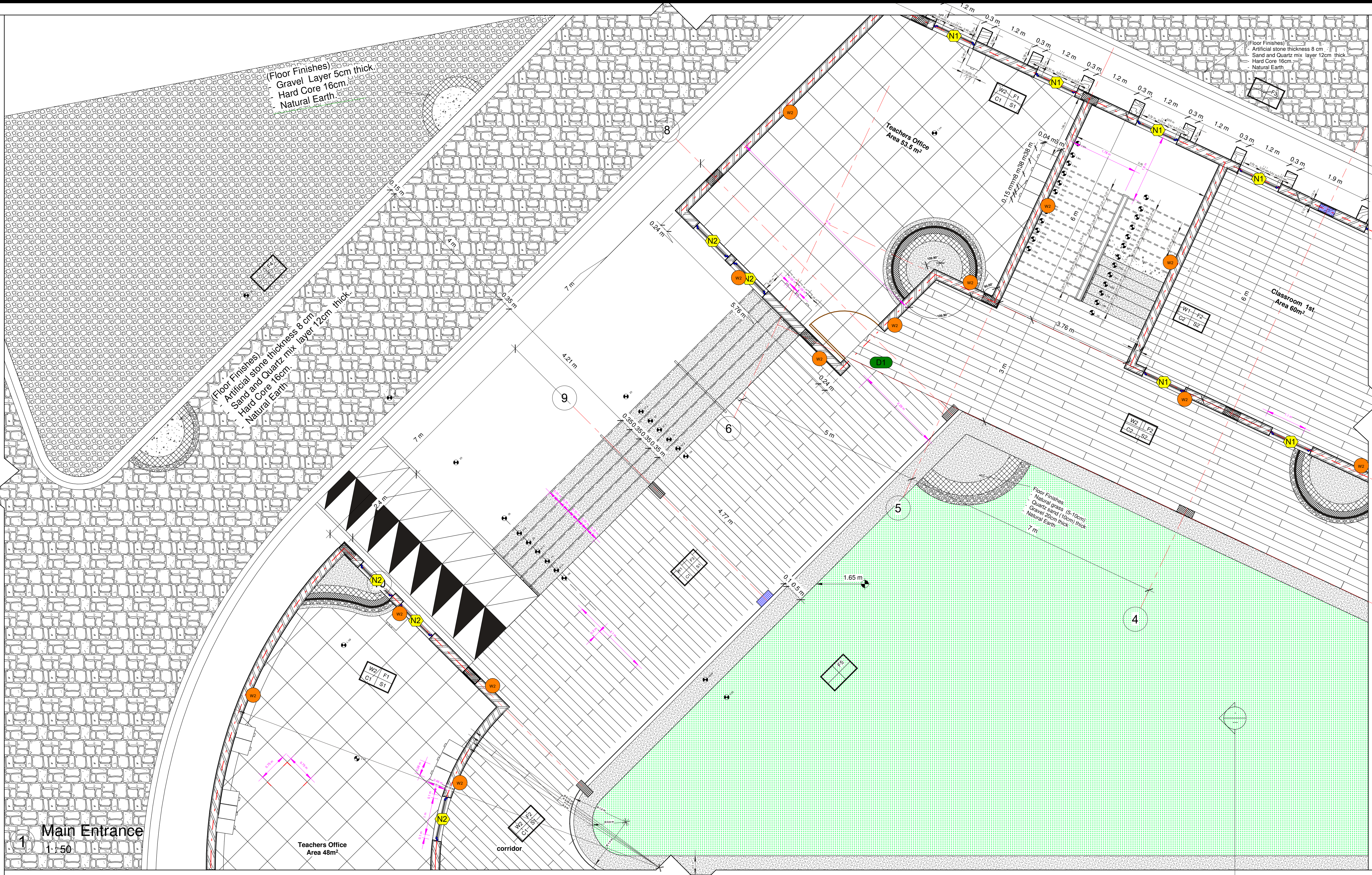
F1	-White Ceramic Tiles (90*90*2cm) C/S Mortor 1:6 (3cm Thick) D.P.C 3Layers. Plain Concrete Slap 1:3:6 (15cm thick) Hard Core 75cm. Natural Earth
	Interlocking wood flooring (220*20*4cm) C/S Mortor 1:6 (3cm Thick) D.P.C 3 layers. Plain Concrete Slap 1:3:6 (15cm thick) Hard Core 75cm. Natural Earth
	Artificial stone 7cm thick Sand Layer 5cm thick D.P.C 3 Layers Hard Core 16cm. Natural Earth
F2	Artificial stone 7cm thick Sand Layer 5cm thick D.P.C 3 Layers Hard Core 16cm. Natural Earth
	Sand and Quartz mix layer 12cm thick D.P.C 3 layers Hard Core 16cm. Natural Earth
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F4	Artificial stone 7cm thick Sand Layer 5cm thick D.P.C 3 Layers Hard Core 16cm. Natural Earth
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	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth
F5	Artificial stone 7cm thick Sand Layer 5cm thick D.P.C 3 Layers Hard Core 16cm. Natural Earth
	Sand and Quartz mix layer 12cm thick D.P.C 3 layers Hard Core 16cm. Natural Earth
	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth

Ceiling Finishes

C1	Gypsum Bboards 60*60*2cm 60*60 Metal Mesh (5cm Thick) Reinforced Concrete Slap 1:3:6 (15cm thick)
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Skirting Finishes

S1	Epoxy 1 Layer C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
	Interlocking wood flooring (220*8*4cm) C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
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S2	Epoxy 1 Layer C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
	Interlocking wood flooring (220*8*4cm) C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
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Sudan University of Science and Technology

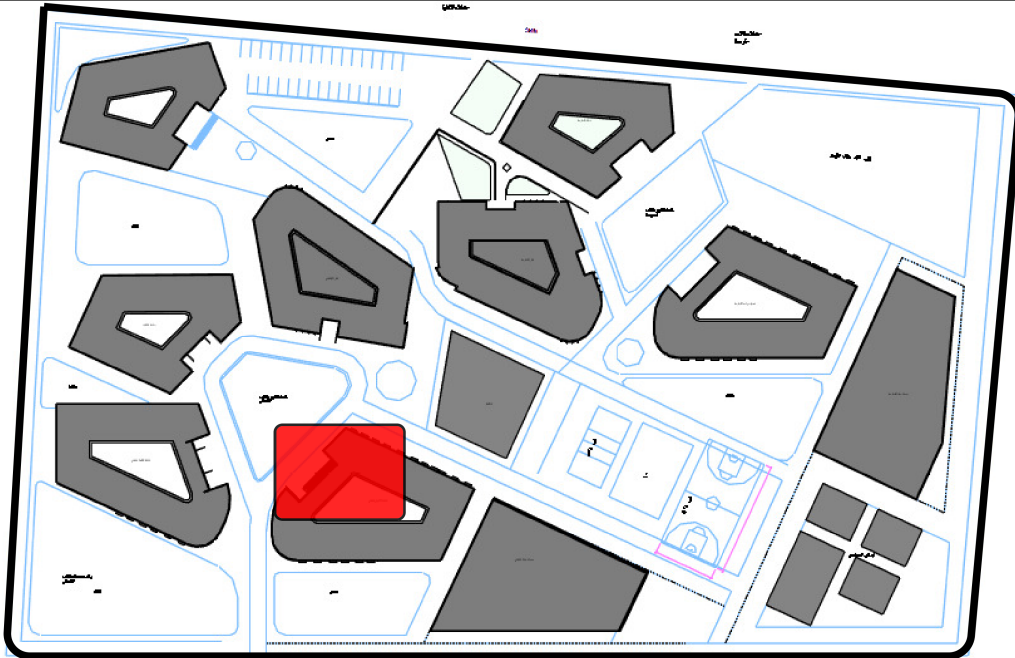
College of Architecture and Planning

Fifth year Bachelor

Graduation project

Student: Abdallah Basheir Mohammed Basheir

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Key Plan

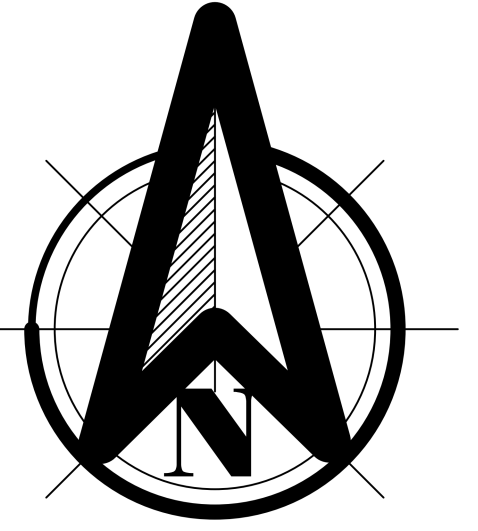
Elementary and middle school and teachers' housing

Main Entrance - Part Plan

Sale 1:50

01

Remark



All Dimension are in meters

Windows Schedule

Type	Width	Height	Description
N1	1.2	1.8	Sliding Window
N2	0.9	1.2	Double Window Panel
N3	2.5	1.5	Sliding Window

Doors Schedule

Type	Width	Height	Description
D1	1.3	2	Double Door
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D3	0.9	1.8	Single Door

Walls Finishes

W1	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - D.P.C 3layer - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick white splash (5cm thick)
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W2	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick splash (5cm thick) (Gray colour)
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W3	- 3 Layers of white Pomastic paint - Cement sand (Plaster) 2.5cm thick . - A Wall 1 brick thick (20 cm) - Cement sand (Plaster) 2.5cm thick . - Thick splash (5cm thick) (Gray colour)
	Layer of poly wood (3cm thick) Metal sheet mesh for fixing wood (5cm) Layer of poly wood (3cm thick)
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Floors Finishes

F1	-White Ceramic Tiles (90*90*2cm) C/S Mortor 1:6 (3cm Thick) D.P.C 3Layers. Plain Concrete Slap 1:3:6 (15cm thick) Hard Core 75cm. Natural Earth
	Interlocking wood flooring (220*20*4cm) C/S Mortor 1:6 (3cm Thick) D.P.C 3 layers. Plain Concrete Slap 1:3:6 (15cm thick) Hard Core 75cm. Natural Earth
	Artificial stone 7cm thick Sand Layer 5cm thick D.P.C 3 Layers Hard Core 16cm. Natural Earth
F2	Interlocking wood flooring (220*20*4cm) C/S Mortor 1:6 (3cm Thick) D.P.C 3 layers. Plain Concrete Slap 1:3:6 (15cm thick) Hard Core 75cm. Natural Earth
	Artificial stone 7cm thick Sand Layer 5cm thick D.P.C 3 Layers Hard Core 16cm. Natural Earth
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F4	Sand and Quartz mix layer 12cm thick D.P.C 3 layers Hard Core 16cm. Natural Earth
	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth
	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth
F5	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth
	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth
	Natural grass (5-10cm) Quartz sand (10cm) thick Gravel 20cm thick Natural Earth

Ceiling Finishes

C1	Gypsum Bboards 60*60*2cm 60*60 Metal Mesh (5cm Thick) Reinforced Concrete Slap 1:3:6 (15cm thick)
	Gypsum Bboards 60*60*2cm 60*60 Mmetal Mmesh (5cm Thick) Sound Insulation layer (5cm) Reinforced Concrete Slap 1:3:6 (15cm thick)
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Skirting Finishes

S1	Epoxy 1 Layer C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
	Interlocking wood flooring (220*8*4cm) C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
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S2	Epoxy 1 Layer C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
	Interlocking wood flooring (220*8*4cm) C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
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Sudan University of Science and Technology

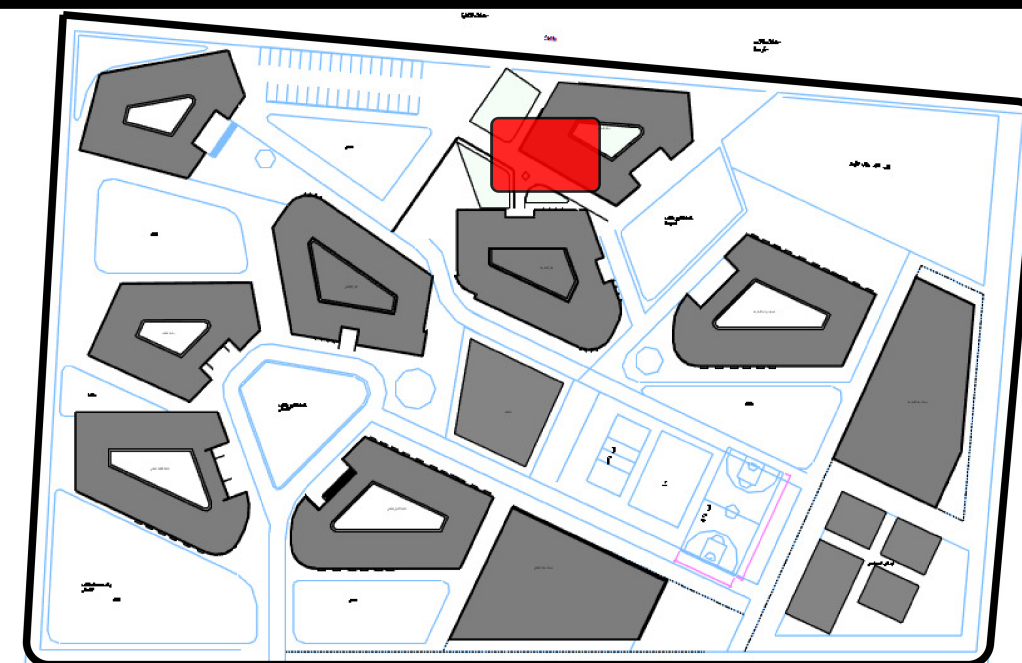
College of Architecture and Planning

Fifth year Bachelor

Graduation project

Student: Abdallah Basheir Mohammed Basheir

Supervised by: Uz. Mohamed Abdel.Majeed



Key Plan

Elementary and middle school
and teachers' housing

Computer Lap - Part Plan

Sale 1:50

02

All Dimension are in meters

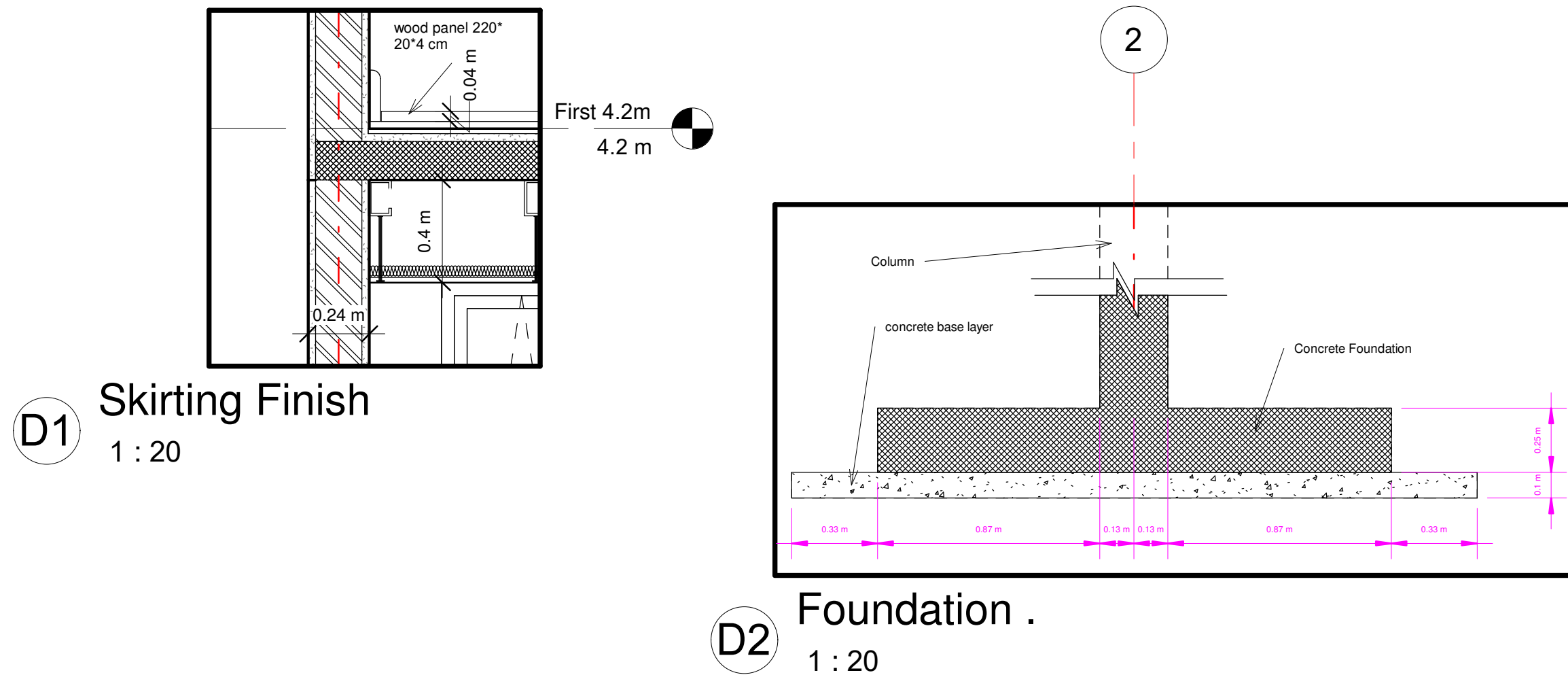
Type	Width	Hight	Description
D1	1.3	2	Double Door
D2	2	2	Sliding Door
D3	0.9	1.8	Single Door

W1	-3 Layers of white Pomastic paint
	- Cement sand (Plaster) 2.5cm thick .
	- D.P.C 3layer
	-A Wall 1 brick thick (20 cm)
W2	- Cement sand (Plaster) 2.5cm thick .
	- Thick white splash (5cm thick)
	-3 Layers of white Pomastic paint
	- Cement sand (Plaster) 2.5cm thick .
	-A Wall 1 brick thick (20 cm)
W3	- Cement sand (Plaster) 2.5cm thick .
	- Thick splash (5cm thick) (Gray colour)
	Layer of poly wood (3cm thick)
	Metal sheet mesh for fixing wood (5cm)
	Layer of poly wood (3cm thick)

F1	-White Ceramic Tiles (90*90*2cm)
	C/S Mortor 1:6 (3cm Thick)
	D.P.C 3Layers.
	Plain Concrete Slap 1:3:6 (15cm thick)
F2	Hard Core 75cm.
	Natural Earth
	Interlocking wood flooring (220*20*4cm)
	C/S Mortor 1:6 (3cm Thick)
F3	D.P.C 3 layers.
	Plain Concrete Slap 1:3:6 (15cm thick)
	Hard Core 75cm.
	Natural Earth
F4	Artificial stone 7cm thick
	Sand Layer 5cm thick
	D.P.C 3 Layers
	Hard Core 16cm.
F5	Natural Earth
	Sand and Quartz mix layer 12cm thick
	D.P.C 3 layers
	Hard Core 16cm.
F6	Natural Earth
	Natural grass (5-10cm)
	Quartz sand (10cm) thick
	Gravel 20cm thick
F7	Natural Earth

C1	Gypsum Bboards 60*60*2cm
	60*60 Metal Mesh (5cm Thick)
	Reinforced Concrete Slap 1:3:6 (15cm thick)
C2	Gypsum Bboards 60*60*2cm
	60*60 Mmetal Mmesh (5cm Thick)
	Sound Insulation layer (5cm)
	Reinforced Concrete Slap 1:3:6 (15cm thick)

S1	Epoxy 1 Layer
	C/S Mortor 1:6 (3cm Thick)
	-A Wall 1 brick thick (20 cm)
S2	Interlocking wood flooring (220*8*4cm)
	C/S Mortor 1:6 (3cm Thick)
	-A Wall 1 brick thick (20 cm)



Supervised by: Uz. Mohamed Abdel Majeed



Sale 1:50

03

Remark

All Dimension are in meters

Windows Schedule

Type	Width	Hight	Description
N1	1.2	1.8	Sliding Window
N2	0.9	1.2	Double Window Panel
N3	2.5	1.5	Sliding Window

Doors Schedule

Type	Width	Hight	Description
D1	1.3	2	Double Door
D2	2	2	Sliding Door
D3	0.9	1.8	Single Door

Walls Finishes

W1	-3 Layers of white Pomastic paint
	- Cement sand (Plaster) 2.5cm thick .
	- D.P.C 3layer
	-A Wall 1 brick thick (20 cm)
W2	- Cement sand (Plaster) 2.5cm thick .
	- Thick white splash (5cm thick)
	-3 Layers of white Pomastic paint
	- Cement sand (Plaster) 2.5cm thick .
W3	-A Wall 1 brick thick (20 cm)
	- Cement sand (Plaster) 2.5cm thick .
	- Thick splash (5cm thick) (Gray colour)
	Layer of poly wood (3cm thick)
W3	Metal sheet mesh for fixing wood (5cm)
	Layer of poly wood (3cm thick)

Floors Finishes

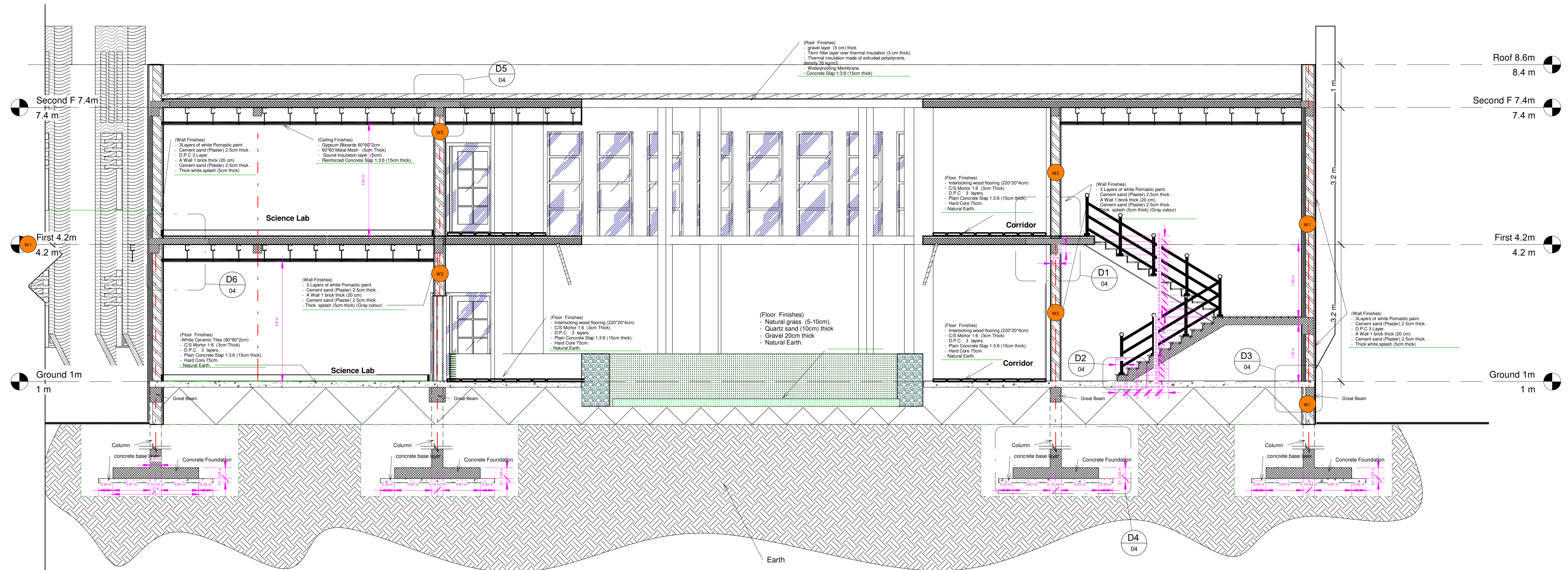
F1	-White Ceramic Tiles (90*90*2cm)
	C/S Mortor 1:6 (3cm Thick)
	D.P.C 3Layers.
	Plain Concrete Slap 1:3:6 (15cm thick)
	Hard Core 75cm.
F2	Natural Earth
	Interlocking wood flooring (220*20*4cm)
	C/S Mortor 1:6 (3cm Thick)
	D.P.C 3 layers.
	Plain Concrete Slap 1:3:6 (15cm thick)
F3	Hard Core 75cm.
	Natural Earth
	Artificial stone 7cm thick
	Sand Layer 5cm thick
	D.P.C 3 Layers
F4	Hard Core 16cm.
	Natural Earth
	Sand and Quartz mix layer 12cm thick
	D.P.C 3 layers
	Hard Core 16cm.
F5	Natural Earth
	Natural grass (5-10cm)
	Quartz sand (10cm) thick
	Gravel 20cm thick
	Natural Earth

Ceiling Finishes

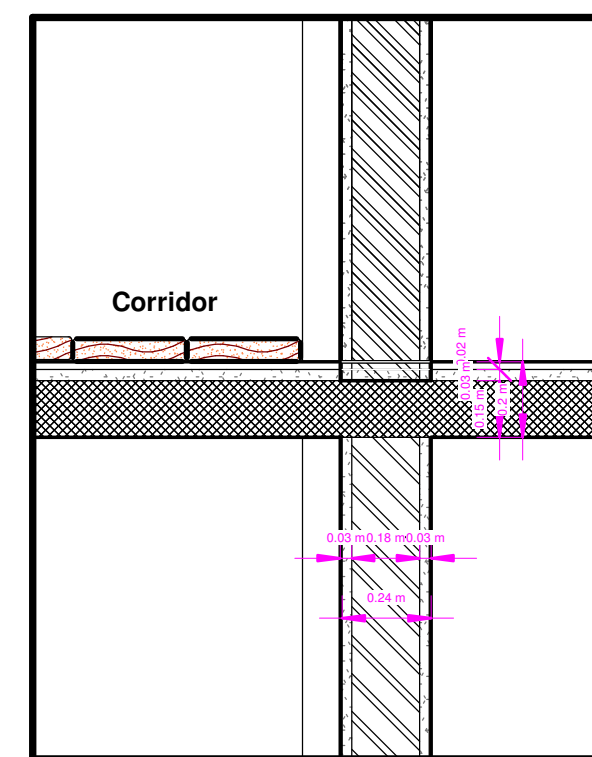
C1	Gypsum Bboards 60*60*2cm
	60*60 Metal Mesh (5cm Thick)
	Reinforced Concrete Slap 1:3:6 (15cm thick)
C2	Gypsum Bboards 60*60*2cm
	60*60 Mmetal Mmesh (5cm Thick)
	Sound Insulation layer (5cm)
	Reinforced Concrete Slap 1:3:6 (15cm thick)

Skirting Finishes

S1	Epoxy 1 Layer
	C/S Mortor 1:6 (3cm Thick)
	-A Wall 1 brick thick (20 cm)
S2	Interlocking wood flooring (220*8*4cm)
	C/S Mortor 1:6 (3cm Thick)
S2	-A Wall 1 brick thick (20 cm)



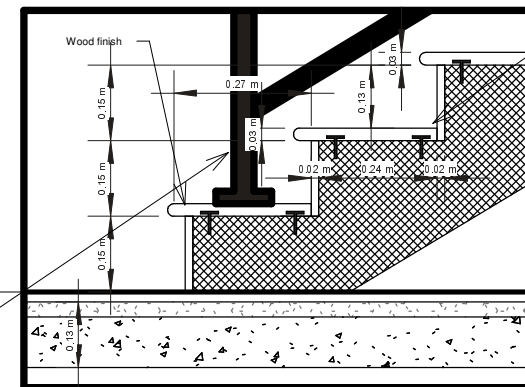
A Part sec 01
1 : 50



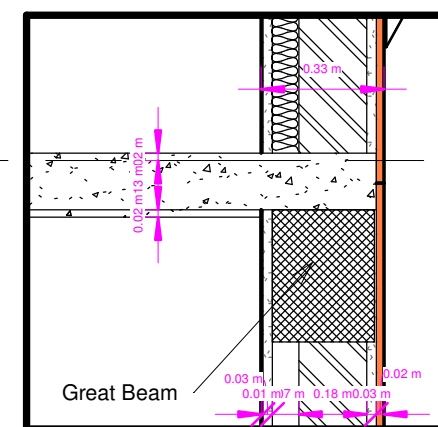
D1 Detail 1
1 : 20

Details, Handrail:

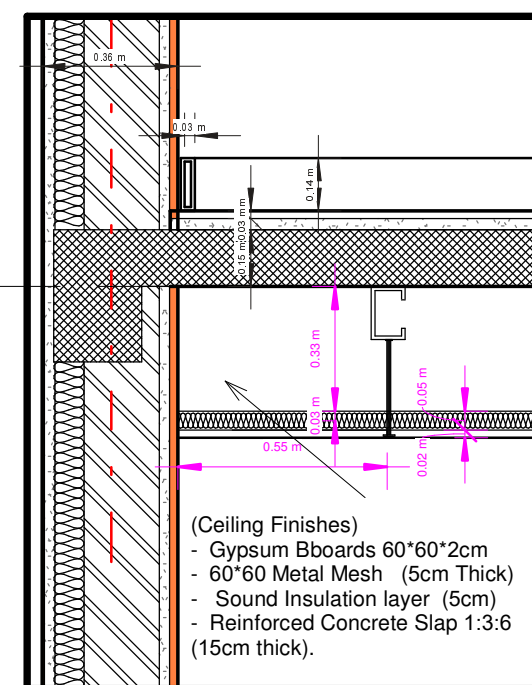
3Cm thick aluminum rods with circular section, diameter 3cm , crown ring in ball with thickness 5.



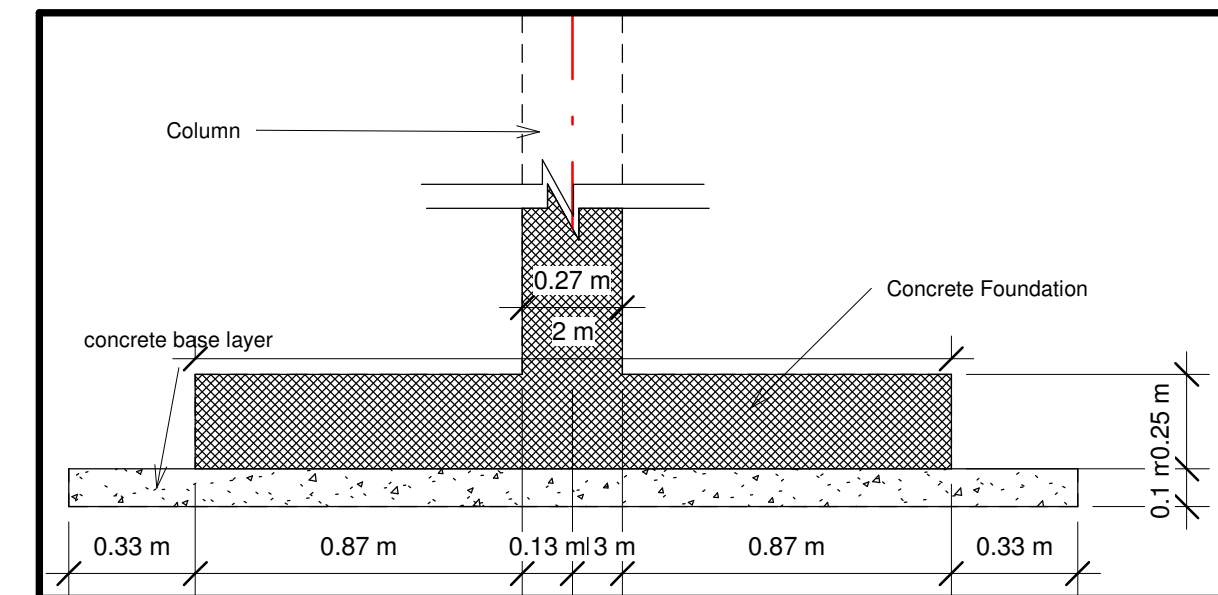
D2 Stair
1 : 15



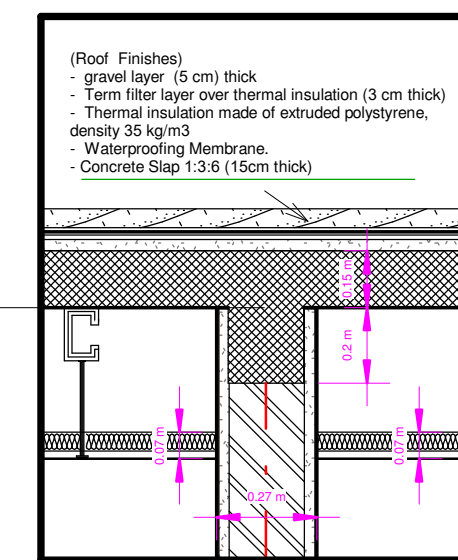
D3 Great Beam
1 : 20



D6 Ceiling
1 : 20



D4 Foundation
1 : 20



D5 Roof Finishes
1 : 20

Sudan University of Science and Technology

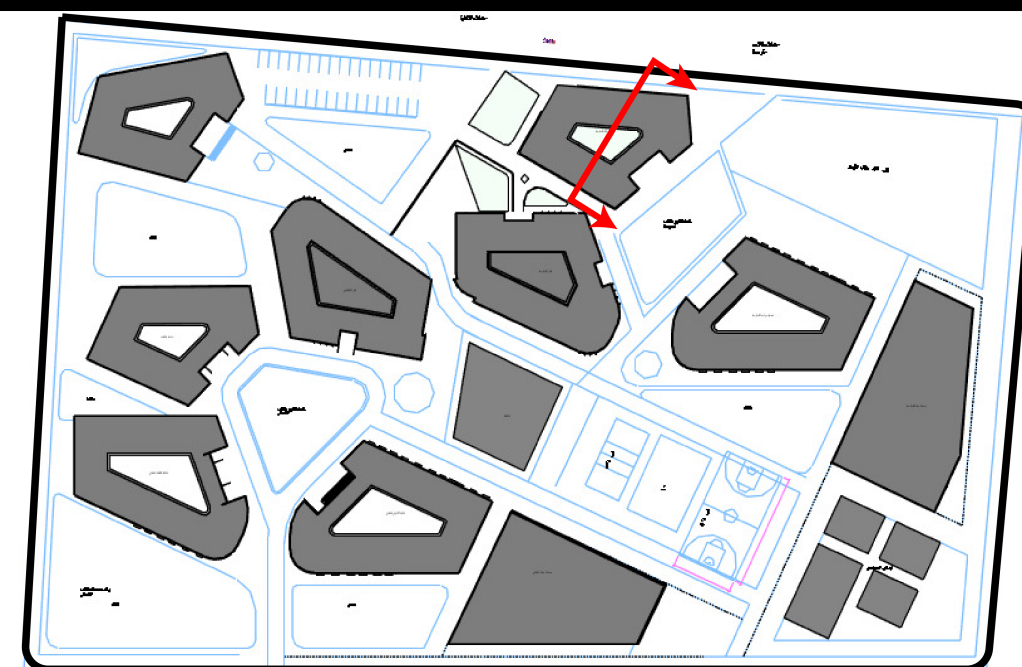
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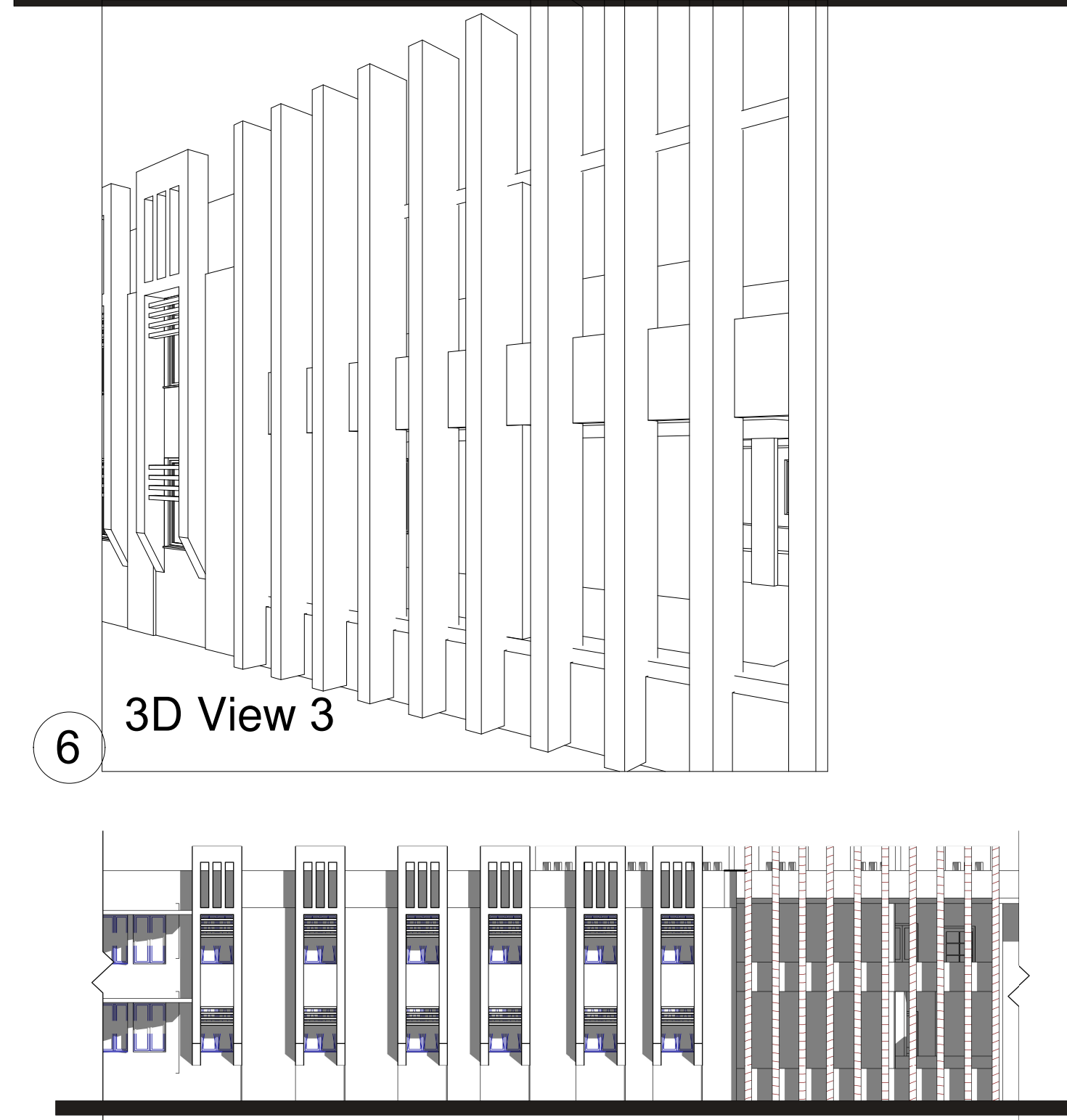
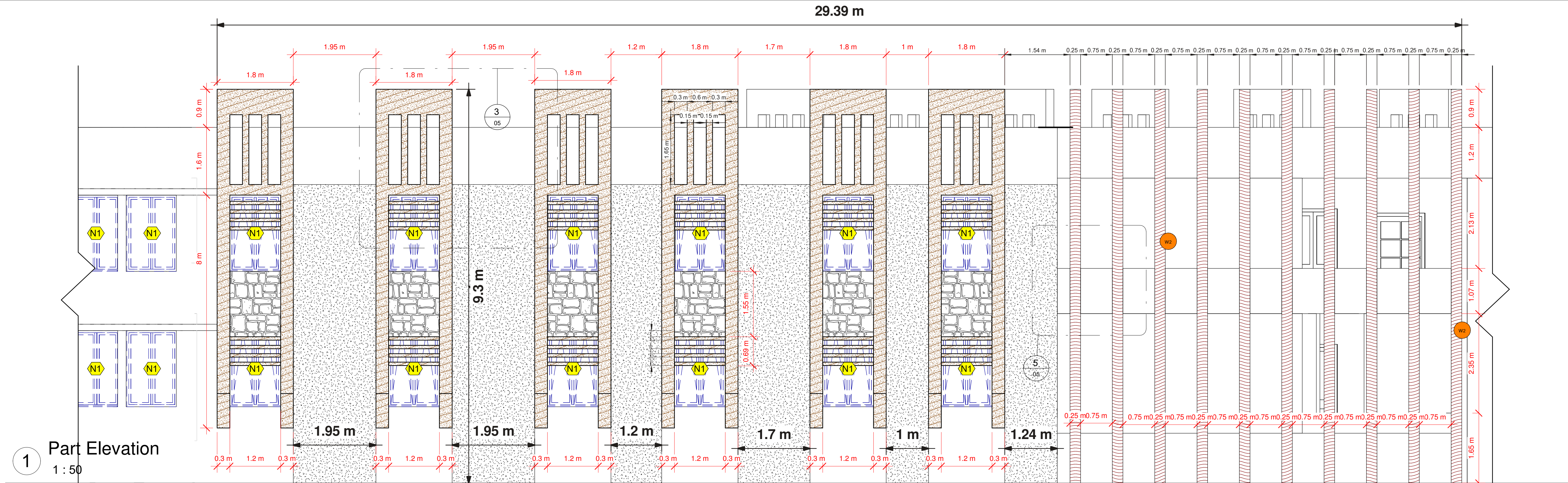
Key Plan

Elementary and middle school
and teachers' housing

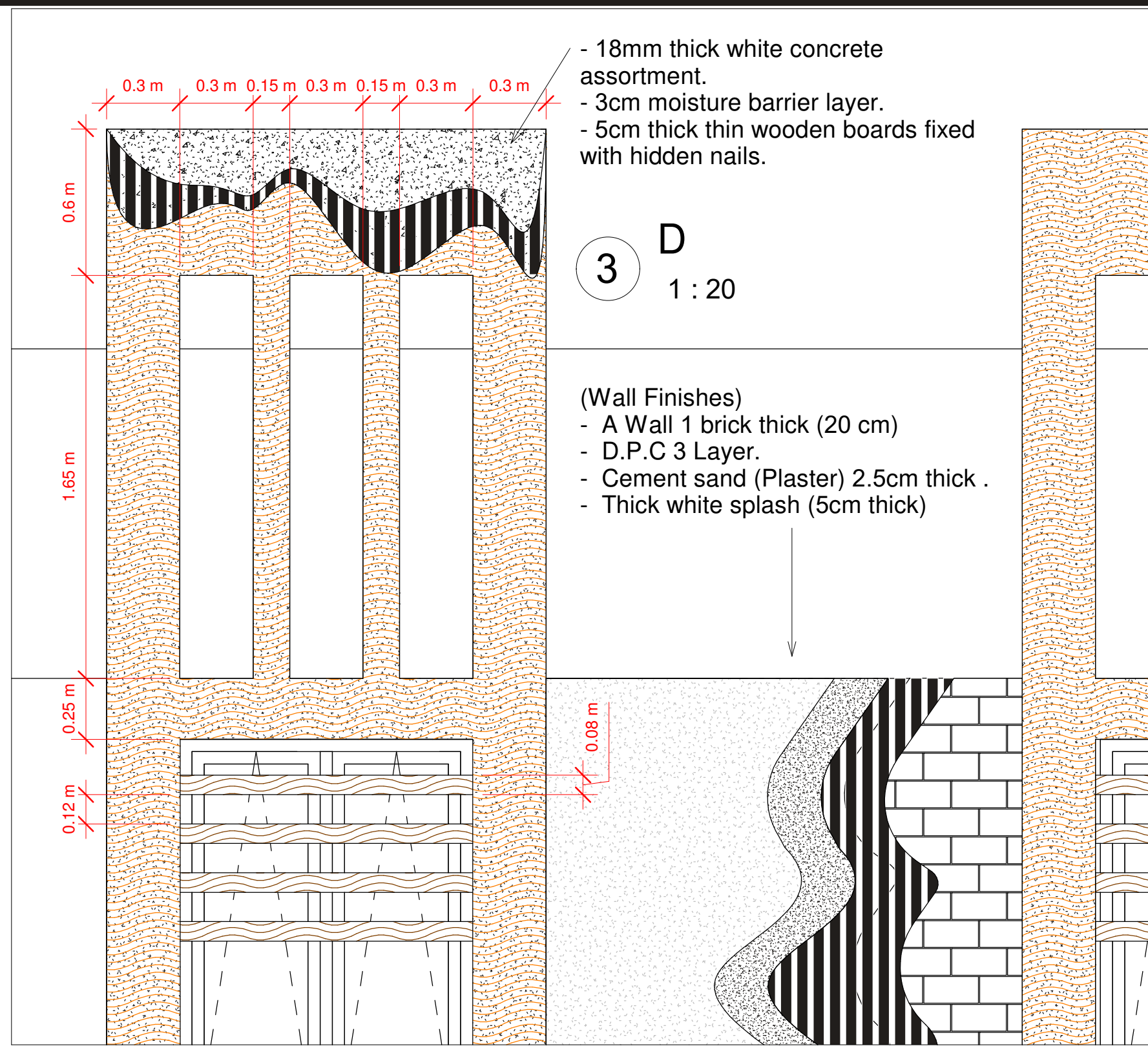
Labs Department - Part Section

Sale 1:50

04

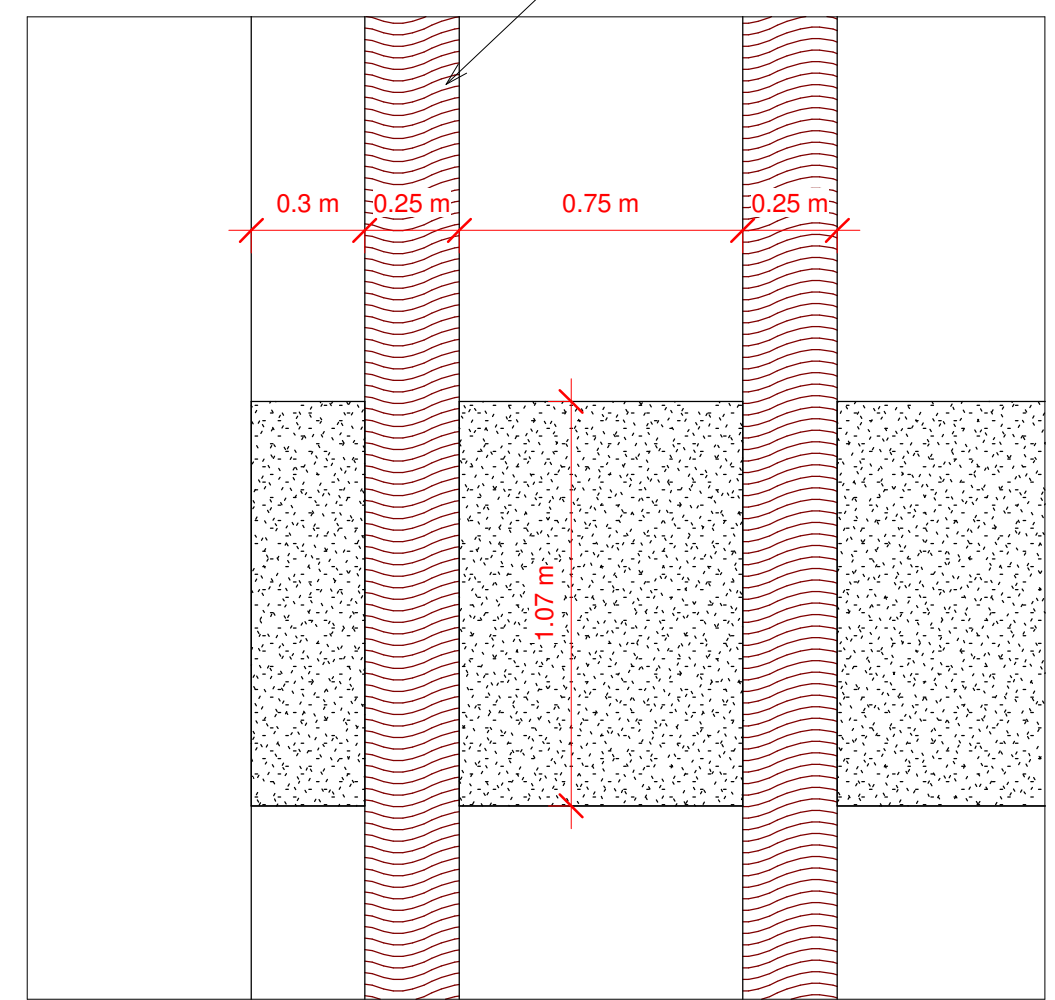


2 Elevation with shadow
1 : 200



4 3D View

- Sun breaker with white concrete section, rectangular shape: projection 70 cm,
- 5cm thick thin wooden boards fixed with hidden nails.



5 DA
1 : 20

Remark

All Dimension are in meters

Windows Schedule

Type	Width	Hight	Description
N1	1.2	1.8	Sliding Window
N2	0.9	1.2	Double Door
N3	2.5	1.5	Sliding Window

Doors Schedule

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Floors Finishes

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Ceiling Finishes

C1	Gypsum Bboards 60*60*2cm 60*60 Metal Mesh (5cm Thick) Reinforced Concrete Slap 1:3:6 (15cm thick)
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Skirting Finishes

S1	Epoxy 1 Layer C/S Mortor 1:6 (3cm Thick) -A Wall 1 brick thick (20 cm)
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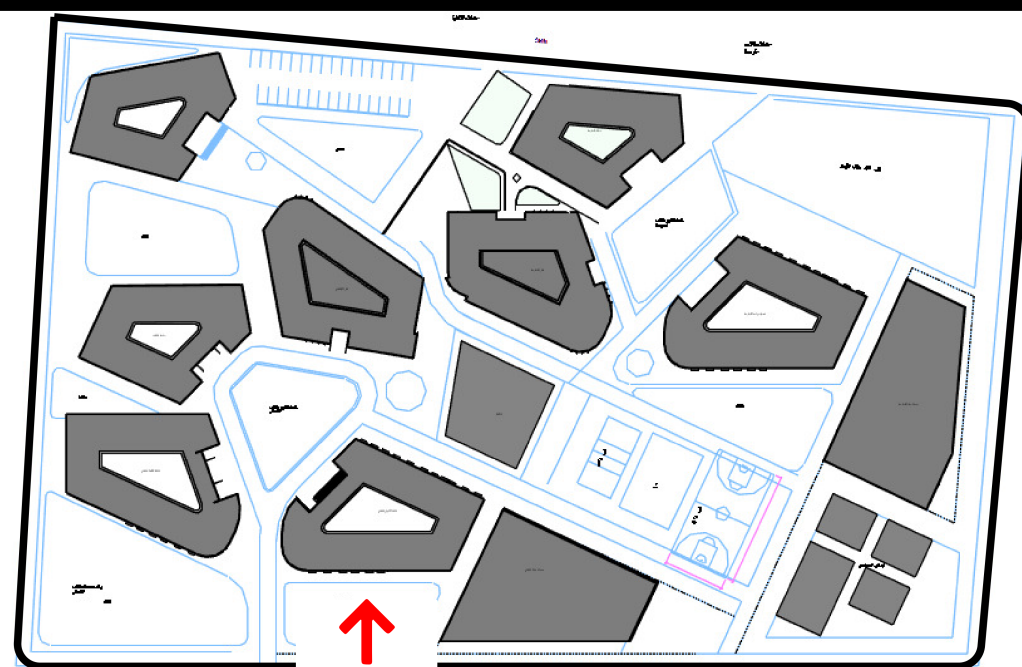
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Key Plan

Elementary and middle school
and teachers' housing

Class Department - Part Elevation

Sale 1:50

05