



Civil Engineering Department
Structural Engineering
Graduation Project

KHALET MANA 'BASIC GIRLS SCHOOL
Structural Design

Supervisor:
Dr. Belal Al-Massri

Completed Dy:

Bayan Sameer Azbak Alafghani Haider Hussein Abusheikha

Hebron-Palestine

2024

LIST OF DRAWINGS

ARCHITECTURAL DRAWINGS		STRUCTURAL DRAWINGS			
A00	LIST OF DRAWINGS & LEGEND	S000	GENERAL NOTES	S400	Basement Floor Slab
A01	SITE PLAN	S001	GENERAL NOTES	S401	Detailing Basement Floor Slab
A02	SITE PLAN	S100	Matt Foundation	S403	Ground Floor Slab
A03	SITE PLAN	S101	Matt Foundation Bottom Reinforcement	S404	Detailing Ground Floor Slab
A05	SITE PLAN (DETAIL)	S102	Matt Foundation Top Reinforcement	S405	First Floor Slab
A06	AREA SCHEDULE	S103	Matt Foundation Section A-A	S406	Detailing First Floor Slab
A07	BASEMENT FLOOR PLAN	S200	COLUMNS Center	S407	Second Floor Slab
A08	GROUND FLOOR PLAN	S201	Column's Design Sections	S408	Detailing Second Floor Slab
A09	FIRST FLOOR PLAN	S202	Columns detailing (C1)	S407	Stair Slab
A10	SECOND FLOOR PLAN	S203	Columns detailing (C2)	S408	Detailing Stair Slab
A11	STAIR CASE PLAN	S204	Columns detailing (C3)	S500	Beam:1,2,3&4
A12	ROOF PLAN	S205	Columns detailing (C4)	S501	Beam 5,6,7&8
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A14	GROUND FLOOR FURNITURE PLAN	S207	Columns detailing (C6)	S503	Beam:13,14,15&16
A15	FIRST FLOOR FURNITURE PLAN	S208	Columns detailing (C7)	S504	Beam :17,18,19&20
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A17	NORTH ELEVATION	S301	Wall Layouts-2	S506	Beam:26
A18	EAST ELEVATION	S302	Basement Wall-B.W1	S507	Beam: 27
A19	SOUTH ELEVATION	S303	Section A-B.W1	S508	Beam: 28
A20	WEST ELEVATION	S304	Shear Wall-S.W2&S.W3	S509	Beam:29&30
A21	SECTION A-A	S305	Shear Wall-S.W4&S.W5	S600	Stair 1&2
A22	SECTION B-B	S306	Shear Wall-S.W6&S.W7		
		S307	Shear Wall-S.W8		



Palestine Polytechnic University

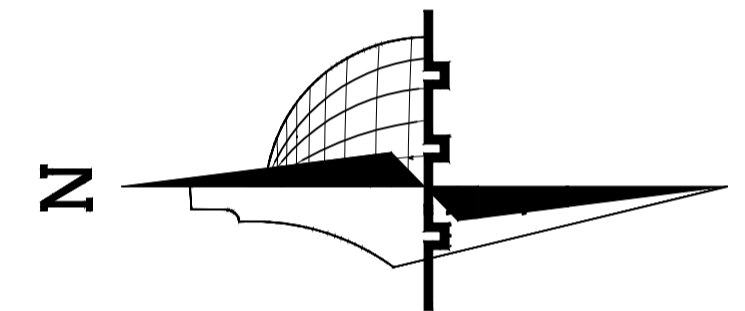
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



C.		
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A.		
Rev. No.	Rev. Description	Date

State of Palestine

 Ministry of Education & Higher Education (MEHE)

DONER :

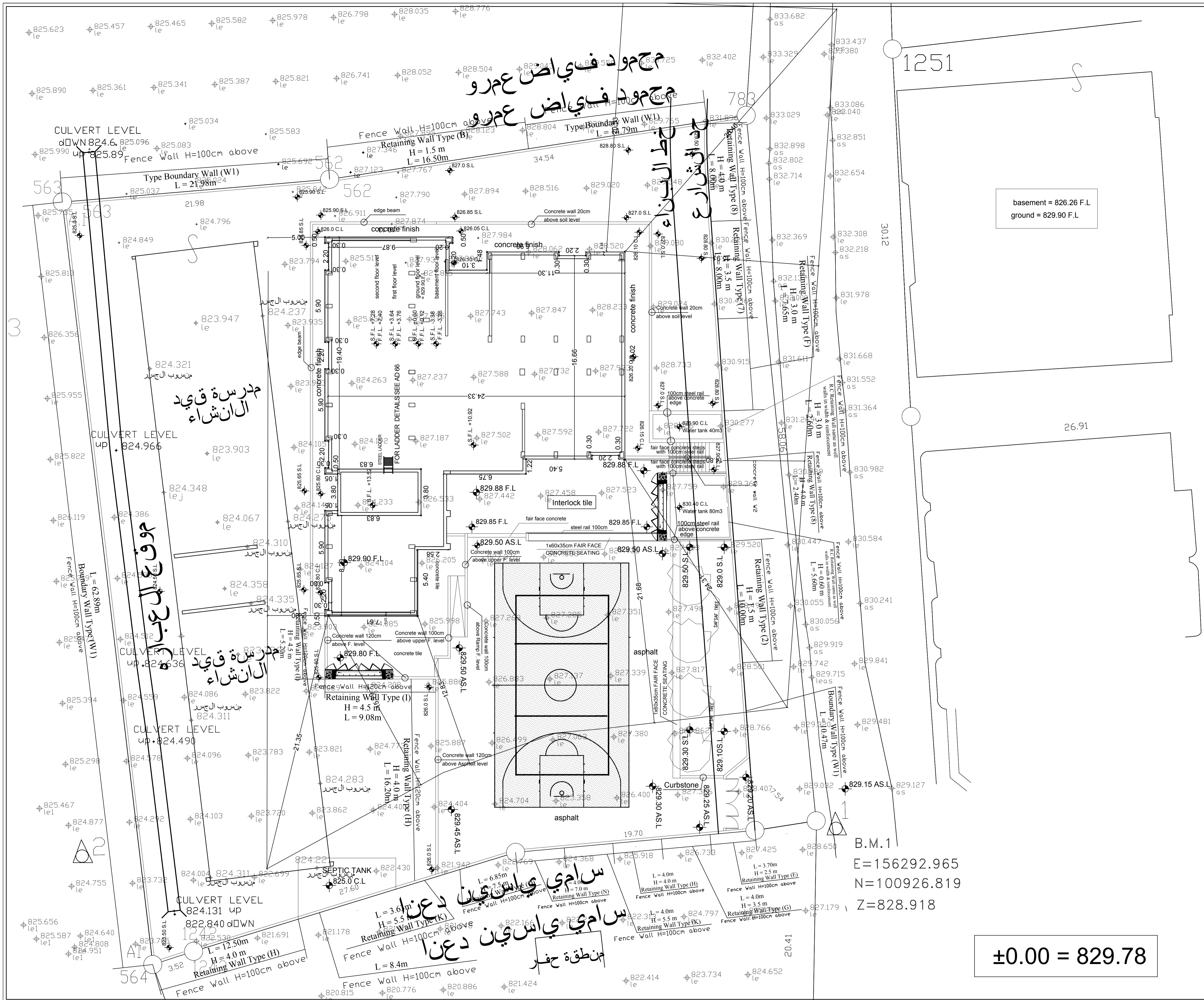
PROTOTYPE

PROJECT TITLE
**KHALET MANA 'BASIC GIRLS
 SCHOOL**

**MAIN DESIGN
 AL AMEED ARCHITECTS AND
 ENGINEERS**

DRAWING Title
LIST OF DRAWINGS

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE	DATE
O.O.S	A00



مجمود فياض عمرو
مجمود فياض عمرو

خط البناء
خط الشارع

مدرسة قييد
الانشاء


مدرسة قييد
الانشاء

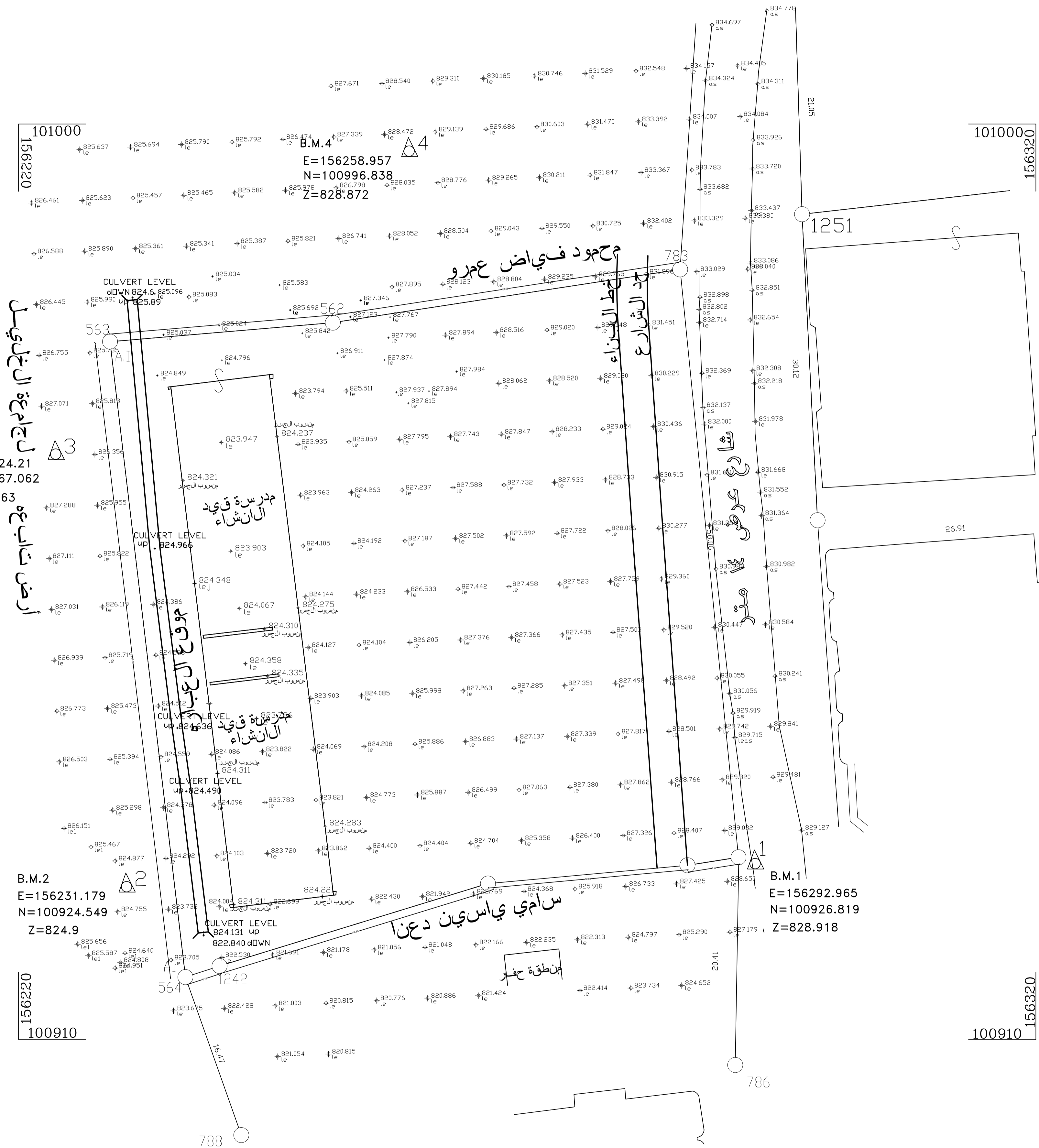
سامي ياسين دعنا
سامي ياسين دعنا
منطقة حفر

basement = 826.26 F.L.
ground = 829.90 F.L.

±0.00 = 829.78

B.M.1
E=156292.965
N=100926.819
Z=828.918

C.		
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State of Palestine		
 Ministry of Education & Higher Education (MEHE)		
DONER :		
PROTOTYPE		
PROJECT TITLE		
KHALET MANA 'BASIC GIRLS SCHOOL		
DRAWING TITLE		
SITE PLAN		
ARCHITECTURAL :		
DRAWN :		
CHECKED :		
APPROVED :		
SCALE	DATE	DRAWING NO.



الموقع - خلة مناع	
الحوض - 5	
القطعة - 38/30	
المساحة - 3034 متر مربع	
اسم المشروع -	
نظمت بطلب - بلدية دورا	
اعداد دائرة التخطيط والتطوير - قسم المساحة	
ق ١٠ رئيس قسم المساحة - م فايز ابو السباع	
م محمود الزيدات	م محمد ربيعي

B.M.3
E=156224.21
N=100967.062
Z=827.363

ارض تابع

101000
156220

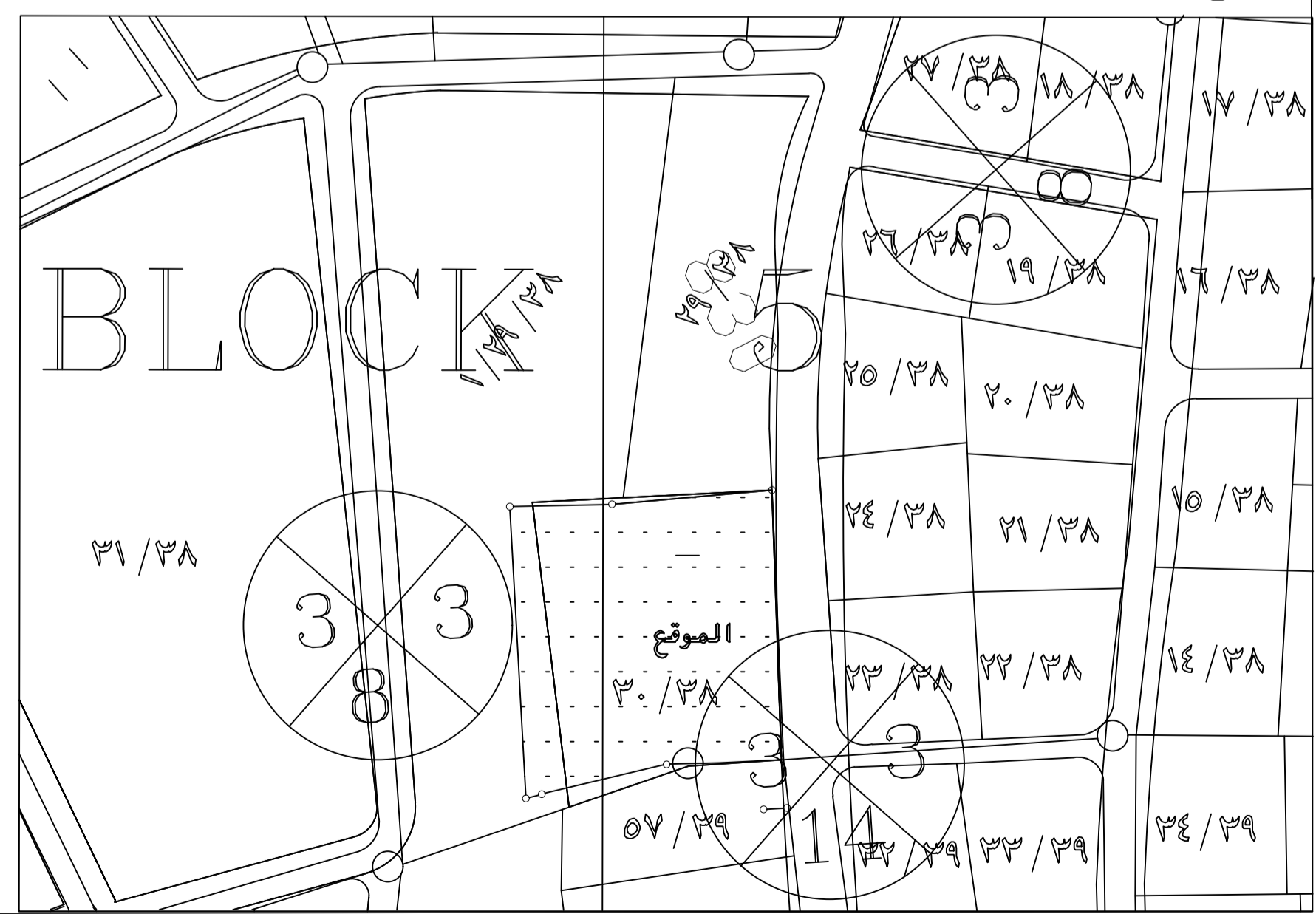
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156320

156220
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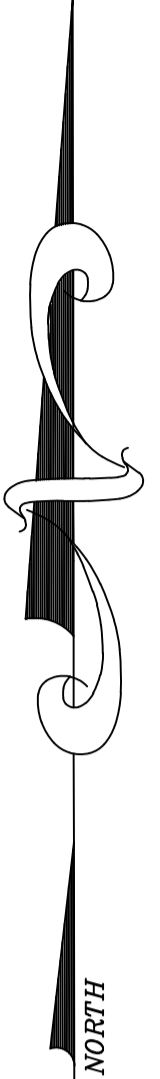
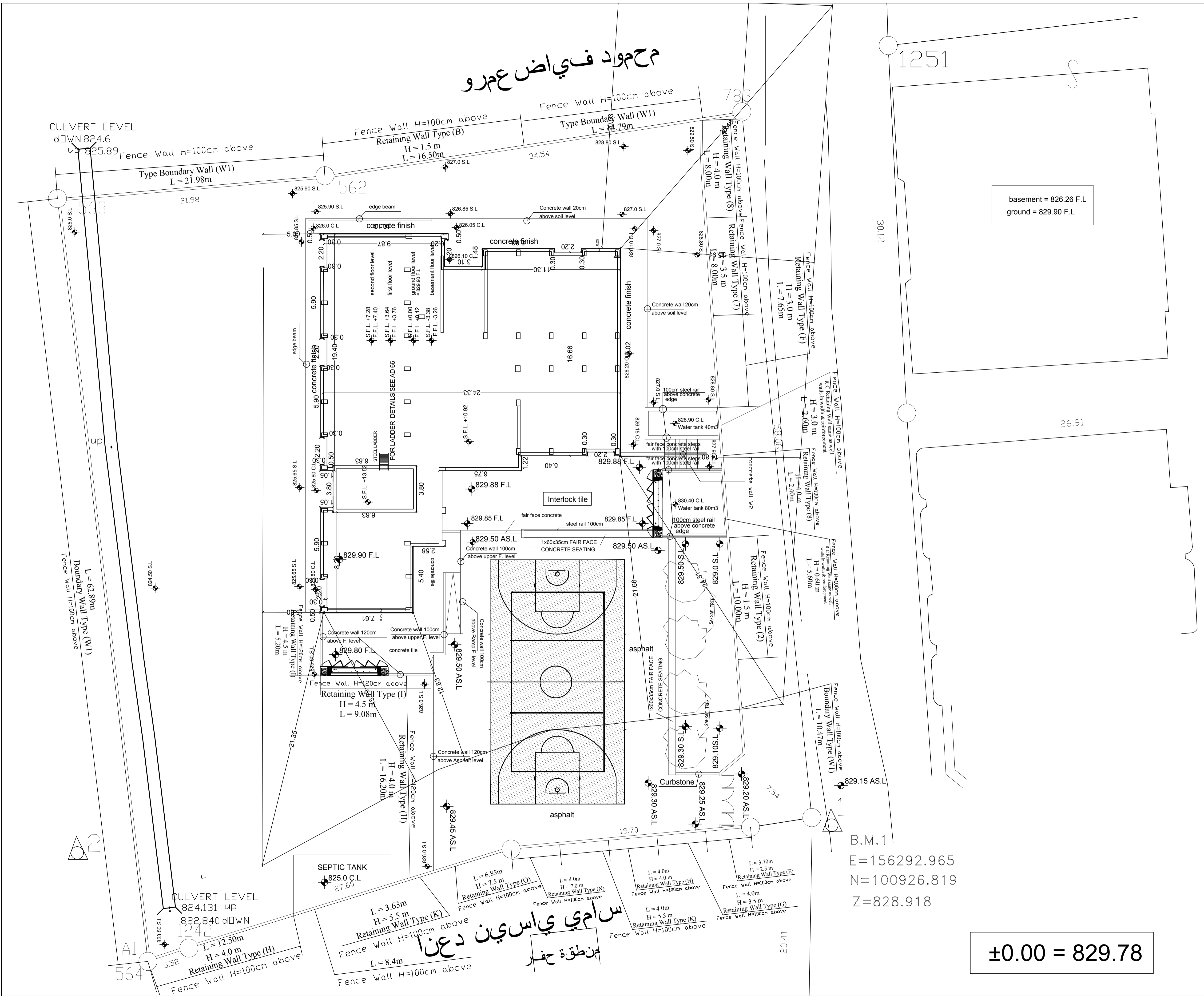
100910
156320

1:2500 — lrdhS hgvsL

1:500 — lrdhS hgvsL



محمود فياض عمرو



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Rev. No.	Rev. Description	Date

State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :

PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL
MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

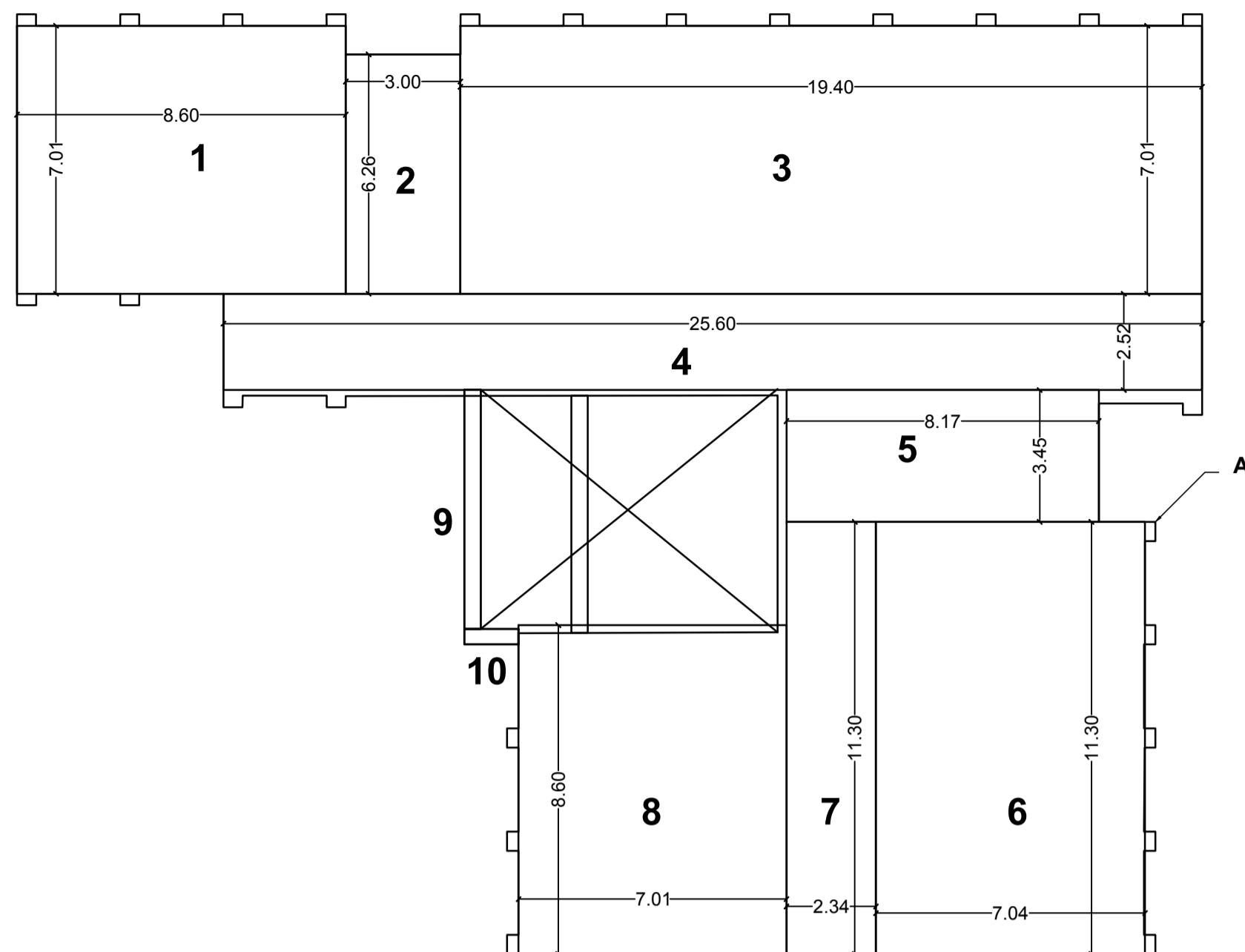
DRAWING Title
SITE PLAN

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE	DATE
	DRAWING NO.

±0.00 = 829.78

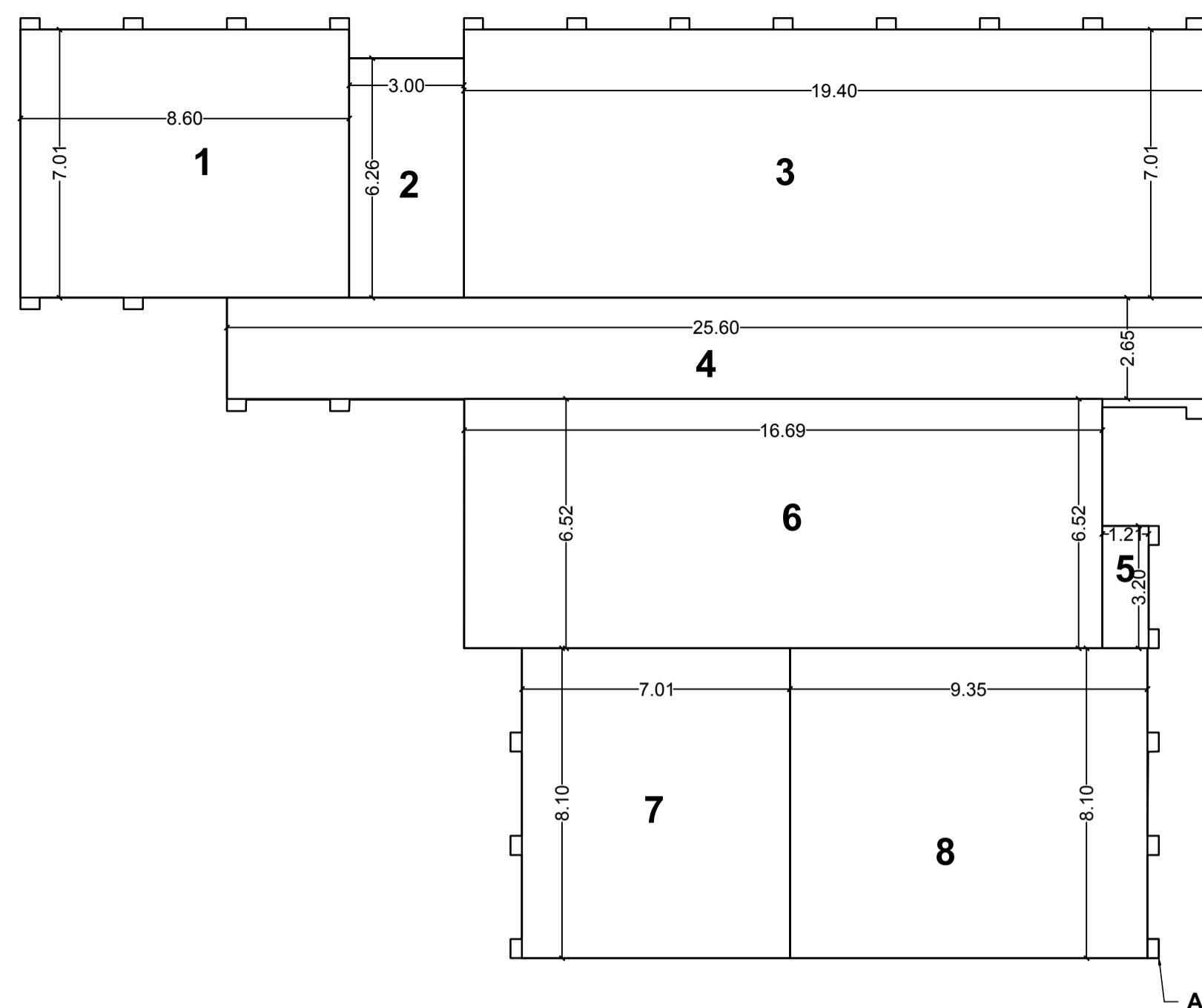
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 Z=828.918

سامي ياسين دعدا
 منقحة حفر



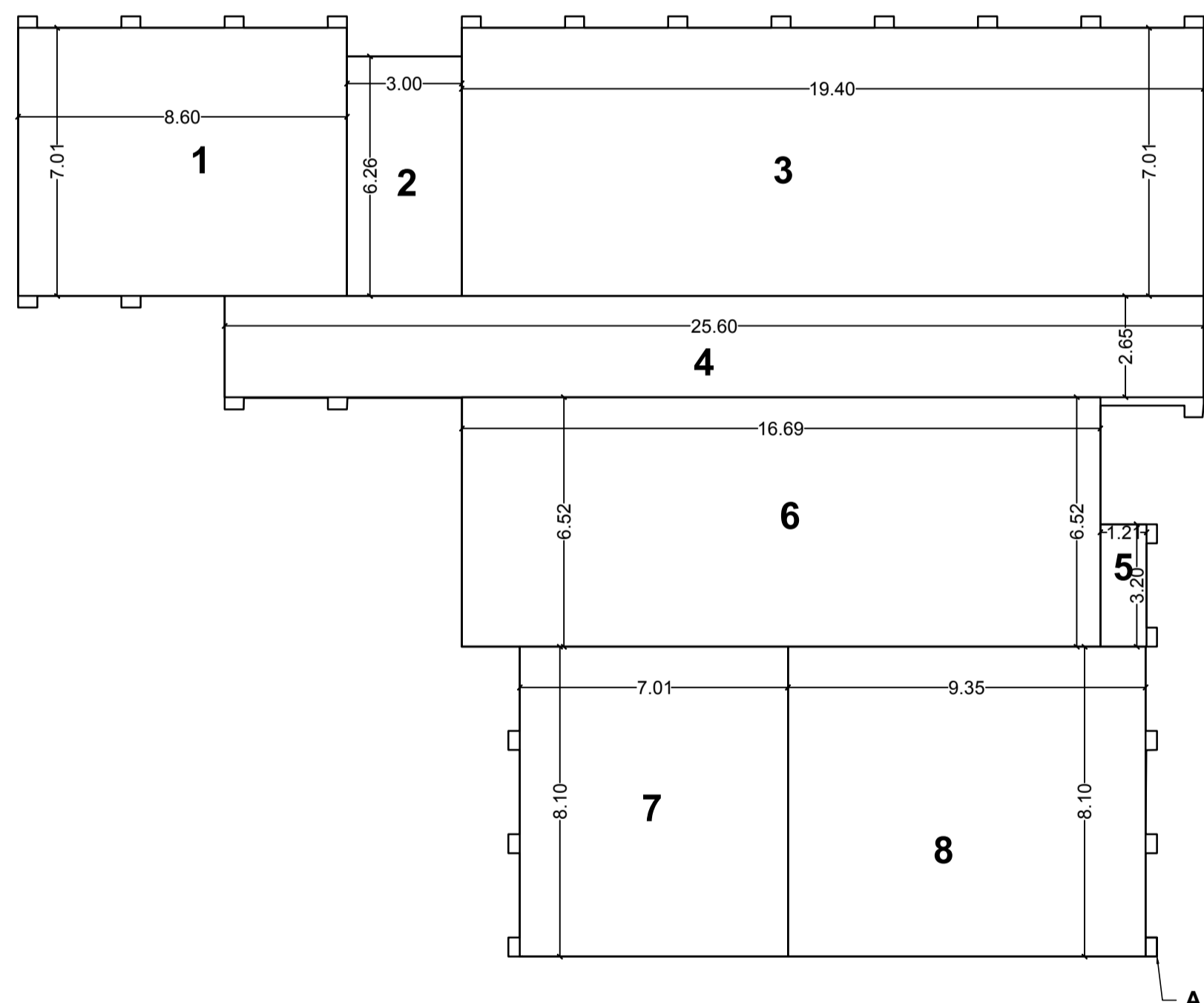
GROUND FLOOR AREA & VOLUME SCHEDULE

NO.	AREA CALCULATION
1	7.01*8.60 = 60.28
2	3.00*6.26 = 18.78
3	19.40*7.01 = 135.98
4	25.60*2.52 = 64.44
5	8.17*3.45 = 28.18
6	11.30*7.04 = 79.56
7	11.30*2.34 = 26.44
8	7.01*8.30 = 60.30
9	= 2.69
10	= 0.65
A	0.15*25 = 3.75
AREA	486.51 M²
VOLUME	486.51*3.64=1770.896M³



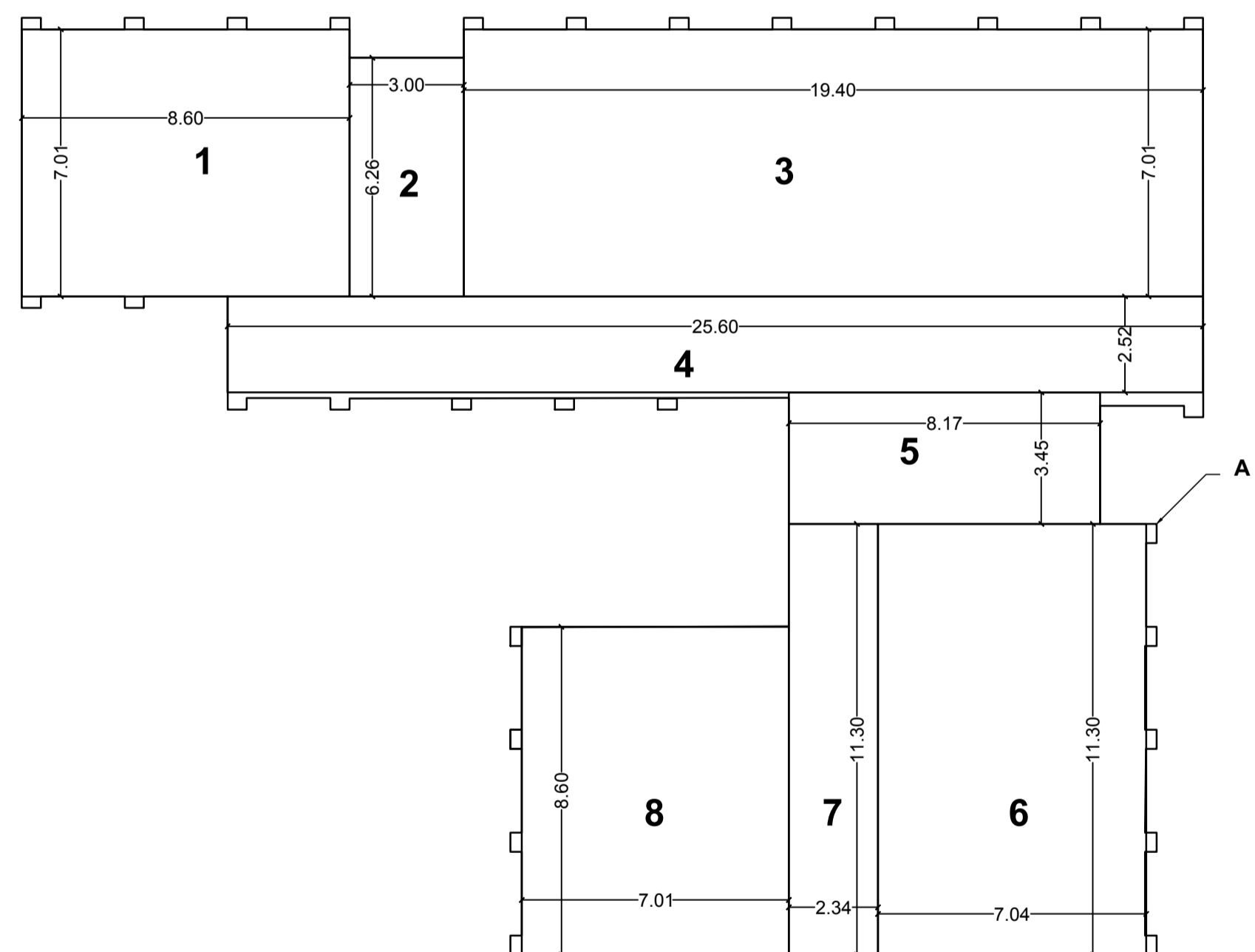
FIRST FLOOR AREA & VOLUME SCHEDULE

NO.	AREA CALCULATION
1	7.01*8.60 = 60.28
2	3.00*6.26 = 18.78
3	19.40*7.01 = 135.98
4	25.60*2.52 = 64.44
5	1221*3.20 = 3.86
6	16.69*6.65 = 108.88
7	7.01*8.10 = 56.78
8	8.10*9.35 = 75.75
A	0.15*25 = 3.75
AREA	532.61 M²
VOLUME	532.61*3.64=1938.70M³



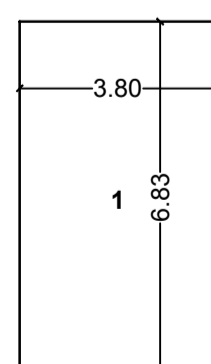
SECOND FLOOR AREA & VOLUME SCHEDULE

NO.	AREA CALCULATION
1	7.01*8.60 = 60.28
2	3.00*6.26 = 18.78
3	19.40*7.01 = 135.98
4	25.60*2.52 = 64.44
5	1221*3.20 = 3.86
6	16.69*6.65 = 108.88
7	7.01*8.10 = 56.78
8	8.10*9.35 = 75.75
A	0.15*25 = 3.75
AREA	532.61 M²
VOLUME	532.61*3.64=1938.70M³



BASEMENT FLOOR AREA & VOLUME SCHEDULE

NO.	AREA CALCULATION
1	7.01*8.60 = 60.28
2	3.00*6.26 = 18.78
3	19.40*7.01 = 135.98
4	25.60*2.52 = 64.44
5	8.17*3.45 = 28.18
6	11.30*7.04 = 79.56
7	11.30*2.34 = 26.44
8	7.01*8.30 = 60.30
A	0.15*29 = 4.35
AREA	480.79M²
VOLUME	480.79*3.64=1750.07M³



STAIR CASE FLOOR

STAIR CASE FLOOR AREA & VOLUME SCHEDULE

NO.	AREA CALCULATION
1	3.80*6.83=25.94
AREA	25.94M²
VOLUME	25.94*2.60=67.44 M³

TOTAL AREA & VOLUME SCHEDULE

NO.	AREA	VOLUME
BASEMENT FLOOR	480.79M ²	1750.07 M ³
GROUND FLOOR	486.51M ²	1770.896 M ³
FIRST FLOOR	532.61M ²	1938.70 M ³
SECOND FLOOR	532.61M ²	1938.70 M ³
STAIR CASE	25.94M ²	67.444 M ³
TOTAL	2058.46M²	7465.81M³

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Rev. No.	Rev. Description	Date

State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :

PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
AREA & VOLUME SCHEDULE

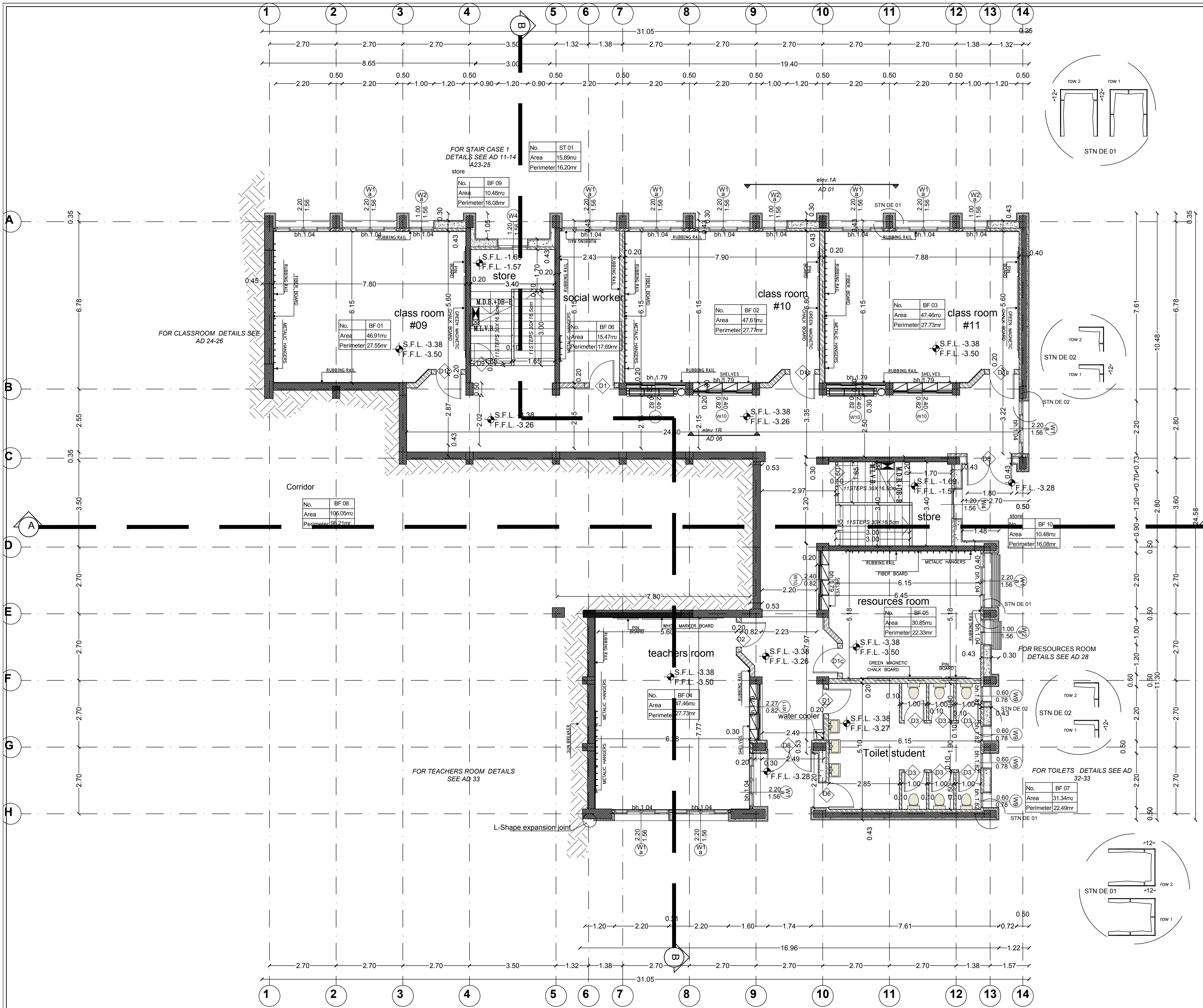
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DRAWN :

CHECKED :

APPROVED :

SCALE 1/200	DATE	DRAWING NO. A06
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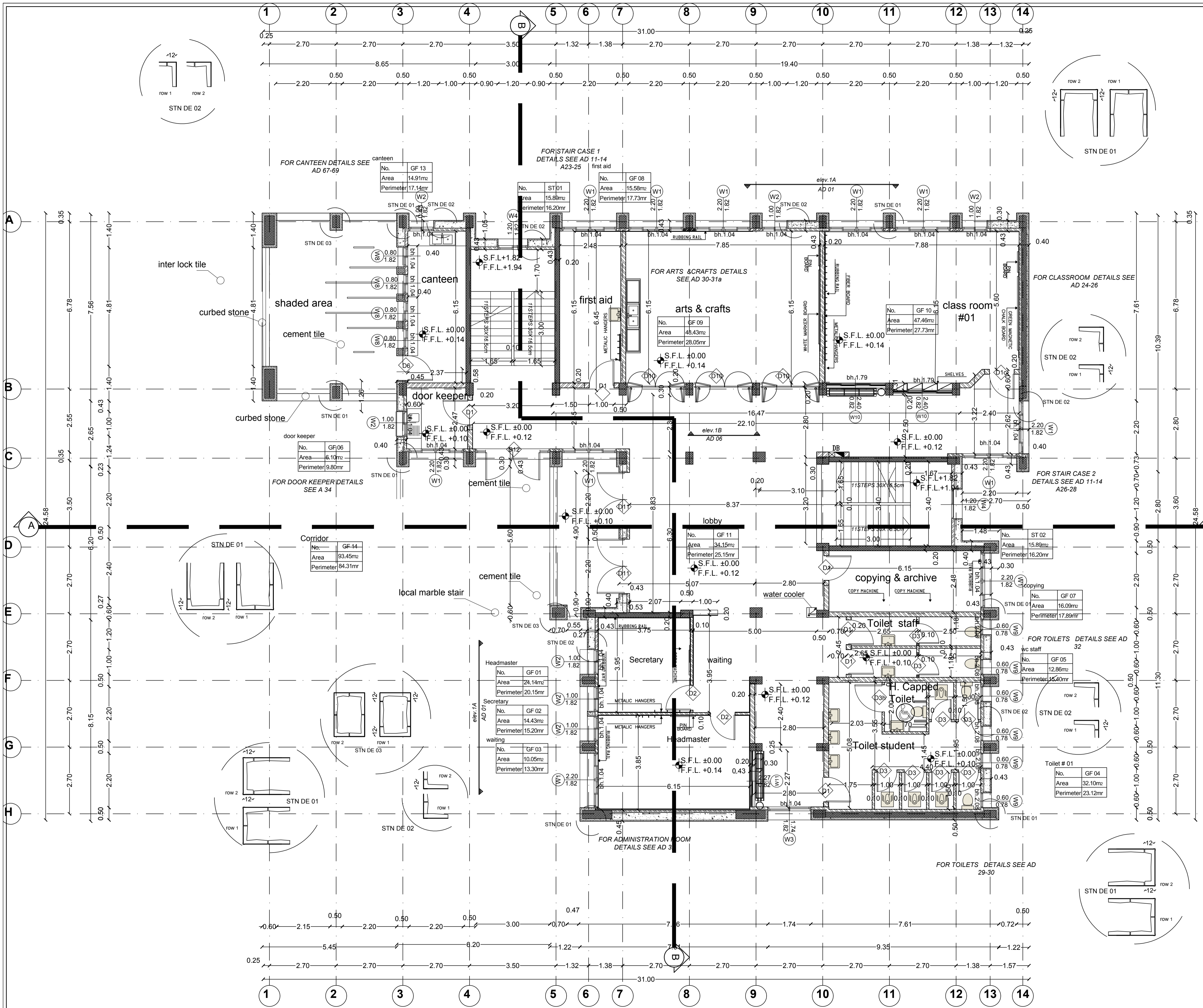


NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	F.F.L
STRUCTURAL FLOOR LEVEL	S.F.L
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	+2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	+505.42
LEVEL SYMBOL (ELEV. SEC)	+2.42

C.		
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A.		
Rev. No.	Rev. Description	Date
State of Palestine Ministry of Education & Higher Education (MEHE)		
DONER :		
PROTOTYPE		
PROJECT TITLE		
KHALET MANA 'BASIC GIRLS SCHOOL		
MAIN DESIGN AL AMEED ARCHITECTS AND ENGINEERS		
DRAWING Title		
BASEMENT FLOOR PLAN		
ARCHITECTURAL :		
DRAWN :		
CHECKED :		
APPROVED :		
SCALE	DATE	DRAWING NO.
1/100		A07



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
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FINISH FLOOR LEVEL	F.F.L.
STRUCTURAL FLOOR LEVEL	S.F.L.
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	

Rev. No. Rev. Description Date

C.		
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State of Palestine

Ministry of Education & Higher Education (MEHE)

DONER :

PROTOTYPE

PROJECT TITLE

KHALET MANA 'BASIC GIRLS SCHOOL

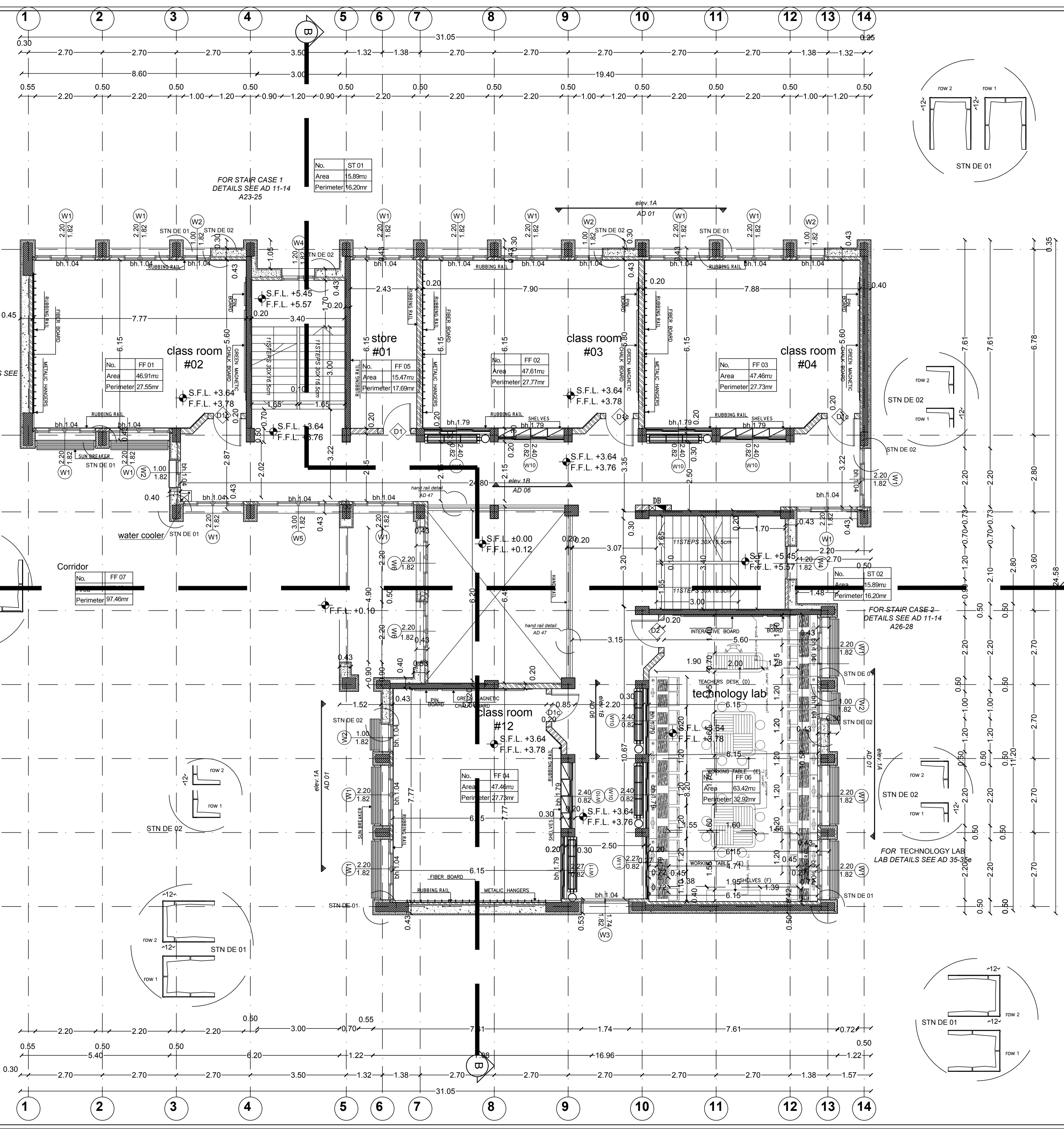
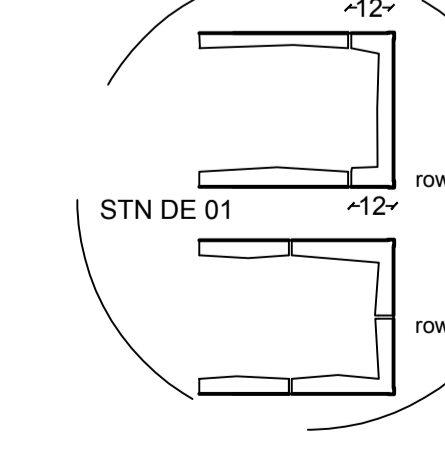
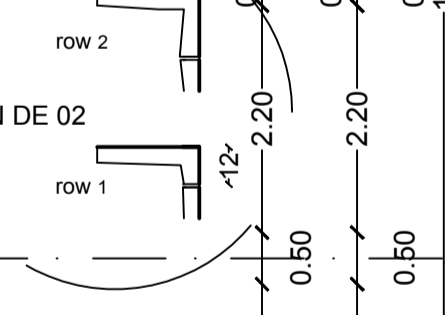
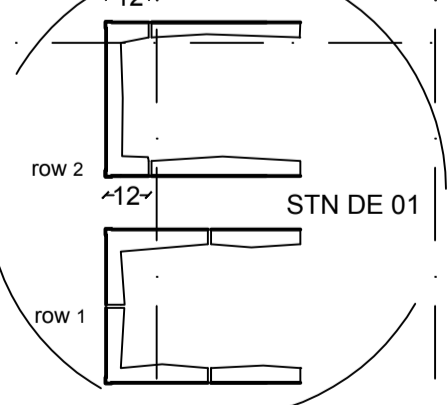
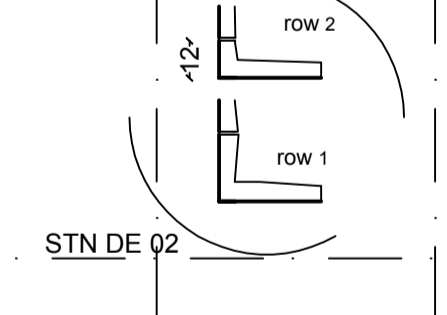
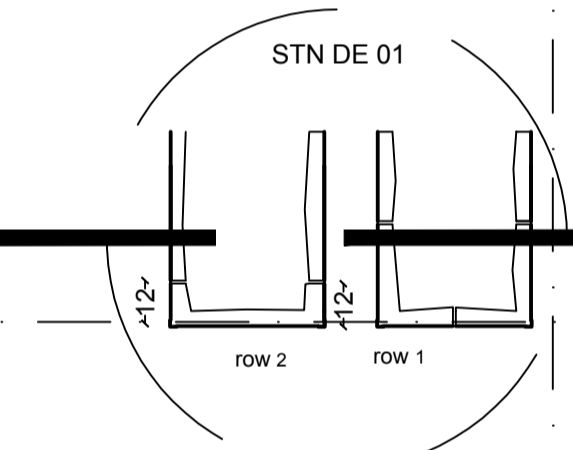
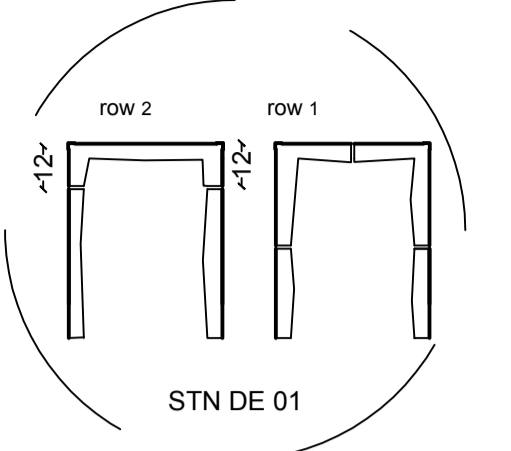
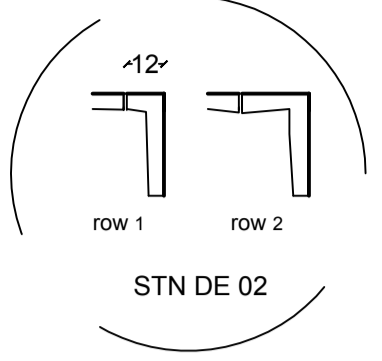
MAIN DESIGN

AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title

GROUND FLOOR PLAN

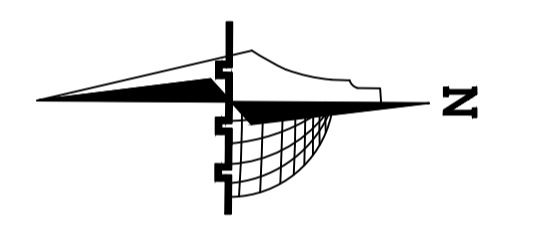
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CHECKED :	
APPROVED :	
SCALE	DATE
1/100	
DRAWING NO.	A08



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	F.F.L
STRUCTURAL FLOOR LEVEL	S.F.L
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	



Rev. No.	Rev. Description	Date

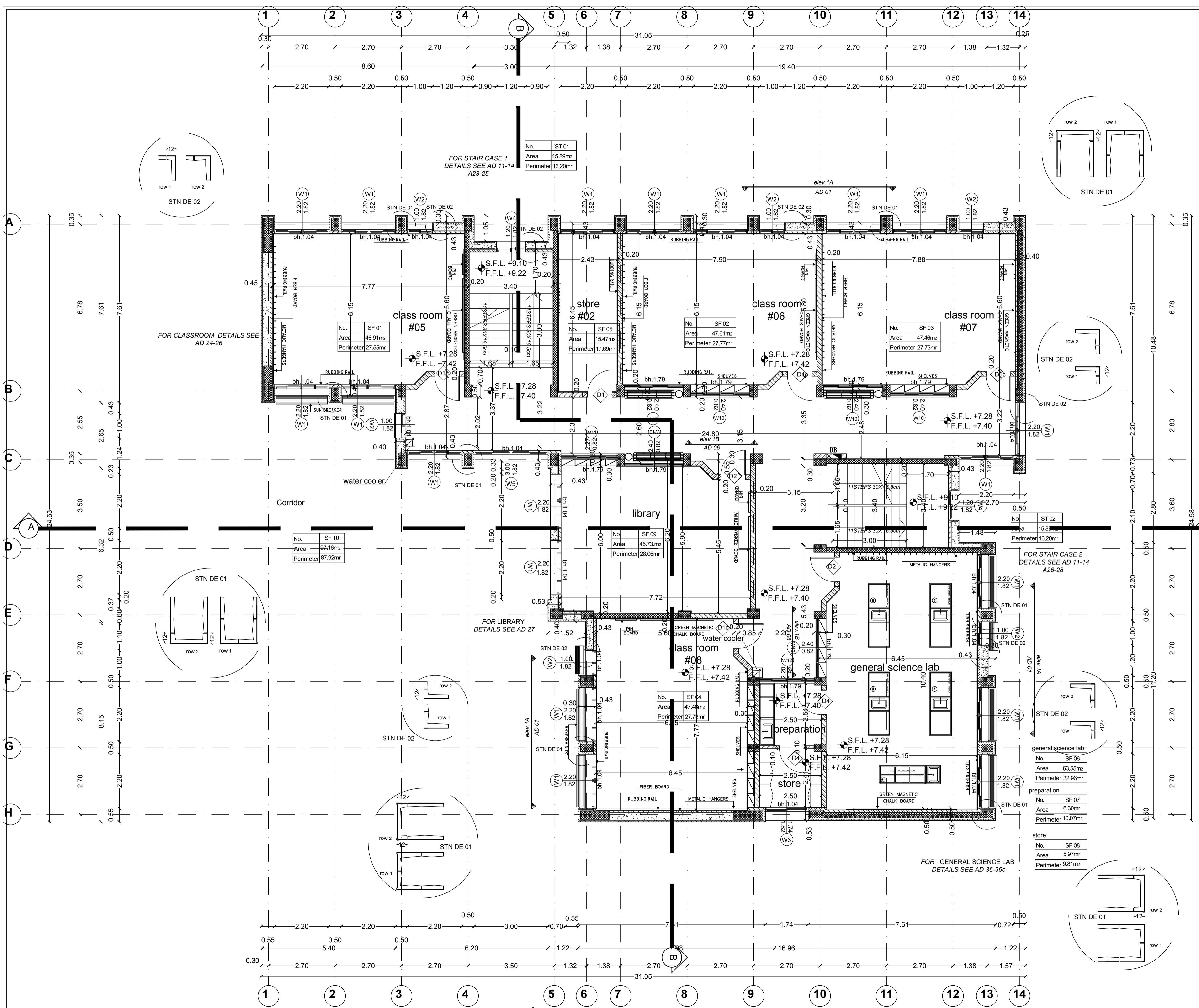
State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL
MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
FIRST FLOOR PLAN

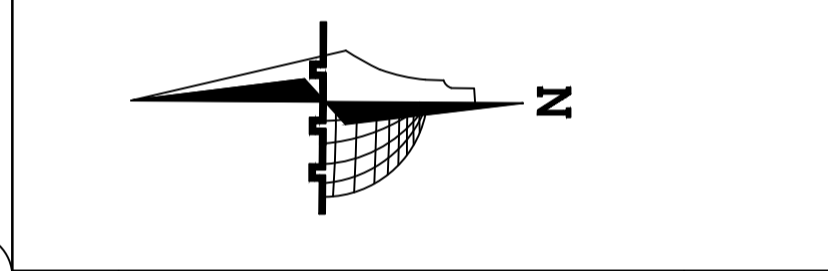
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SCALE	DATE
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NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

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CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
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STRUCTURAL FLOOR LEVEL	S.F.L
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO +0.00	-2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	



Rev. No.	Rev. Description	Date

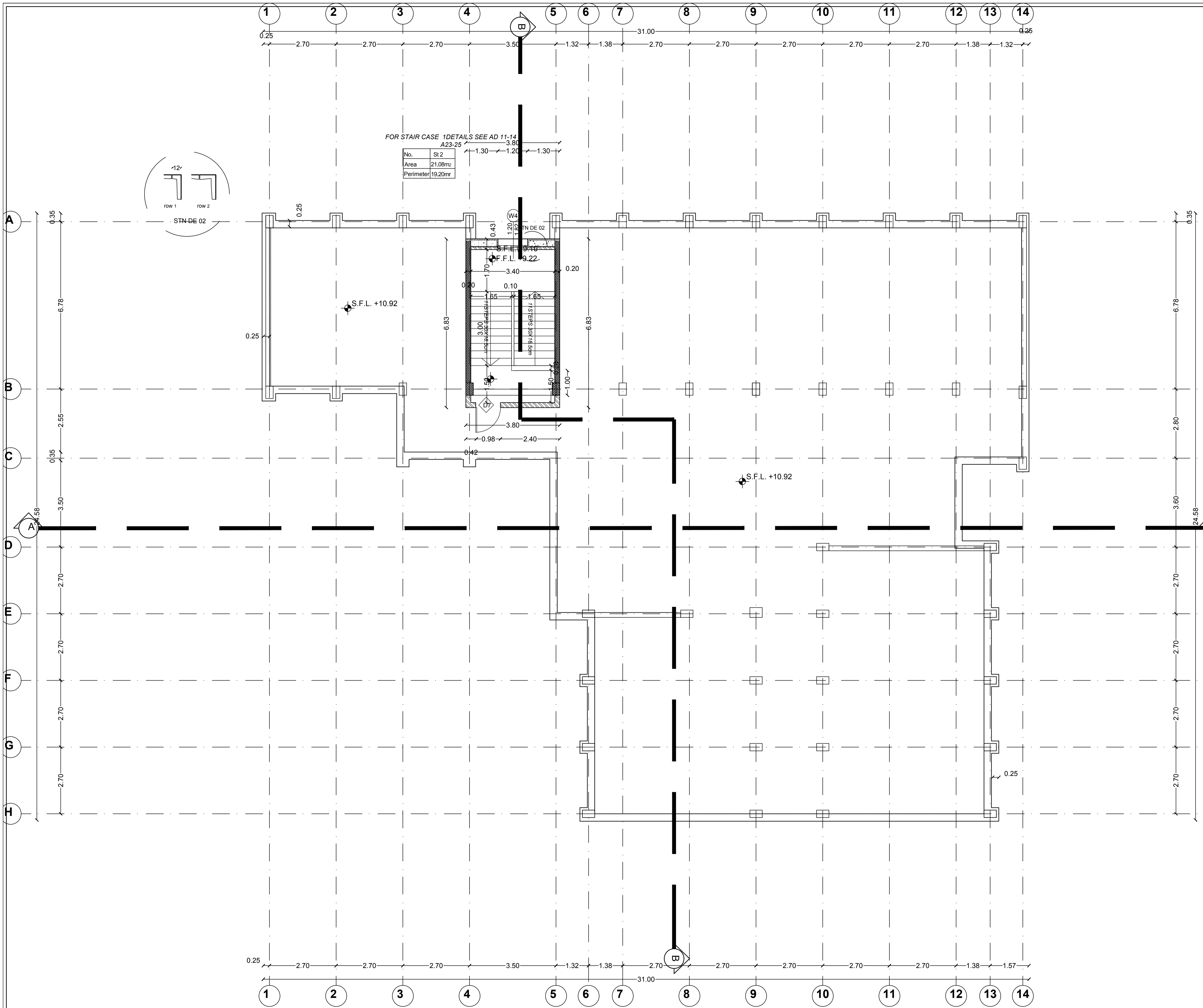
State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL
MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
SECOND FLOOR PLAN

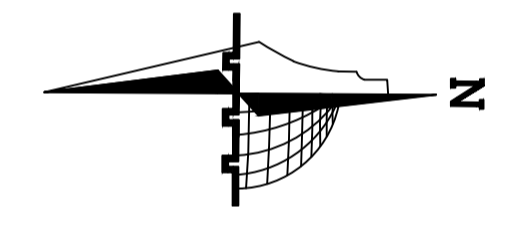
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SCALE	DATE
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DRAWING NO.	A10



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

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CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
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STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	



Rev. No.	Rev. Description	Date

State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :

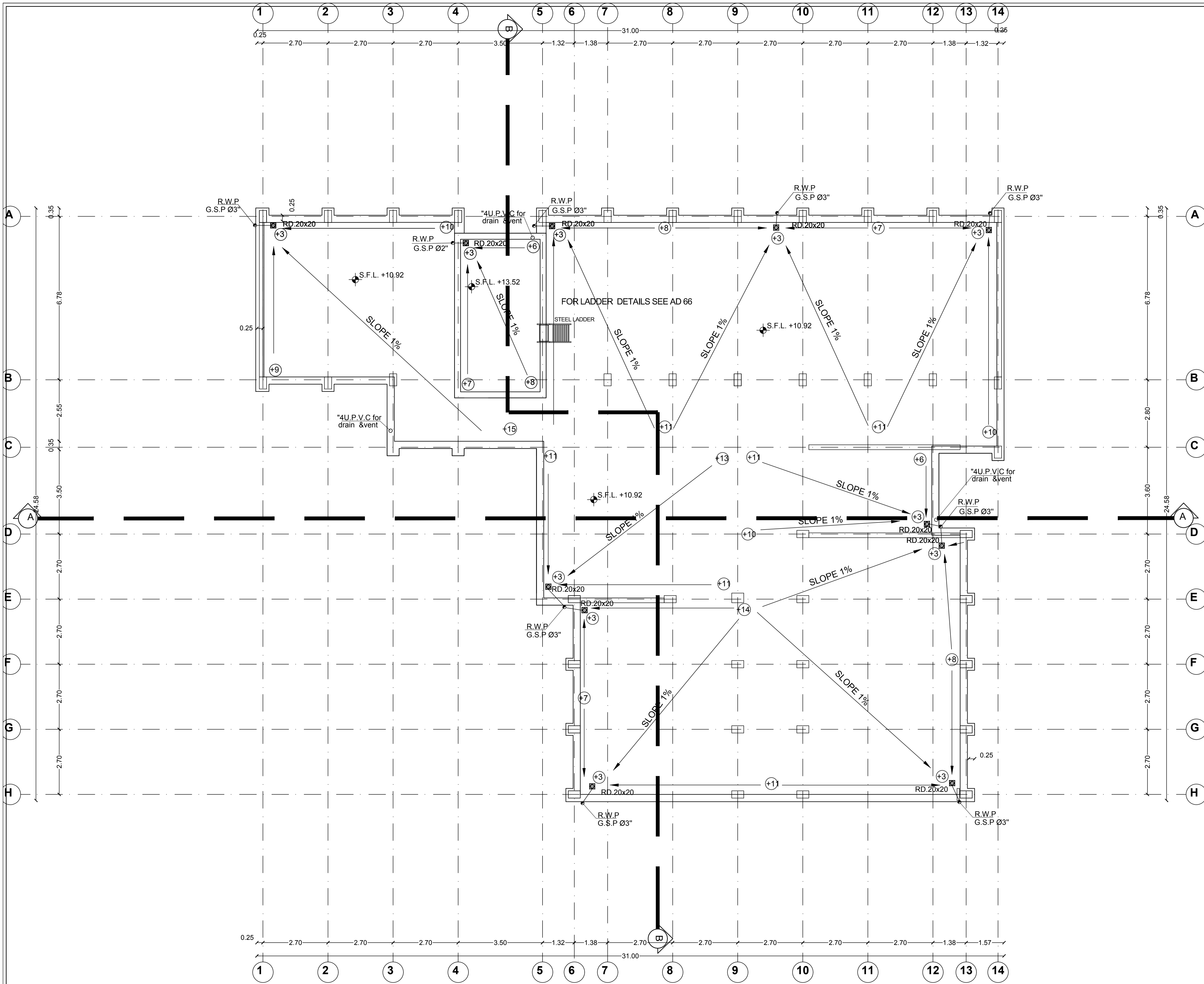
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
STAIR CASE FLOOR PLAN

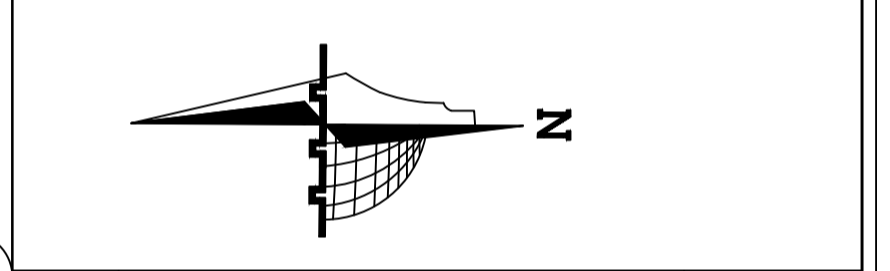
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SCALE	DATE	DRAWING NO.
1/100		A11



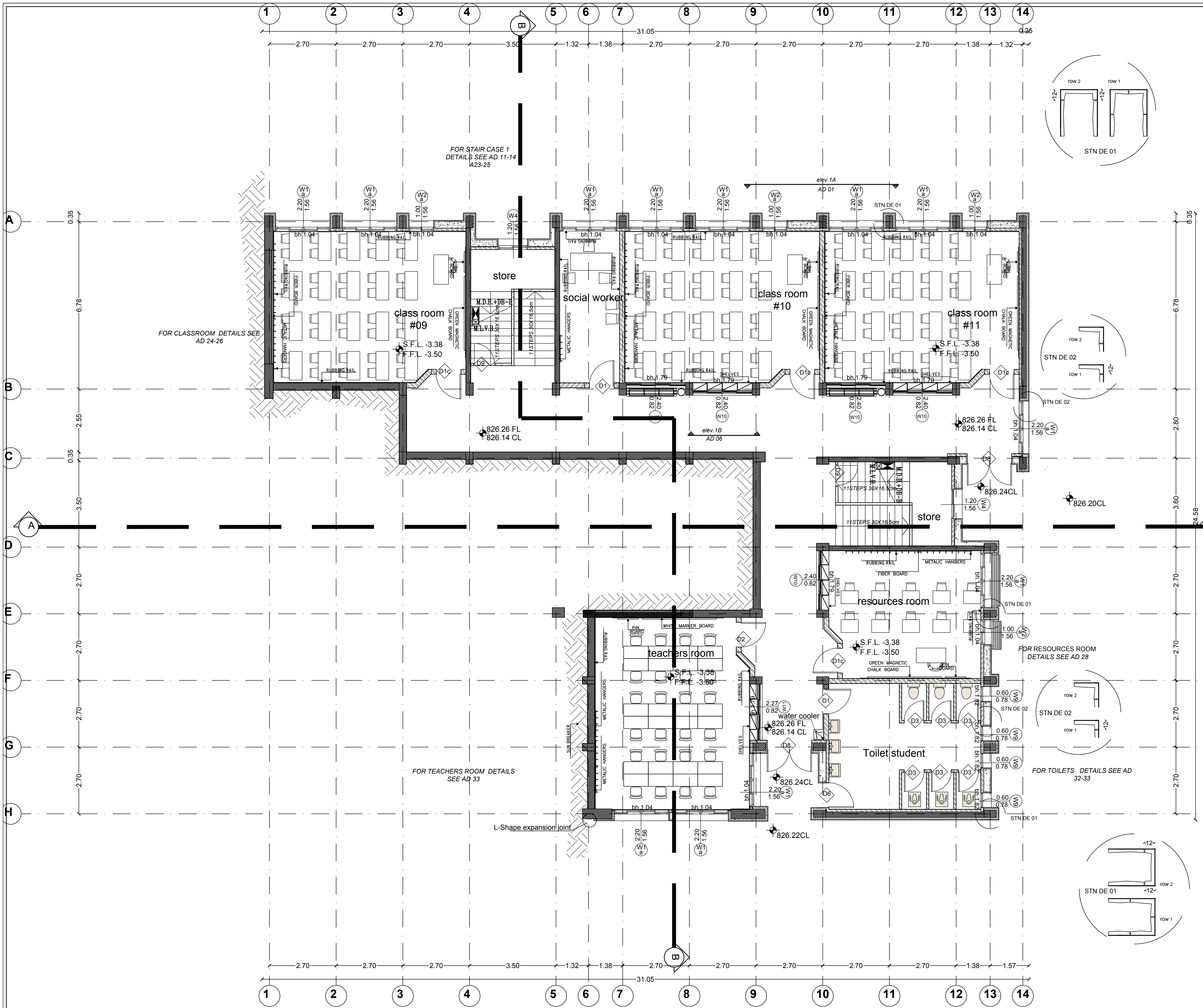
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STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
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FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	



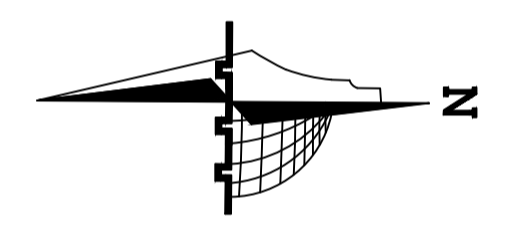
C.		
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Rev. No.	Rev. Description	Date
State of Palestine		
Ministry of Education & Higher Education (MEHE)		
DONER:		
PROTOTYPE		
PROJECT TITLE		
KHALET MANA 'BASIC GIRLS SCHOOL		
MAIN DESIGN		
AL AMEED ARCHITECTS AND ENGINEERS		
DRAWING Title		
ROOF FLOOR PLAN		
ARCHITECTURAL :		
DRAWN :		
CHECKED :		
APPROVED :		
SCALE	DATE	DRAWING NO.
1/100		A12



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	F.F.L.
STRUCTURAL FLOOR LEVEL	S.F.L.
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	-2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	-2.42



Rev. No.	Rev. Description	Date
C.		
B.		
A.		

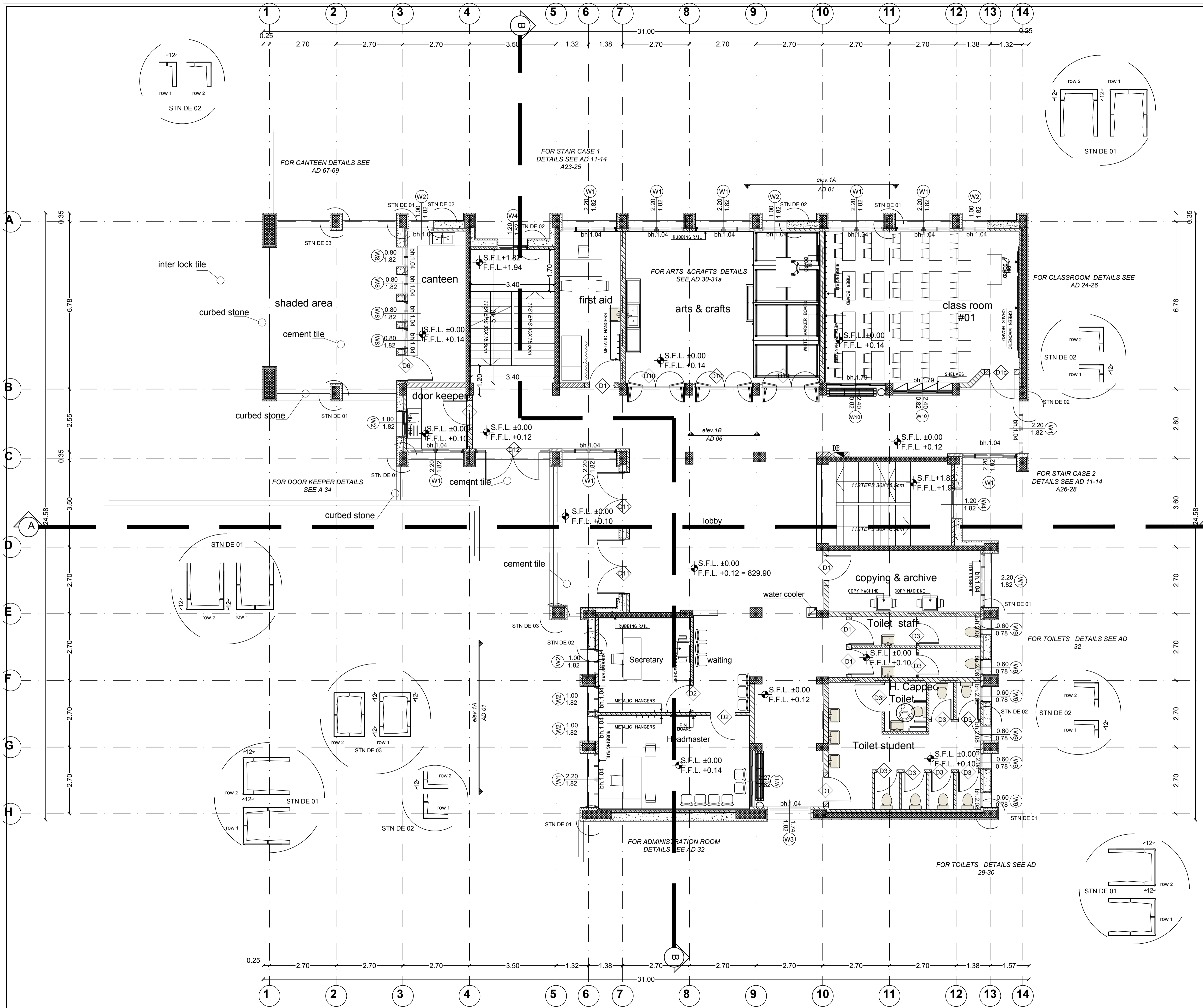
State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL
MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
BASEMENT FLOOR FURNITURE PLAN

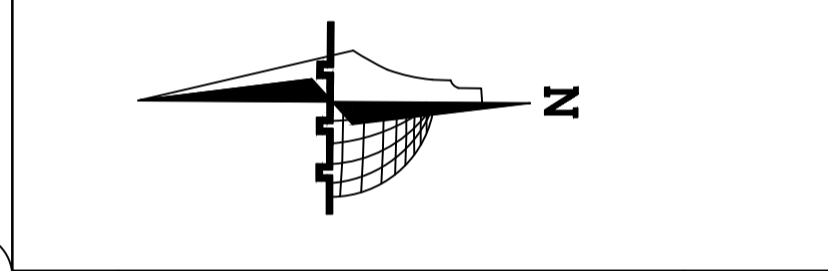
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NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

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STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	F.F.L.
STRUCTURAL FLOOR LEVEL	S.F.L.
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	+2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	+2.42



Rev. No.	Rev. Description	Date

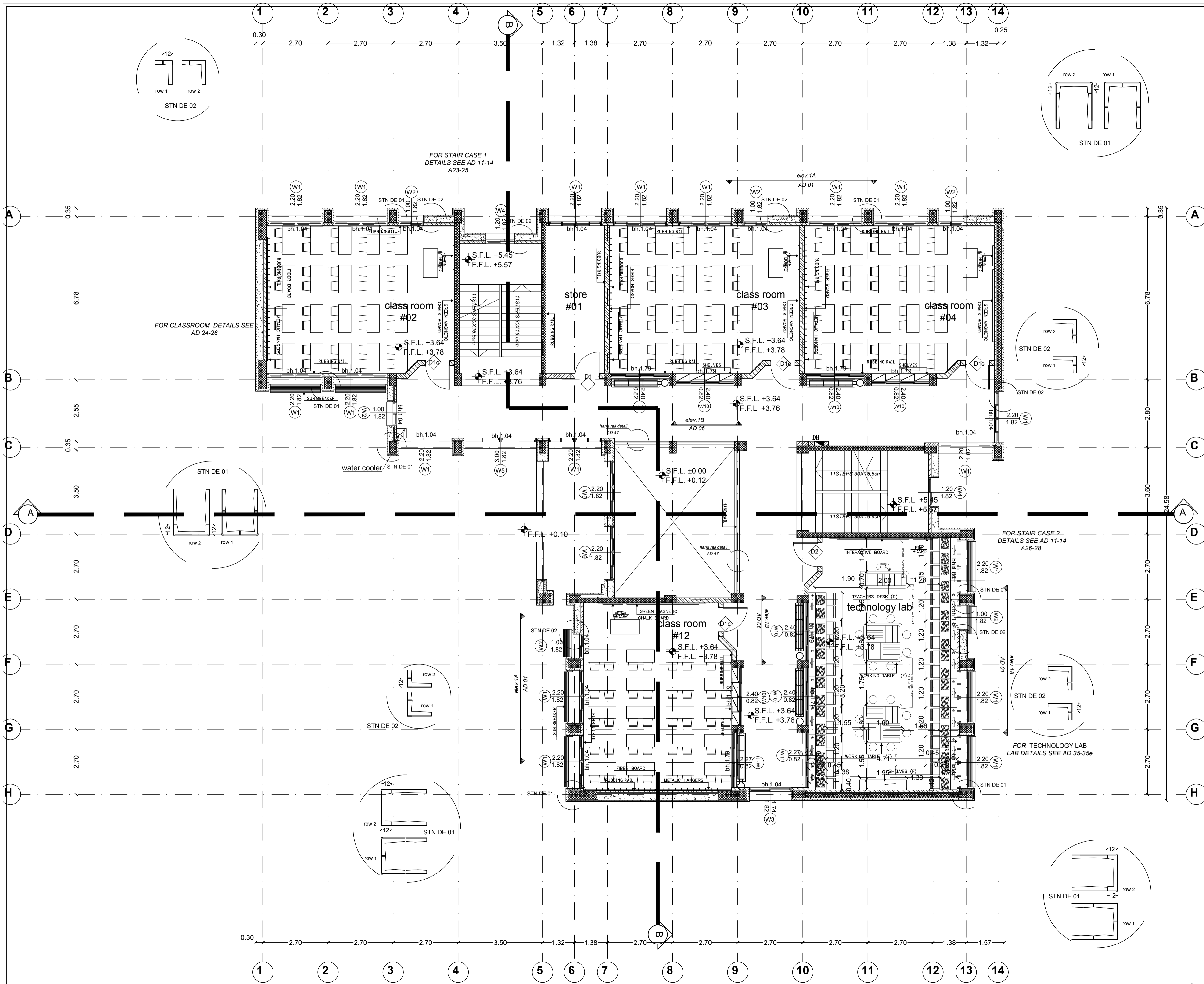
State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL
MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
GROUND FURNITURE FLOOR PLAN

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE	DATE
1/100	
DRAWING NO.	A14



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	F.F.L.
STRUCTURAL FLOOR LEVEL	S.F.L.
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	-2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	-2.42

Rev. No. Rev. Description Date

C.		
B.		
A.		

State of Palestine

Ministry of Education & Higher Education (MEHE)

DONER :

PROTOTYPE

PROJECT TITLE

KHALET MANA 'BASIC GIRLS SCHOOL

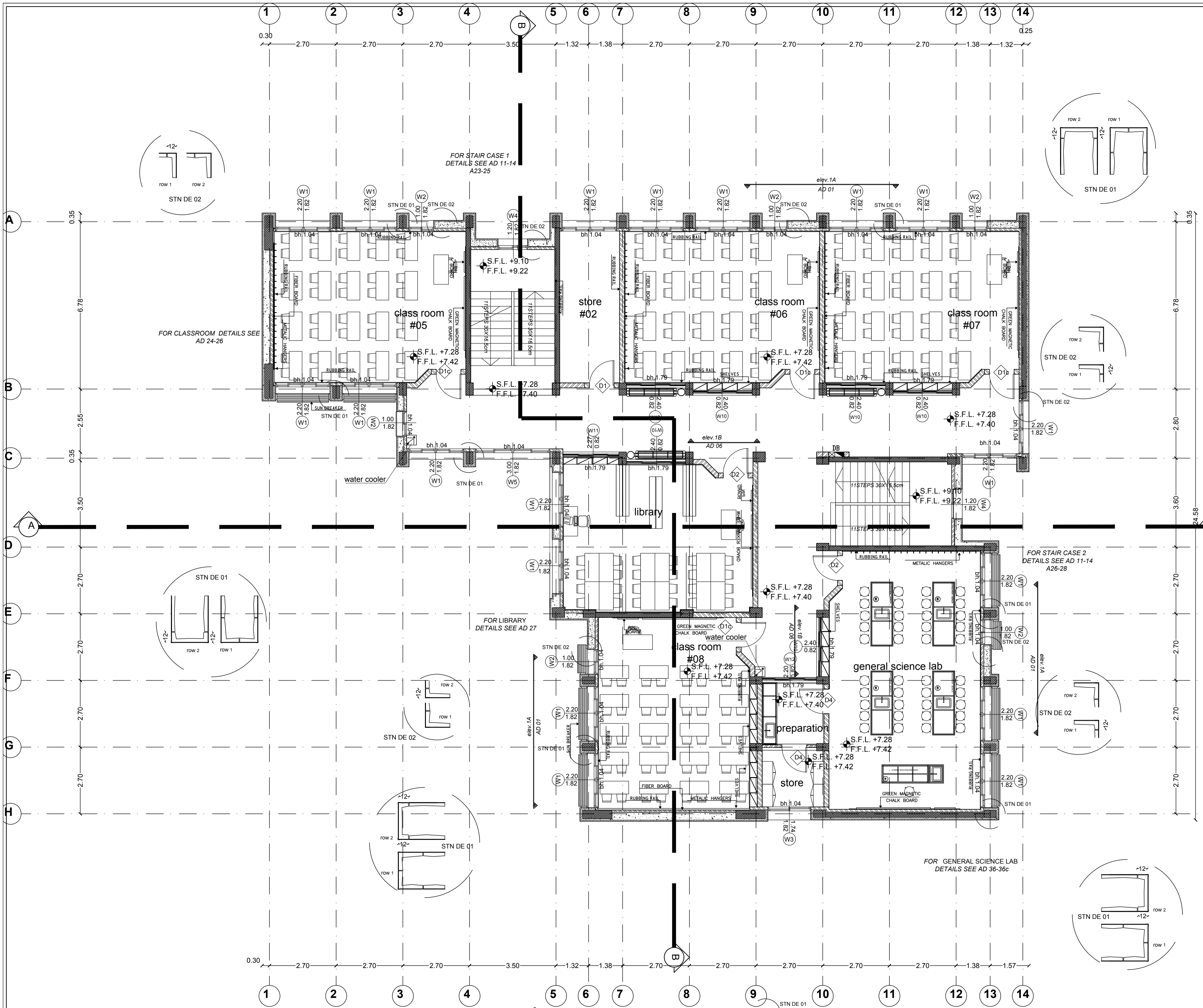
MAIN DESIGN

AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title

FIRST FURNITURE FLOOR PLAN

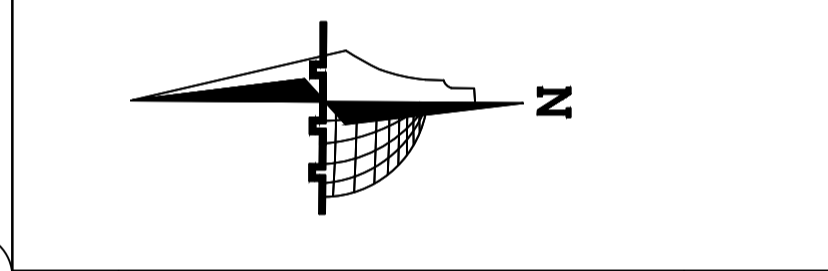
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DRAWN :	
CHECKED :	
APPROVED :	
SCALE	DATE
1/100	
DRAWING NO.	A15



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	F.F.L.
STRUCTURAL FLOOR LEVEL	S.F.L.
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO +0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	



Rev. No.	Rev. Description	Date
C.		
B.		
A.		

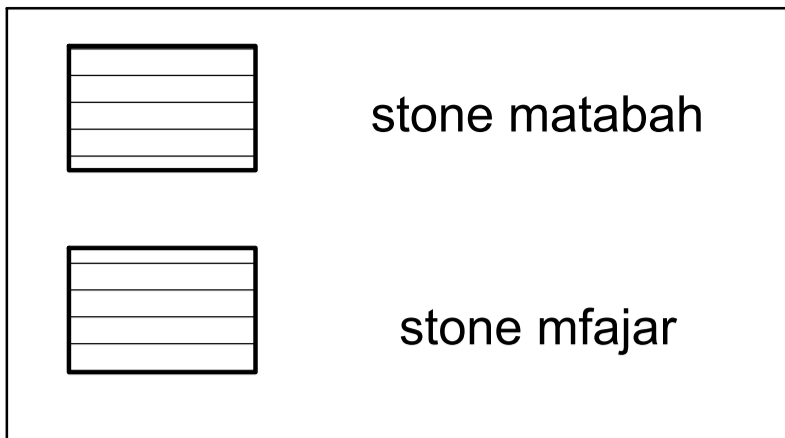
State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL
MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
SECOND FLOOR FURNITURE PLAN

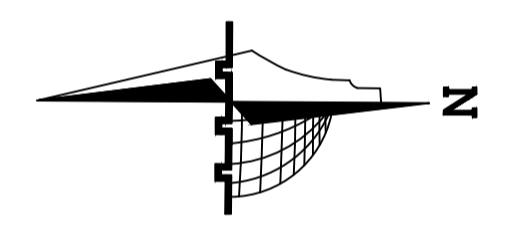
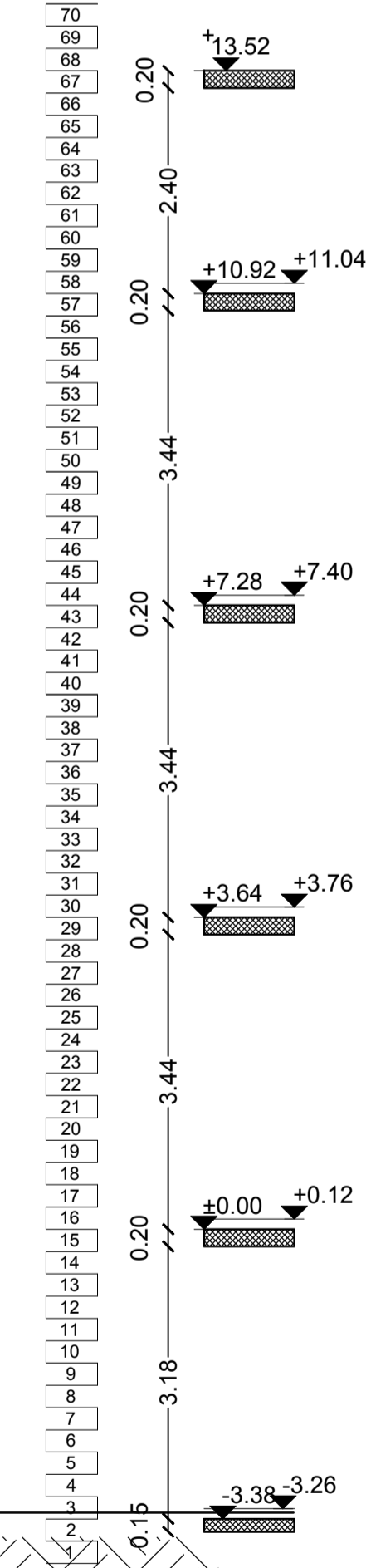
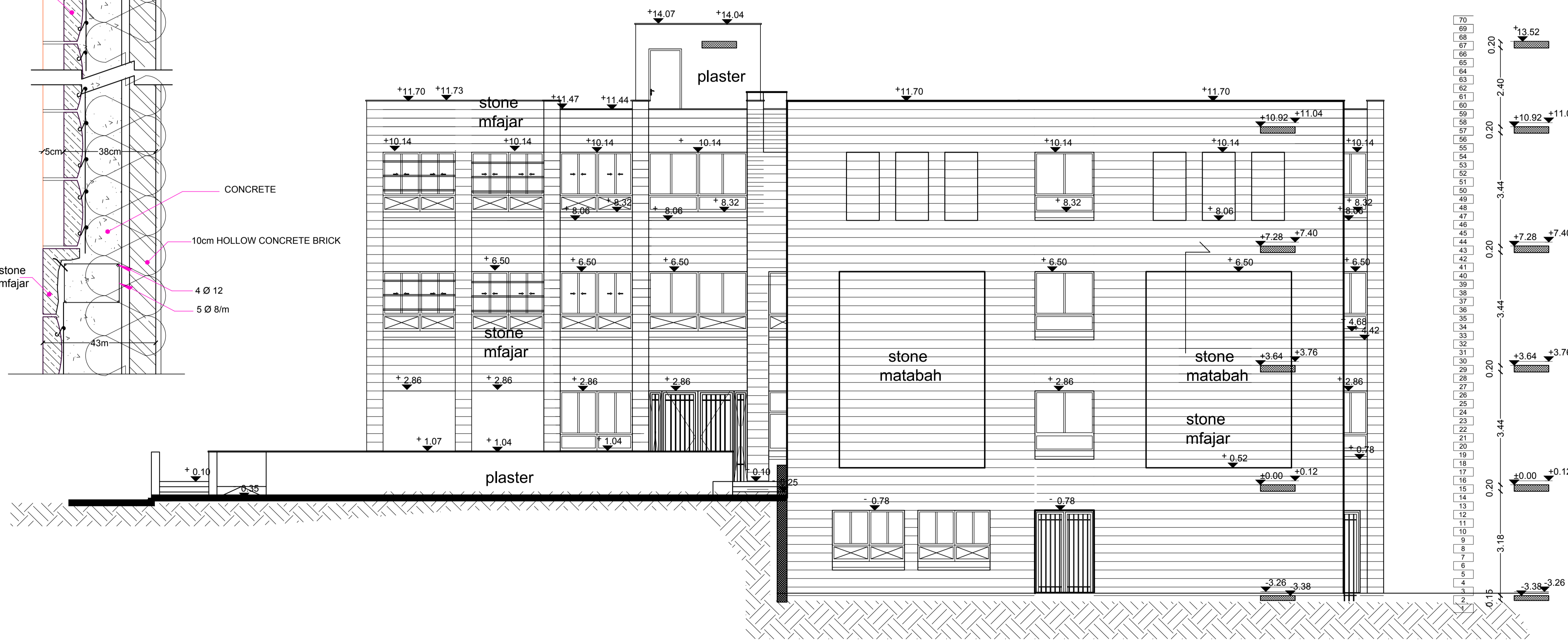
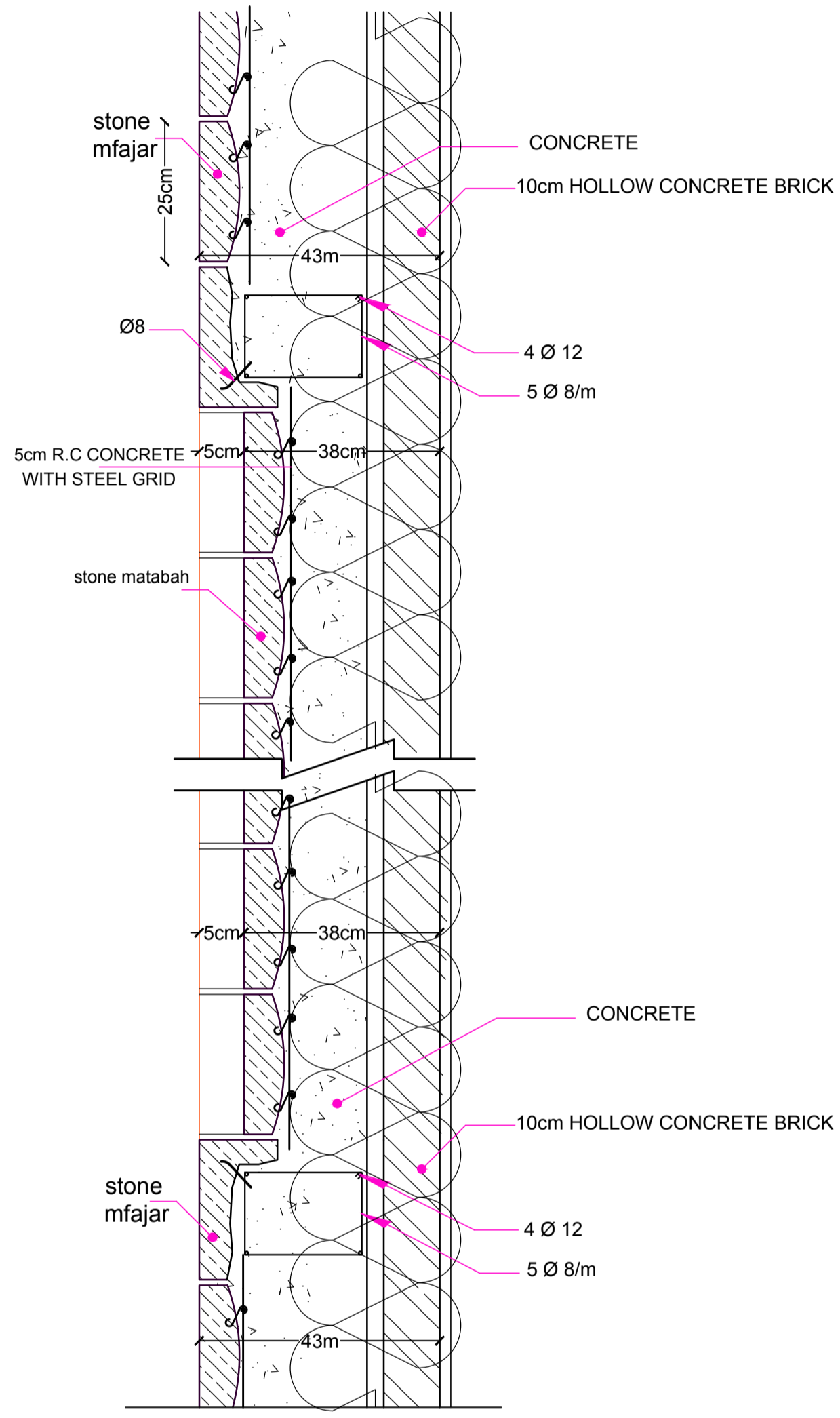
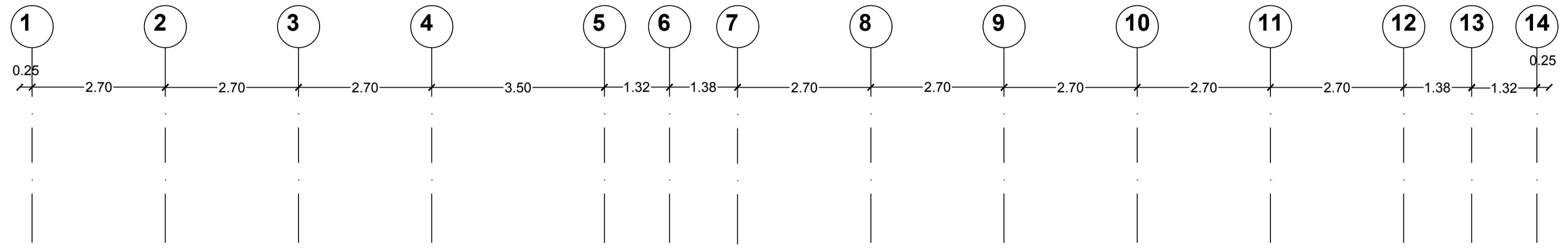
ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE	DATE
1/100	
DRAWING NO.	A16



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	-2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	



C.		
B.		
A.		
Rev. No.	Rev. Description	Date

State of Palestine

Ministry of Education & Higher Education (MEHE)

DONER :

PROTOTYPE

PROJECT TITLE

KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN

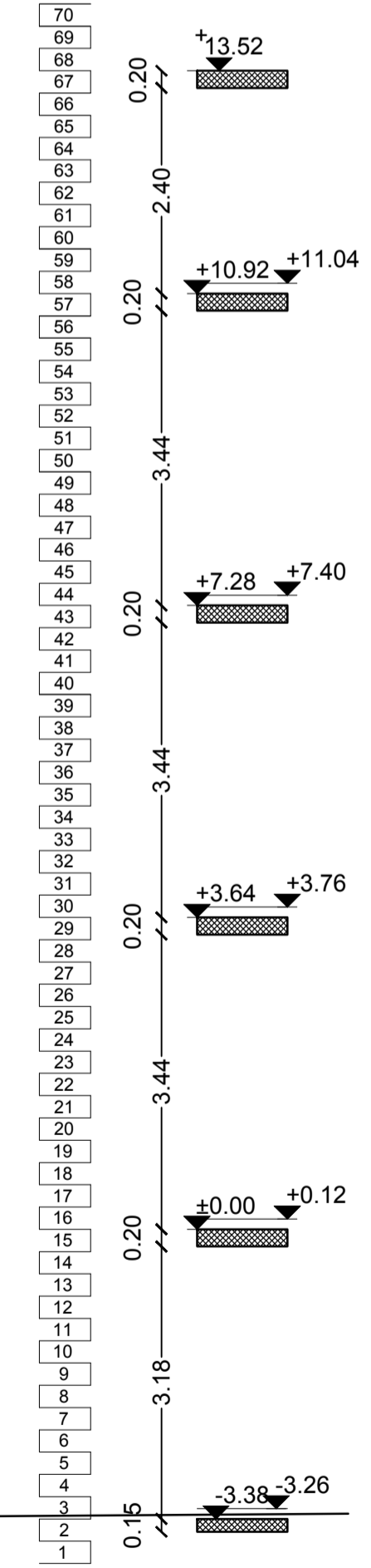
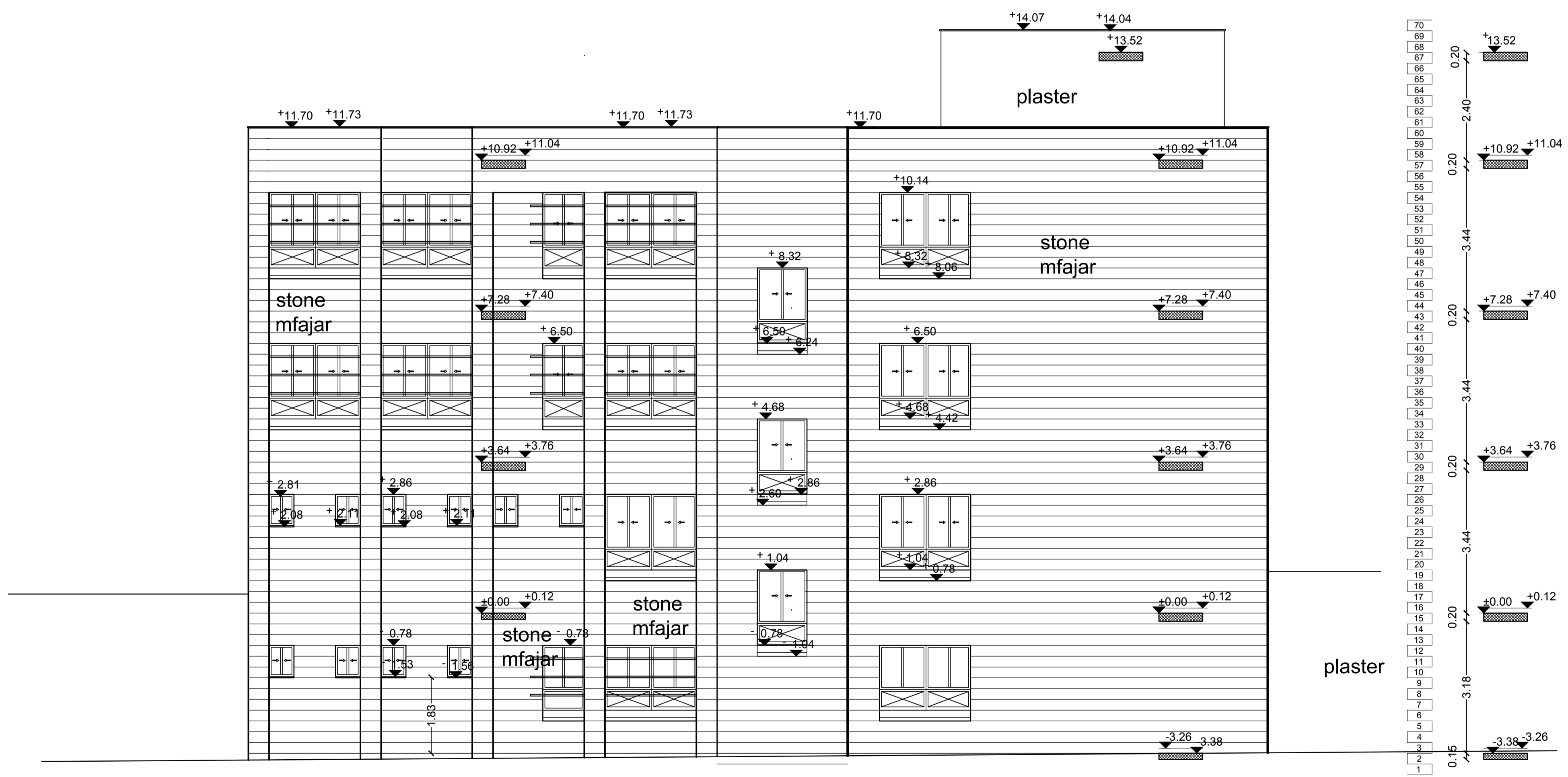
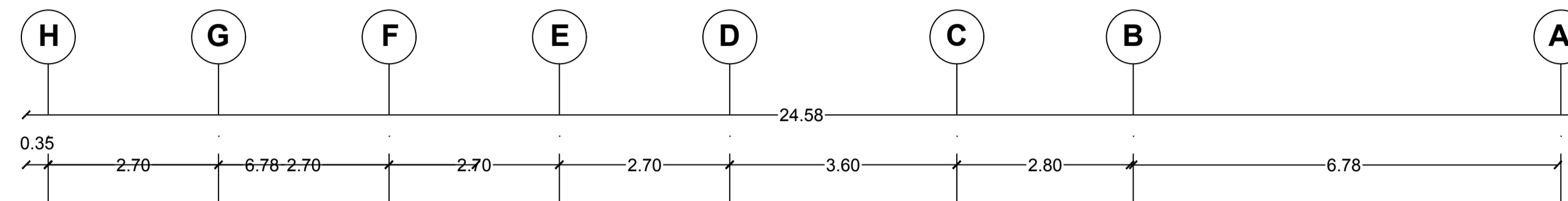
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title

EAST ELEVATION

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE	DRAWING NO.
1/100	A17

	stone matabah
	stone mfajar



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	

C.		
B.		
A.		
Rev. No.	Rev. Description	Date

State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :

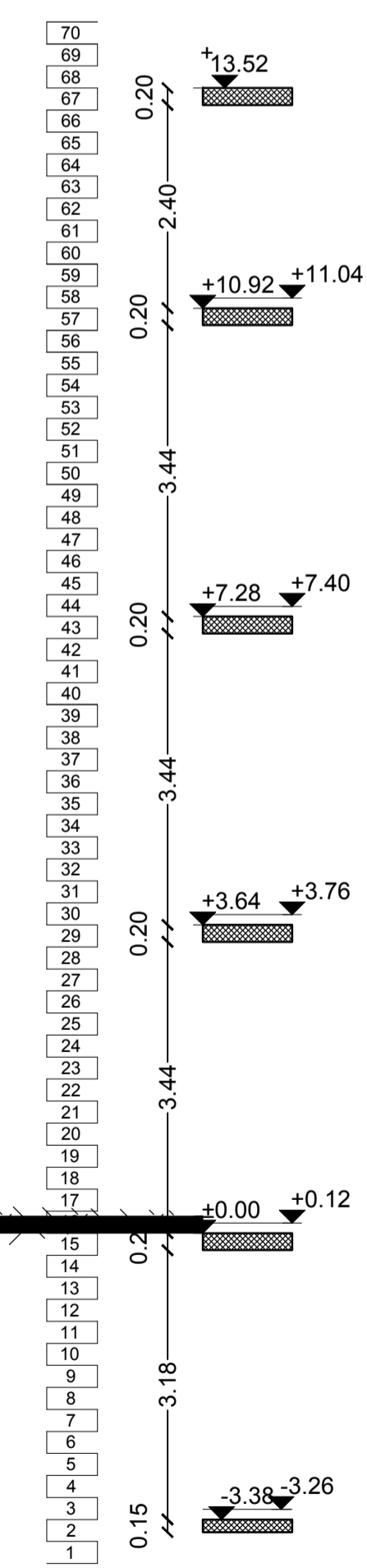
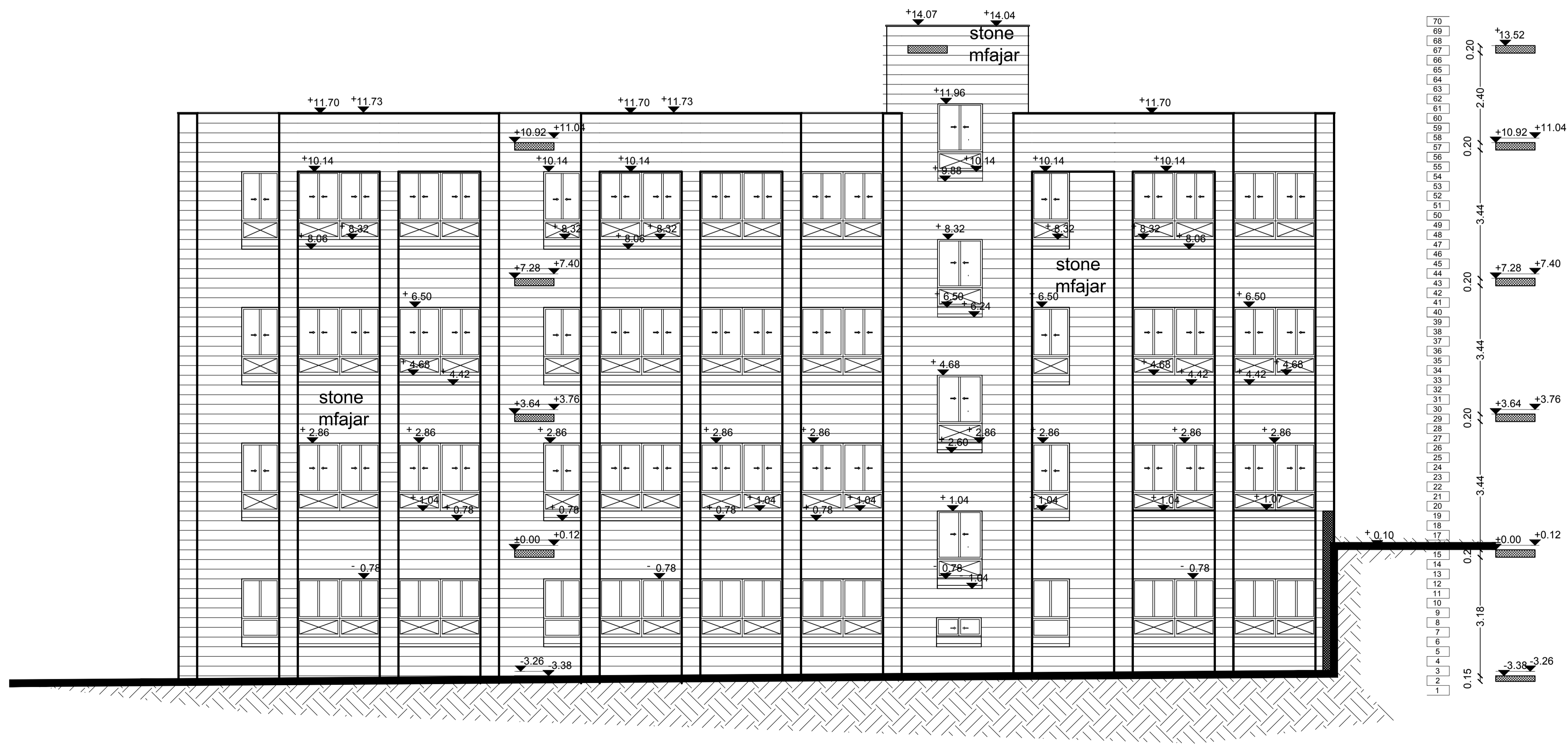
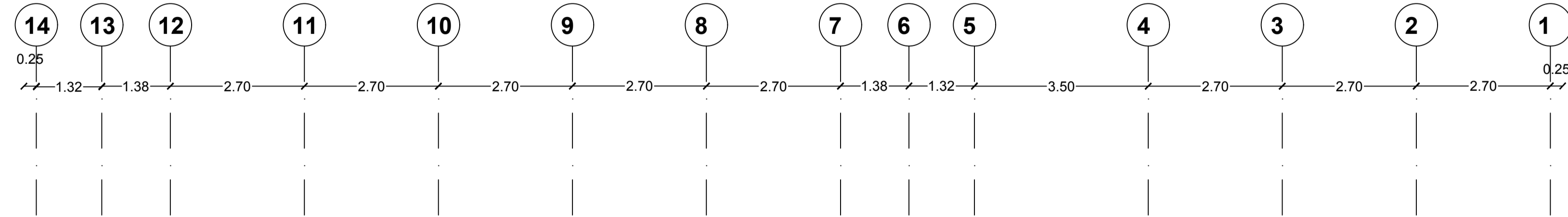
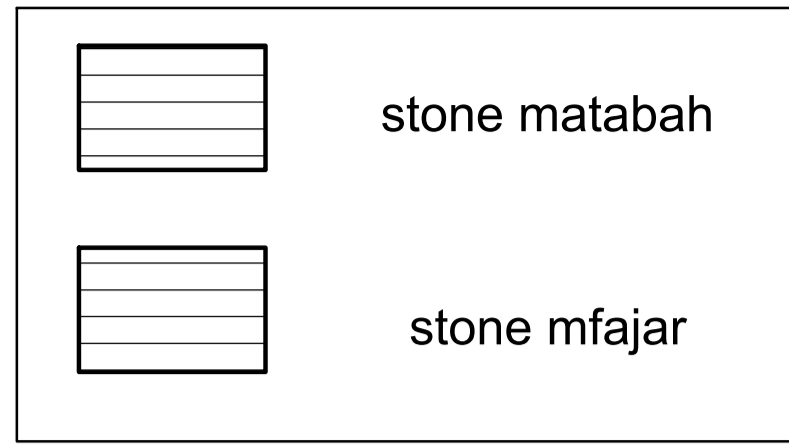
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
NORTH ELEVATION

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE 1/100	DATE
DRAWING NO. A18	



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	

C.		
B.		
A.		
Rev. No.	Rev. Description	Date

State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :

PROTOTYPE

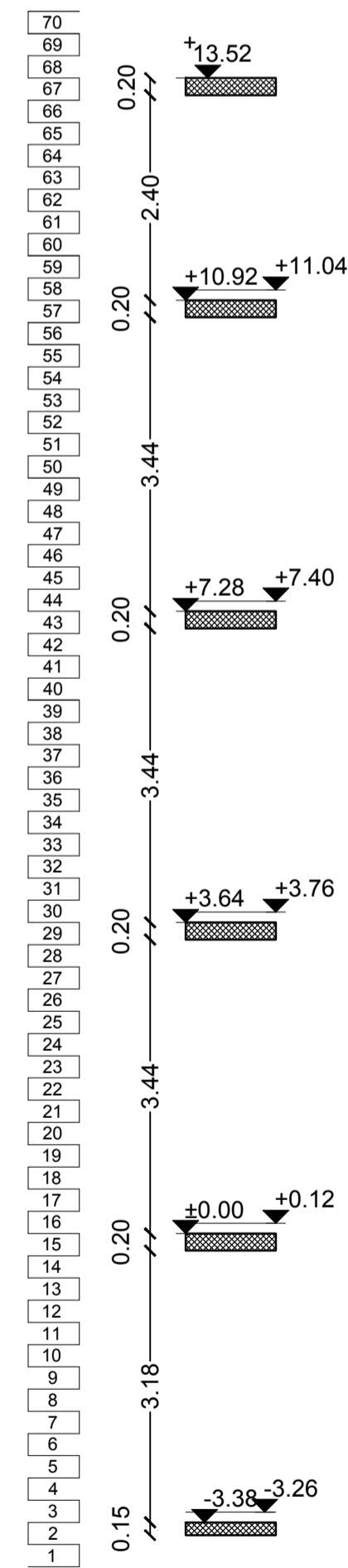
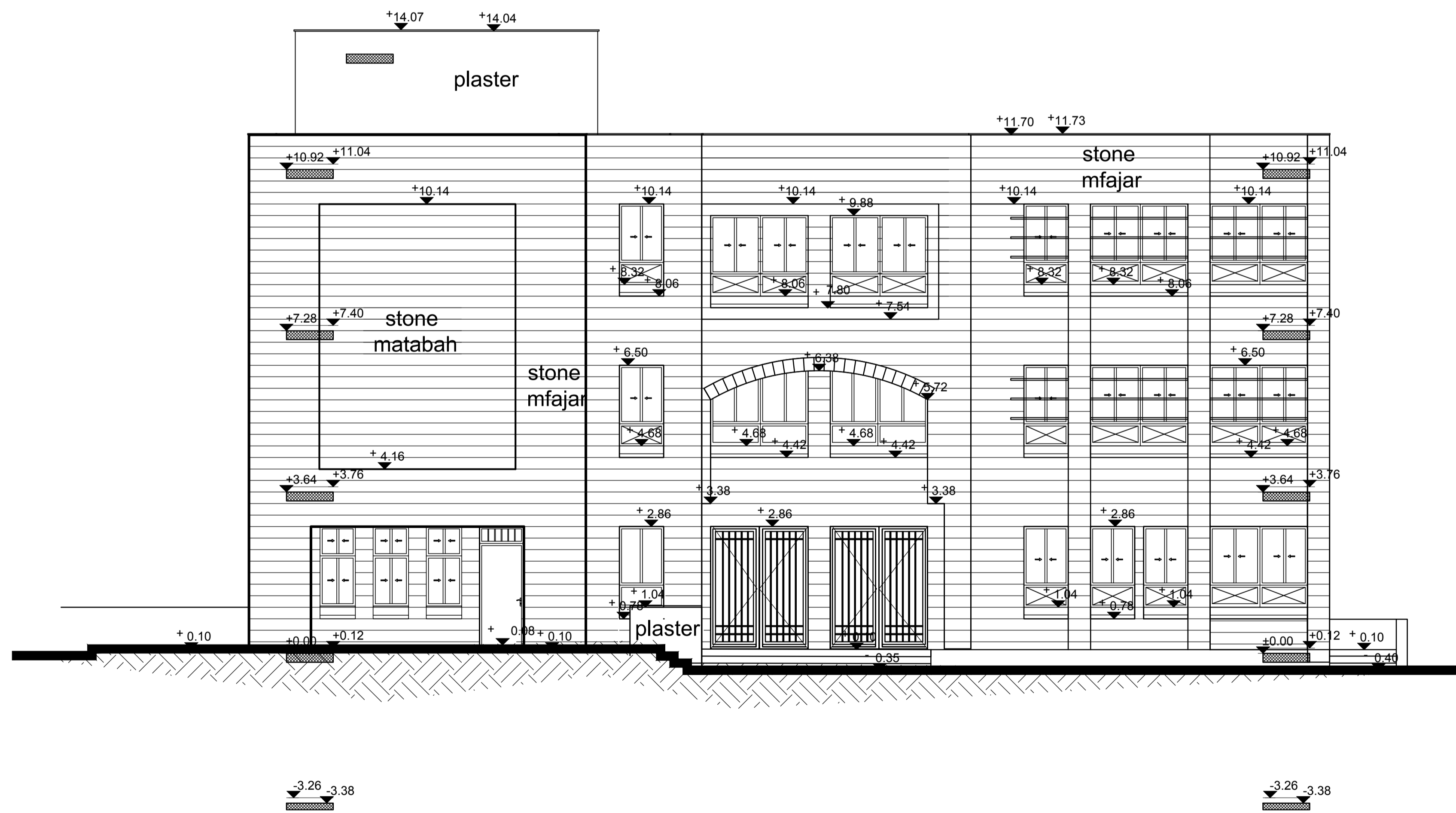
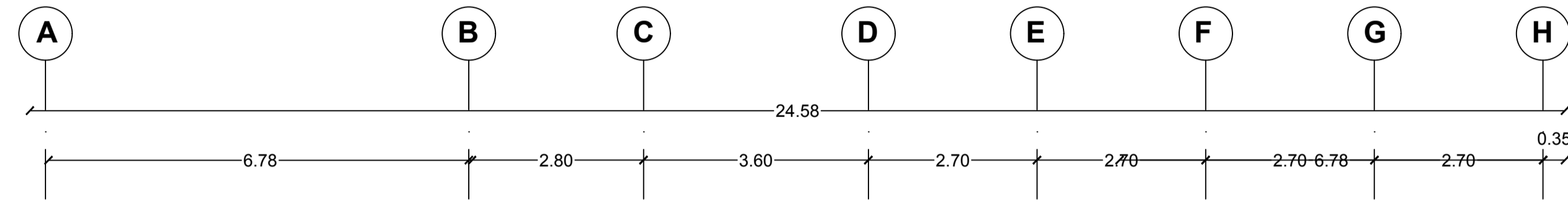
PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
WEST ELEVATION

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE 1/100	DATE
	DRAWING NO. A19

	stone matabah
	stone mfajar



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

ARCHITECTURAL LEGEND :

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	-2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	505.42
LEVEL SYMBOL (ELEV. SEC)	

Rev. No.	Rev. Description	Date
C.		
B.		
A.		

State of Palestine
 Ministry of Education & Higher Education (MEHE)

DONER :

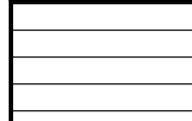
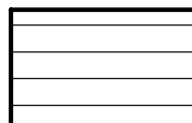
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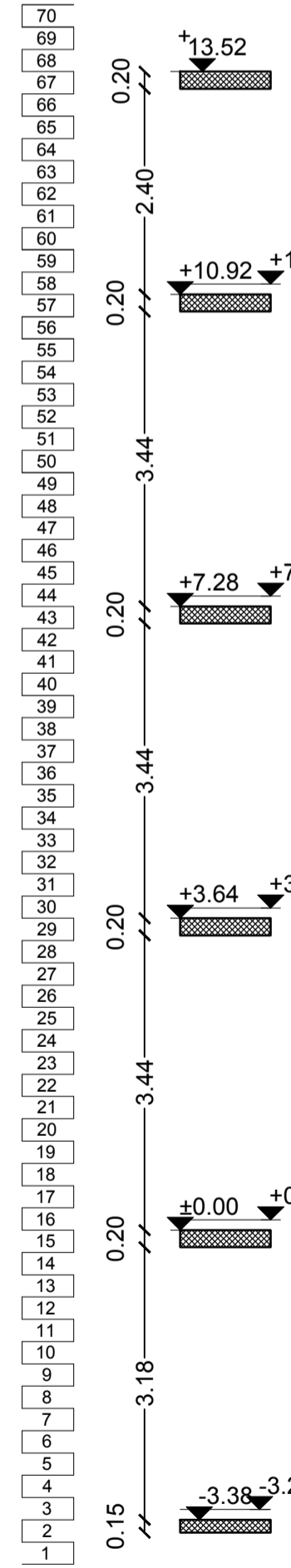
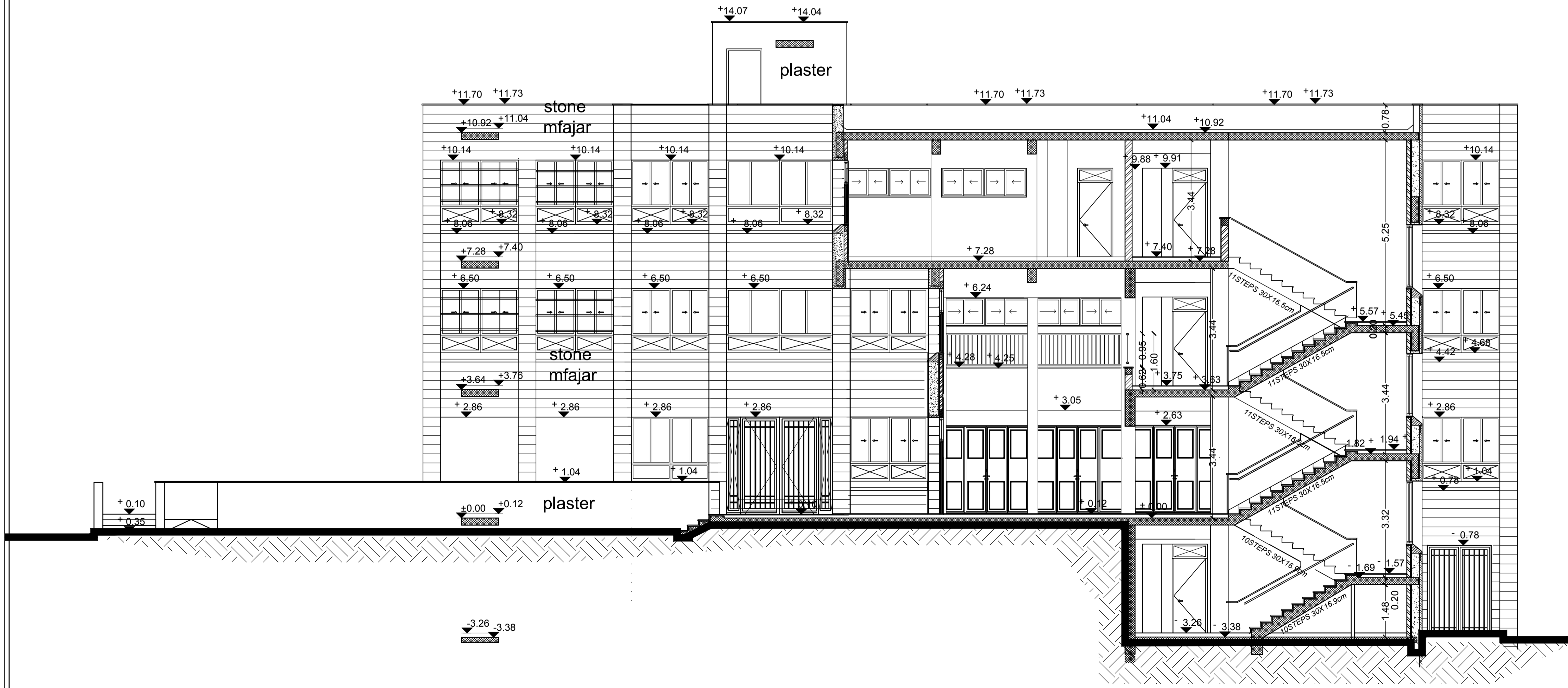
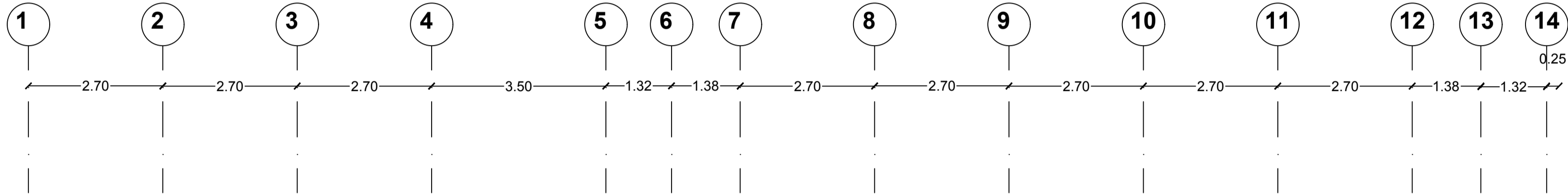
PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
SOUTH ELEVATION


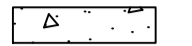
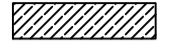
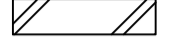

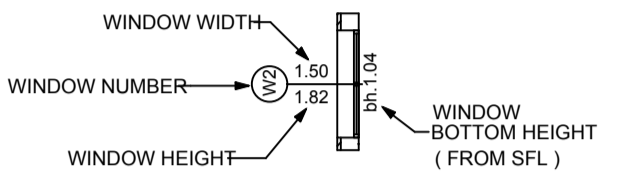
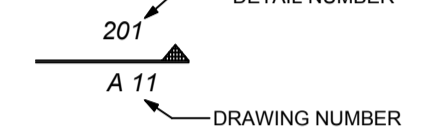
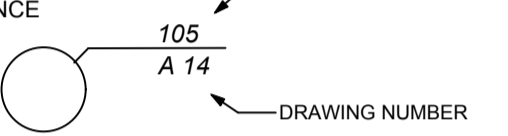



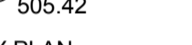

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE 1/100	DATE
	DRAWING NO. A20


	stone matabah
	stone mfajar

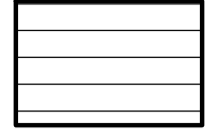
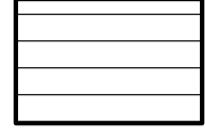


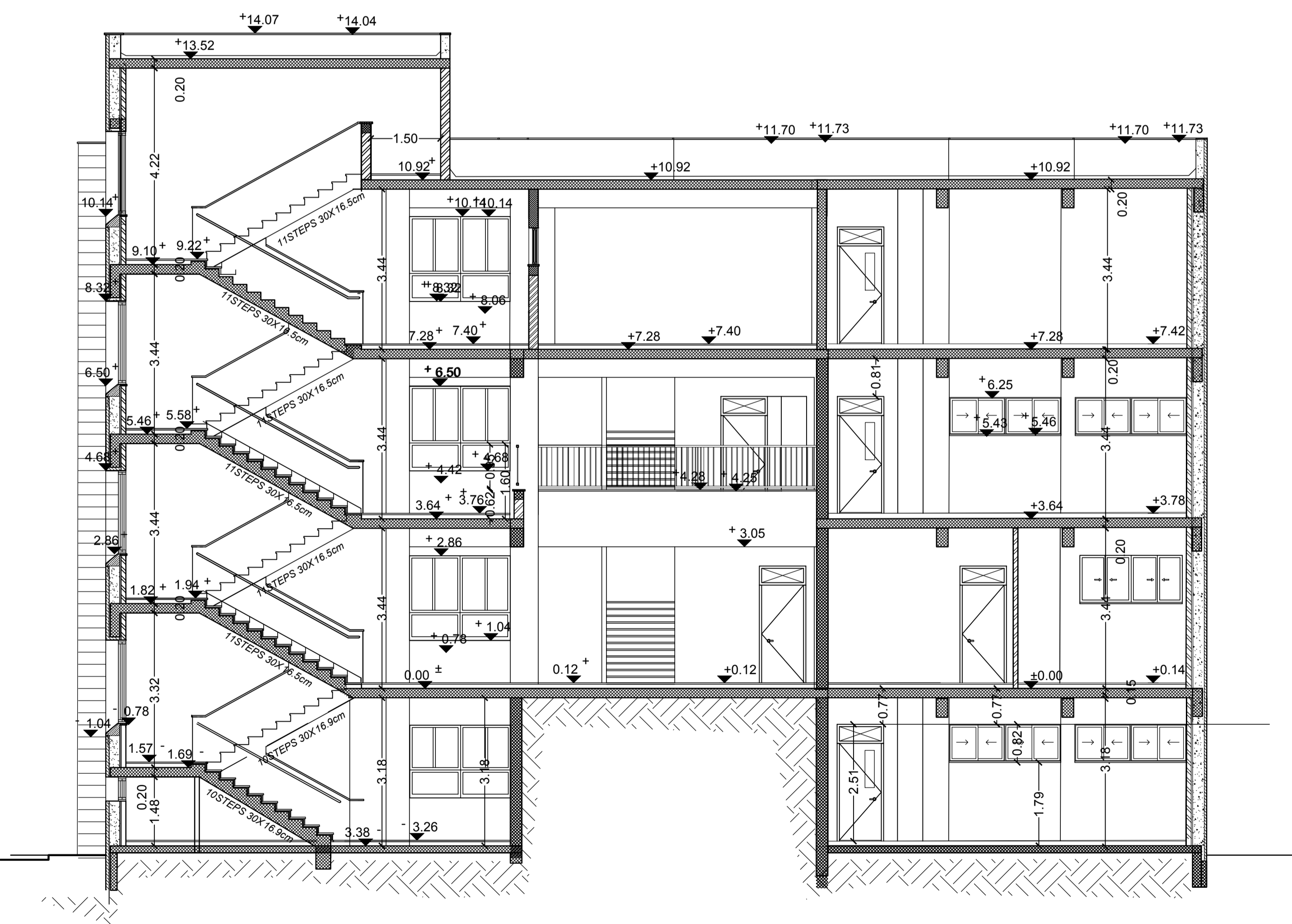
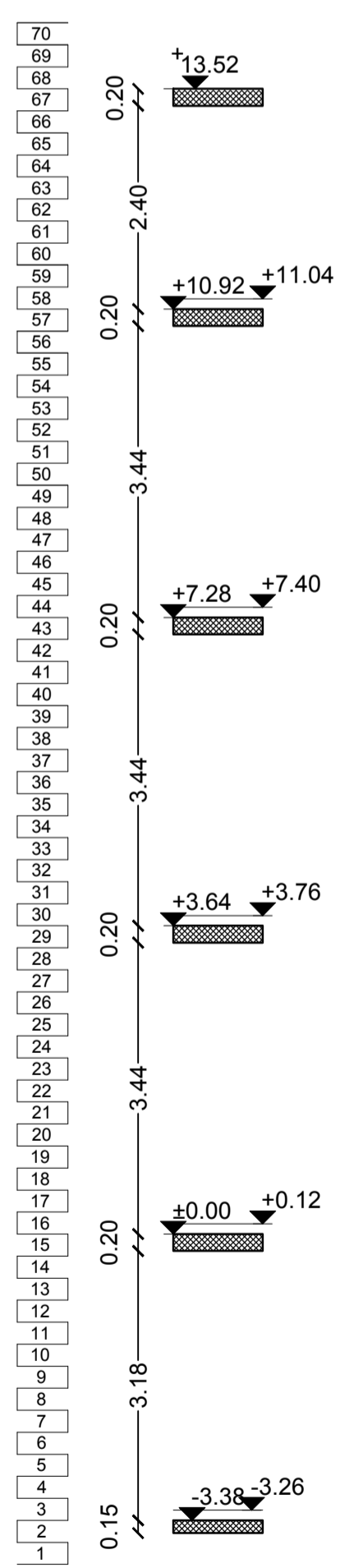
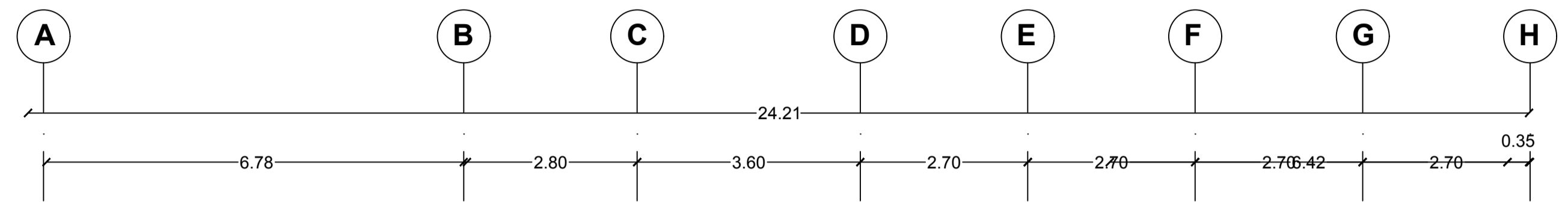
NOTE : SEE DETAILS AD IN BOOK OF DETAILS

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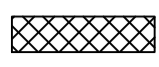
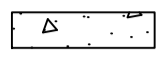
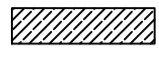

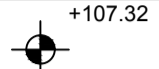
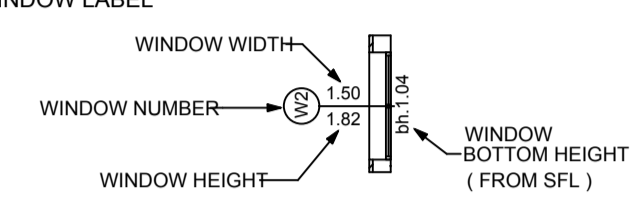
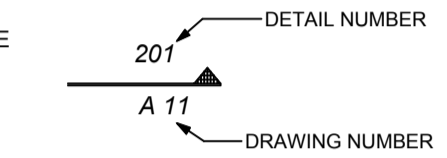
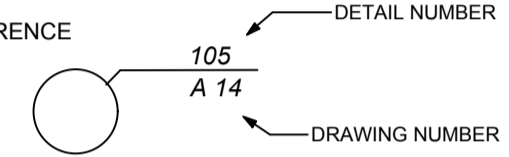
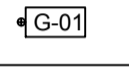
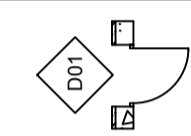
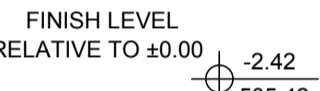

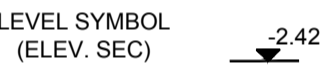
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CONCRETE	
STONE	
CONCRETE BLOCK	
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FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	 201 A 11 DETAIL NUMBER DRAWING NUMBER
DETAIL REFERENCE	 105 A 14 DETAIL NUMBER DRAWING NUMBER
ROOM NUMBER	 G-01
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	 -2.42
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	 505.42
LEVEL SYMBOL (ELEV. SEC)	 -2.42

C.			
B.			
A.			
Rev. No.	Rev. Description	Date	
State of Palestine			
			
Ministry of Education & Higher Education (MEHE)			
DONOR :			
PROTOTYPE			
PROJECT TITLE			
KHALET MANA 'BASIC GIRLS SCHOOL			
MAIN DESIGN			
AL AMEED ARCHITECTS AND ENGINEERS			
DRAWING Title			
SECTION A-A			
ARCHITECTURAL :			
DRAWN :			
CHECKED :			
APPROVED :			
SCALE	DATE	DRAWING NO.	
1/100		A21	

	stone matabah
	stone mfajar



NOTE : SEE DETAILS AD IN BOOK OF DETAILS

REINFORCED CONCRETE	
CONCRETE	
STONE	
CONCRETE BLOCK	
LEVEL SYMBOL (PLAN)	
FINISH FLOOR LEVEL	FFL
STRUCTURAL FLOOR LEVEL	SFL
WINDOW LABEL	
DETAIL REFERENCE	
DETAIL REFERENCE	
ROOM NUMBER	
DOOR NUMBER	
FINISH LEVEL RELATIVE TO ±0.00	
FINISH LEVEL RELATIVE TO TOPOGRAPHY PLAN	
LEVEL SYMBOL (ELEV. SEC)	

C.		
B.		
A.		
Rev. No.	Rev. Description	Date

State of Palestine

 Ministry of Education & Higher Education (MEHE)

DONER :

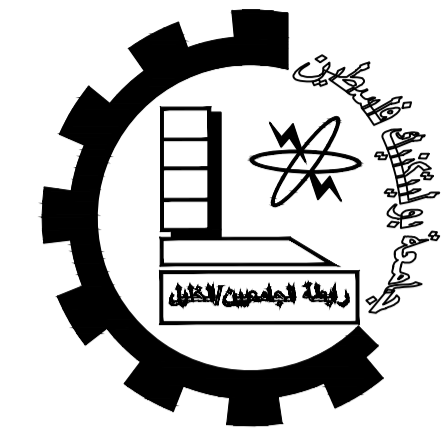
PROTOTYPE

PROJECT TITLE
KHALET MANA 'BASIC GIRLS SCHOOL

MAIN DESIGN
AL AMEED ARCHITECTS AND ENGINEERS

DRAWING Title
SECTION B-B

ARCHITECTURAL :	
DRAWN :	
CHECKED :	
APPROVED :	
SCALE 1/100	DATE
DRAWING NO. A22	



Palestine Polytechnic University

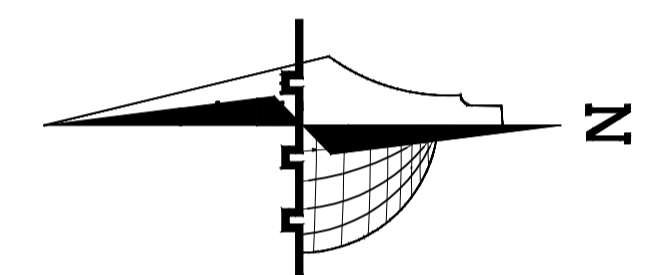
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

DRAWING TITLE :

GENERAL NOTES

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha

Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S000	2024

1 GENERAL

- EACH OF THE STRUCTURAL DRAWING SHALL BE READ IN CONJUNCTION WITH THE PERTINENT LAYOUT, CIVIL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. IF ANY DISCREPENCY IS FOUND, CONTRACTOR MUST REPORT TO CONSULTANT IMMEDIATELY.
- ALL DIMENSIONS SHOWN ARE IN METERS , UNLESS OTHERWISE INDICATED. LEVELS ARE IN METERS. DO NOT SCALE FROM DRAWINGS.
- ALL CONSTRUCTION MATERIALS SPECIFIED IN THE DRAWINGS SHALL CONFORM TO THE APPLICABLE CODES, STANDARDS OF CONSTRUCTION, AND TO SPECIFICATIONS.
- THE CONTRACTOR SHOULD SUBMIT, TO THE ENGINEER FOR APPROVAL, WORKSHOP DRAWINGS SHOWING PROPPING SYSTEM, REINFORCEMENT DETAILS, AND OTHER SPECIFIC REQUIREMENTS INDICATED ON DRAWINGS.
- STRUCTURAL FRAME IS DEFINED AS ' INTRMEDIATE LEVEL' TO UBC. CONNECTION REQUIREMENTS, WALL - BEAM AND /OR COLUMN-BEAM SHALL BE DETAILED IN ACCORDANCE WITH UBC ZONE 2A REQUIREMENTS FOR EARTHQUAKE RESISTENT STRUCTURES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE BUILDING SAFETY AND MUST TAKE ALL NECESSARY PRECAUTIONS AND MEASURES TO ACHIEVE THIS.
- ALL BEAMS AND COLUMNS IN PARKING LEVEL SHALL BE 20MM CORNER SHAMFERED.
- SARTER KICKERS TO ALL WALLS TO BE 75MM HIGH UNLESS OTHERWISE NOTED.
- STRUCTURAL LEVELS ARE IN METERS AND RELATE TO ORDNANCE DATUM. STRUCTURAL SLAB LEVEL (S.L.) IS THE TOP SURFACE LEVEL OF THE CONCRETE SLAB, IMMEDIATELY ADJACENT TO A VERTICAL SUPPORT.

2 CONCRETE

BE AS FOLLOWS:

CRUSHING STRENGTH FOR CUBE 15X15X15 CM N/mm ²	STRUCTURAL MEMBER
30	-COLUMNS & COLUMN NECKS -WALLS
30	-BEAMS -SLABS -FOUNDATIONS
20	-BLINDING -STONE WALL

- STRENGTH TESTS FOR CONCRETE SHALL BE MADE IN ACCORDANCE WITH APPROPRIATE ACI STANDARD.
- REINFORCED CONCRETE MIXES SHALL BE DESIGNED AND PRODUCED PROVIDED THAT MINIMUM CEMENT CONTNT IS 300 KG/M3 AND MAXIMUM FREE WATER/CEMENT RATIO IS 0.5 TO MAINTAIN DURABILITY REQUIREMENTS. APPROVED SUPERPLASTICIZER CAN BE ADDED TO MIXES ACCORDING TO MANUFACTURER SPECIFICATION TO IMPROVE THE WORKABILITY OF THE MIX.
- THE CONTRACTOR MUST SUBMIT FOR APPROVAL BEFORE WORK THE CONCRETE MIX DESIGN TO BE FOLLOWED IN CONSTRUCTION.

3 REINFORCING STEEL

- ALL REINFORCING STEEL BARS INCLUDING LINKS SHALL BE DEFORMED, HIGH YIELD STEEL GRADE 420 COFORMING TO THE APPROPRIATE ACI STANDARDS.

4 CONCRETE PROTECTION

- UNLESS OTHERWISE INDICATED ON DRAWINGS CONCRETE CLEAR COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:
 - 40mm FOR BASEMENT WALL
 - 40mm FOR ALL BEAMS
 - 40mm FOR COLUMNS.
 - 20mm FOR SLABS
 - 20mm FOR SHEAR WALLS
 - 75mm FOR FOOTINGS

5 BASE SLABS ON GROUND

- To isolate the SQG,20cm polystyrene box to protect the slab from migrated water.
- THE CONTRACTOR SHOULD TAKE ALL NECESSARY MEASURES TO ALLEVIATE AND MINIMIZE THE EFFECT OF EXPANSIVE SOIL, IF PRESENT.

6 slab

Ribbed slab thickness = 20cm

7 Concrete type:

- COLUMNS & COLUMN NECKS
- WALLS B-300
- BEAMS B-300
- SLABS B-300
- FOUNDATIONS B-300
- BLINDING B-200
- STONE WALL B-200

IMPORTANT NOTES:

- COLUMNS & FOOTINGS ARE DESIGNED basement, ground, first second, & third.
- DESIGN & STEEL DETAILING ARE BASED ON UNIFORM BUILDING CODE ASCE 7-16 AND ACI 318-11
- According to the soil test, the allowable bearing capacity is 2.3kg/cm².
- COMPRESSION STRENGTH OF CONCRETE AFTER 28 DAYS: 8300 FOR FOOTINGS, COLUMN NECKS, THE BEAMS, COLUMNS, FOR SLAB ON GRADE 8250 IS USED .
- CONCRETE PROTECTION : 2CM FOR FOOTINGS, SCM FOR ALL UNDER GROUND MEMBERS .
- ALL REINFORCED BARS SHOULD BE DEFORMED HIGH STEEL (FY=4200KG/CM²)
- THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS BEFORE CUTTING AND BENDING THE STEEL BARS AND ON HIS OWN PERSONALITY .
- Symbols
 - long - longitudinal.
 - GB - ground beam.
 - RC - reinforced concrete.
 - B - bottom.
 - T - top.
 - C - column.
 - F - footing.
 - SW - shear wall.
 - SWF - shear wall footing.
 - FR - frame.
 - M - middle



8 DETAILS OF REINFORCEMENT

- SPLICES IN BEAMS, SLABS AND FOUNDATIONS- USE 60° FOR ALL LAPS.
- SPLICES IN COLUMNS AND WALLS- USE 40° FOR ALL LAPS.
- LAPS IN BEAMS, SLABS, FOUNDATIONS, AND SHEAR WALLS REINFORCEMENT SHALL BE STAGGERED.
- BARS SHOULD BE CUT OR BENT IN ACCORDANCE WITH APPROPRIATE ACI STANDARDS. THE CONTRACTOR MUST SUBMIT FOR APPROVAL BEFORE CASTING BAR BENDING SCHEDULE.
- BAR SIZES
 - NO MORE THAN TWO BAR SIZES SHALL BE USED IN ONE FACE AT A GIVEN LOCATION IN SPAN.
 - NO MORE THAN TWO STANDARD BAR SIZES APART FOR STEEL REINFORCEMENT IN ONE FACE AT A GIVEN LOCATION IN THE SPAN SHALL BE USED : FOR EXAMPLE $\phi 12$ & $\phi 16$ MAY BE ACCEPTABLE BUT $\phi 12$ & $\phi 18$ WILL NOT.
 - WHEN DIFFERENT BAR SIZES ARE USED IN SEVERAL LAYERS AT A GIVEN LOCATION, PLACE THE LARGEST SIZE IN THE LAYER NEAREST TO THE FACE OF THE BEAM.
- BAR BENDS:

THE MINIMUM INSIDE DIAMETER OF BENDS ARE AS FOLLOWS:

 - 3 X BAR DIAMETER FOR $\phi 10$ TO $\phi 20$
 - 4 X BAR DIAMETER FOR $\phi 25$ TO $\phi 32$
 - 3 X BAR DIAMETER FOR STIRRUPS.
- BAR SUPPORTS & SPACERS

BAR SUPPORTS OR SPACERS , WHEREVER NEEDED, SHALL BE OF THE SAME SIZE AS MAIN BARS, BUT NOT LESS THAN 25mm. THEY SHOULD ALSO BE PLACED AT MAXIMUM SPACING OF 1.0m OR LESS.

9 CONSTRAINTS

- THE CONTRACTOR SHOULD PAY ATTENTION TO THE CONSTRUCTION SEQUENCE INDICATED ON DRAWINGS.
- EFFECTS OF SHRINKAGE AND MOVEMENT MUST BE MITIGATED BY:
 - LIMITING THE SIZE AND ORDER OF CONCRETE POURS.
 - EFFECTIVE CURING.
 - INSULATING LARGE SLAB AREAS FROM DIRECT RADIATION.
 - PROVISION OF CONTINUOUS REINFORCEMENT MESH IN LARGE SLABS.

10 LIVE LOADS

AN OVERALL CONSERVATIVE LIVE LOAD OF 5 KN/M² WAS USED IN THE DESIGN.

11 EARTHQUAKE FORCES

THE BUILDING WAS DESIGNED TO WITHSTAND EARTHQUAKE FORCES OF ZONE 2A, Z=0.15g AS PER THE UNIFIED BUILDING CODE, CHAPTER 16.

12 DESIGN CRITERIA

- THE DESIGN IS BASED ON ULTIMATE STRENGTH METHOD FOR ALL CONCRETE STRUCTURAL ELEMENTS.
- CONFINEMENT

DETAILS OF CONFINMENT FOR REINFORCEMENT AT BEAM COLUMN CONNECTION ARE SHOWN IN DETAILS.

13 FOUNDATIONS

(1) According to the soil test, the allowable bearing capacity is 2.3 kg/cm² for strip footing & 2.9 kg/cm² for single footing.

2- columns and footing were designed to carry 5 floors basement floor, ground, first, second, and third floor.

14 CODES AND SPECIFICATIONS

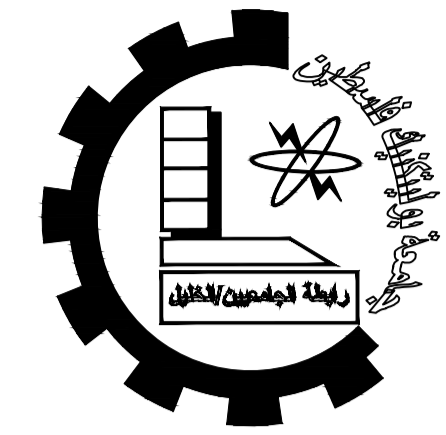
The structure is designed using practice codes and specifications that control the design process and variables. The following codes and standards are used in this study:

- * ACI 318-11: American concrete institute provisions for reinforced concrete structure design.
- *ASCE 7-16: code which is used here for seismic load parameters determination.
- *ASTM: For material specifications.

IMPORTANT NOTES:

- COLUMNS & FOOTINGS ARE DESIGNED basement, ground, first second, & third.
- DESIGN & STEEL DETAILING ARE BASED ON UNIFORM BUILDING CODE ASCE 7-16 AND ACI 318-11
- According to the soil test, the allowable bearing capacity is 2.3kg/cm².
- COMPRESSION STRENGTH OF CONCRETE AFTER 28 DAYS IS 30 FOR FOOTINGS COLUMN NECKS, THE BEAMS, COLUMNS, FOR SLAB OR GRADE B250 IS USED .
- CONCRETE PROTECTION : TCM FOR FOOTINGS SCM FOR ALL UNDER GROUND MEMBERS.
- ALL REINFORCED BARS SHOULD BE DEFORMED HIGH STEEL (FY=4200KG/CM²)
- THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS BEFORE CUTTING AND BENDING THE STEEL BARS AND ON HIS OWN PERSONALITY .
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TOP BAR
BOTTOM BAR



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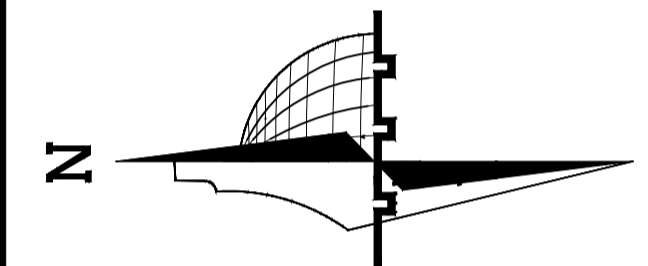
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Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

GENERAL NOTES

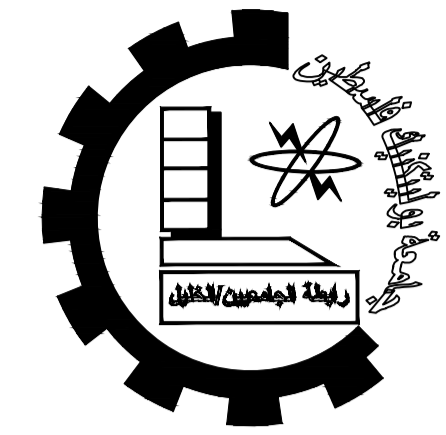
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha

Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
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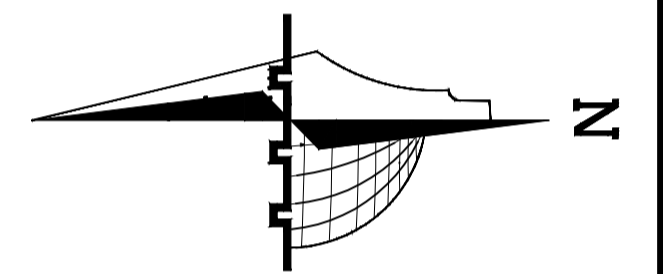
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Legend :

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	R.Concrete		Wood
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	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

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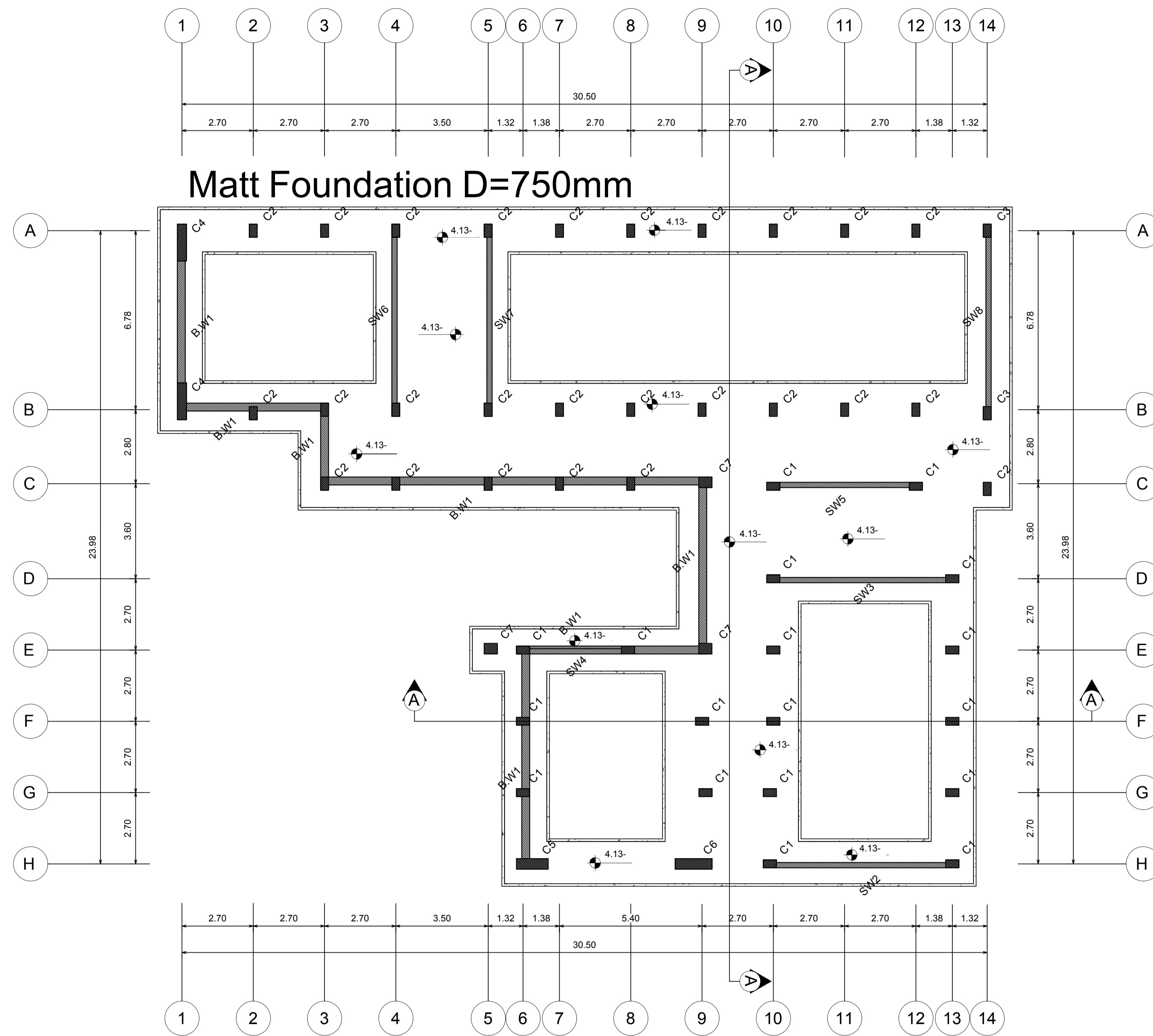
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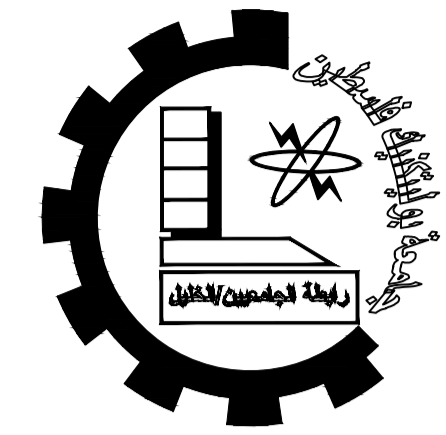
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

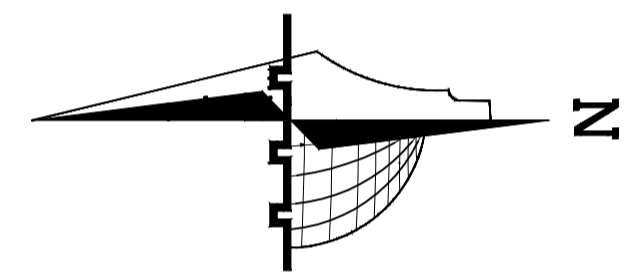
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Legend :

- Stone
- R.Concrete
- Concrete
- Hollow Block
- isolating materials
- Gravel
- Wood
- HEXAGONAL TILES
- BAKLAVA TILES
- GRASS

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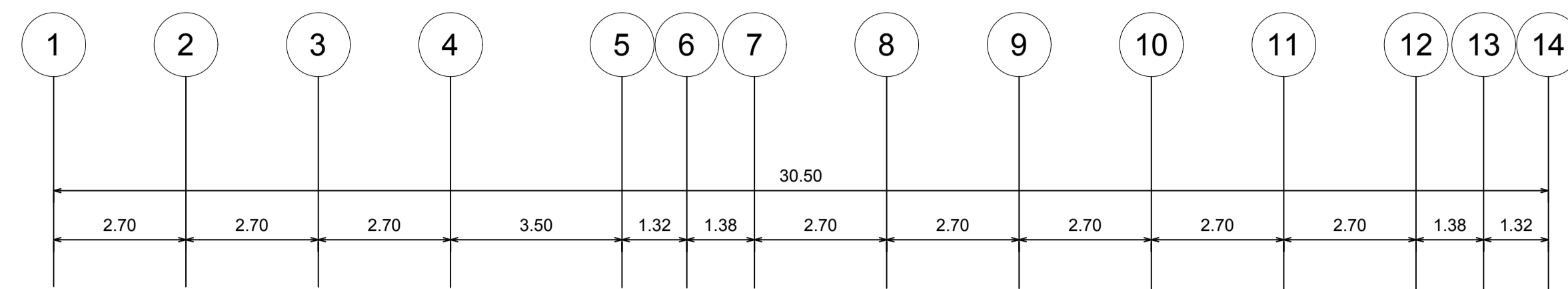
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Bottom Reinforcement

Supervisor:
Dr.Belal Al-Massri

Completed by :

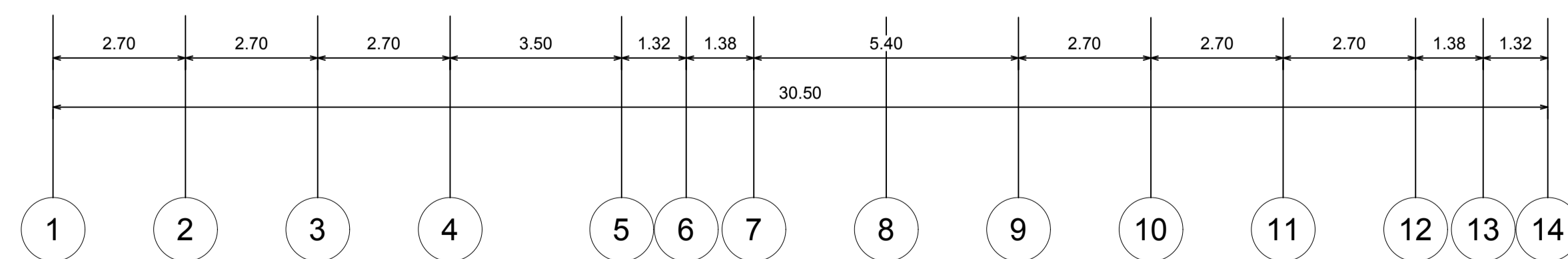
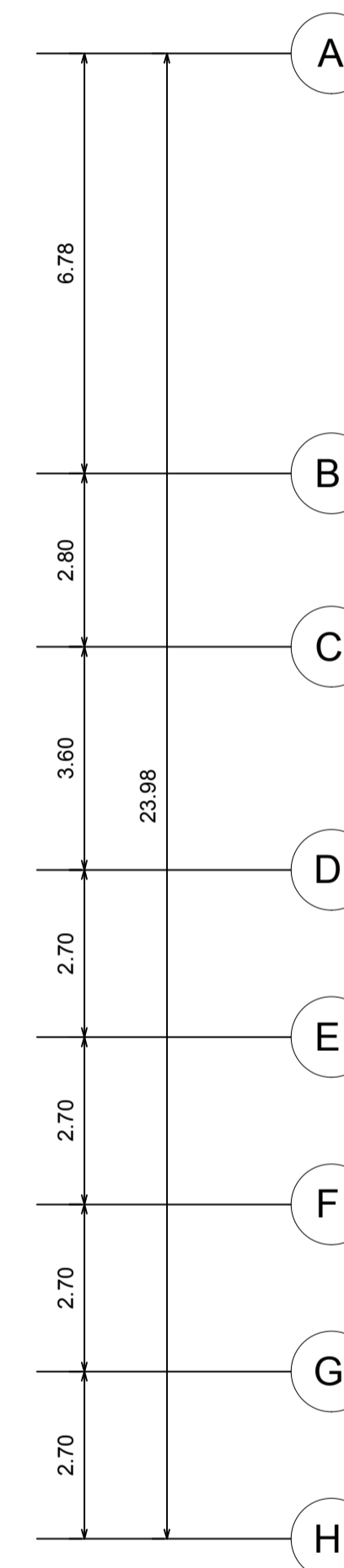
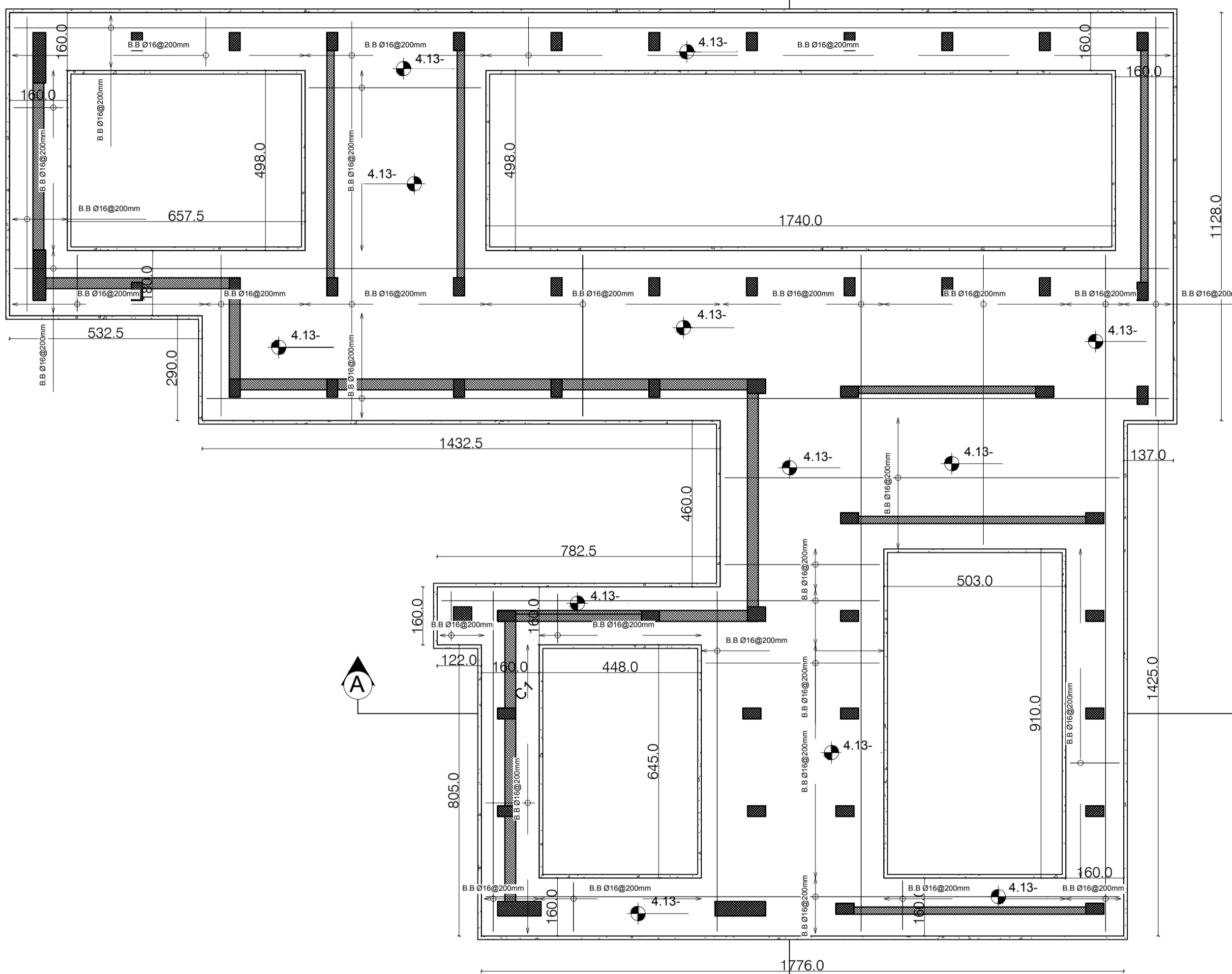
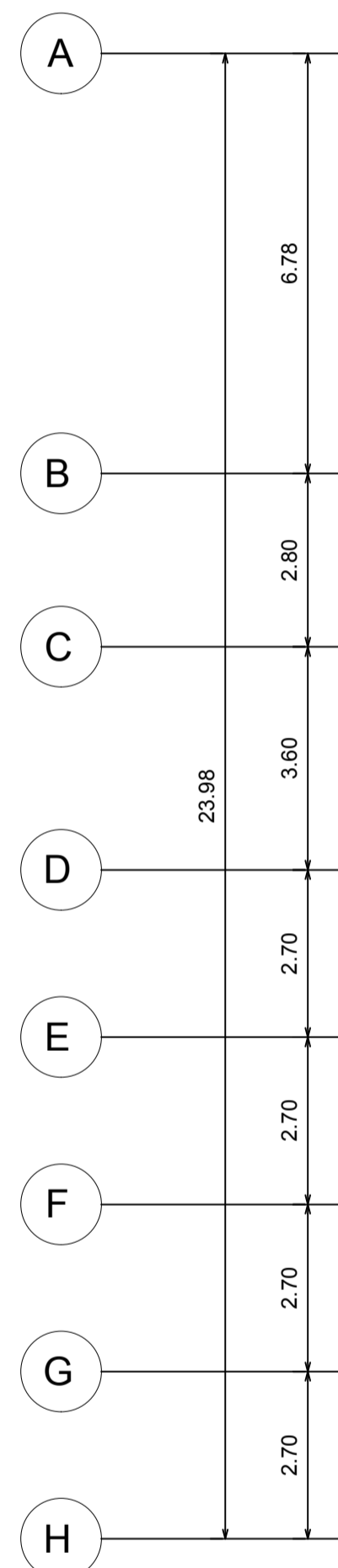
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

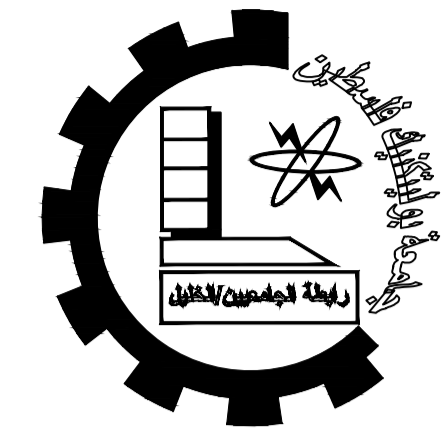
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Matt Foundation D=750mm

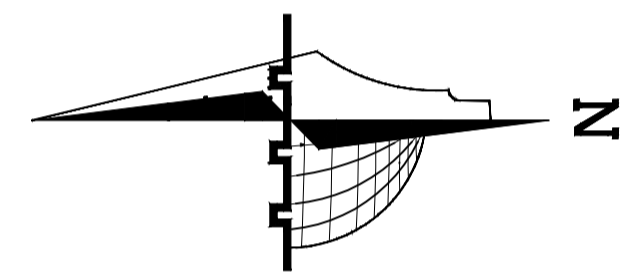
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Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- Isolating materials
- GRASS

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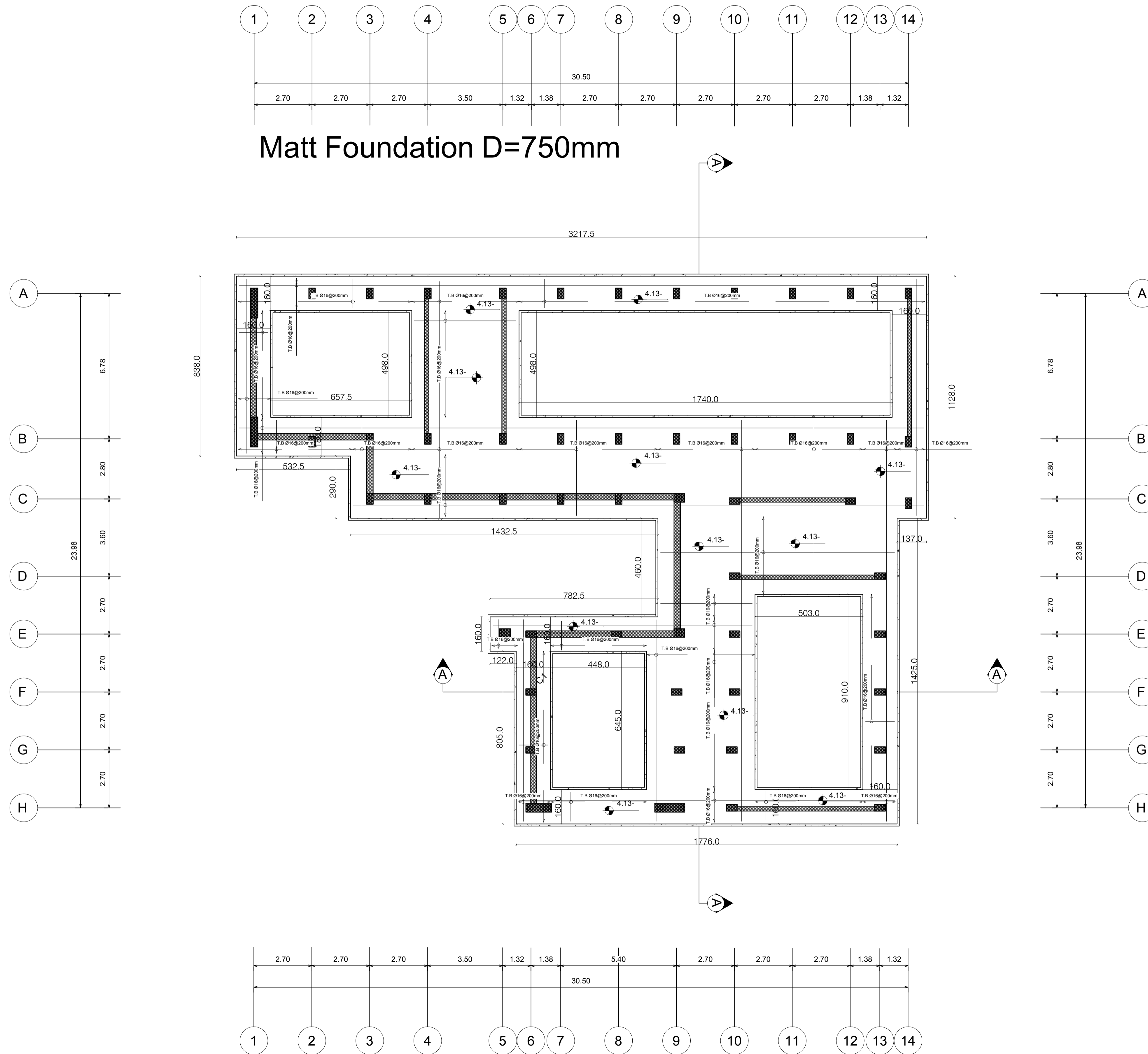
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 Top Reinforcement

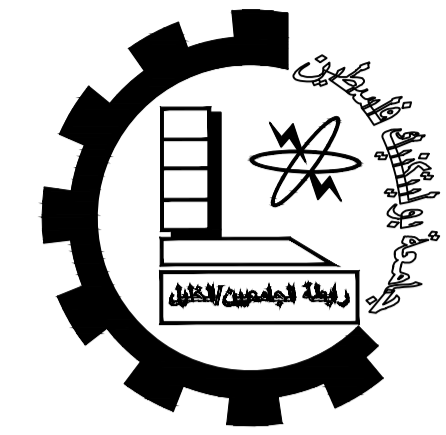
Supervisor:
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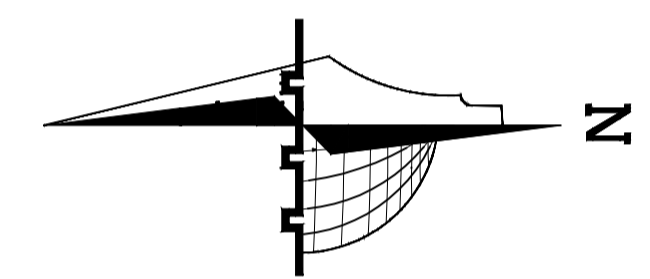
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Legend :

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	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

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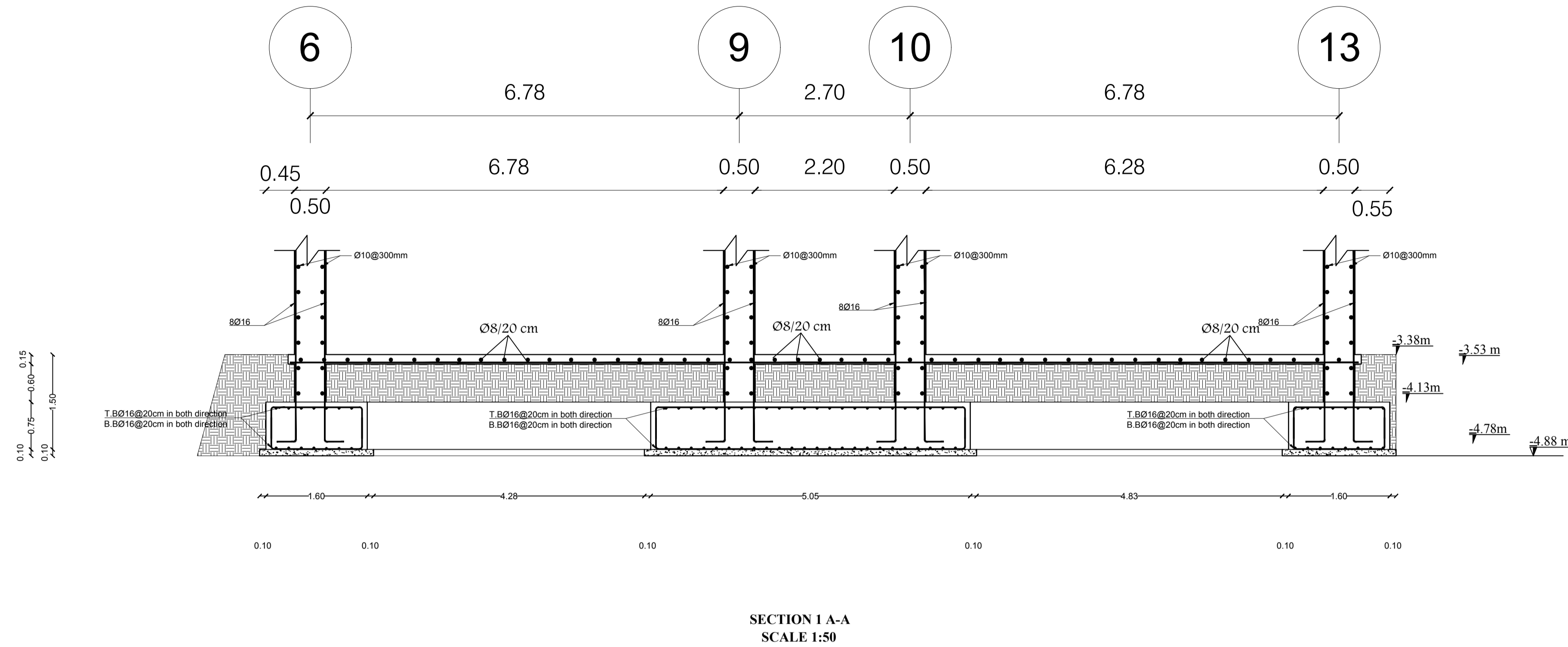
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Section A-A

Supervisor:
Dr.Belal Al-Massri

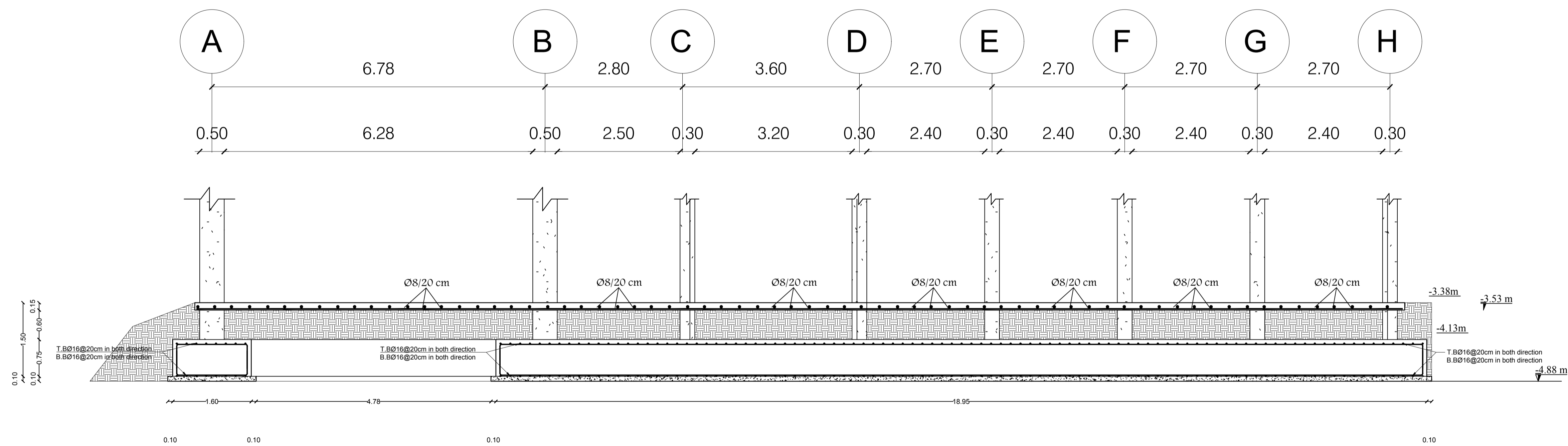
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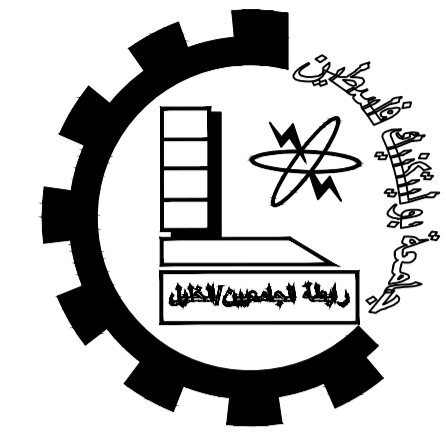
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SECTION 1 A-A
SCALE 1:50



SECTION 2 A-A
SCALE 1:50



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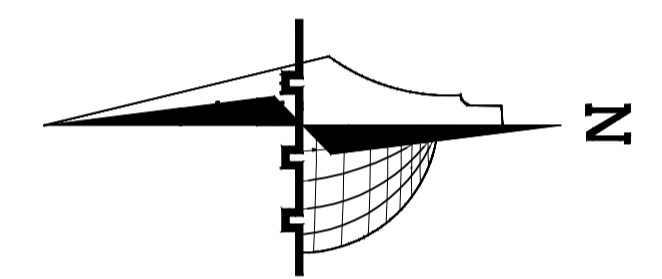
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Legend :

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	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

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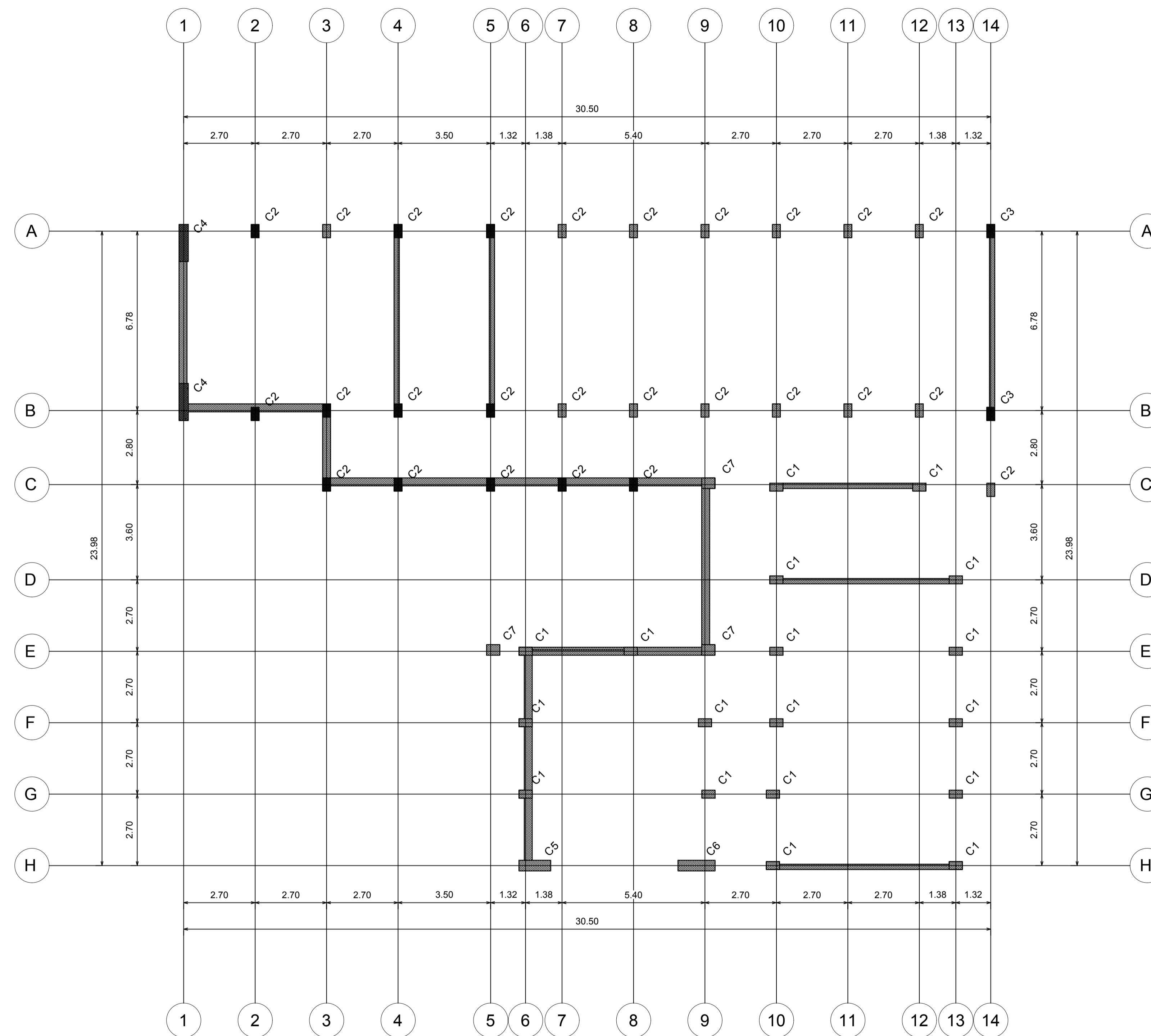
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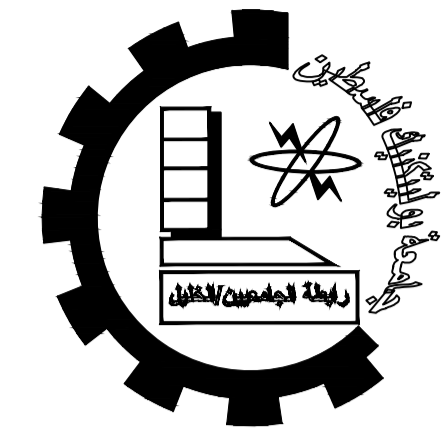
Supervisor:
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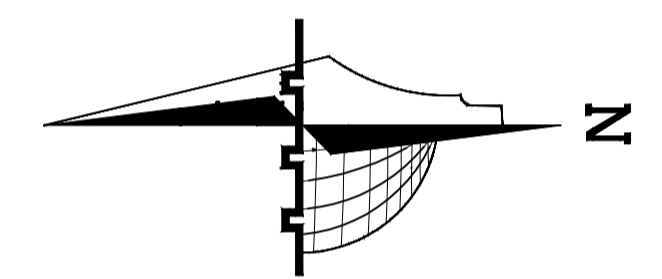
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Legend :

- Stone
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- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materials
- GRASS

DRAWING TITLE :

Column's Design Sections

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

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Floor	Column's Design Sections						
	C1	C2	C3	C4	C5	C6	C7
	C31_ C48	C3_ C28	C29,C30	C1,C2	C52	C53	C49,C50,C51
Basement Floor							
Ground Floor							
1st Floor							
2nd Floor							
3rd Floor							



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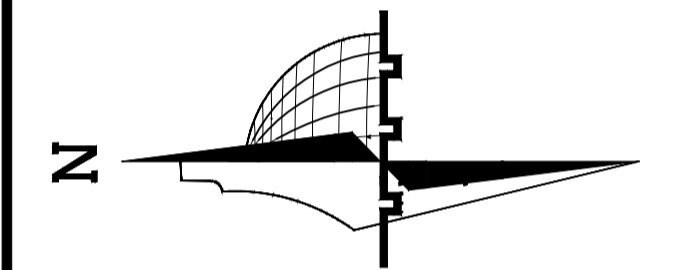
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Legend :

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	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

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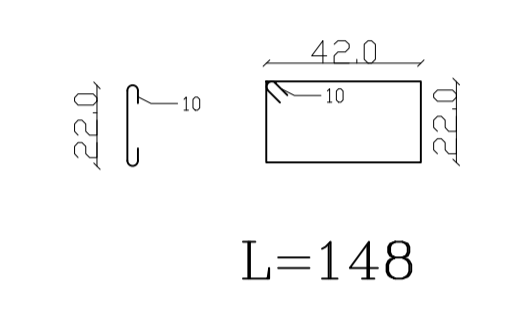
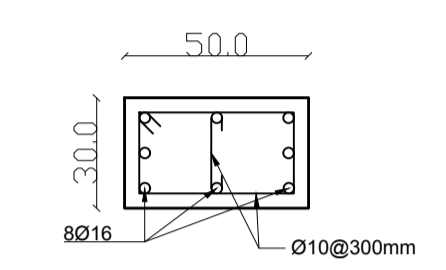
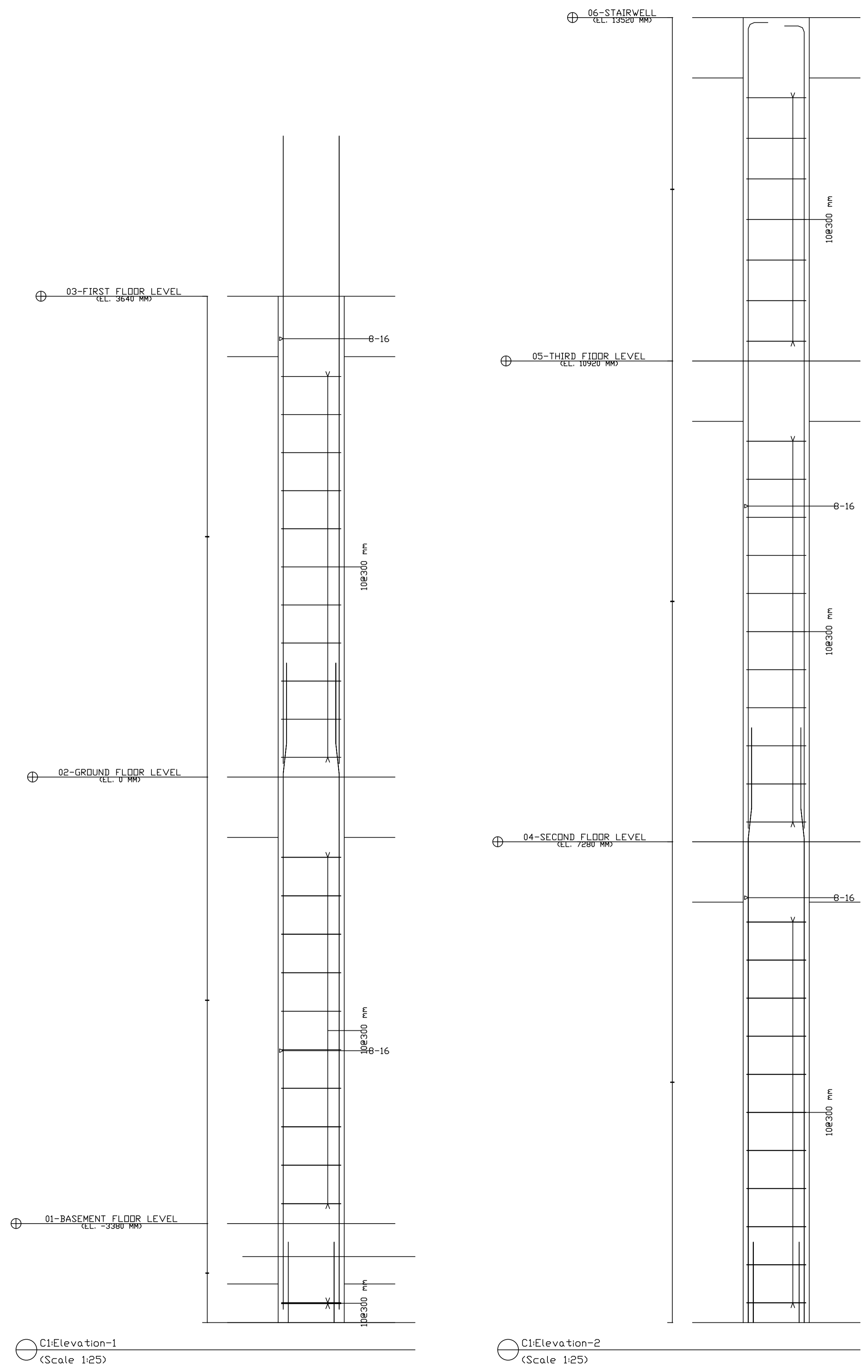
Columns detailing (C1)

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Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

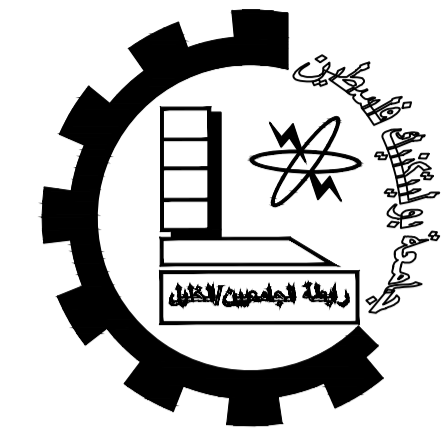
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C1:Elevation-1
(Scale 1:25)

C1:Elevation-2
(Scale 1:25)



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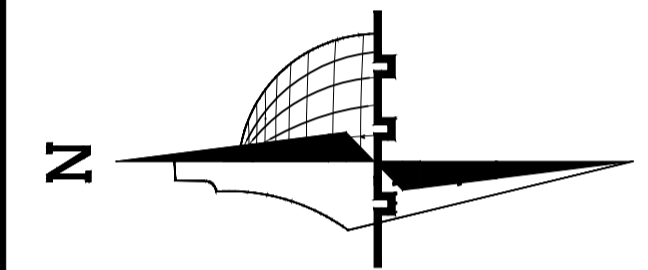
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Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

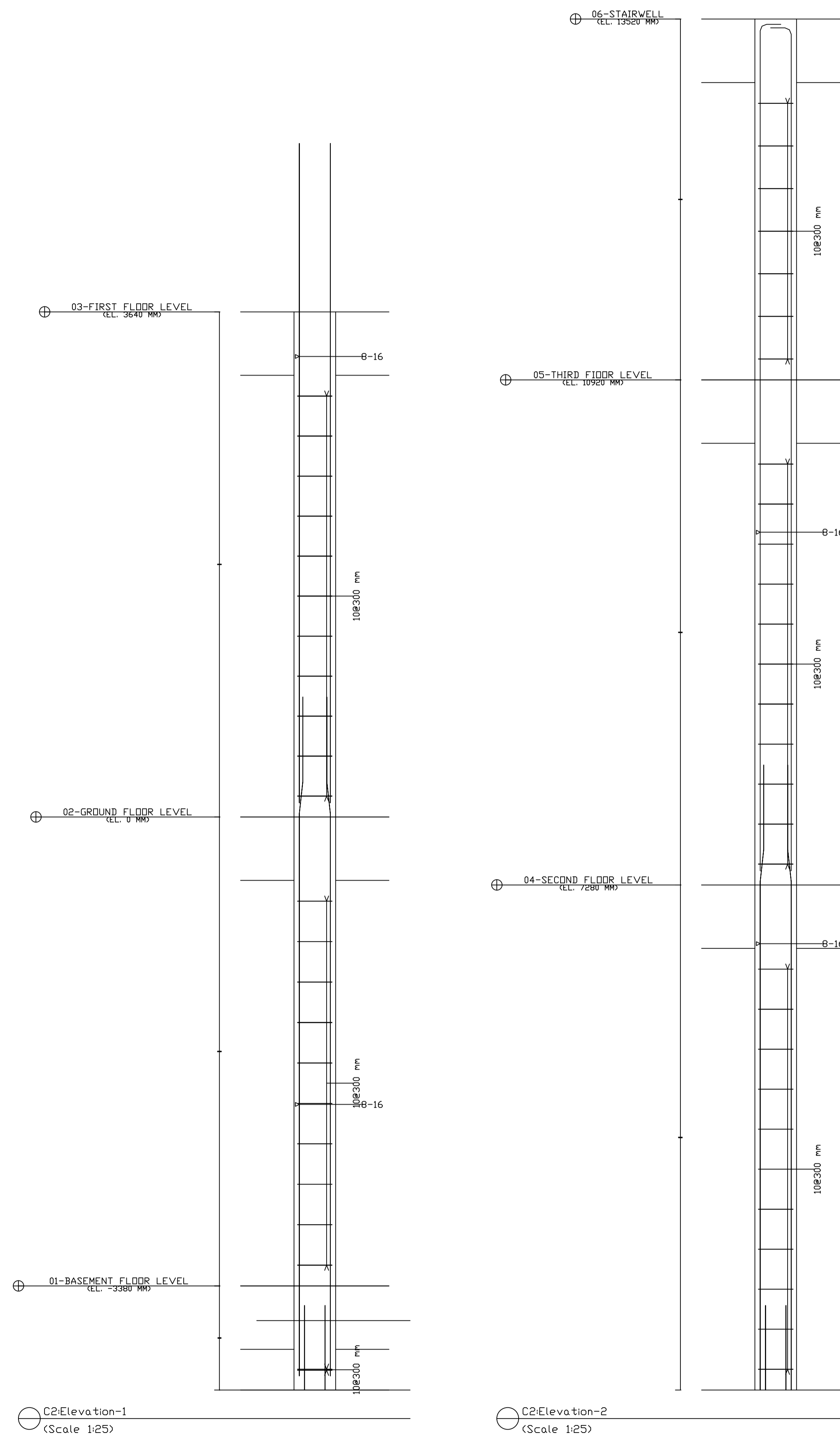
Columns detailing (C2)

Supervisor:
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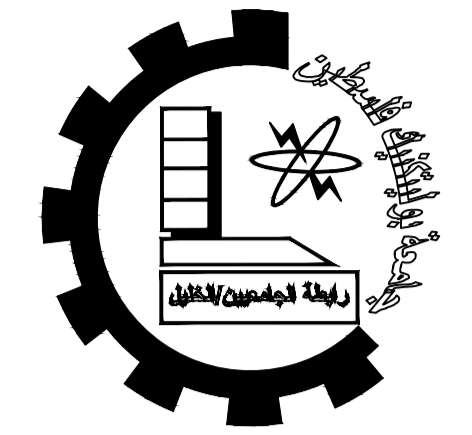


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C2:Elevation-2
(Scale 1:25)



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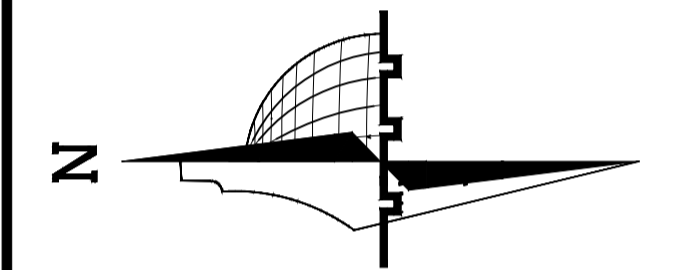
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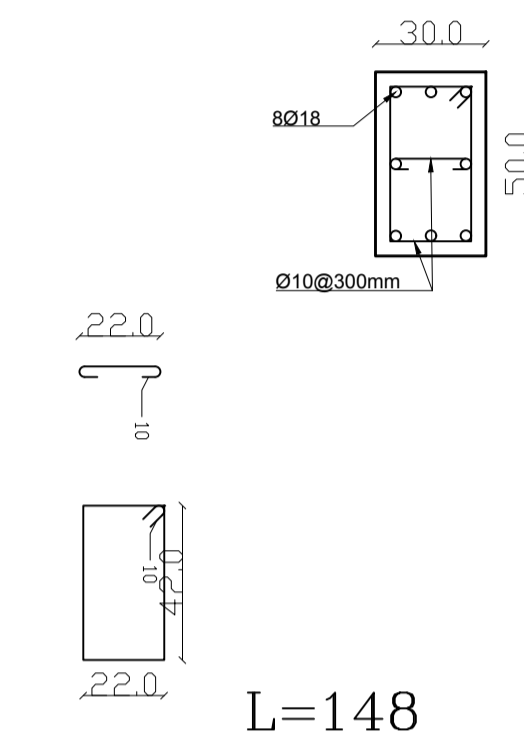
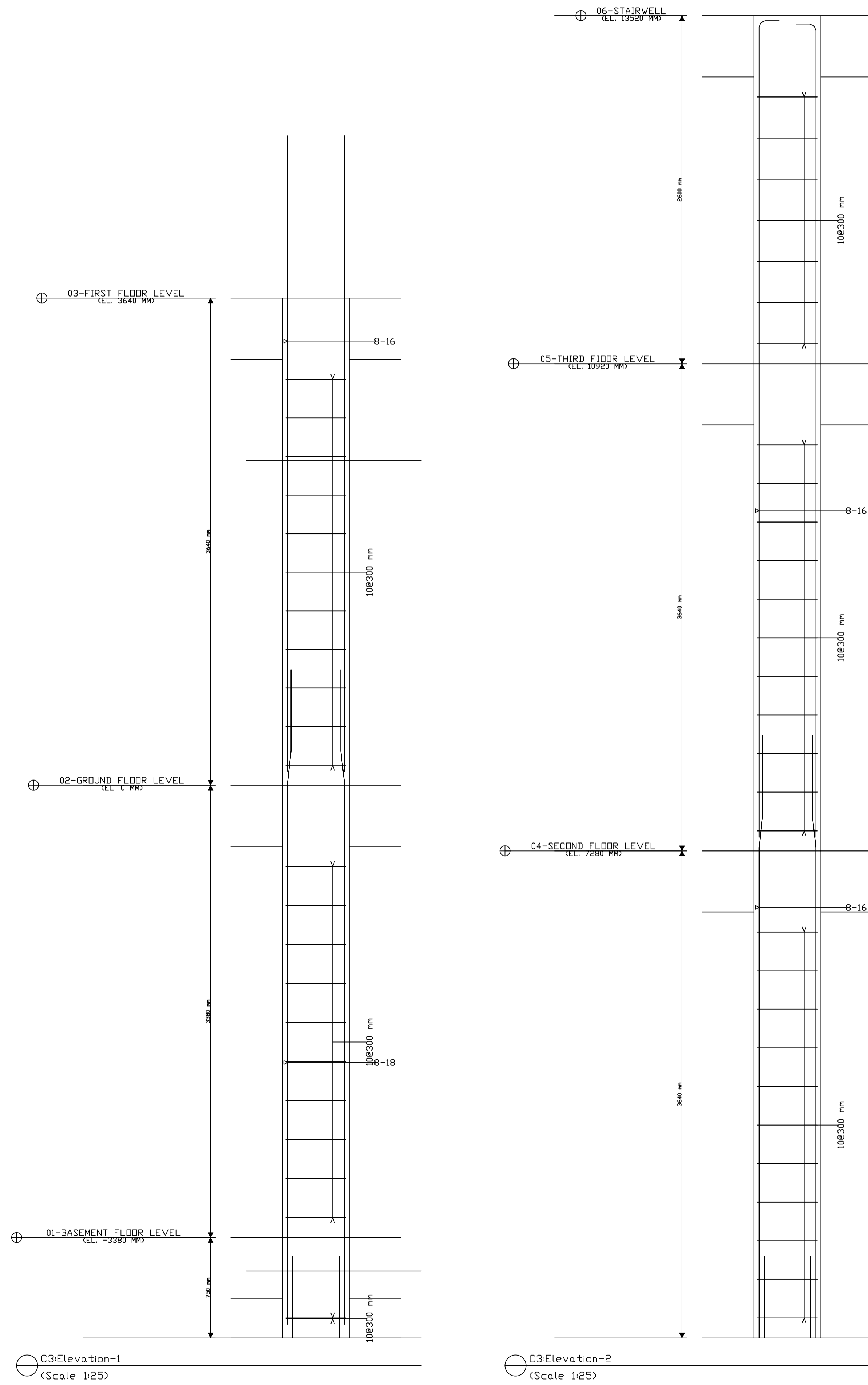
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Supervisor:
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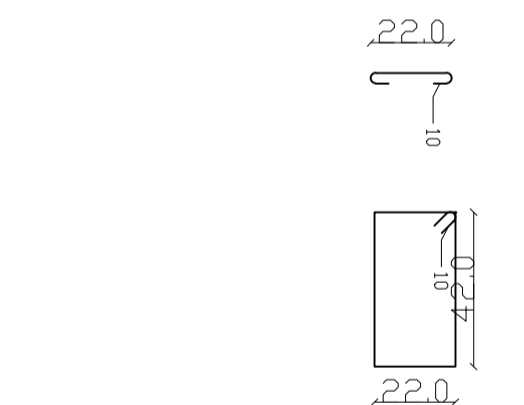
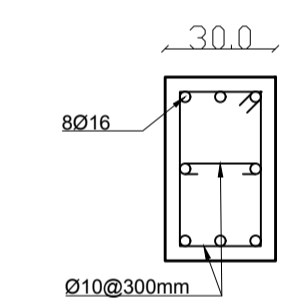
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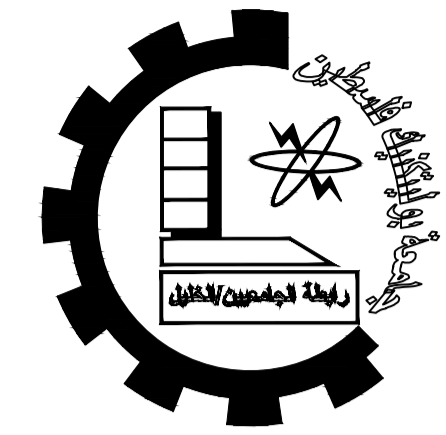
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C3:Section B
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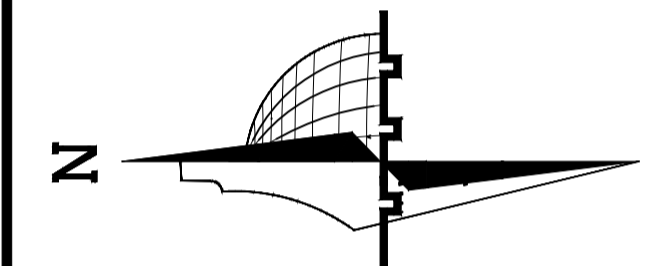
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Legend :

- | | | | |
|--|----------------------|--|-----------------|
| | Stone | | Gravel |
| | R.Concrete | | Wood |
| | Concrete | | HEXAGONAL TILES |
| | Hollow Block | | BAKLAVA TILES |
| | insulating materials | | GRASS |

DRAWING TITLE :

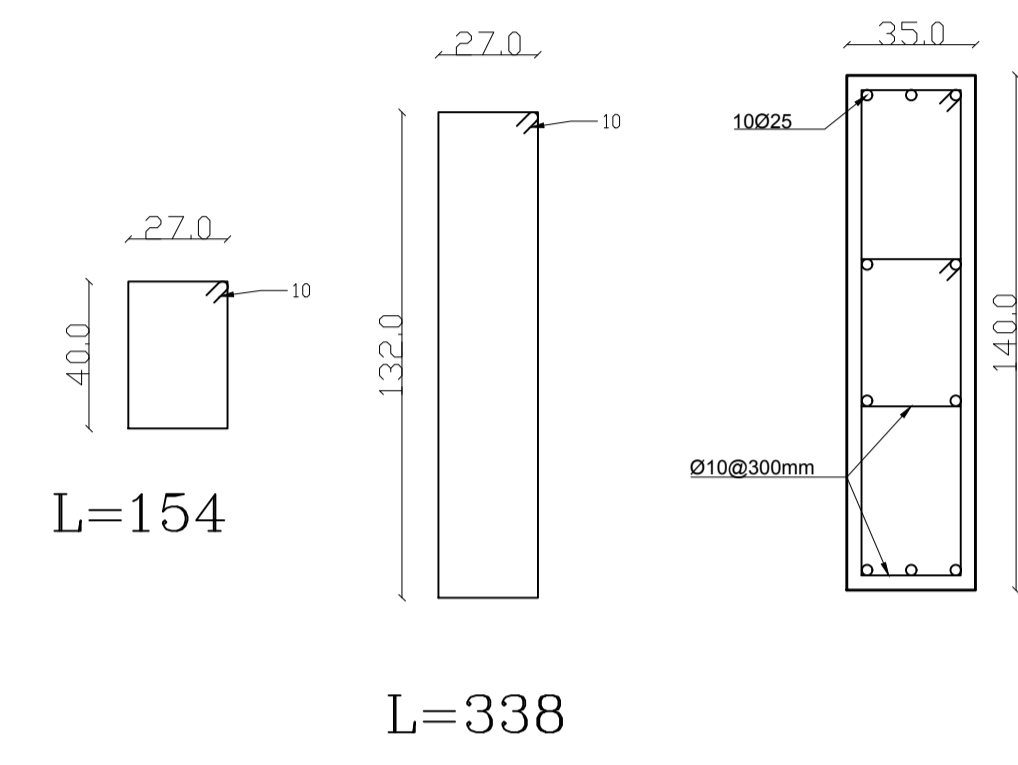
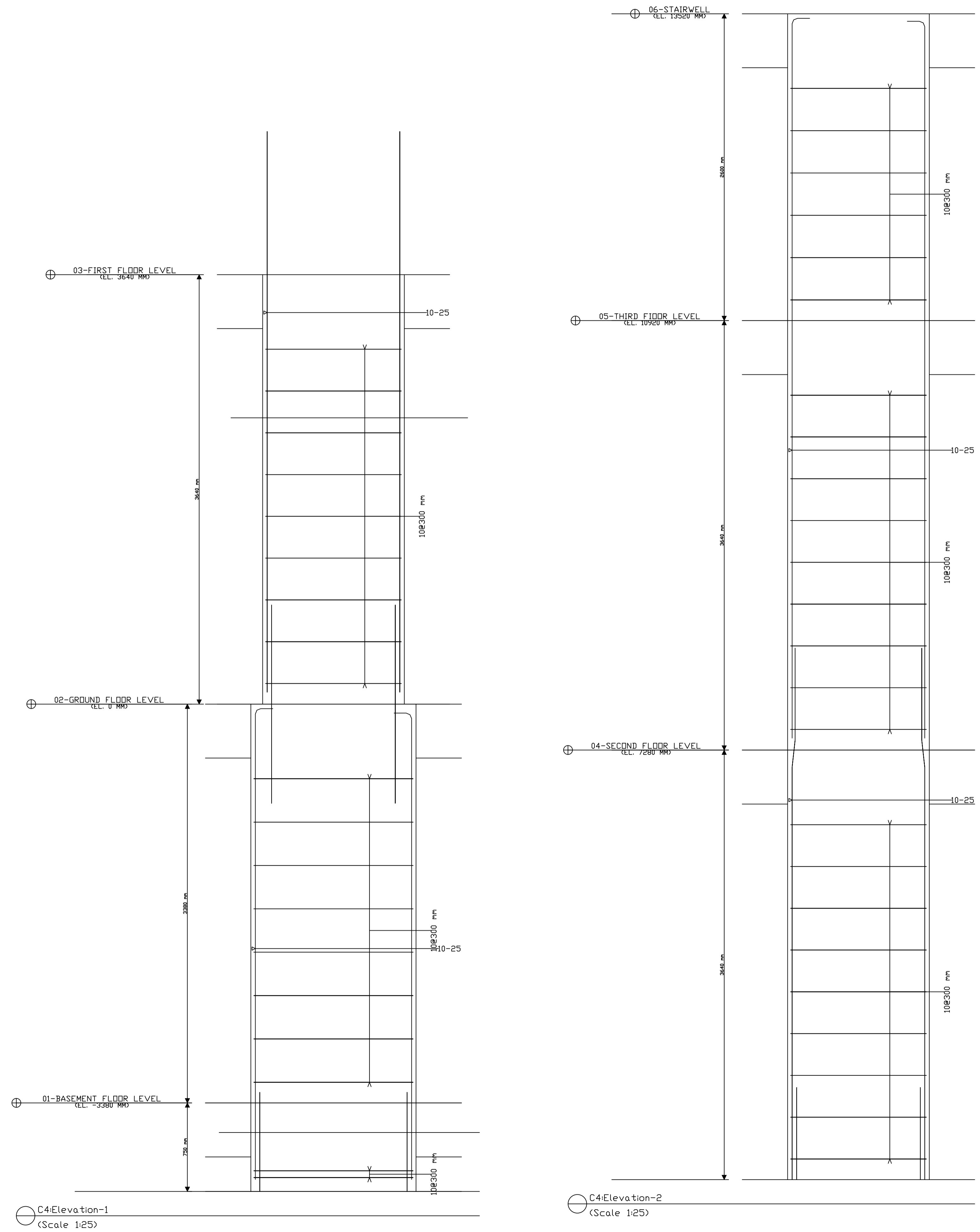
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Supervisor:
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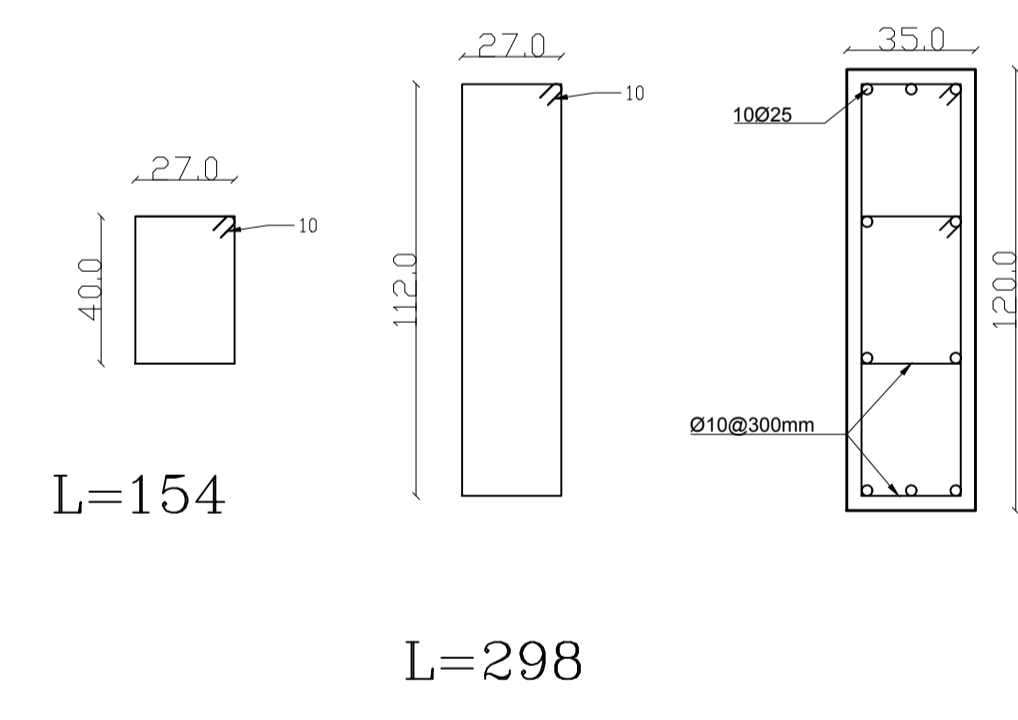
Completed by :

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Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
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C4:Section B
(Scale 1:20)



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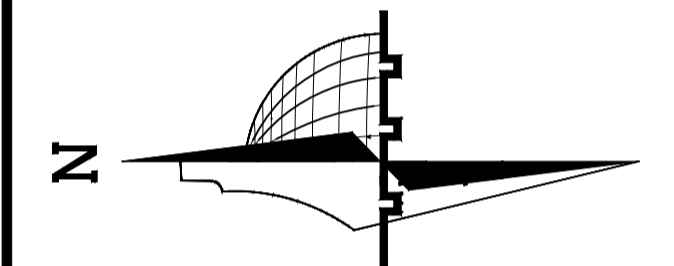
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Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

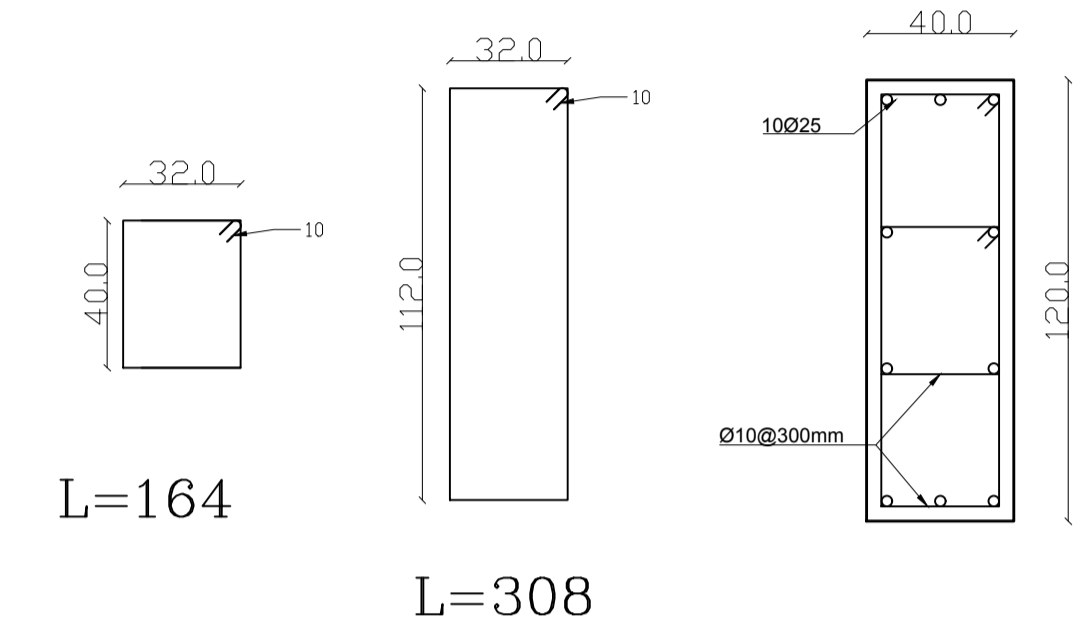
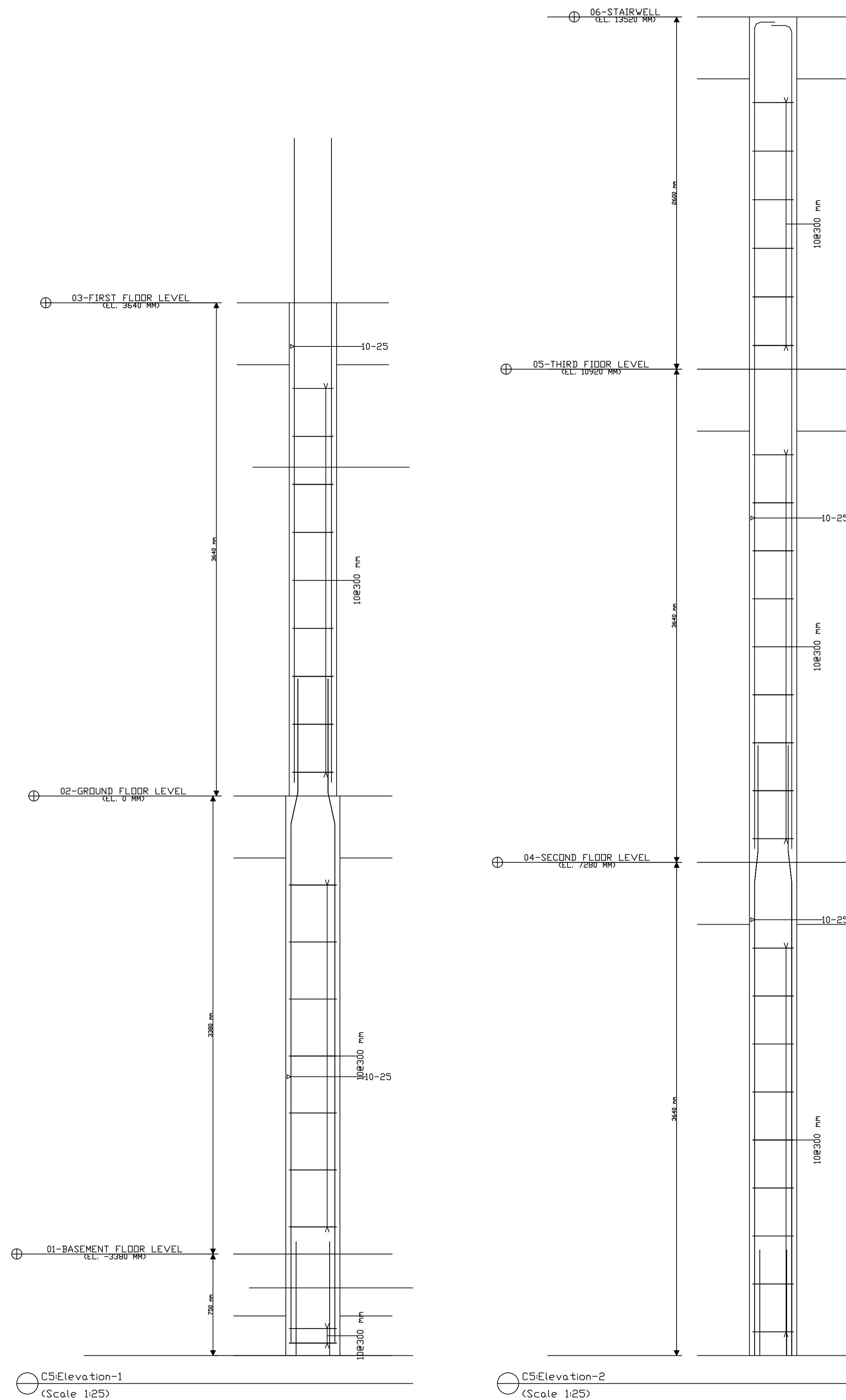
Columns detailing (C5)

Supervisor:
Dr.Belal Al-Massri

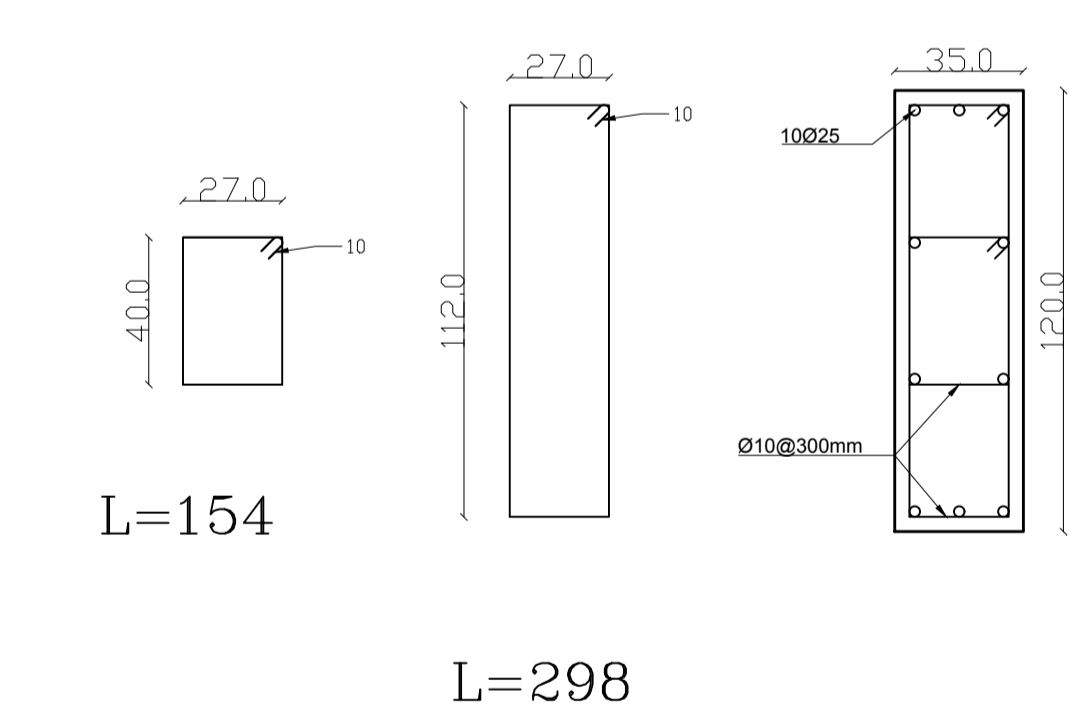
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

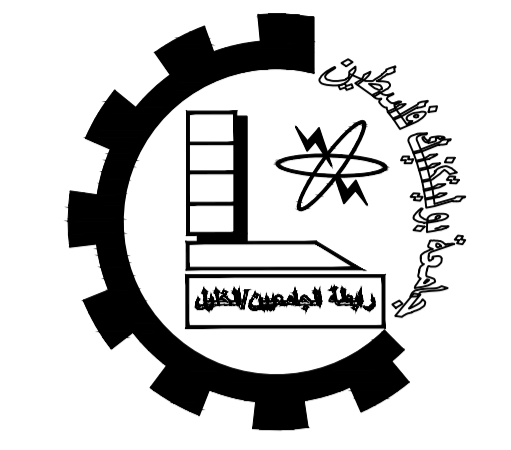
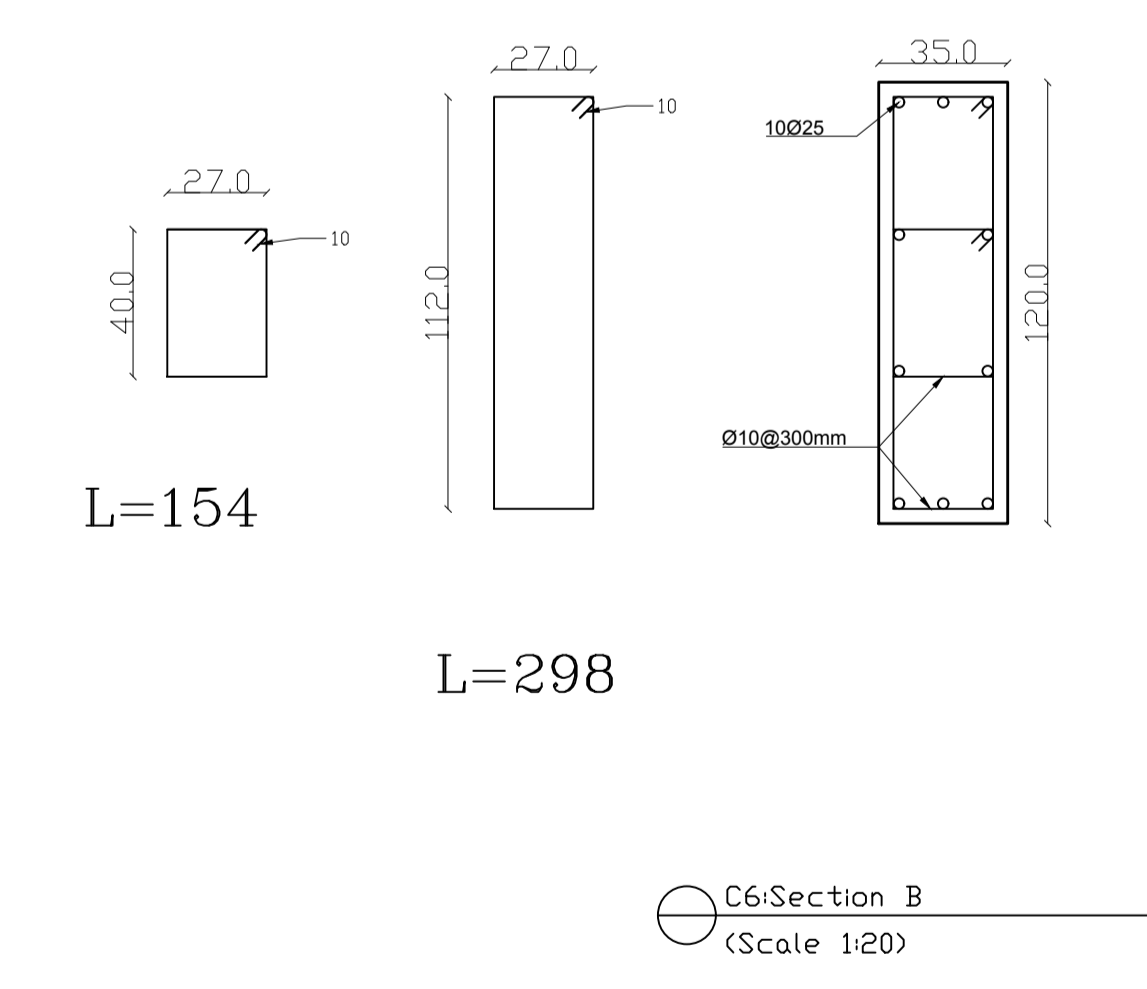
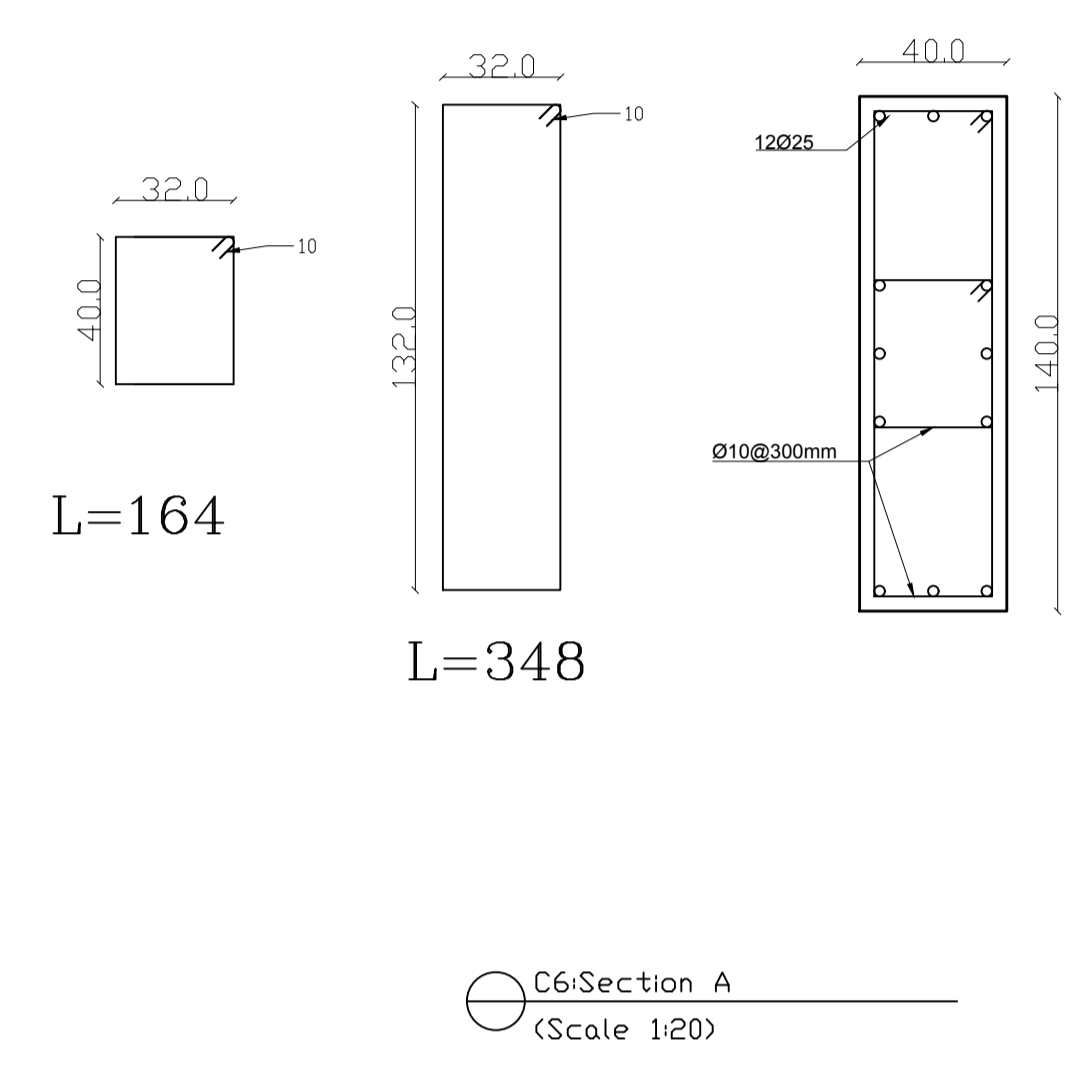
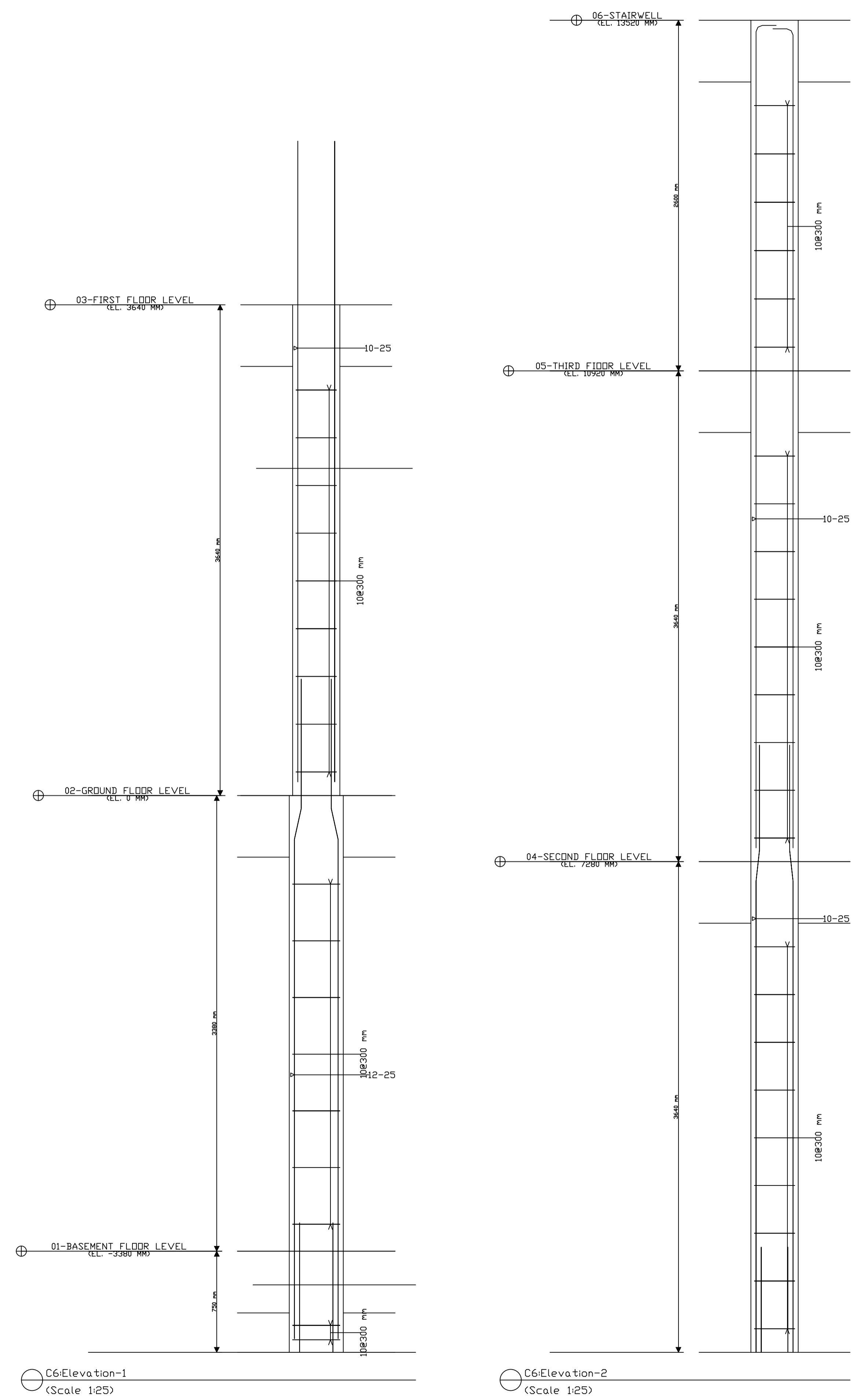
SCALE	No. of DRAW	DATE
1:100	S206	2024



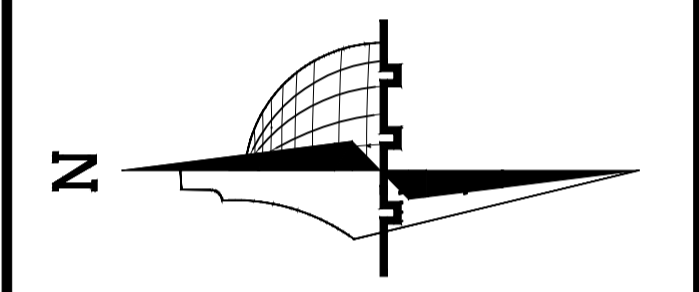
C5:Section A
(Scale 1:20)



C5:Section B
(Scale 1:20)



Palestine Polytechnic University
 College of Engineering
 Civil Engineering Department
 Civil Engineering
 Graduation Project
 Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

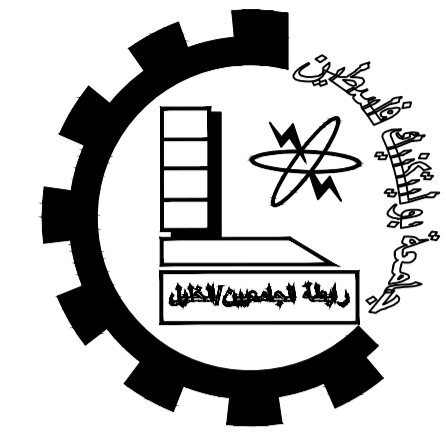
DRAWING TITLE :

Columns detailing (C6)

Supervisor:
Dr.Belal Al-Massri

Completed by :
 Haider Hussein Abusheikha
 Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S207	2024



Palestine Polytechnic University

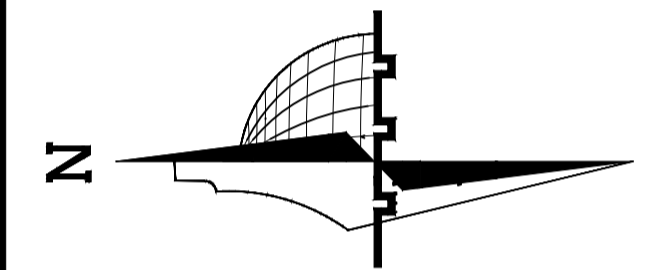
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

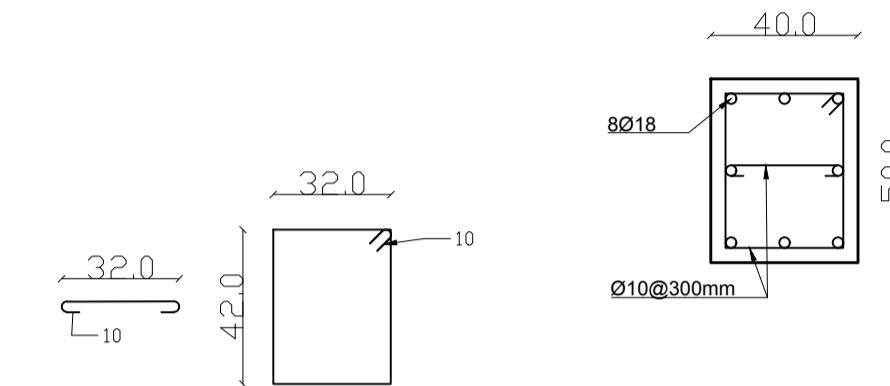
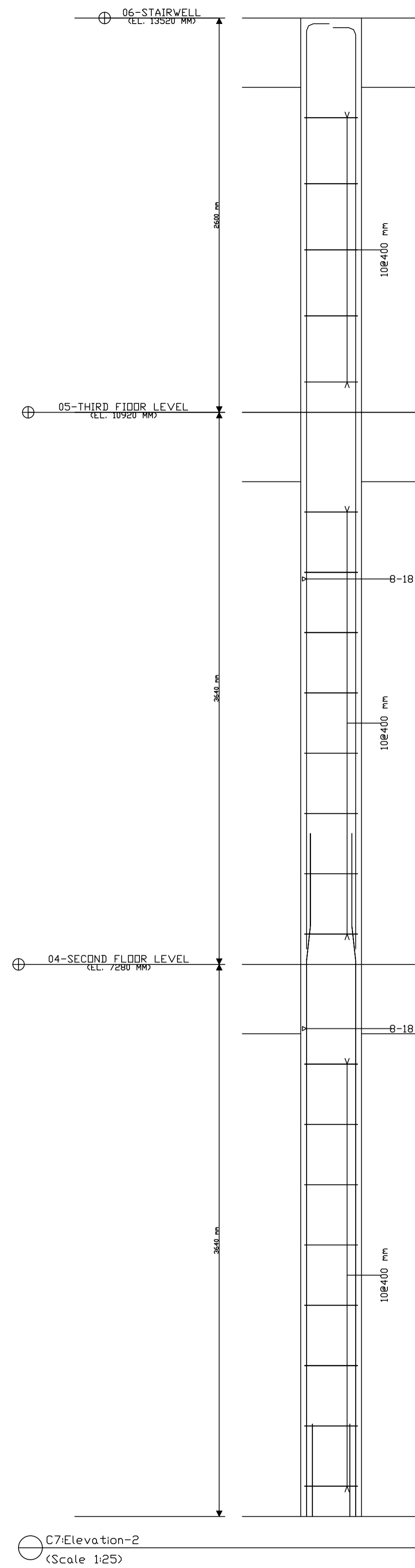
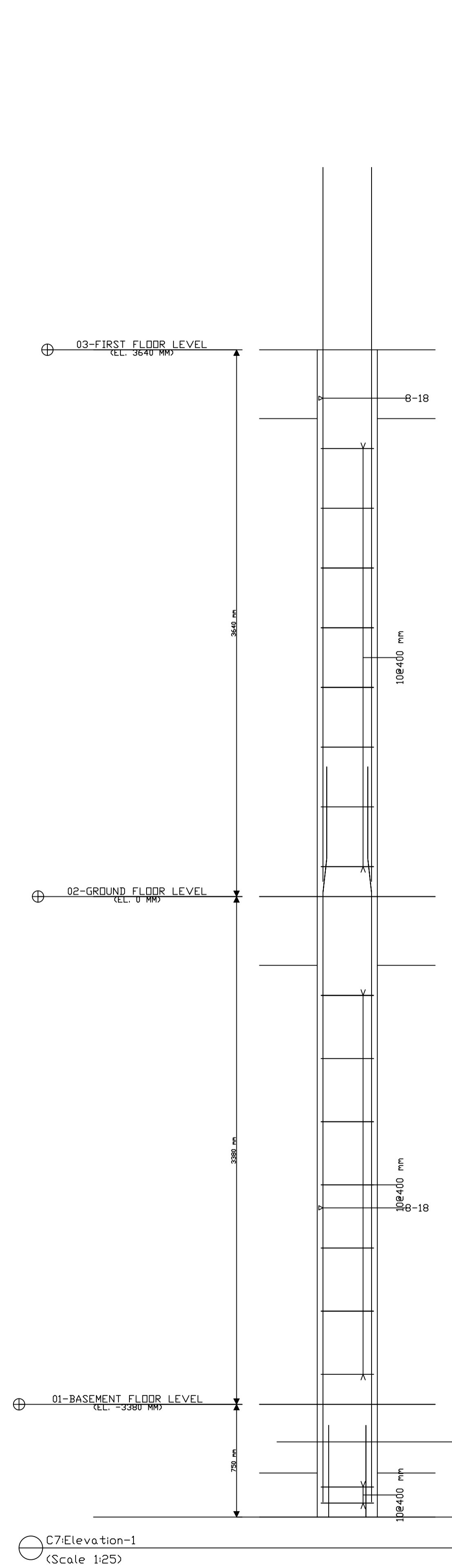
DRAWING TITLE :

Columns detailing (C7)

Supervisor:
Dr.Belal Al-Massri

Completed by :
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S208	2024



L=168

○ C7:Section A
(Scale 1:20)



Palestine Polytechnic University

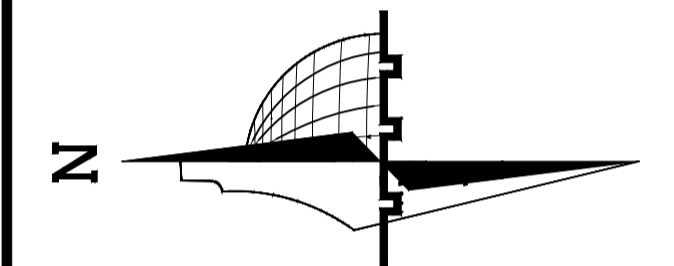
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

DRAWING TITLE :

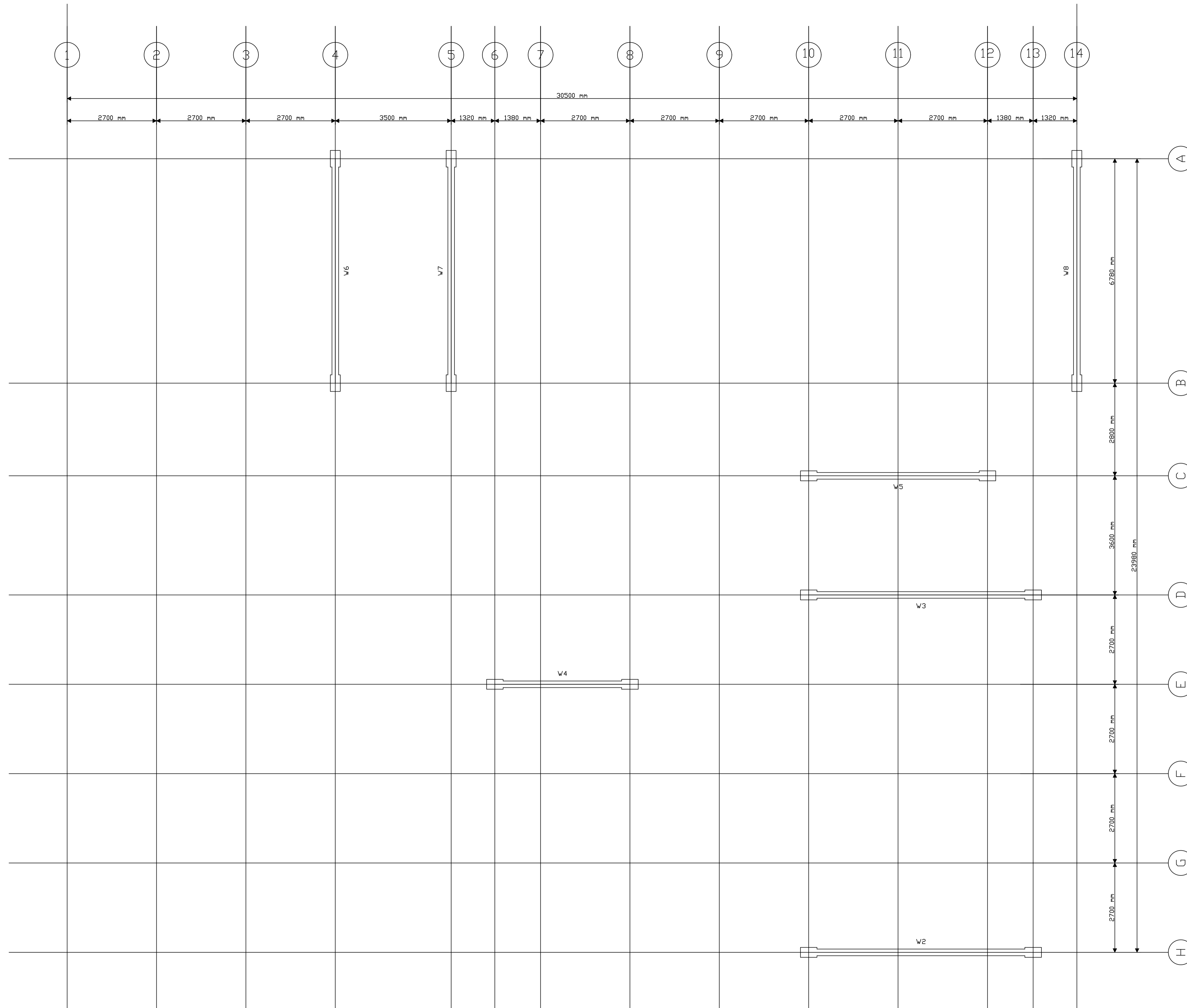
Wall Layouts-1

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:75	S300	2024



WallLayout - 02-ground floor level (EL. 0 mm)
(Scale 1/75)



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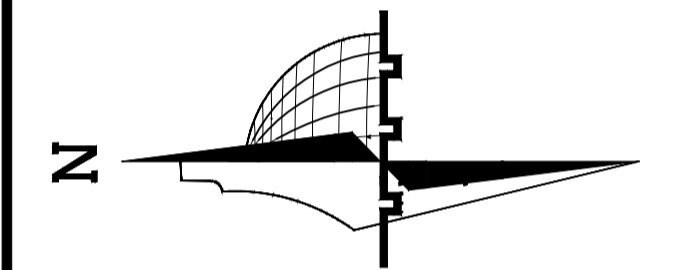
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

DRAWING TITLE :

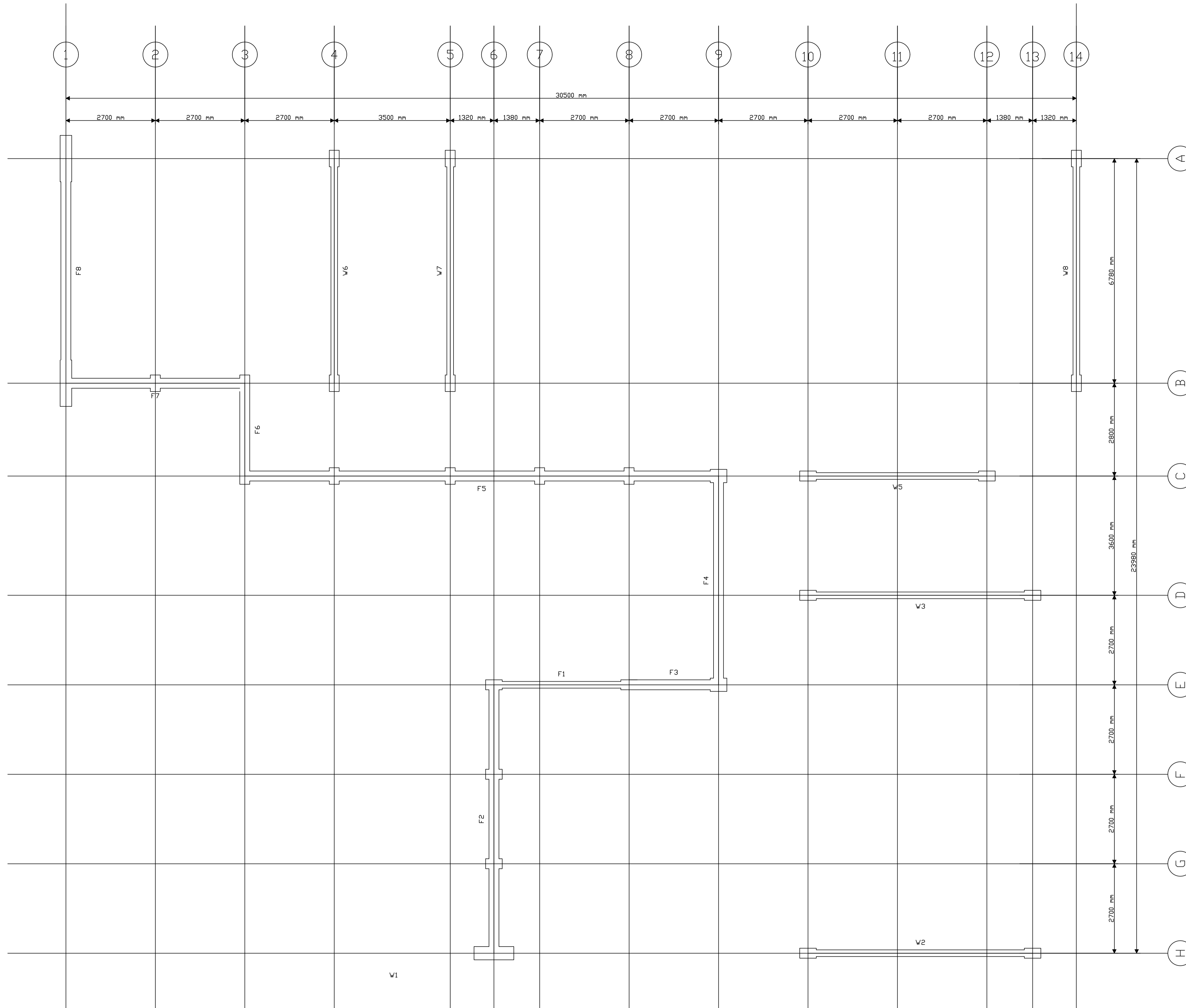
Wall Layouts-2

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:75	S301	2024



WallLayout - 00-Column nak (EL. -4130 mm)
(Scale 1/75)



Palestine Polytechnic University

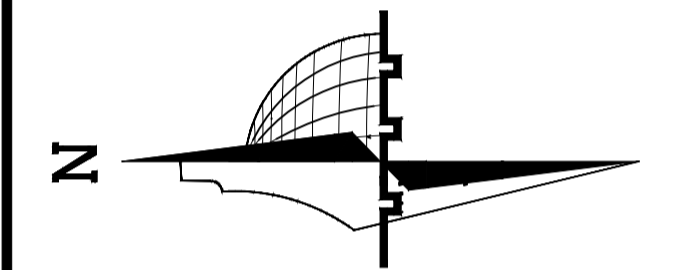
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- | | | | |
|--|----------------------|--|-----------------|
| | Stone | | Gravel |
| | R.Concrete | | Wood |
| | Concrete | | HEXAGONAL TILES |
| | Hollow Block | | BAKLAVA TILES |
| | isolating materiales | | GRASS |

DRAWING TITLE :

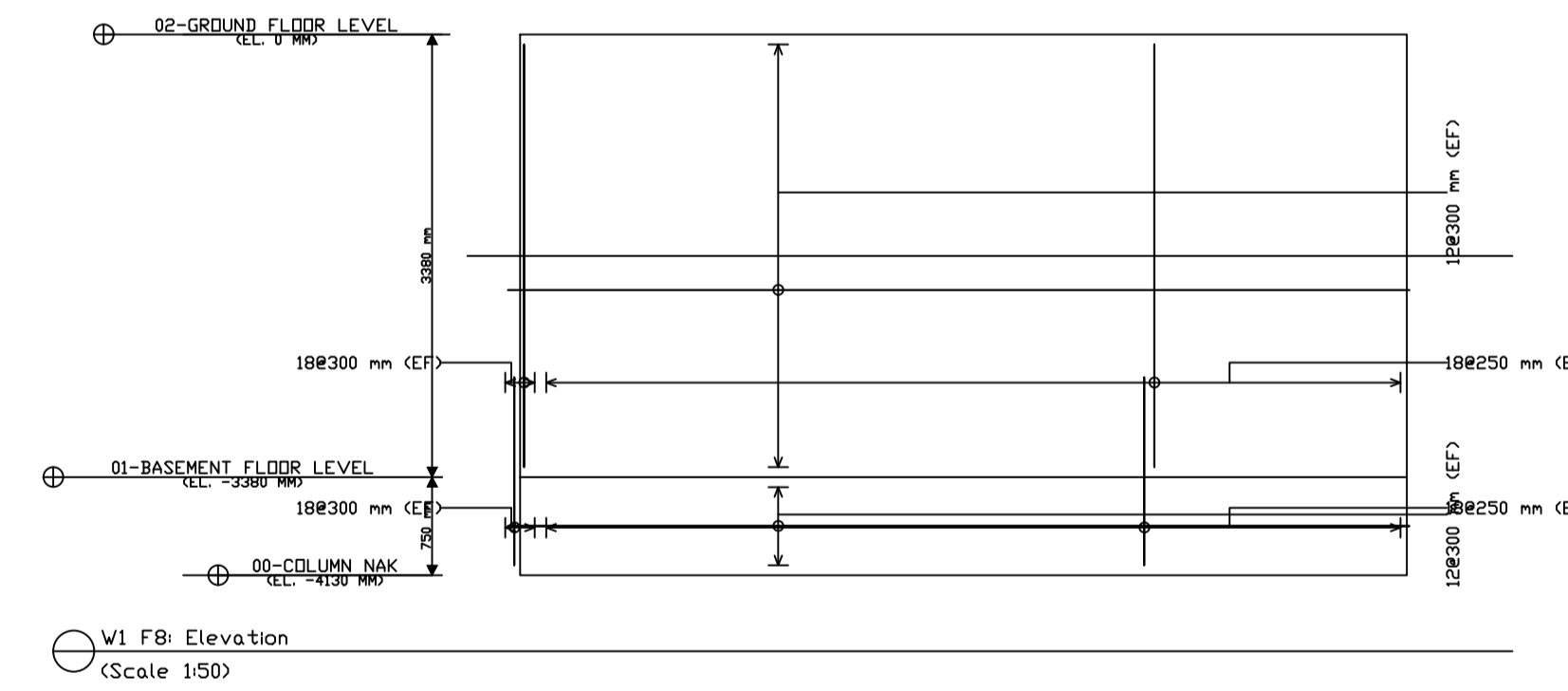
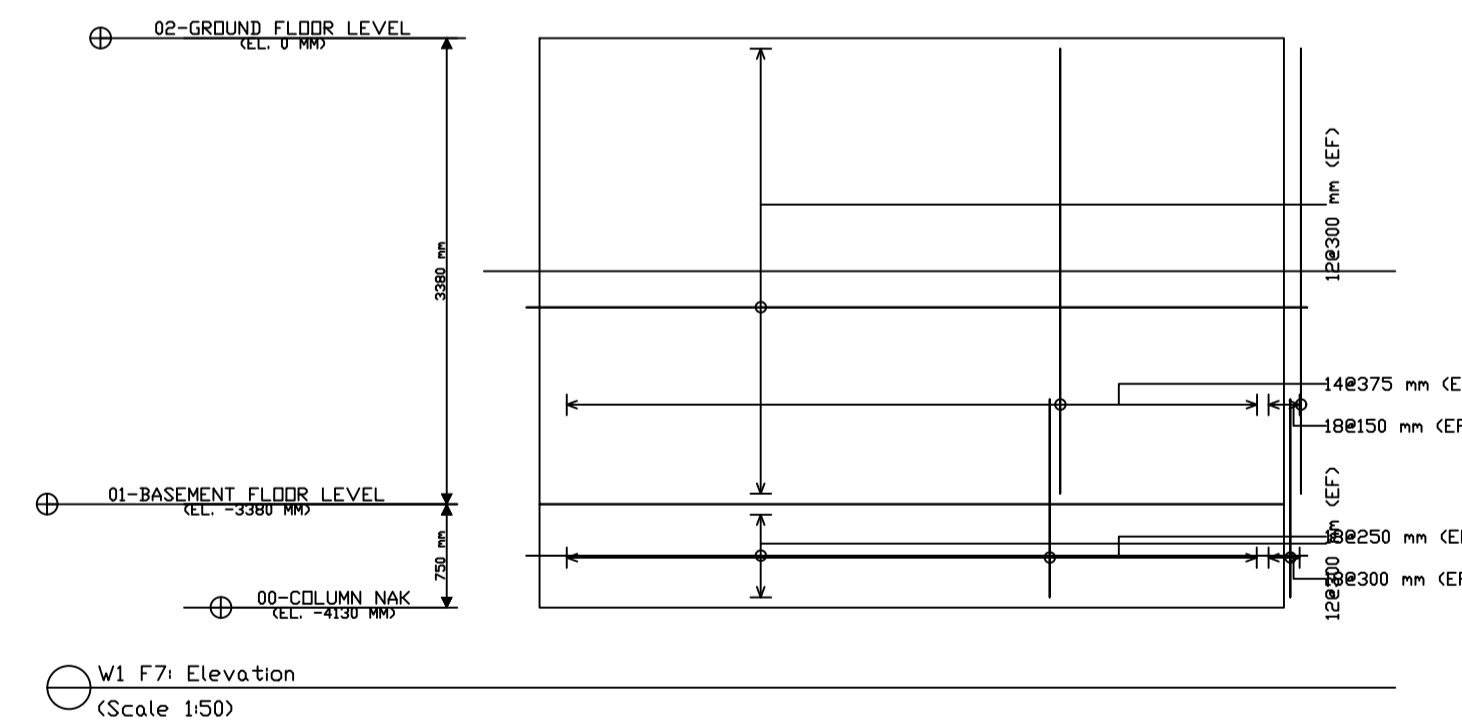
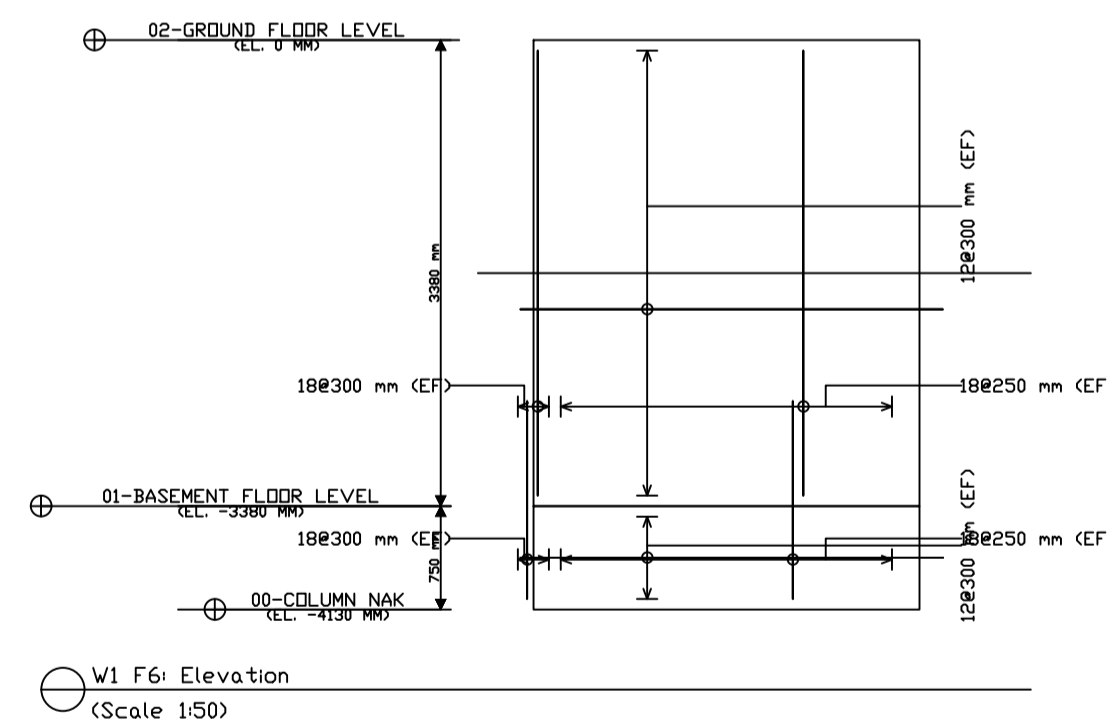
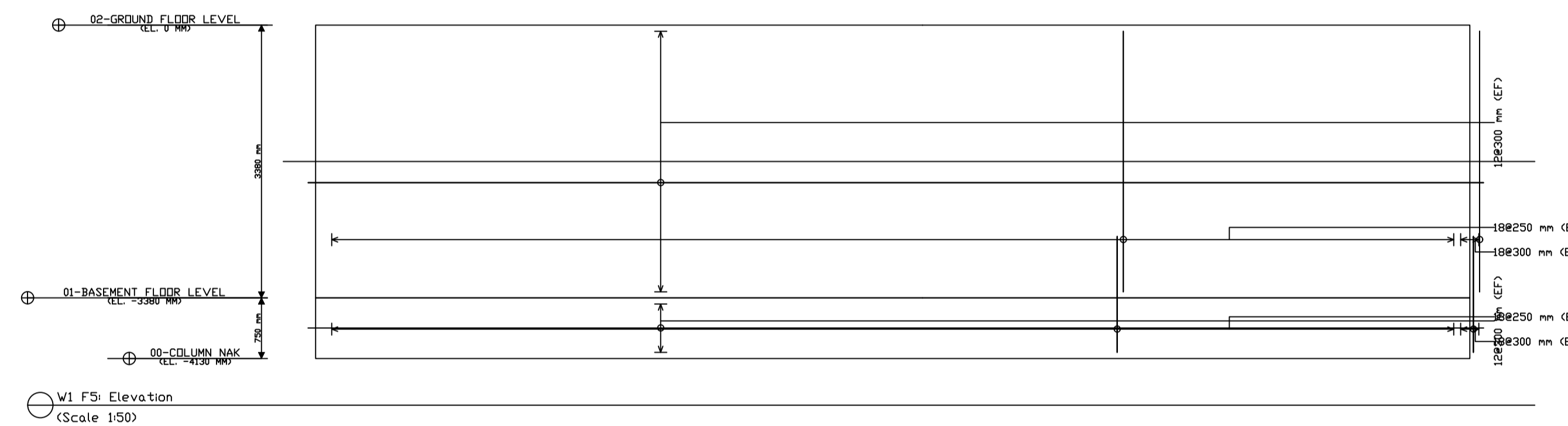
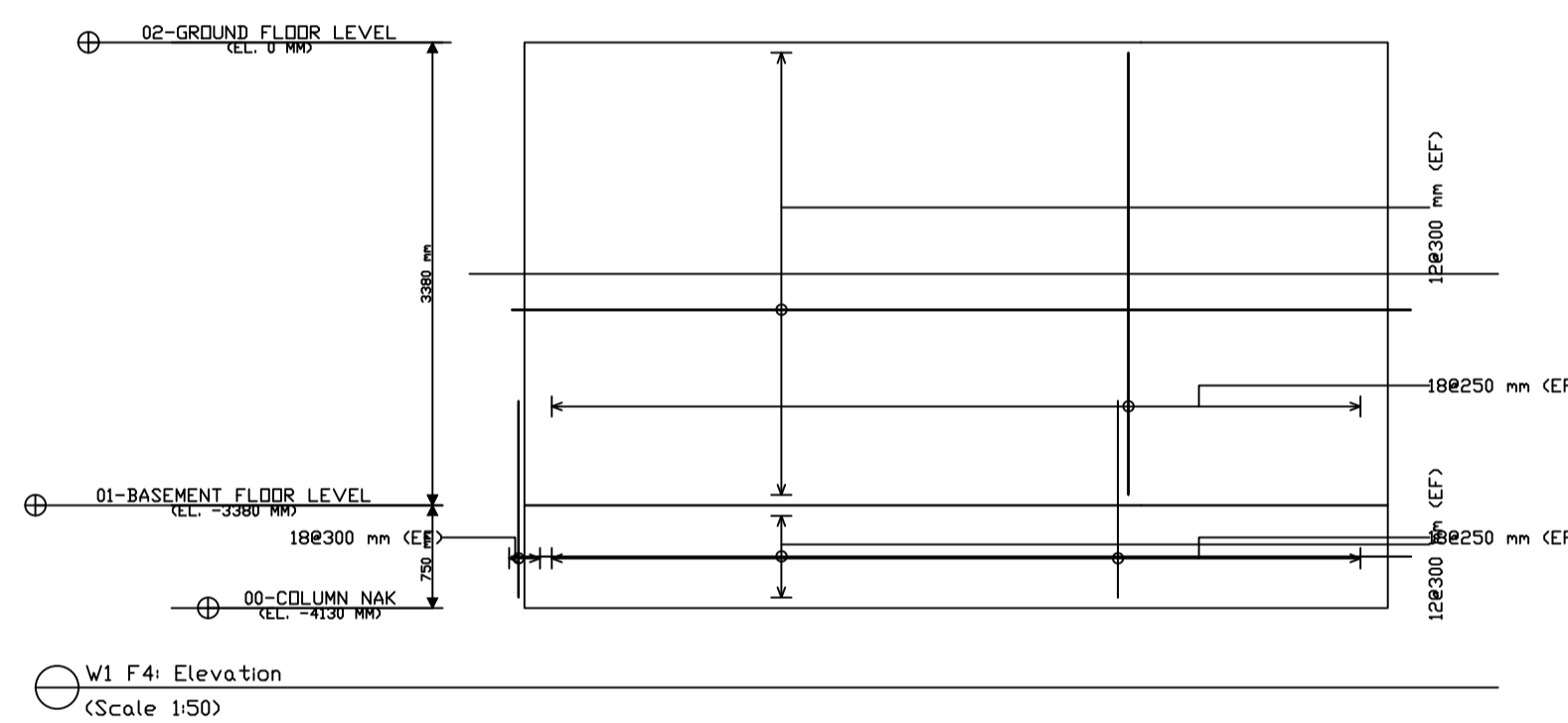
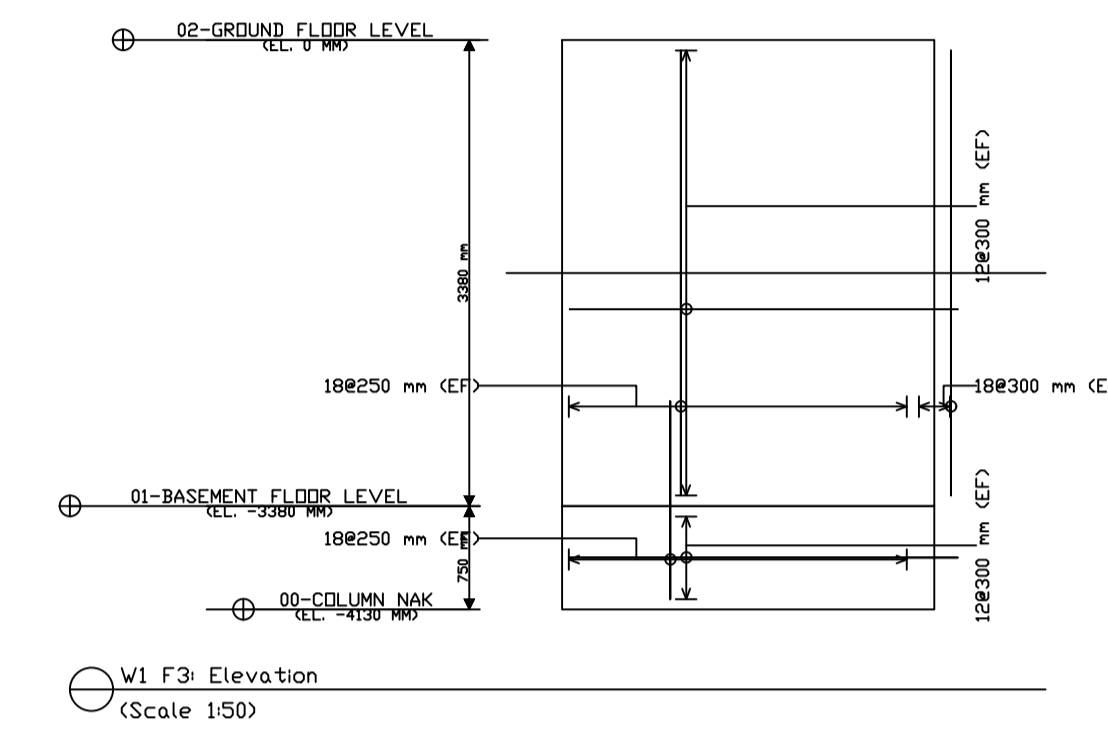
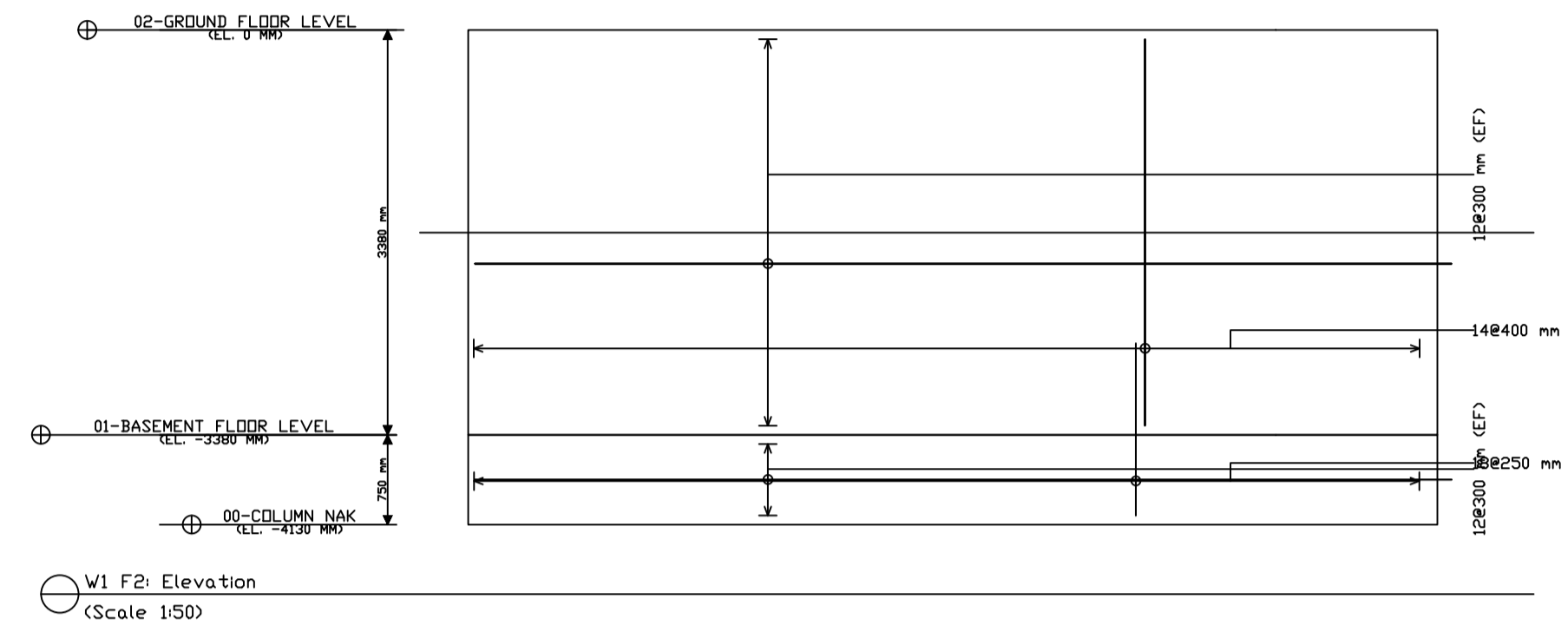
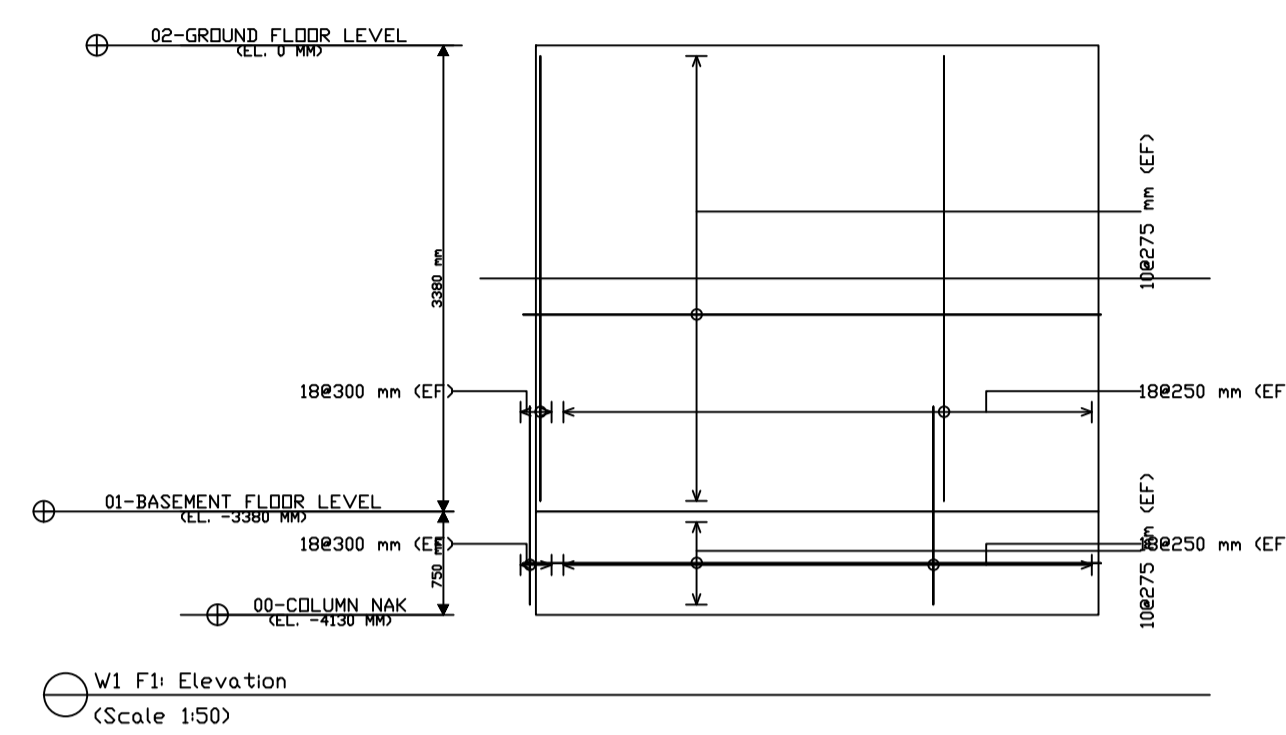
Basement Wall-B.W1

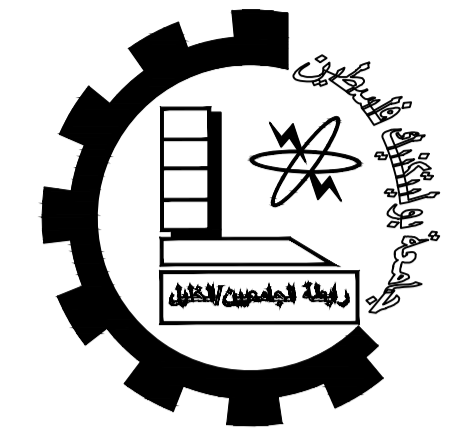
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S302	2024





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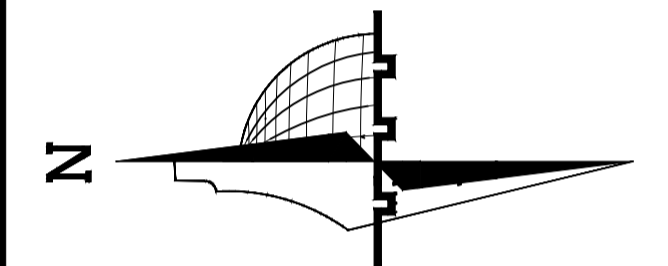
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

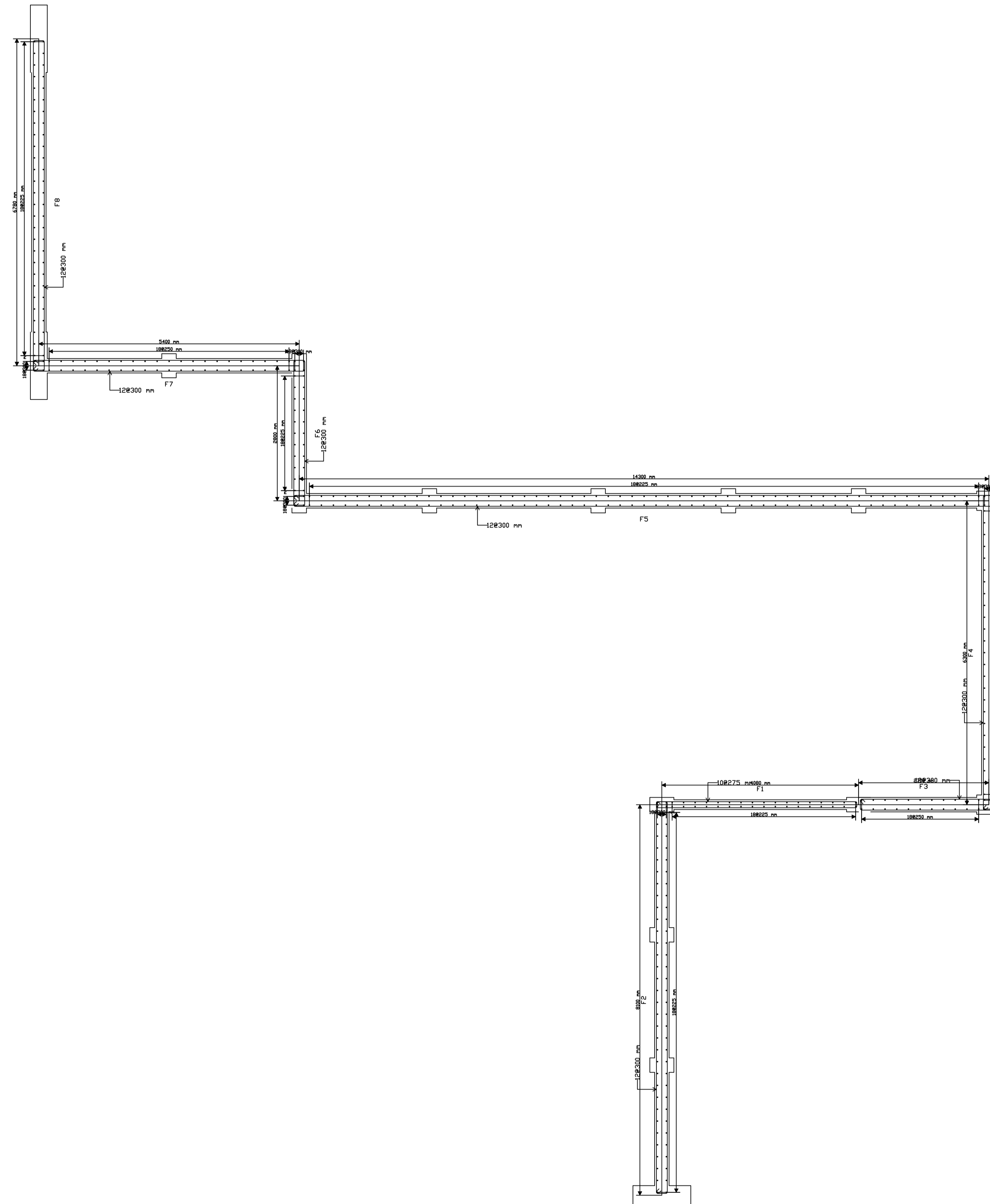
Section A-B.W1

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S303	2024



W1 Section A
(Scale 1:50)



Palestine Polytechnic University

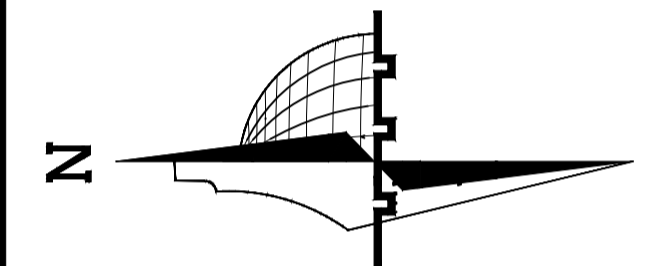
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	insulating materials		GRASS

DRAWING TITLE :

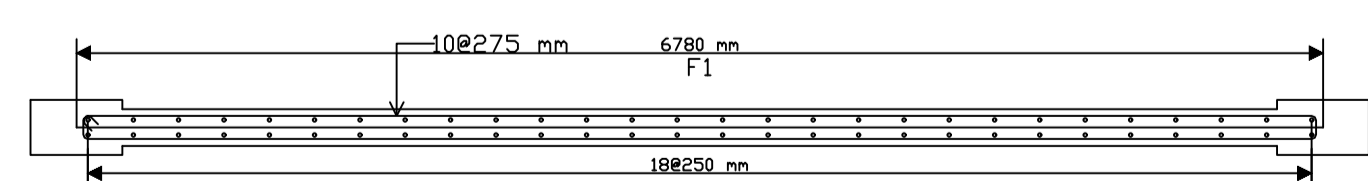
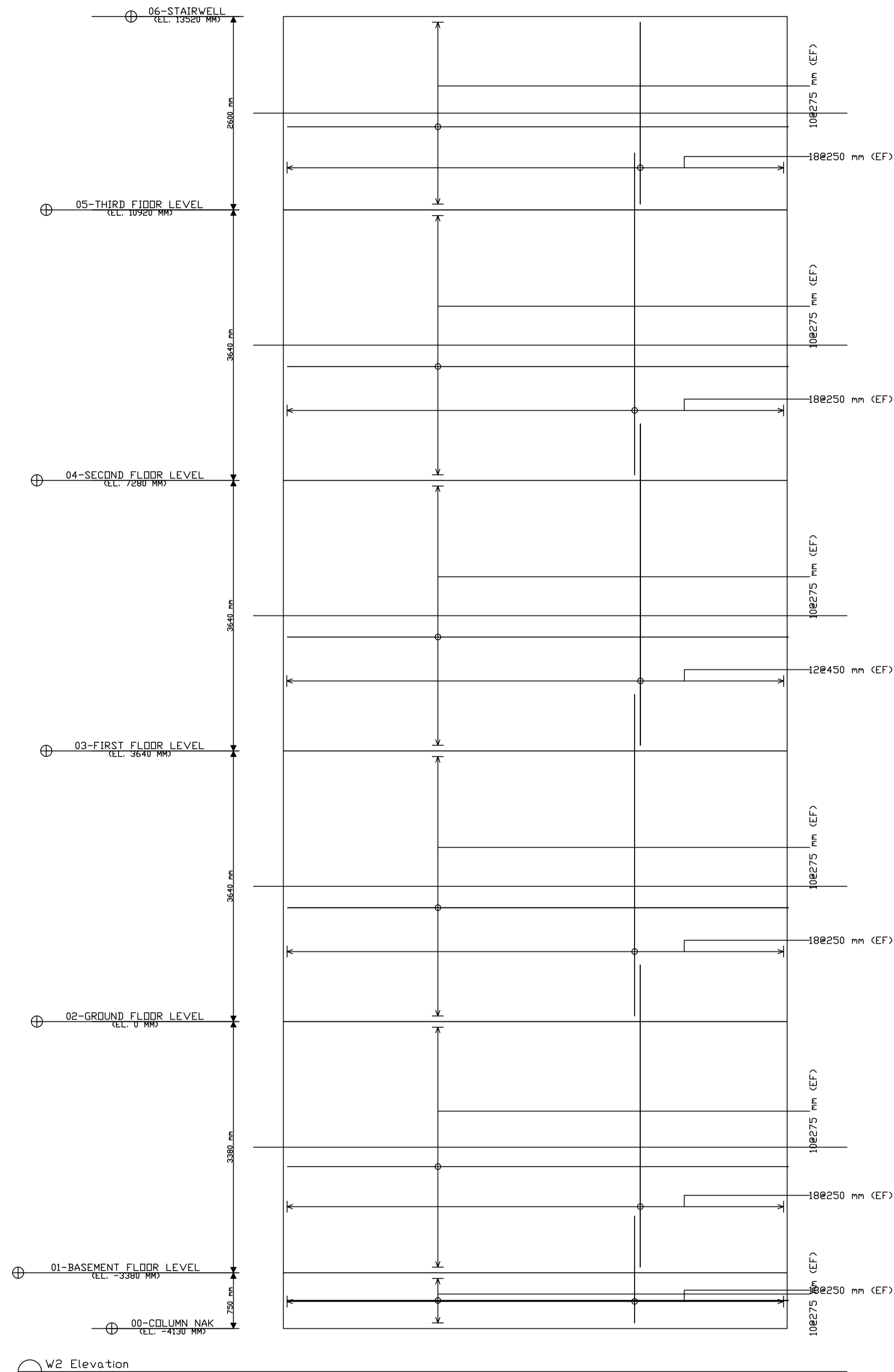
Shear Wall-S.W2&S.W3

Supervisor:
Dr.Belal Al-Massri

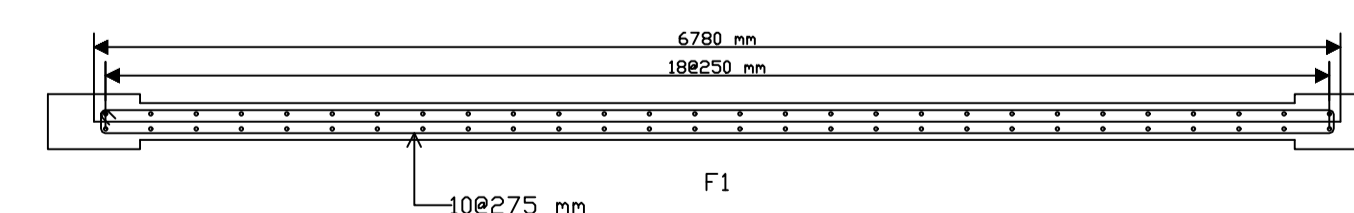
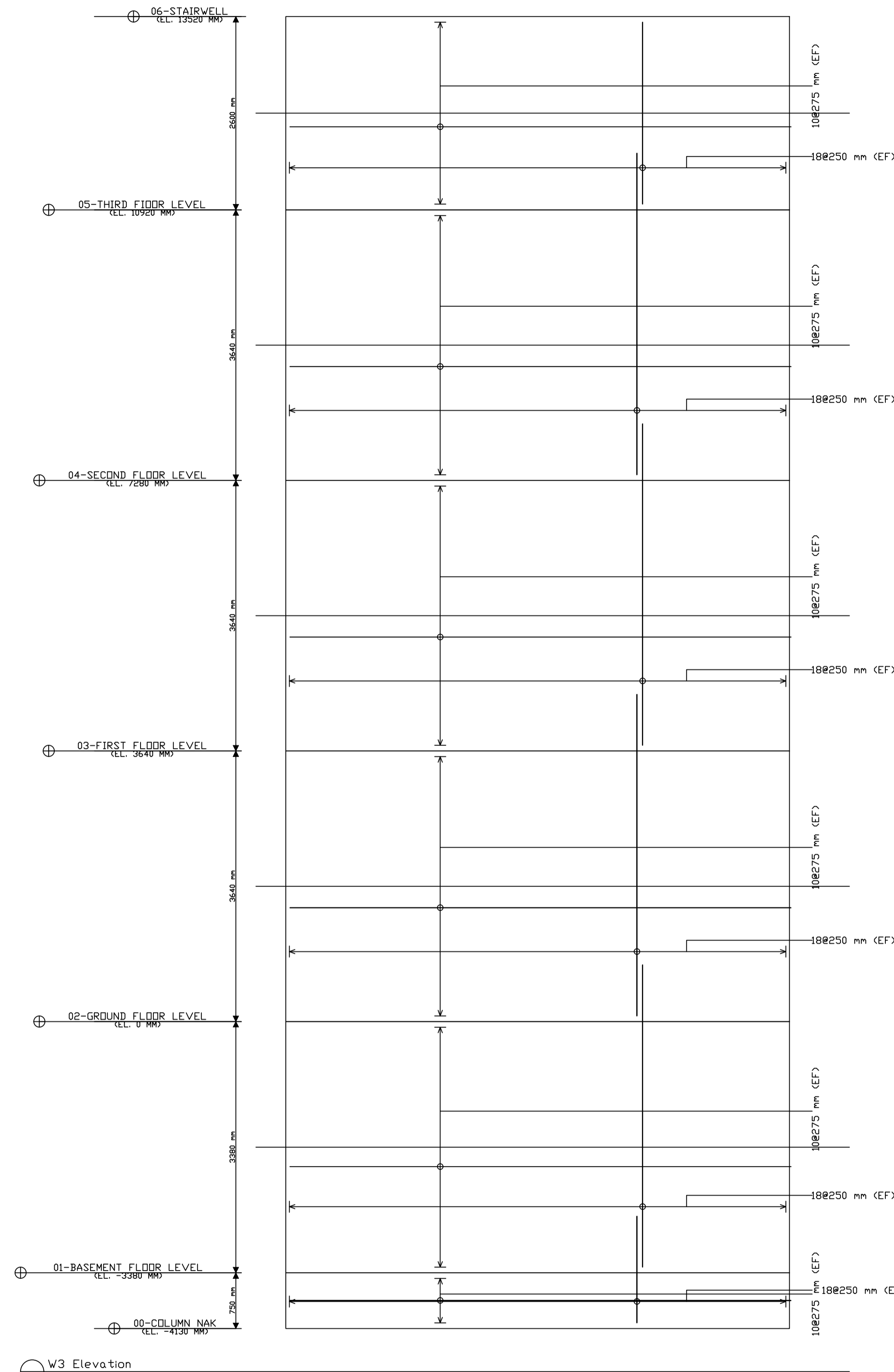
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

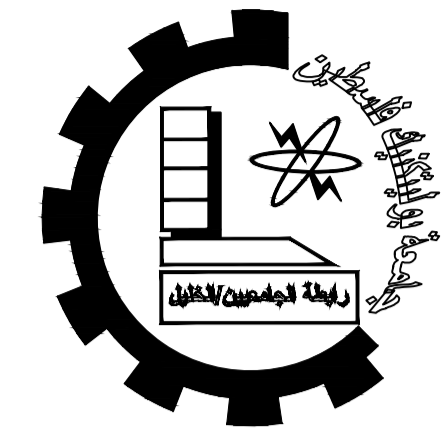
SCALE	No. of DRAW	DATE
1:100	S304	2024



W2 Section: A
(Scale 1:50)



W3 Section: A
(Scale 1:50)



Palestine Polytechnic University

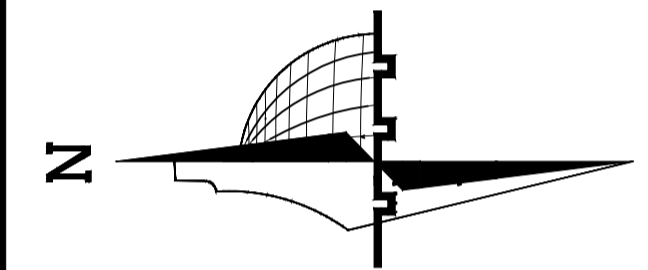
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

DRAWING TITLE :

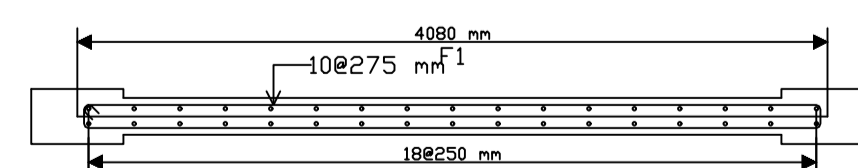
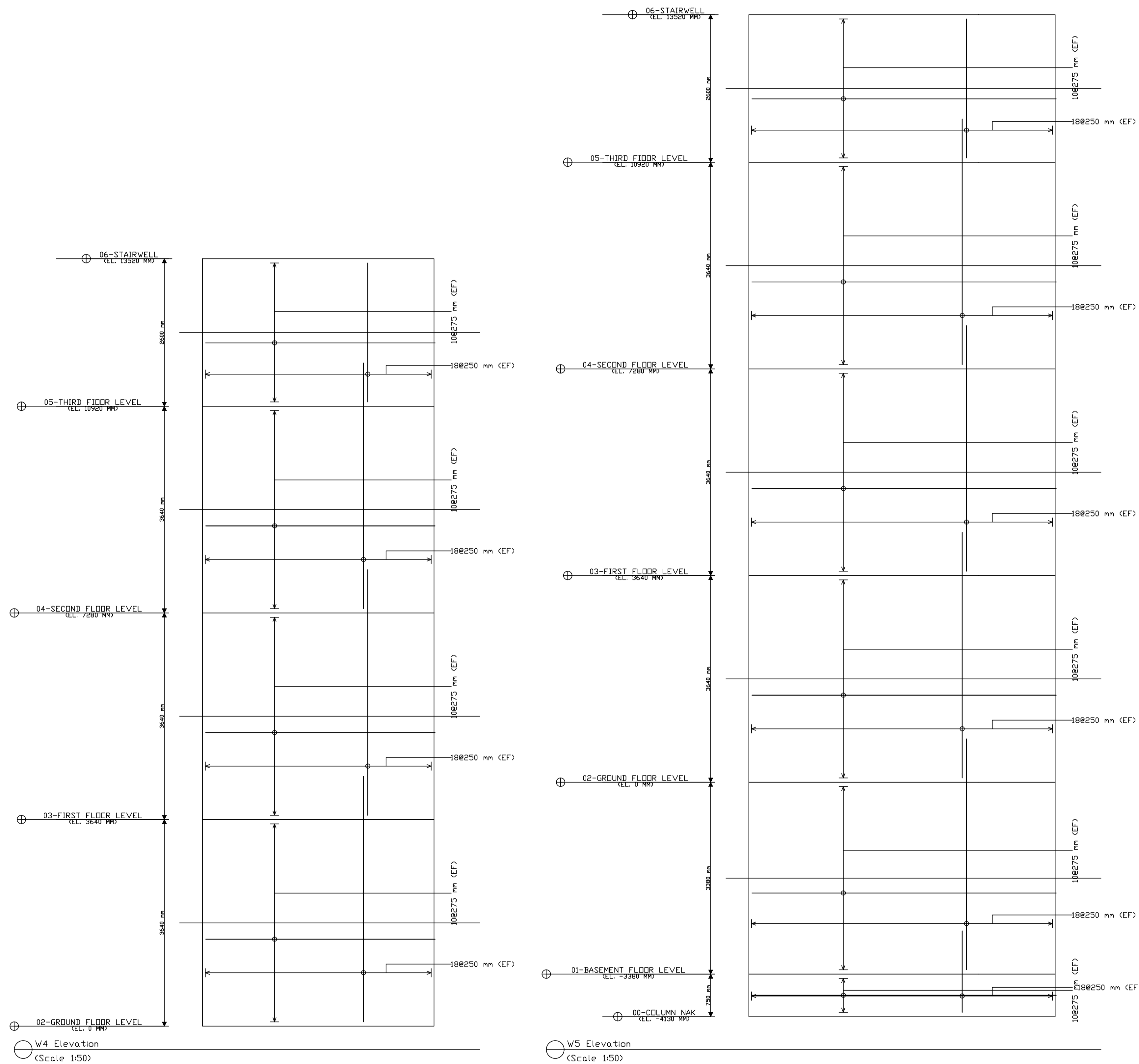
Shear Wall-S.W4&S.W5

Supervisor:
Dr.Belal Al-Massri

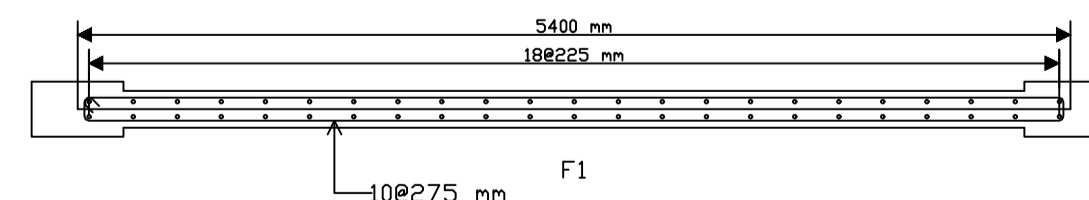
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

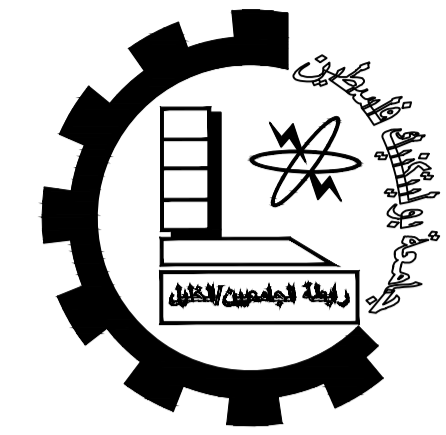
SCALE	No. of DRAW	DATE
1:100	S305	2024



W4 Section: A (Scale 1:50)



W5 Section: A (Scale 1:50)



Palestine Polytechnic University

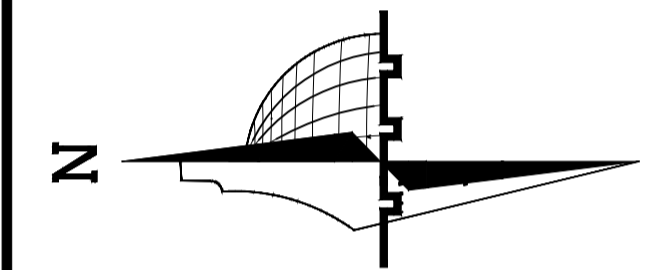
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- | | | | |
|--|----------------------|--|-----------------|
| | Stone | | Gravel |
| | R.Concrete | | Wood |
| | Concrete | | HEXAGONAL TILES |
| | Hollow Block | | BAKLAVA TILES |
| | isolating materiales | | GRASS |

DRAWING TITLE :

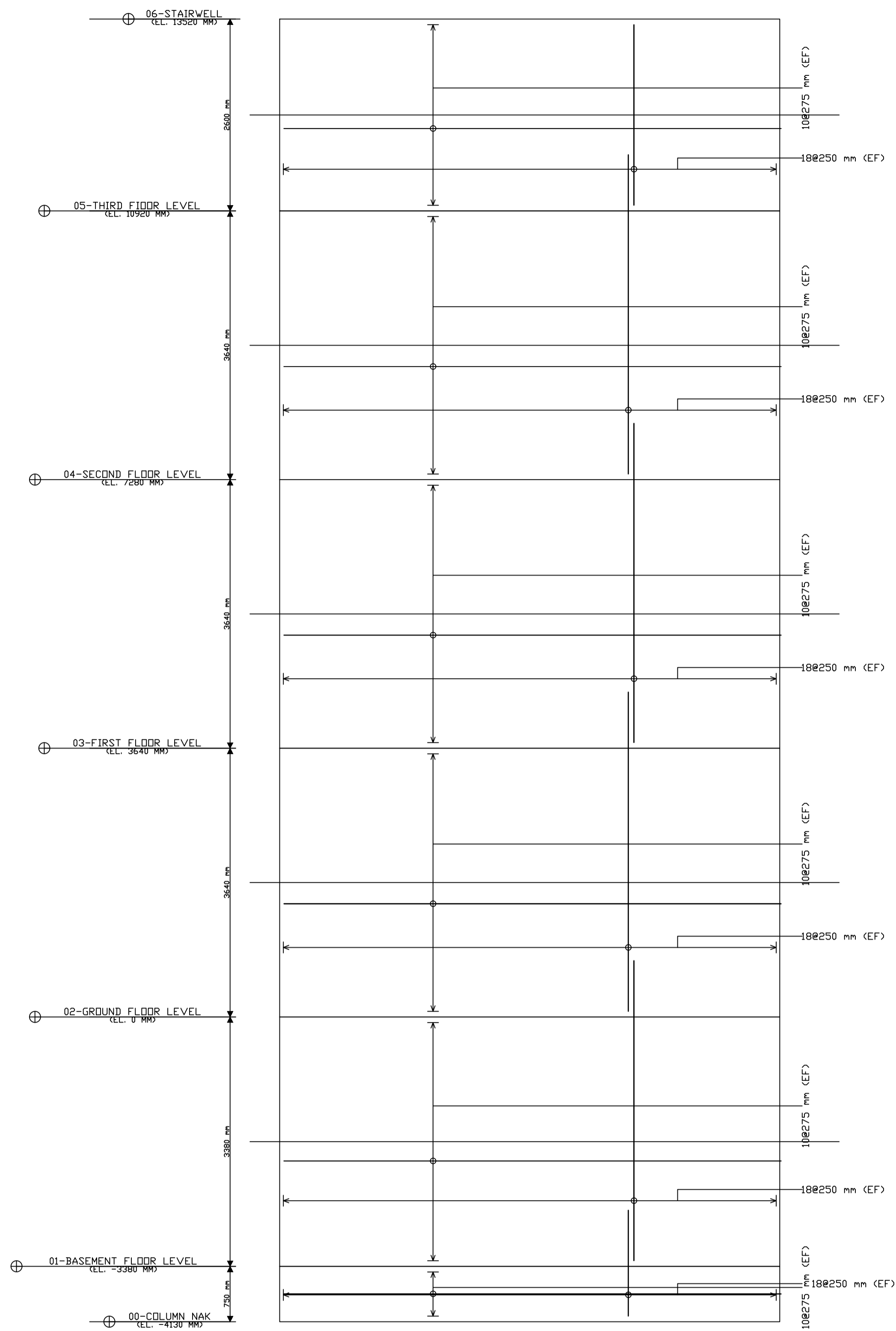
Shear Wall-S.W6&S.W7

Supervisor:
Dr.Belal Al-Massri

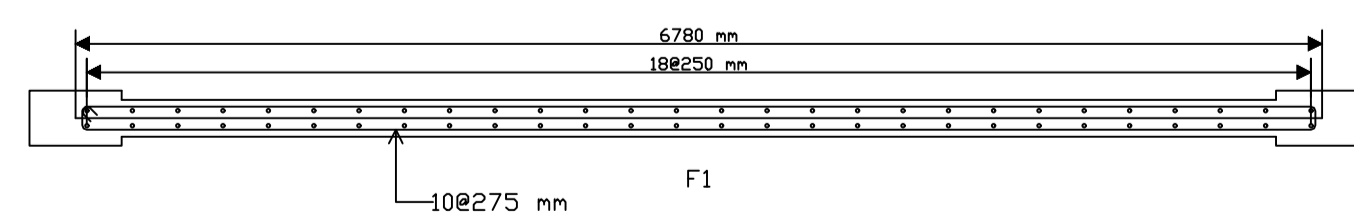
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

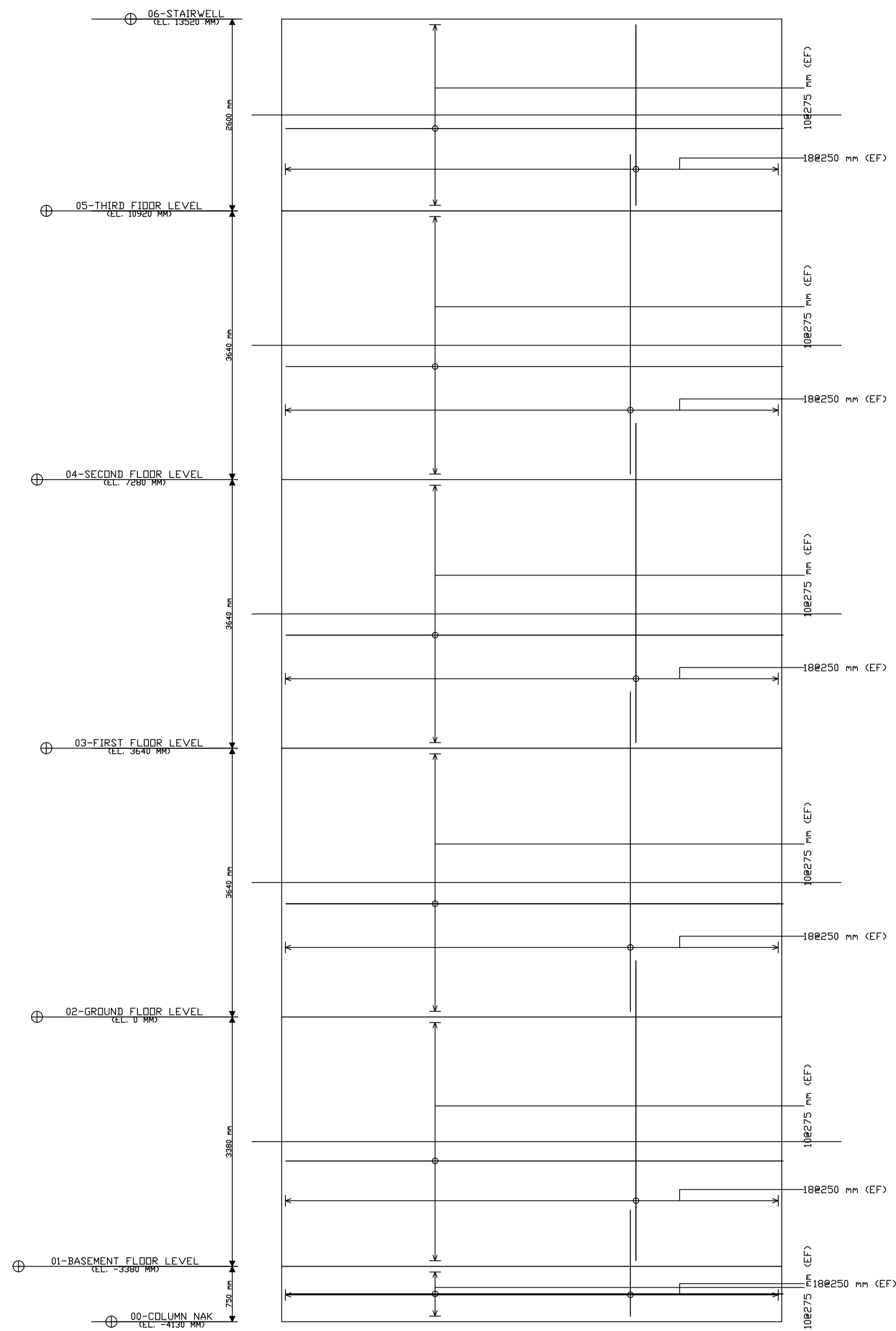
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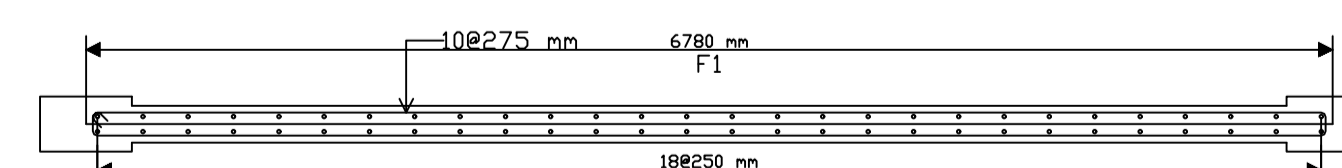
W6 Elevation
(Scale 1:50)



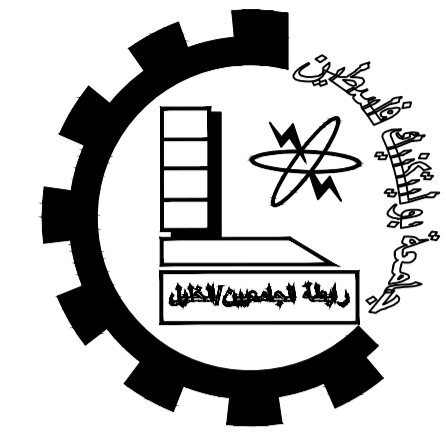
W6 Section: A
(Scale 1:50)



W7 Elevation
(Scale 1:50)



W7 Section: A
(Scale 1:50)



Palestine Polytechnic University

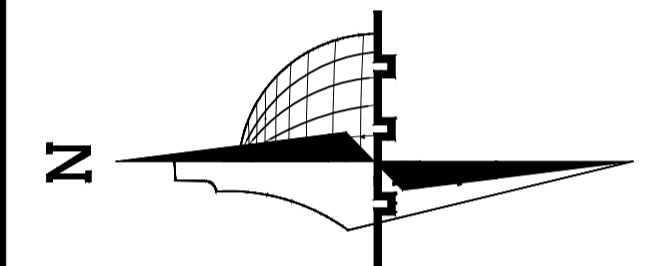
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- | | | | |
|--|----------------------|--|-----------------|
| | Stone | | Gravel |
| | R.Concrete | | Wood |
| | Concrete | | HEXAGONAL TILES |
| | Hollow Block | | BAKLAVA TILES |
| | isolating materiales | | GRASS |

DRAWING TITLE :

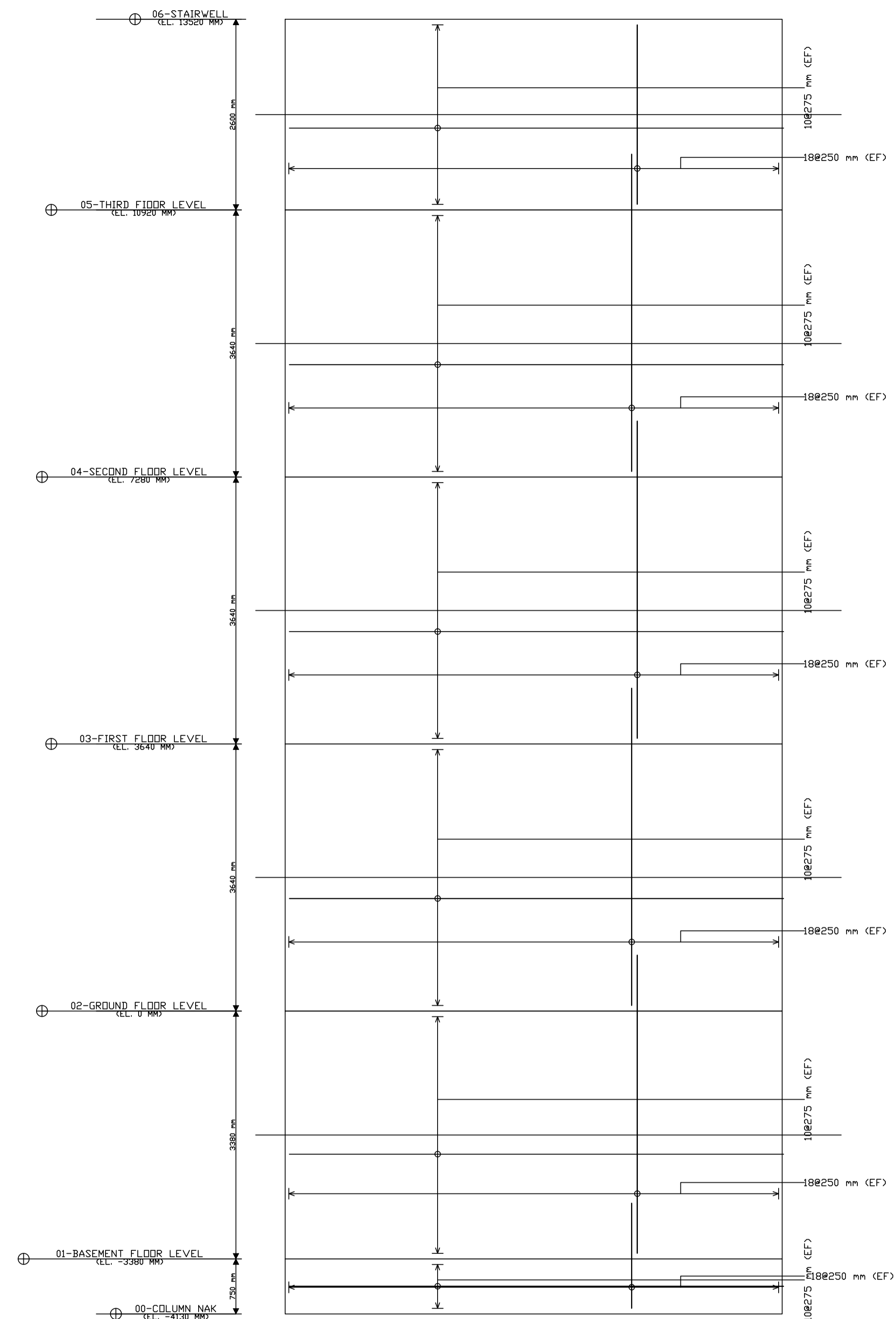
Shear Wall-S.W8

Supervisor:
Dr.Belal Al-Massri

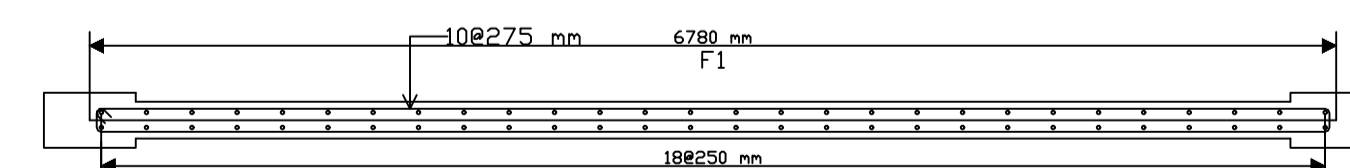
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S307	2024



W8 Elevation
(Scale 1:50)



W8 Section: A
(Scale 1:50)



Palestine Polytechnic University

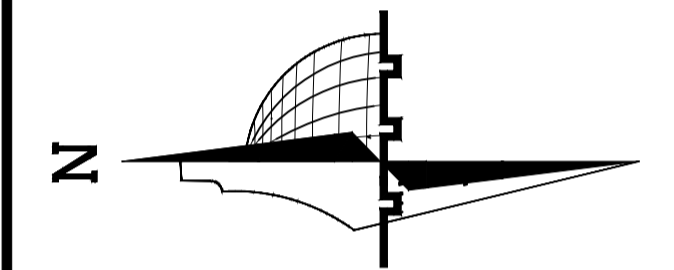
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

DRAWING TITLE :

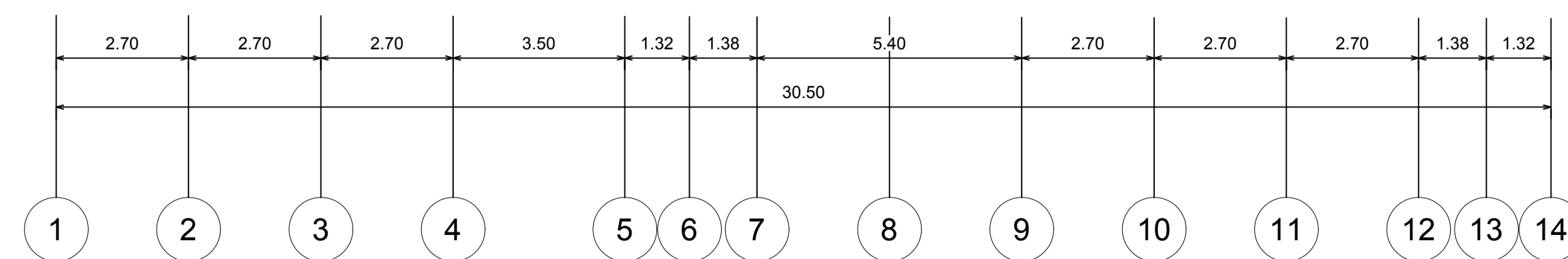
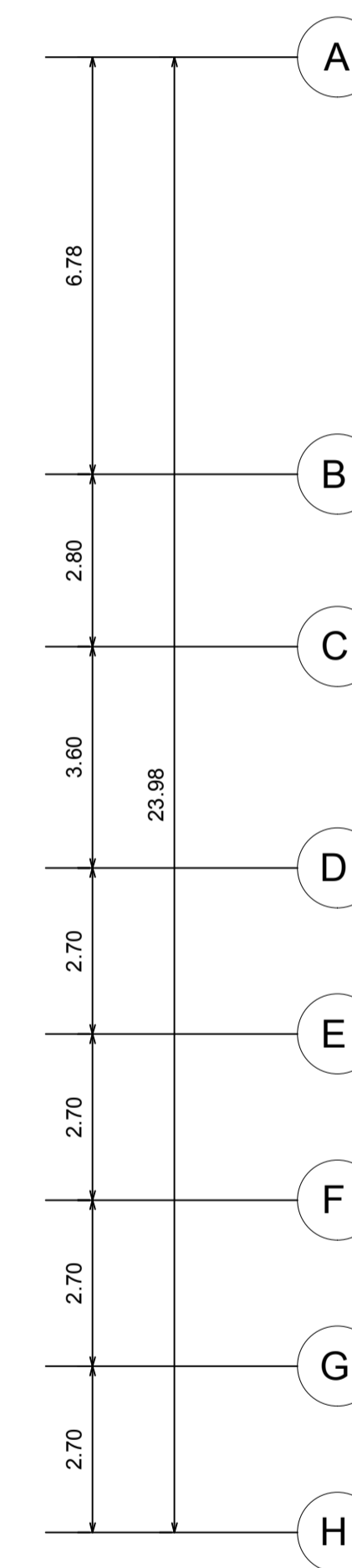
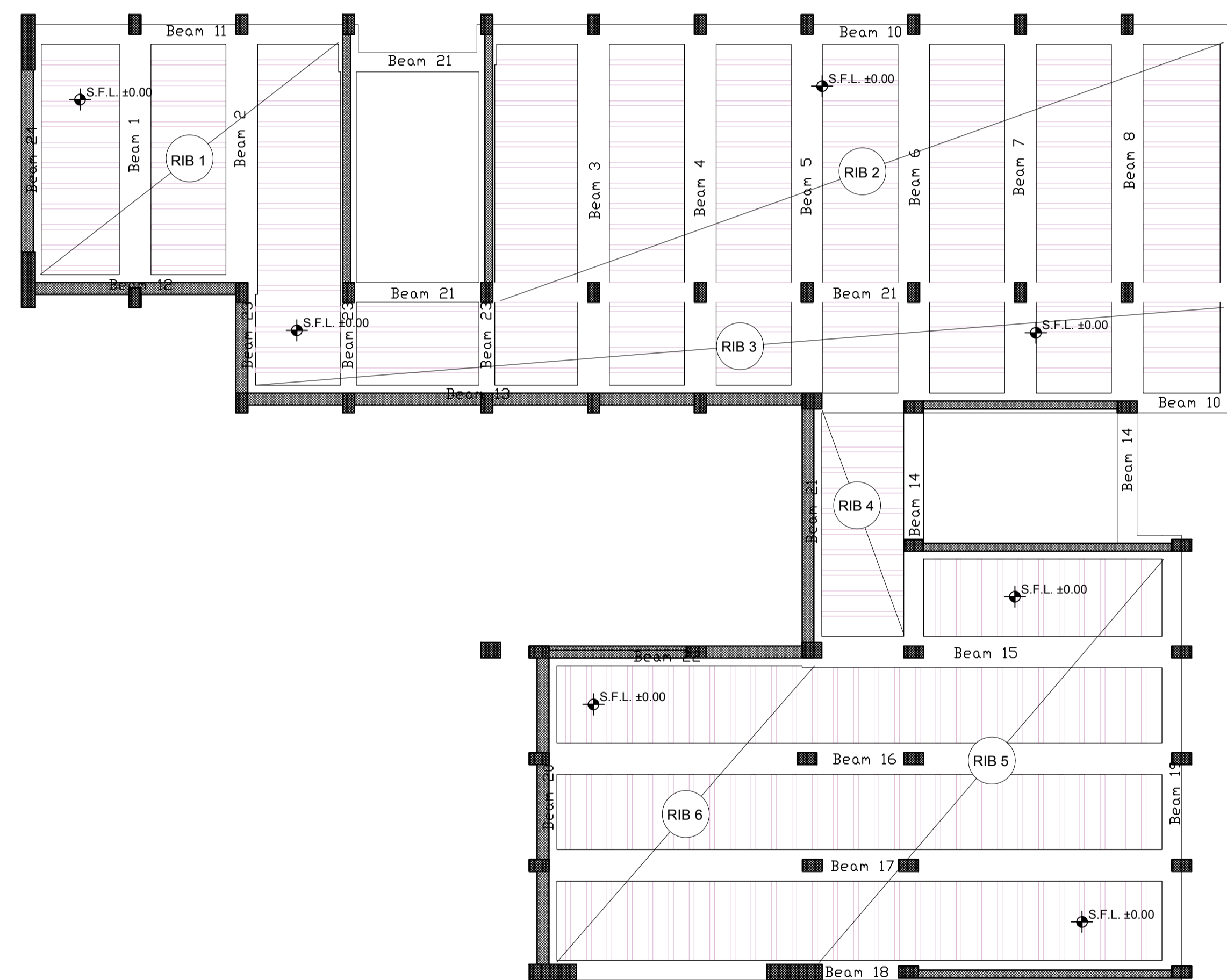
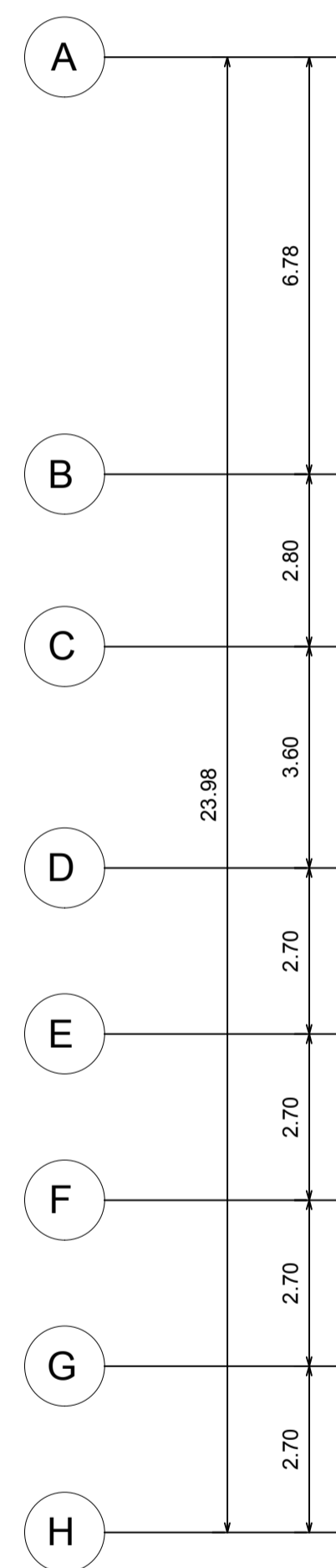
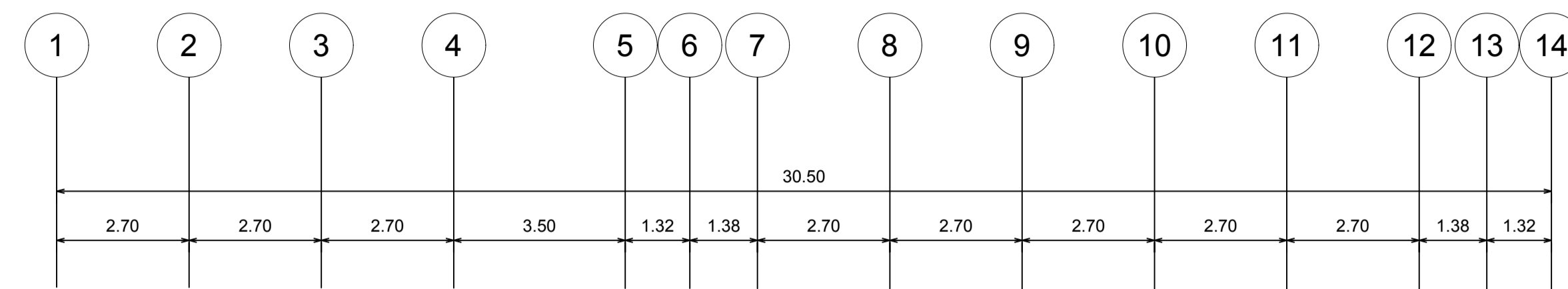
Basement Floor Slab

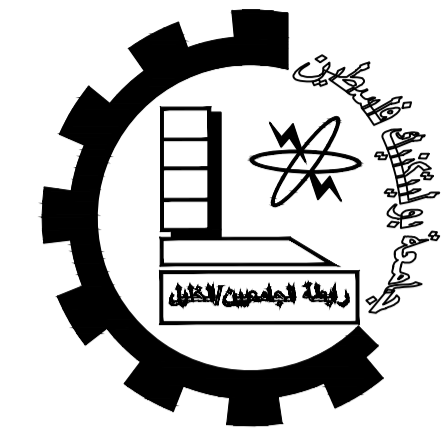
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S400	2024





Palestine Polytechnic University

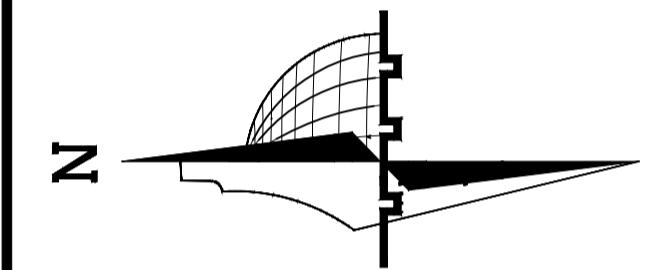
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

DRAWING TITLE :

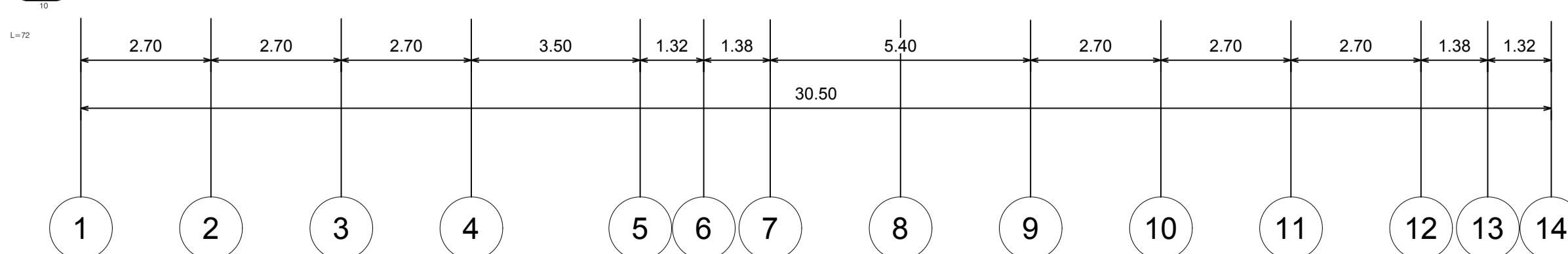
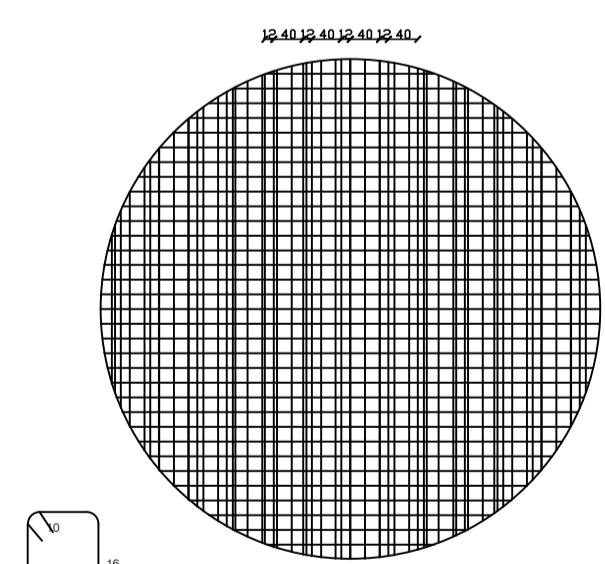
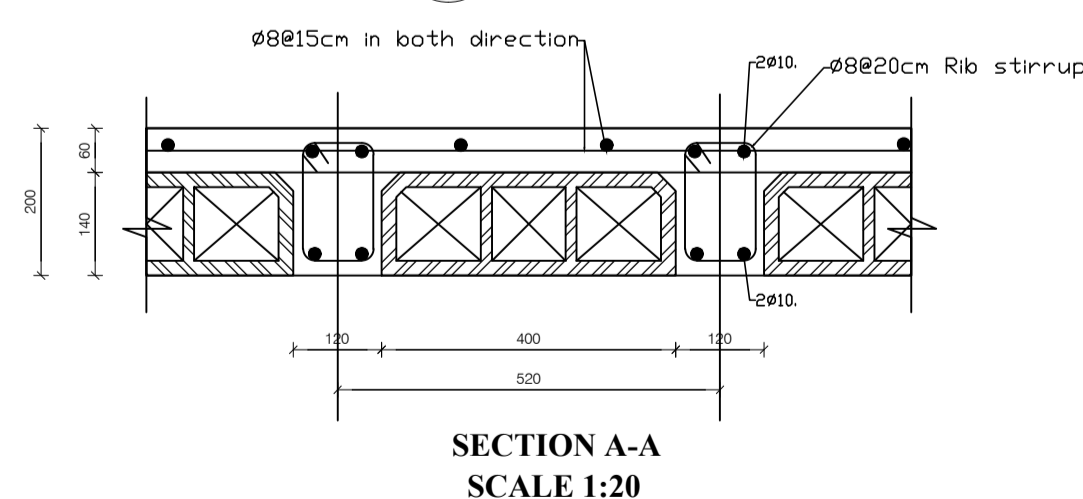
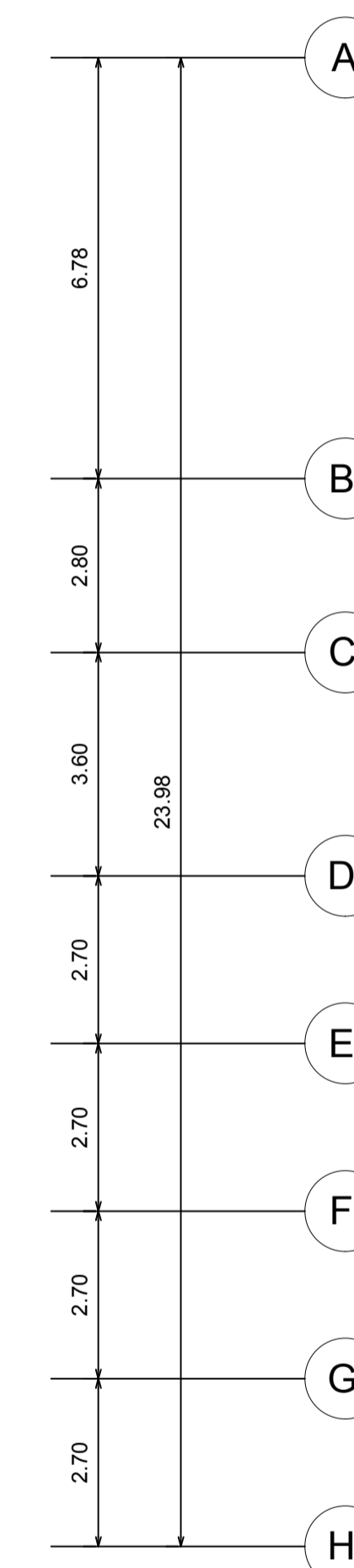
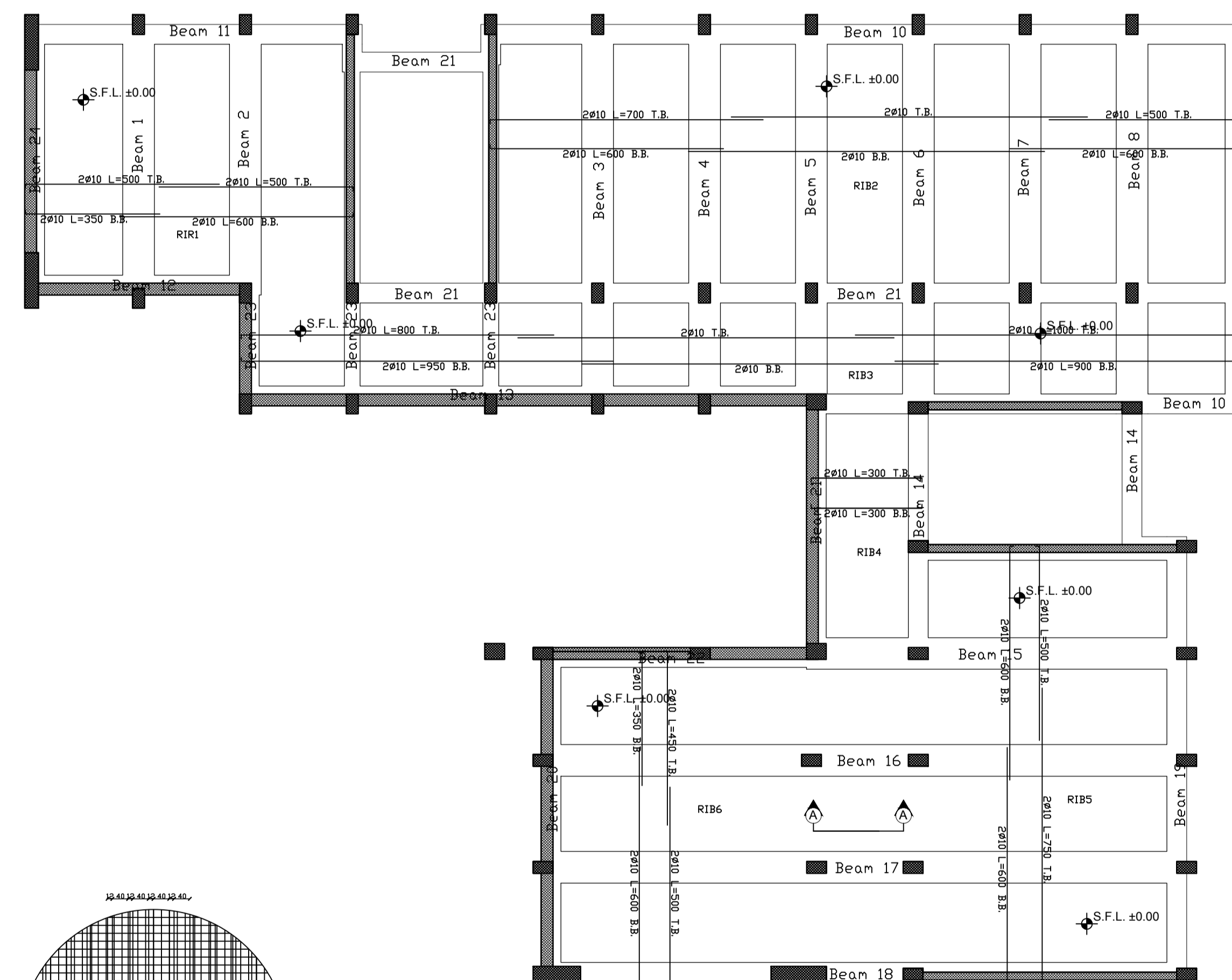
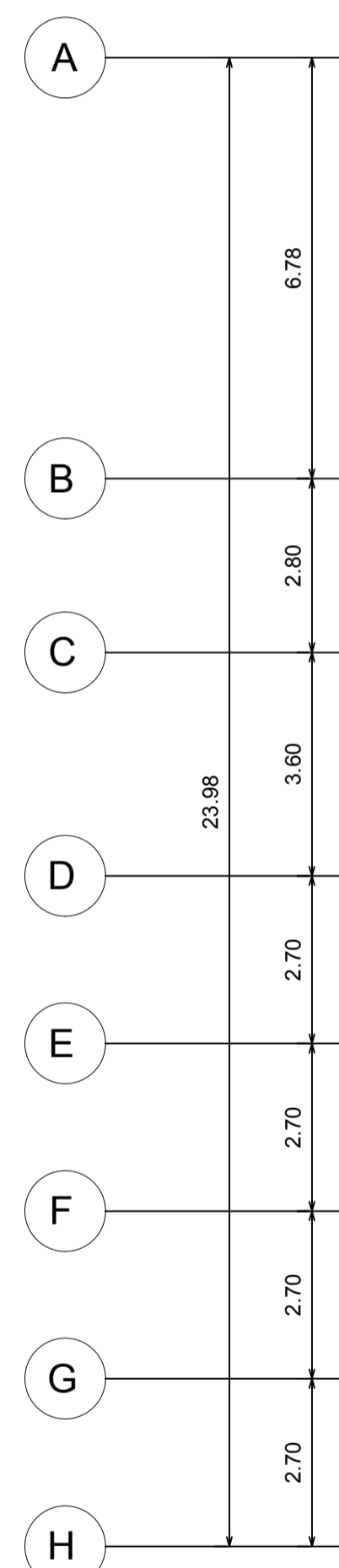
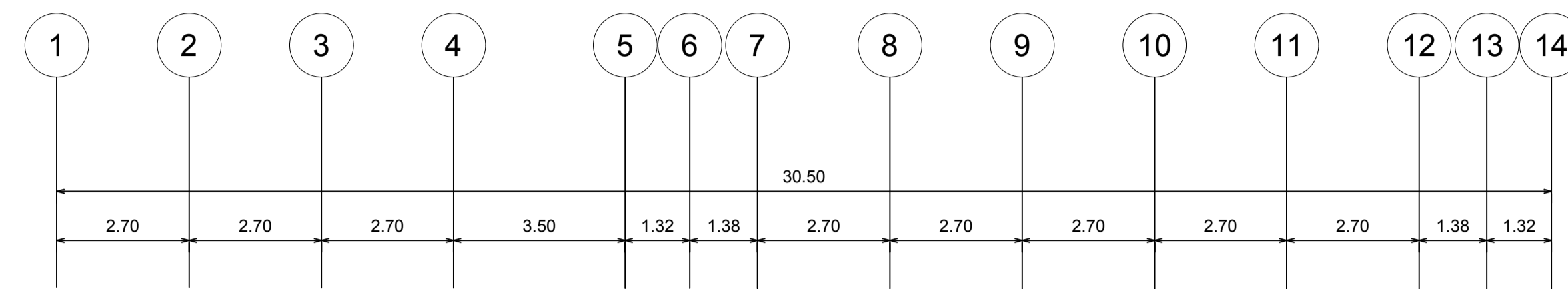
Detailing
Basement Floor Slab

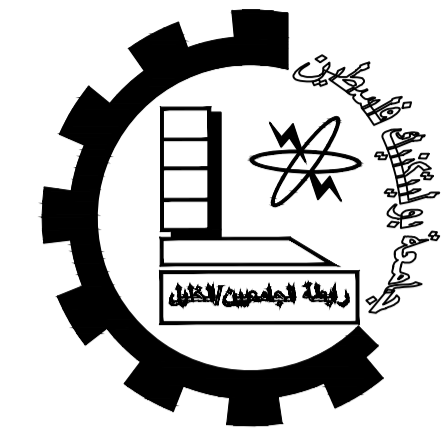
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S401	2024





Palestine Polytechnic University

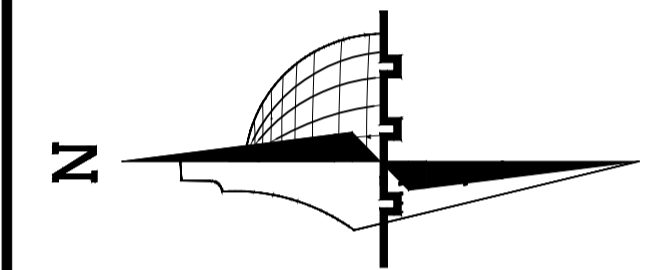
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

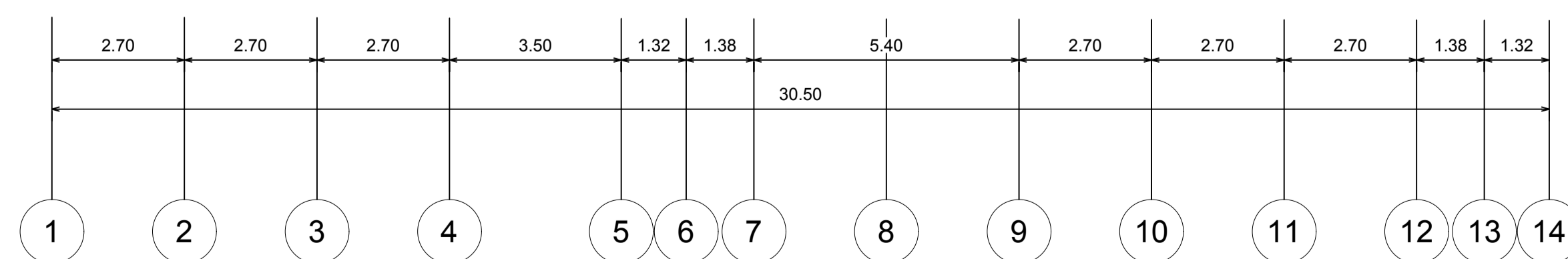
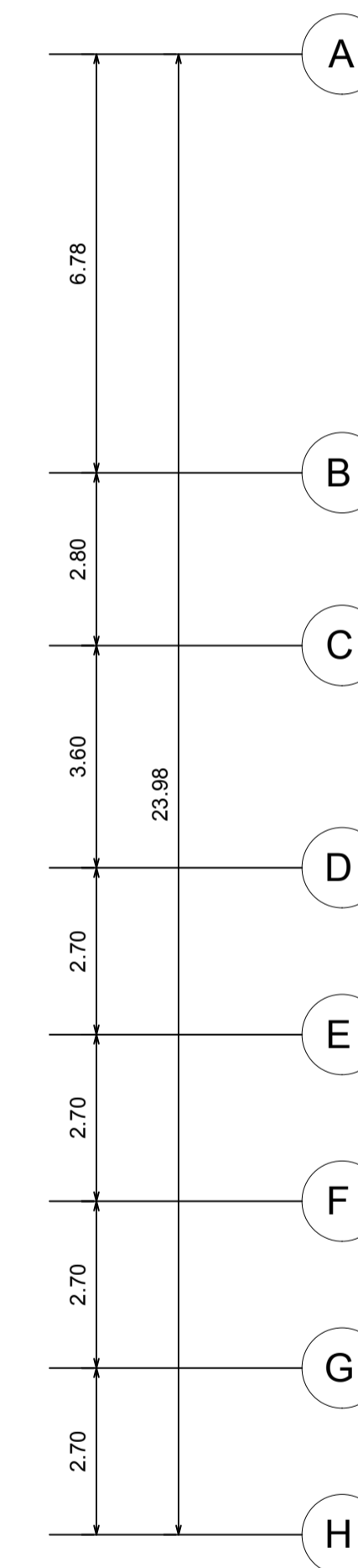
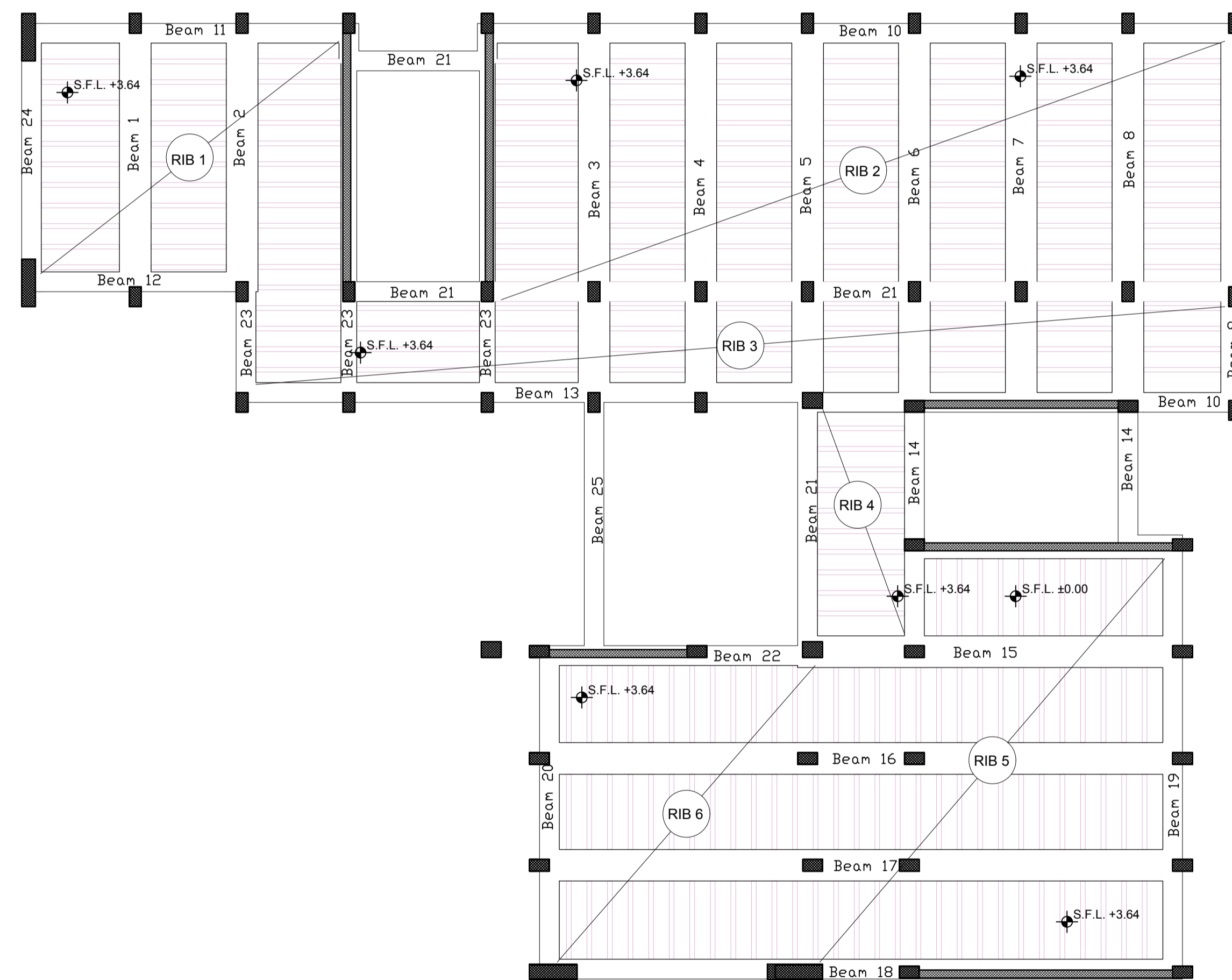
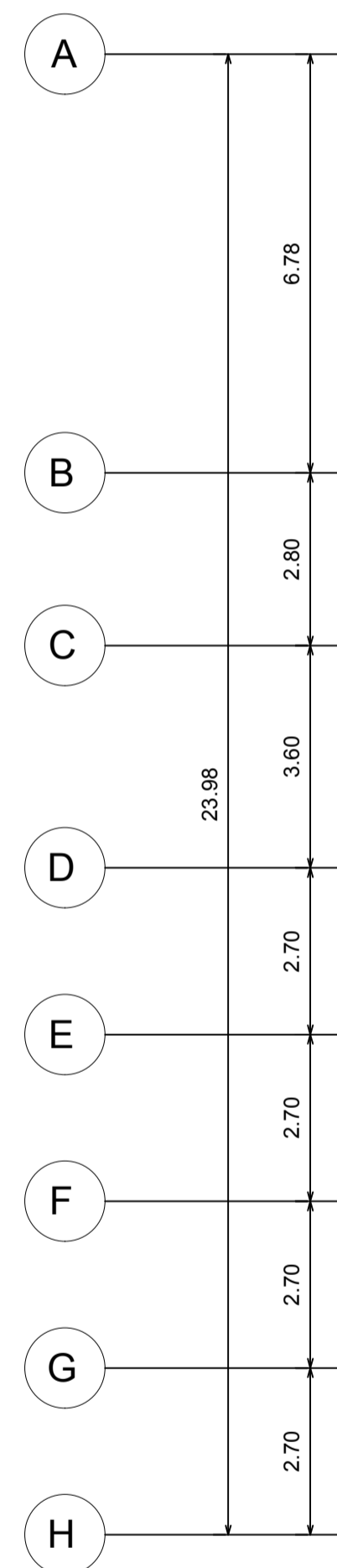
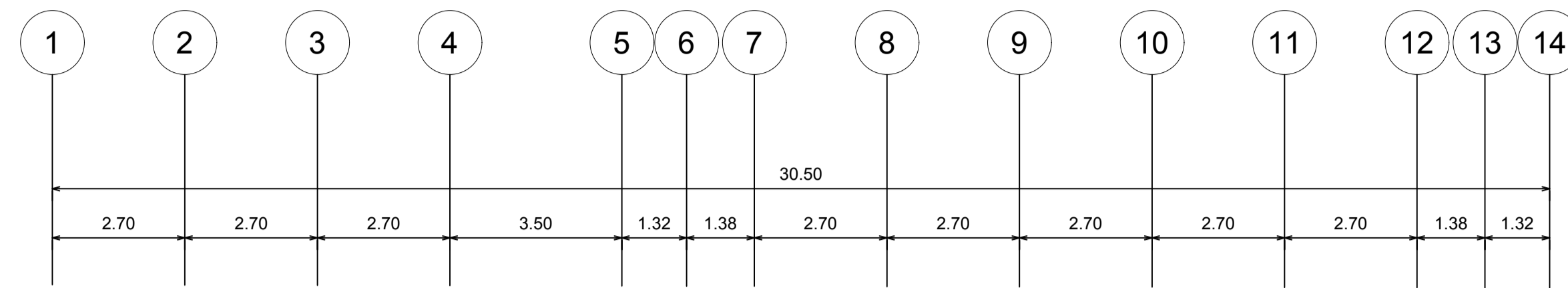
Ground Floor Slab

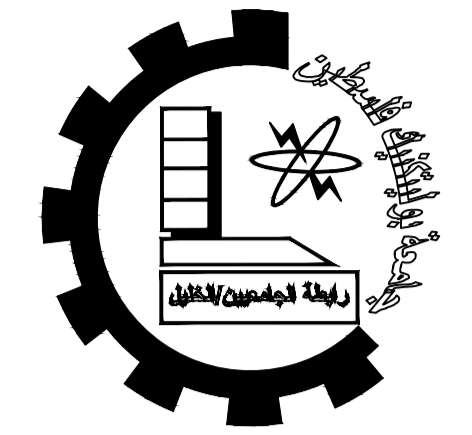
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S403	2024





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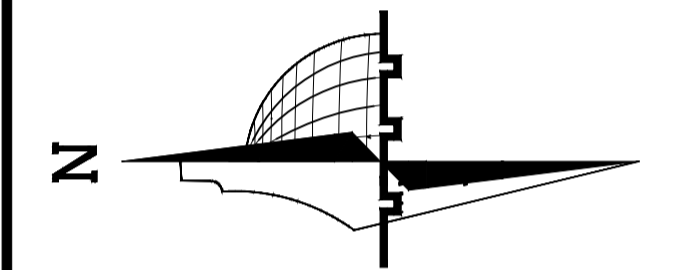
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- | | | | |
|--|----------------------|--|-----------------|
| | Stone | | Gravel |
| | R.Concrete | | Wood |
| | Concrete | | HEXAGONAL TILES |
| | Hollow Block | | BAKLAVA TILES |
| | insulating materials | | GRASS |

DRAWING TITLE :

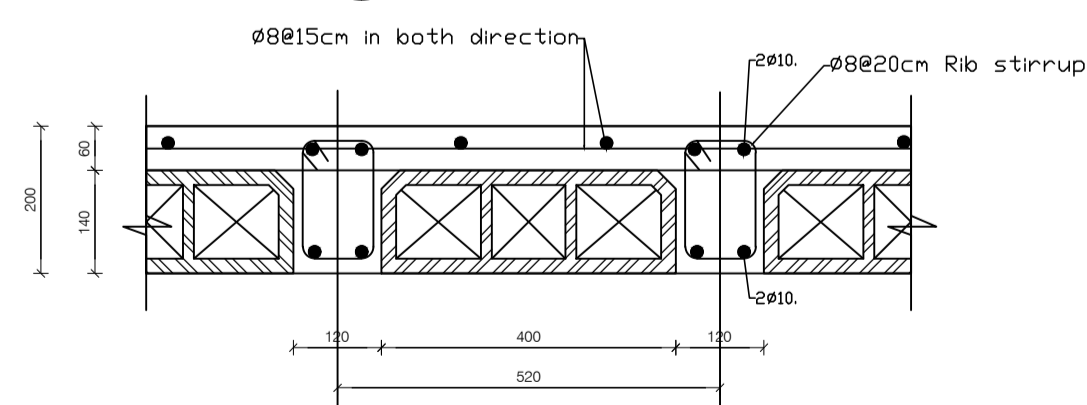
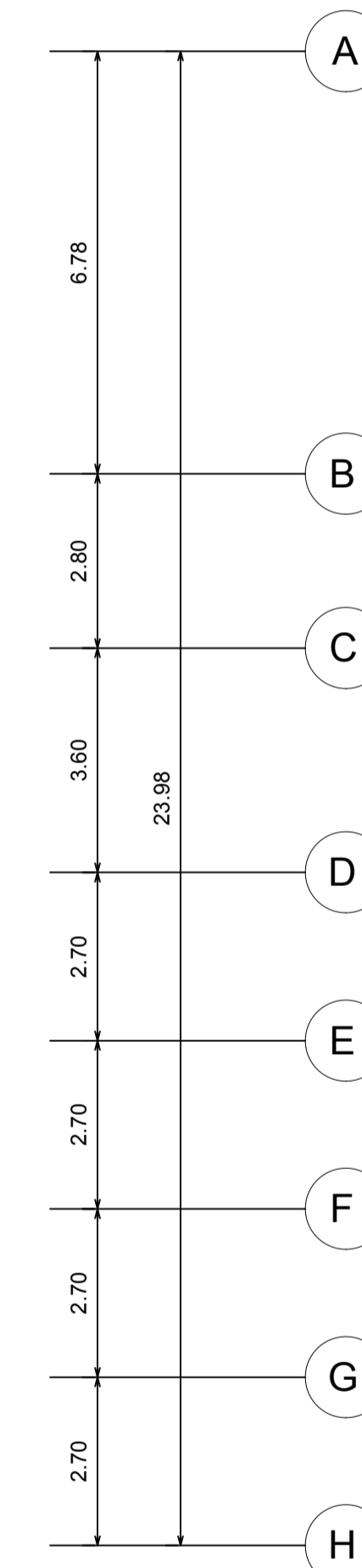
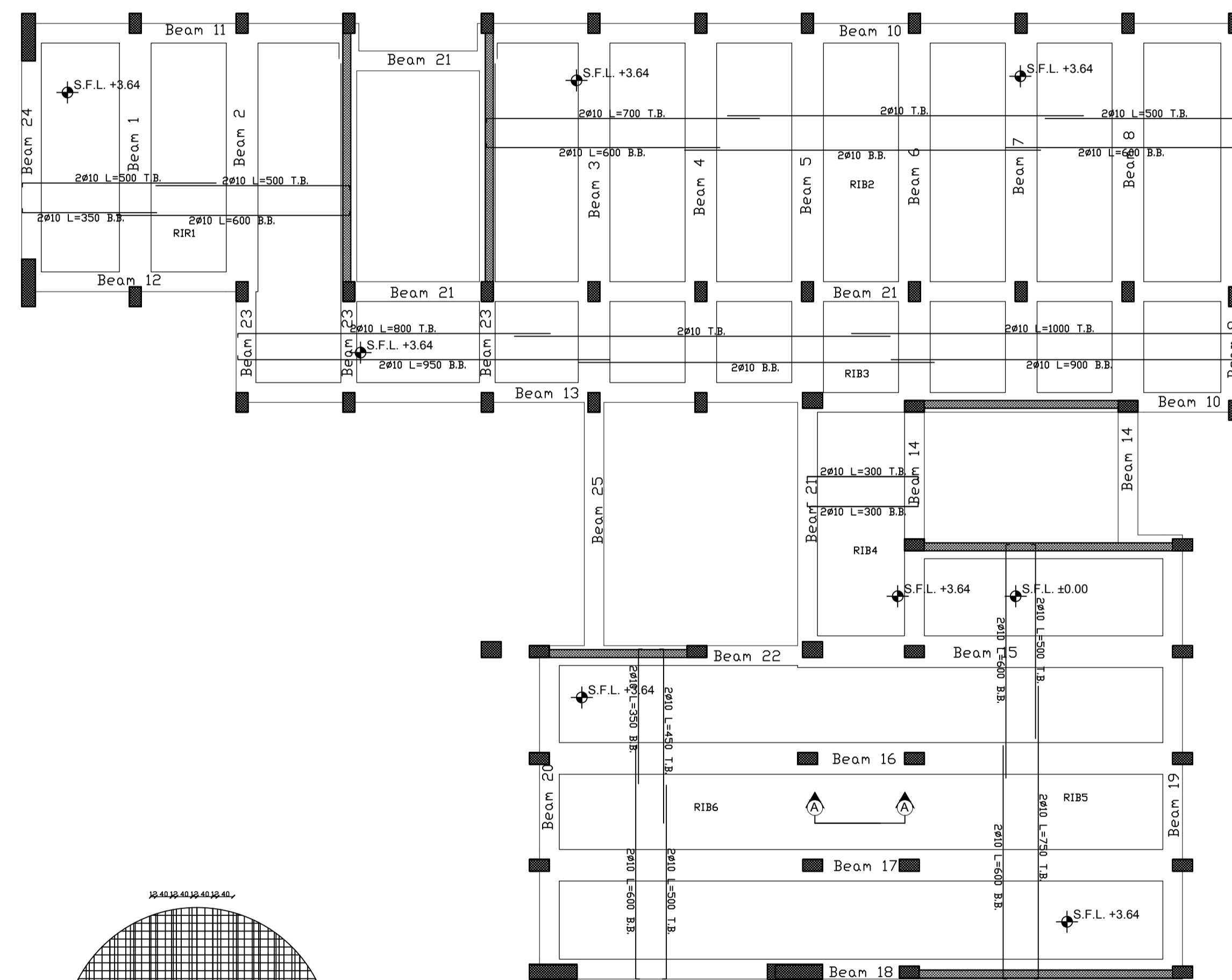
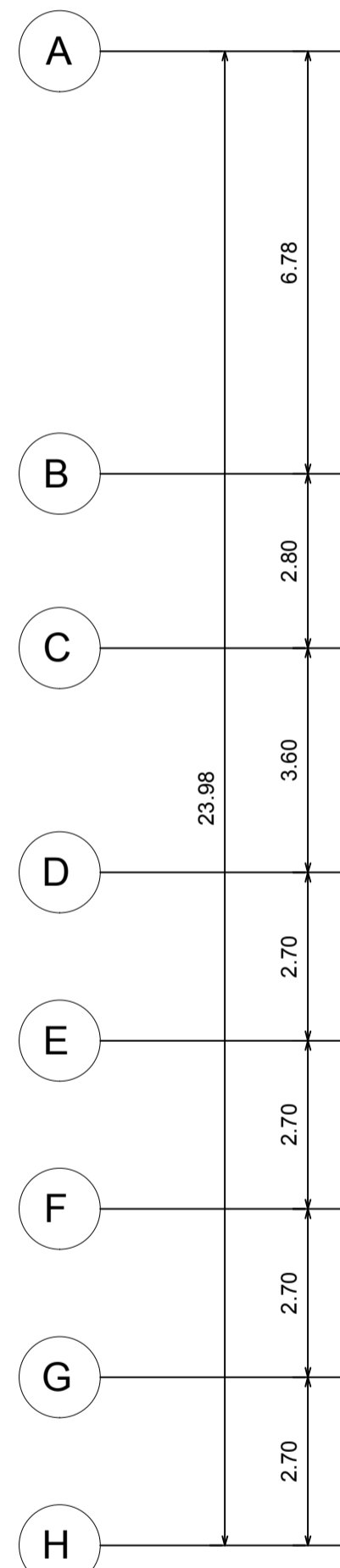
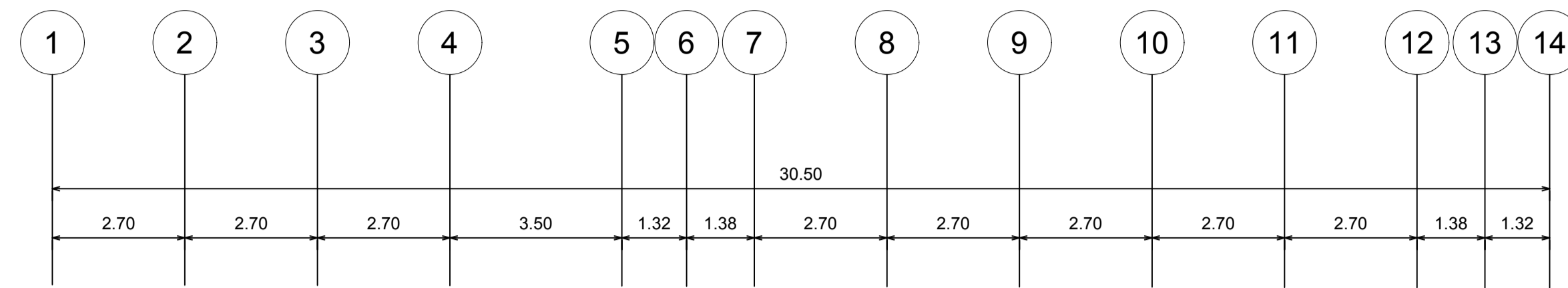
Detailing
Ground Floor Slab

Supervisor:
Dr.Belal Al-Massri

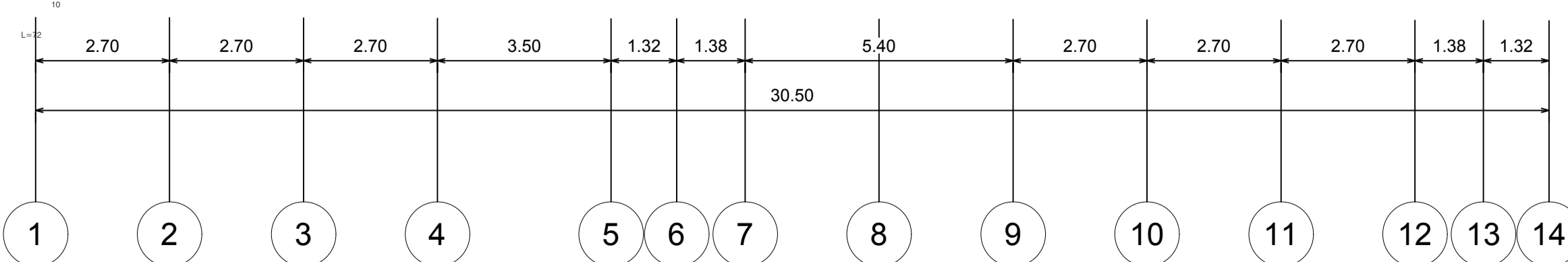
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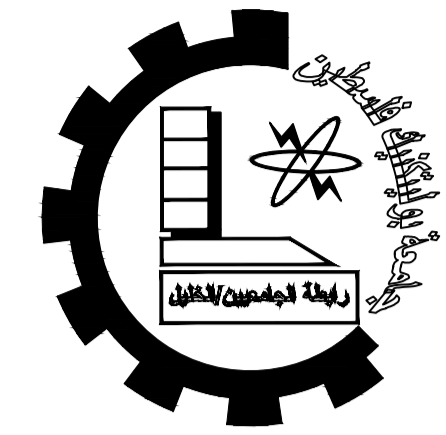
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S404	2024



SECTION A-A
SCALE 1:20





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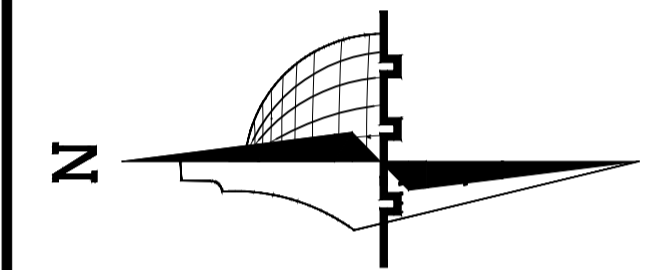
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	insulating materials		GRASS

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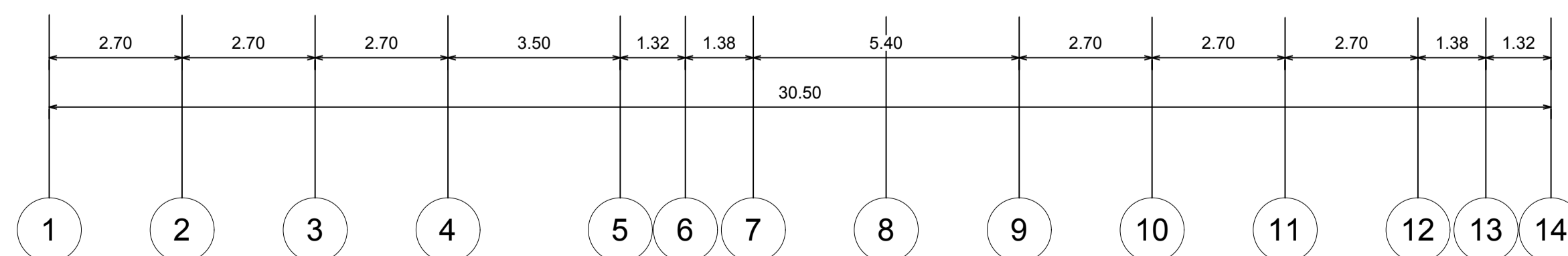
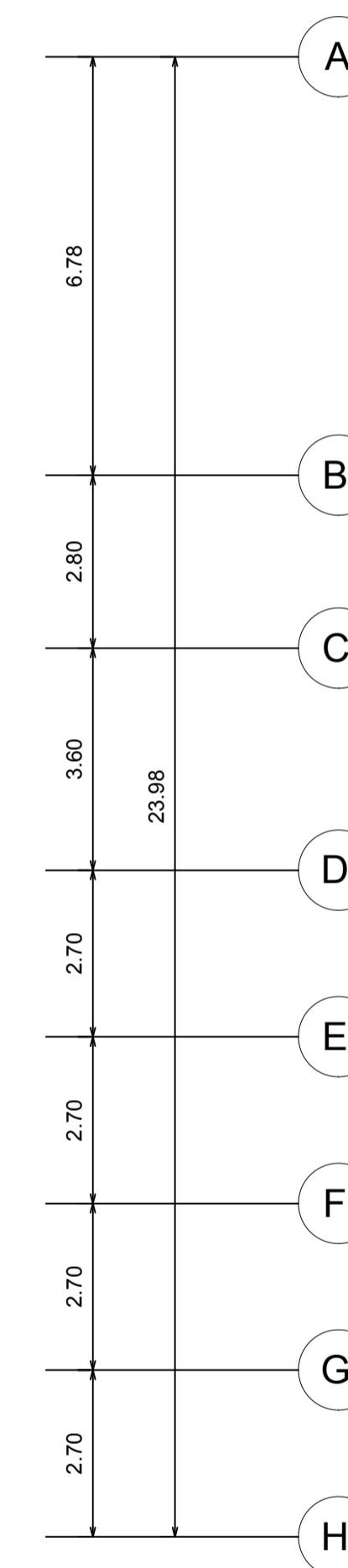
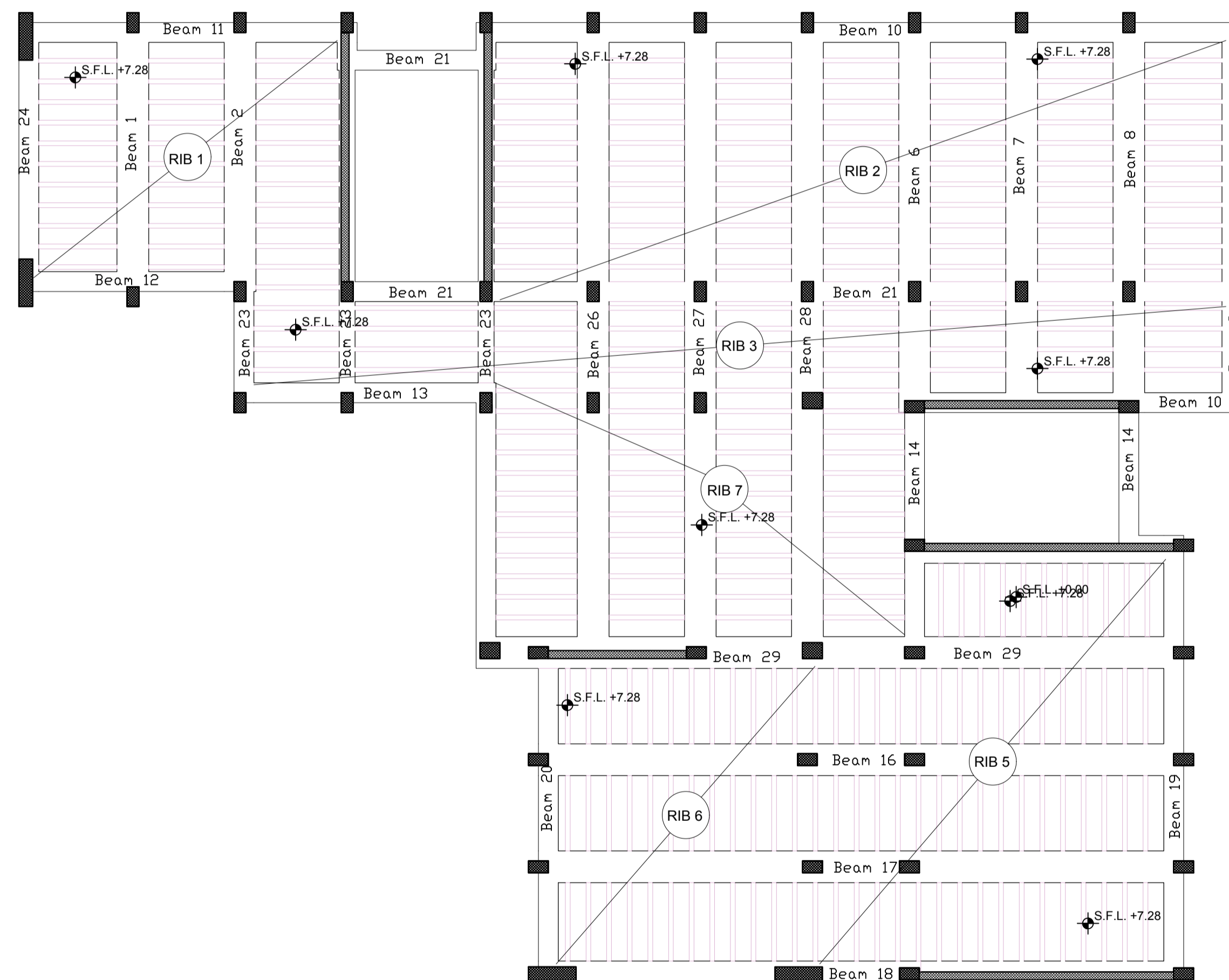
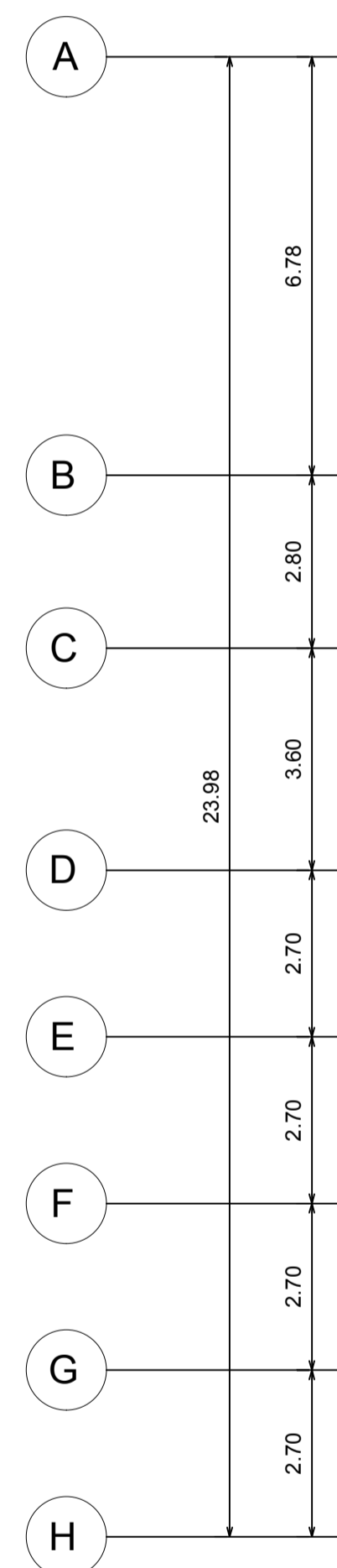
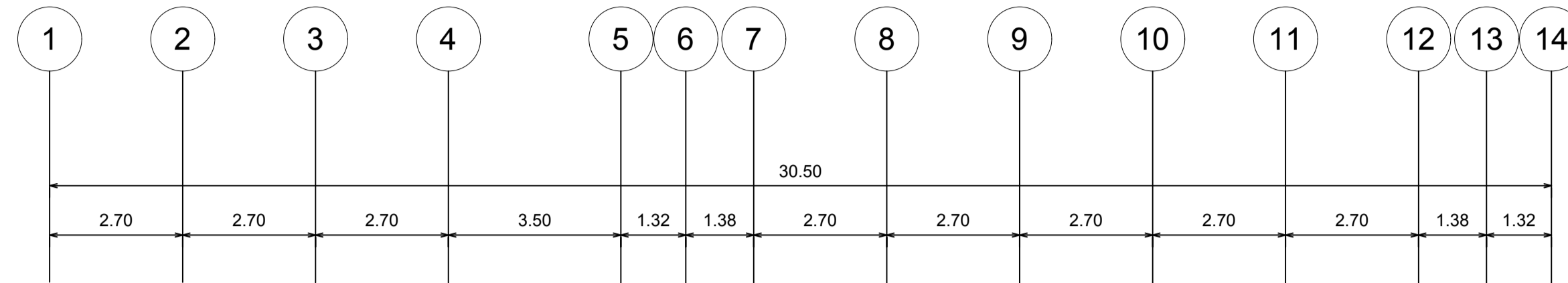
First Floor Slab

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S405	2024





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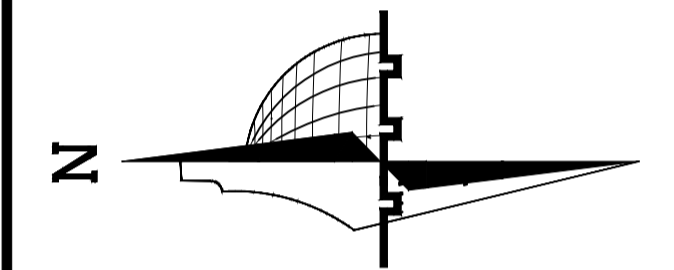
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materials
- GRASS

DRAWING TITLE :

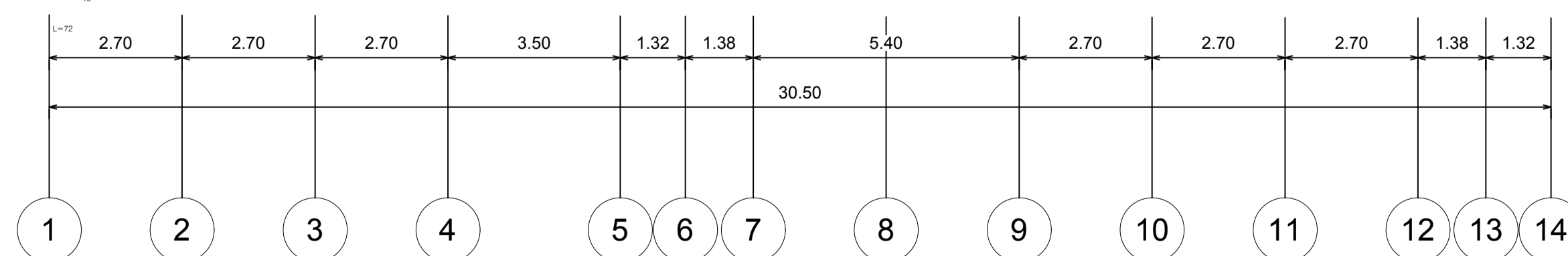
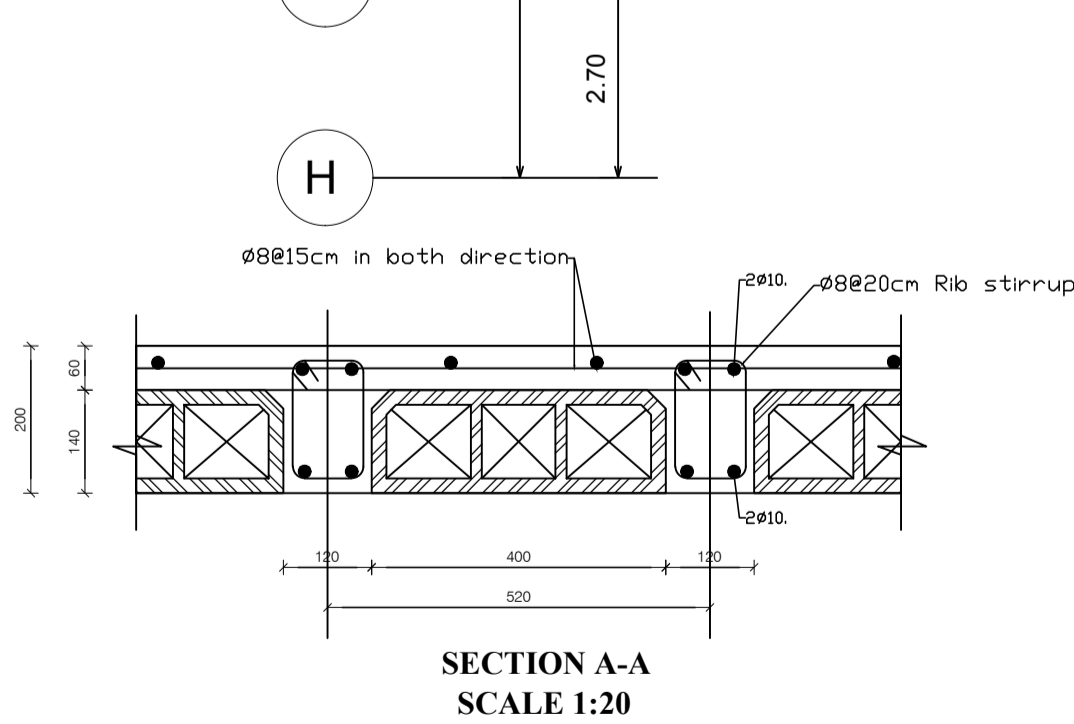
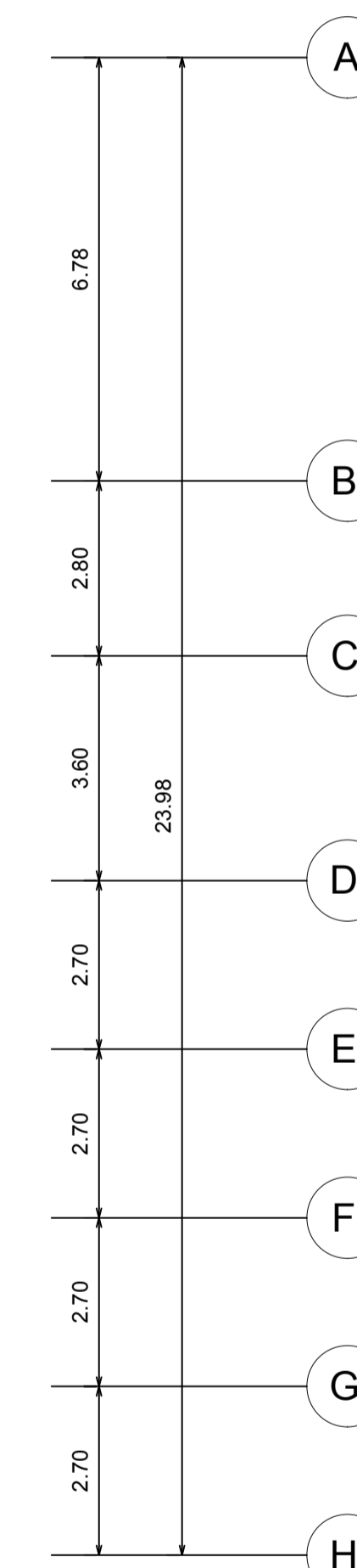
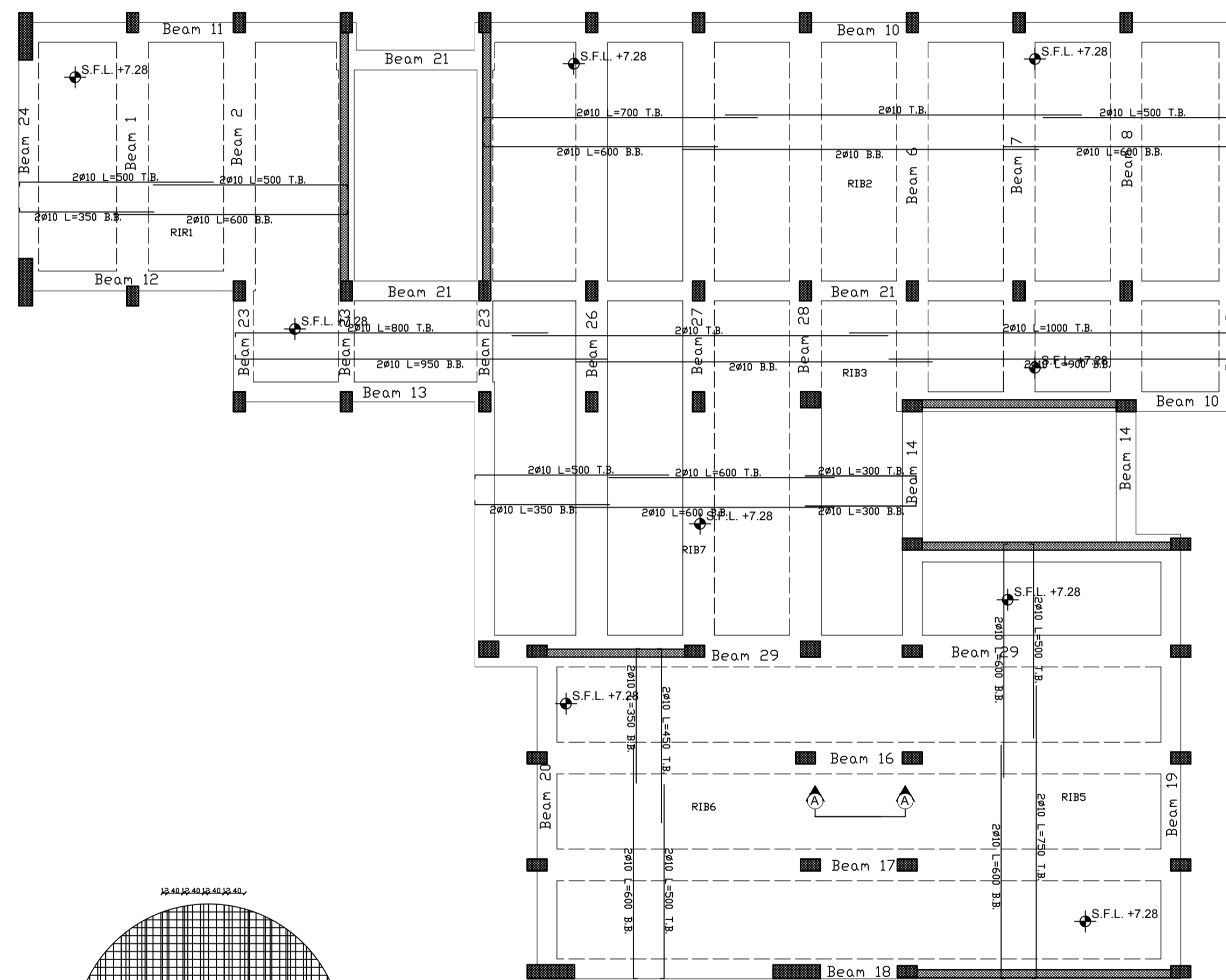
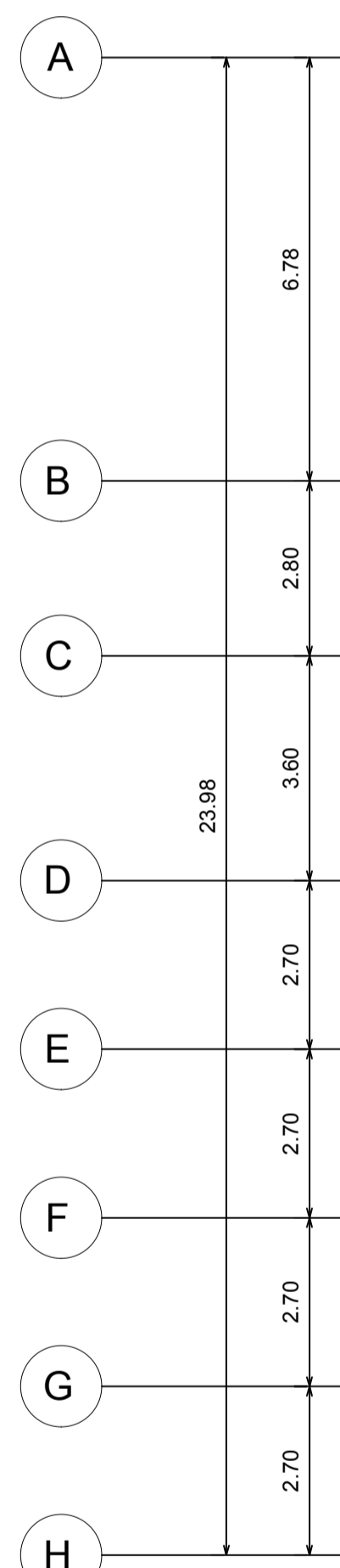
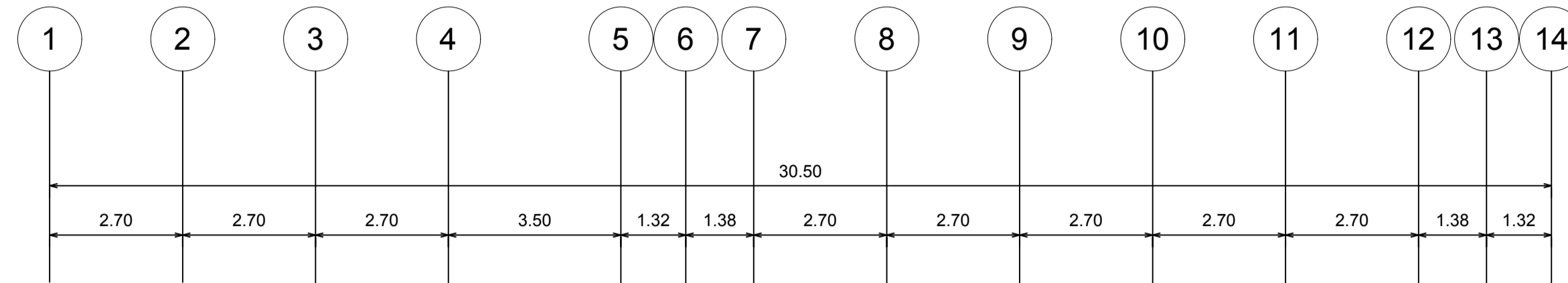
Detailing
First Floor Slab

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S406	2024





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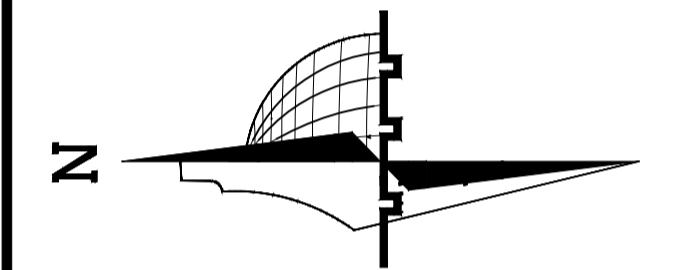
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

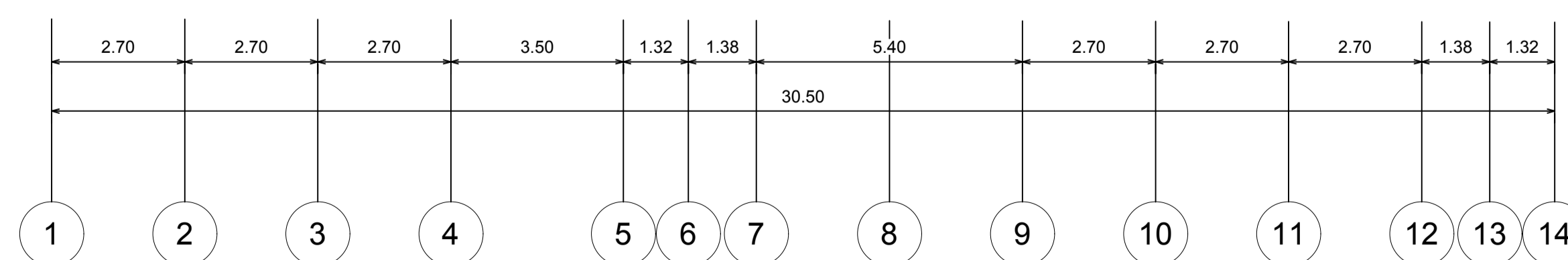
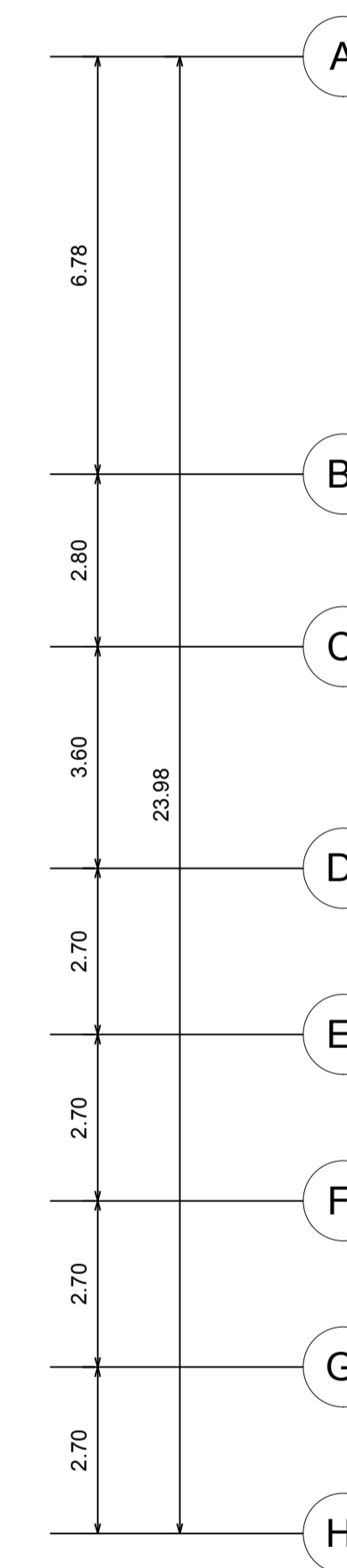
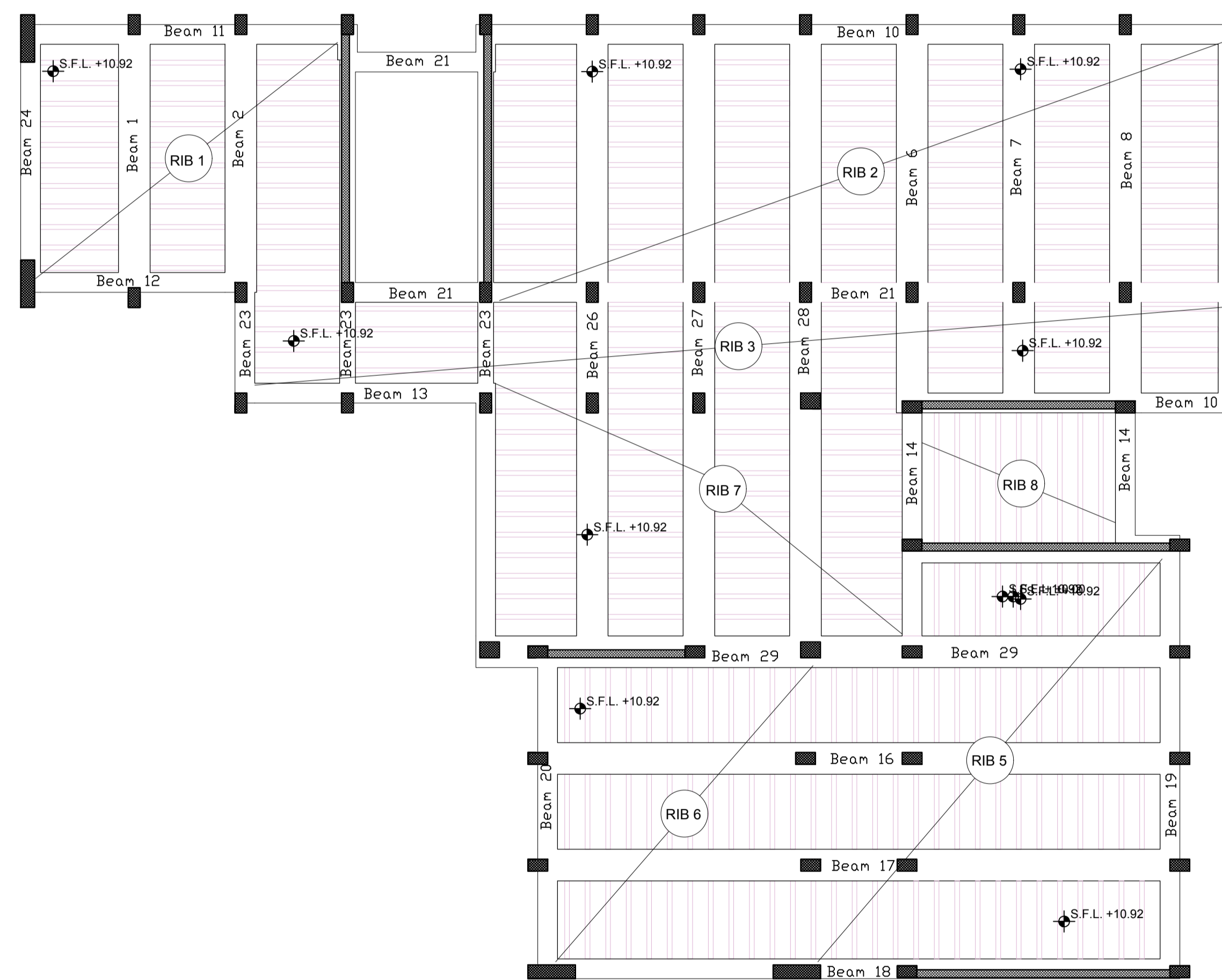
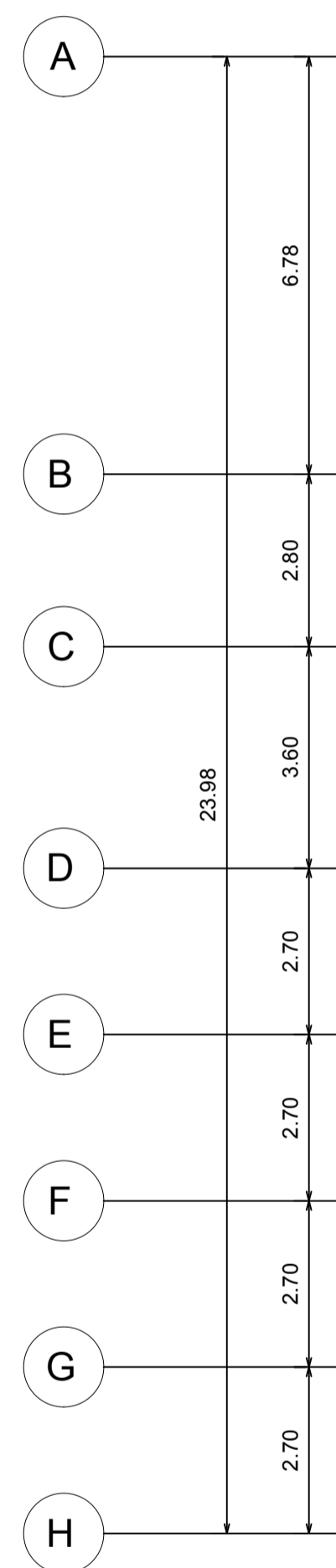
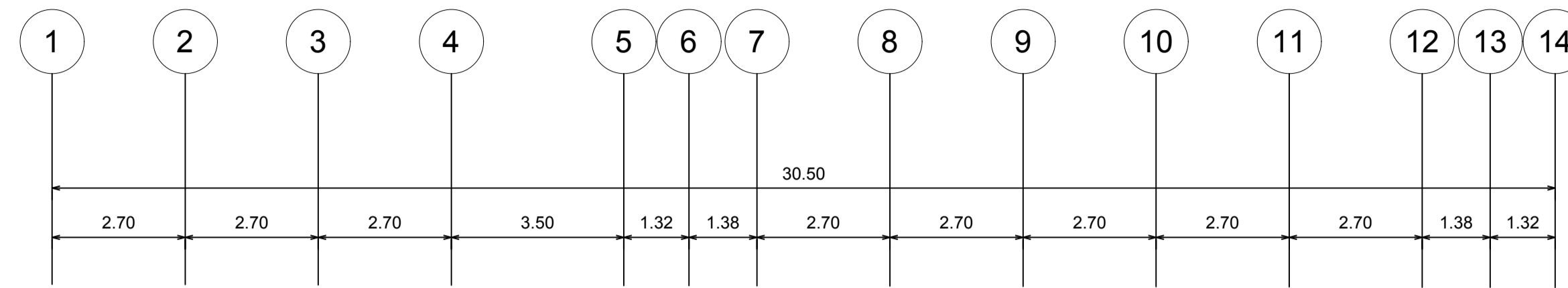
Second Floor Slab

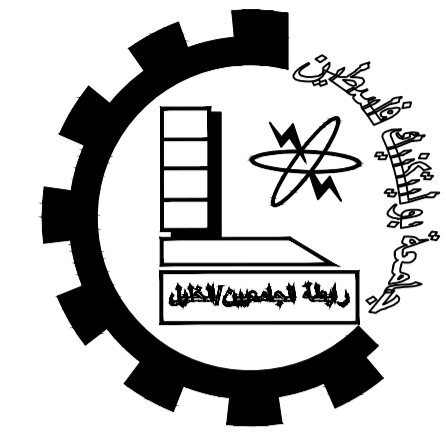
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S407	2024





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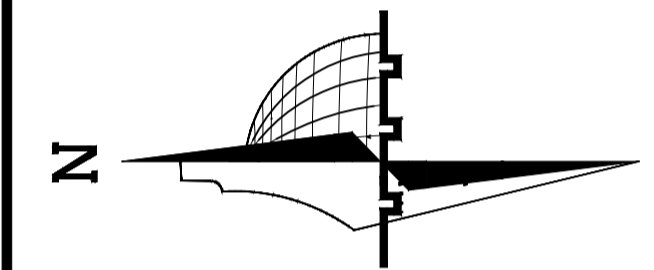
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

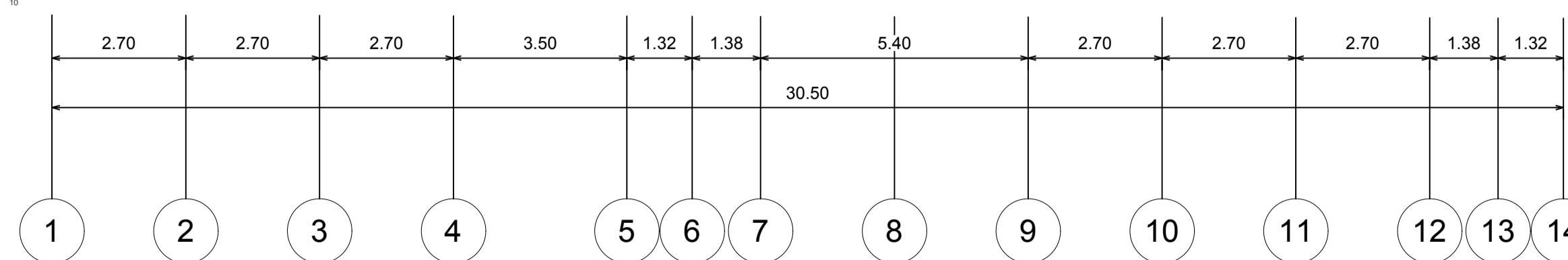
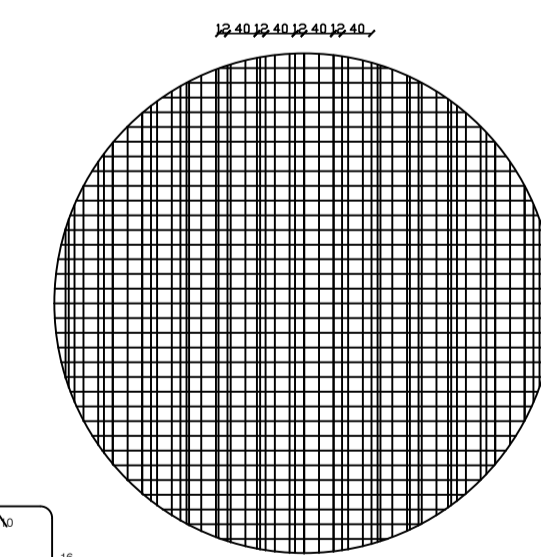
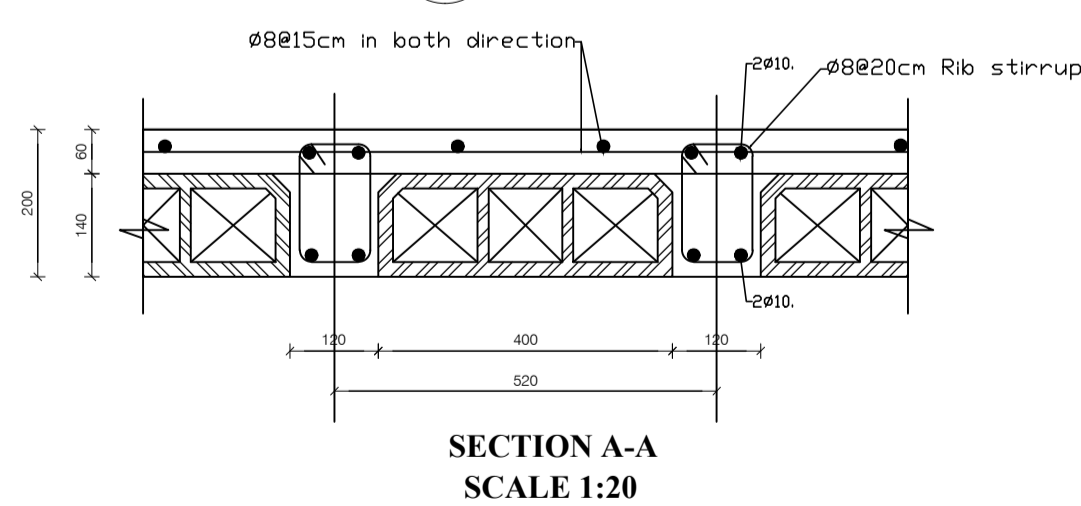
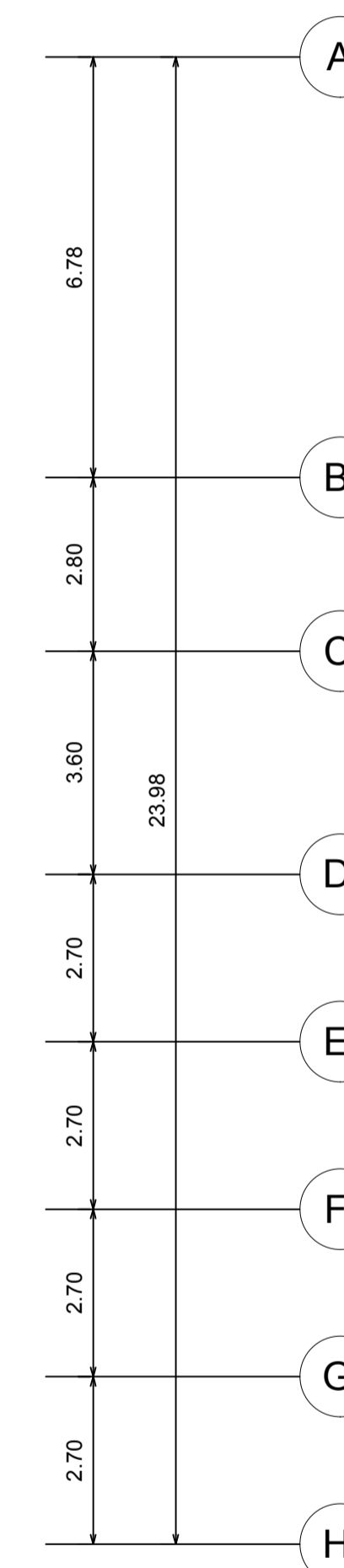
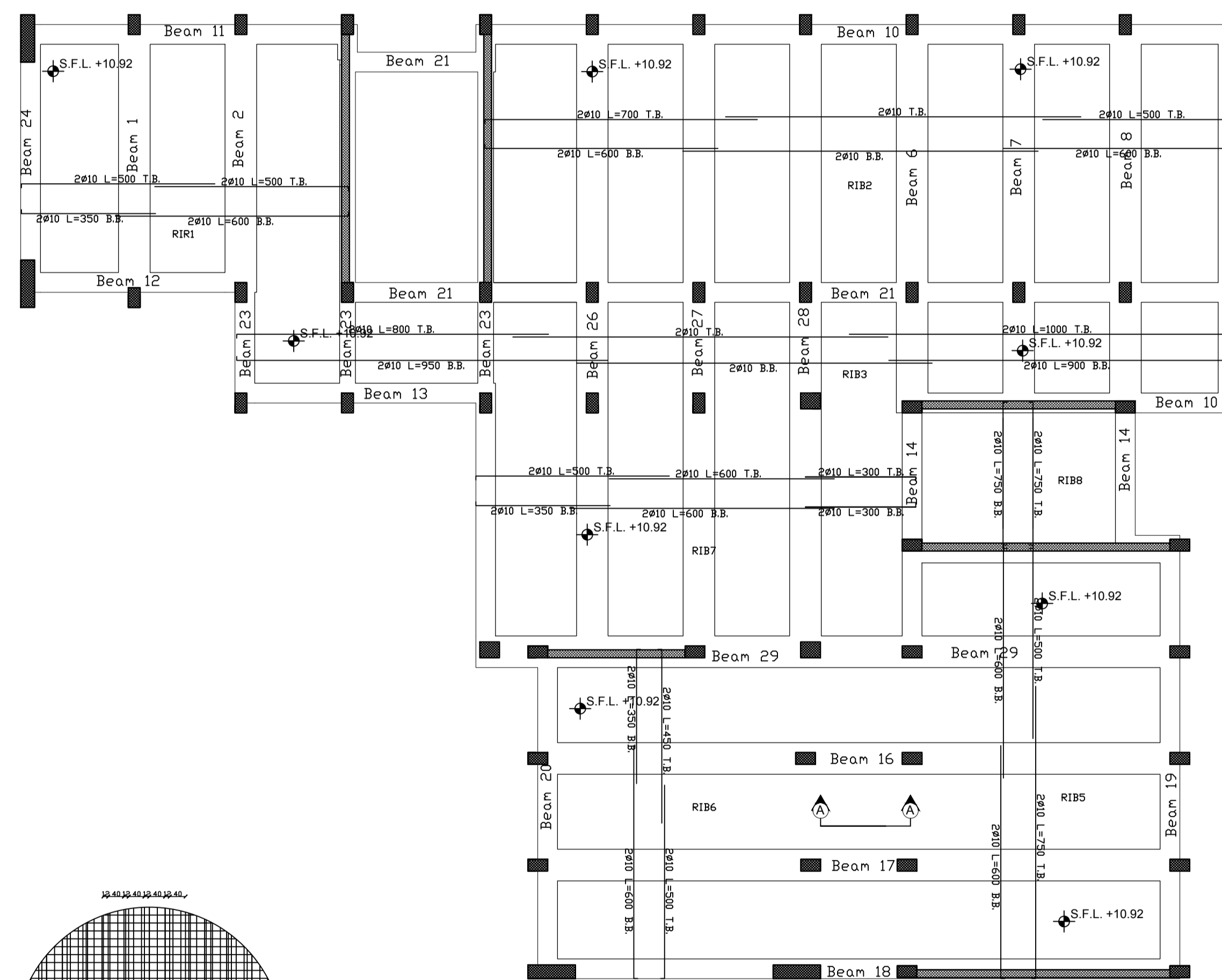
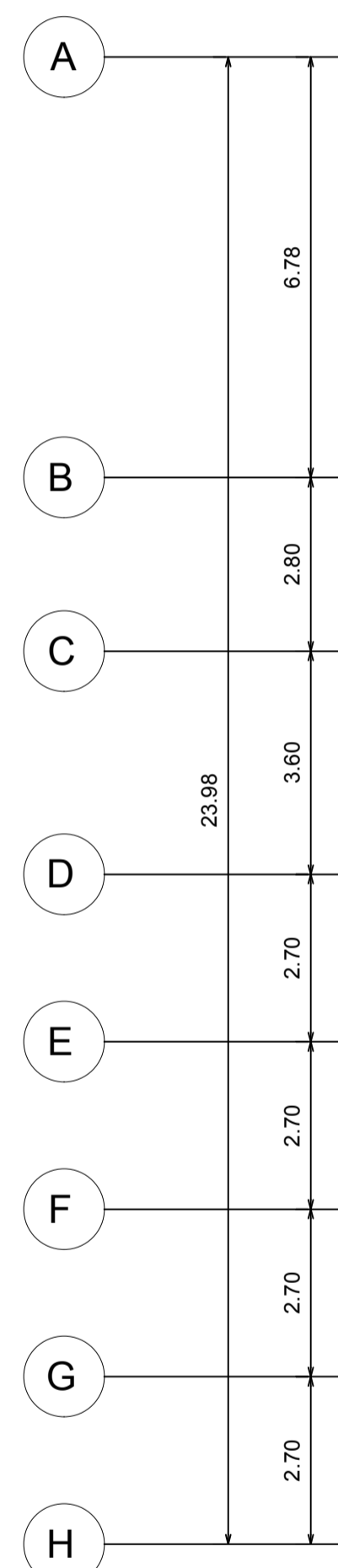
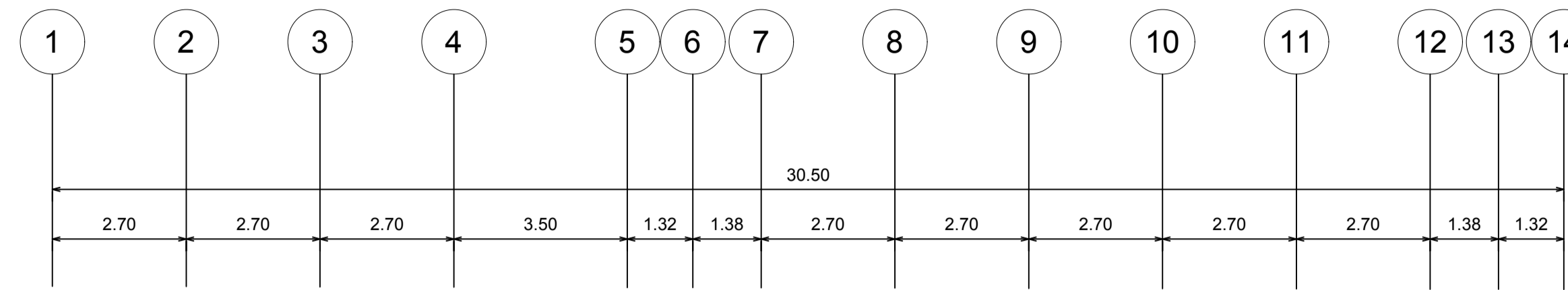
Detailing
Second Floor Slab

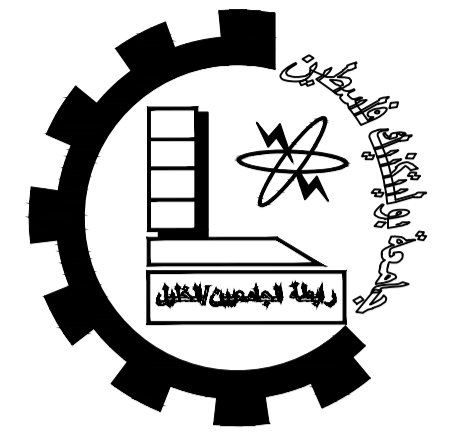
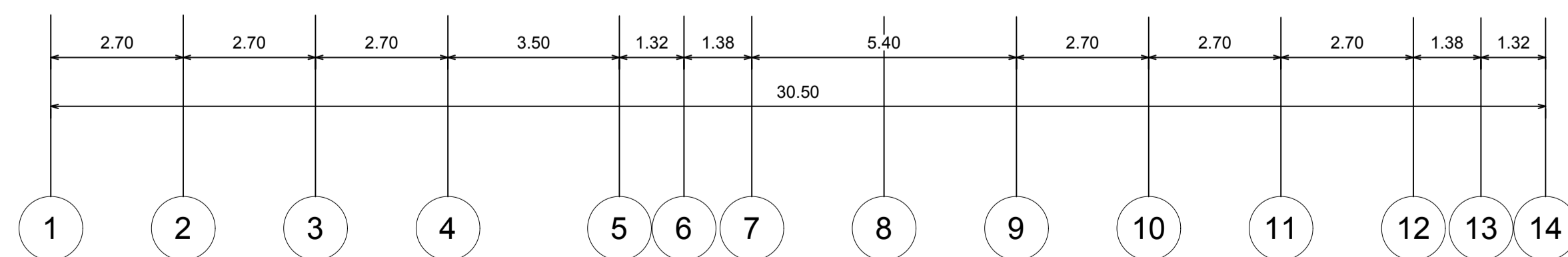
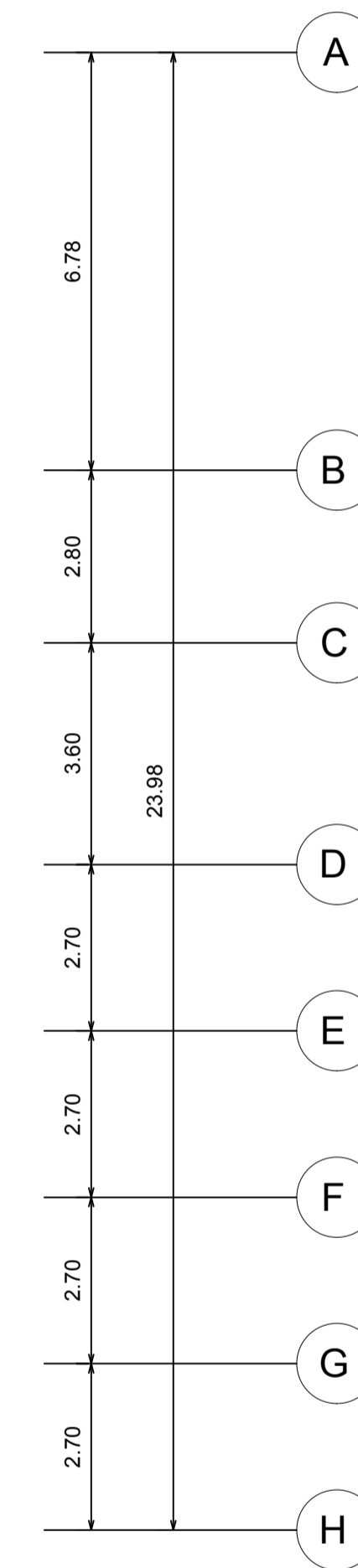
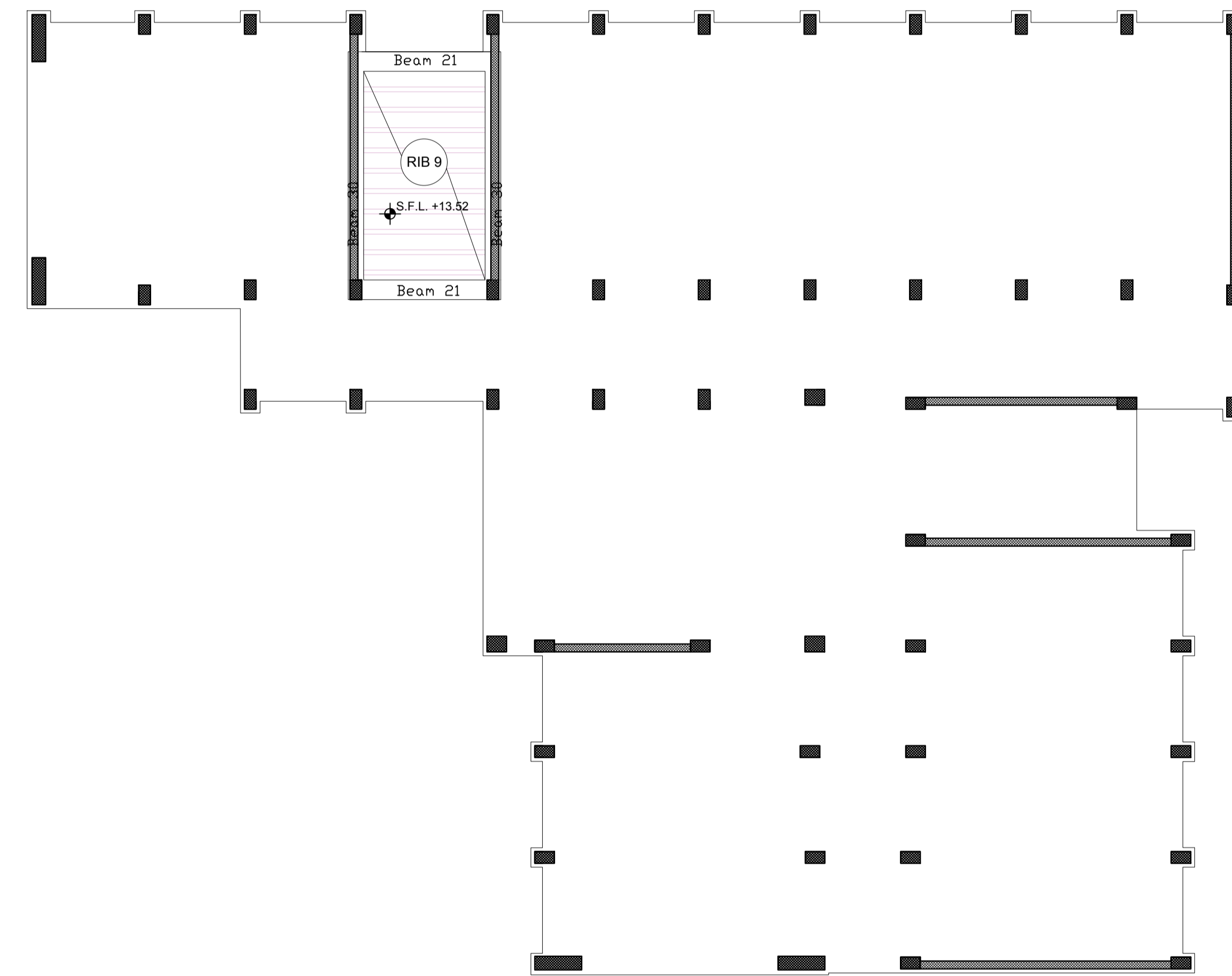
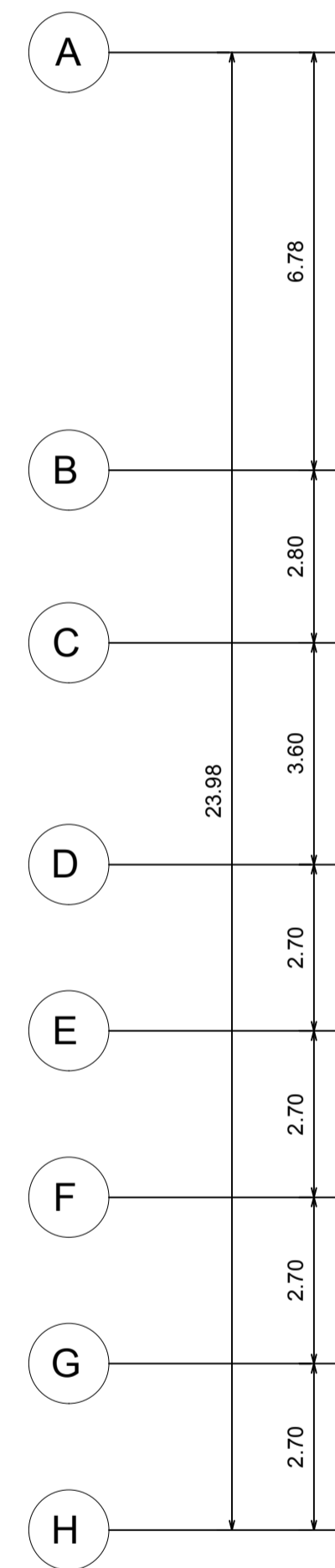
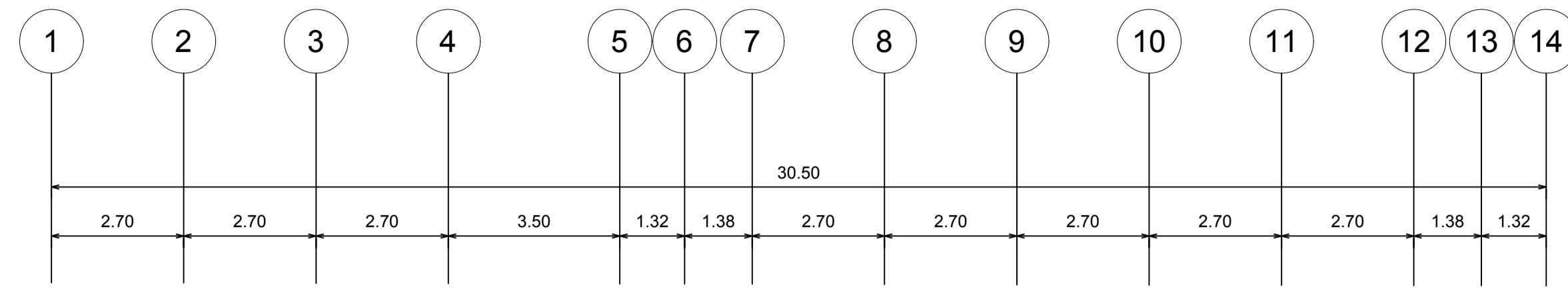
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1:100	S408	2024





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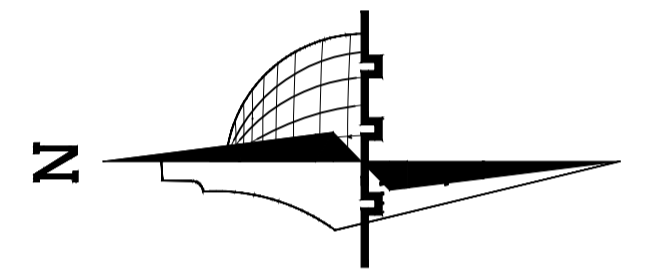
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

DRAWING TITLE :

Stair Slab

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
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Palestine Polytechnic University

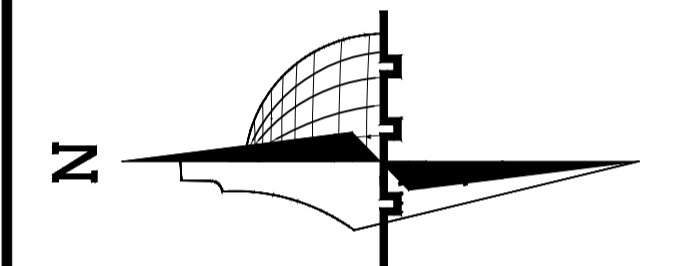
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- Isolating materials
- GRASS

DRAWING TITLE :

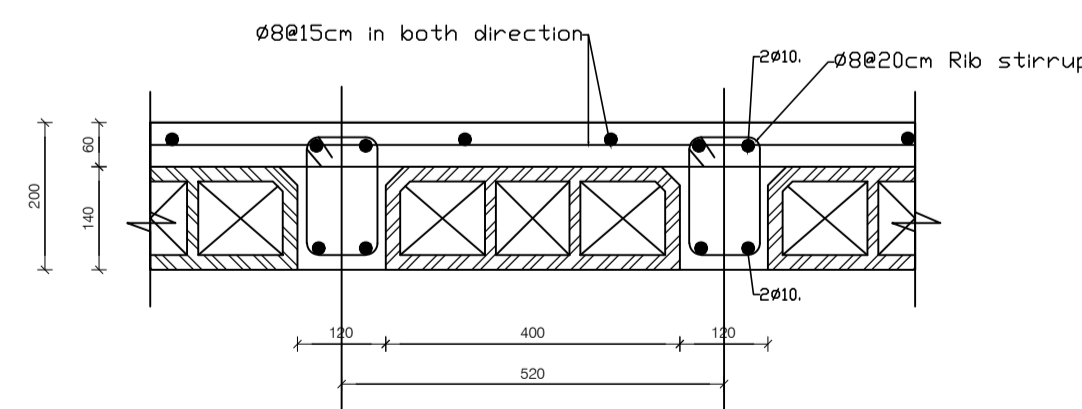
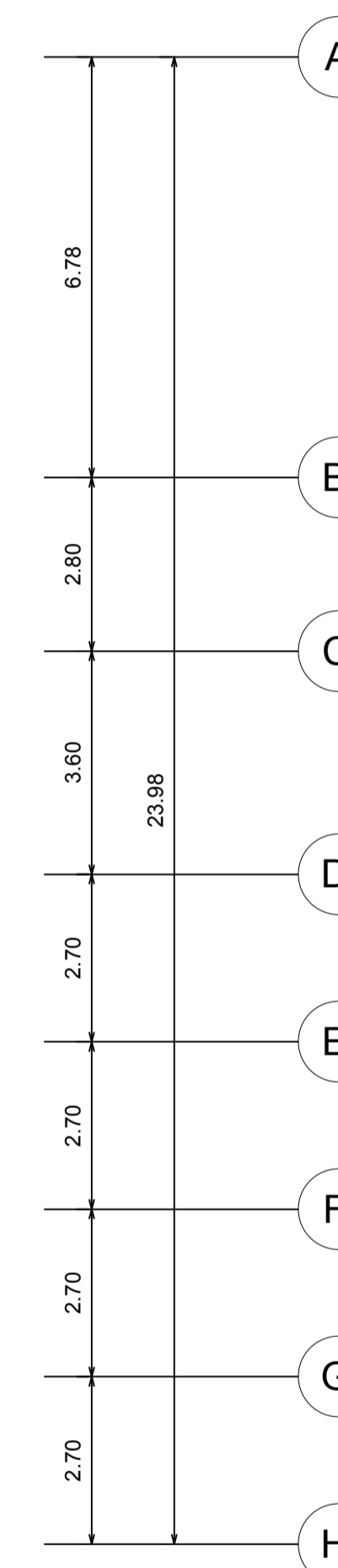
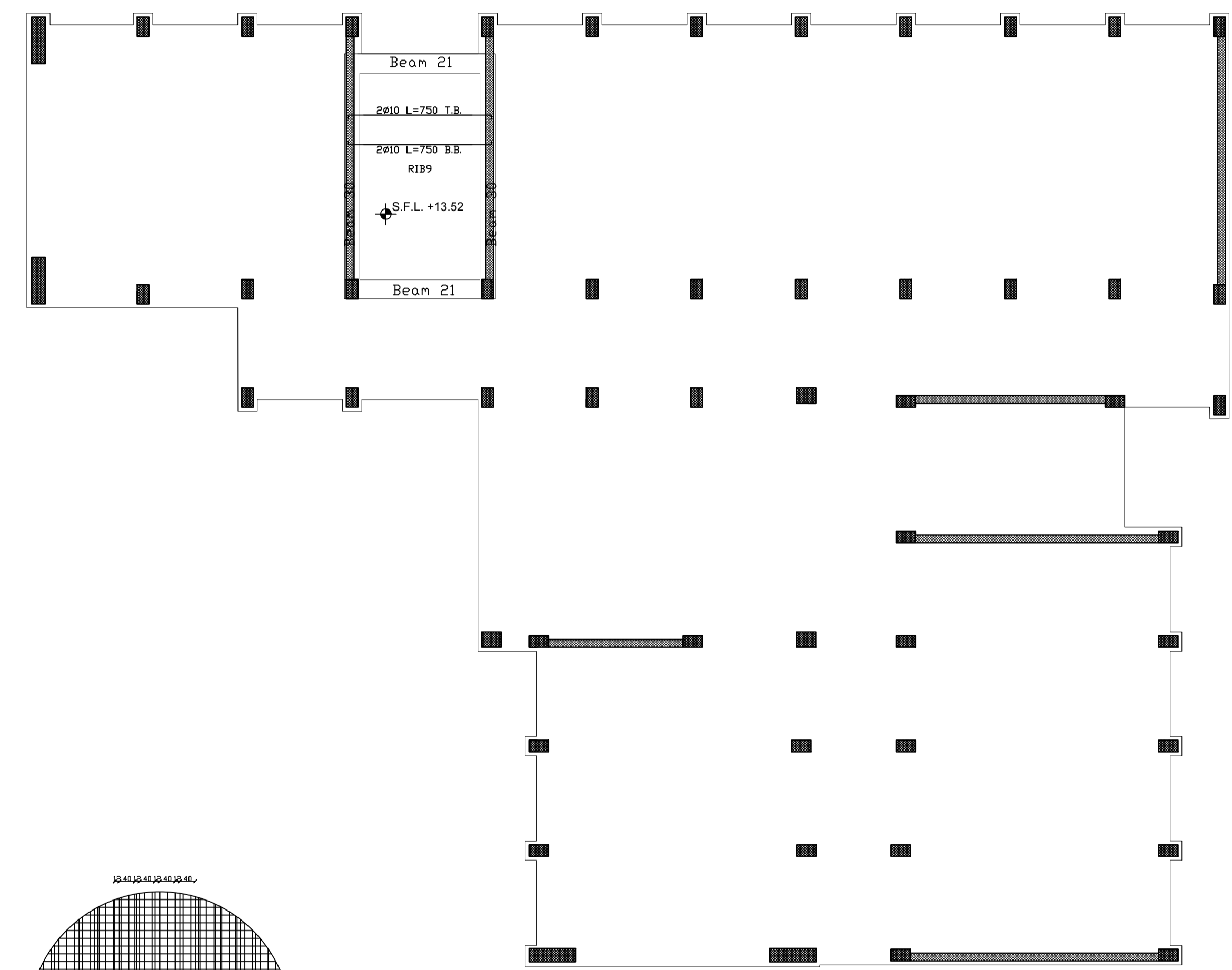
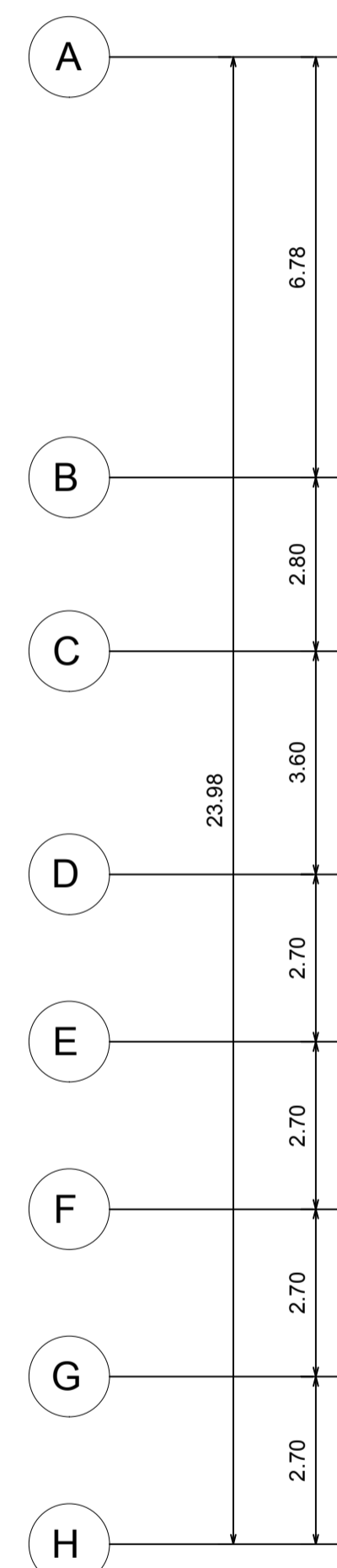
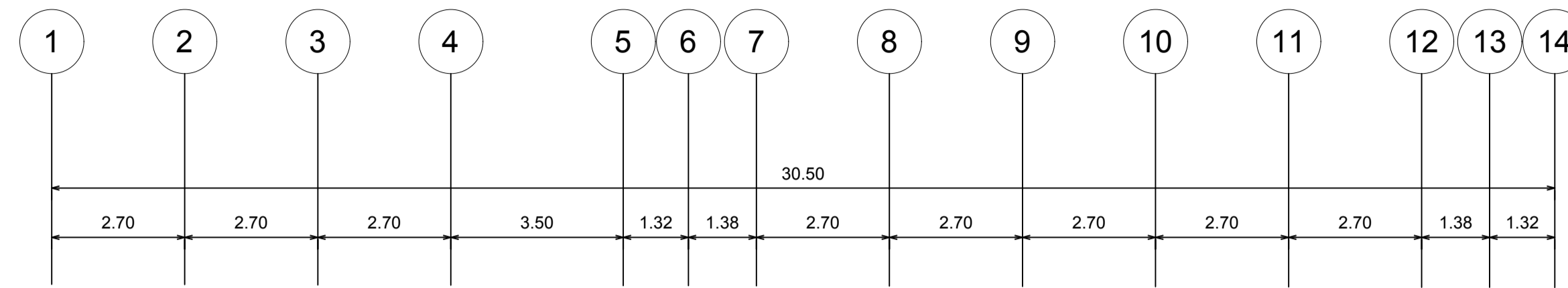
Detailing
Stair Slab

Supervisor:
Dr.Belal Al-Massri

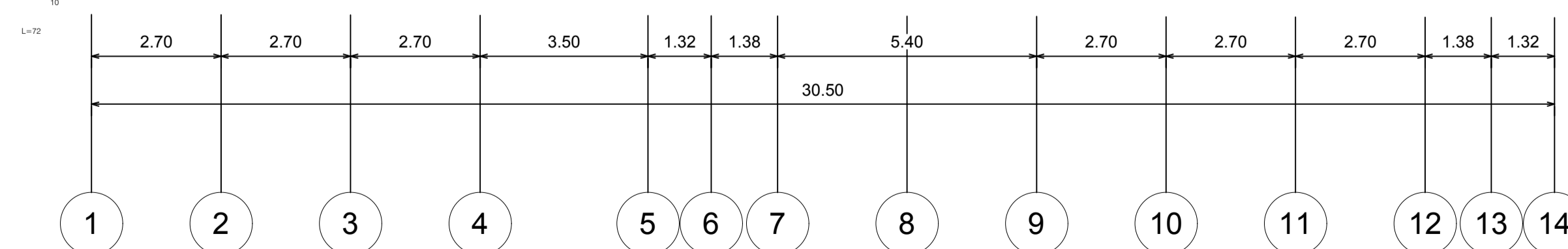
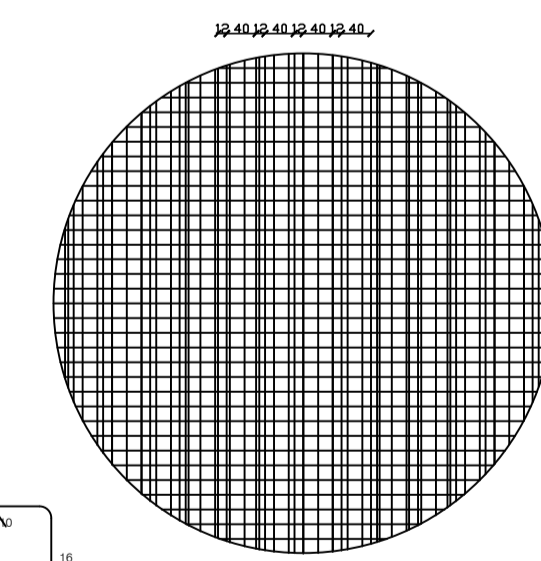
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Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

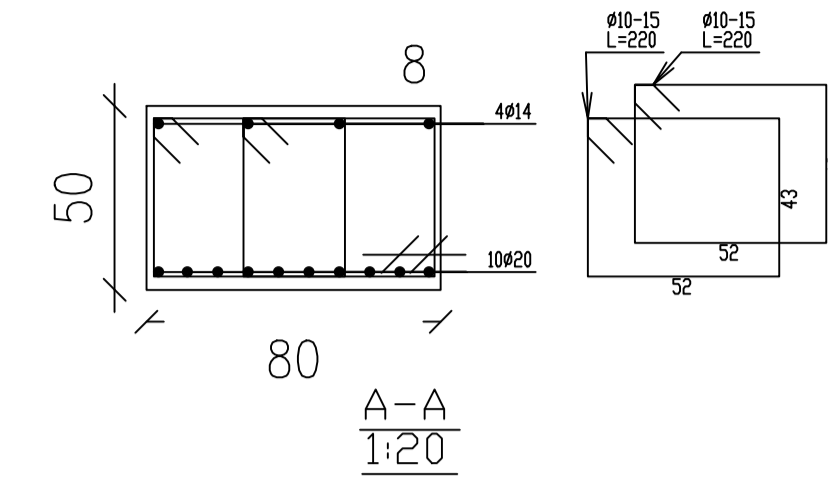
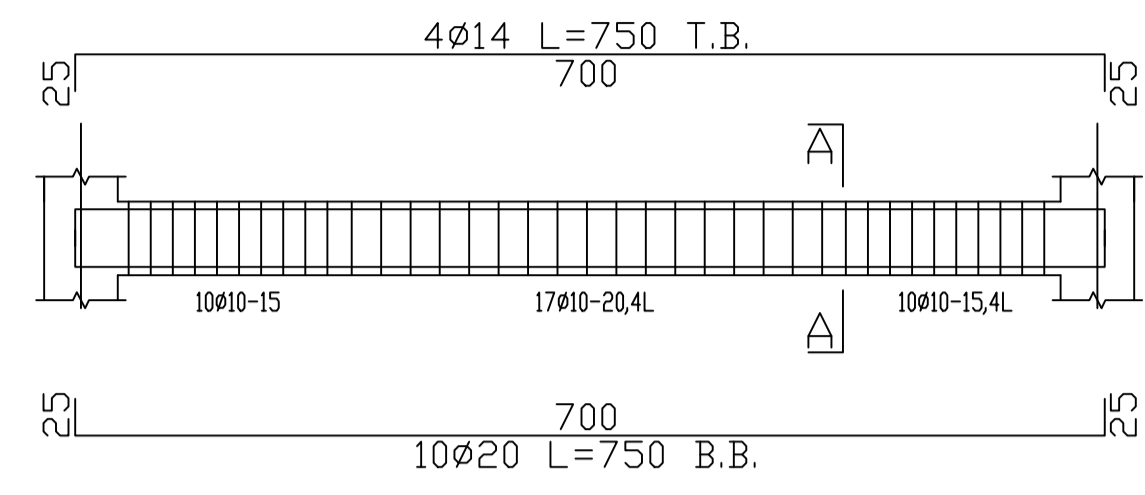
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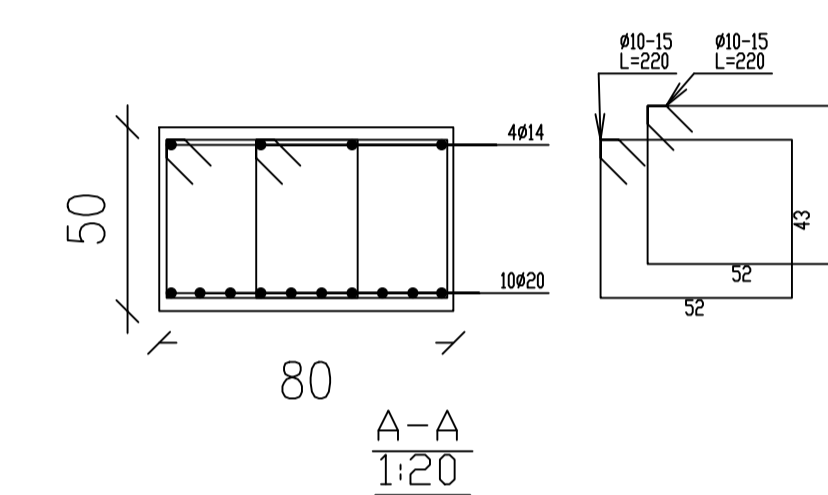
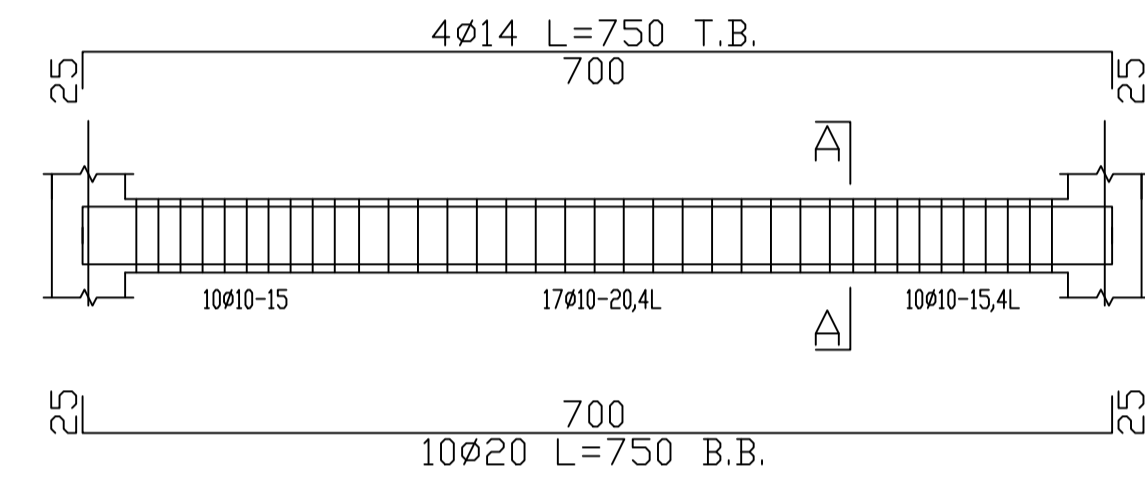
SECTION A-A
SCALE 1:20



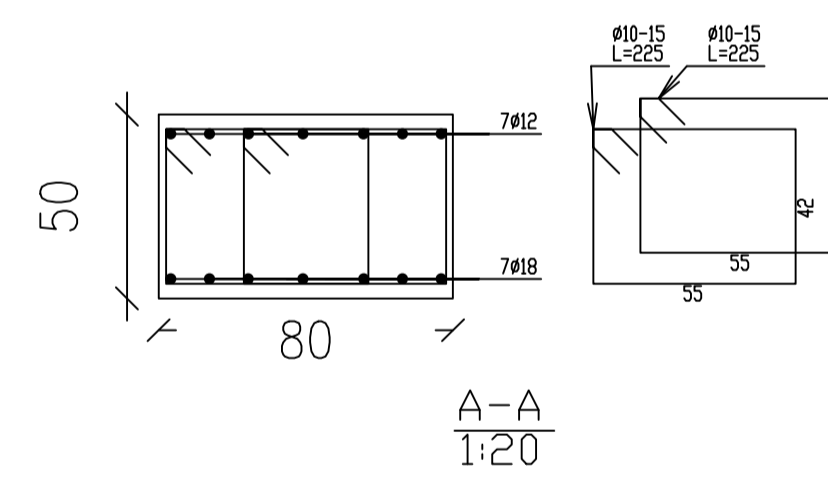
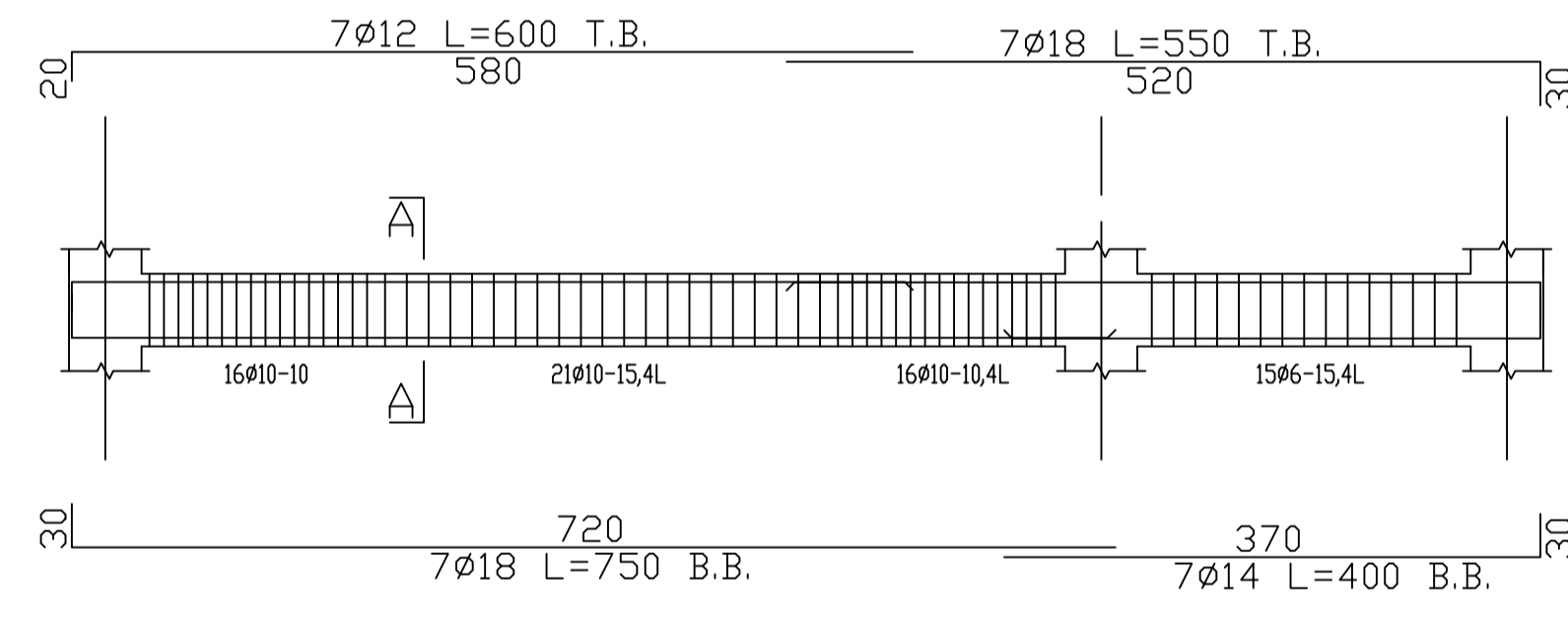
Beam 1



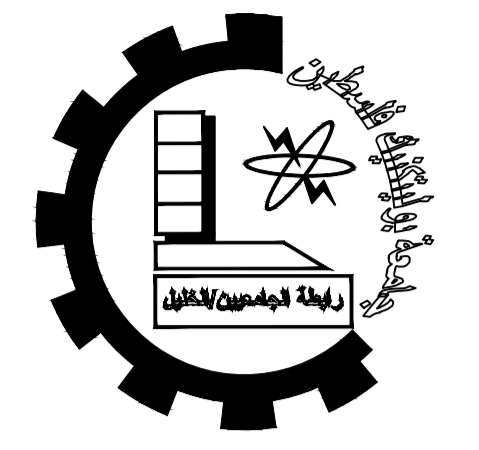
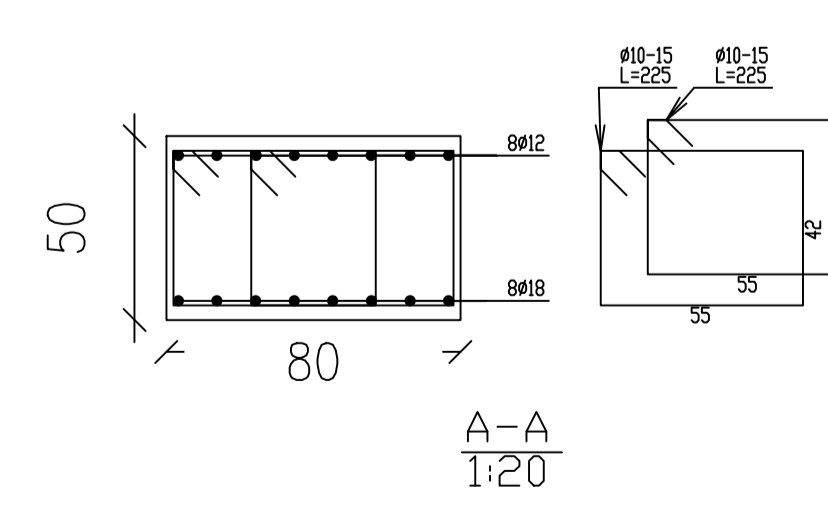
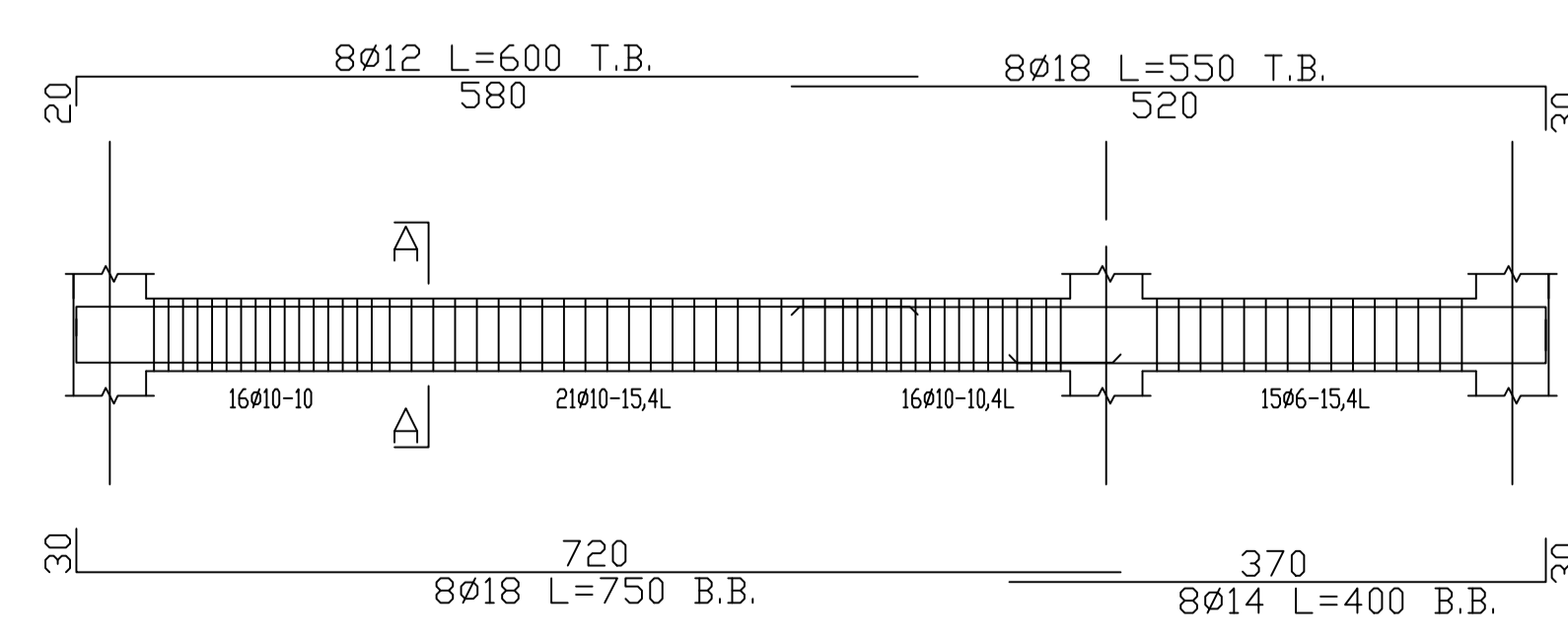
Beam 2



Beam 3

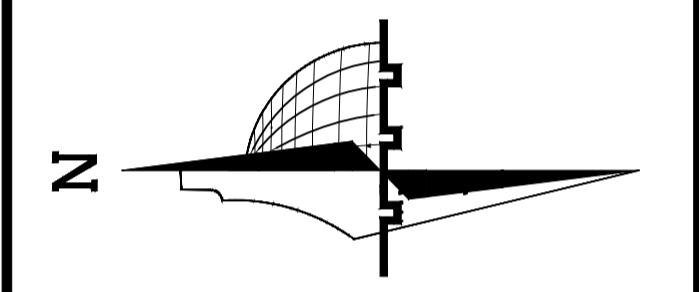


Beam 4



Palestine Polytechnic University
 College of Engineering
 Civil Engineering Department
 Civil Engineering
 Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

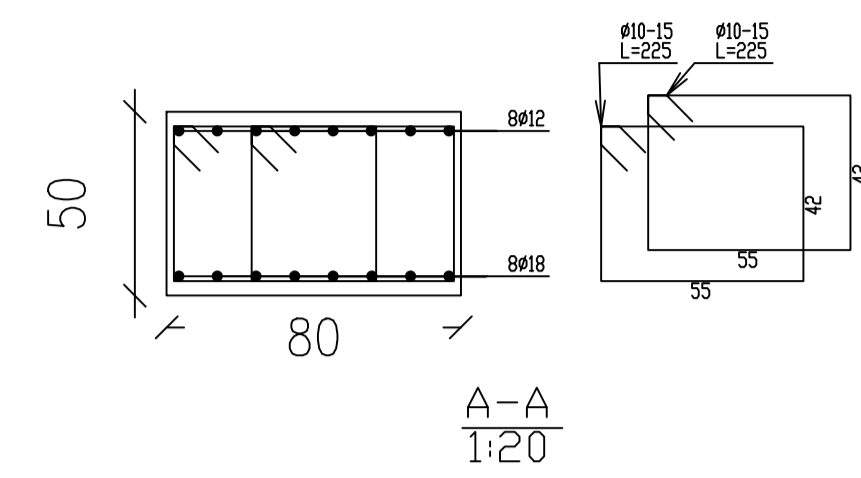
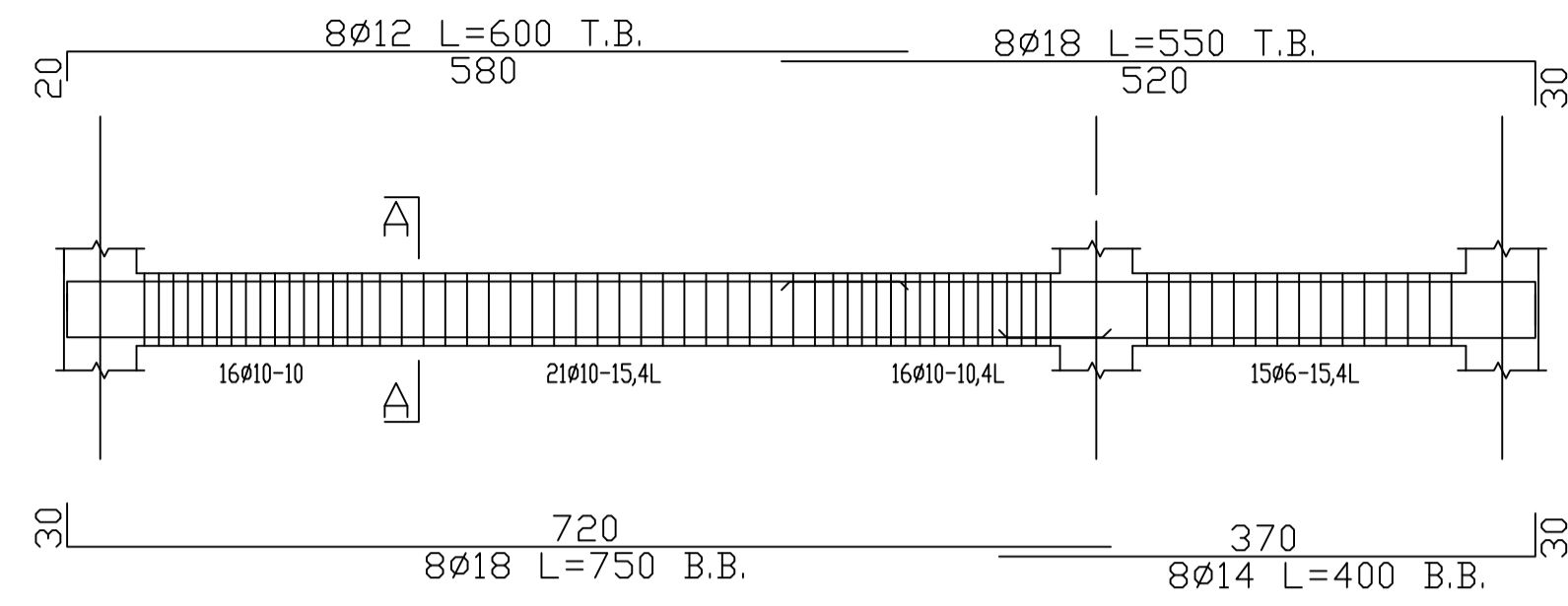
Beam:1,2,3&4

Supervisor:
Dr.Belal Al-Massri

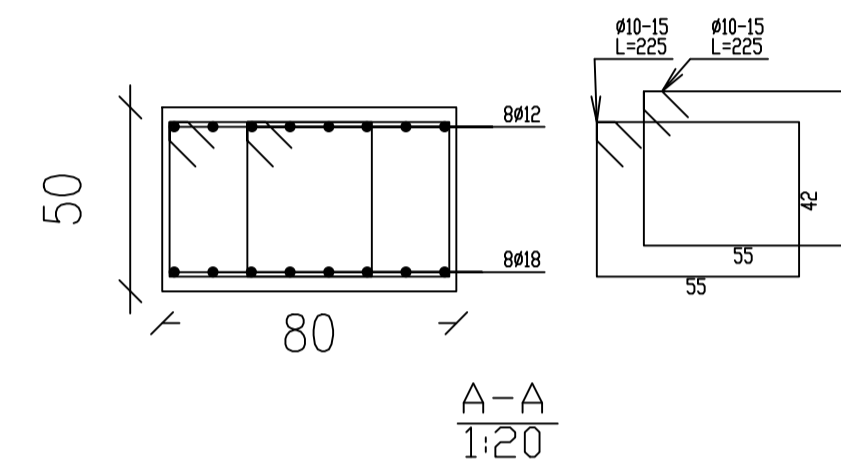
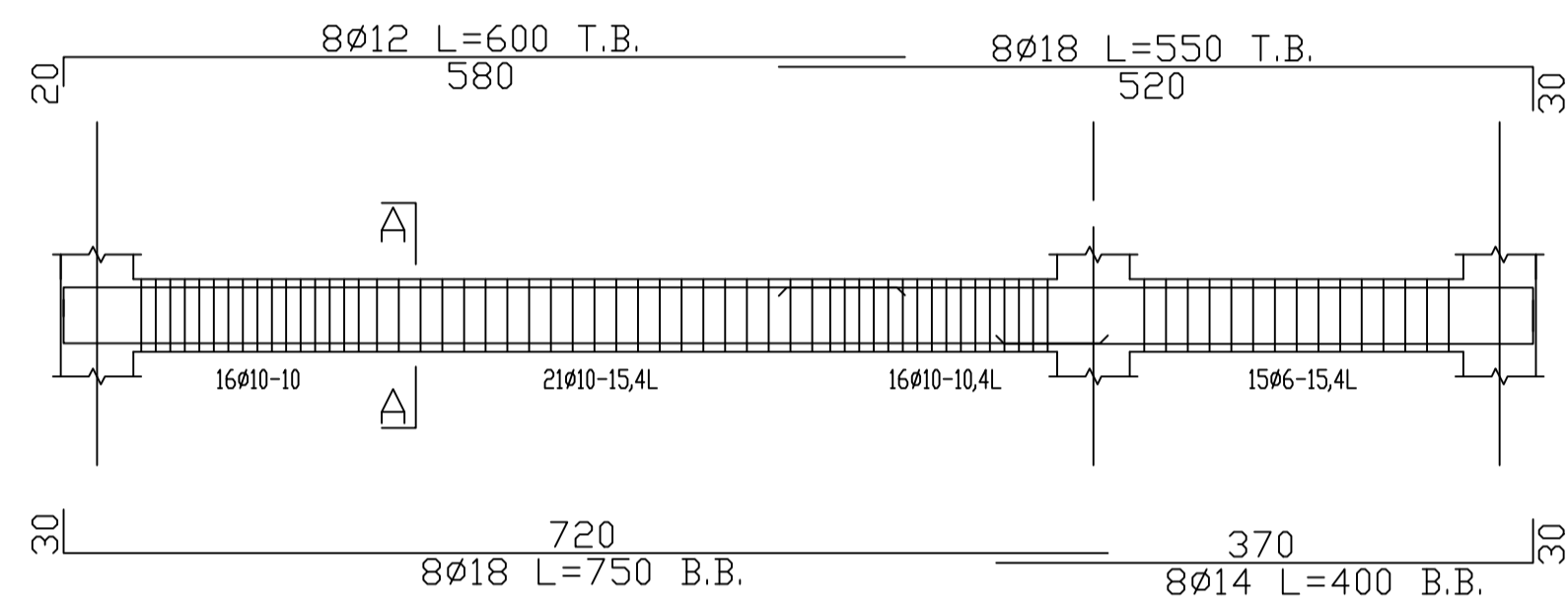
Completed by :
 Haider Hussein Abusheikha
 Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
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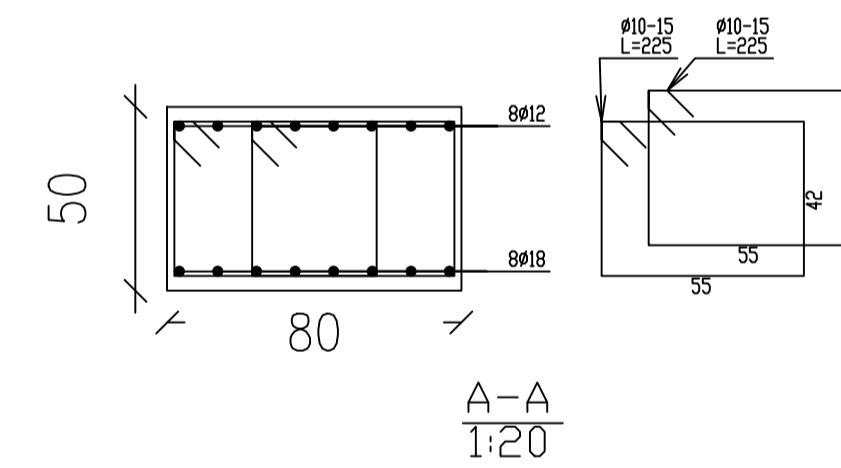
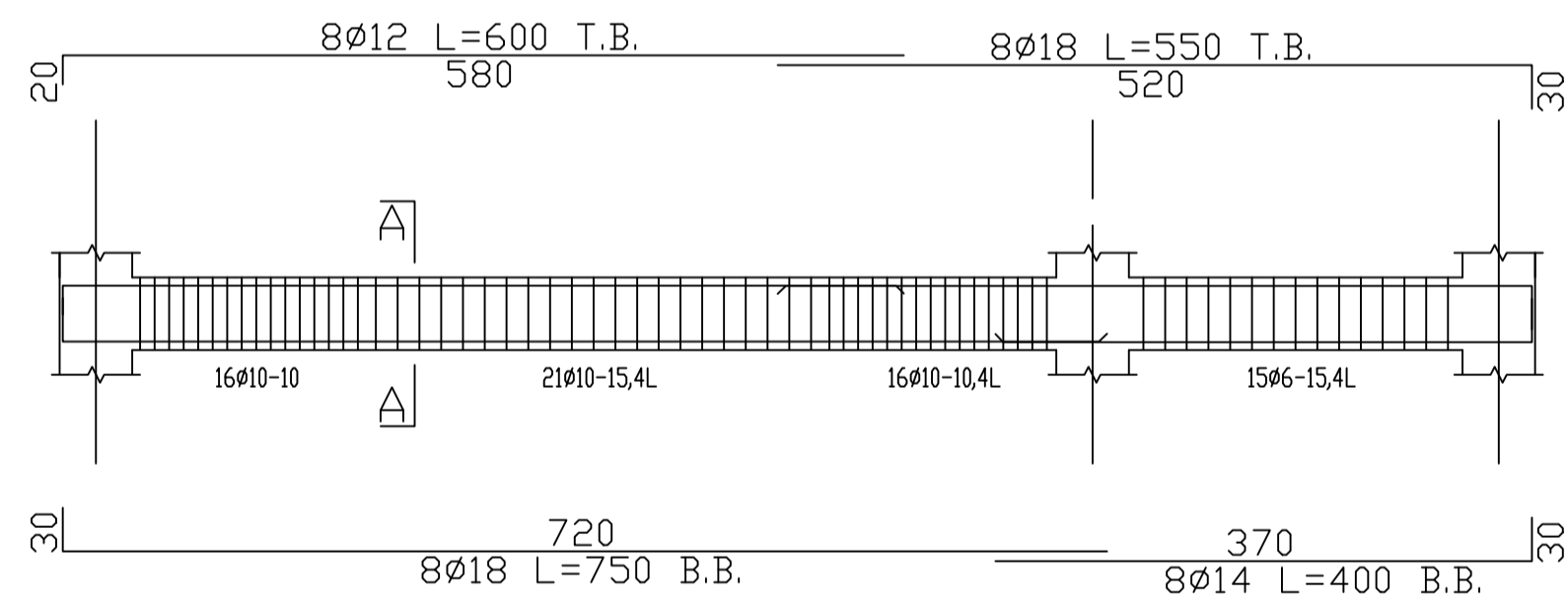
Beam 5



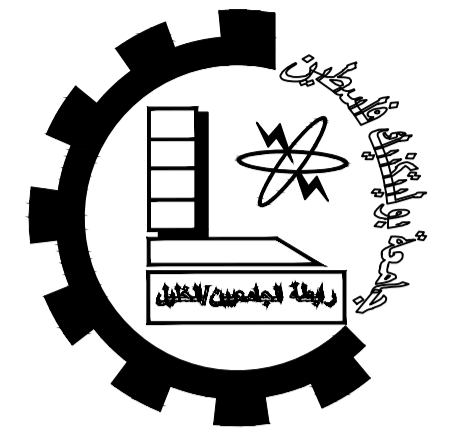
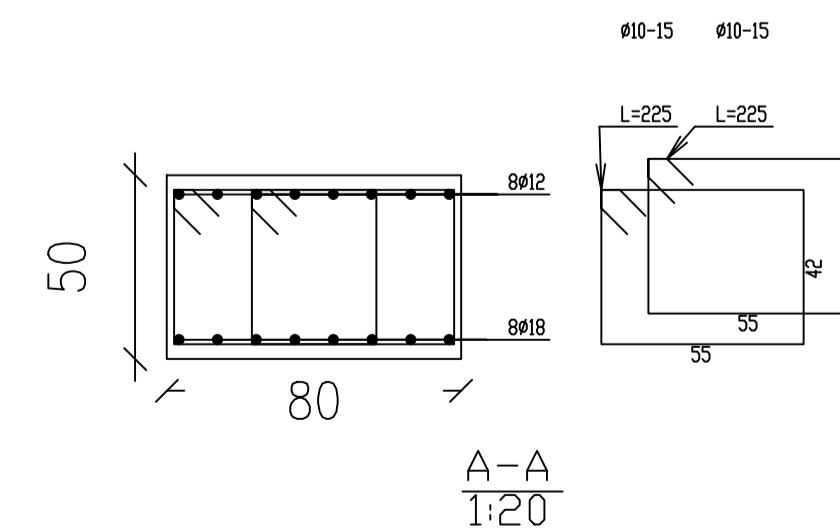
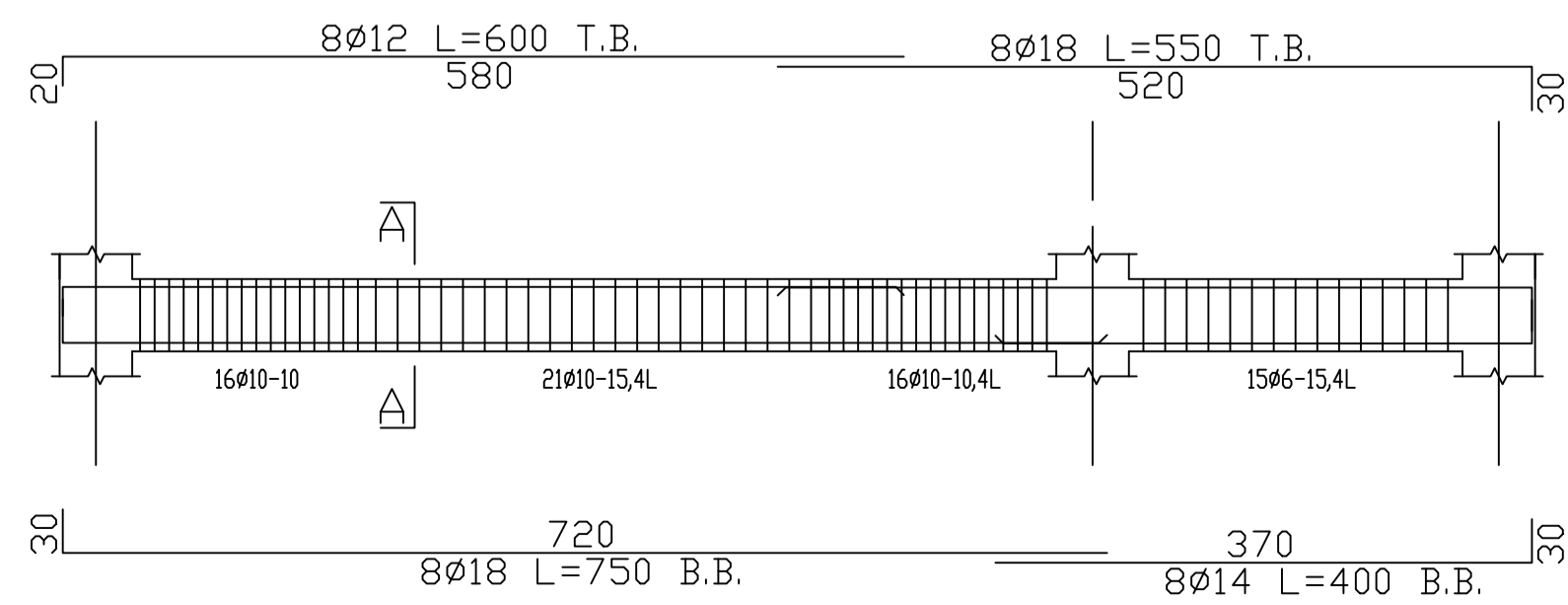
Beam 6



Beam 7



Beam 8



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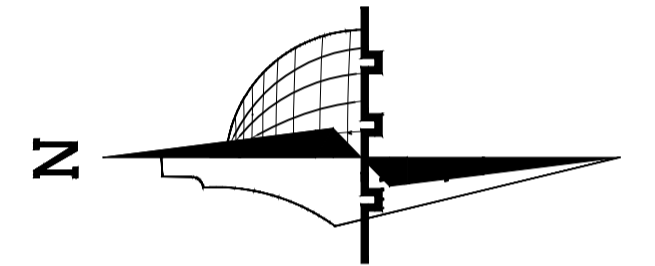
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

Beam 5,6,7&8

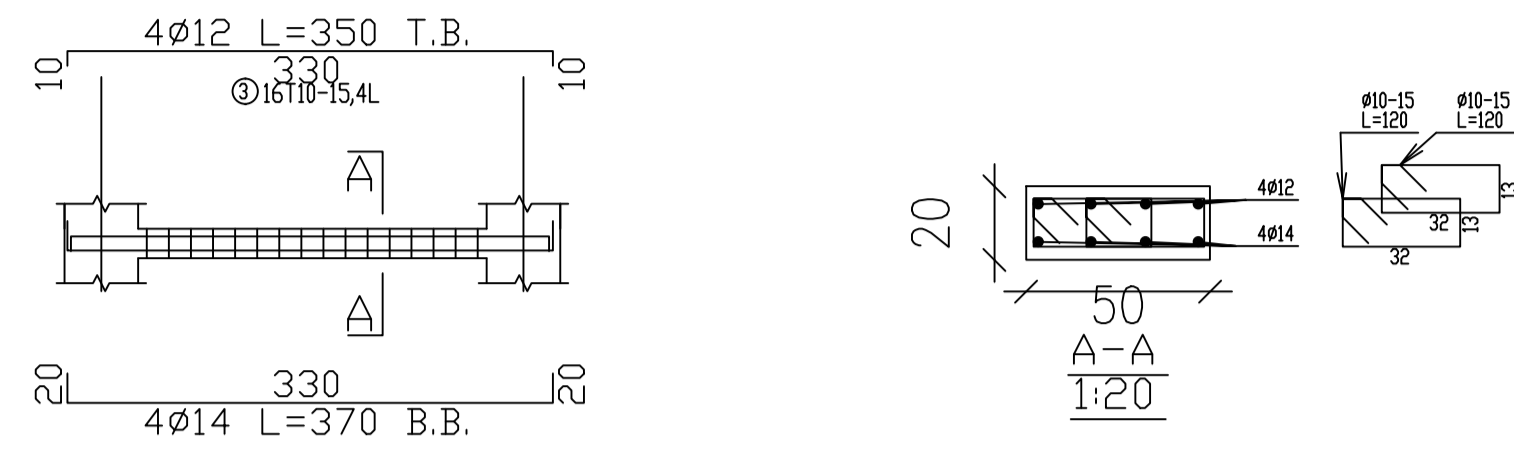
Supervisor:
Dr.Belal Al-Massri

Completed by :

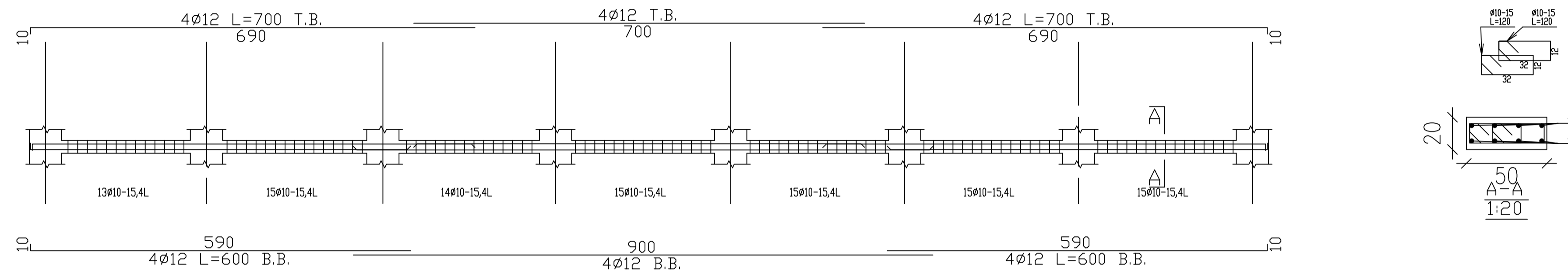
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/100	S501	2024

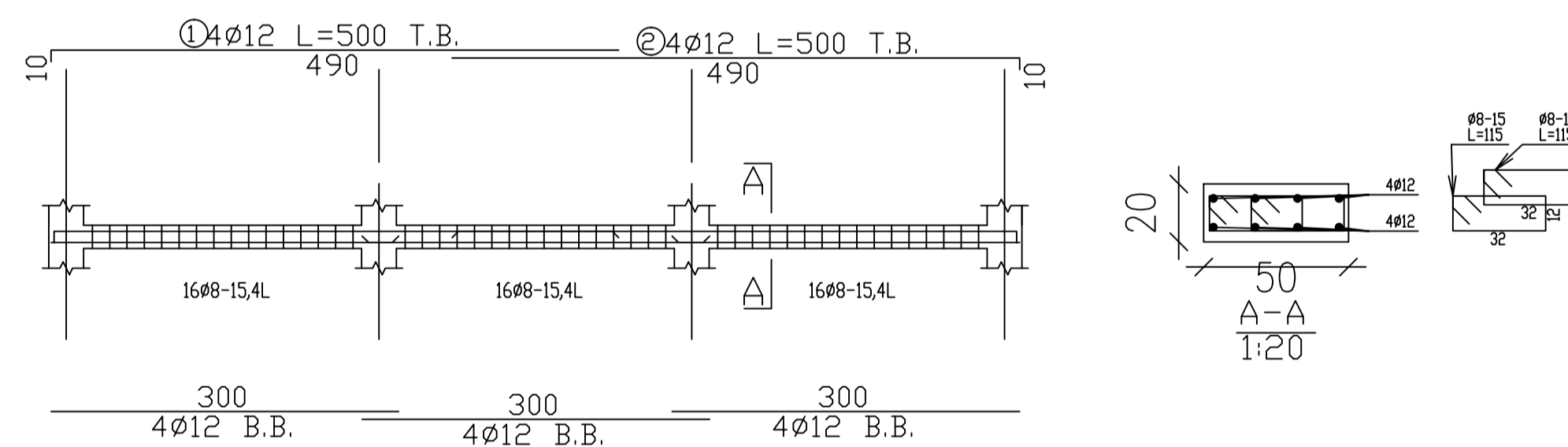
Beam 9



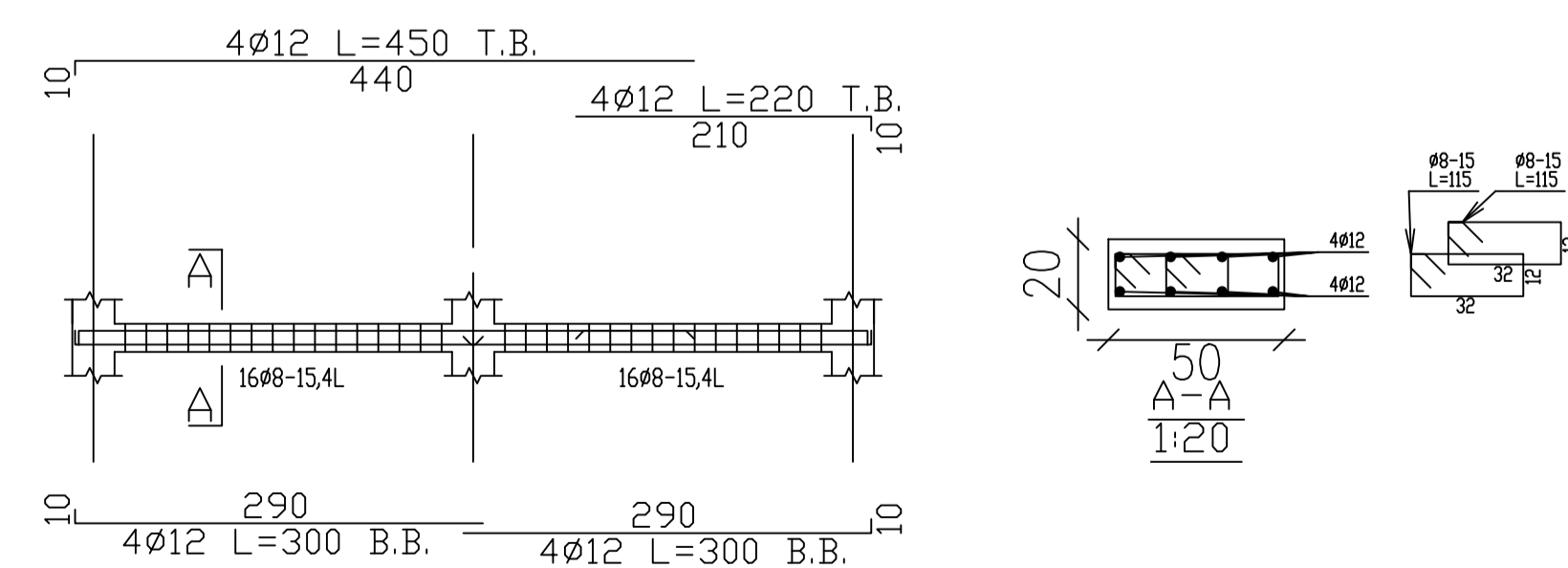
Beam 10



Beam 11



Beam 12



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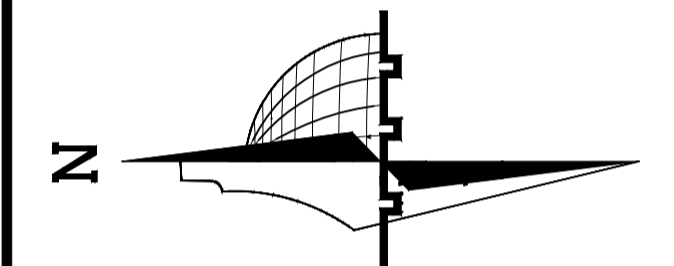
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materials		GRASS

DRAWING TITLE :

Beam :9,10,11&12

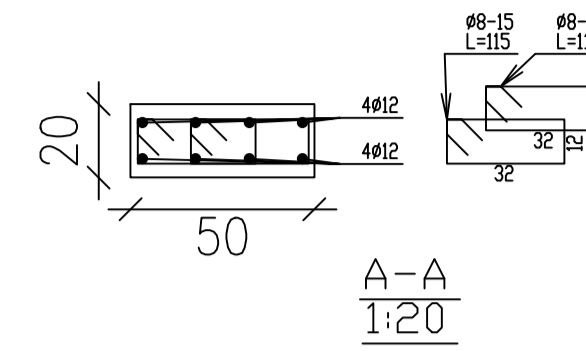
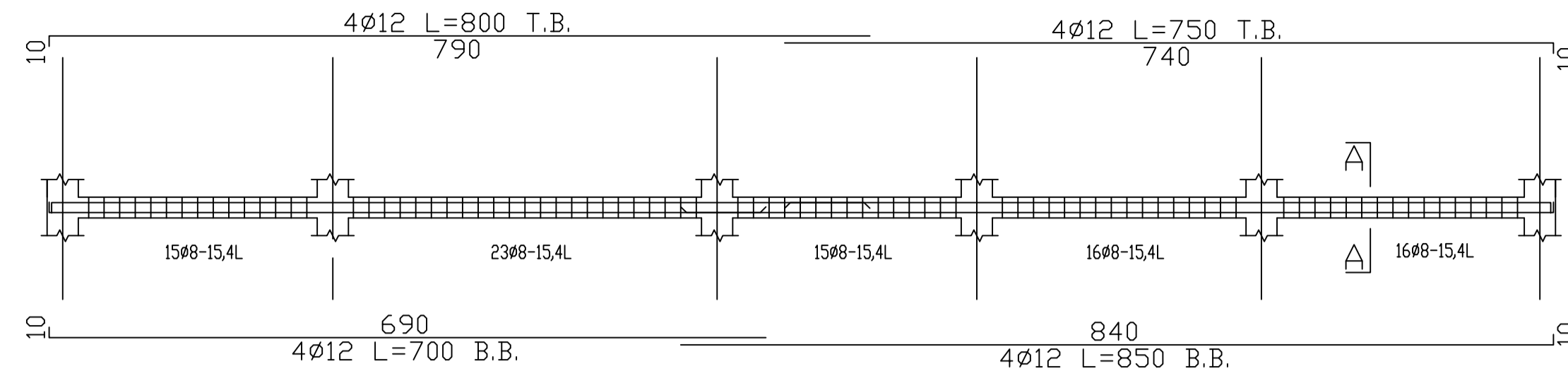
Supervisor:
Dr.Belal Al-Massri

Completed by :

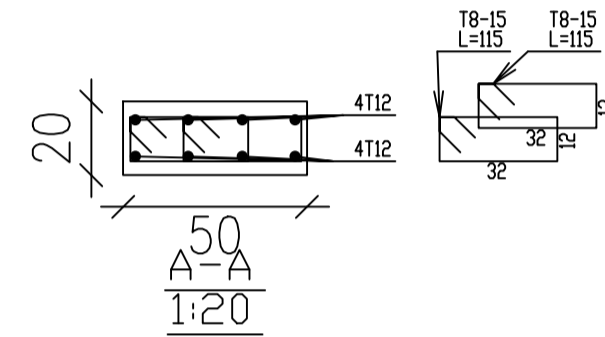
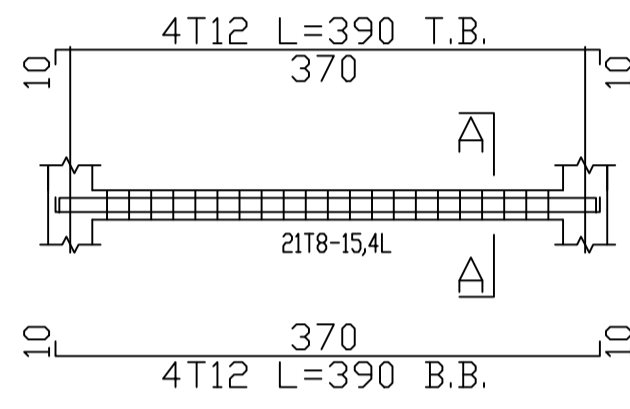
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/100	S502	2024

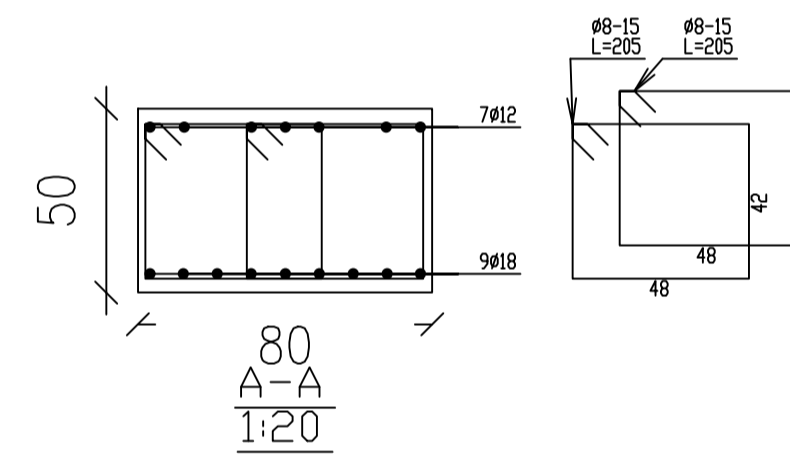
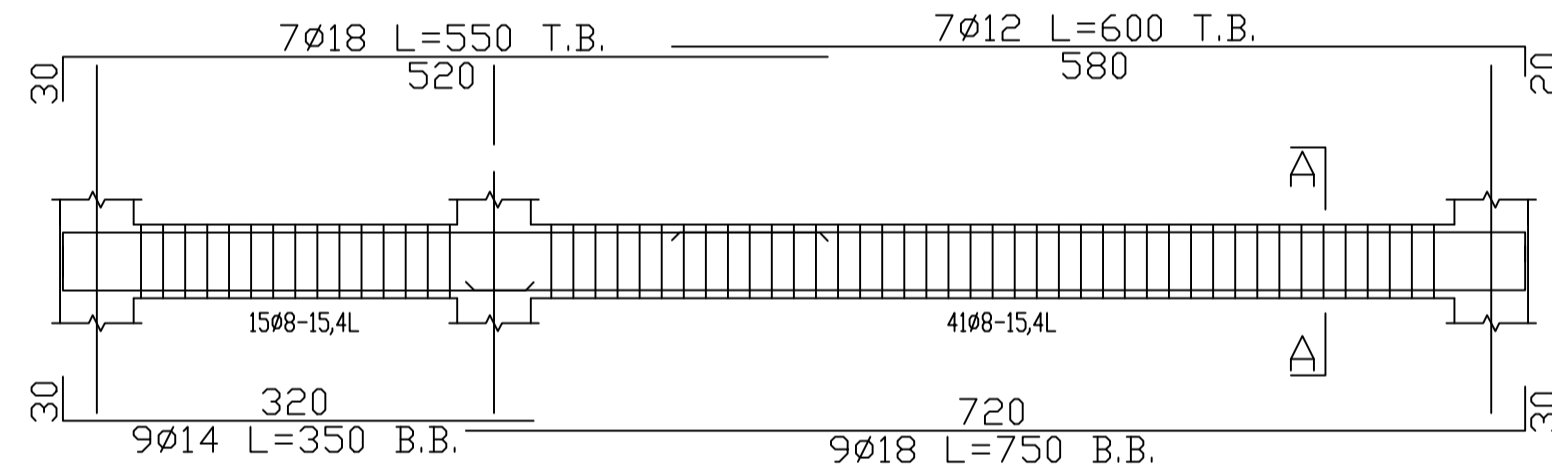
Beam 13



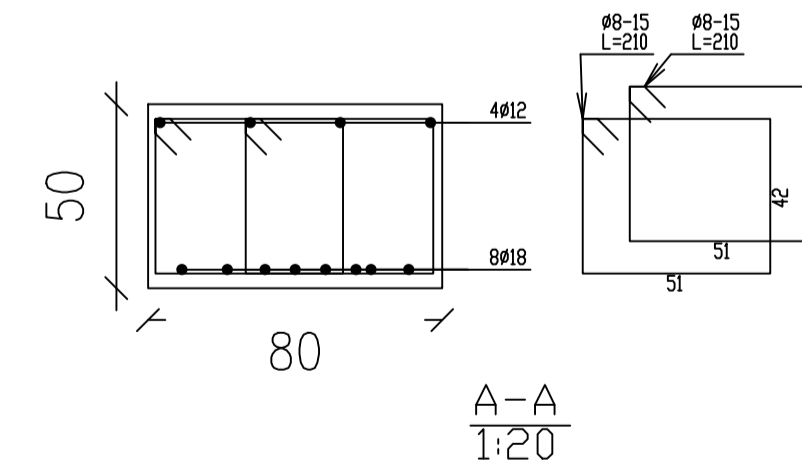
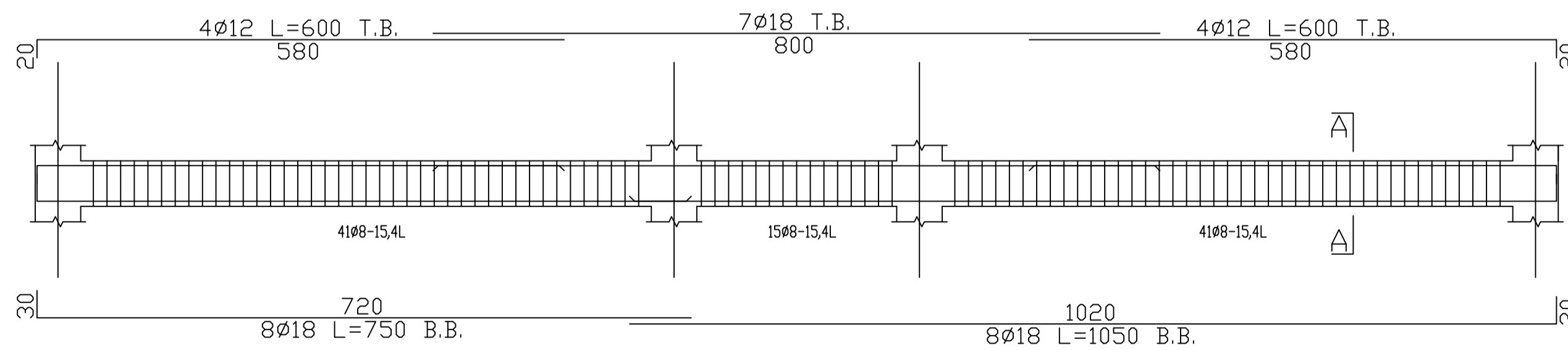
Beam A14



Beam 15



Beam 16



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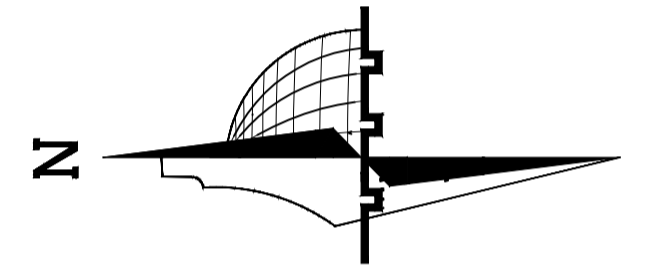
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- Isolating materials
- GRASS

DRAWING TITLE :

Beam:13,14,15&16

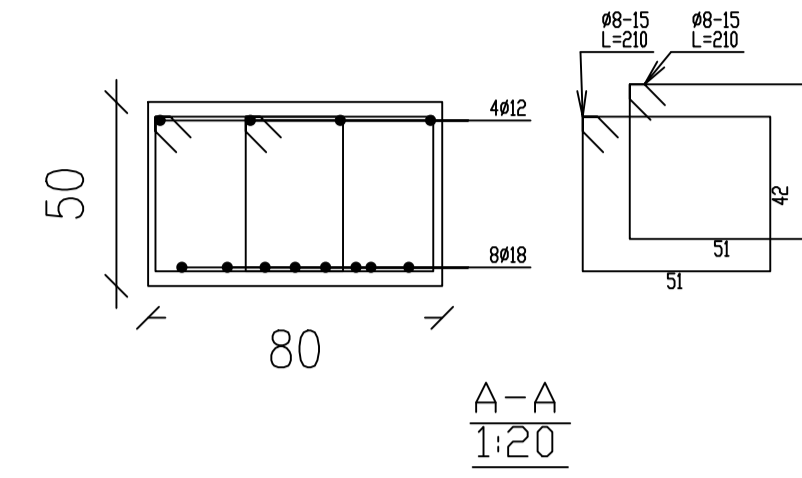
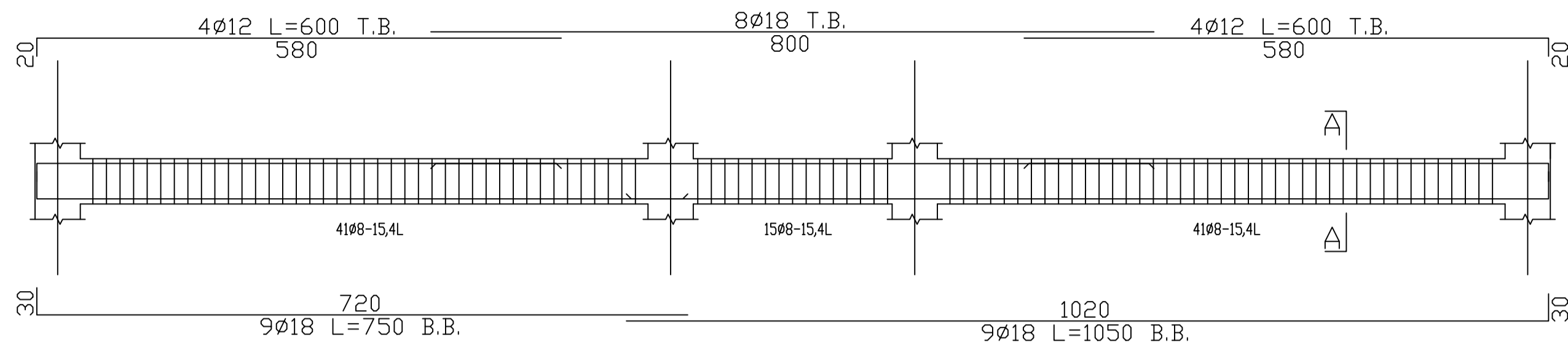
Supervisor:
Dr.Belal Al-Massri

Completed by :

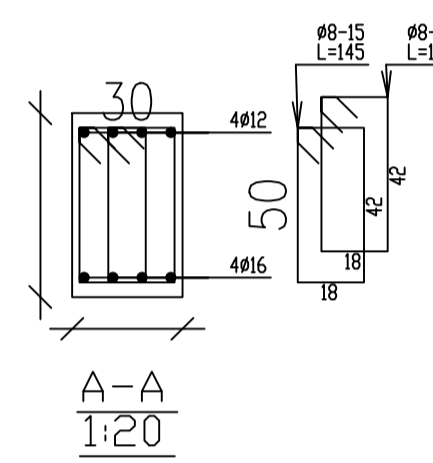
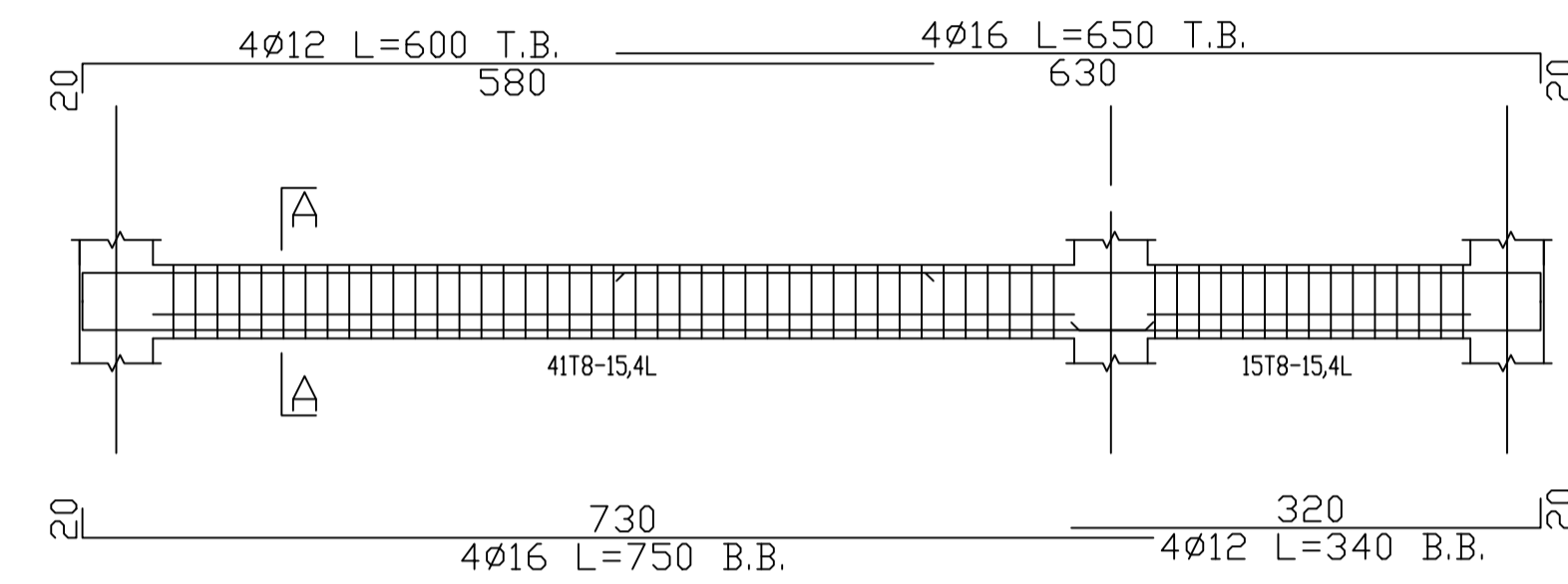
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/100	S503	2024

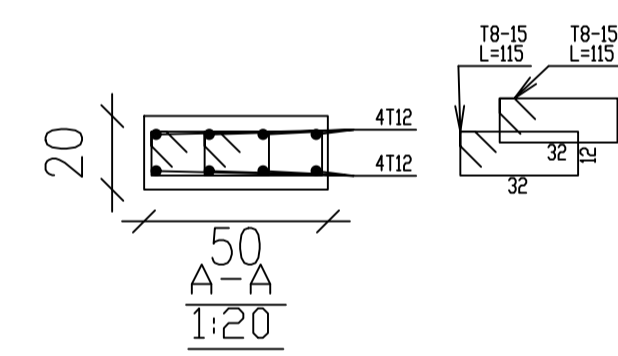
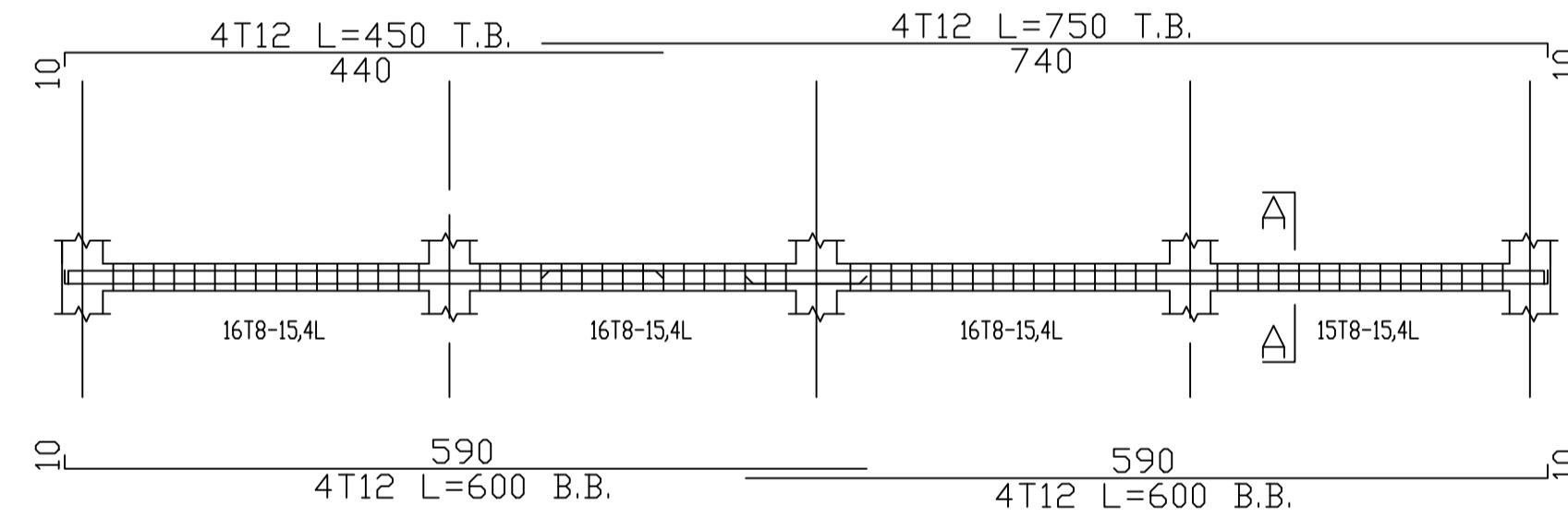
Beam 17



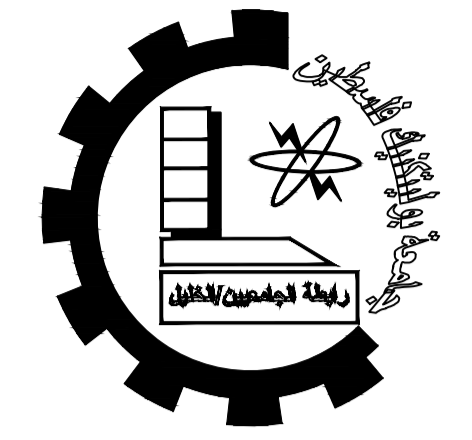
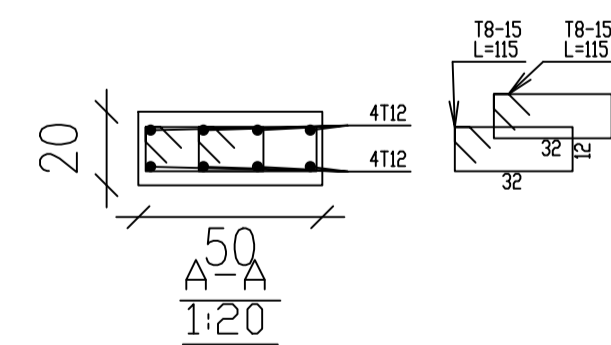
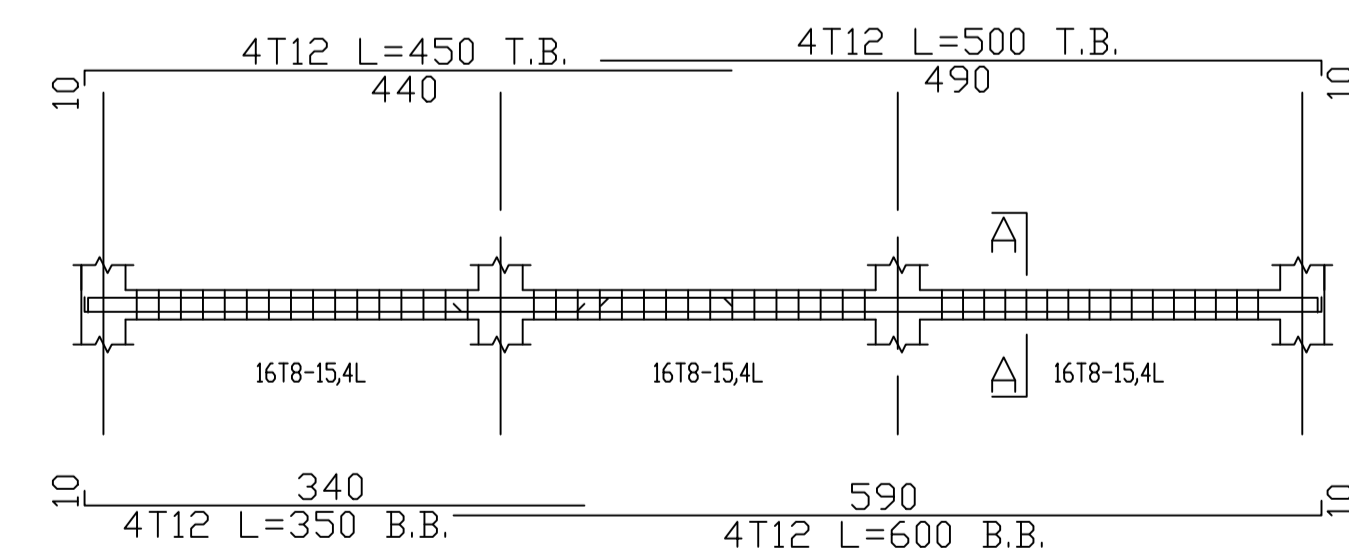
Beam 18



Beam 19



Beam 20



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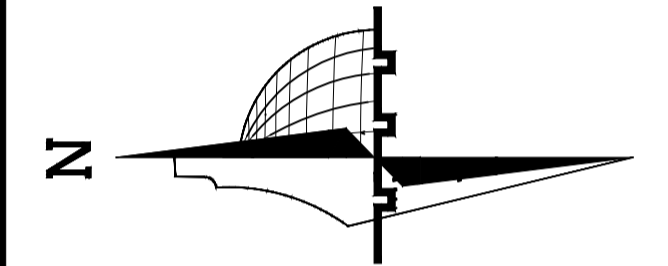
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materials
- GRASS

DRAWING TITLE :

Beam :17,18,19&20

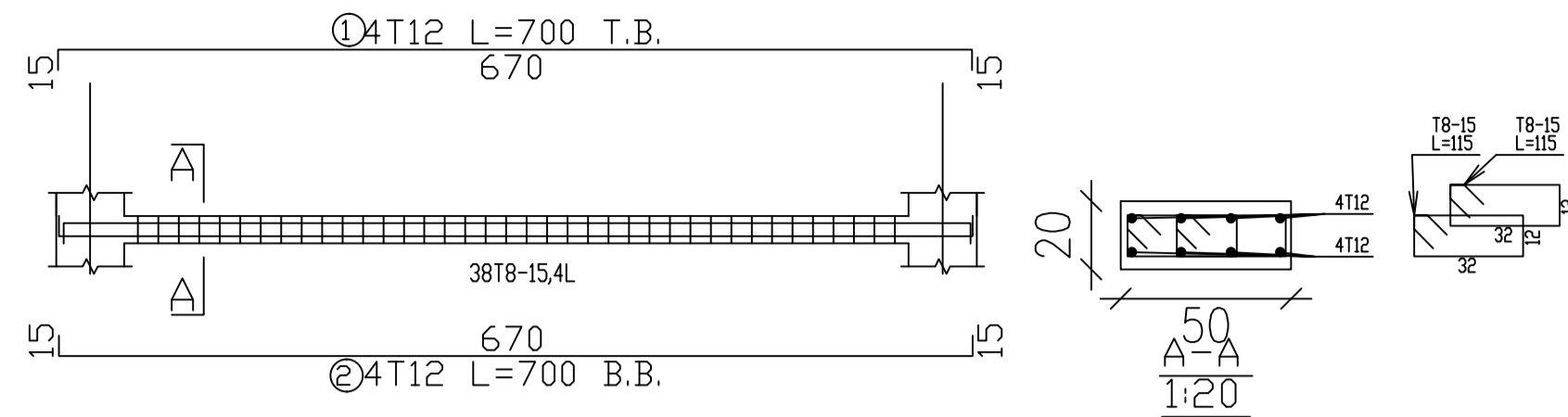
Supervisor:
Dr.Belal Al-Massri

Completed by :

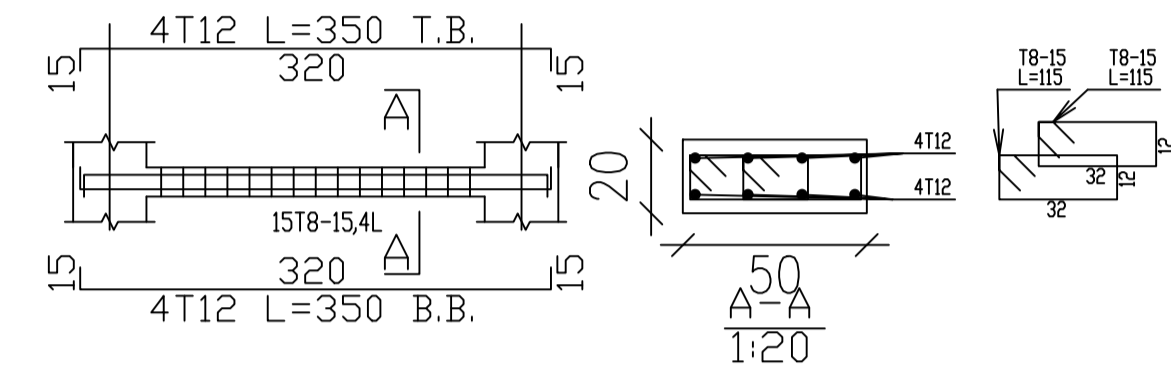
Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/100	S504	2024

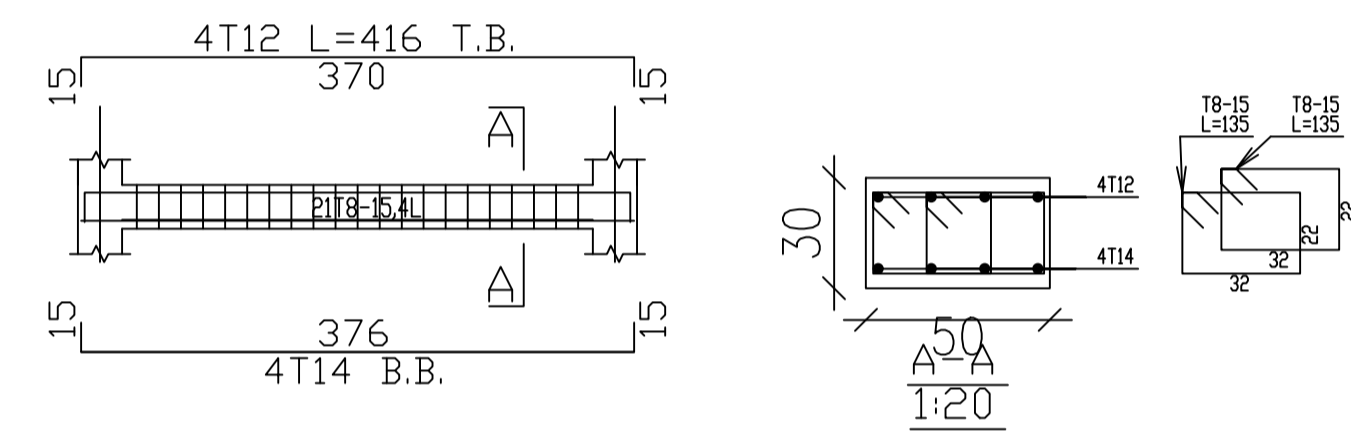
Beam 21



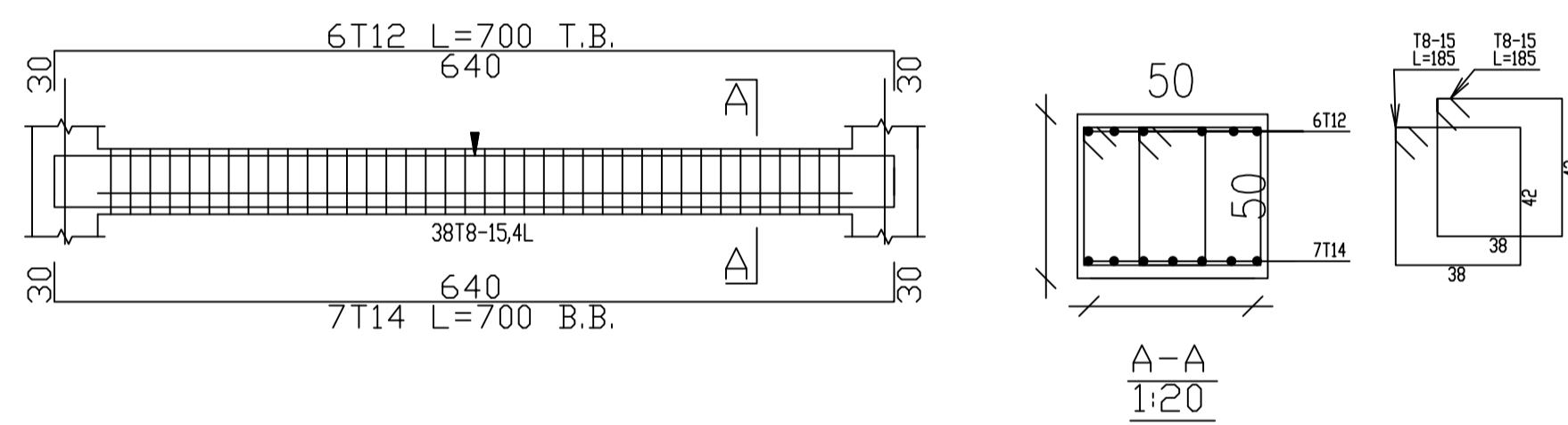
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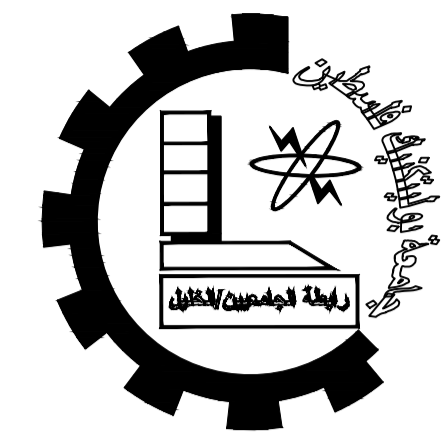
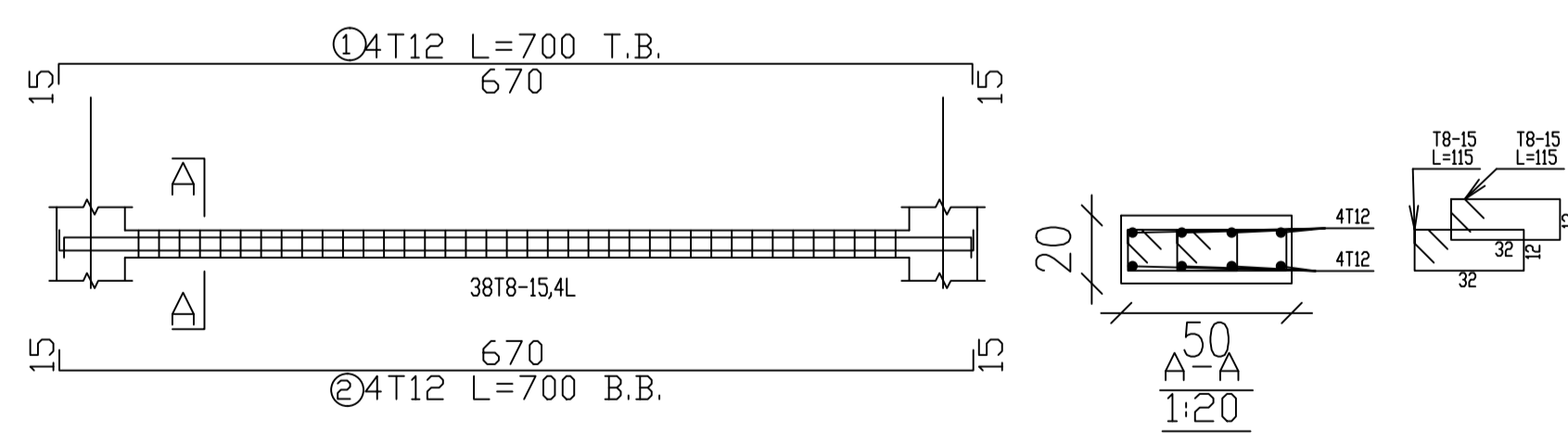
Beam 23



Beam 24



Beam 25



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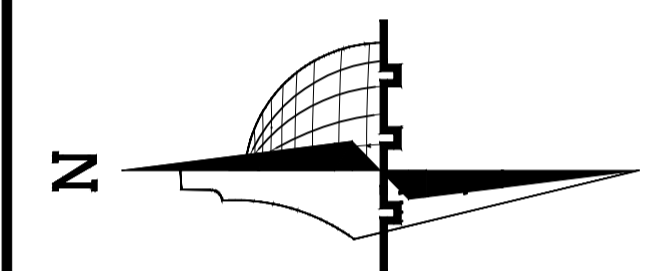
College of Engineering

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Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

DRAWING TITLE :

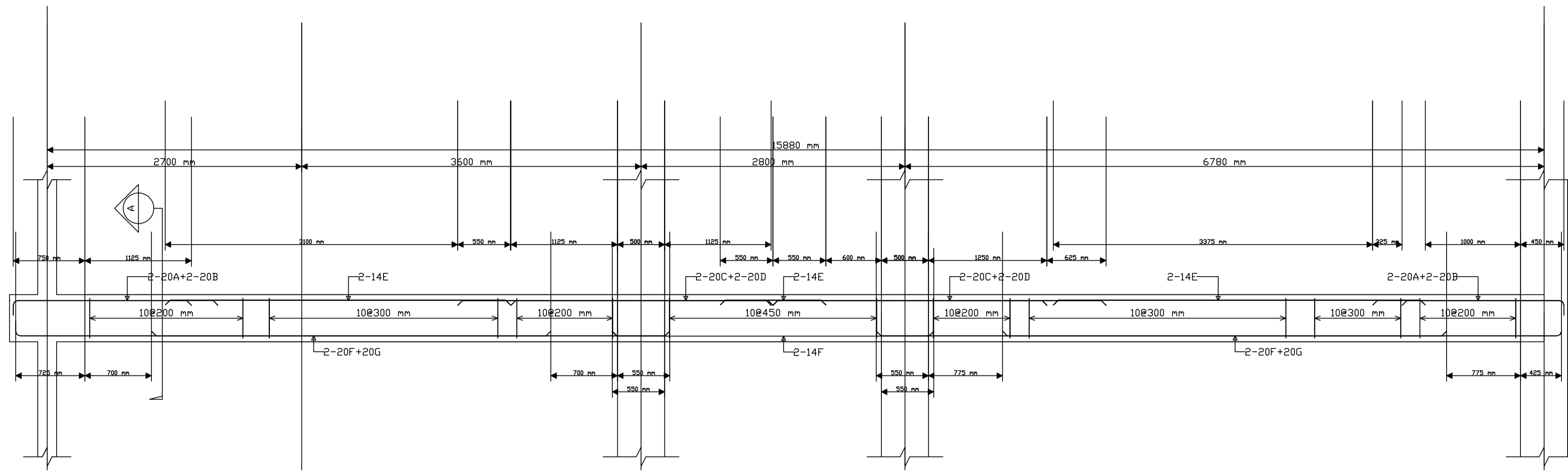
Beam: 21,22,23,24&25

Supervisor:
Dr.Belal Al-Massri

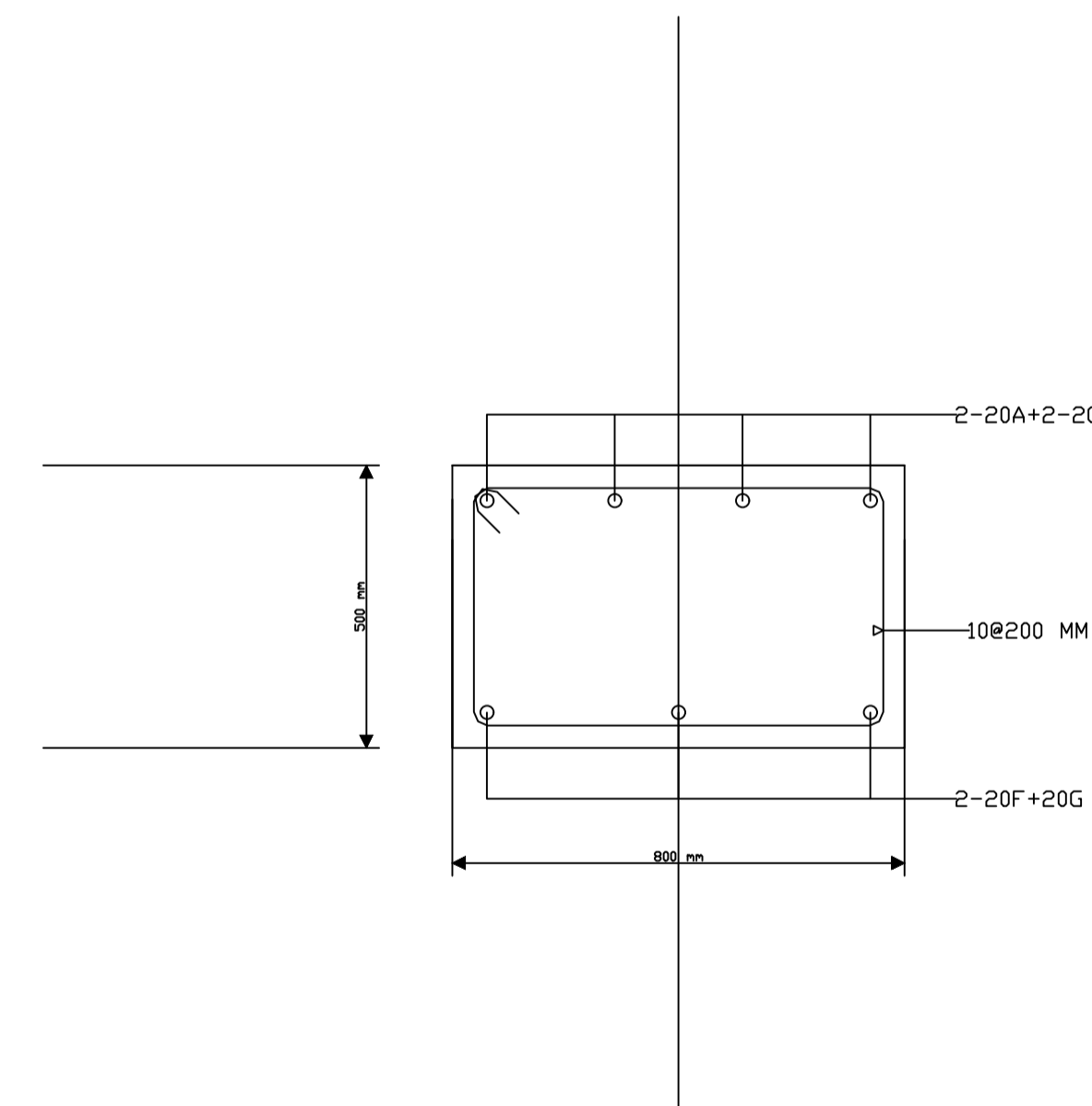
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/100	S505	2024



Beam 26:Elevation
(Scale 1:40)



Beam 26:Section A
(Scale 1:15)



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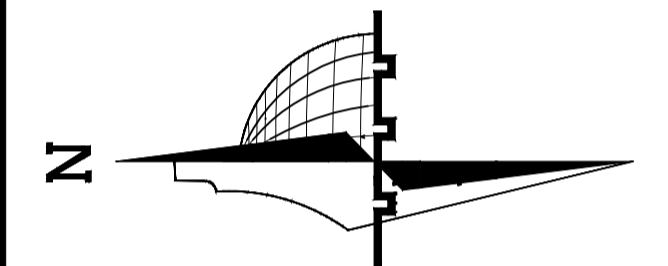
College of Engineering

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Graduation Project

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Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

DRAWING TITLE :

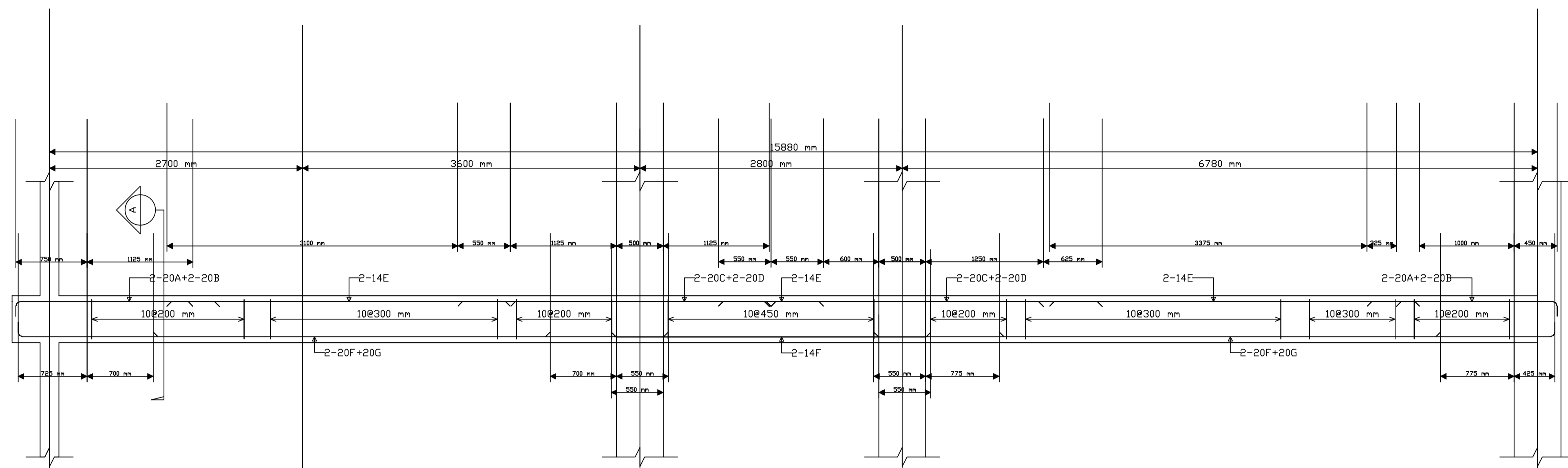
Beam:26

Supervisor:
Dr.Belal Al-Massri

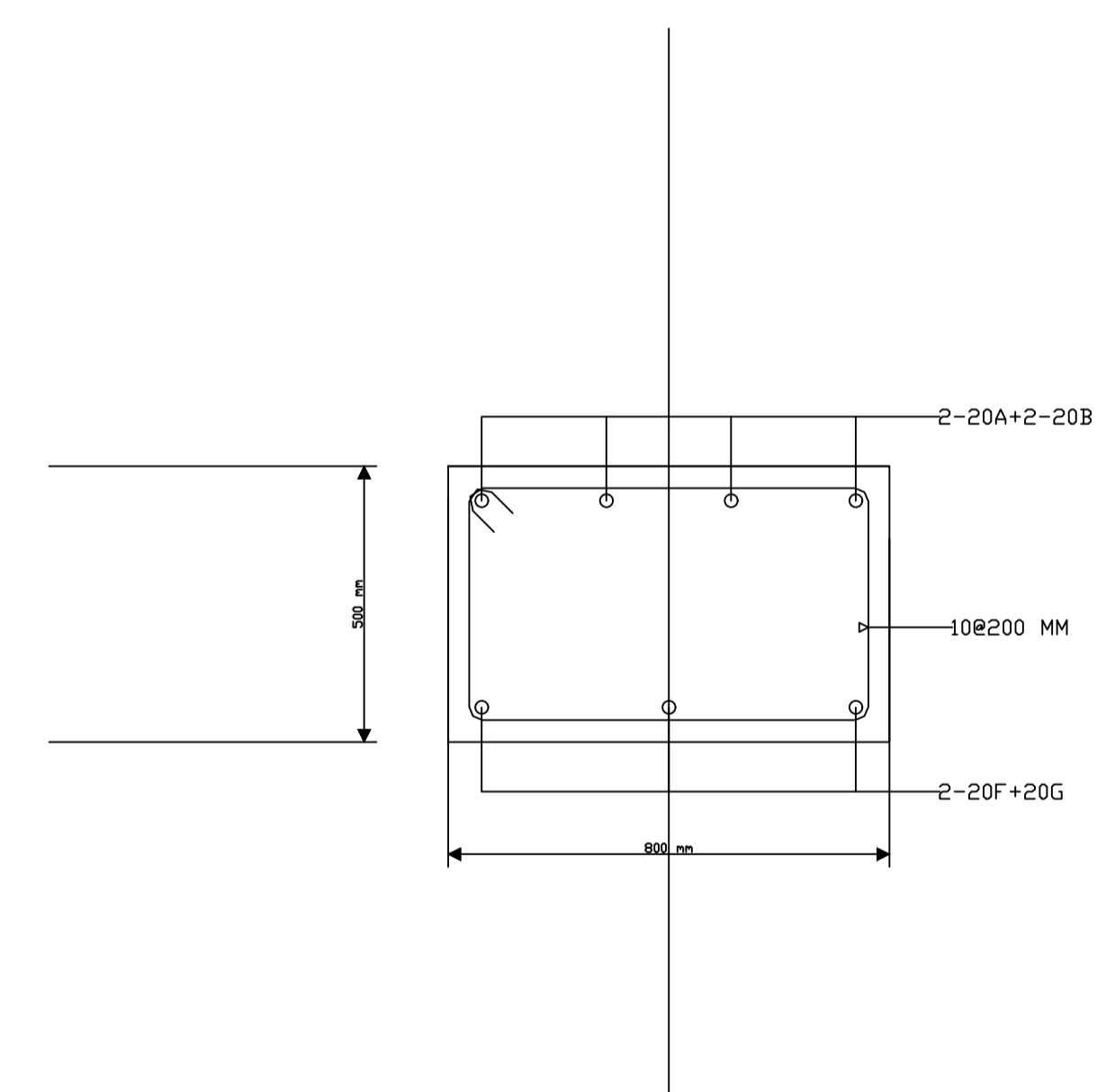
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

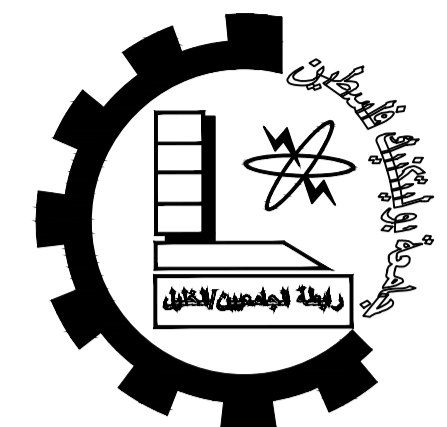
SCALE	No. of DRAW	DATE
1/100	S506	2024



Beam 27:Elevation
(Scale 1:40)



Beam 27:Section A
(Scale 1:15)



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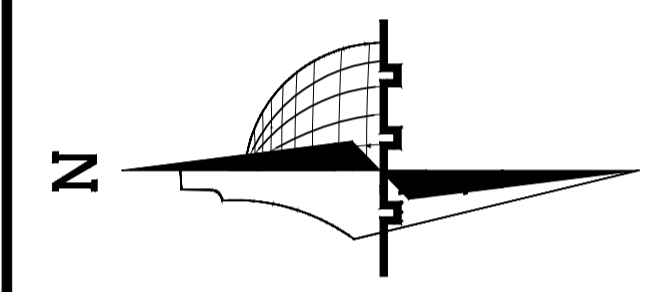
College of Engineering

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Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

DRAWING TITLE :

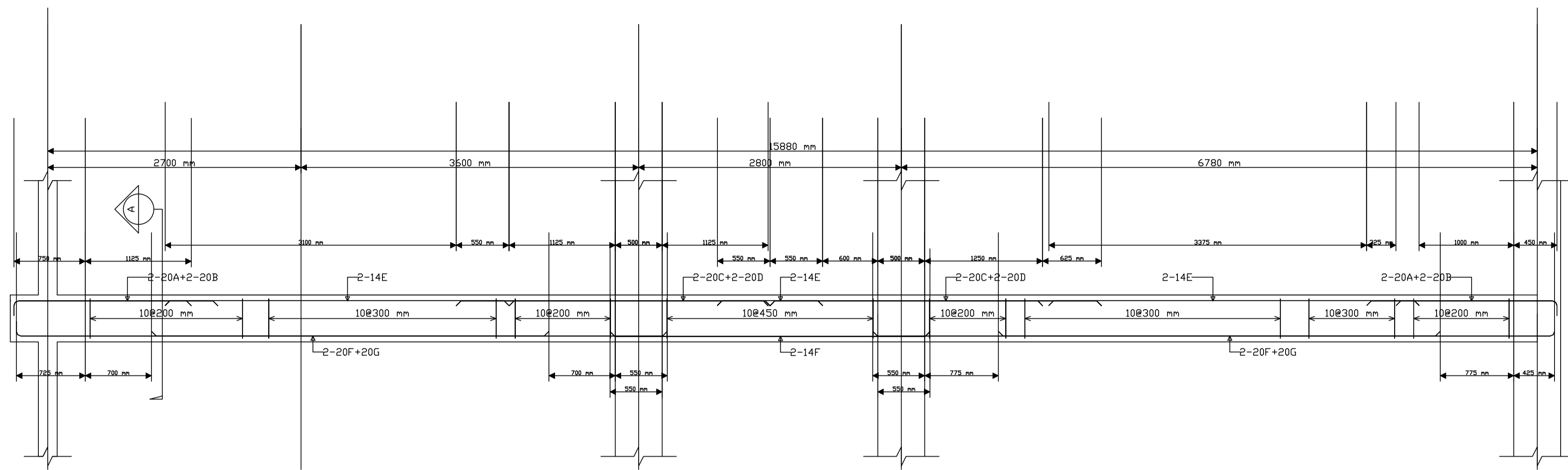
Beam: 27

Supervisor:
Dr.Belal Al-Massri

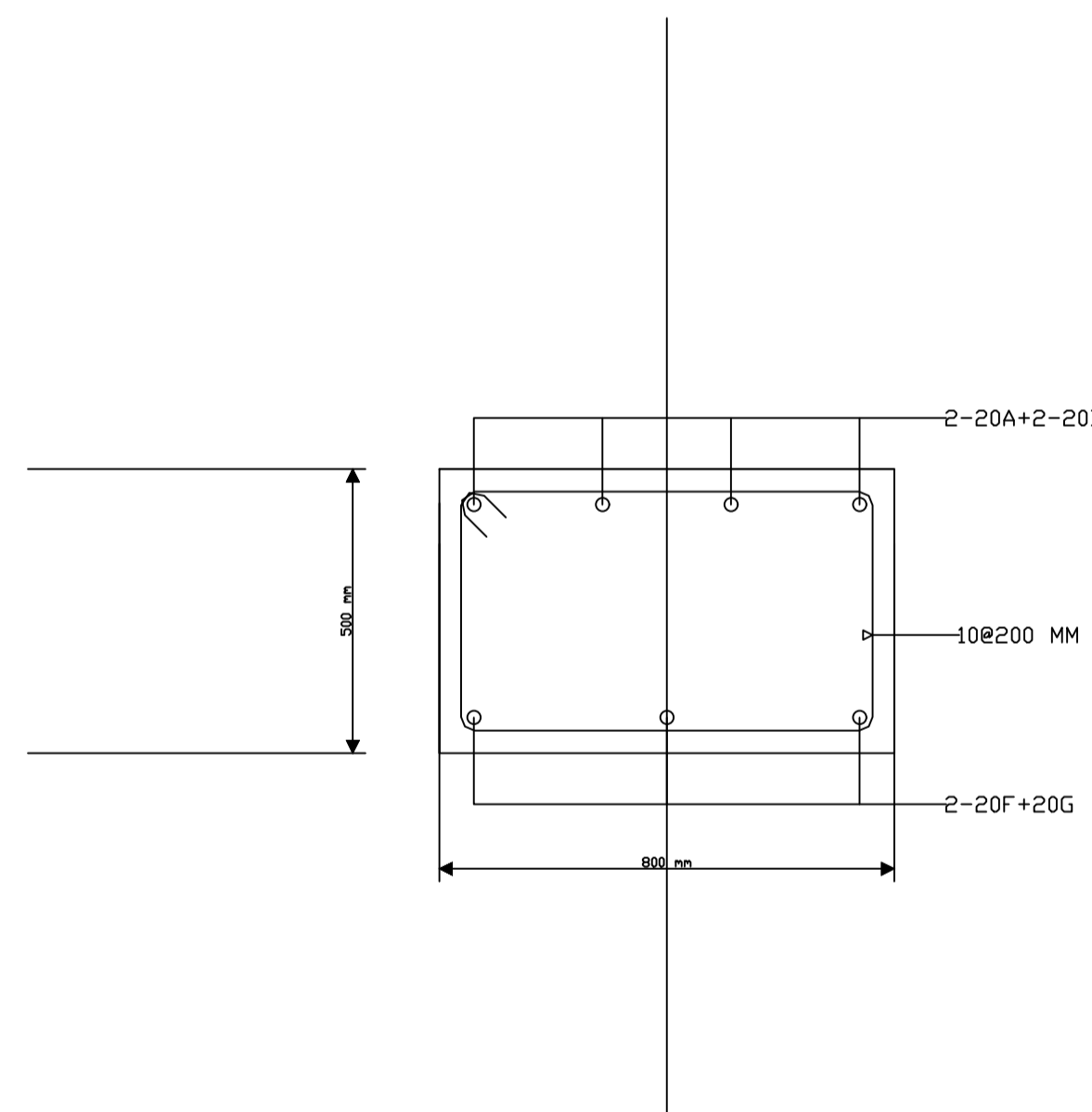
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

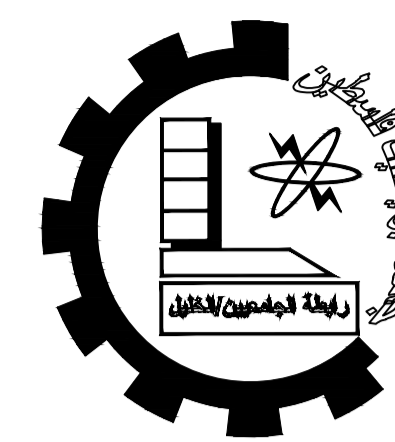
SCALE	No. of DRAW	DATE
1/100	S507	2024



Beam 28 Elevation
(Scale 1:40)



Beam 28 Section A
(Scale 1:15)



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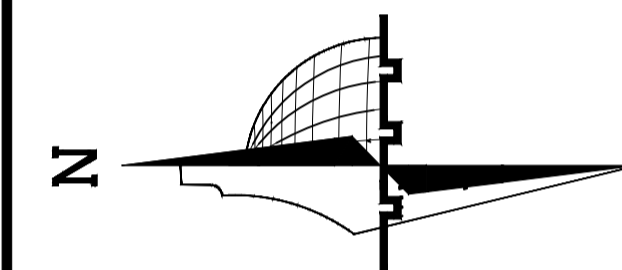
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

	Stone		Gravel
	R.Concrete		Wood
	Concrete		HEXAGONAL TILES
	Hollow Block		BAKLAVA TILES
	isolating materiales		GRASS

DRAWING TITLE :

Beam: 28

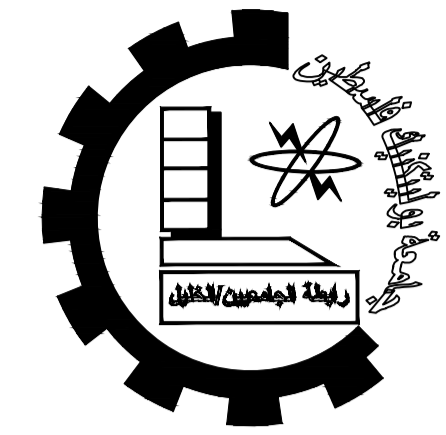
Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha

Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/100	S508	2024



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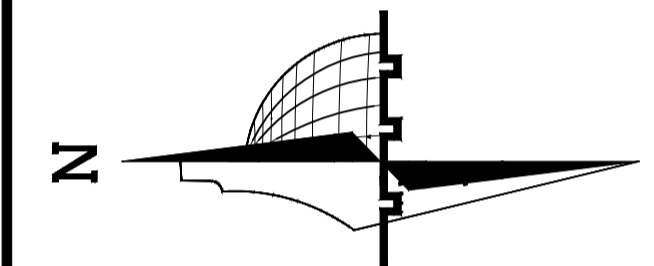
College of Engineering

Civil Engineering Department

Civil Engineering

Graduation Project

Khalet Mana' Basic Girls School.



Legend :

- | | | | |
|--|----------------------|--|-----------------|
| | Stone | | Gravel |
| | R.Concrete | | Wood |
| | Concrete | | HEXAGONAL TILES |
| | Hollow Block | | BAKLAVA TILES |
| | isolating materiales | | GRASS |

DRAWING TITLE :

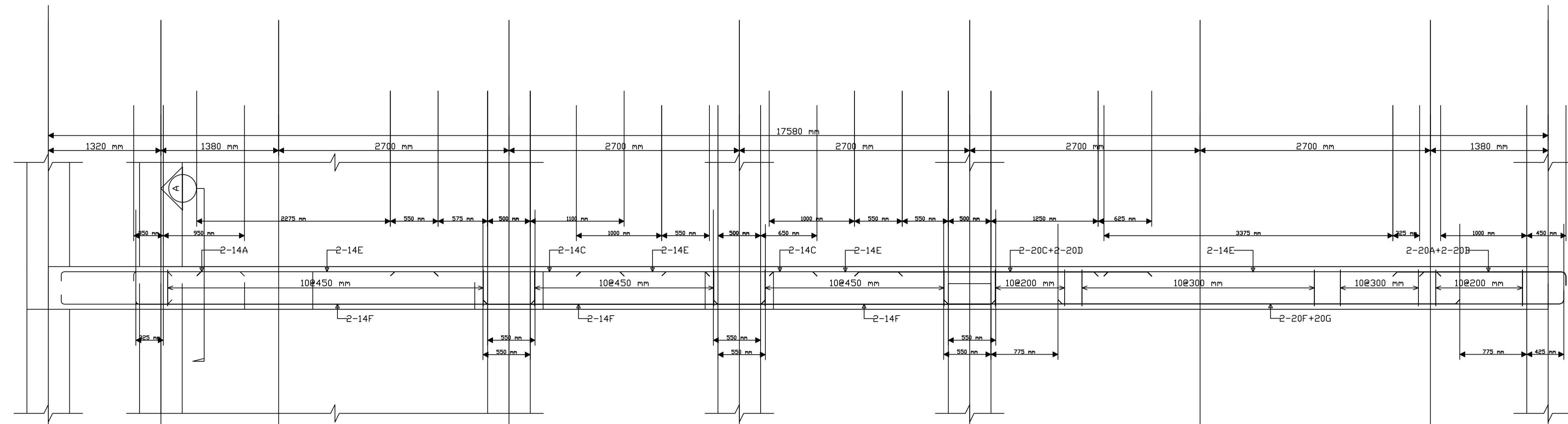
Beam:29&30

Supervisor:
Dr.Belal Al-Massri

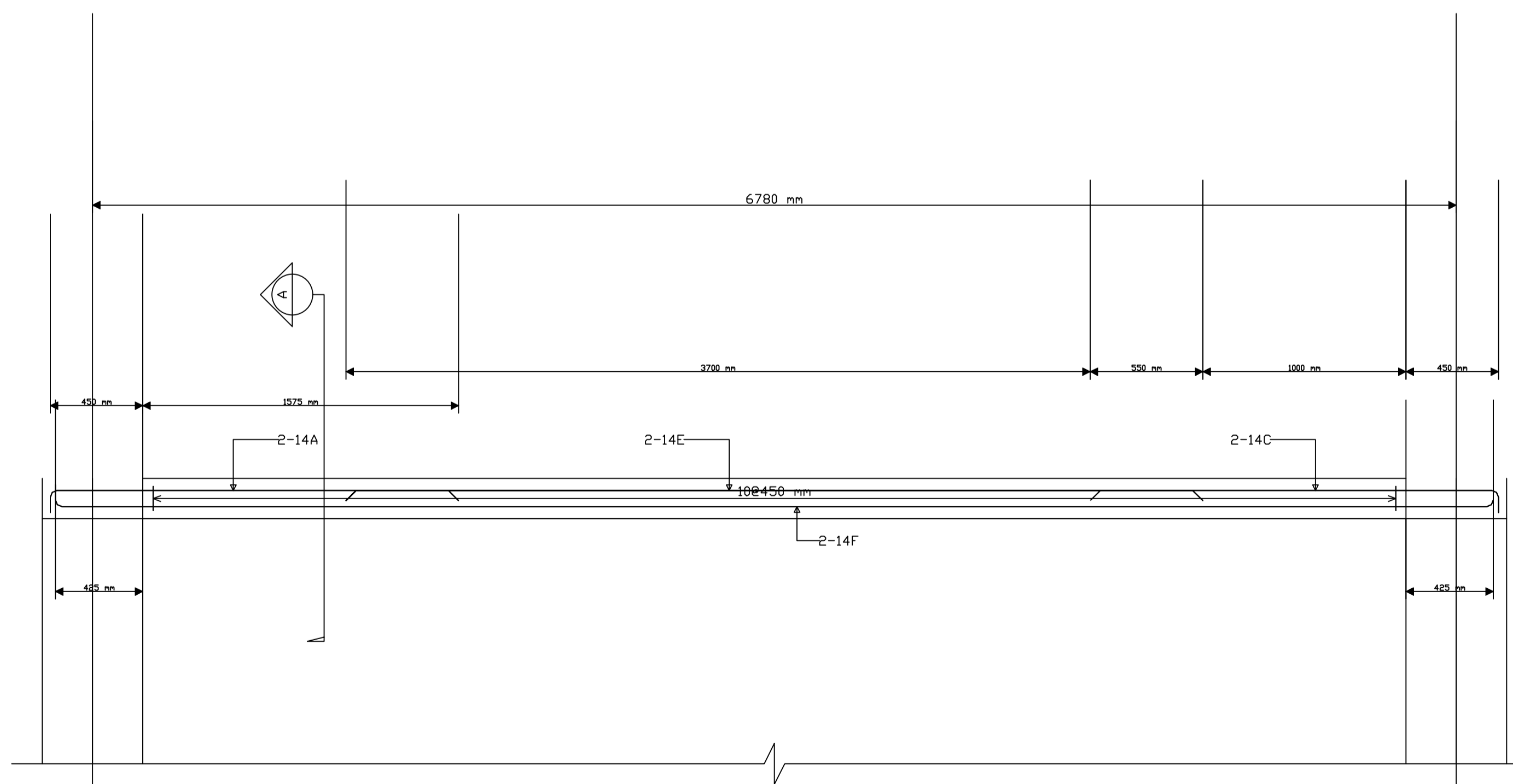
Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

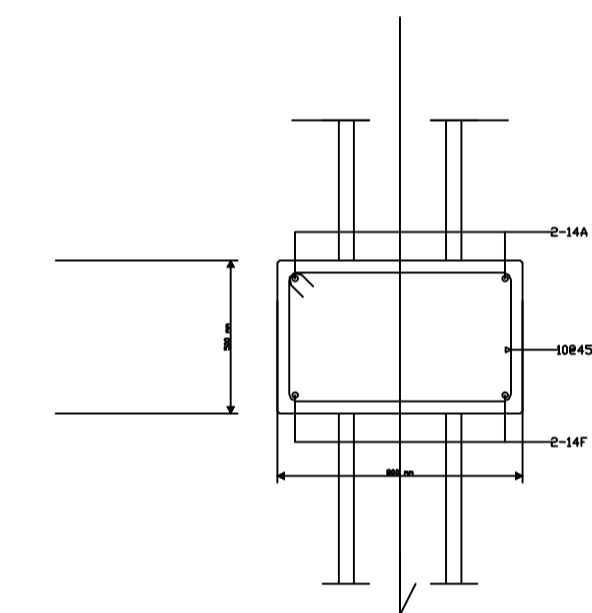
SCALE	No. of DRAW	DATE
1/100	S509	2024



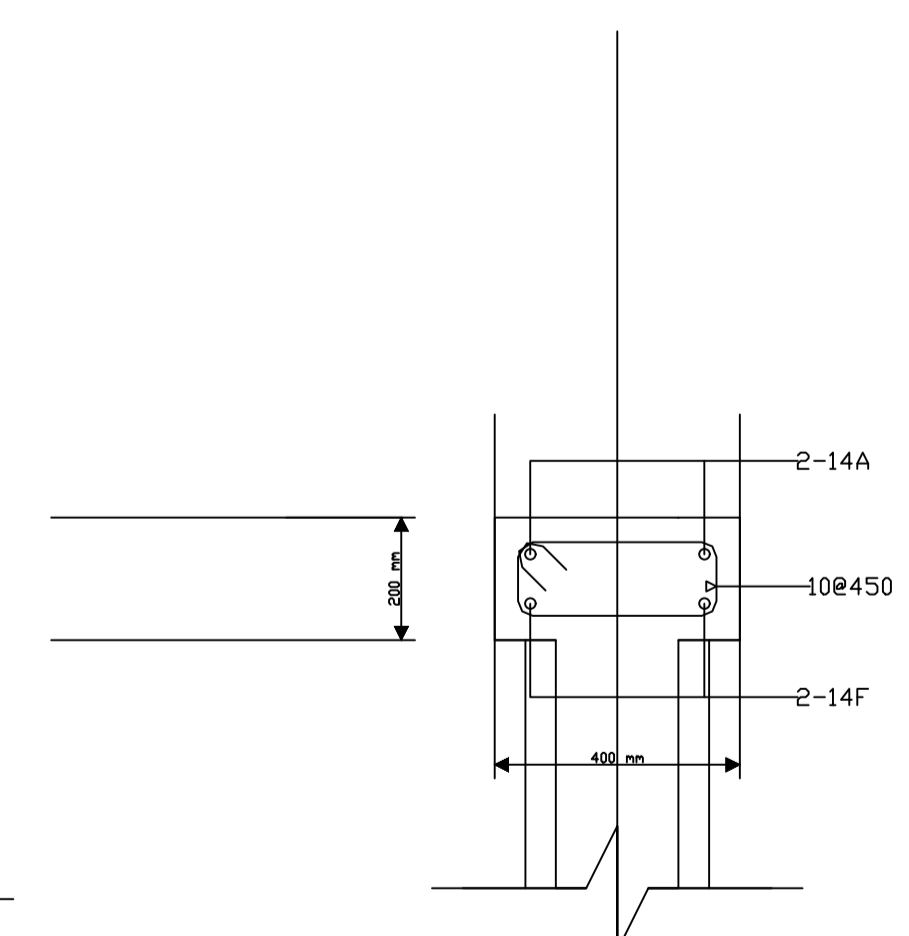
Beam 29
(Scale 1:40)



Beam 30
(Scale 1:25)

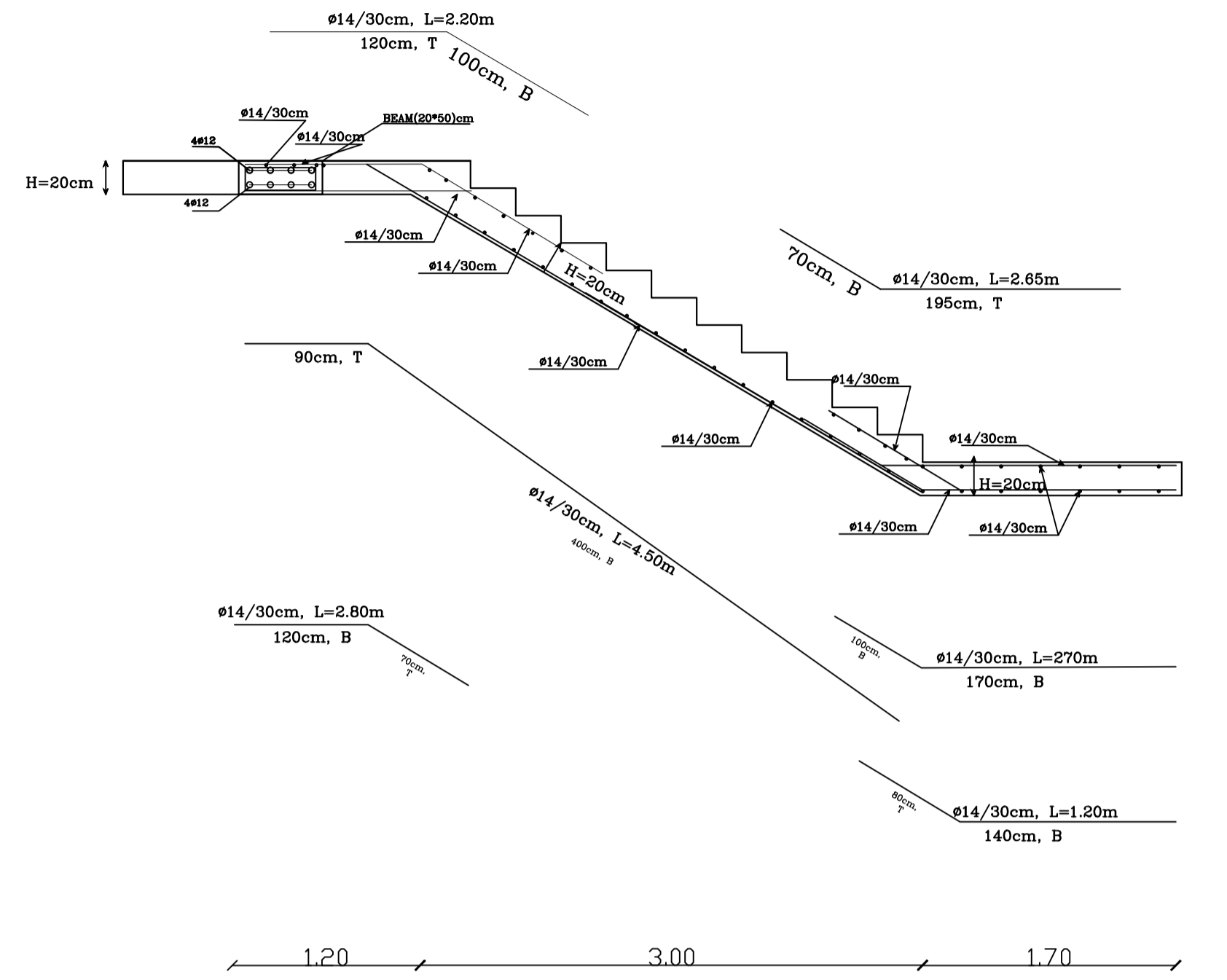
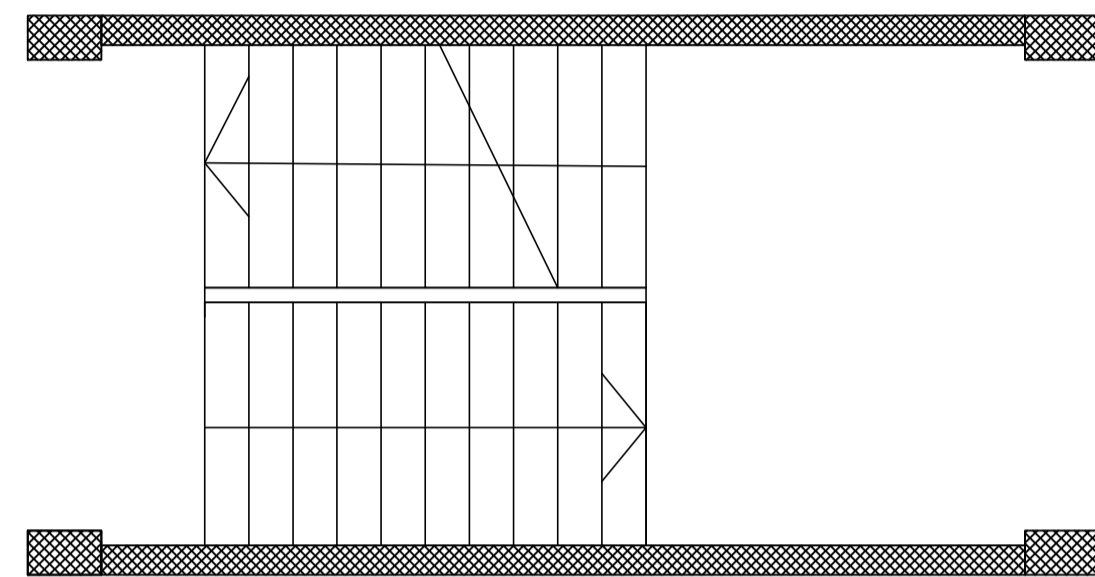


Beam 29 Section A
(Scale 1:25)

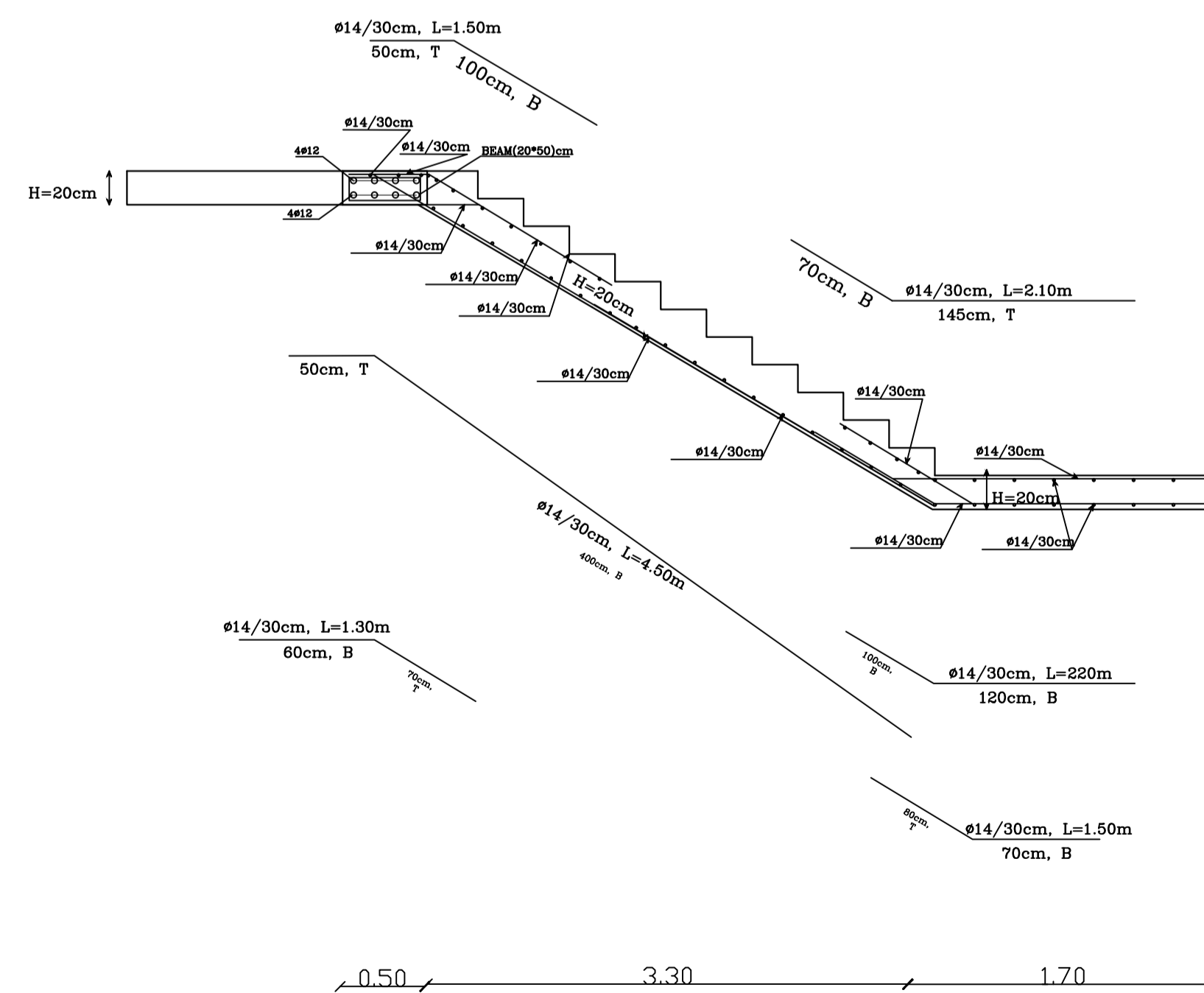
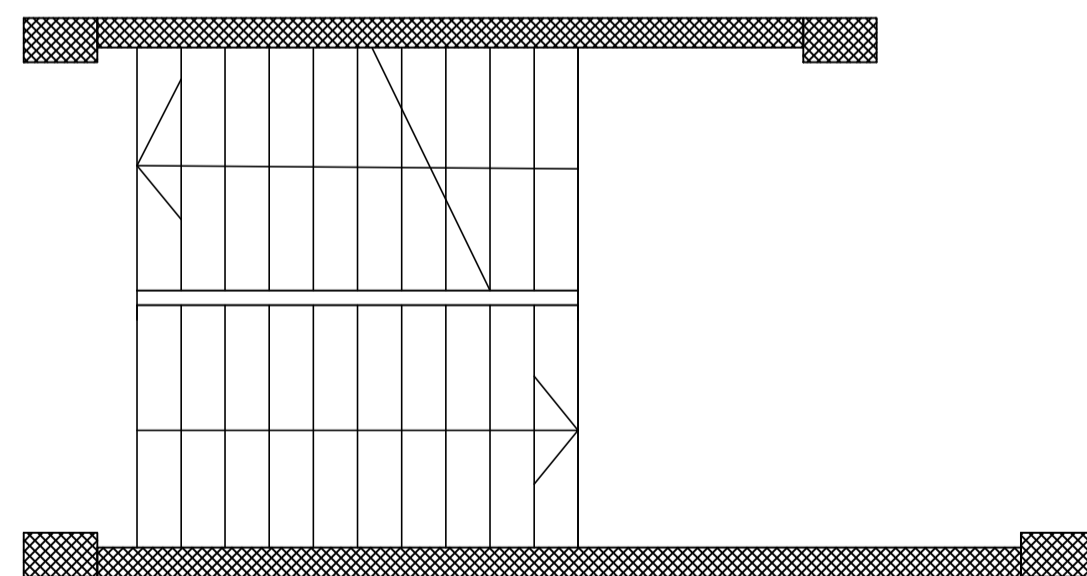


Beam 30 Section A
(Scale 1:25)

Stair 1



Stair 2



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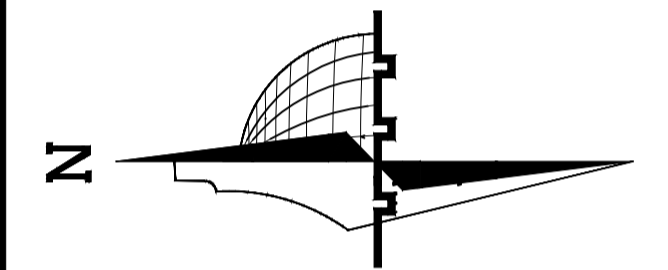
College of Engineering

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Legend :

- Stone
- Gravel
- R.Concrete
- Wood
- Concrete
- HEXAGONAL TILES
- Hollow Block
- BAKLAVA TILES
- isolating materiales
- GRASS

DRAWING TITLE :

Stair 1&2

Supervisor:
Dr.Belal Al-Massri

Completed by :

Haider Hussein Abusheikha
Bayan Sameer Azbak Alafghani

SCALE	No. of DRAW	DATE
1/50	S600	2024