

ផ្នែក
ស្ថាបត្យកម្ម

ARCHITECTURAL DRAWING

1. GENERAL

- 1.1. ALL STRUCTURAL WORKS AND MATERIALS SHALL CONFORM TO BUILDING CODE REQUIREMENT FOR REINFORCED CONCRETE ACI318-05 UNLESS OTHERWISE IN THE DRAWINGS.
- 1.2. ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
- 1.3. DO NOT SCALE. USE WRITTEN DIMENSIONS.
- 1.4. ALL OPENINGS SHALL BE FORMED OR SLEEVED BEFORE PLACING CONCRETE.
- 1.5. PROVIDE ALL NECESSARY INSERTS, CLIP, ANCHORS, TIES, REGLETS AND OTHER FASTENING DEVICES AS REQUIRED TO BE CASTED INTO CONCRETE.

2. EXCAVATION AND PREPARATION OF FOUNDATION BASE

- 2.1. SOIL BEARING TYPE FOUNDATIONS SUCH AS LADDERS, STAIRS, LOCAL SUPPORTS OR MINOR FOUNDATIONS MAY BE SET DIRECTLY ON CONCRETE PAVING OR FOUNDATION.
- 2.2. ALL BASES OF FOUNDATION SHALL BE PREPARED WITH LEVEL AND EVEN WITH ABOUT 50mm THICKNESS LEAN CONCRETE.
- 2.3. ALL MATERIALS USED FOR FILL AND BACKFILL SHALL CONSIST OF MINERAL SOIL SUBSTANTIALLY FREE FROM ORGANIC MATERIALS, TOP SOIL, WOOD, TRASH AND OTHER OBJECTIONABLE MATERIALS WHICH MAY BE COMPRESSIBLE OR WHICH CAN NOT BE PROPERLY COMPACTED.
- 2.4. EACH LAYER OF BACKFILL SHALL BE COMPACTED BY HAND OR MACHINE TAMPERS OR OTHER SUITABLE EQUIPMENT. THE MAXIMUM DRY DENSITY IS 95 PERCENT FOR BUILDING AND PROCESS AREA, 90 PERCENT FOR NON-BUILDING AREA AT OPTIMUM MOISTURE CONTENT DETERMINED BY ASTM D1557 OR EQUIVALENT ONLY IN CASE OF SOIL BEARING TYPE FOUNDATION OR SLAB.

3. CONCRETE WORK

- 3.1. ALL STRUCTURAL CONCRETE, IF NOT SPECIFIED SHALL BE MIXED WITH ORDINARY PORTLAND CEMENT (OPC).
- 3.2. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS OF AGE (CUBE) SHALL BE AS FOLLOWS:
- a) PRESTRESSD PILES

400 ksc.
- b) FOUNDATION, ABUTMENTS, COLUMNS, BEAMS, SLAB & RC. WALL

350 ksc.
- 3.3. THE CONTRACTOR SHALL VERIFY THAT ALL EMBEDDED ITEMS ARE IN POSITION AND SECURELY FASTENED IN PLACE BEFORE PLACING CONCRETE.
- 3.4. CONSTRUCTION JOINT IN POSITION OTHER THAN THOSE SHOWN ON THE DRAWINGS, IF ANY, SHALL BE SUBMITTED BY CONTRACTOR TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- 3.5. MINIMUM THICKNESS OF 50 mm LEAN CONCRETE SHALL BE PROVIDED TO ALL STRUCTURES IN CONTACT WITH GROUND FOR EXAMPLE UNDERNEATH OF FOUNDATIONS, GRADE BEAMS, GROUND SLABS ETC. UNLESS OTHERWISE SHOWN ON THE DRAWING.
- 3.6. ALL FORMWORKS SHALL BE REMOVED IN A MANNER SUCH THAT THE CONCRETE IS NOT DAMAGED IN ANY WAY.

4. REINFORCING BAR

- 4.1. STEEL REINFORCING BARS SHALL HAVE A MINIMUM YIELD STRENGTH AS THE FOLLOWINGS:
- a) HIGH YIELD DEFORMED BARS DIAMETER NOT GREATER THAN 32 mm.

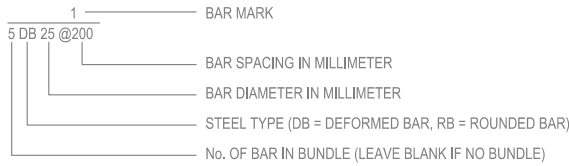
4000 ksc.
- b) HOT ROLLED MILD STEEL BARS

2400 ksc.
- c) STEEL PLATE, WF & OTHER TYPE A-36

2520 ksc.
- d) STAINLESS STEEL

2520 ksc.

4.2. REINFORCEMENT MARKING SYSTEM



- 4.3. MINIMUM DEVELOPMENT LENGTH AND LAP SPLICE FOR REINFORCEMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE DRAWINGS.

BAR SIZE	DEVELOPMENT LENGTH, mm			LAP SPLICE LENGTH, mm		
	TENSION		COMPRESSION	TENSION		COMPRESSION
	TOP BAR	OTHER BAR		TOP BAR	OTHER BAR	
DB10	490	370	200	490	370	360
DB12	580	450	230	580	450	430
DB16	780	600	310	780	600	570
DB20	1210	930	390	1210	930	720
DB25	1520	1170	490	1520	1170	900
DB28	1700	1310	540	1700	1310	1000
DB32	1940	1490	620	1940	1490	1150
REMARKS: - TOP BAR IS DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 300 mm FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT. - FOR EPOXY-COATED BAR, THE TENSILE DEVELOPMENT LENGTH AND LAP SPLICE LENGTH SHOWN IN THE TABLE SHALL BE INCREASED BY 20%.						

4.4. SPLICING CRITERIA FOR COLUMN

- a) COLUMN WITH REINF. DENSITY LESS THAN 4% CAN BE SPLICED 100%.
- b) COLUMN WITH REINF. ABOVE 4% DENSITY SHALL BE SPLICED IN A WAY THAT AT ANY SECTION REINFORCEMENT PERCENTAGE FROM COLUMN SECTION DOES NOT EXCEED 8%.
- c) LAP SPLICE LENGTH SHALL BE IN ACCORDANCE WITH THE REQUIREMENT OF ACI 318-05.

4.5. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318-05.

4.6. CONCRETE COVER WITH THE REQUIREMENTS OF ACI 318-05 CHAPTER 7.7

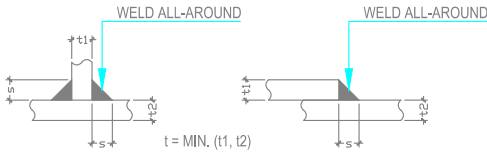
- a) CORRECT CONCRETE COVER TO REINFORCEMENT SHALL BE MAINTAINED WITH THE AID OF APPROVED SPACERS.
- b) THE COVER SHALL NOT BE LESS THAN AS GIVEN BELOW

STRUCTURAL MEMBER	BAR SIZE	MINIMUM COVER, mm
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	ALL	75
CONCRETE EXPOSED TO EARTH OR WEATHER	≥ DB20	50
	< DB20	40
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLAB, WALL, JOIST	> DB36 40
		≤ DB36 20
	BEAM, COLUMN	ALL 40
	SHELL, FOLDED PLATE MEMBER	≥ DB20 20
		< DB20 15

5. STRUCTURAL STEEL

- 5.1. ALL CONNECTIONS SHALL BE WELDED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 5.2. ALL WELDINGS SHALL BE DONE CONTINUOUSLY ALONG THE EDGES OF CONNECTED PARTS. UNLESS OTHERWISE NOTED ON THE DRAWING, THE SIZE OF FILLET WELDING SHALL BE OF MINIMUM 6mm UNLESS OTHERWISE NOTED ON THE DRAWING.
- 5.3. UNLESS OTHERWISE SPECIFIED ON THE STANDARD OR DETAIL DRAWINGS, THE FOLLOWING FILLET WELDS SHALL BE PROVIDED AND THE WELD SIZE NEED NOT EXCEED THE THICKNESS OF THE THINNER PART JOINT PLATE.

PLATE THICKNESS (t)	WELD SIDE (s)	
	T JOINTS	LAP JOINTS
t < 6	s = t	s = t
6 ≤ t < 9	6	6
9 ≤ t < 14	8	8
14 ≤ t < 19	10	10
19 ≤ t	12	12



- 5.4. ERECTION CLEARANCE SHALL BE ABOUT 5mm UNLESS OTHERWISE NOTED ON THE DRAWINGS.

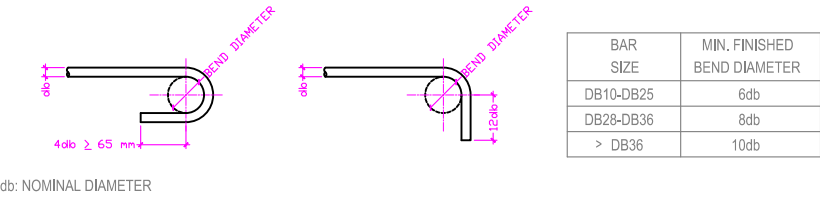
6. ABBREVIATION

D, d, Ø	DIAMETER	RC	REINFORCED CONCRETE
EL	ELEVATION	fy	YIELD STRENGTH OF REINFORCEMENT
PT	POST-TENSIONED	fc'	COMPRESSIVE STRENGTH OF CONCRETE AD 28 DAY (CUBE)
RB	HOT-ROLLED MILD STEEL BAR	Stir	STIRRUP
DB	HIGHT YIELD DEFORMED BAR	@	SPACING (CENTER TO CENTER)
THK	THICKNESS	TYP	TYPICAL

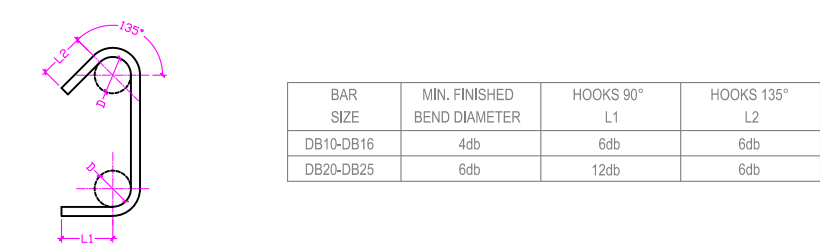
STRUCTURAL GENERAL NOTE

1. STANDARD HOOKS (ACI 318-05 CHAPTER 7.1 AND 7.2)

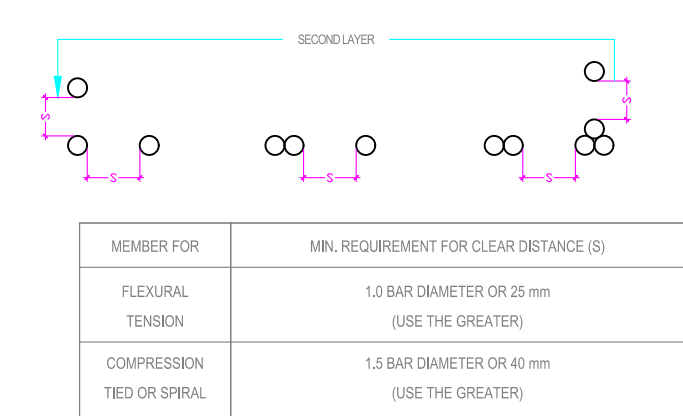
1.1. STANDARD HOOKS FOR MAIN BAR



1.2. STANDARD HOOKS FOR STIRRUP AND TIE

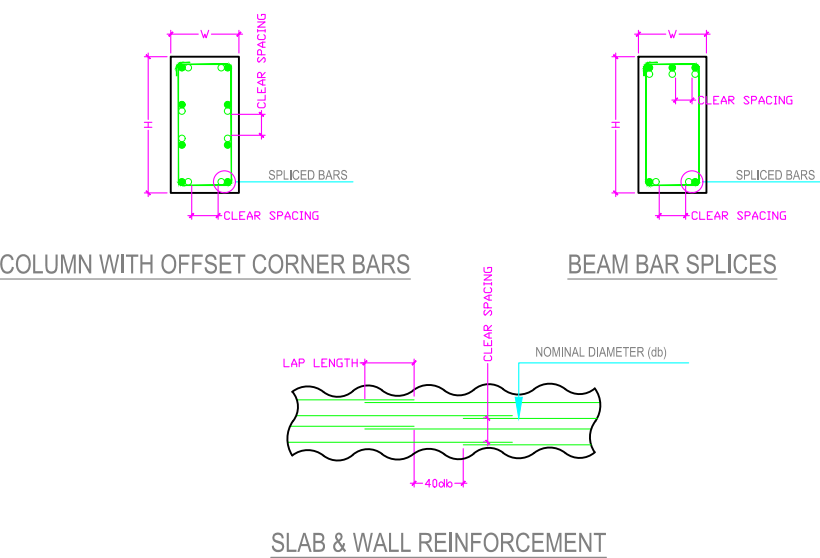


2. MINIMUM CLEAR DISTANCE BETWEEN BARS (ACI 318-05 CHAPTER 7.6)

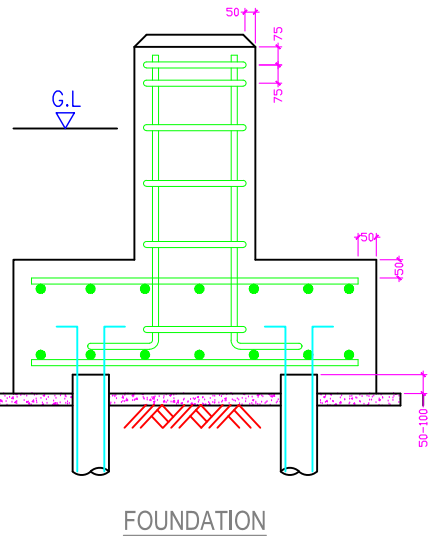
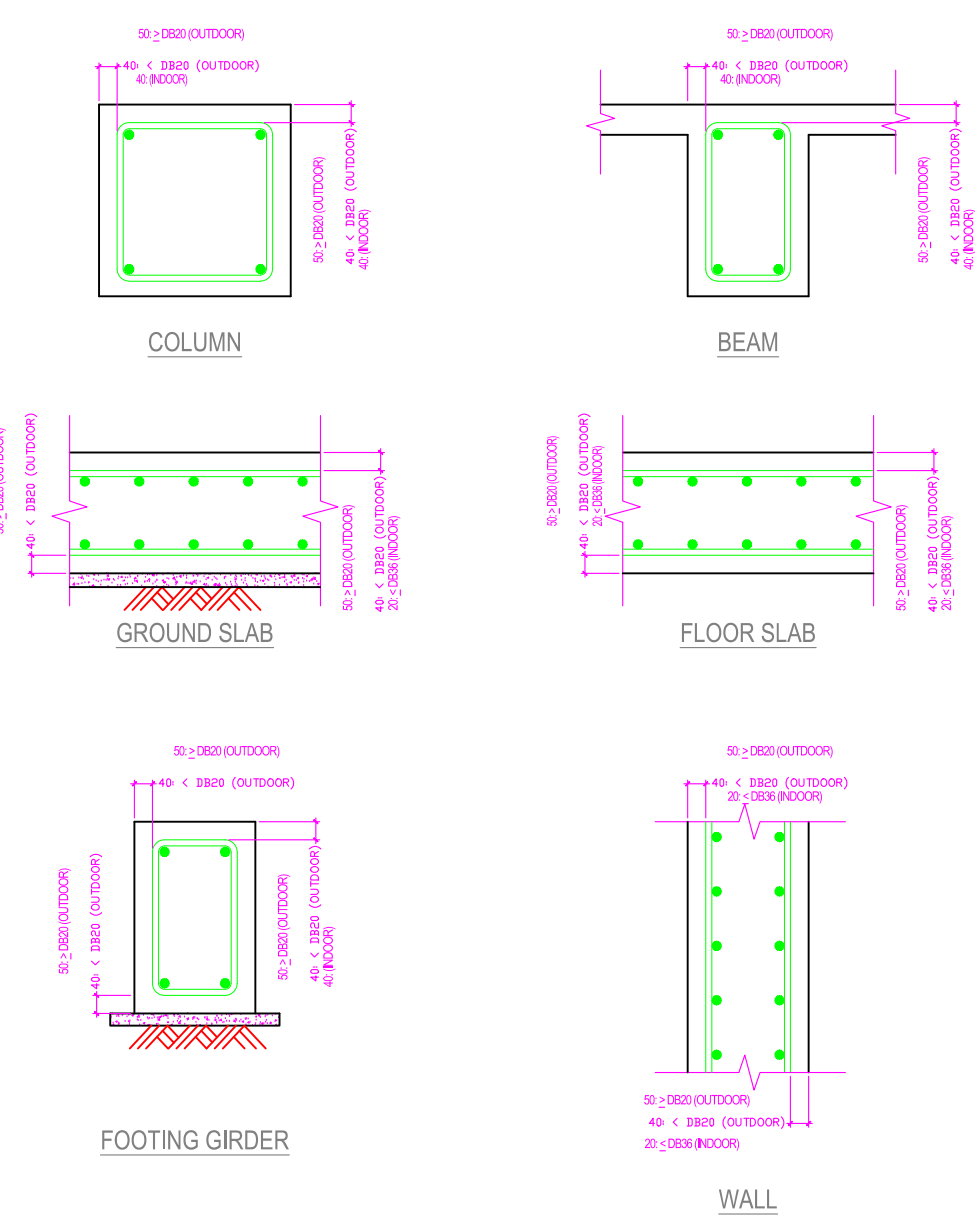


- NOTES:
- BUNDLED BARS SHALL BE TREATED AS A SINGLE BAR WITH DIAMETER DERIVED FROM THE EQUIVALENT TOTAL AREA.
 - MAX. NOMINAL SIZE OF THE AGGREGATE SHALL NOT BE LARGER THAN (3/4)S.

3. STANDARD LAP JOINT (ACI 318-05 CHAPTER 12.15)

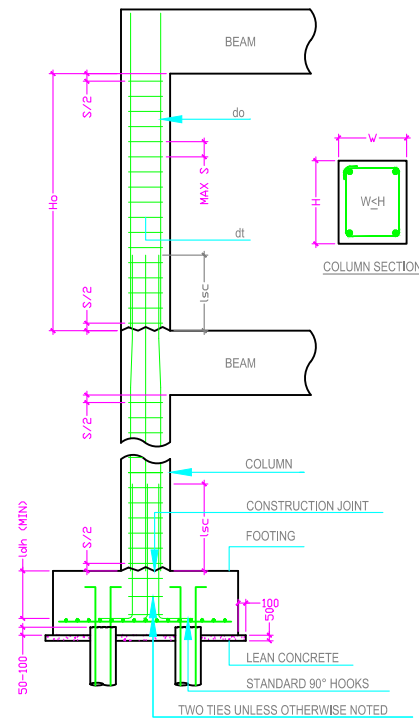


4. MINIMUM CONCRETE PROTECTION FOR REINFORCING (ACI 318-05 CHAPTER 7.7)



- NOTES:
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, THE CONCRETE COVER FOR STRUCTURES IN SEA WATER SHALL BE NOT LESS THAN 75mm.
 - THE CONCRETE COVER FOR STRUCTURES CONTAINED WATER OR OILY WATER SHALL BE NOT LESS THAN 50mm.
 - THE DIAMETER OF TIE BARS, STIRRUPS AND SLAB RE-BAR SHALL NOT BE MORE THAN D16 IN ORDER TO APPLY MINIMUM CONCRETE PROTECTION ACCORDING TO ACI 318-05 CHAPTER 7.7

5.1. FOOTING AND COLUMN (ACI 318-05 CHAPTER 7.10.5)



The diagrams illustrate the reinforcement details for interior and edge columns under two conditions: $e < 75\text{mm}$ and $e \geq 75\text{mm}$.

Condition 1: $e < 75\text{mm}$

- Interior Column:** Shows a cross-section of an interior column. The reinforcement details include:
 - Longitudinal bars: S1, S1/2, S2.
 - Development length: l_d (150 MAX.).
 - Lap length: l_{sc} .
 - Clear height: $e < 75$.
 - MAX SLOPE 1:6.
- Edge Column:** Shows a cross-section of an edge column. The reinforcement details include:
 - Longitudinal bars: S1, S1/2, S2.
 - Development length: l_d (150 MAX.).
 - Lap length: l_{sc} .
 - Clear height: $e < 75$.
 - MAX SLOPE 1:6.

Condition 2: $e \geq 75\text{mm}$

- Interior Column:** Shows a cross-section of an interior column. The reinforcement details include:
 - Longitudinal bars: S1, S1/2, S2.
 - Development length: l_d .
 - Lap length: l_{sc} .
 - Clear height: $e \geq 75$.
- Edge Column:** Shows a cross-section of an edge column. The reinforcement details include:
 - Longitudinal bars: S1, S1/2, S2.
 - Development length: l_d .
 - Lap length: l_{sc} .
 - Clear height: $e \geq 75$.

The diagrams are labeled "INTERIOR COLUMN" and "EDGE COLUMN" at the bottom.

- Isc: LAP SPlice LENGTH IN COMPRESSION BAR.
- Id: DEVELOPMENT LENGTH IN TENSION BAR.
- Idh: DEVELOPMENT LENGTH OF STANDARD HOOK IN TENSION BAR.
- S, S1 & S2: DISTANCE OF TIES (S, S1, S2 < 16do OR 48dt OR W).

a) HORIZONTAL DIFFERENCE

The diagram illustrates the development length (l_d) for reinforcement bars in a beam-column joint. It shows a cross-section of a column and a beam. The reinforcement bars are shown with their required development lengths in both the column and the beam. The labels include $l_d (l_{dt})$ for the development length in the column, $l_d (l_{db})$ for the development length in the beam, and D_o for the overall depth of the beam. The diagram also shows the distance D from the center of the bar to the outer edge of the concrete.

A schematic diagram of a beam-column joint. A horizontal beam is connected to a vertical column. The joint is shown in cross-section. The width of the column is labeled D . The depth of the joint region is labeled $D/2$. The beam is labeled "BEAM" and the column is labeled "COLUMN".

The diagram illustrates the dimensions of a beam-column joint. The horizontal member is labeled 'BEAM' and the vertical member is labeled 'COLUMN'. The joint is shown in a cross-section. The dimensions are labeled as follows: l_{dt} (total length of the joint), d_t (thickness of the joint), D (depth of the beam), l (length of the column), and D (depth of the column).

A schematic diagram of a beam-column joint. A horizontal beam is shown intersecting a vertical column. The beam has a top flange and a bottom flange. The column has a central core and an outer shell. The joint is shown with a cross-section. The width of the beam is labeled D (purple dimension line). The width of the column is labeled D_o (purple dimension line). The beam is labeled "BEAM" and the column is labeled "COLUMN".

- l_d : DEVELOPMENT LENGTH IN TENSION (OTHER BAR).
- l_{dt} : DEVELOPMENT LENGTH IN TENSION (TOP BAR).
- S : DISTANCE OF TIES ($S \leq 16d_o$ OR $48d_t$ OR W).

Diagram illustrating the reinforcement layout for a square column cross-section. The column has a total width W and height H . The inner square core has a width of 600 mm and height of 600 mm. Reinforcement consists of 8 bars (4 on each side) of size 28B12 @ 50 mm spacing. The bars are arranged in two layers: TOP & BOTTOM and TOP & BOTTOM. The distance from the center of the column to the center of the bars is 600 mm.

Diagram illustrating the geometry of a square plate with a central square hole and corner stiffeners. The plate dimensions are W (width) and H (height). The central hole dimensions are w (width) and h (height). The stiffeners are located at the corners, with dimensions 800 and 800 indicating the distance from the hole edges to the stiffener centers. The stiffeners are labeled as $3DB16 @50$ TOP & BOTTOM.

- L_d = DEVELOPMENT LENGTH IN COMPRESSION BAR.
- L_d = DEVELOPMENT LENGTH IN TENSION BAR.
- FOR V & H IN THE ABOVE ARE EQUAL TO OR SMALLER THAN 200mm, BARS SHALL BE REINFORCED MORE THAN THE NUMBER OF THE CUT BARS BY THE OPENING.
- OPENINGS SHALL BE PERMITTED IN SLAB SYSTEMS WITHOUT BEAMS ONLY IN ACCORDANCE WITH ACI 318-05 CHAPTER 13.4.2.1 THROUGH 13.4.2.4.



ប្លង់ទិដ្ឋភាពរួម៖ សាលាបឋមសិក្សាកោះទន្សាយសែនជ័យ ខេត្តស្ទឹងត្រែង មុនសាងសង់អគារសិក្សាថ្មី
ចំណាំ៖

..... ជាព្រំដី

- ① ខ្លោងទ្វារច្រកចូលសាលា
- ② ដងទង់ជាតិ
- ③ អគារសិក្សាធ្វើឈើប្រក់សង្ក្រាន្ត ទំហំ(8*6)ម
- ④ បន្ទប់ទឹកធ្វើឈើប្រក់សង្ក្រាន្ត មាន 4បន្ទប់ មានសភាពស្អាត
- ⑤ ផ្ទះស្នាក់សម្រាប់គ្រូ ធ្វើឈើប្រក់សង្ក្រាន្ត
- ⑥ ដីព្រៃ មានឈើធំៗ

បញ្ជាក់៖

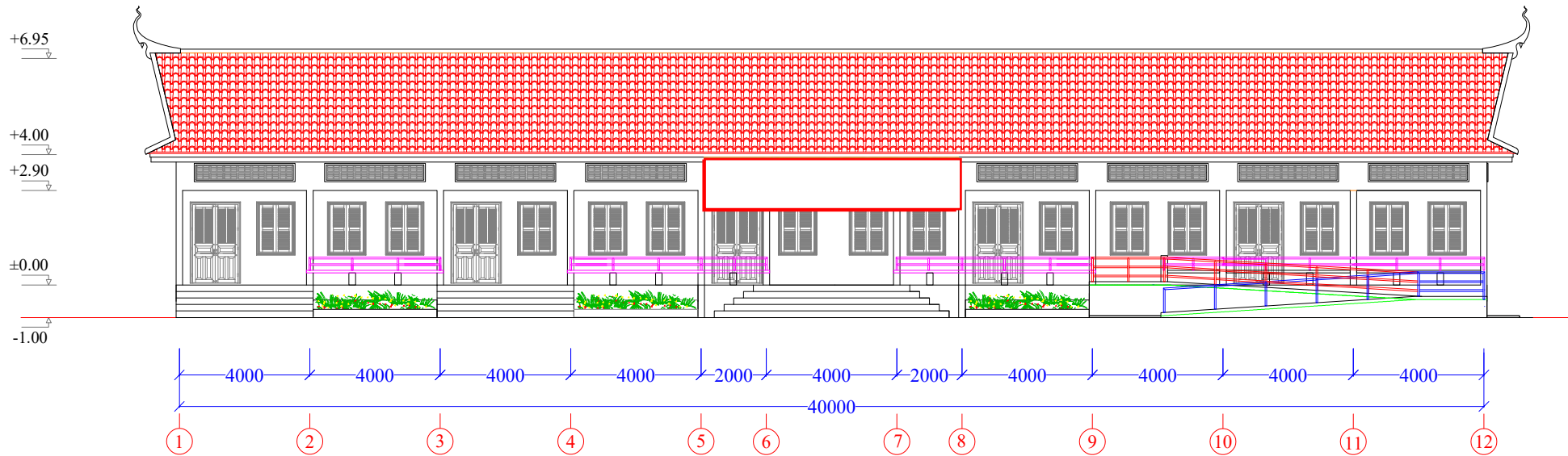
- បច្ចុប្បន្នសាលាមានអណ្តូងទឹក 1 ដែលដំណើរការដោយម៉ាស៊ីនប្រើសាំង
- ប្រភពអគ្គិសនីបានអូសដល់មុខសាលា តែសាលាមិនទាន់មានលទ្ធភាព តបណ្តាញសម្រាប់ប្រើប្រាស់
- សាលា និងសហគមន៍ នឹងរៀបចំឈូសឆាយបរិវេណ ដែលត្រូវសាងសង់អគារសិក្សាថ្មី



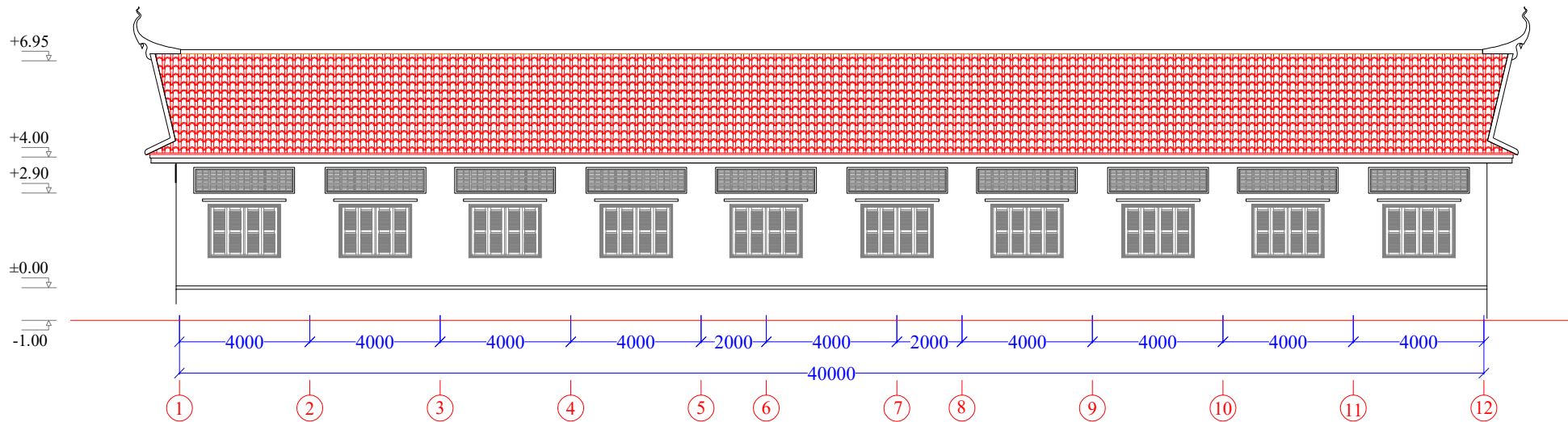
ប្លង់ទិដ្ឋភាពរួម៖ សាលាបឋមសិក្សាកោះទន្សាយសែនជ័យ ខេត្តស្ទឹងត្រែង ក្រោយសាងសង់អគារសិក្សាថ្មី
ចំណាំ៖

..... ជាព្រំដី

- ① ខ្លោងទ្វារច្រកចូលសាលា (រៀបចំថ្មី ចំកណ្តាលអគារថ្មី)
- ② ដងទង់ជាតិ (រៀបចំថ្មី ចំកណ្តាលអគារថ្មី និងចម្ងាយ 20ម ពីអគារថ្មី)
- ③ អគារសិក្សាធ្វើឈើប្រក់សង្ក្រាន្ត ទំហំ(8*6)ម (រក្សានៅដដែល)
- ④ បន្ទប់ទឹកធ្វើឈើប្រក់សង្ក្រាន្ត មាន 4បន្ទប់ មានសភាពស្អាត (រក្សានៅដដែល)
- ⑤ ផ្ទះស្នាក់សម្រាប់គ្រូ ធ្វើឈើប្រក់សង្ក្រាន្ត (រំកិលចេញដោយសាលា និងសហគមន៍)
- ⑥ ដីព្រៃ មានឈើធំៗ
- ⑦ អគារសិក្សាថ្មី ធ្វើពីថ្មប្រក់កៀង 5បន្ទប់ ទំហំ (40*9)ម មានគម្លាតពីអគារសិក្សាឈើ 12ម ដោយយកស្មៅផ្នែកខាងមុខ (រៀបចំថ្មី)

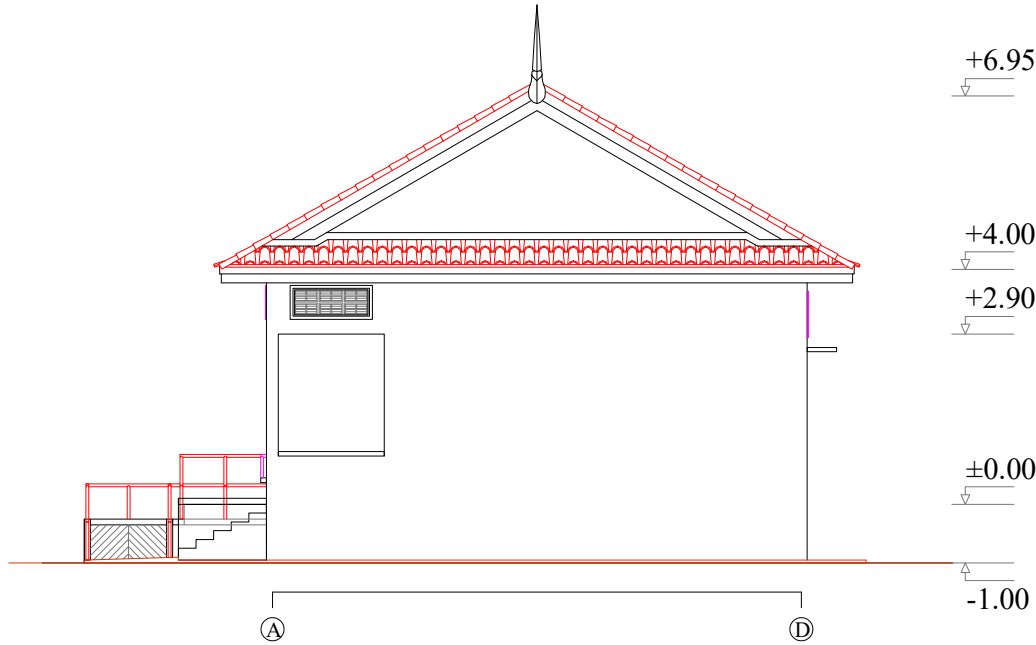


(Front Elevation)

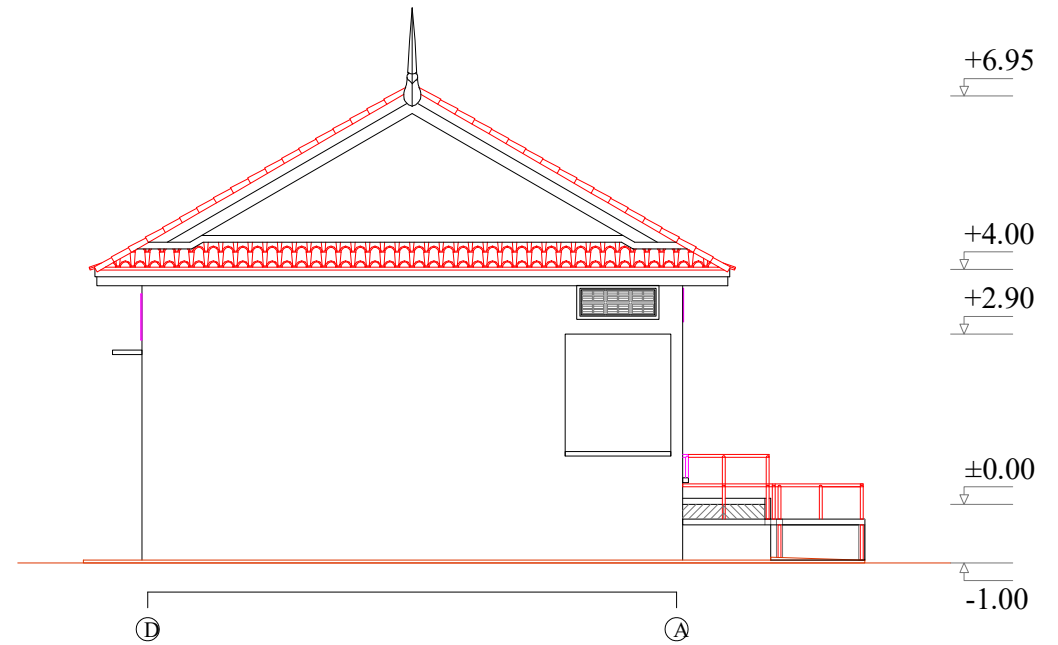


(Rear Elevation)

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-16
				DRAWING TITLE : FRONT AND REAR ELEVATION		SHEET N°:



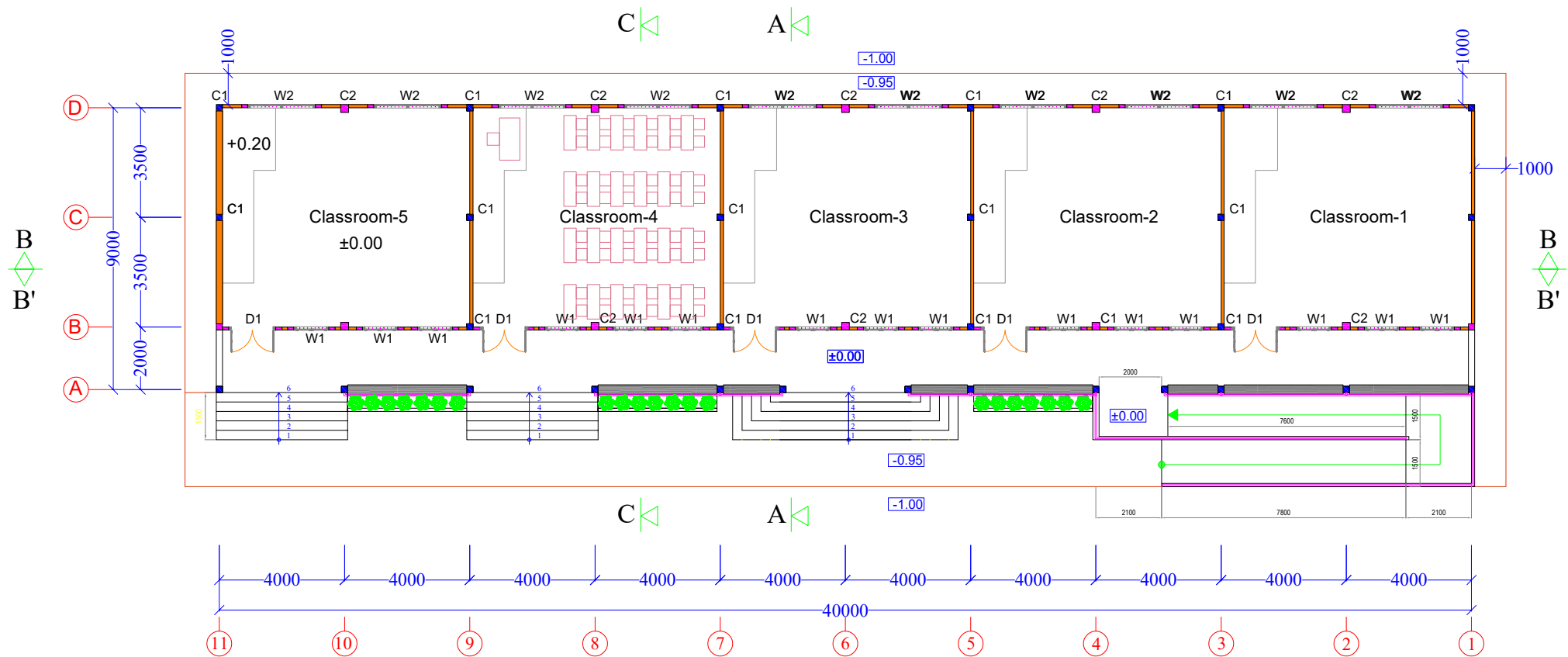
RIGHT ELEVATION



LEFT ELEVATION

APPROVED BY:
DIRECTOR OF DOC

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:	DRAWING TITLE : RIGHT AND LEFT ELEVATION	SHEETS:	A-16
					SHEET Nº:	A-03



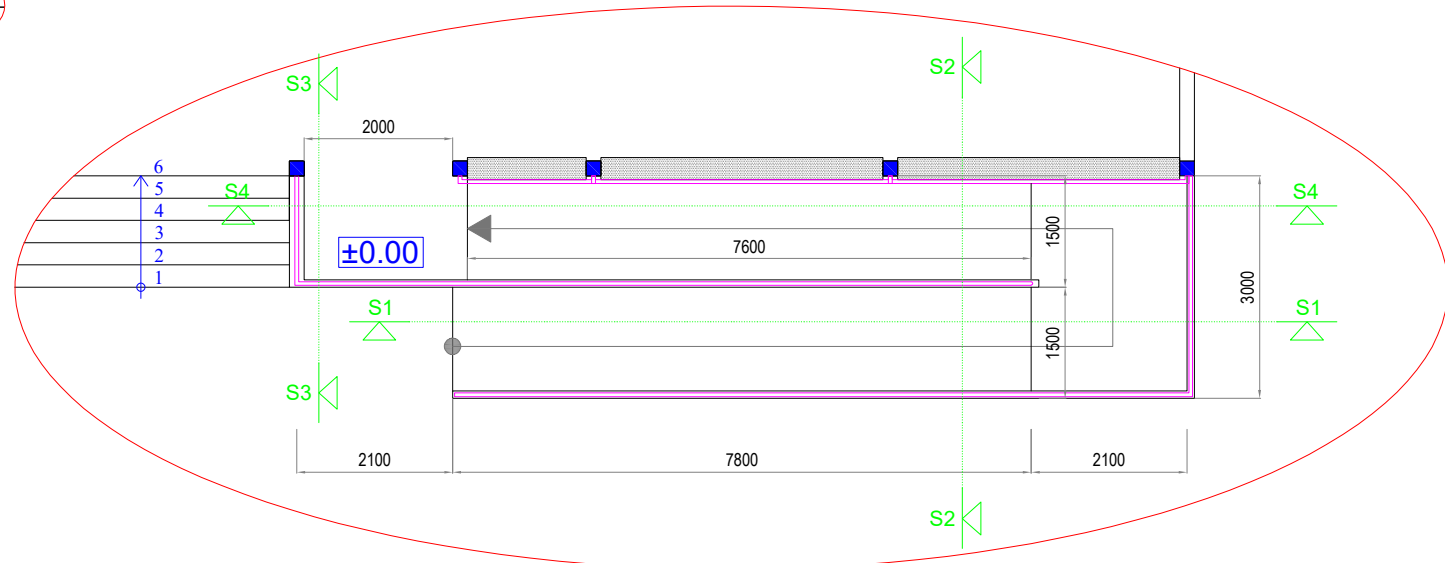
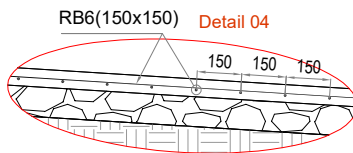
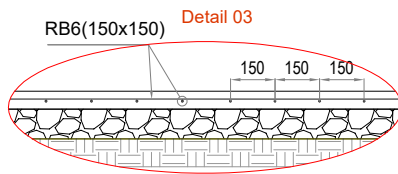
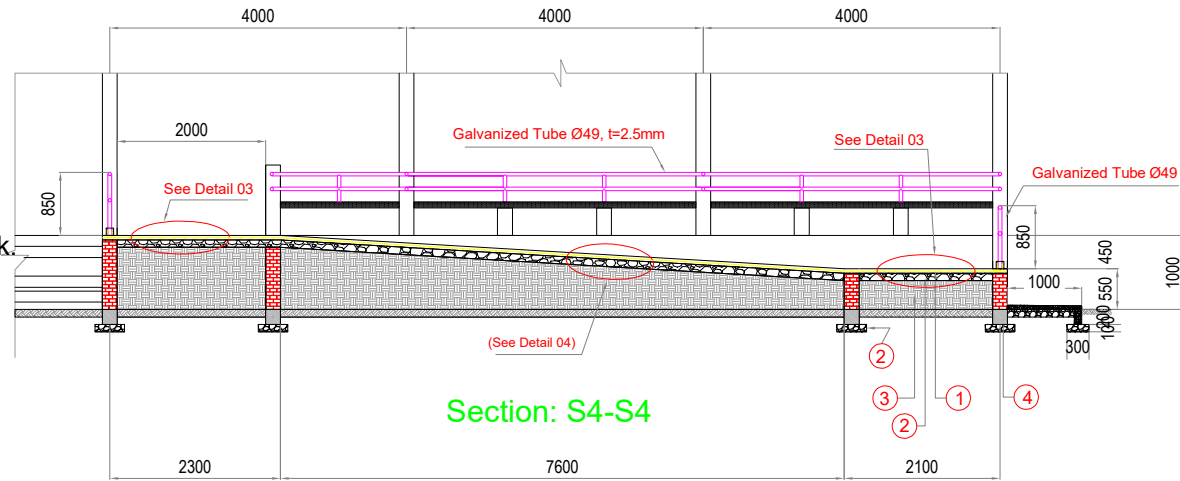
APPROVED BY:
DIRECTOR OF DOC

Floor Plan

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-16
				DRAWING TITLE : FLOOR PLAN	SHEET Nº:	A-04

Note:

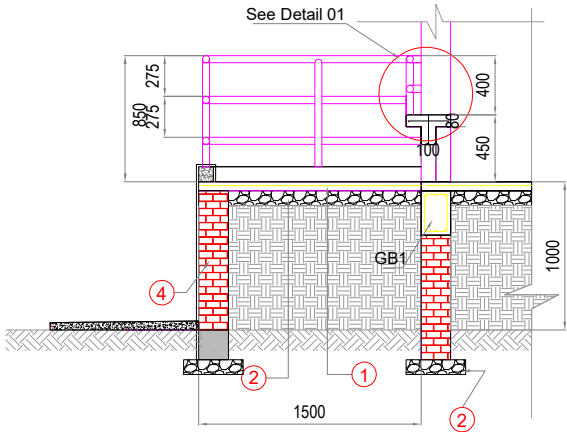
- ① -RC. Ramp Slab, 60mm thk.
- ② -Crushed Stone 4x6 Compacted, 100mm thk.
- ③ -Soil back fill and Compacted
- ④ -Solid brick Retaining wall for Ramp, 200mm thk.



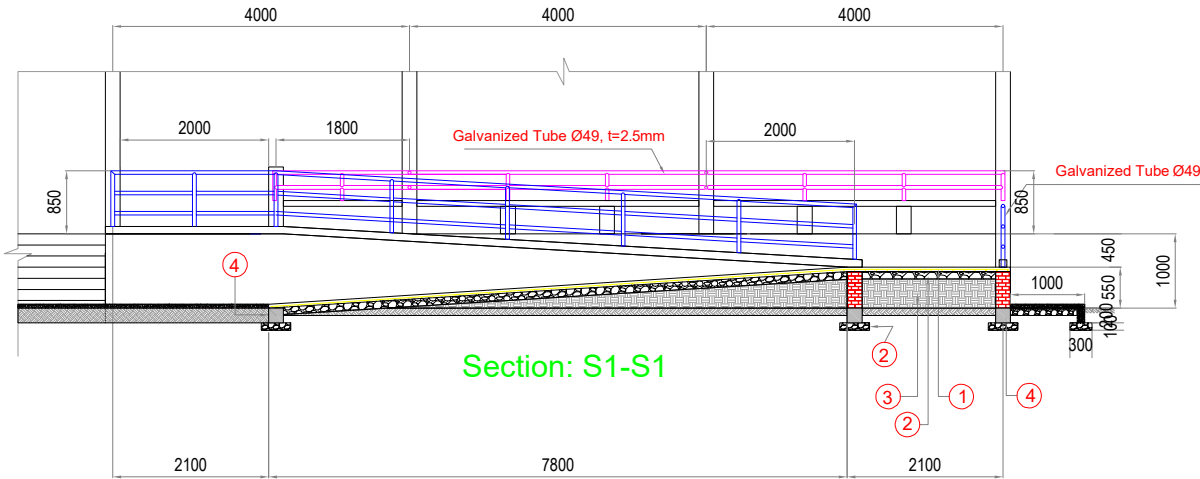
MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-17
		DRAWING TITLE : DETAIL RAMP		SHEET Nº:	A-05	

Note:

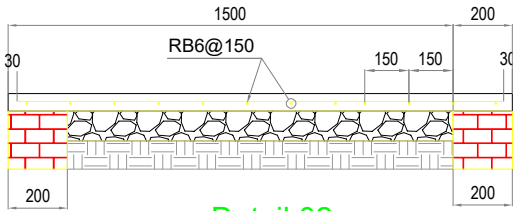
- ① -RC. Ramp Slab, 60mm thk.
- ② -Crushed Stone 4x6 Compacted, 100mm thk.
- ③ -Soil back fill and Compacted
- ④ -Solid brick Retaining wall for Ramp, 200mm thk.



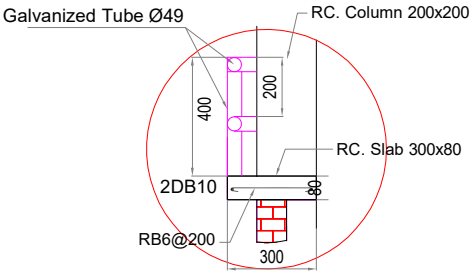
Section: S3-S3



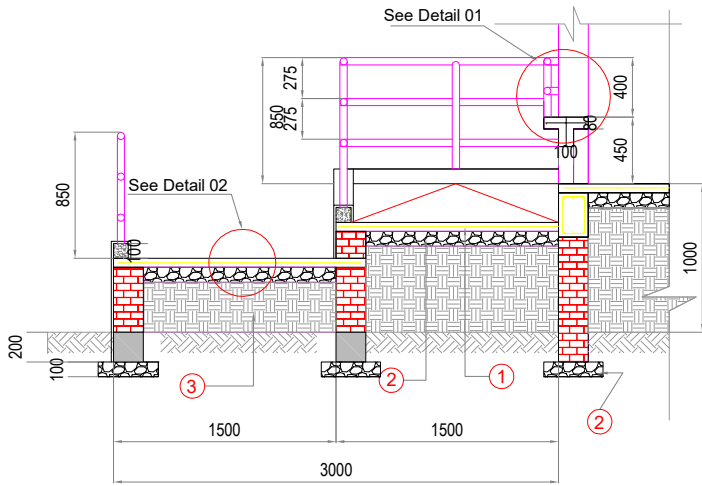
Section: S1-S1



Detail 02

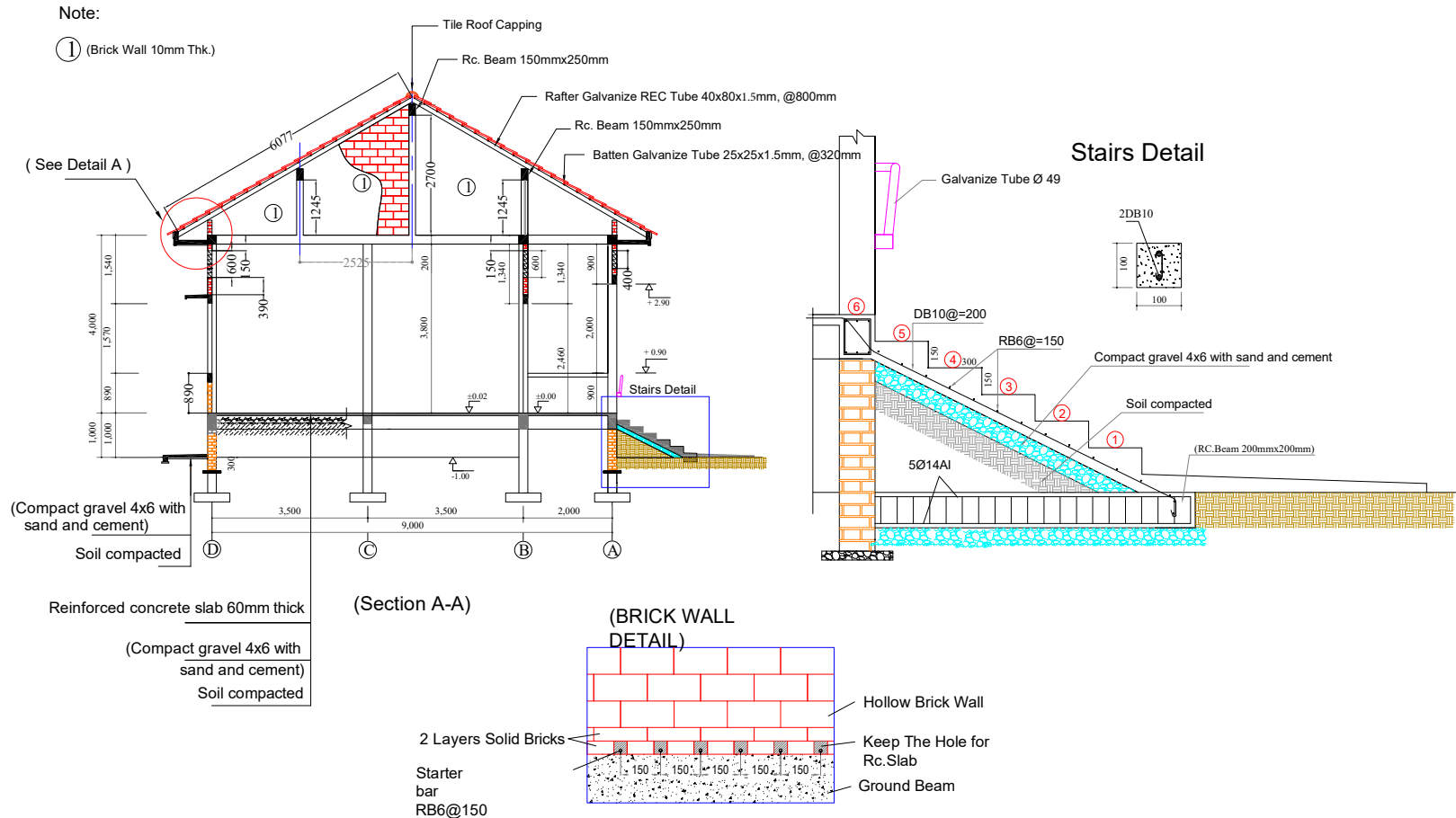


Detail 01

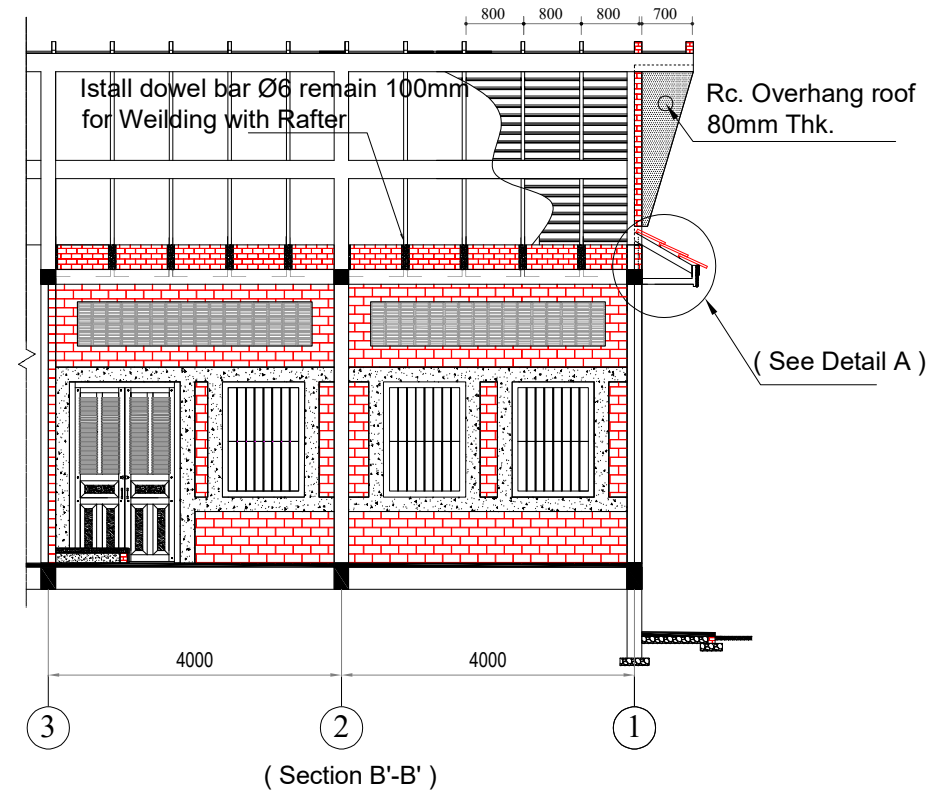
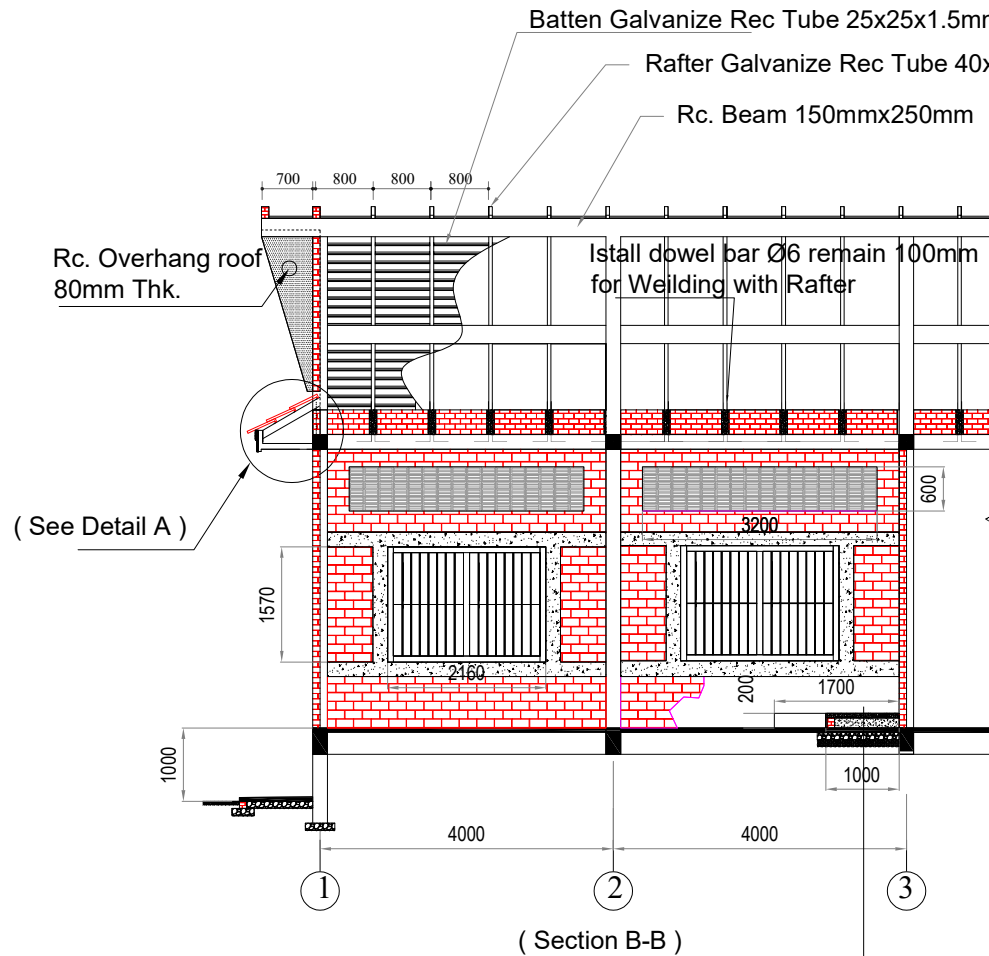


Section: S2-S2

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-17
				DRAWING TITLE : DETAIL RAMP		SHEET N°:



MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT :	SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:			SHEETS:	A-17
				DRAWING TITLE :	SECTION B-B	SHEET N°:	A-07



Note :

- All steel roof members must be cleaned and painted with two coats of rust proof paint.
- Rafter are welded to steel bar DB10 connected to the beam reinforcement.

Reinforced concrete slab 50mm thick

Compacted sand

Reinforced concrete slab 60mm thick

(Compact gravel 4x6 with sand and cement)

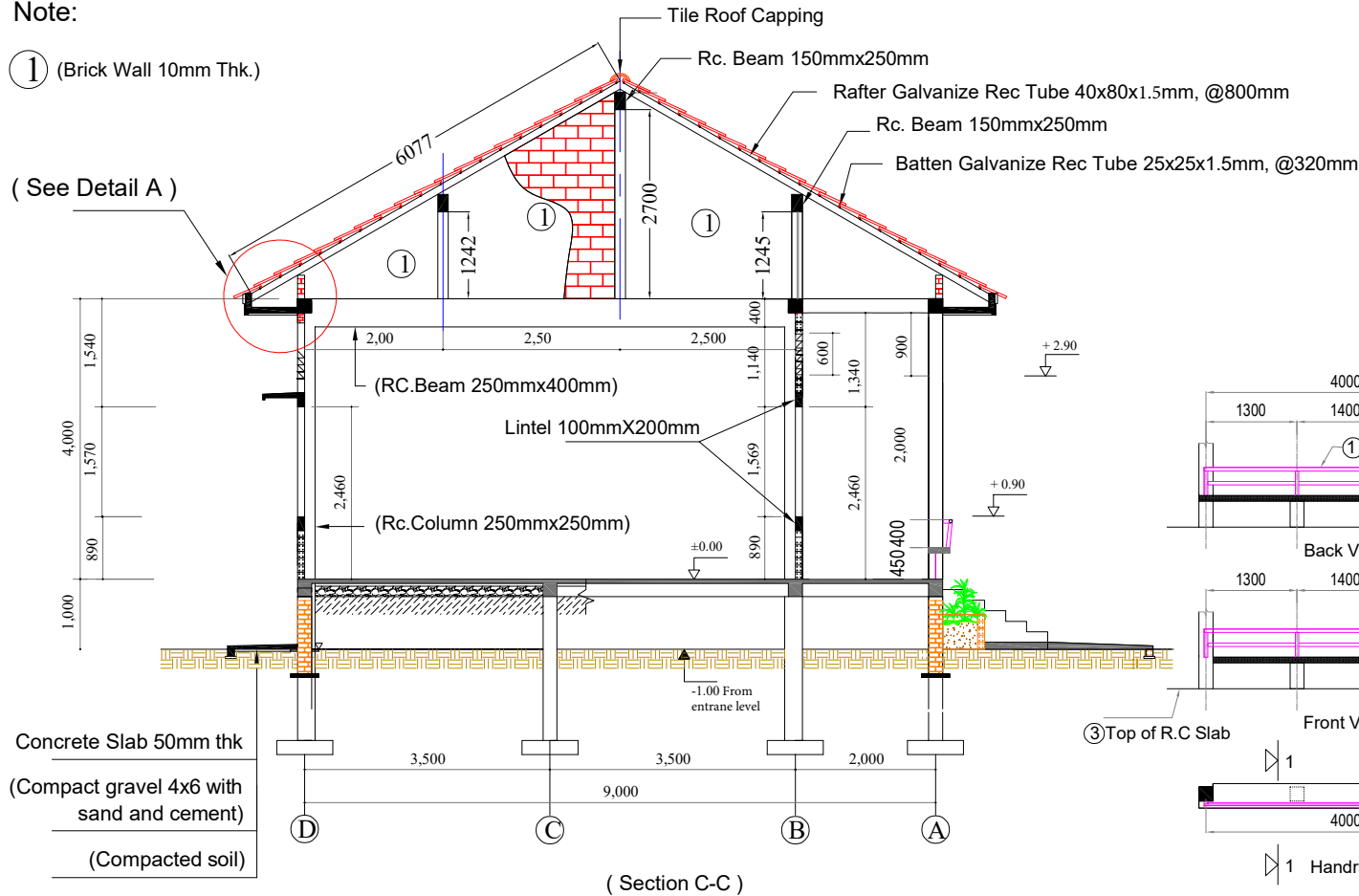
Soil compacted

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-16
				DRAWING TITLE : SECTION B-B		SHEET N°:

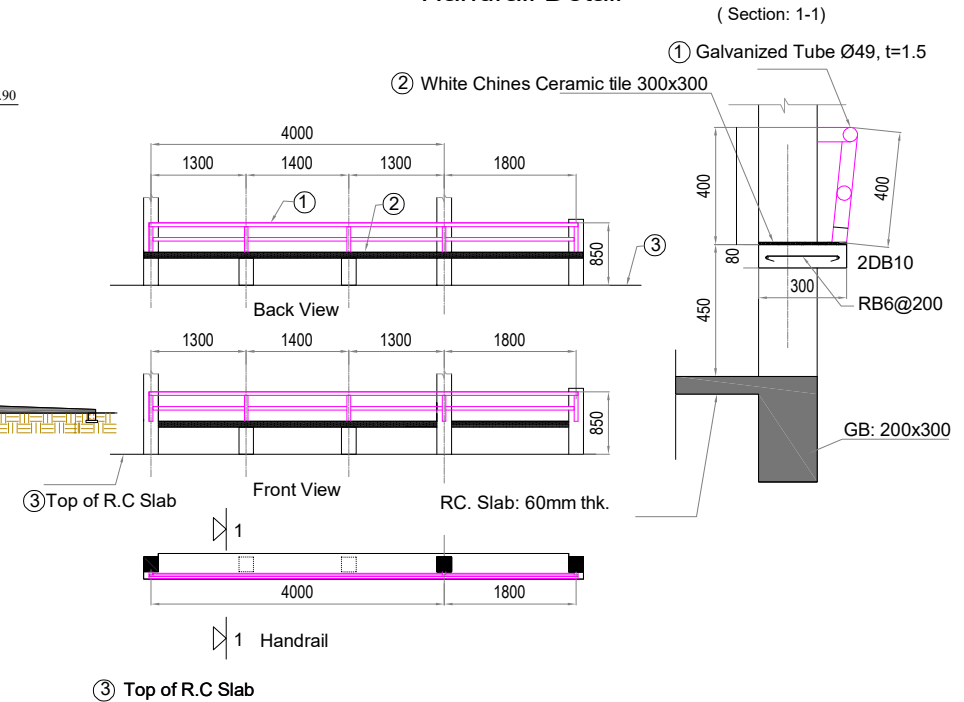
Note:

① (Brick Wall 10mm Thk.)

(See Detail A)



Handrail Detail

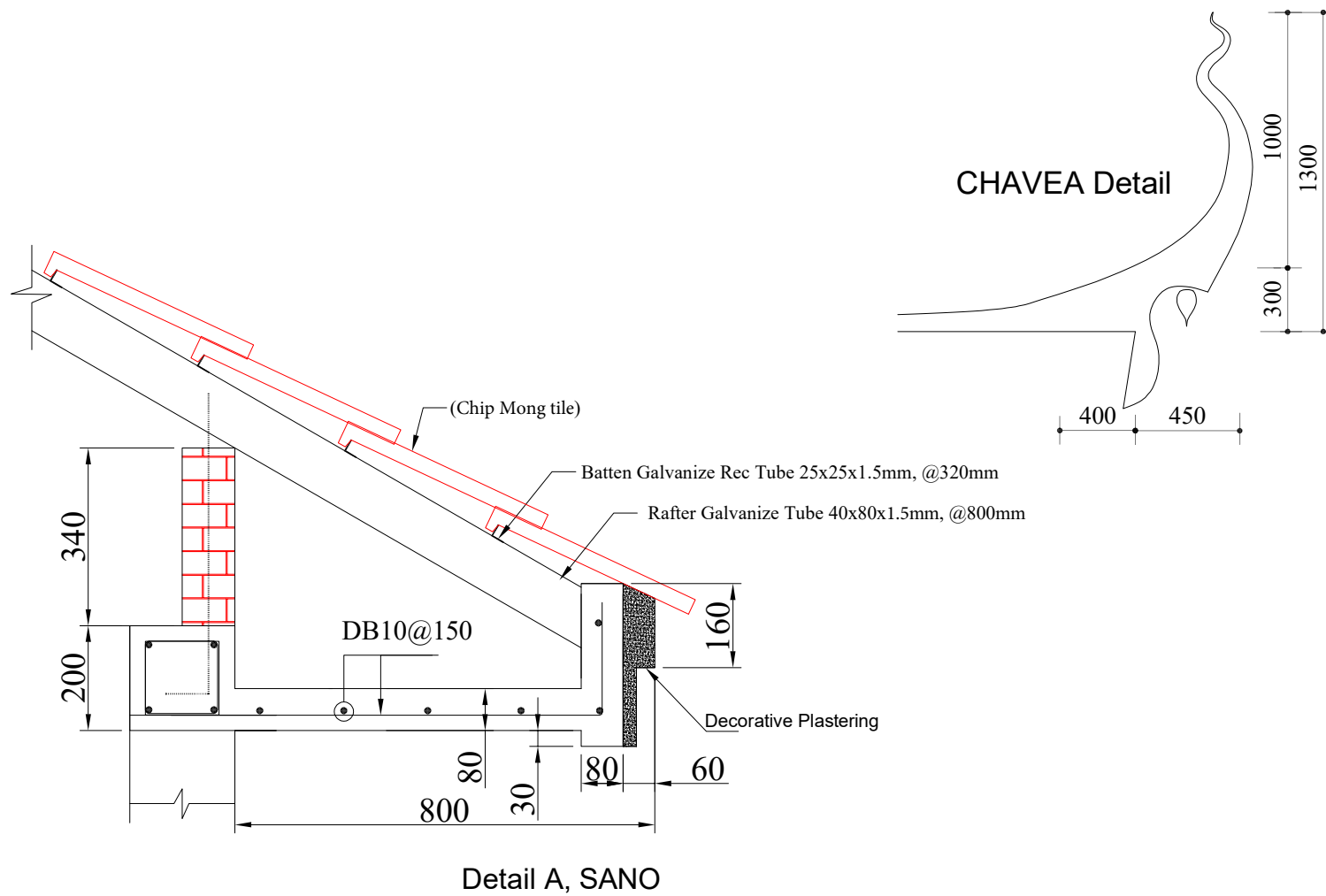


Note :

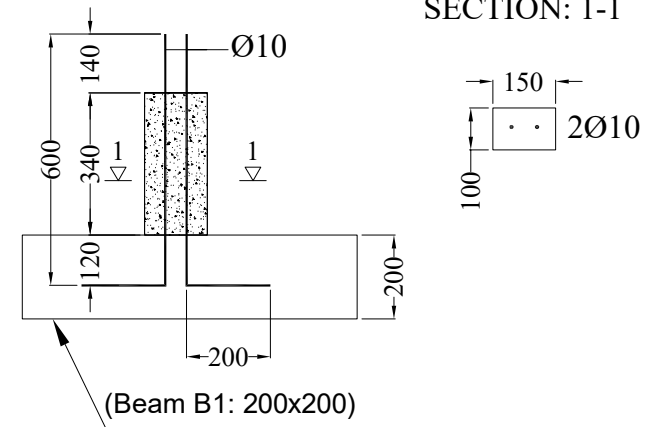
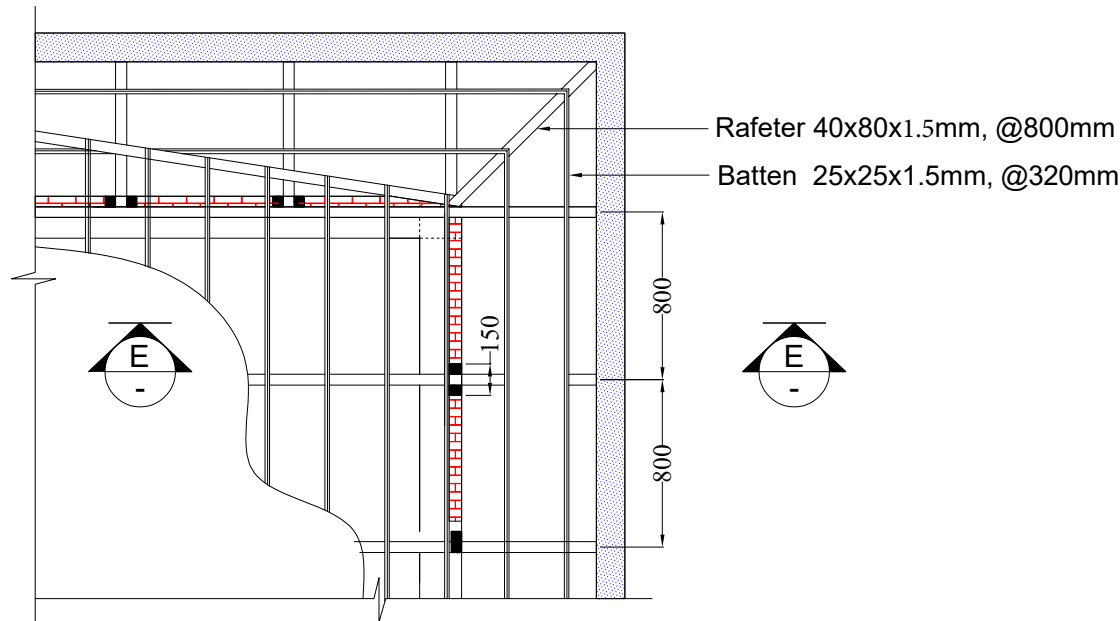
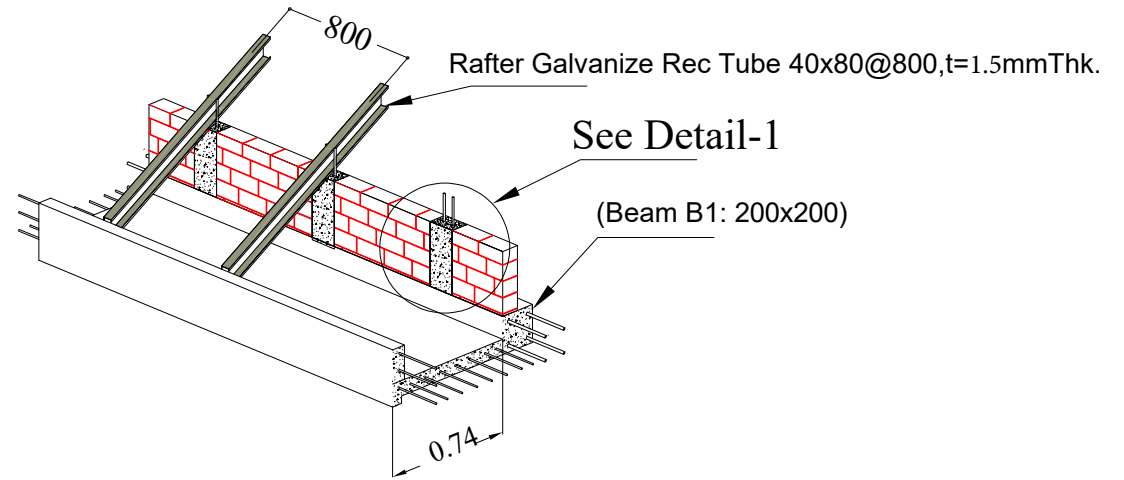
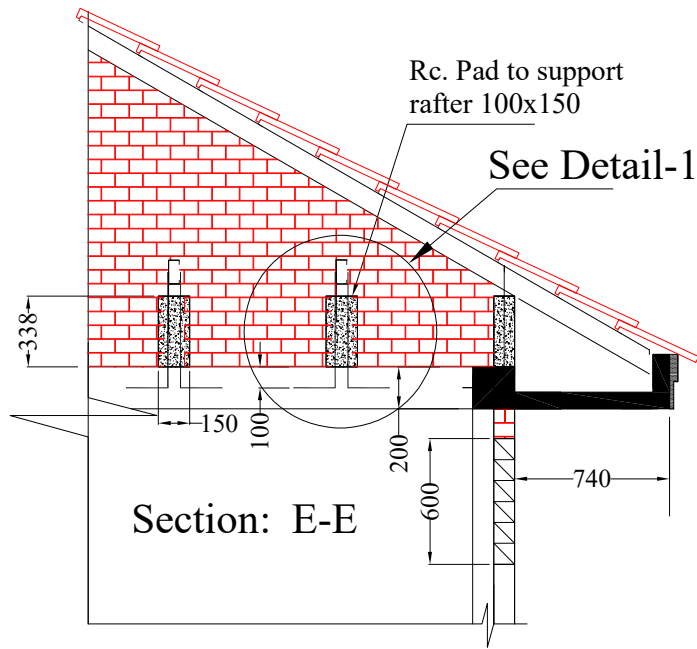
- All steel roof members must be cleaned and painted with two coats of rust proof paint.
- Rafter are welded to steel bar DB10 connected to the beam reinforcement.
- Level -1.00m take from entrane level

APPROVED BY:
DIRECTOR OF DOC

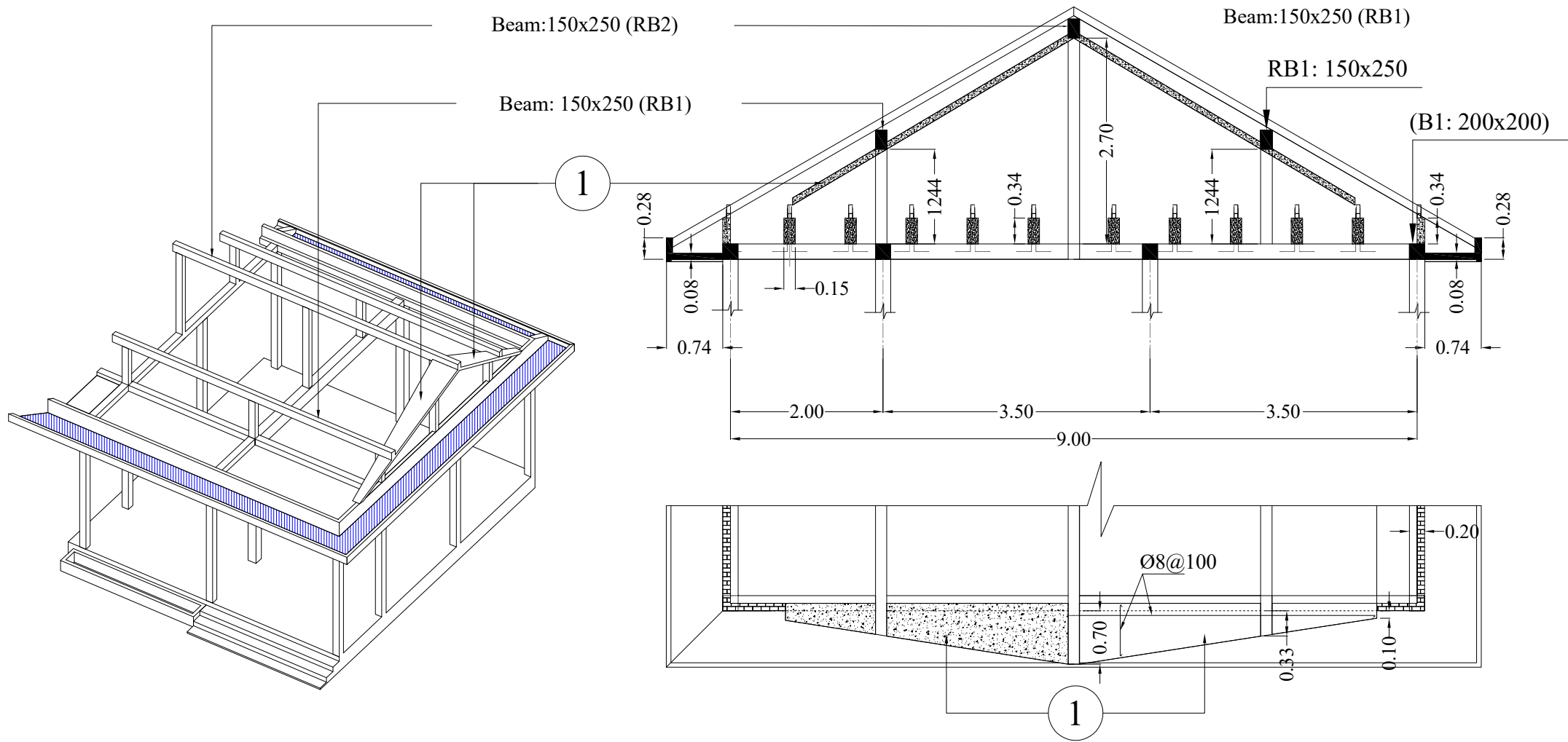
MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-16
				DRAWING TITLE : SECTION C-C AND HANDRAIL DETAILS		SHEET Nº:



MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-17
				DRAWING TITLE : SECTION B-B	SHEET N°:	A-10



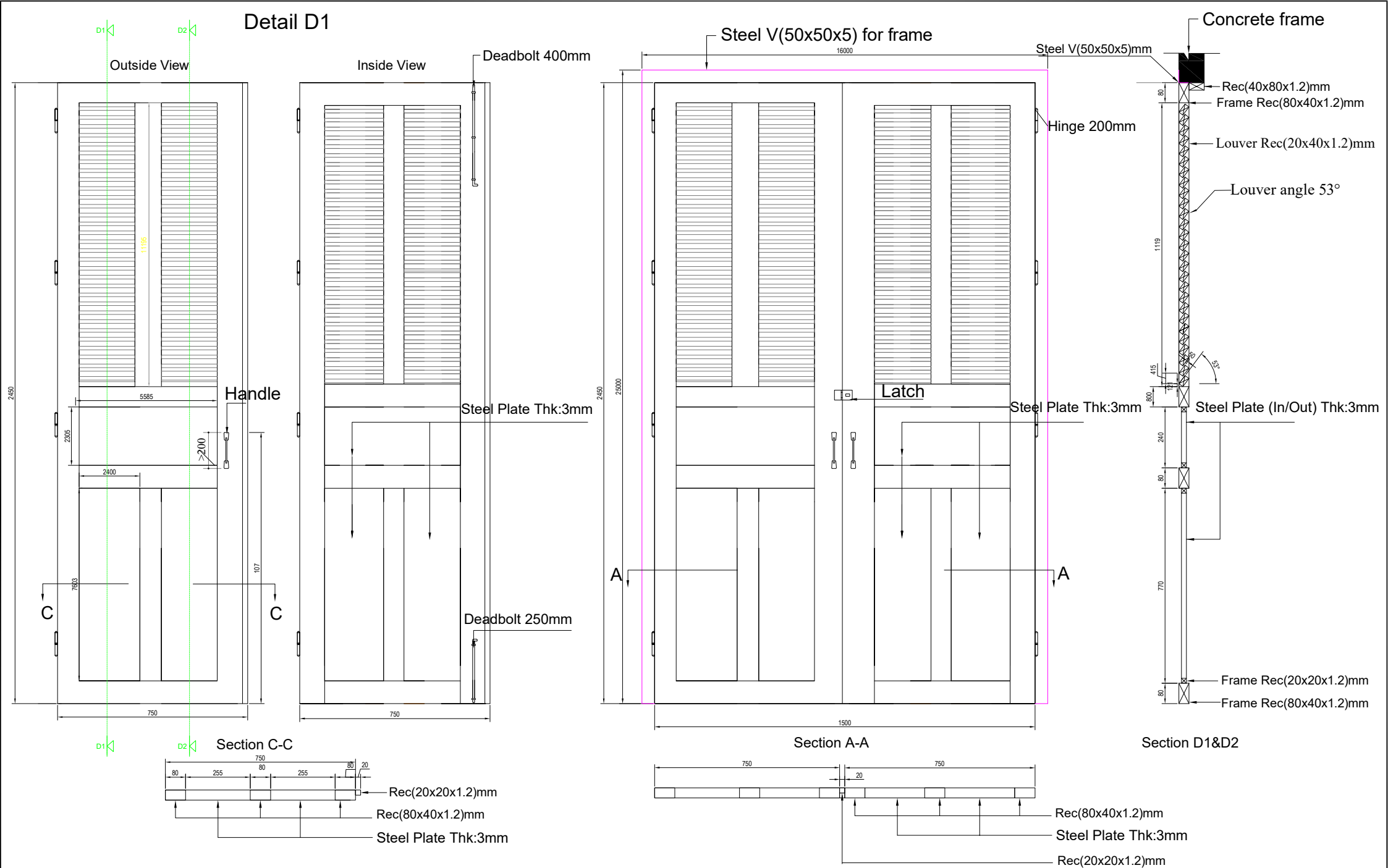
MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:	DRAWING TITLE : RC COLUMN FOR SUPPORT END OF RAFTER DETAIL	SHEETS:	A-17
					SHEET Nº:	A-11



1 Rc. Overhang roof 80mm Thk.

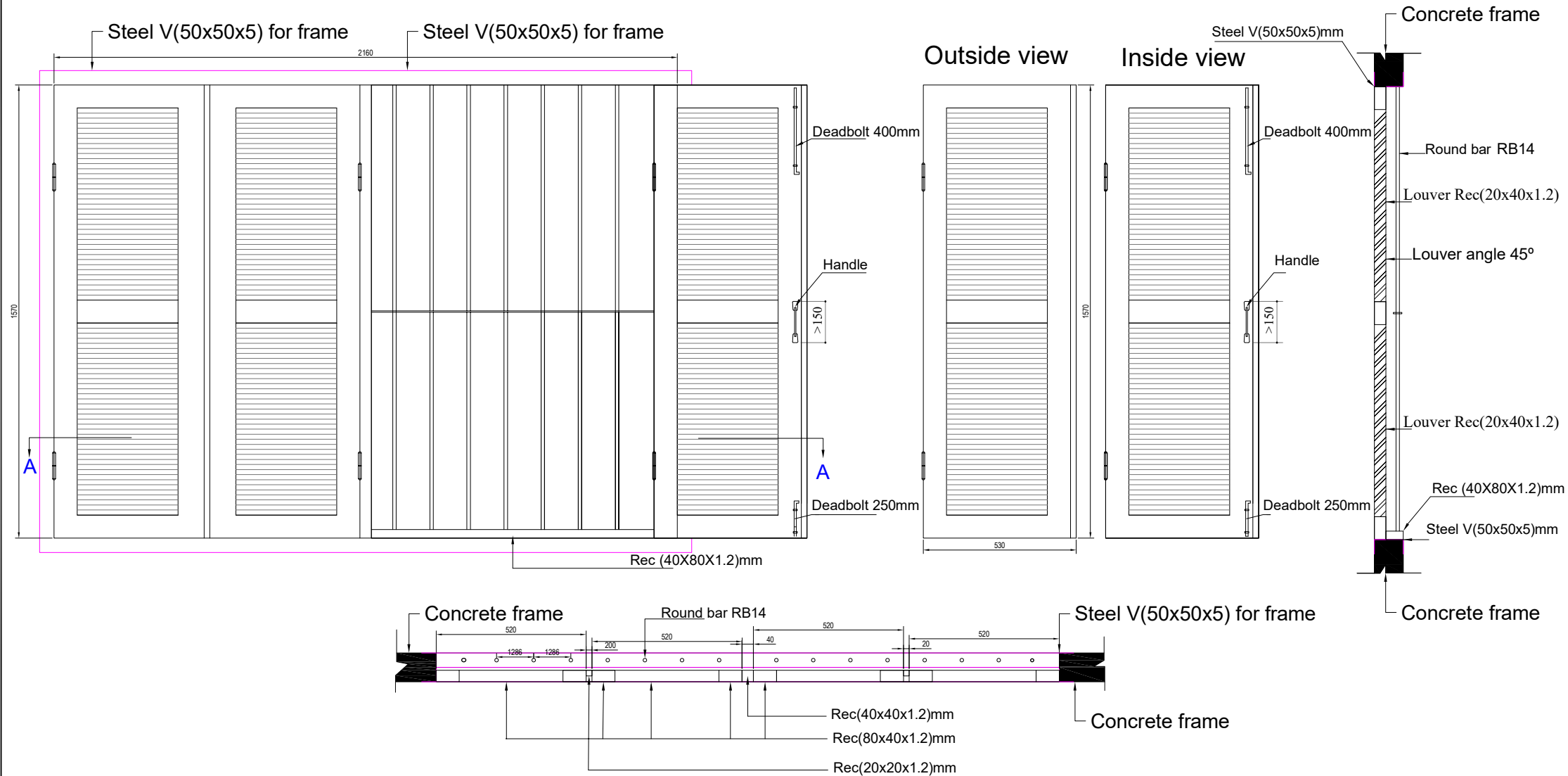
Note:
Rebar of overhang roof Ø8@100

Detail D1



MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-17
		DRAWING TITLE : DOOR D1 DETAIL			SHEET N°:	A-13

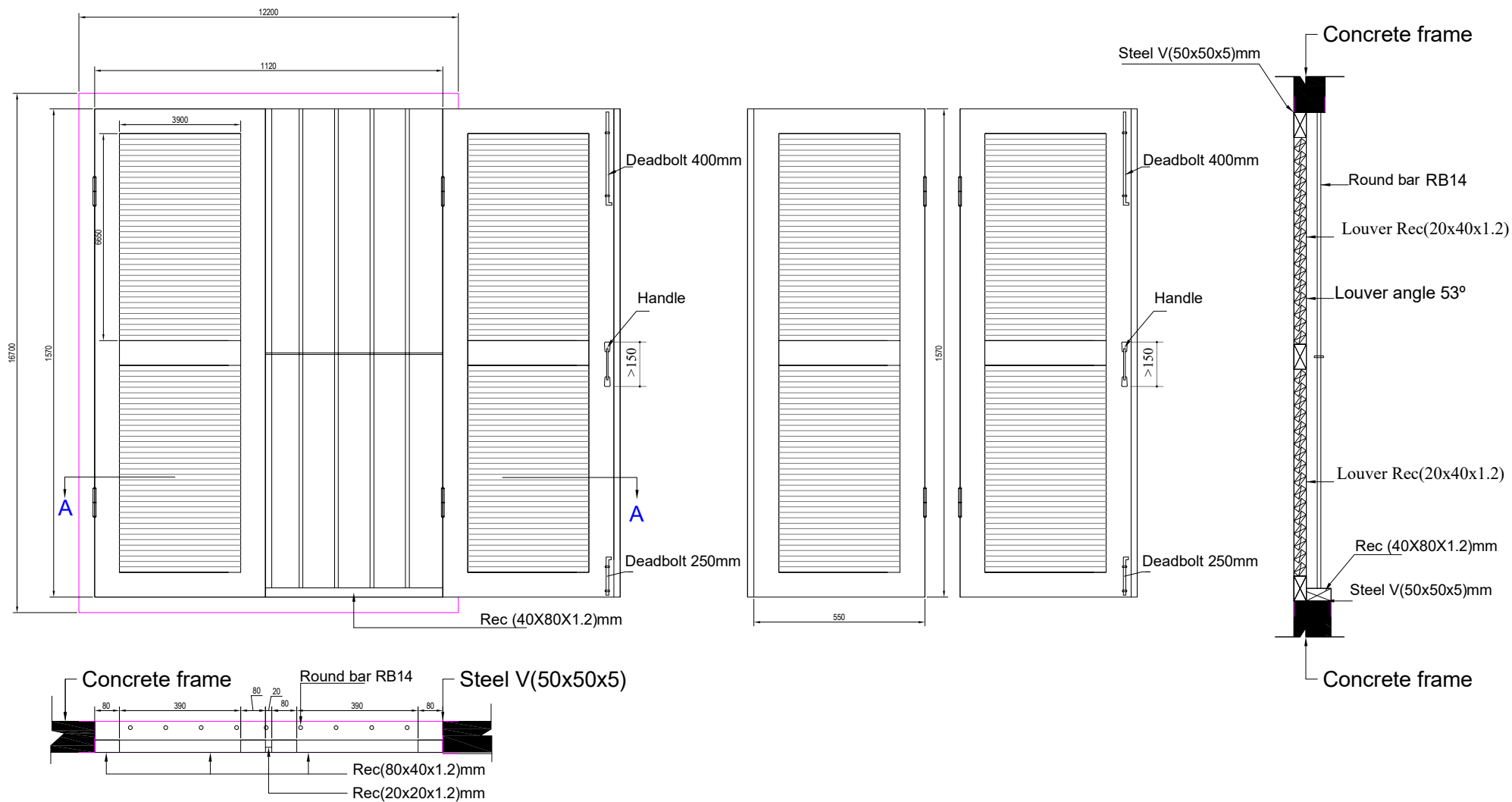
Window detail W2



Section A-A

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-17
				DRAWING TITLE : WINDOW W1 DETAIL	SHEET Nº:	A-14

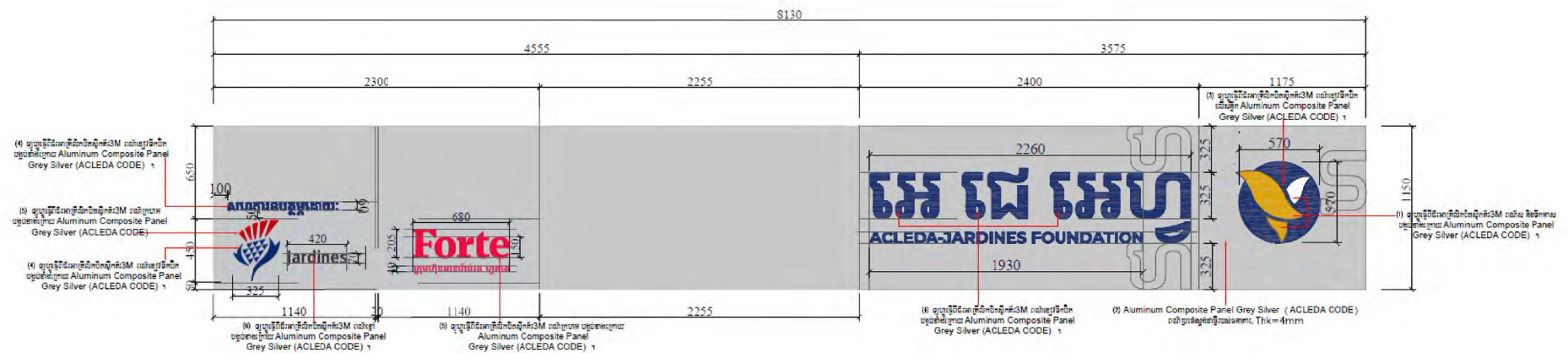
Window detail W1



Section A-A

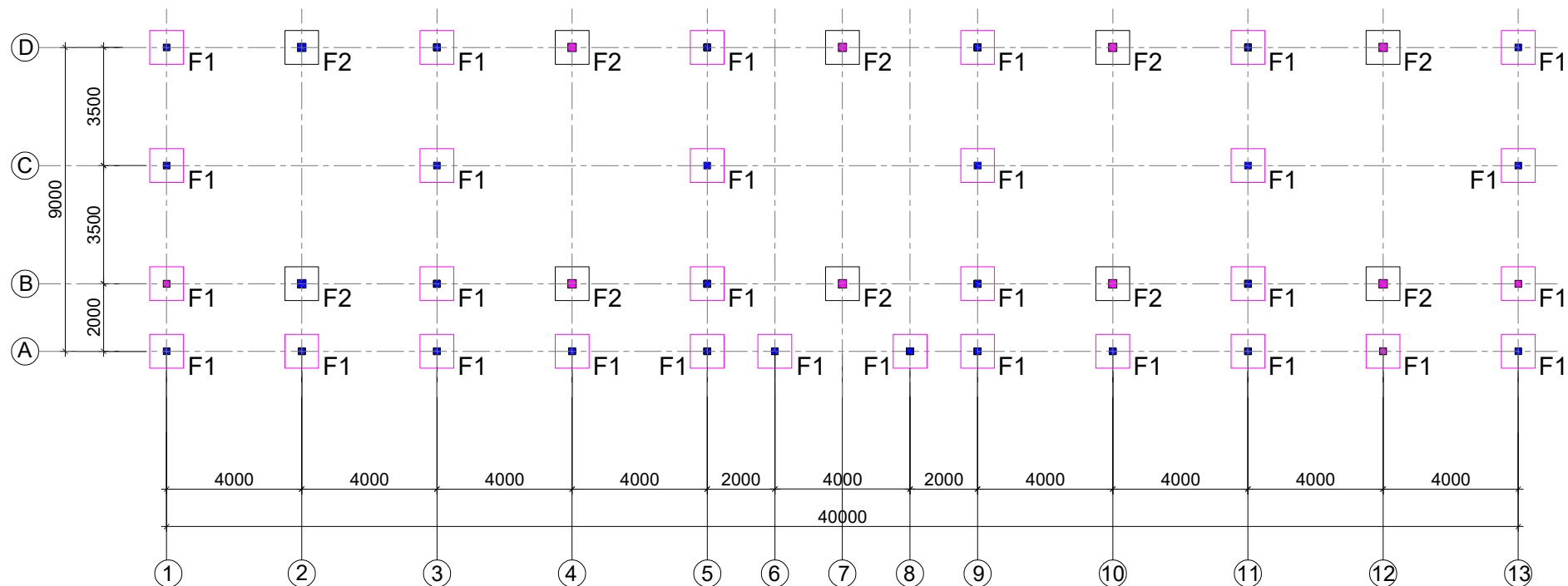
MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	A-17
				DRAWING TITLE : WINDOW W2 DETAIL	SHEET Nº:	A-15

Signboard



MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:	DRAWING TITLE : Signboard	SHEETS:	A-17
					SHEET N°:	A-17

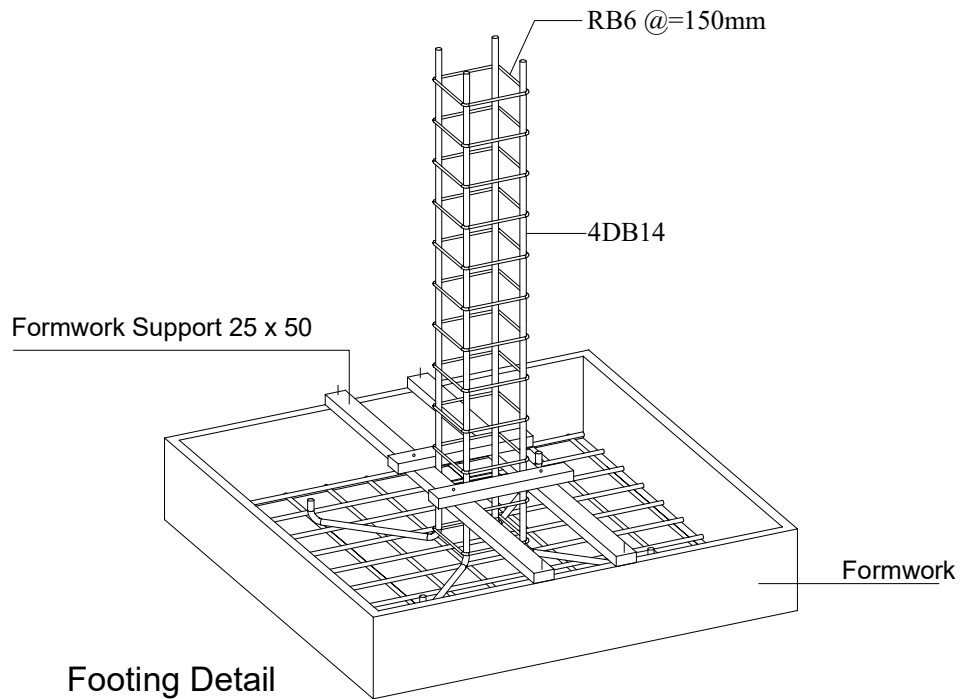
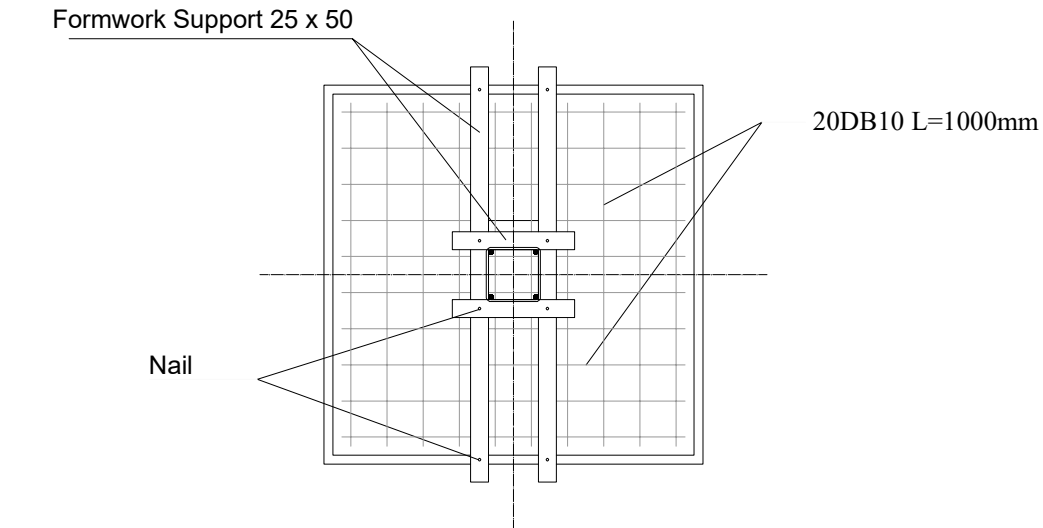
STRUCTURAL DRAWING



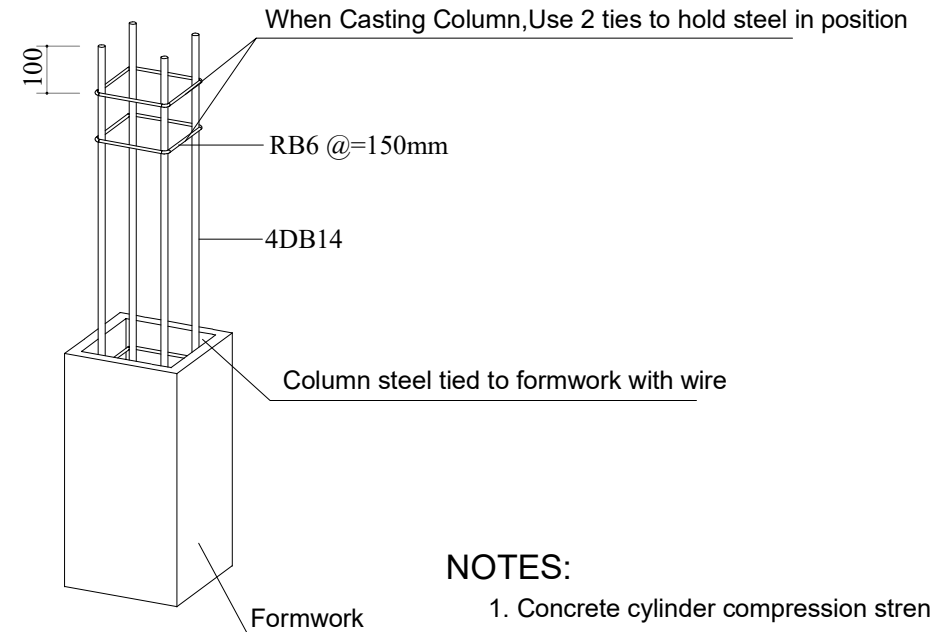
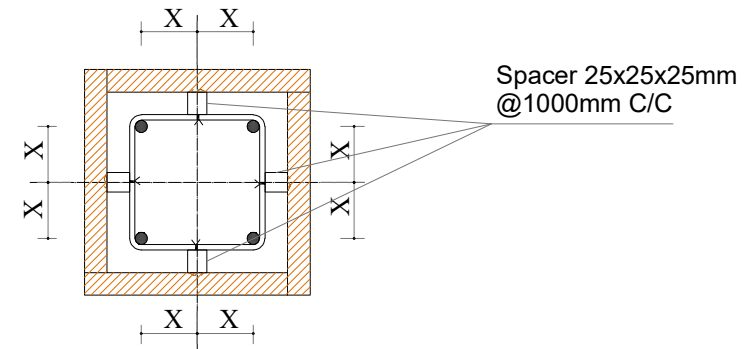
(Pile Group Plan)

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
		DRAWING TITLE : PILE GROUP PLAN			SHEET Nº:	S-01

Detail to check before casting footing and column



Footing Detail



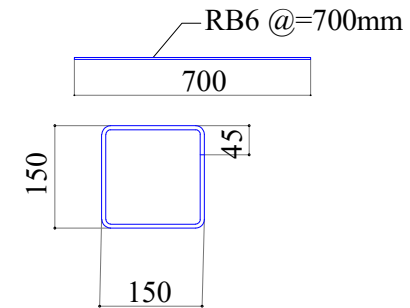
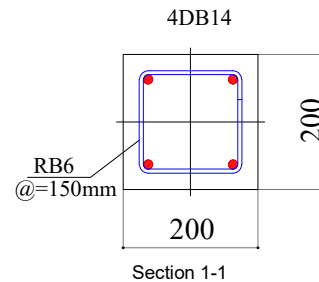
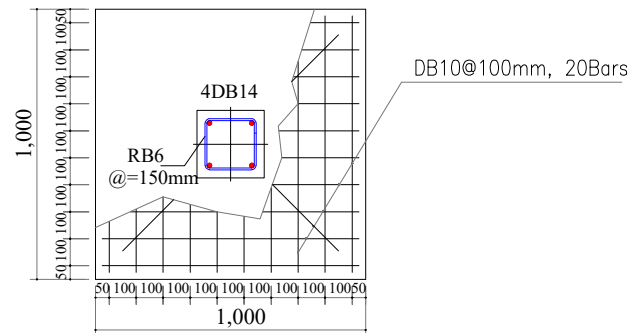
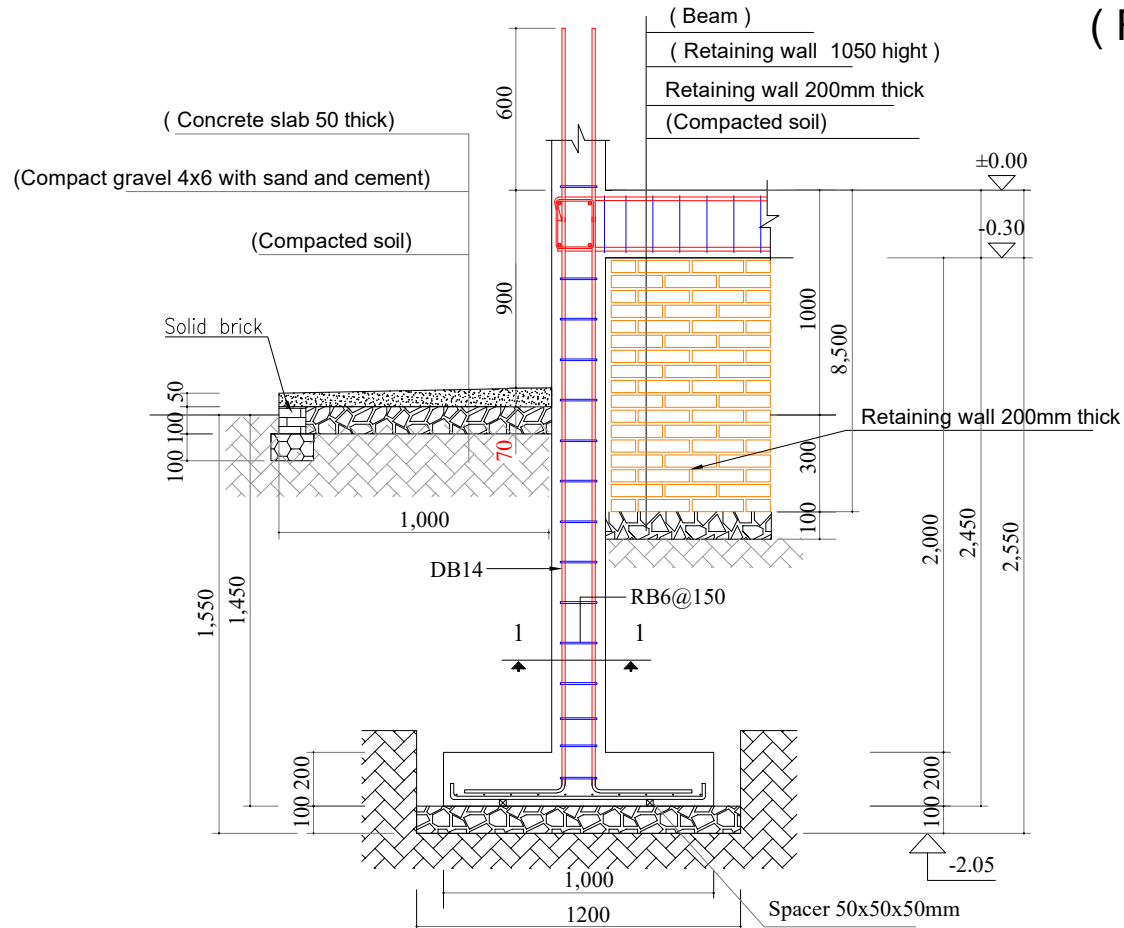
Column Detail

NOTES:

1. Concrete cylinder compression strength, 28days is $f'_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

MINISTRY OF EDUCATION, YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:	DRAWING TITLE : DETAIL TO CHECK BEFORE CASTING FOOTING AND COLUMN	SHEETS:	S16
					SHEET Nº:	S-02

(Footing and column detail F1)



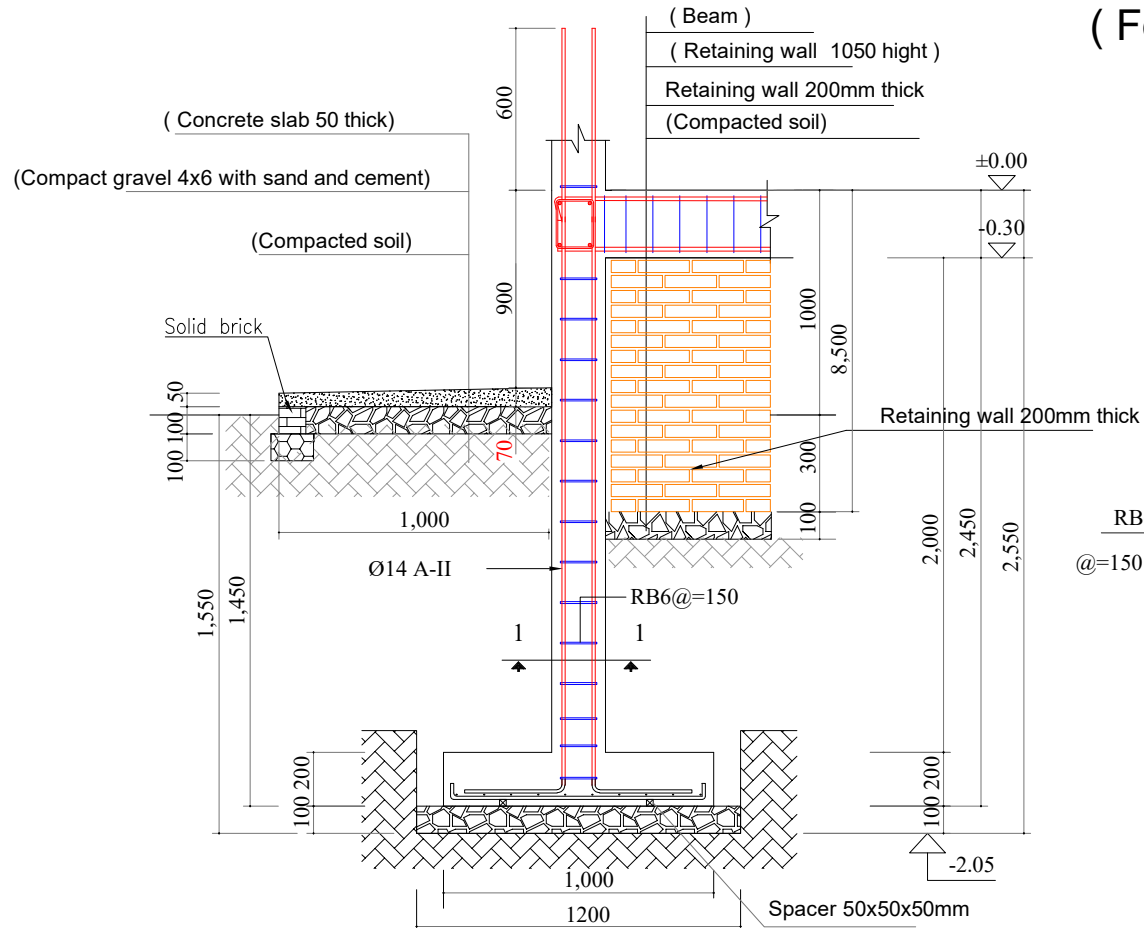
stirrup detail

NOTES:

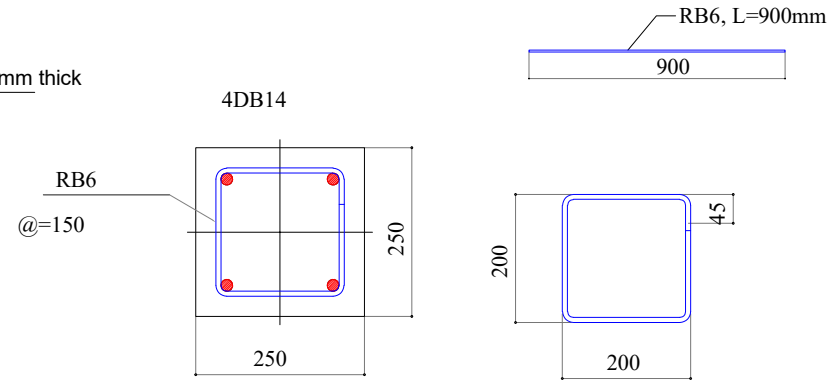
1. Concrete cylinder compression strength, 28days is $f'_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
				DRAWING TITLE : FOOTING AND COLUMN DETAIL F1	SHEET N°:	S-03

(Footing and column detail F2)

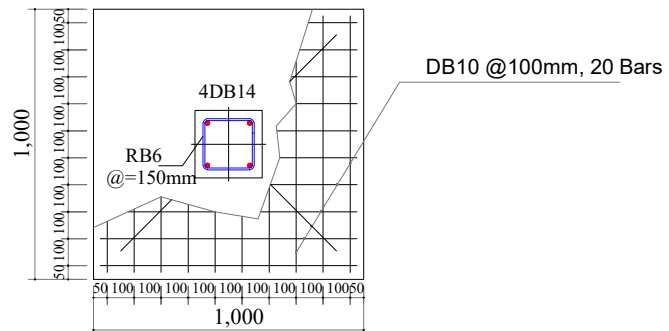


Condition of soil compacting



Section 1-1

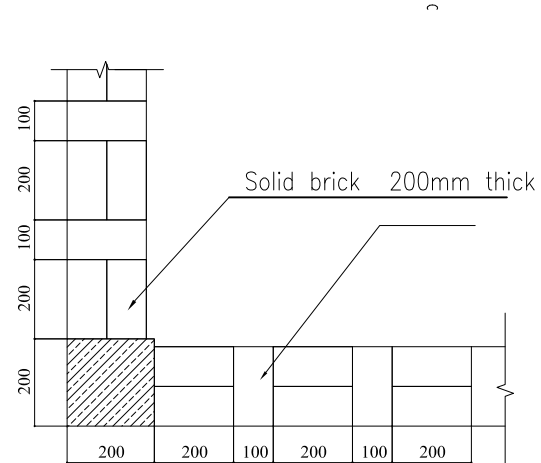
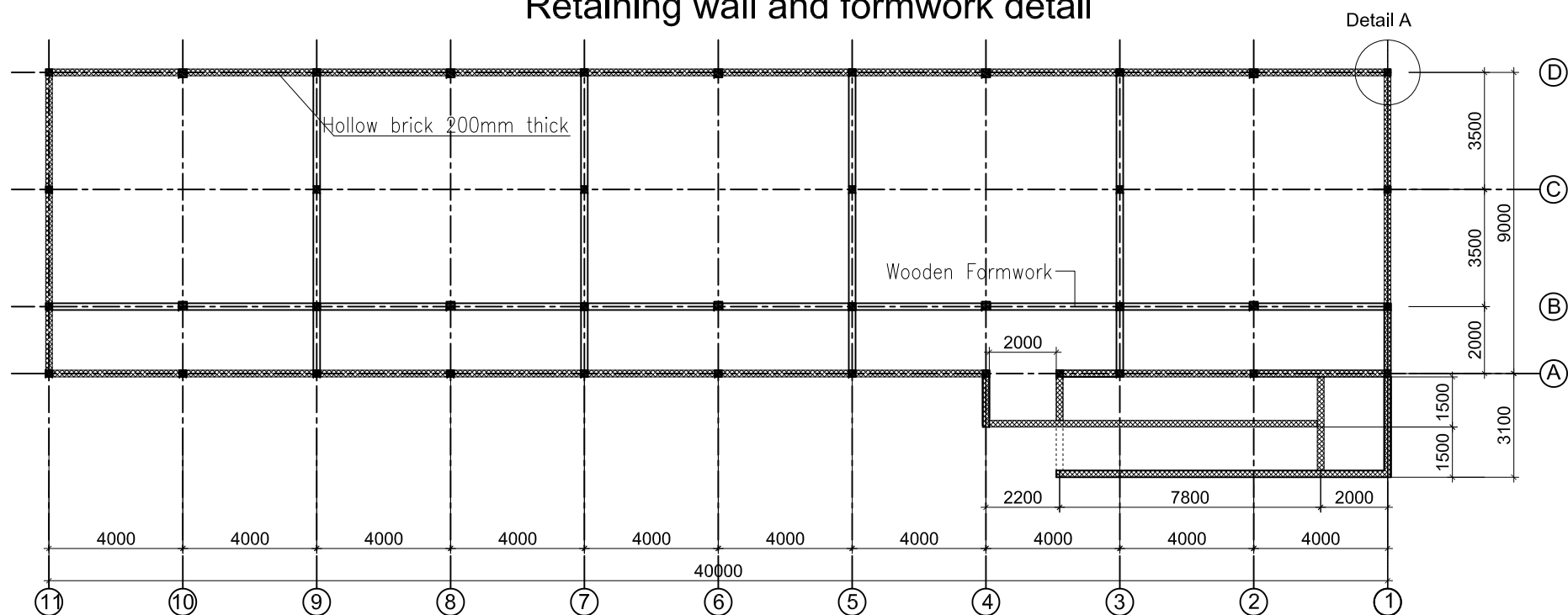
Stirrup Detail



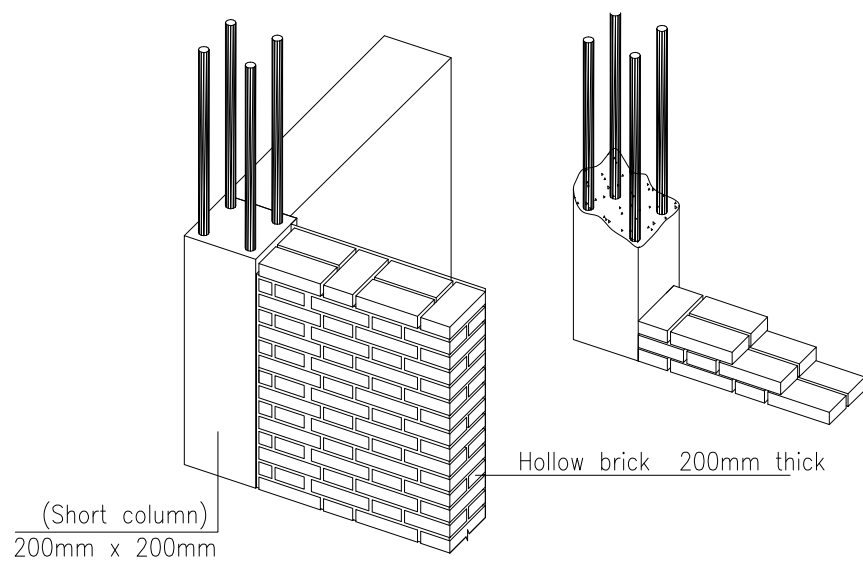
NOTES:

1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

Retaining wall and formwork detail

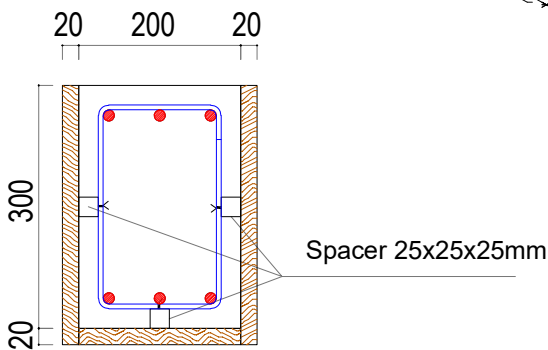
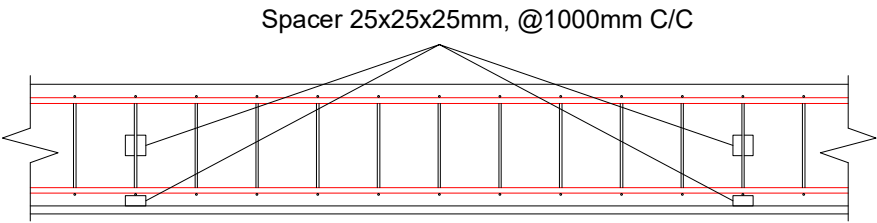
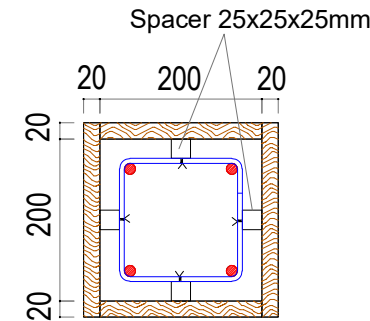
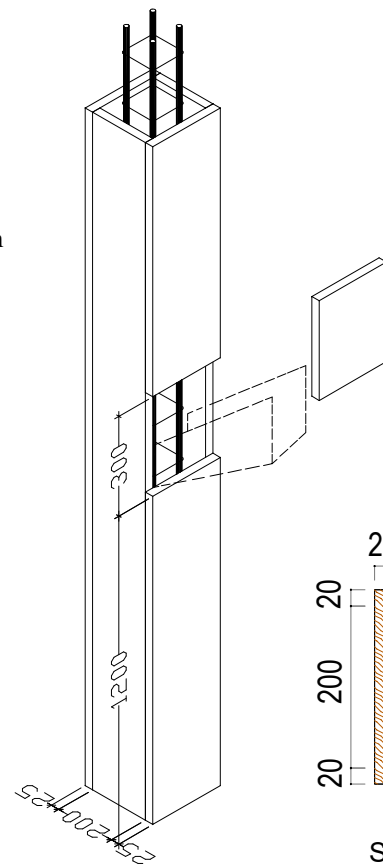
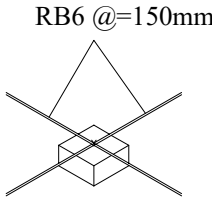
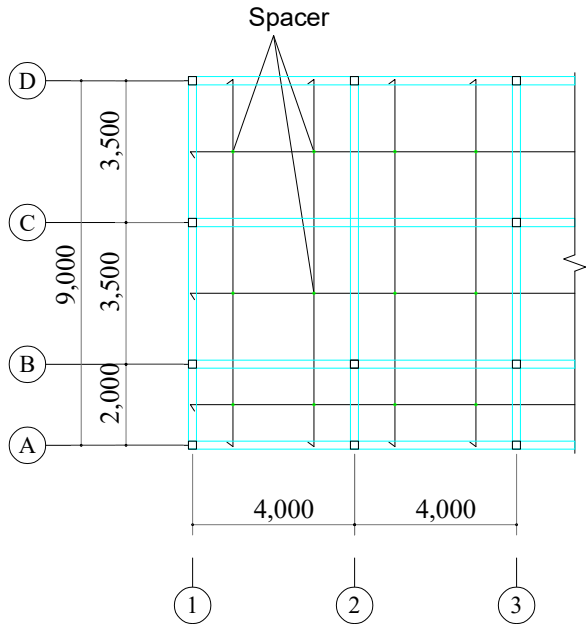
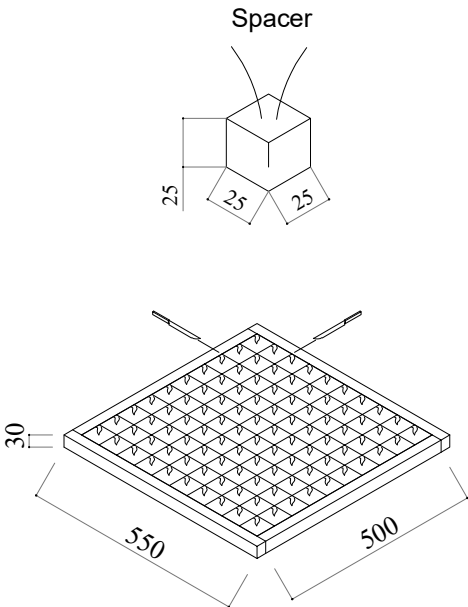


Detail A



MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
				DRAWING TITLE : RETAINING WALL AND FORMWORK DETAIL	SHEET N°:	S-05

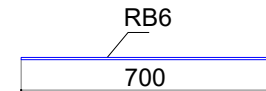
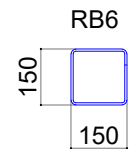
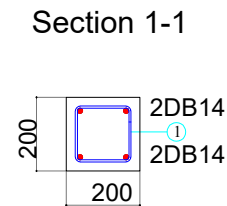
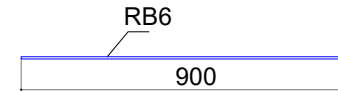
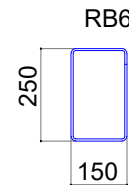
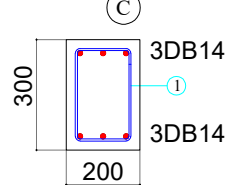
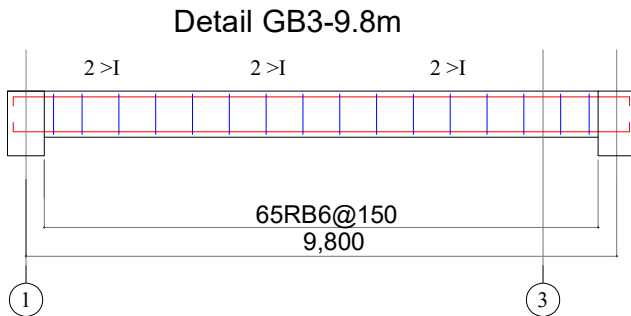
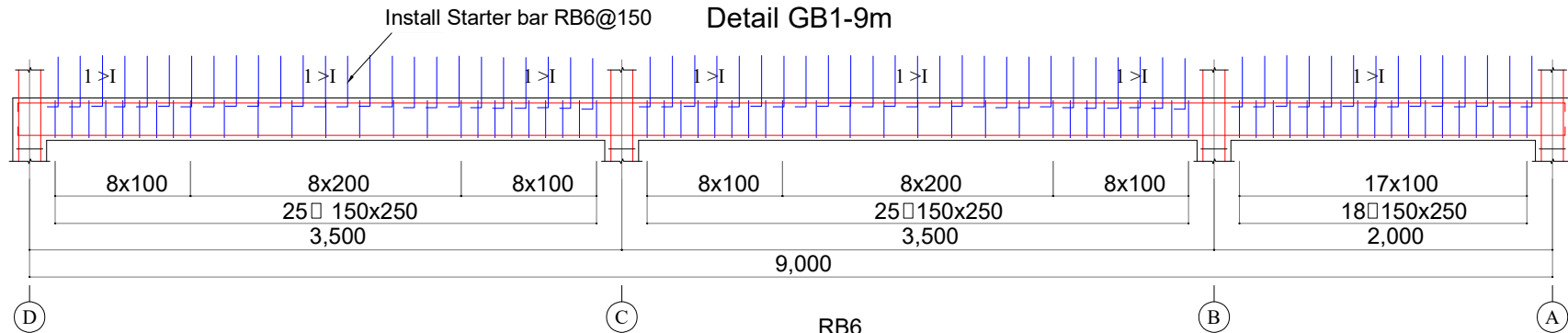
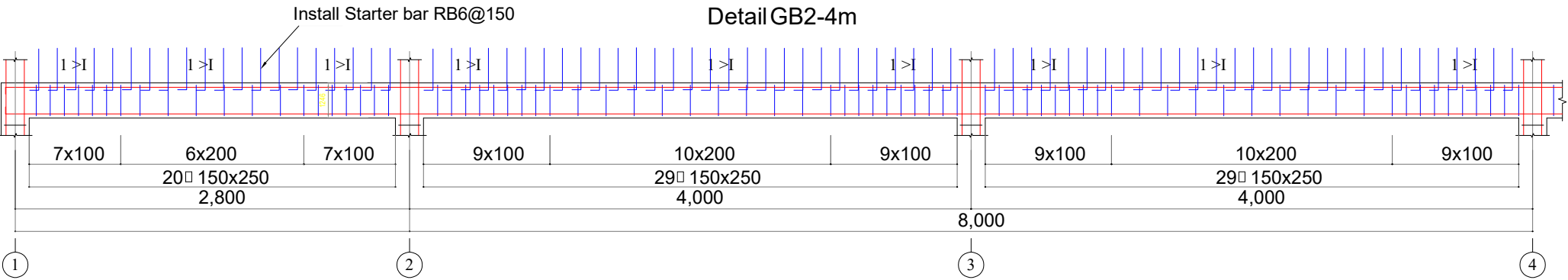
Reinforcement Spacer Detail



NOTES:

- 1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
- 2. DB yield strength $f_y = 390\text{MPa}$
- 3. RB yield strength $f_y = 235\text{MPa}$
- 4. Concrete cover rebar column = 25mm

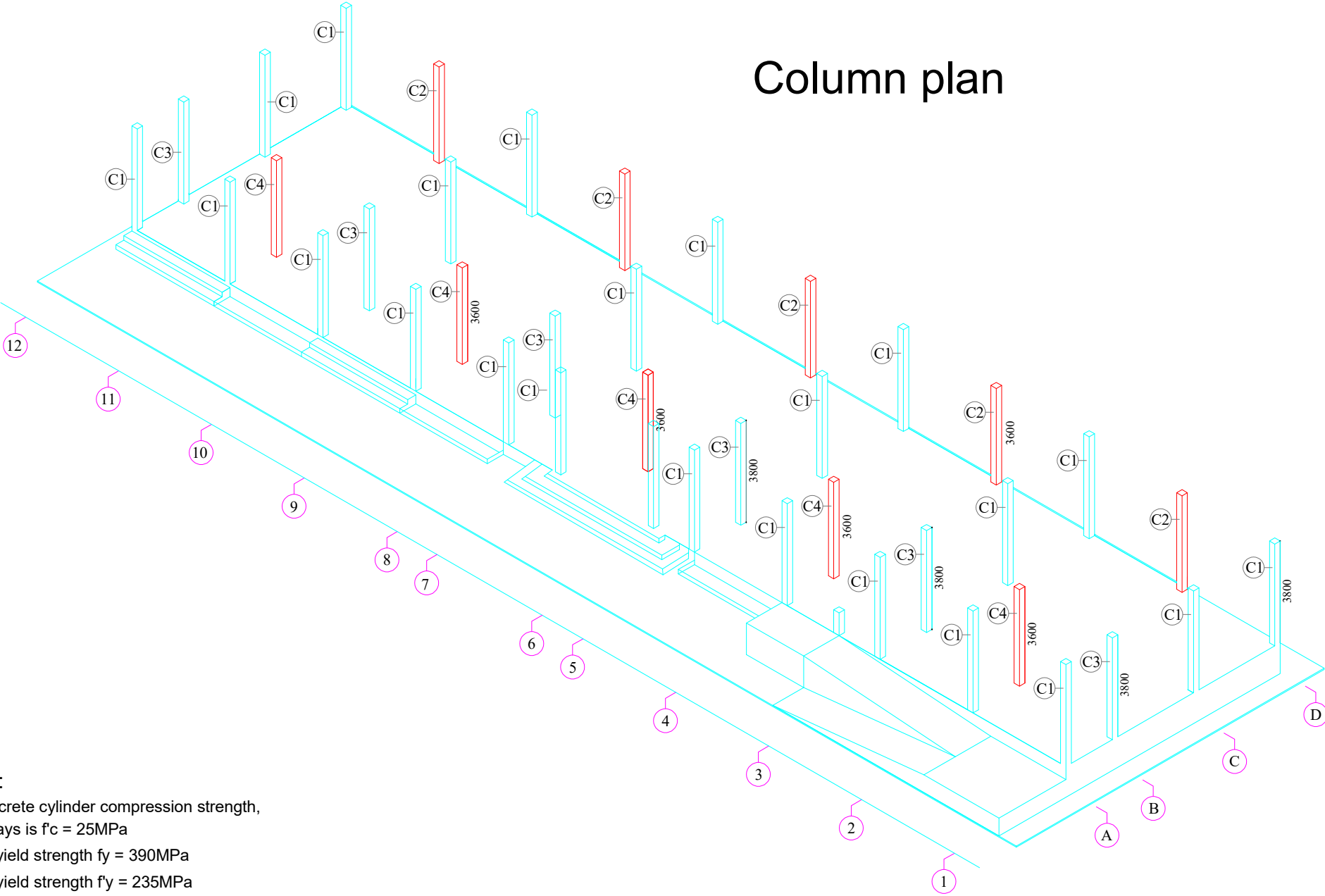
MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
				DRAWING TITLE : REINFORCEMENT SPACER DETAIL	SHEET N°:	S-06



NOTES:

1. Concrete cylinder compression strength, 28days is $f'_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

Column plan



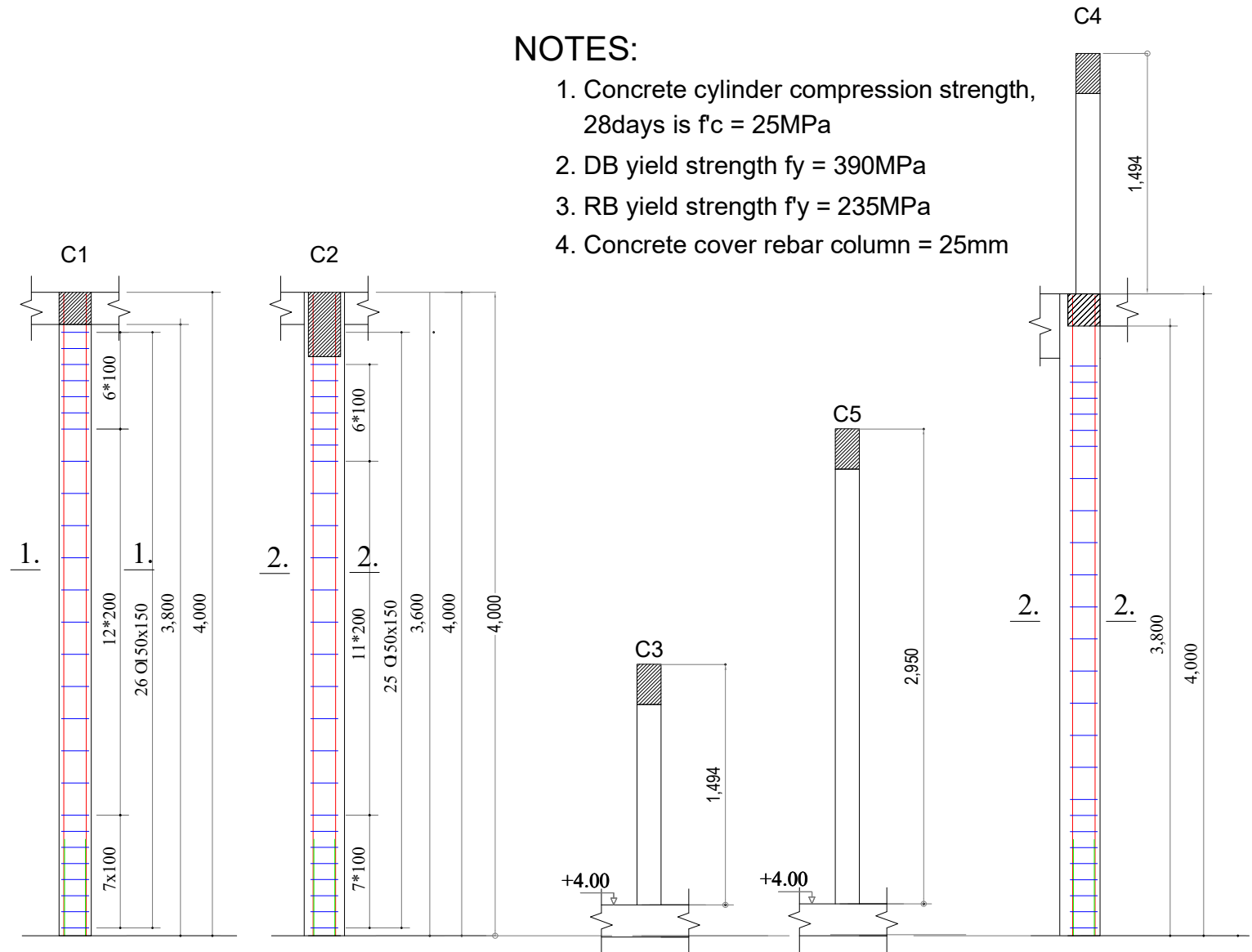
- NOTES:**
- 1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
 - 2. DB yield strength $f_y = 390\text{MPa}$
 - 3. RB yield strength $f_y = 235\text{MPa}$
 - 4. Concrete cover rebar column = 25mm

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:	DRAWING TITLE : COLUMN PLAN	SHEETS:	S16
					SHEET Nº:	S-09

Figure 1 shows the dimensions of the test specimens. (a) Top view of a square specimen with outer dimensions 200 mm by 200 mm and inner dimensions 150 mm by 150 mm, labeled 4DB14 and 1-1. (b) Side view of a rectangular specimen with height 150 mm and width 150 mm, labeled RB6.

C2 & C4 Details

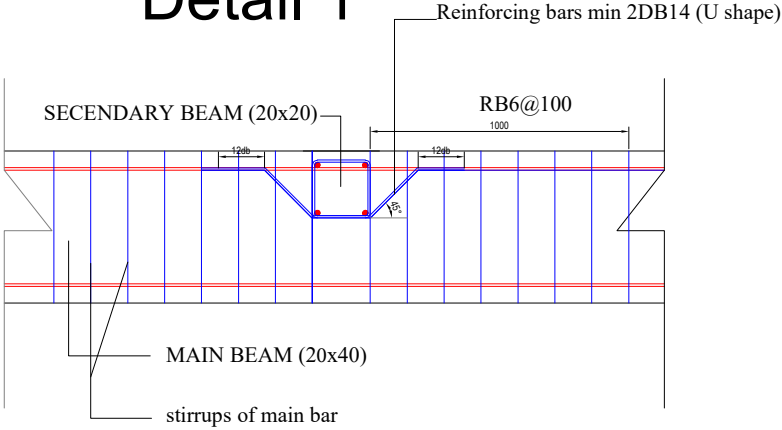
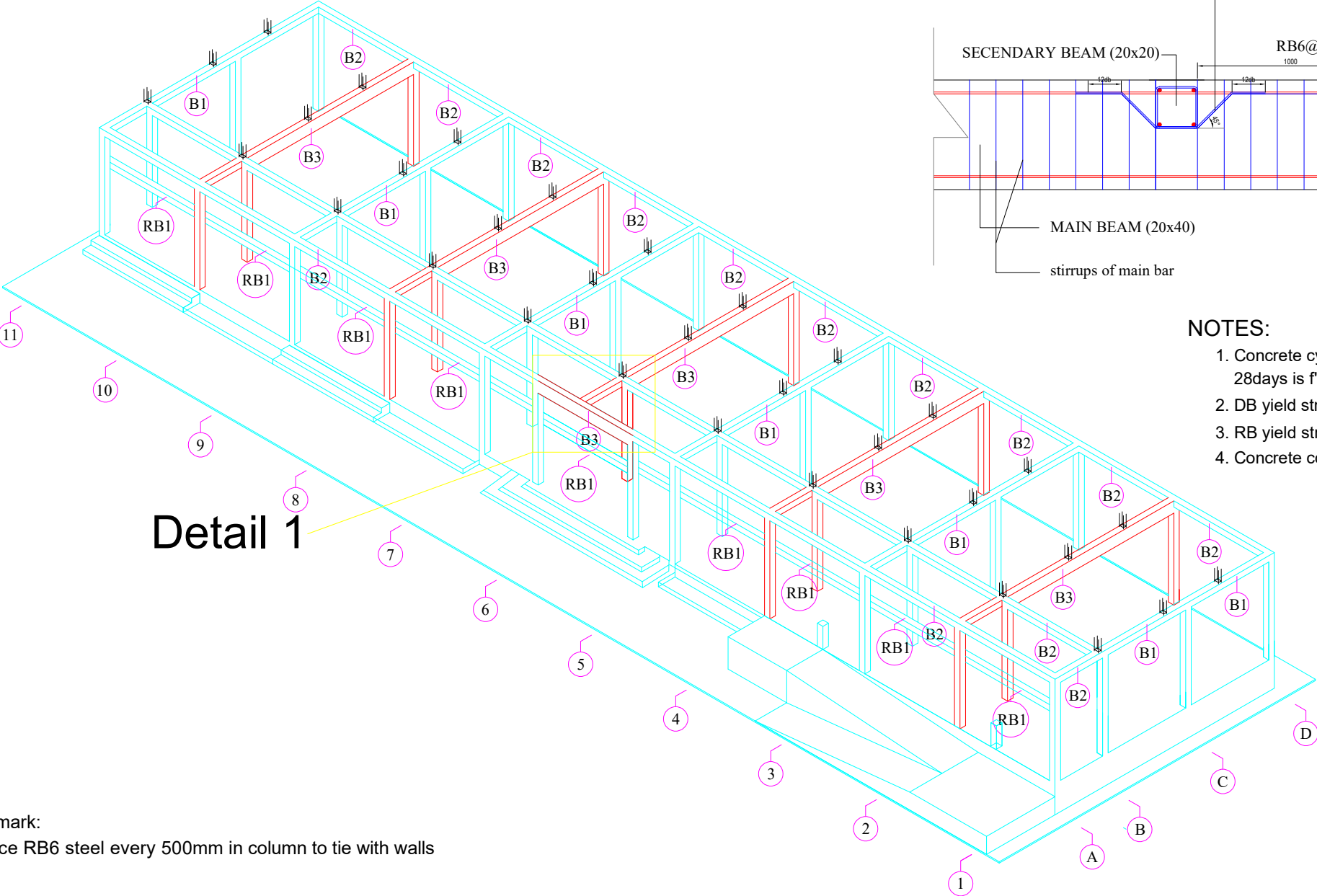
1. Concrete cylinder compression strength, 28days is $f'_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f'_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm



MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
				DRAWING TITLE : COLUMN DETAIL	SHEET Nº:	S-10

Over Beam Plan

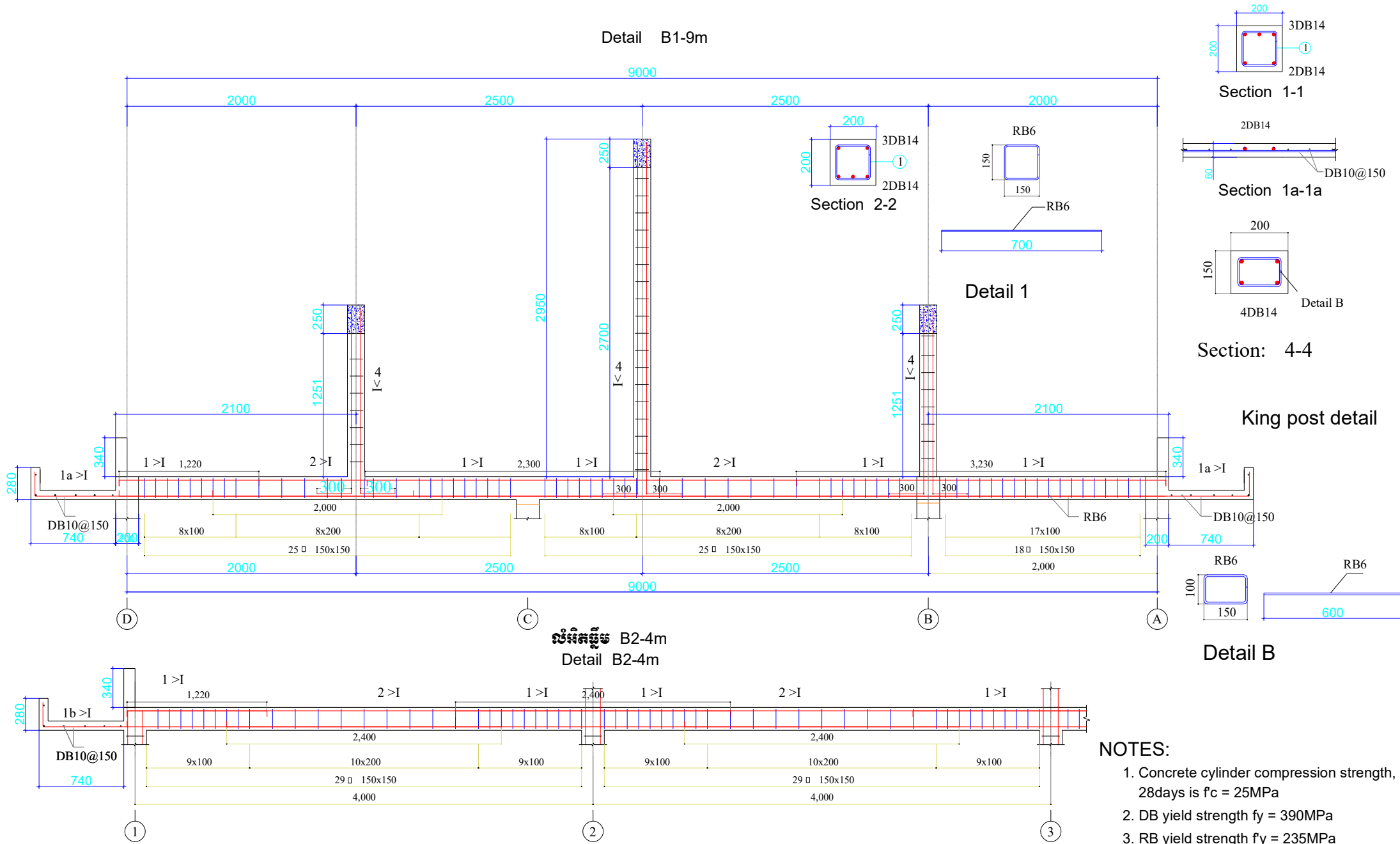
Detail 1



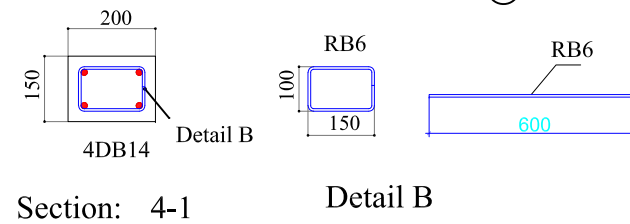
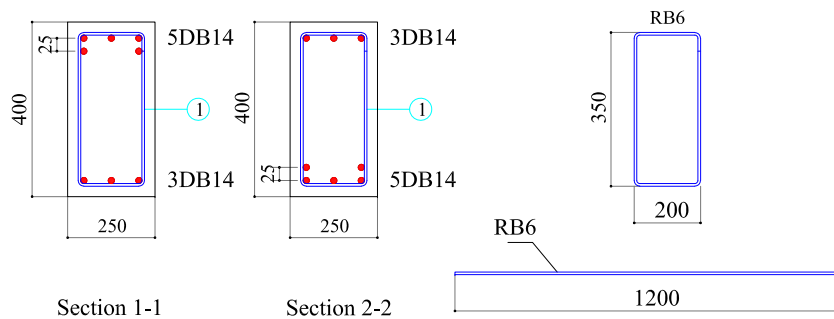
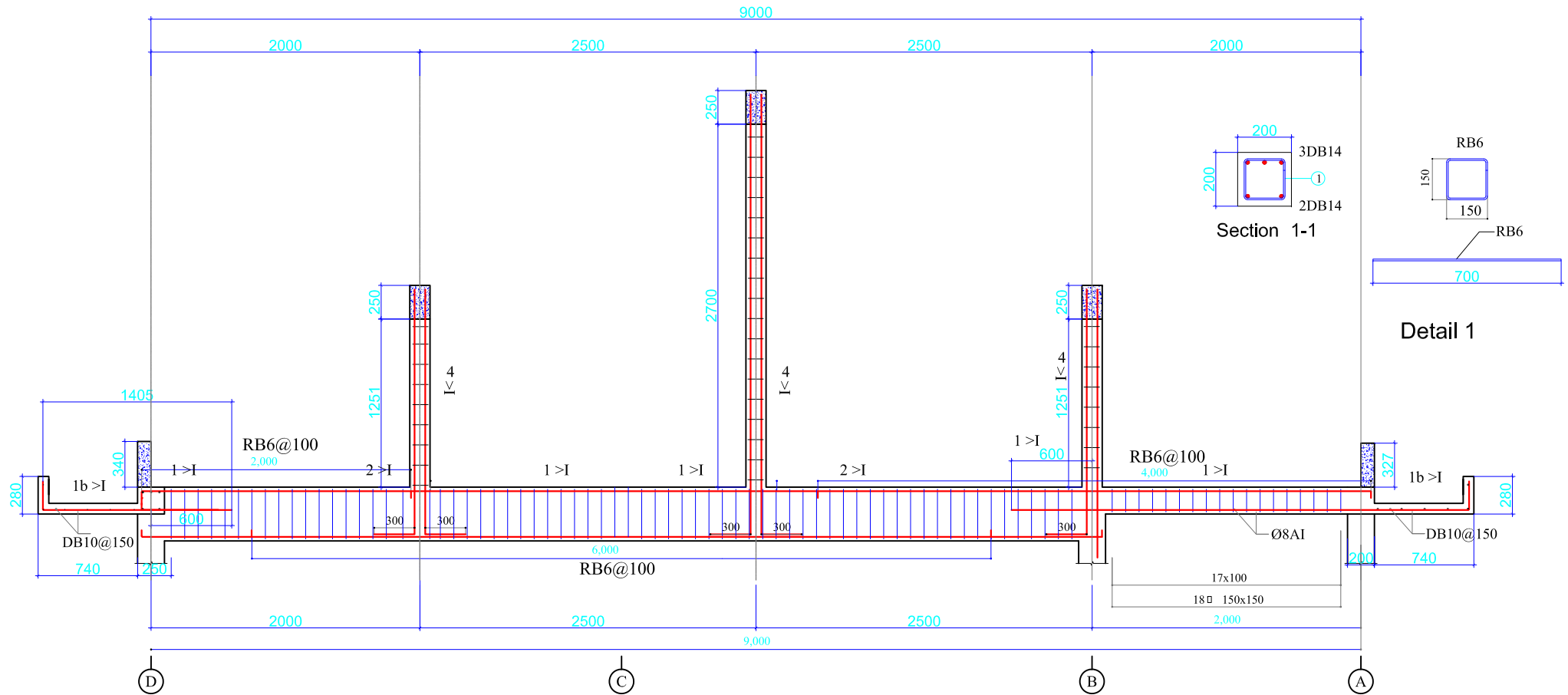
- NOTES:
- 1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
 - 2. DB yield strength $f_y = 390\text{MPa}$
 - 3. RB yield strength $f_y = 235\text{MPa}$
 - 4. Concrete cover rebar column = 25mm

Remark:
Place RB6 steel every 500mm in column to tie with walls

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
		DRAWING TITLE : OVER BEAM PLAN			SHEET Nº:	S-11



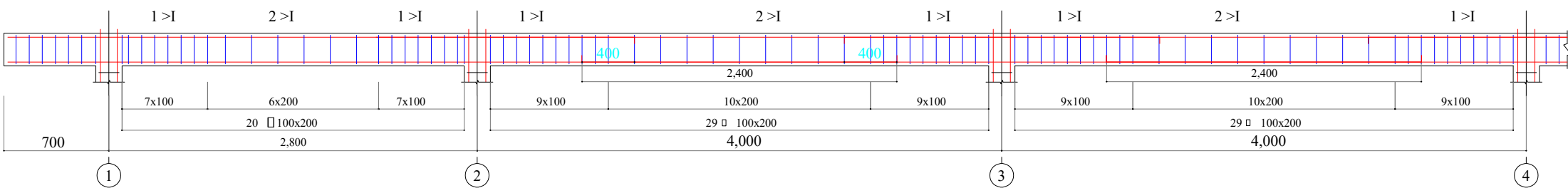
Detail B3-9m



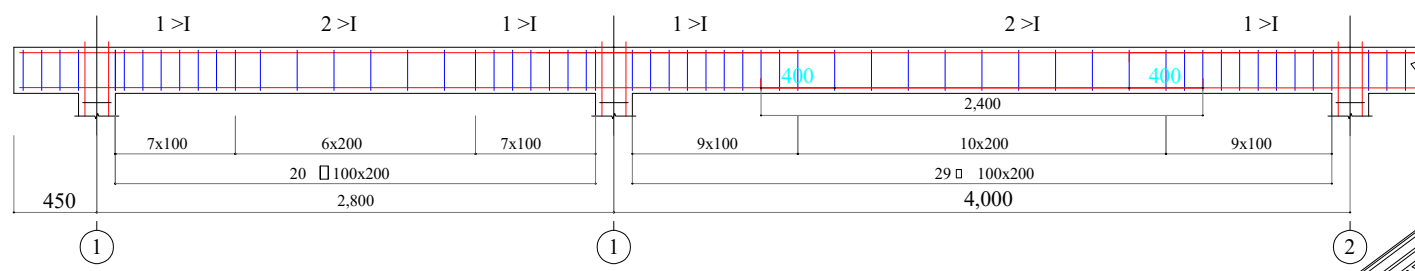
NOTES:

1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

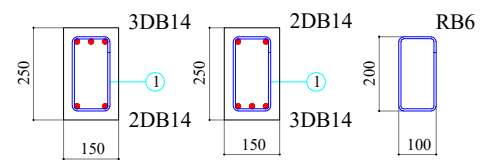
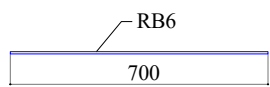
MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
				DRAWING TITLE : OVER BEAM B3 AND KING POST DETAIL	SHEET N°:	S-13



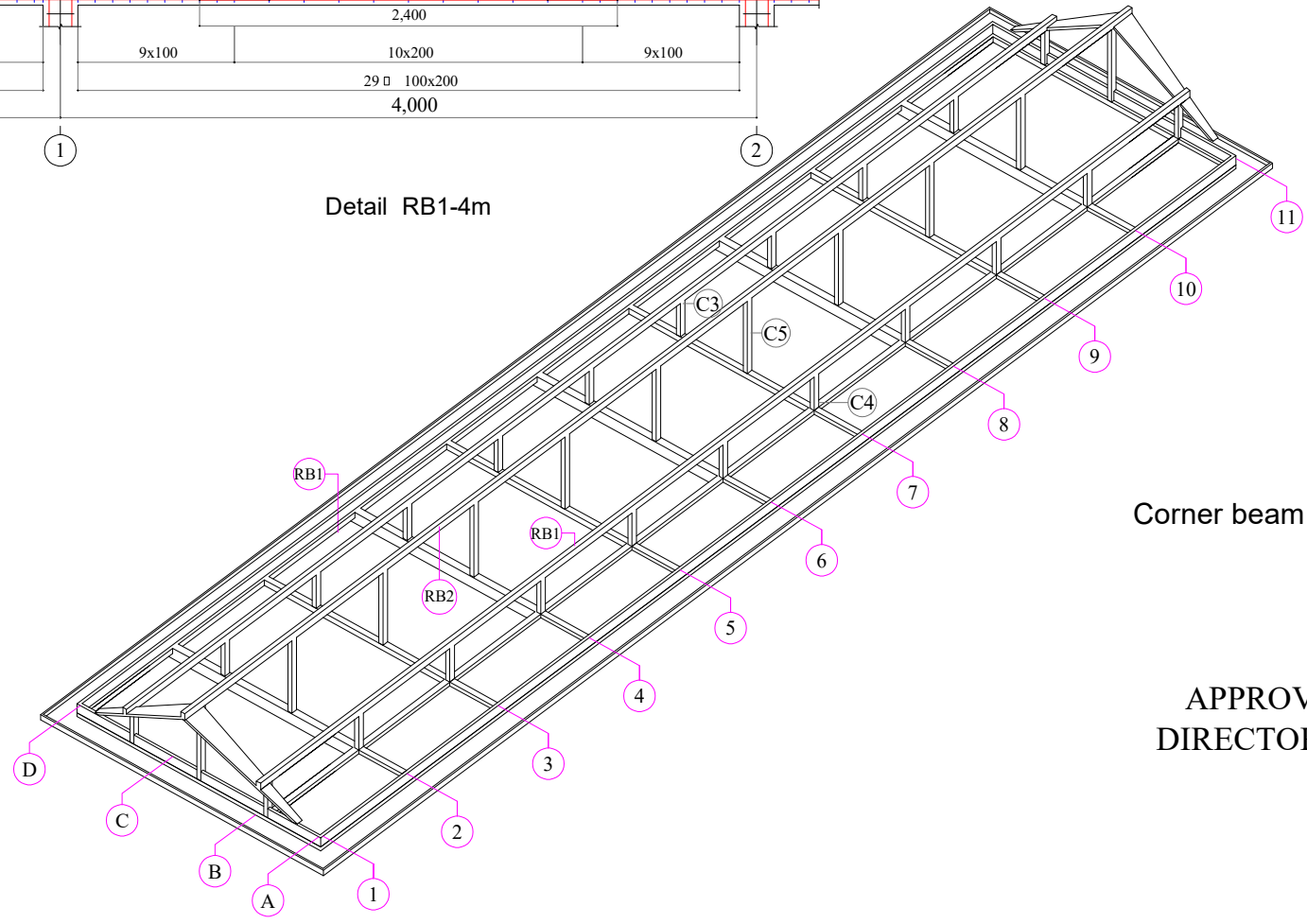
Beam Detail RB2-4m



Detail RB1-4m



Section 1-1 Section 2-2 Detail-1



Corner beam detail

- NOTES:**
- 1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
 - 2. DB yield strength $f_y = 390\text{MPa}$
 - 3. RB yield strength $f_y = 235\text{MPa}$
 - 4. Concrete cover rebar column = 25mm

APPROVED BY:
DIRECTOR OF DOC

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:	DRAWING TITLE : RIGDE BEAM PLAN AND DETAIL	SHEETS:	S16
					SHEET Nº:	S-14

The floor plan shows a building with an overall width of 4,000 mm and a total depth of 4,000 mm. The plan is divided into several sections with specific dimensions and details.

Dimensions:

- Overall width: 4,000 mm
- Overall depth: 4,000 mm
- Section 1 (left): 410 mm (left wall), 1,120 mm (open area), 950 mm (brick wall), 1,120 mm (open area), 200 mm (right wall).
- Section 2 (middle): 200 mm (left wall), 1,120 mm (open area), 730 mm (brick wall), 1,550 mm (open area), 200 mm (right wall).
- Section 3 (right): 2,460 mm (width), 200 mm (right wall).
- Vertical dimensions (from top to bottom): 250 mm, 1,140 mm, 200 mm, 1,140 mm, 200 mm, 1,570 mm, 200 mm, 690 mm.

Details:

- Detail 1:** Points to the brick wall sections.
- Detail 2:** Points to the RC Column 100x200.
- Detail 3:** Points to the window area at the top.

Room Labels:

- W2 (Two rooms, each 1,120 mm wide).
- D1 (One room, 1,550 mm wide).

Legend:

- RC.Column 100x200
- RB6 @150mm
- 2DB10

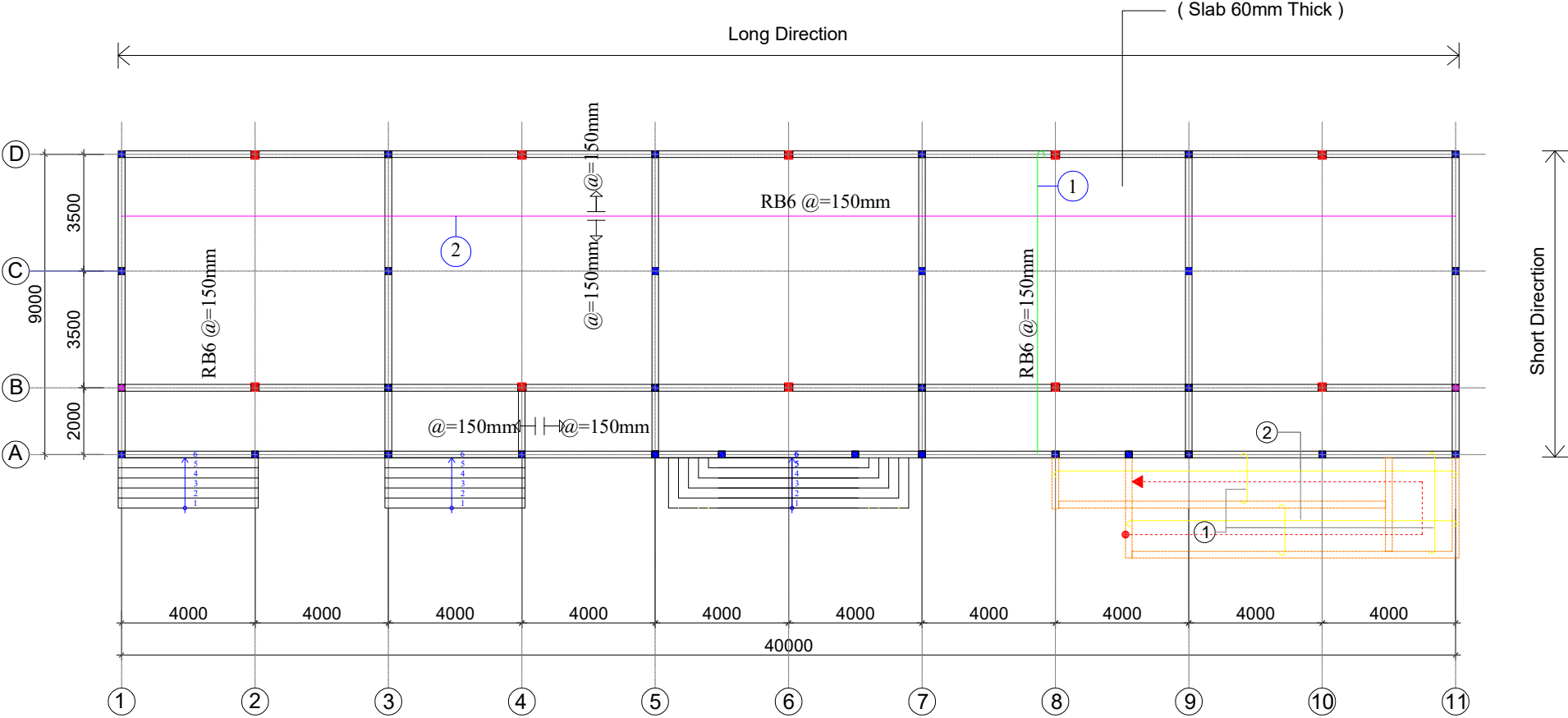
Figure 10: Detail of RC Column and Wall. The figure shows two cross-sectional views of a wall and column assembly. The left view shows a wall (W1) with a central RC column (100x200) and a brickwork section above it. The right view shows a similar wall (W1) with a central RC column (100x200) and a brickwork section above it. Dimensions are provided for both views: 1570 mm height, 820 mm wall thickness, 2160 mm column width, and 200 mm gap. A detail view shows the RC column cross-section with 2DB10 bars and RB6@150mm stirrups.

Figure 10 is a sectional view of the beam-column joint. The diagram shows a cross-section of a beam and column joint. The column is on the left, and the beam is on the right. The column has a height of 4,000 mm. The beam has a height of 700 mm. The joint is labeled 'Detail 4'. The beam reinforcement is labeled 'RB6 @150mm'. A circular detail is labeled 'Detail 2'.

APPROVED BY:
DIRECTOR OF DOC

1. Concrete cylinder compression strength, 28days is $f'_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

Slab Steel bar Arrangment Detail



NOTES:

1. Concrete cylinder compression strength, 28days is $f_c = 25\text{MPa}$
2. DB yield strength $f_y = 390\text{MPa}$
3. RB yield strength $f_y = 235\text{MPa}$
4. Concrete cover rebar column = 25mm

APPROVED BY:
DIRECTOR OF DOC

Note:

- ① Place Rebar RB6 in short direction first
- ② Place Rebar RB6 in long direction second

MINISTRY OF EDUCATION,YOUTH AND SPORT	EDUCATION SECTOR SUPPORT PROJECT SPONSORED BY ACLEDA-JARDINES EDUCATION FOUNDATION (AJF)	DATE...../...../.....		PROJECT : SCHOOL BUILDING 1 STORY 5 CLASSROOMS PLINTH LEVEL +1.00M	SCALE:	NO
		CHECKED BY:	DRAWN BY:		SHEETS:	S16
				DRAWING TITLE : SLAB STEEL BAR ARRANGMENT DETAIL		SHEET N°: