

GOVERNMENT OF NEPAL
MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
CENTER FOR EDUCATION AND HUMAN RESOURCE DEVELOPMENT
SANOTHIMI, BHAKTAPUR, NEPAL

ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND SANITARY DRAWING
TYPE DESIGN FOR TERAI AND VALLEY REGION,
Contract ID: [CEHRD/SESP/SQ/Consultancy/04/2079/080]

FEBRUARY 2023



Government of Nepal
Ministry of Education, Science & Technology
Center for Education and Human Resource Development
Sanothimi, Bhaktapur, Nepal

PREPARE SCHOOL BUILDING TYPE DESIGN FOR TERAI AND VALLEY REGION

CEHRD/SESP/SQ/Consultancy/04/2079/080

DETAIL DESIGN AND DRAWING

3 STORY@6 ROOM WITH

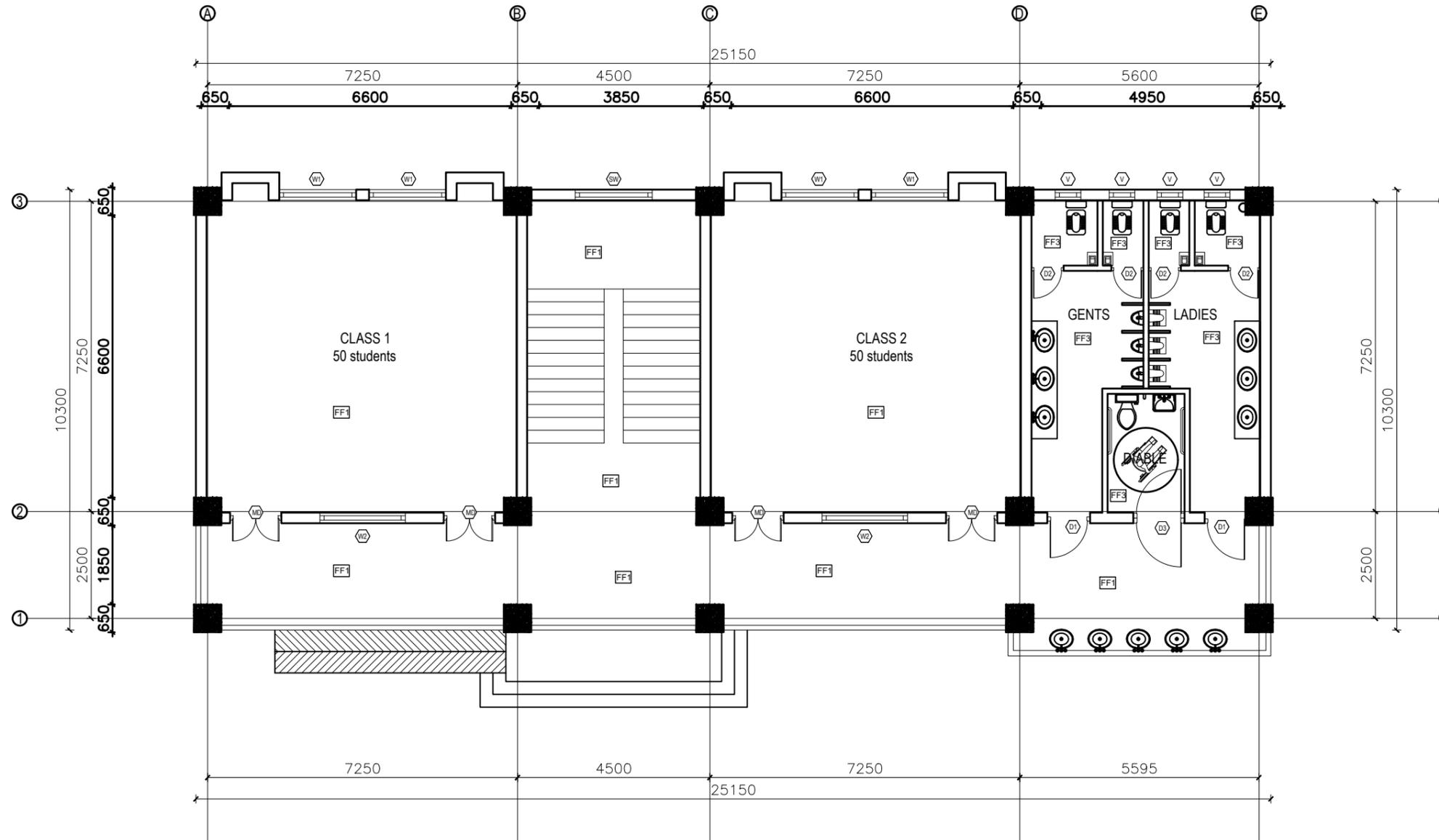
(TOILET, WASH ROOM, CHANGING ROOM & BOOK CORNER)

**SUBMITTED BY:
IDEAL SOULUTION PVT. LTD**

FEBRUARY, 2023

ARCHITECTURE

DRAWING



- NOTES:**
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 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.

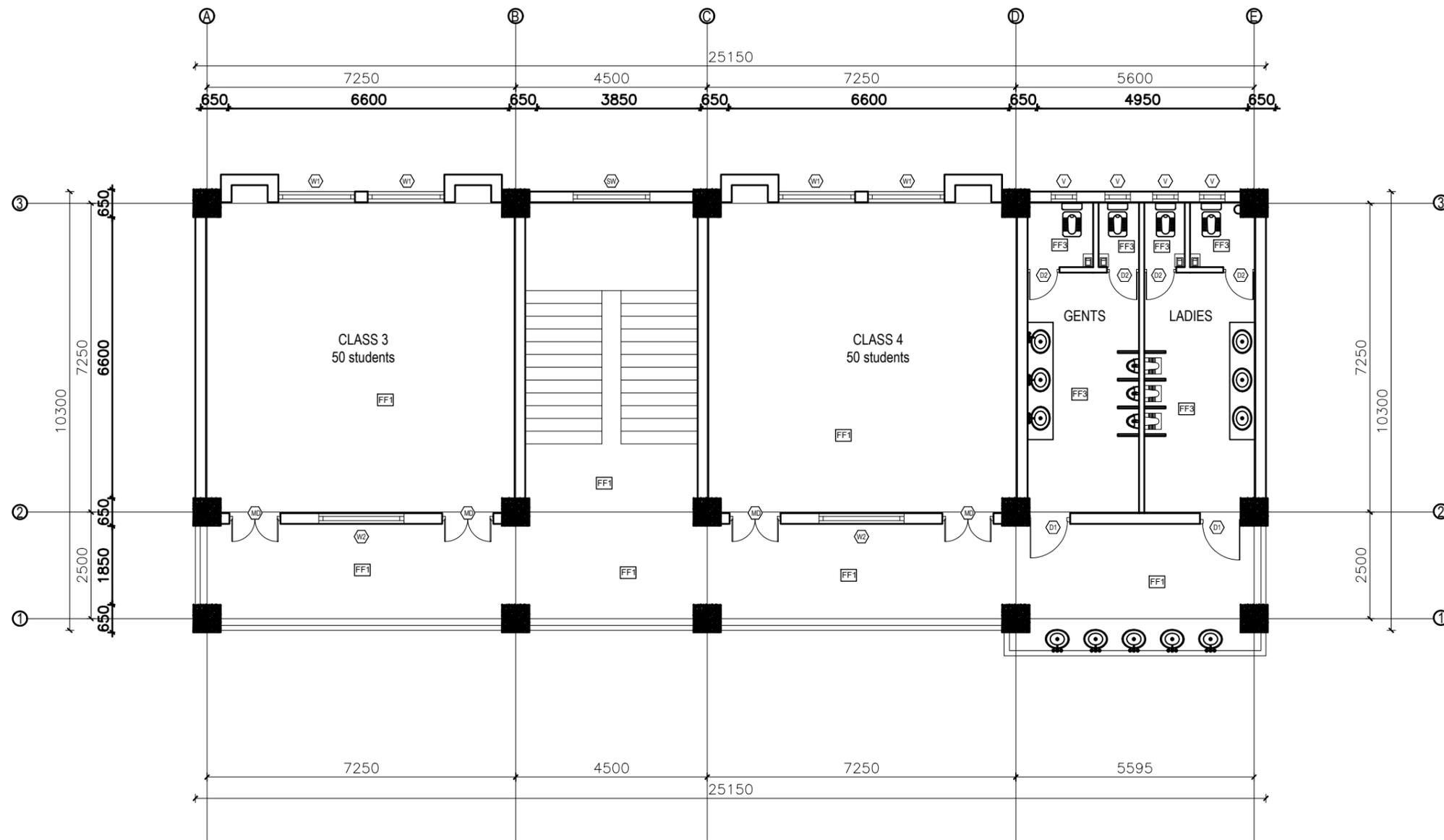
GROUND FLOOR PLAN
FLOOR AREA: 260.805 sq.m

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
FF3	6 mm thick porcelain non-glaze tile with 20 mm cement sand mortar (1:4)

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE	CONSULTANT IDEAL SOLUTION PVT.LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. AR-01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

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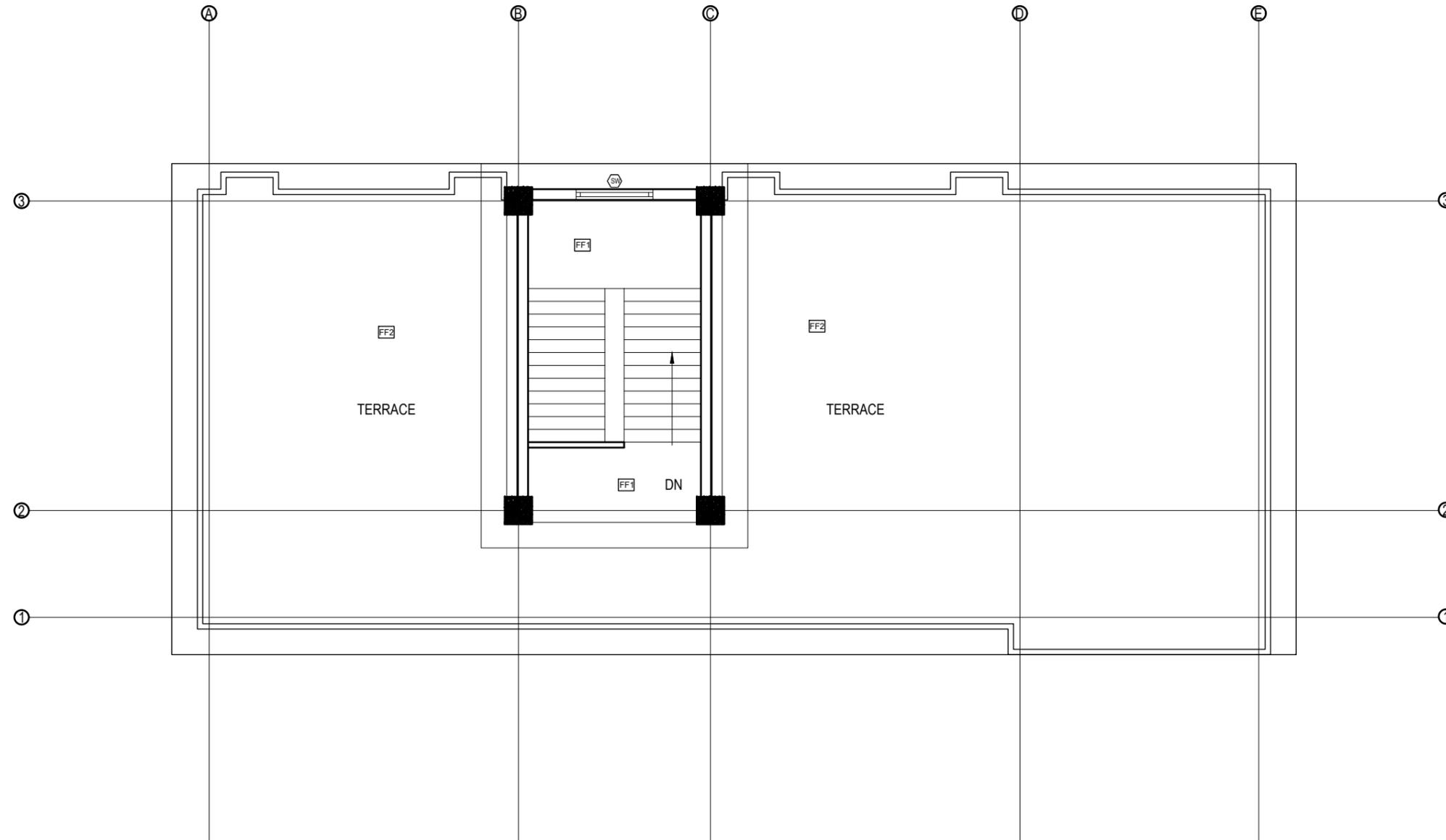
FIRST&SECOND FLOOR PLAN
 FLOOR AREA: 260.805 sq.m

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
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				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S6R-TERAI & VALLY	

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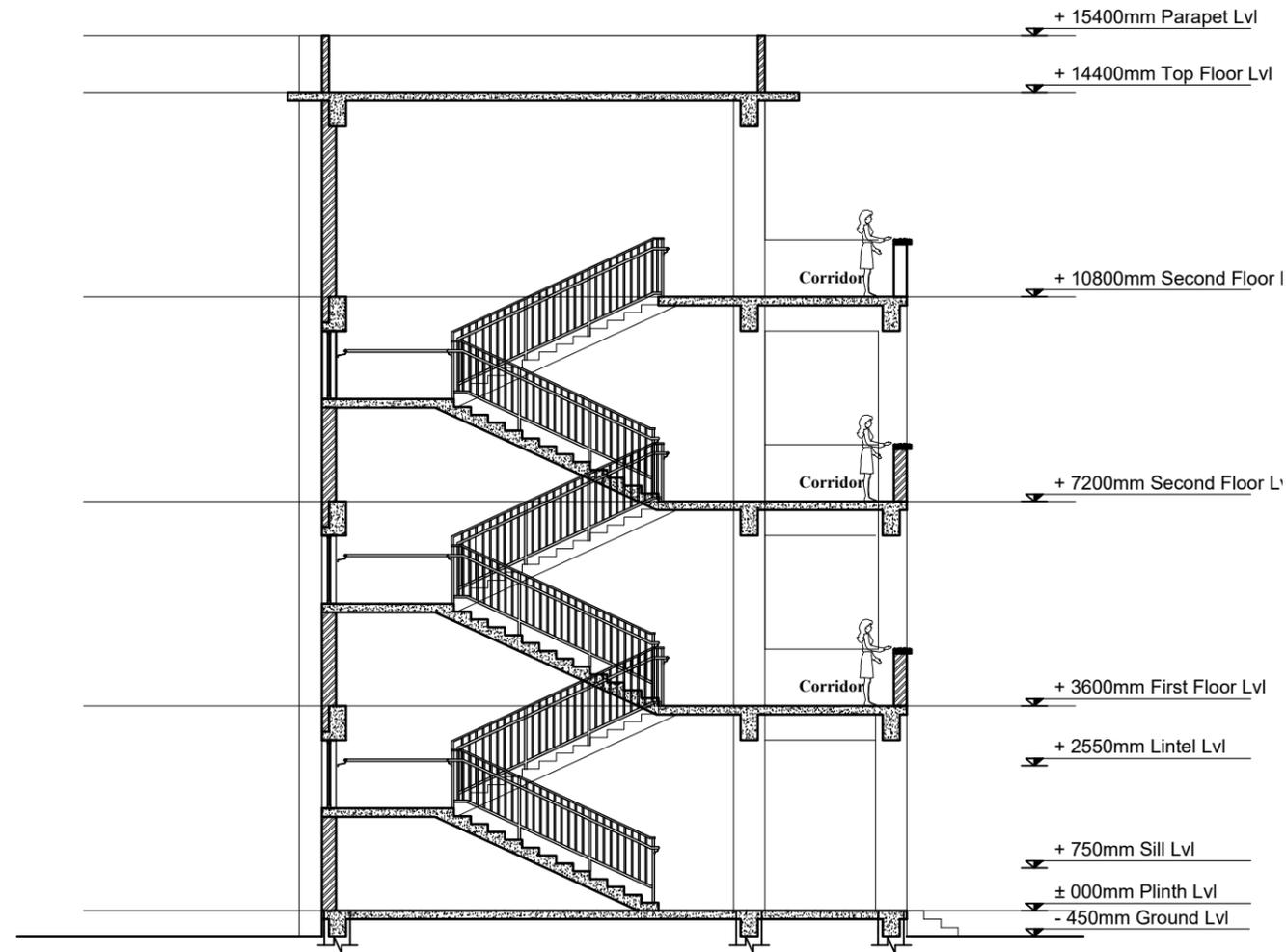
TOP FLOOR PLAN
FLOOR AREA: 39.39 sq.m

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
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				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S6R-TERAI & VALLY	

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SECTION AT A-A

OPENING SCHEDULE

S.N.	SYMBOL	SIZES	G.F.	F.F.	S.F.	TOTAL	SILL HT.	REMARKS
1.	MD	1200 x 2550	4	4	4	12	-	
2.	D1	1000 x 2550	2	2	2	6	-	
3.	D2	750 x 2100	4	4	4	12	-	
4.	D3	1200 x 2550	1			1	-	
5.	W1	1800 x 1800	4	4	4	12	750 MM	
6.	W2	2000 x 1800	2	2	2	6	750 MM	
7.	SW	1800 x 1200	1	1		2	1530 MM	
8.	V1	600 x 600	4	4	4	12	1800 MM	

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				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	

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FRONT ELEVATION

<p>CLIENT</p>	<p>PROJECT TITLE</p>	<p>SHEET TITLE</p>	<p>CONSULTANT</p>	<p>PLANNING DESIGN TEAM</p>		<p>SHEET NO. AR-05</p>	<p>REVISION NO. R-00</p>
 <p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>Prepare School Building Type Design for Terai and Valley Region</p>		<p>IDEAL SOLUTION PVT.LTD. Nepal</p>	<p>ENGINEER: ARCHITECT: DRAWN: SCALE : 1:120</p>	<p>STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023</p>	<p>DWG CODE 3S6R-TERAI & VALLY</p>	

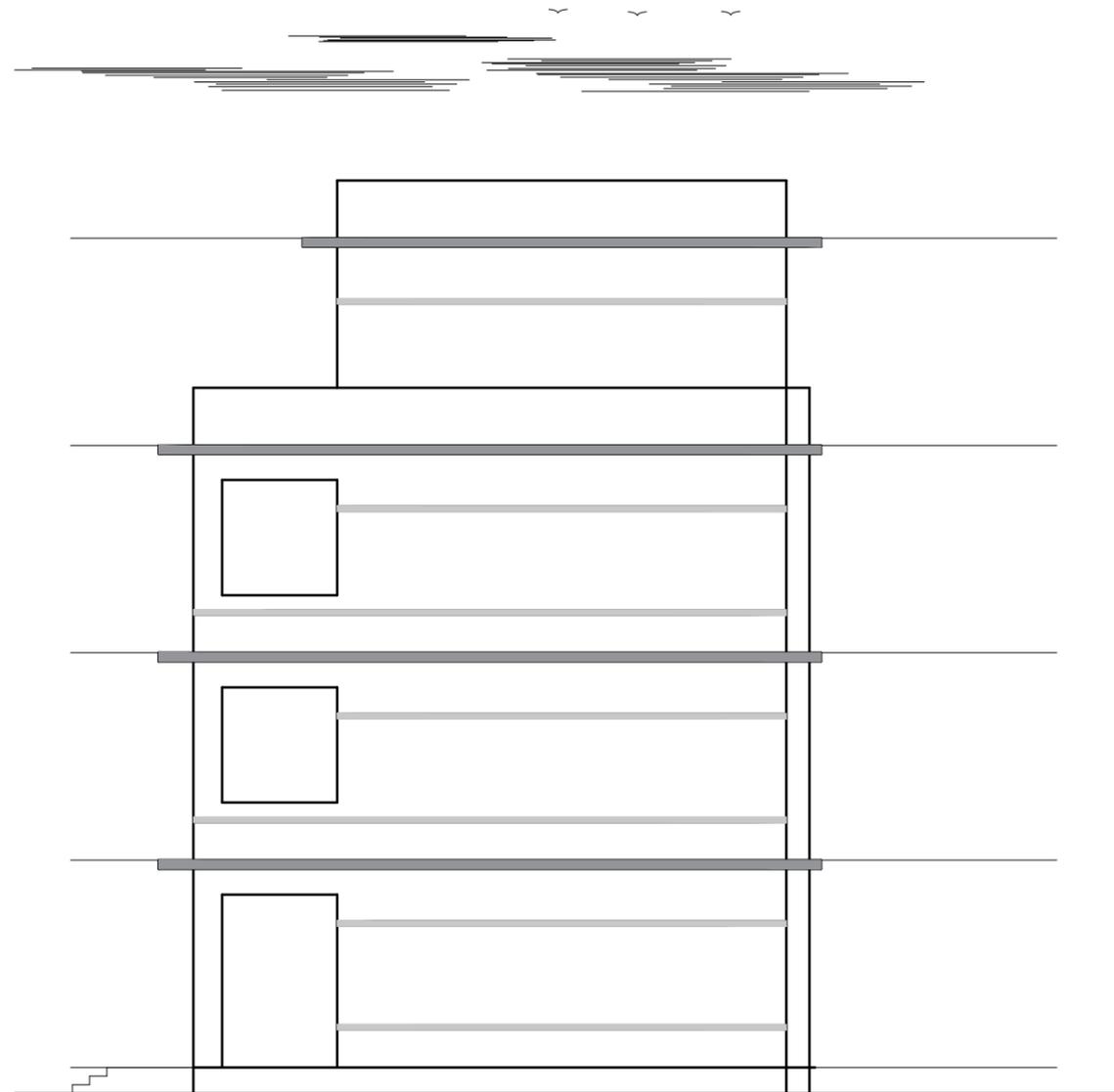
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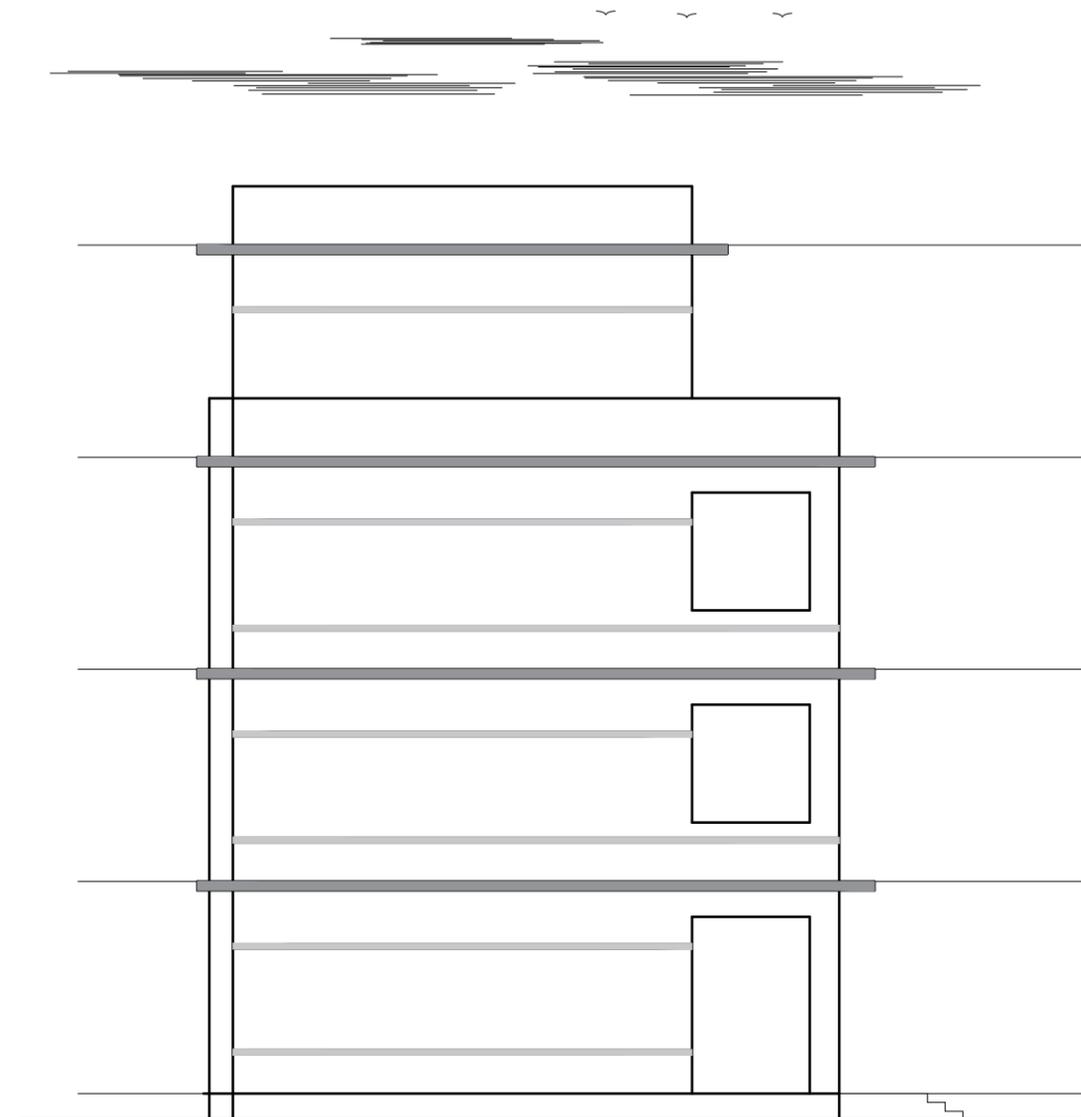
BACK ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-06	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S6R-TERAI & VALLY	

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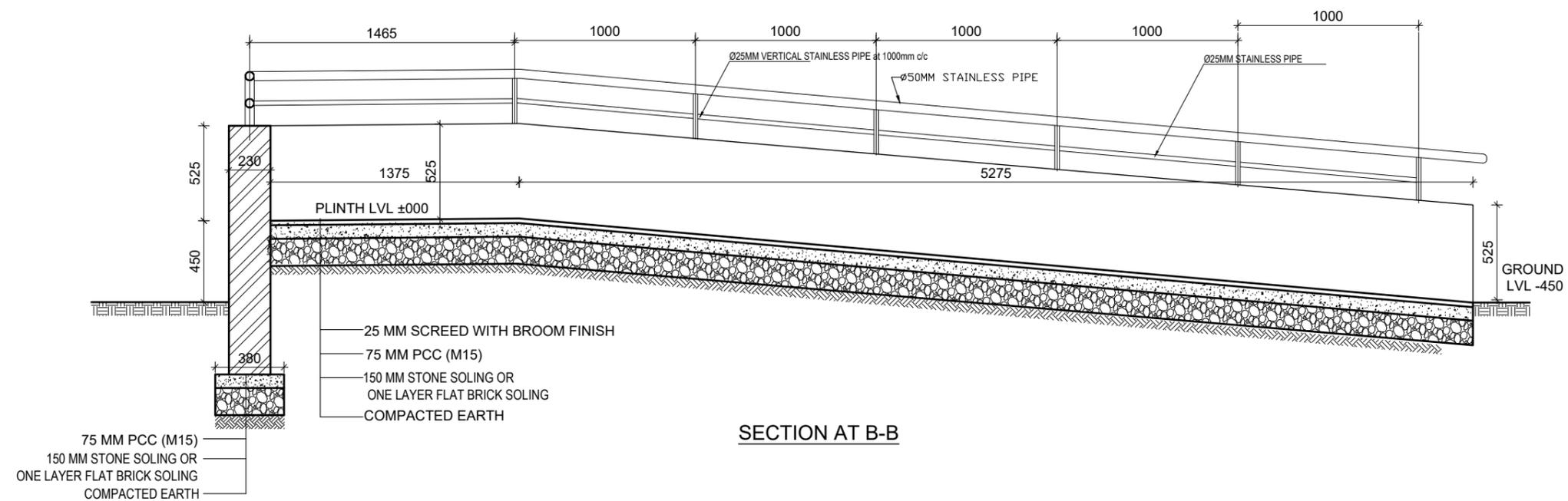
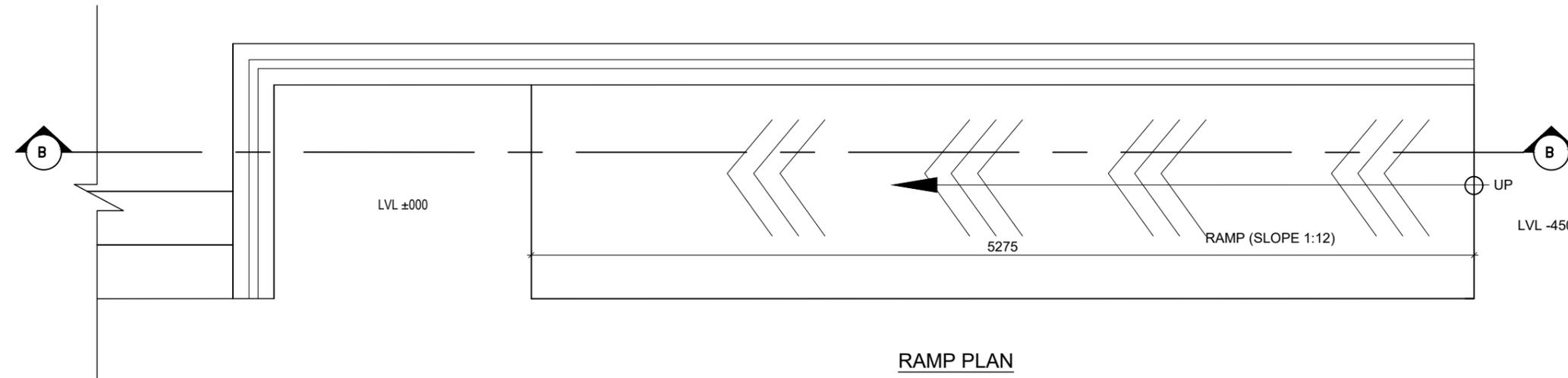
SIDE-1 ELEVATION



SIDE-2 ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-07	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S6R-TERAI & VALLY	

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CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM	SHEET NO. AR-08	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE 3S6R-TERAI & VALLY
				ARCHITECT:	CHECKED:	
				DRAWN :	APPROVED:	
				SCALE : 1:120	PAPER SIZE : A3	

STRUCTURE

DRAWING

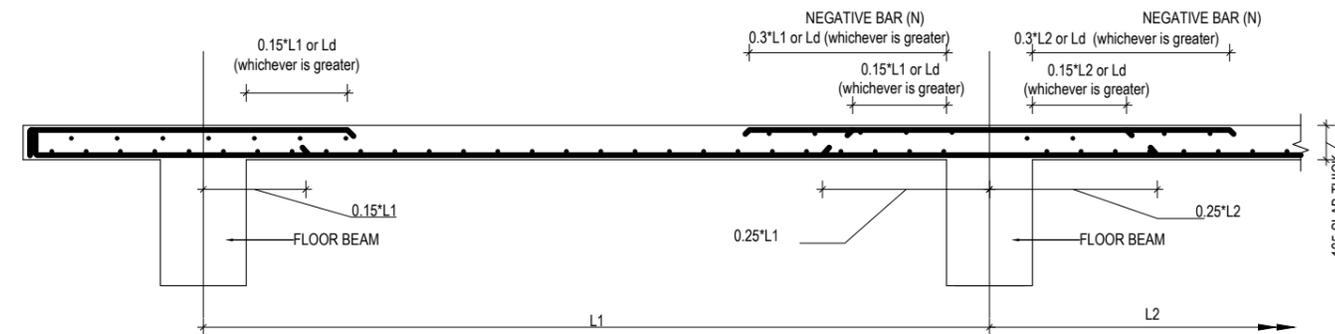
SN.	DRAWING LIST
1.	GENERAL NOTES
3.	FOOTING DETAIL FOR 100kN/m2
4.	TYPICAL FLOORING DETAIL
5.	SITE SPECIFIC DRAWING
6.	TYPICAL DETAILS OF FOUNDATION WALL
7.	COLUMN DETAIL
8.	BEAM PLAN
9.	BEAM DETAIL
10.	SLAB DETAIL
11.	STAIRCASE DETAIL
12.	BAND DETAIL
13.	RAILING DETAIL

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 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TABLE OF CONTENTS	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	R-00	DWG CODE. 3S6R-TARAI & VALLY
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SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

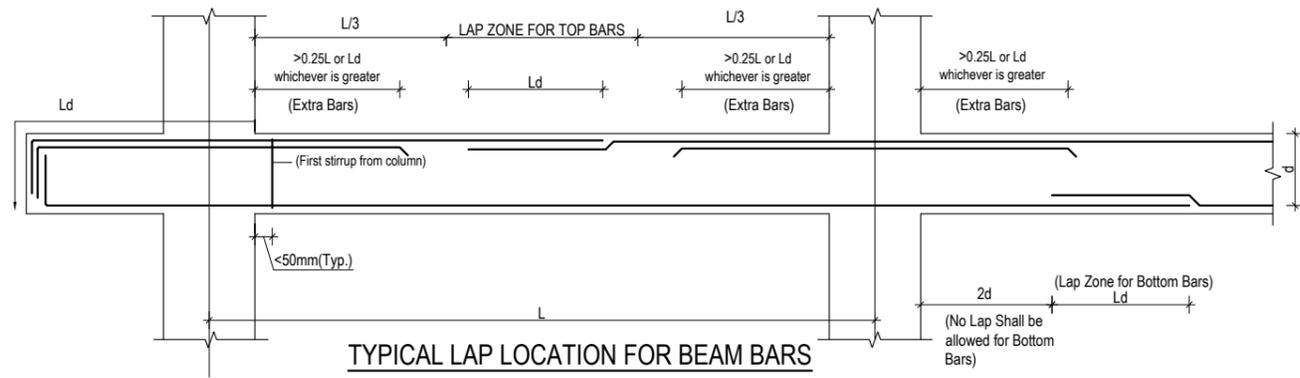
GENERAL NOTES:

- USE M25 GRADE CONCRETE FOR SLAB, BEAM, COLUMN, FOUNDATION, SILL & LINTEL BANDS (ALL RCC WORKS)
- USE Fe500 GRADE STEEL ($f_y=500N/mm^2$)
- CLEAR COVER TO BARS
 - FOR CONCRETE MEMBERS IN CONTACT WITH SOIL = MIN 50mm
 - FOR COLUMN (FROM FACE TO LATERAL TIES) = 40mm
 - FOR BEAMS (FROM FACE TO LATERAL STIRRUPS) = 25mm
 - FOR OUTER BARS IN SLAB = 15mm
 - FOR STAIRCASE = 20mm
- BARS IN COLUMNS SHALL BE SPLICED ONLY AT MID HEIGHT OF COLUMN.
- BARS SPLICING IN BEAM SHALL BE AVOIDED IN THE SPAN WHERE INTERMEDIATE BEAM IS CONNECTED AND SHALL BE ONLY AS SHOWN IN DWG.
- DEVELOPMENT / LAP LENGTH (L_d) FOR BARS.

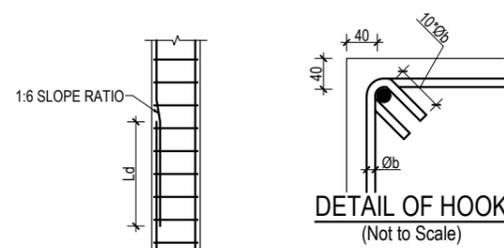
BAR DIA-(mm)	8	10	12	16	20	25
FOR M25 L_d	400	490	590	790	980	1230
- TEMP./DISTRIBUTION REINFORCEMENT FOR SLAB - TMT ϕ @ 200 C/C
- CLEAR VERTICAL DISTANCE BETWEEN TWO ROWS (LAYERS) OF BARS=25mm OR MAXIMUM SIZE OF REBAR
- PROVIDE STIRRUPS OR TIES AT MIN 150 C/C AT LAP LOCATIONS IN BEAM AND AT MIN 100 C/C AT LAP LOCATION IN COLUMNS.
- FOUNDATION
- FOUNDATION DESIGN HAVE BEEN PROVIDED FOR SAFE BEARING CAPACITY OF 100KN/m²,150KN/m²,200KN/m².
- IF SAFE BEARING CAPACITY OF SOIL IS FOUND LESS THAN 100KN/m², SPECIAL STUDY FOR FOUNDATION DESIGN IS REQUIRED.
- H = CLEAR SPAN OF FLOOR.
- D=DEPTH OF BEAM
- d=EFFECTIVE DEPTH OF BEAM
- L_d =DEVELOPMENT LENGHT



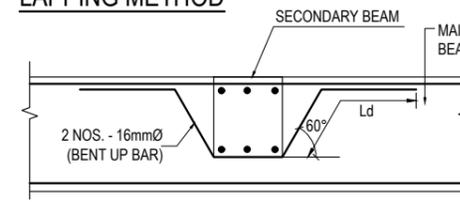
TYPICAL DETAIL FOR SLAB BARS



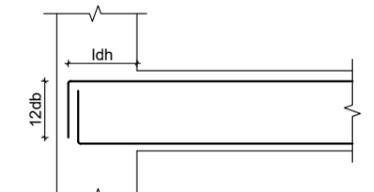
TYPICAL LAP LOCATION FOR BEAM BARS
(STIRRUPS NOT SHOWN FOR CLARITY)



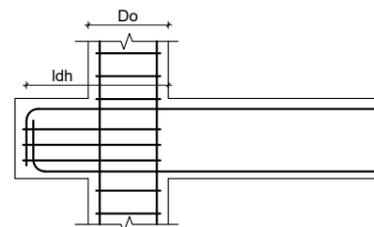
LAPPING METHOD



CONNECTION DETAIL BETWEEN MAIN & SECONDARY BEAM



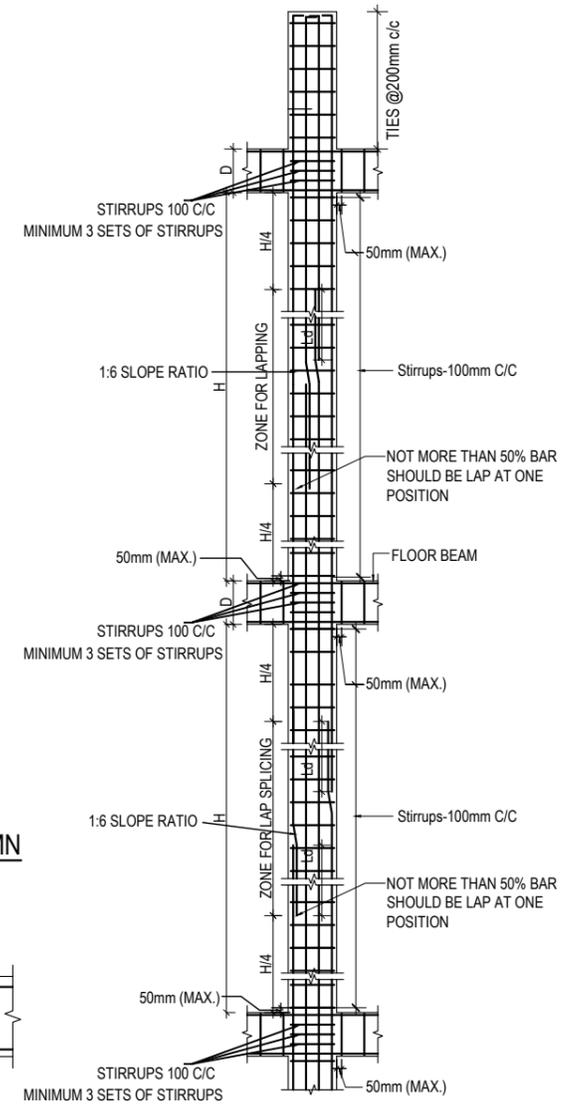
ANCHORAGE OF BEAM LONGITUDINAL BAR IN COLUMN



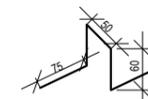
PROVISION OF BEAM STUB

f_y N/mm ²	f_{ck} N/mm ²	d_b mm	L_{dh} mm	$12d_b$ mm
500	20	12	277	144
500	25	12	248	144
500	20	16	369	192
500	25	16	330	192
500	20	20	462	240
500	25	20	413	240
500	20	25	577	300
500	25	25	516	300

f_y = yield strength of steel
 f_{ck} = Characteristic Compressive strength of concrete
 d_b = diameter of largest longitudinal bar in beam in mm

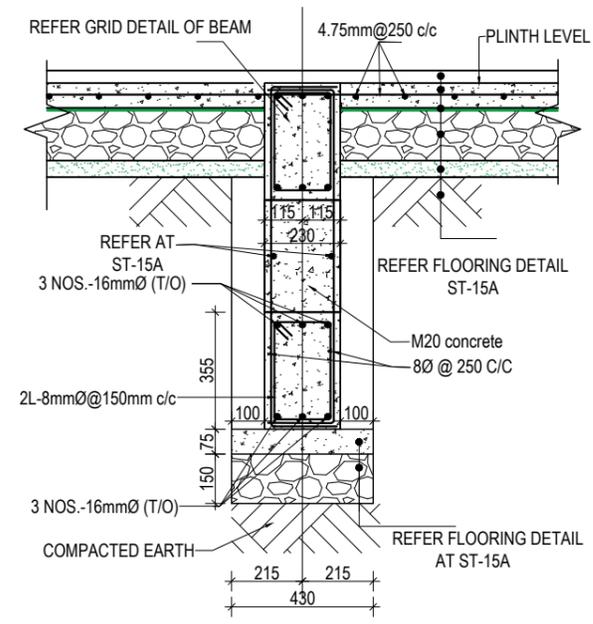
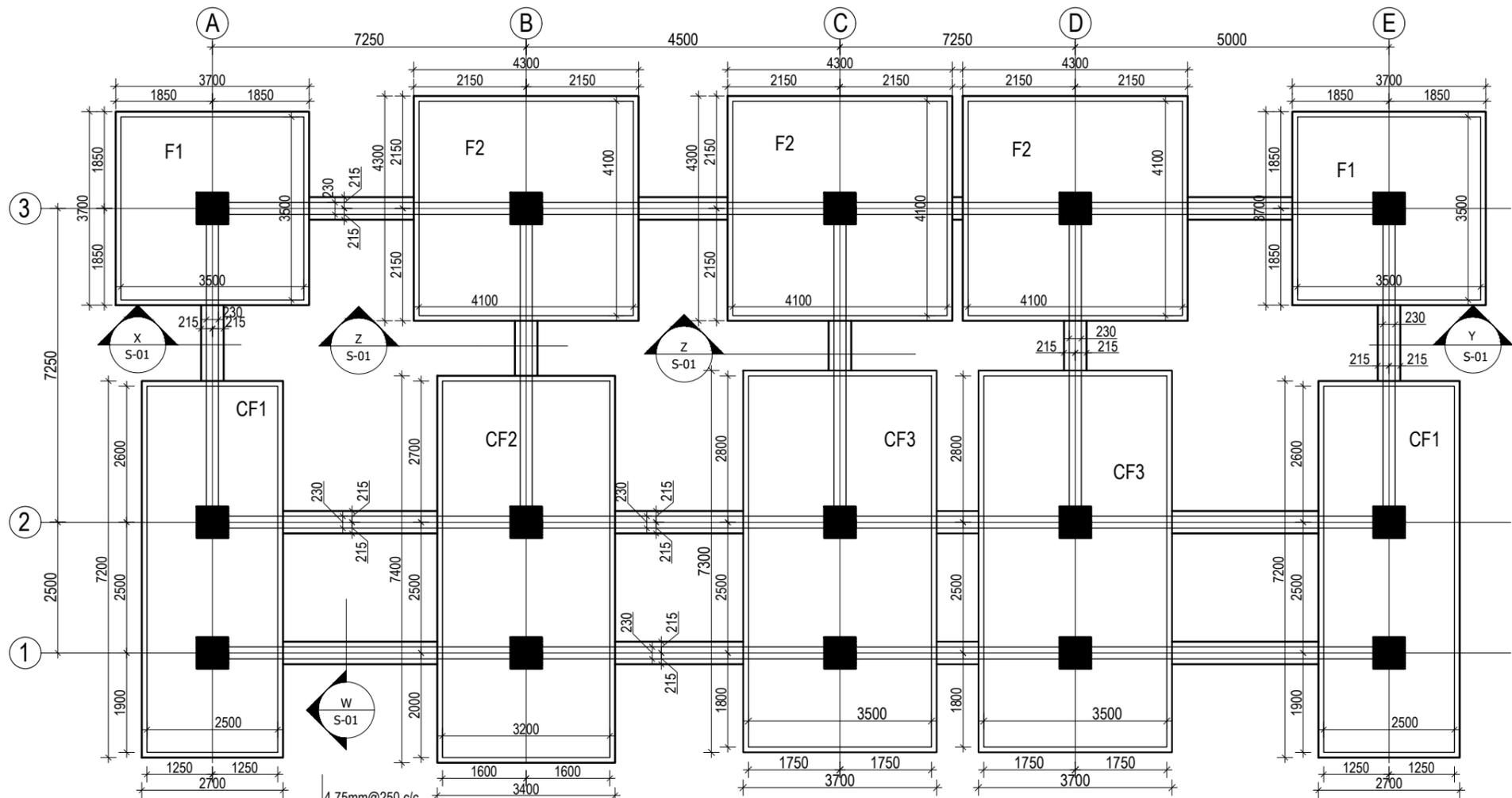


TYP. COLUMN SHEAR REINFORCEMENT DETAIL

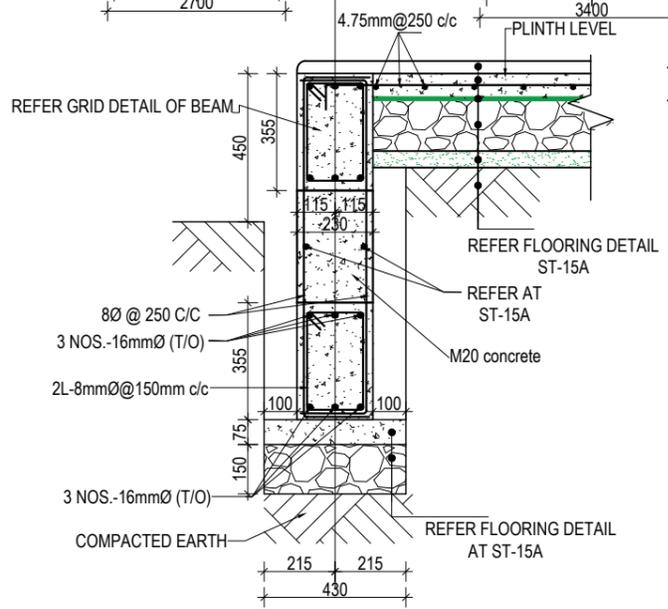


CHAIR RESTING ON BOTTOM BARS @600 - 900 mm staggered position

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				ARCHITECT:	CHECKED:		DWG CODE.
				DRAWN :	APPROVED:		3S6R-TARAI & VALLY
				SCALE : 1: 120	PAPER SIZE : A3		DATE: FEBRUARY, 2023

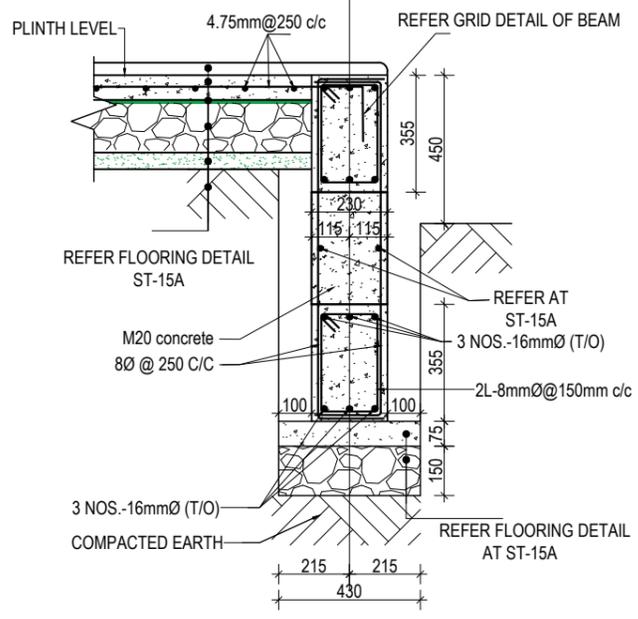


SECTION AT Z-Z
(Scale= 1:20)

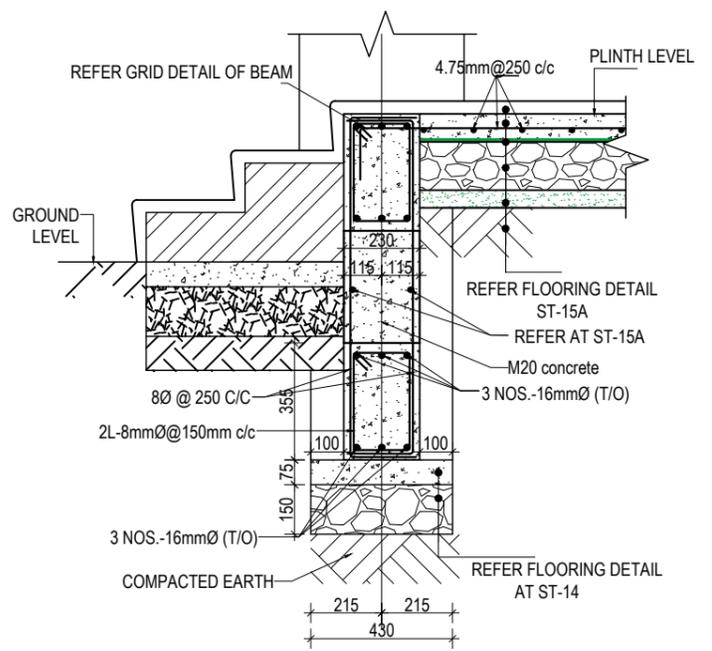


SECTION AT X-X
(Scale= 1:20)

TRENCH PLAN FOR SAFE BEARING CAPACITY 100kN/m²
(Scale= 1:100)

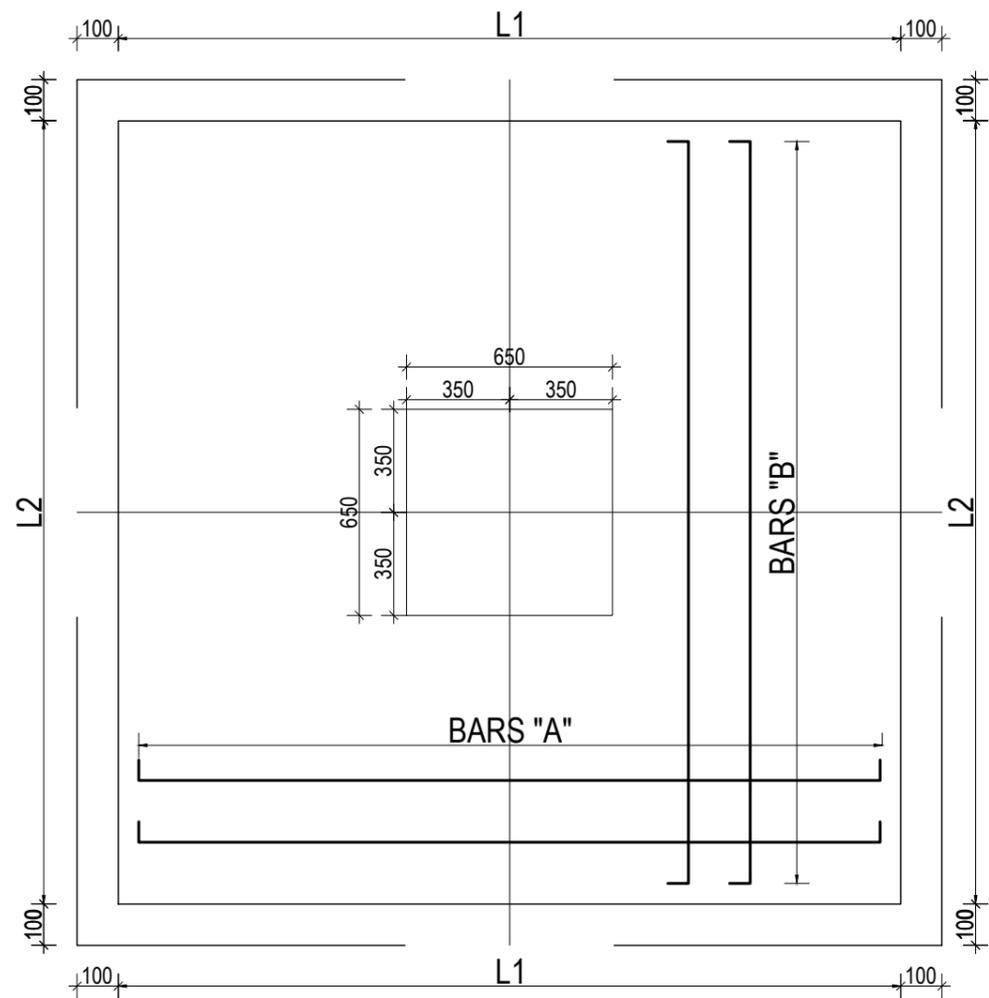


SECTION AT Y-Y
(Scale= 1:20)

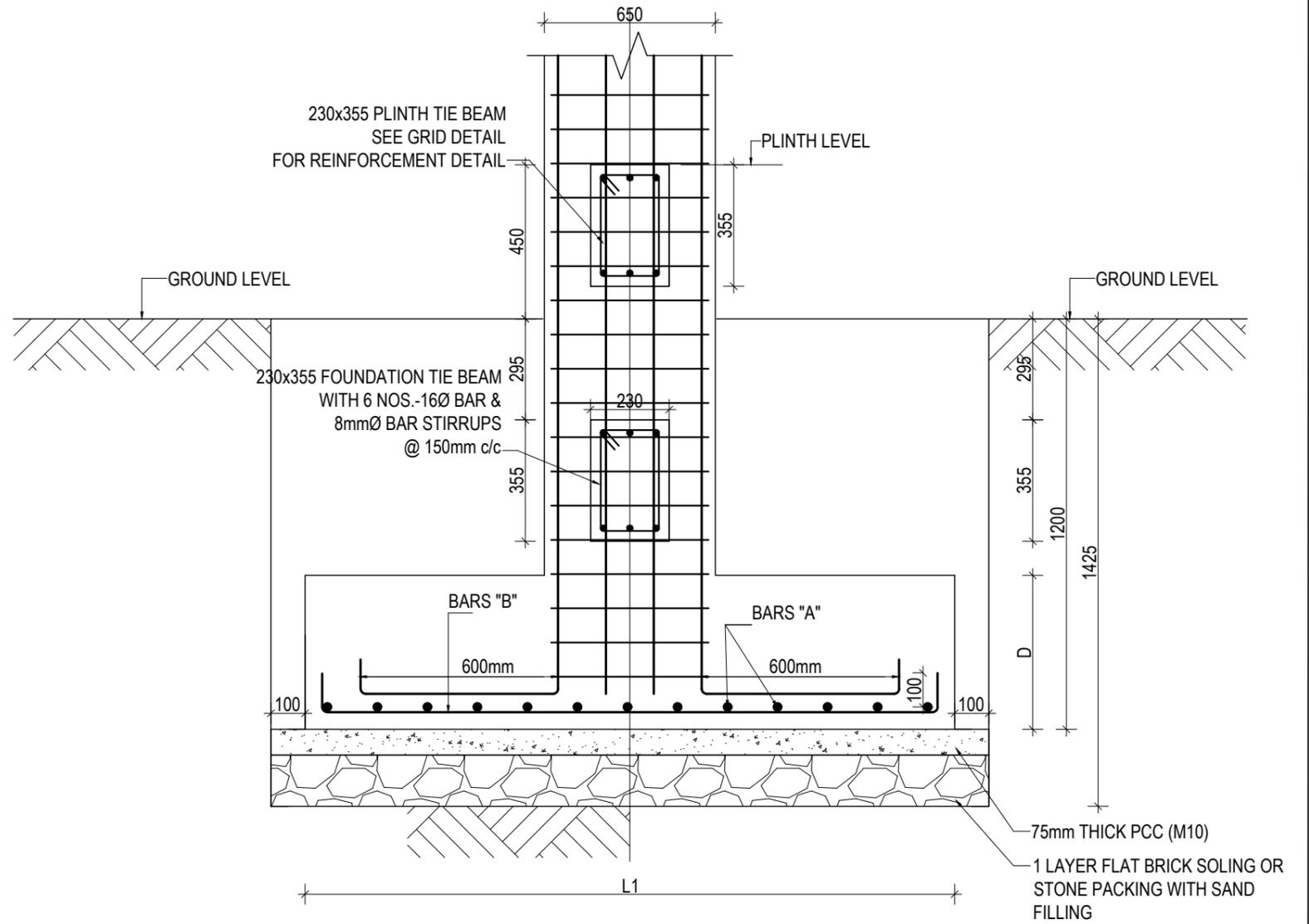


SECTION AT W-W
(Scale= 1:20)

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TRENCH DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



TYPICAL ISOLATED FOOTING PLAN

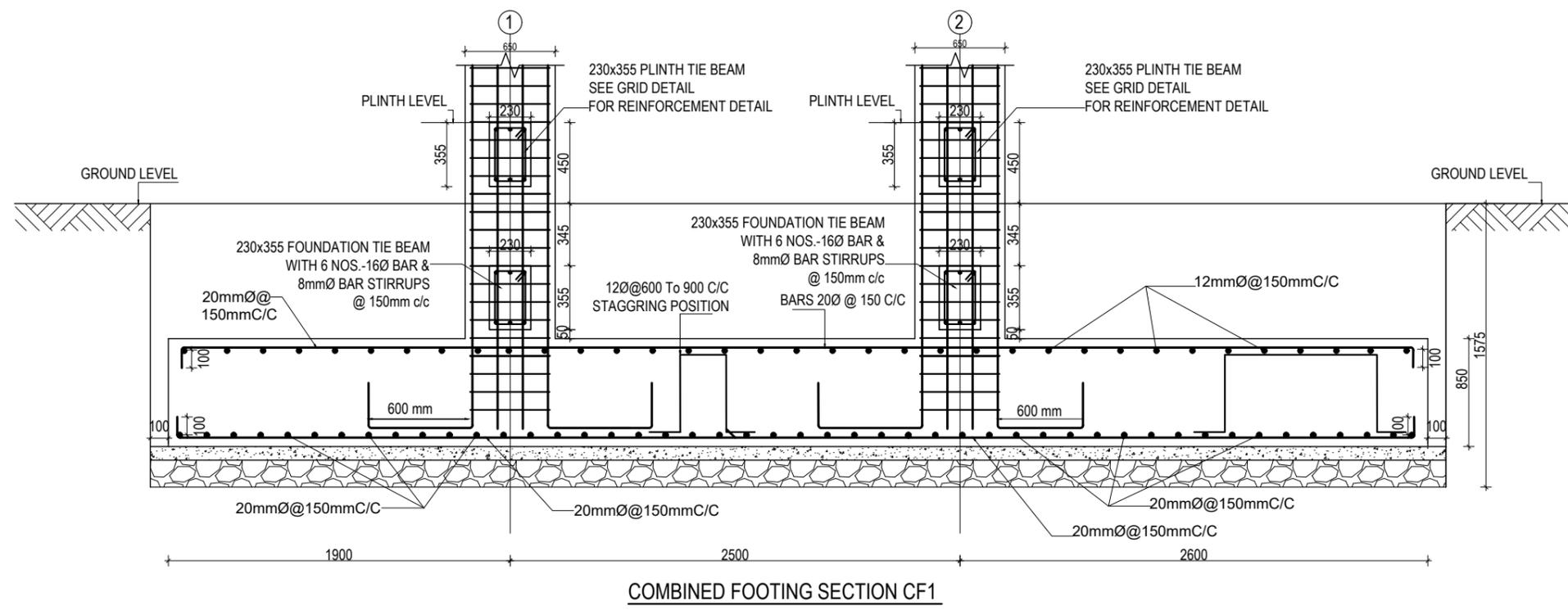
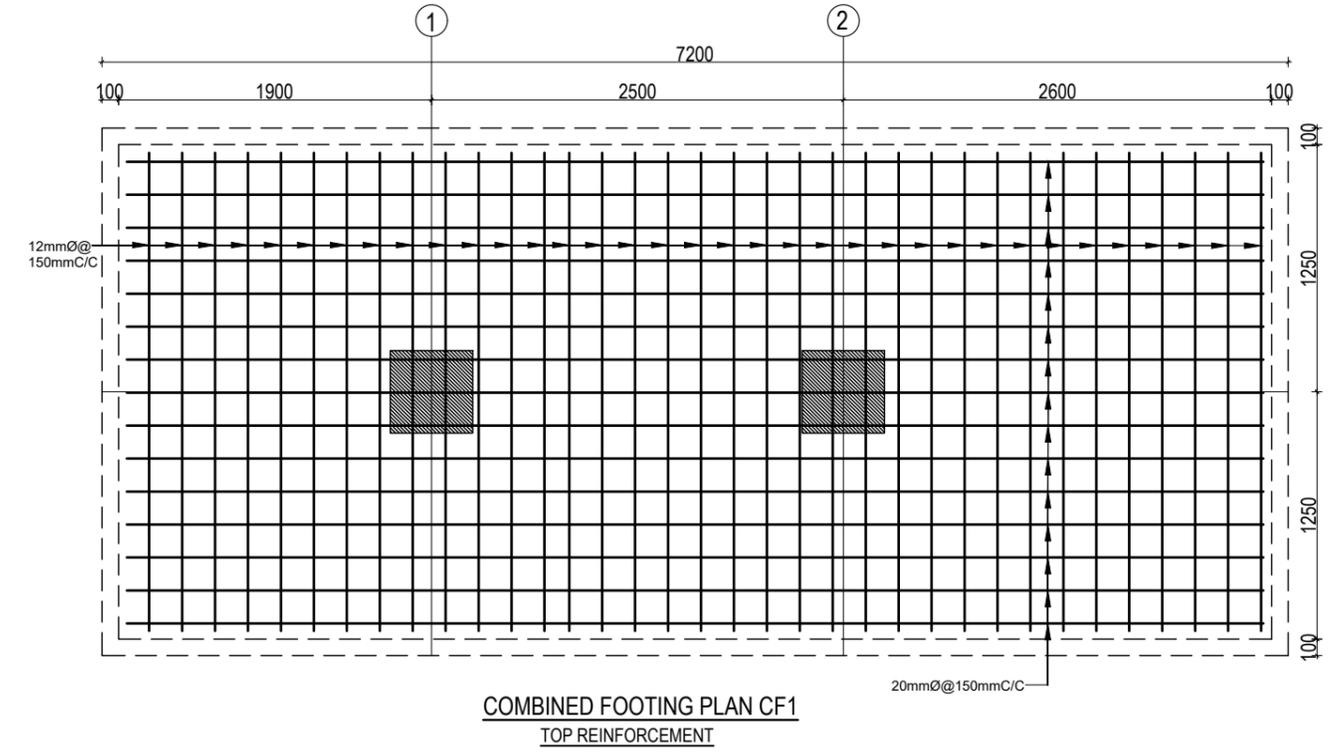
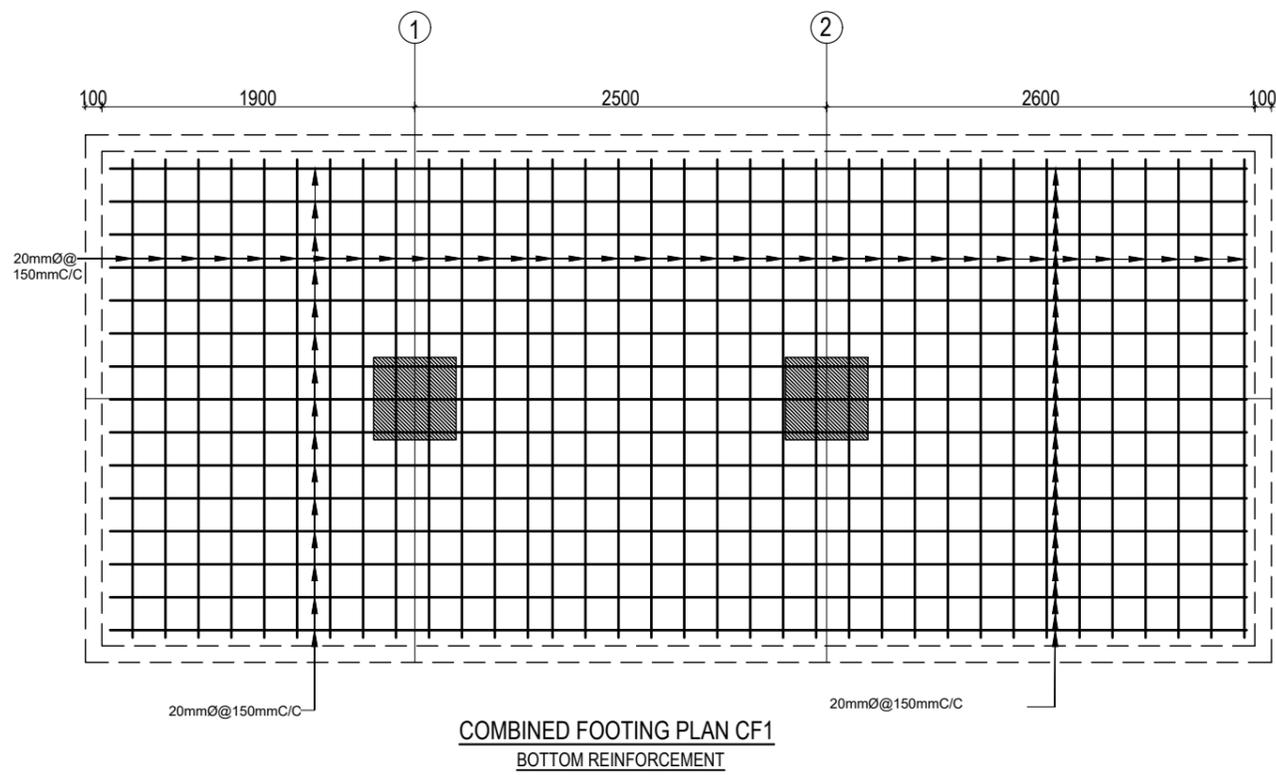


TYPICAL ISOLATED FOOTING SECTION

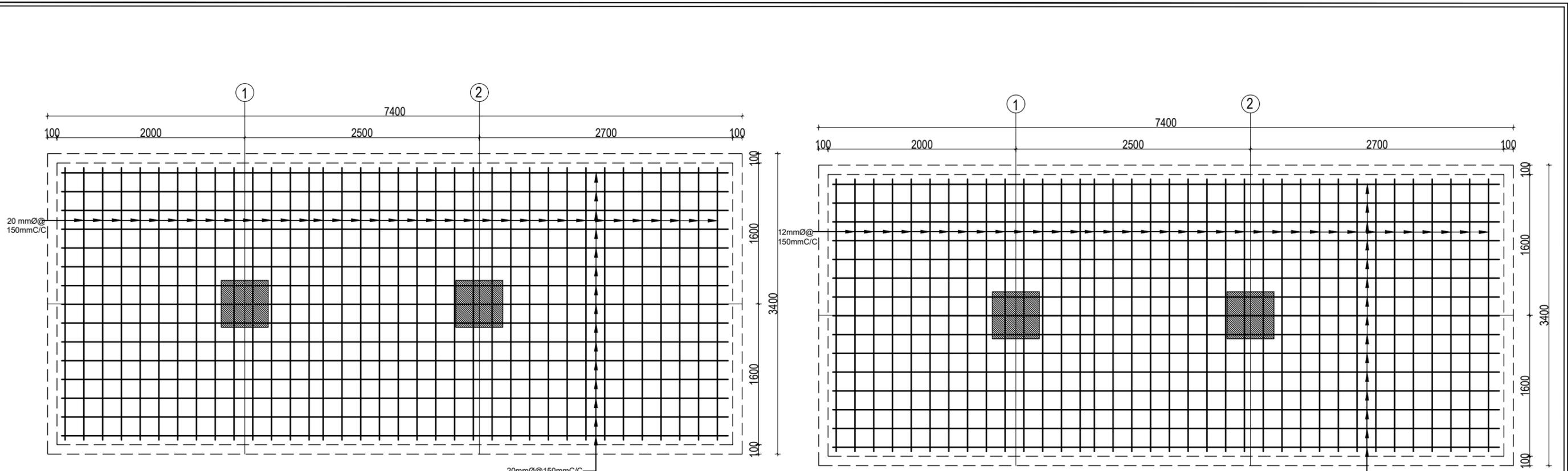
ISOLATED FOOTING SCHEDULE FOR S.B.C 100 kN/m²

FOOTING ID	L1	L2	DEPTH (D)	REINFORCEMENT DETAILS	
				BARS "A"	BARS "B"
F1	3700	3700	600	16Ø @ 150 C/C	16Ø @ 150 C/C
F2	4100	4100	750	16Ø @ 150 C/C	16Ø @ 150 C/C

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-02	REVISION NO. R-00
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SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

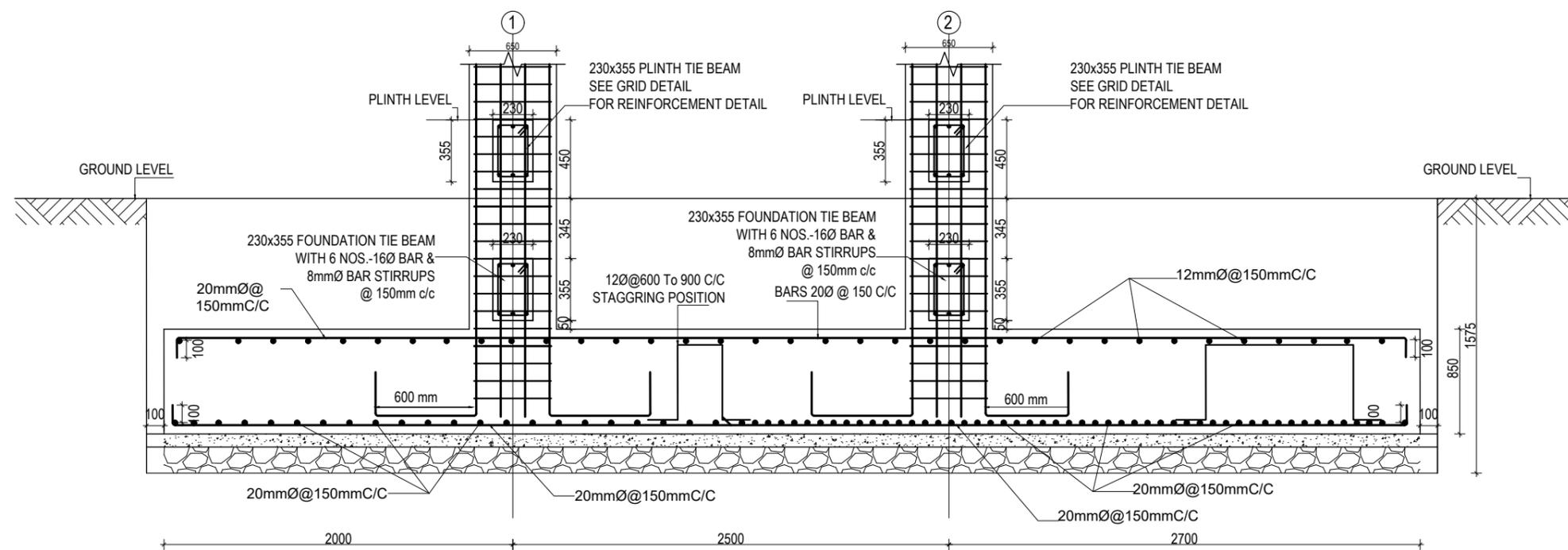


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				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



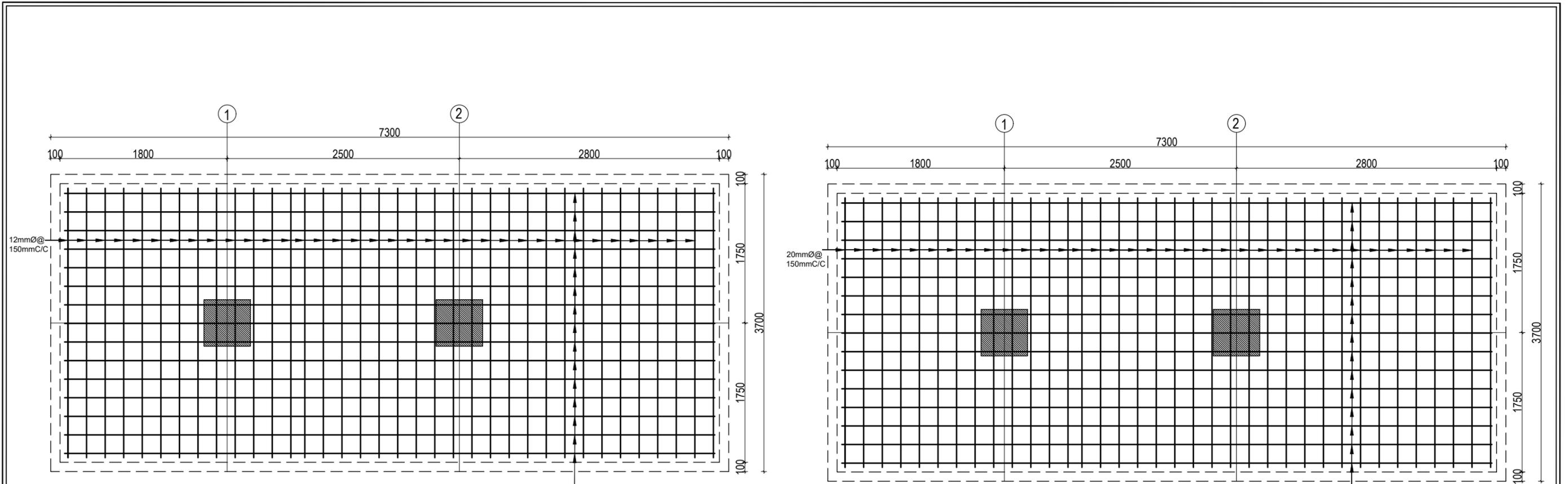
COMBINED FOOTING PLAN CF2
BOTTOM REINFORCEMENT

COMBINED FOOTING PLAN CF2
TOP REINFORCEMENT



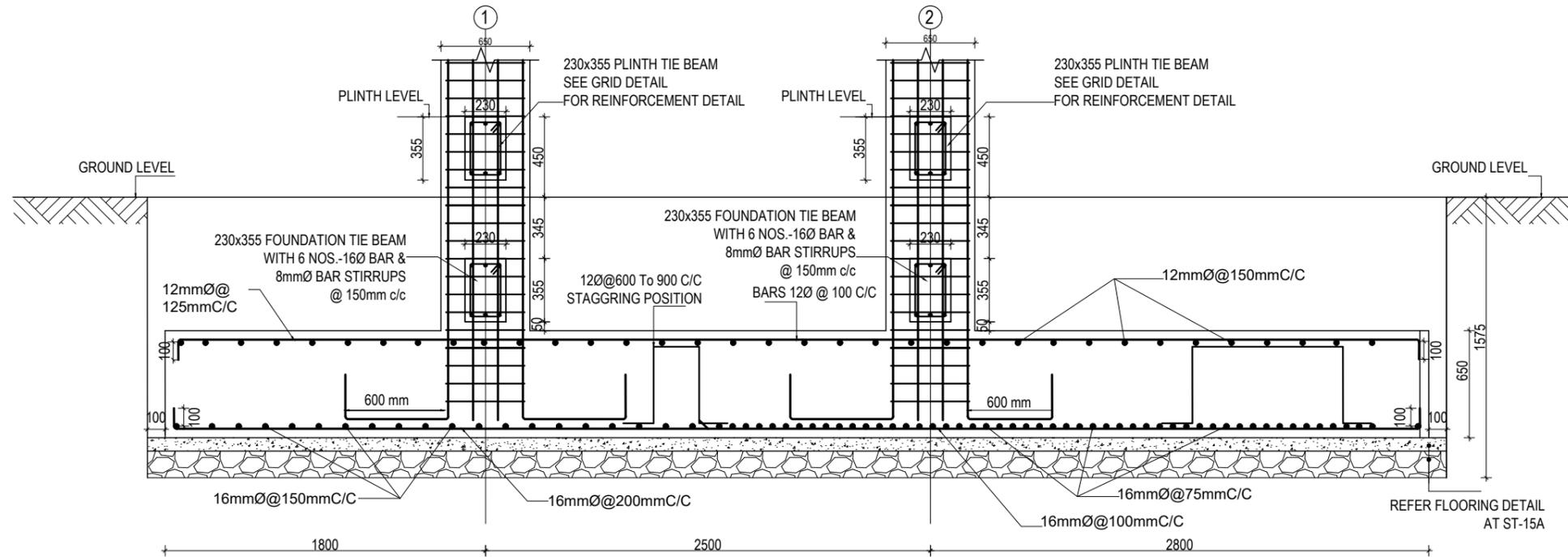
COMBINED FOOTING SECTION CF2

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-04	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S6R-TARAI & VALLY	



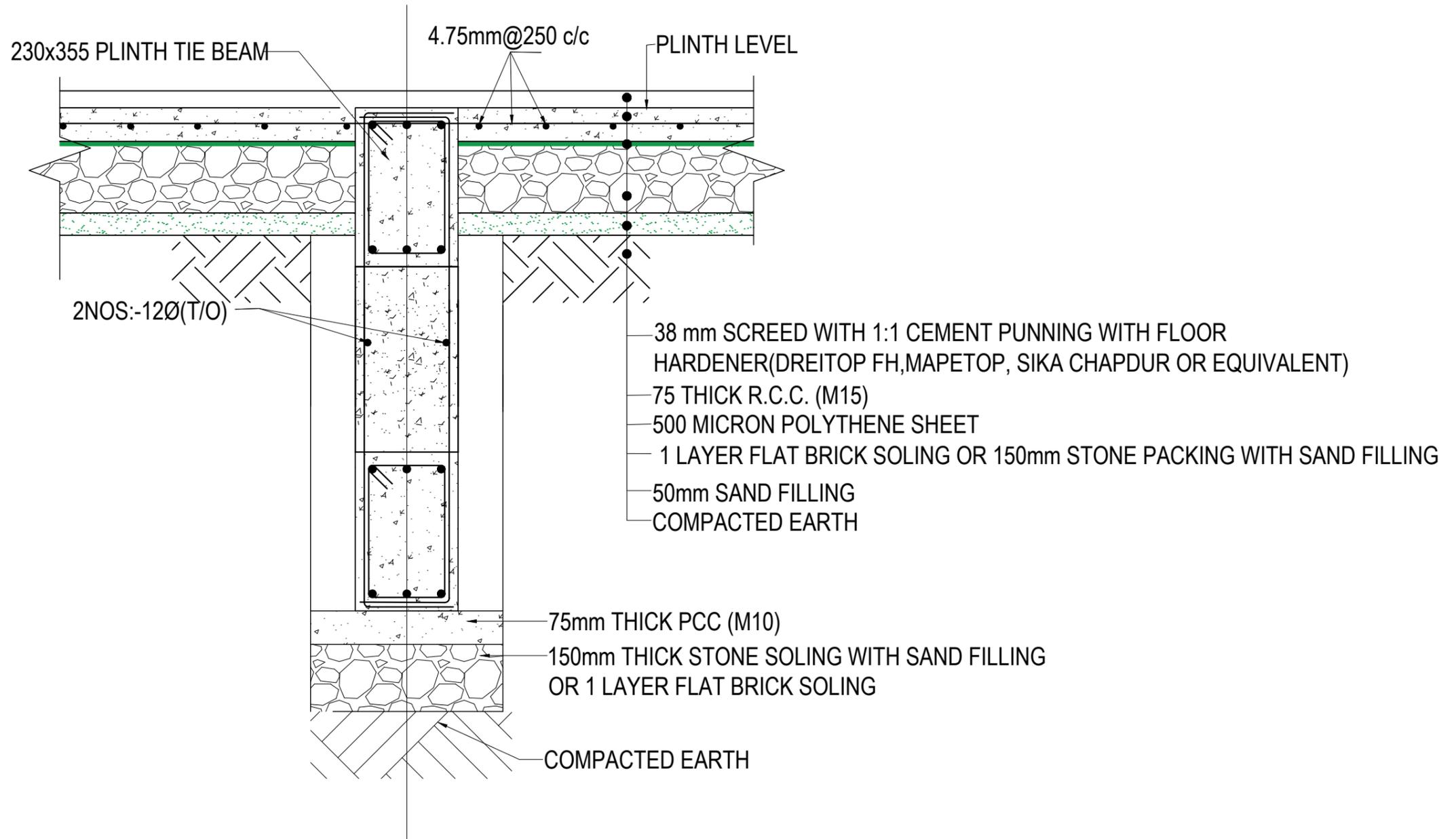
COMBINED FOOTING PLAN CF3
TOP REINFORCEMENT

COMBINED FOOTING PLAN CF3
BOTTOM REINFORCEMENT



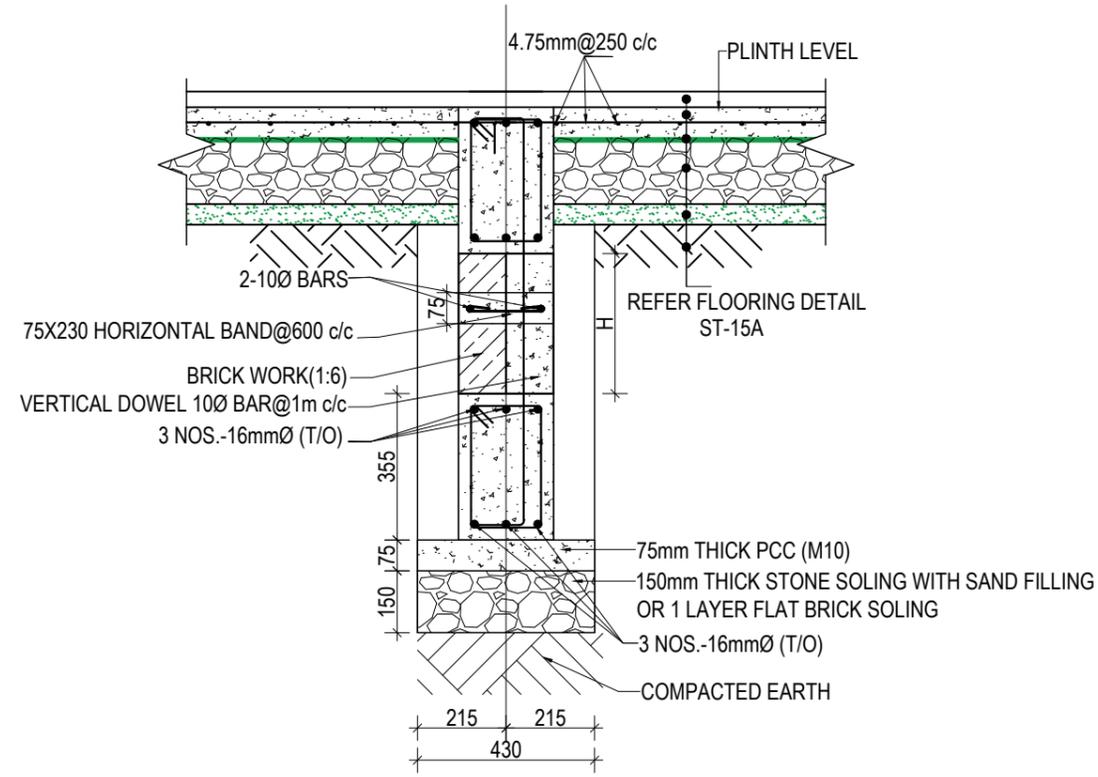
COMBINED FOOTING SECTION CF3

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-05	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



TYPICAL FLOORING DETAIL FF1
(Scale= 1:10)

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-06	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL FLOORING DETAIL	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

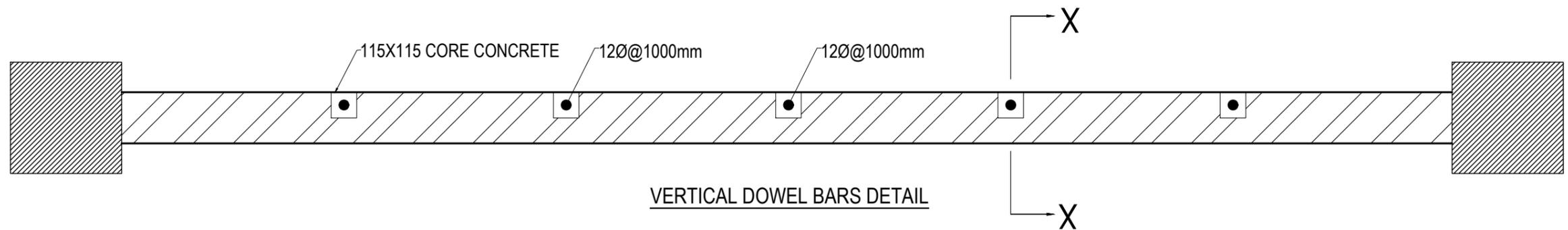


WALL DETAIL FOR DEPTH OF FOOTING MORE THAN 1500 mm

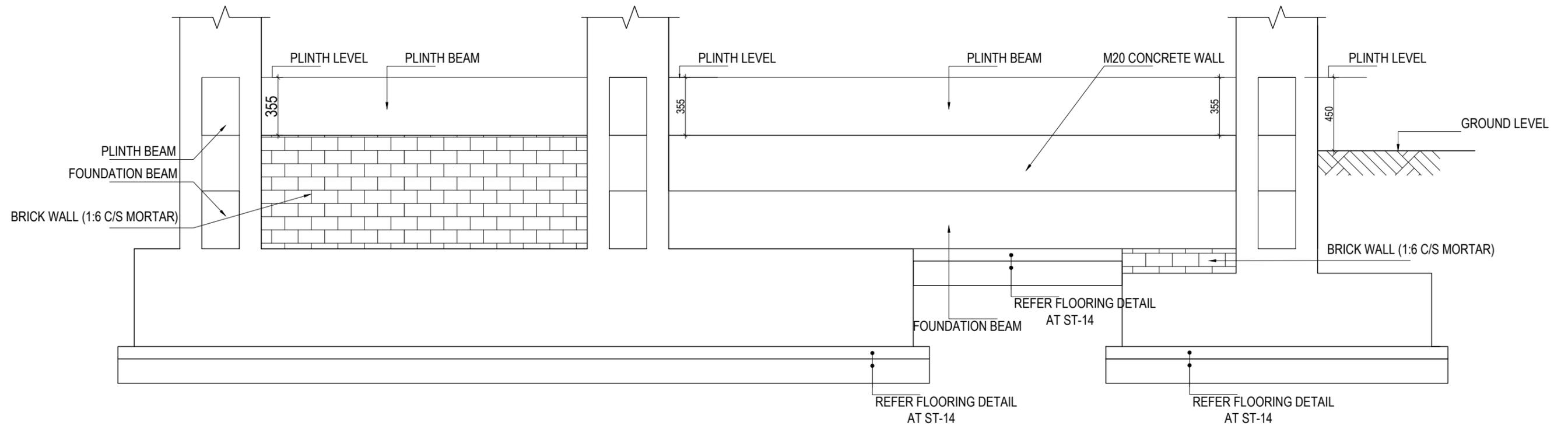
SECTION AT X-X

NOTES:-

- 1) BRICK WALL IS USED IF WALL IS CONFINED BY SOIL ON BOTH SIDES
- 2) IF THE HEIGHT OF THE BRICKWALL EXCEEDS 1800 mm ADDITIONAL BEAM SHALL BE PROVIDED OF SAME SIZE OF FOUNDATION BEAM(SAME REINFORCEMENT TO BE USED)

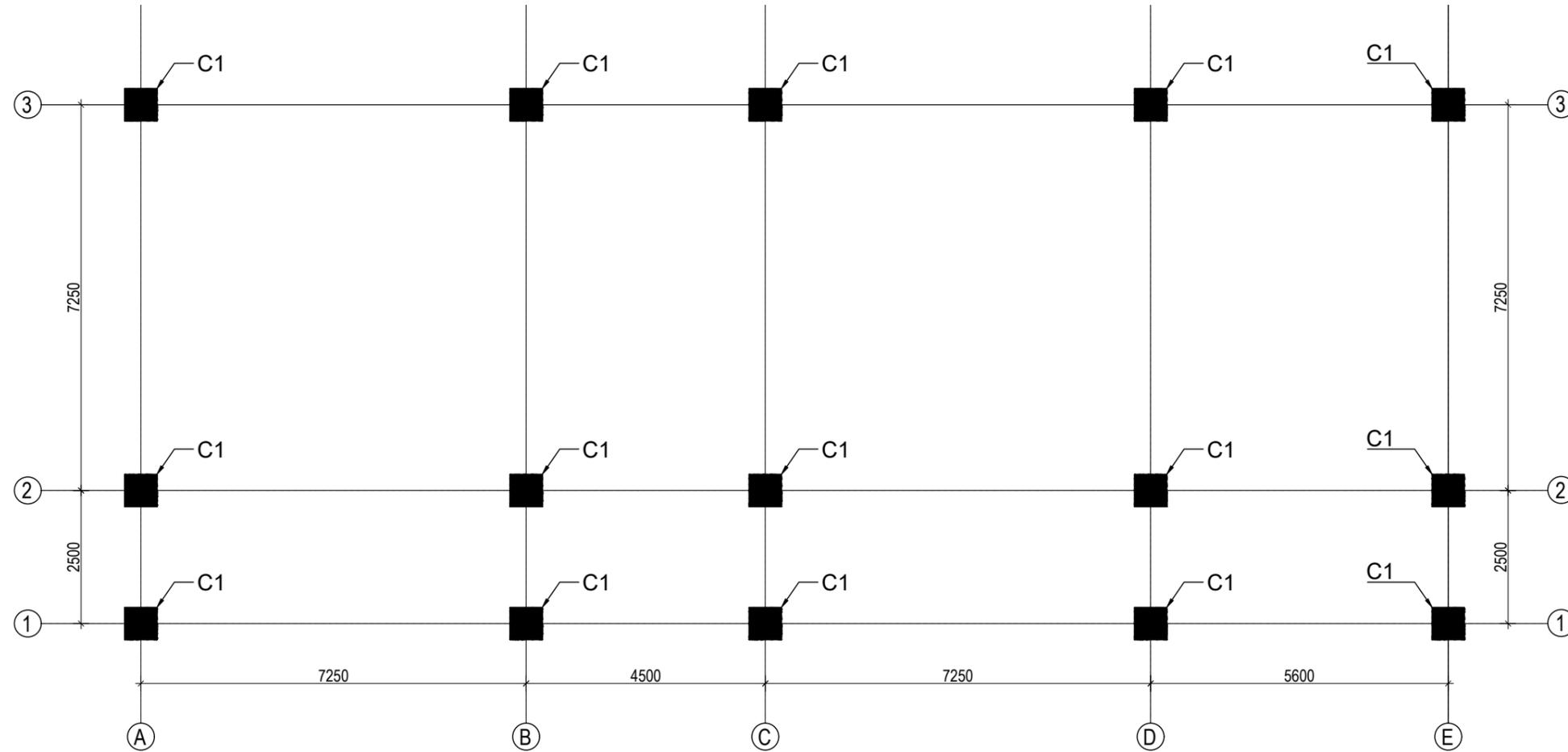


CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-07	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	SITE SPECIFIC DRAWING	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120		PAPER SIZE : A3		DATE: FEBRUARY, 2023			



TYPICAL DETAIL OF FOUNDATION WALL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-08	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL DETAIL OF FOUNDATION WALL	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

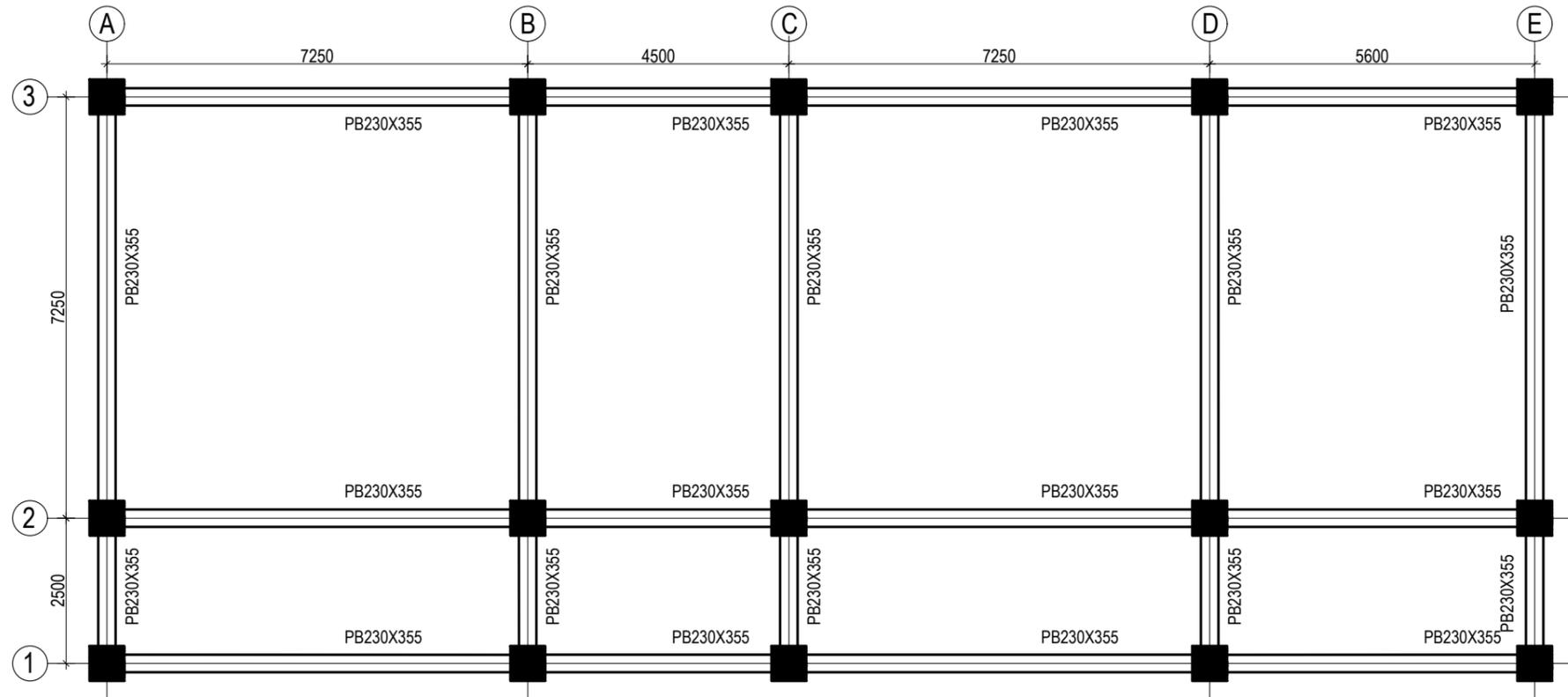


GROUND FLOOR COLUMN LAYOUT PLAN
(SCALE 1:100)

COLUMN REINFORCEMENT DETAILS

S. NO.	COLUMN	COLUMN SIZE	FLOOR					TIE BAR ORIENTATION
			GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	TOP FLOOR	
1	C1	650X650	<p>• 24 NOS. -25mmØ</p>	<p>A: 10Ø100c/c & B: 8Ø100c/c</p>				

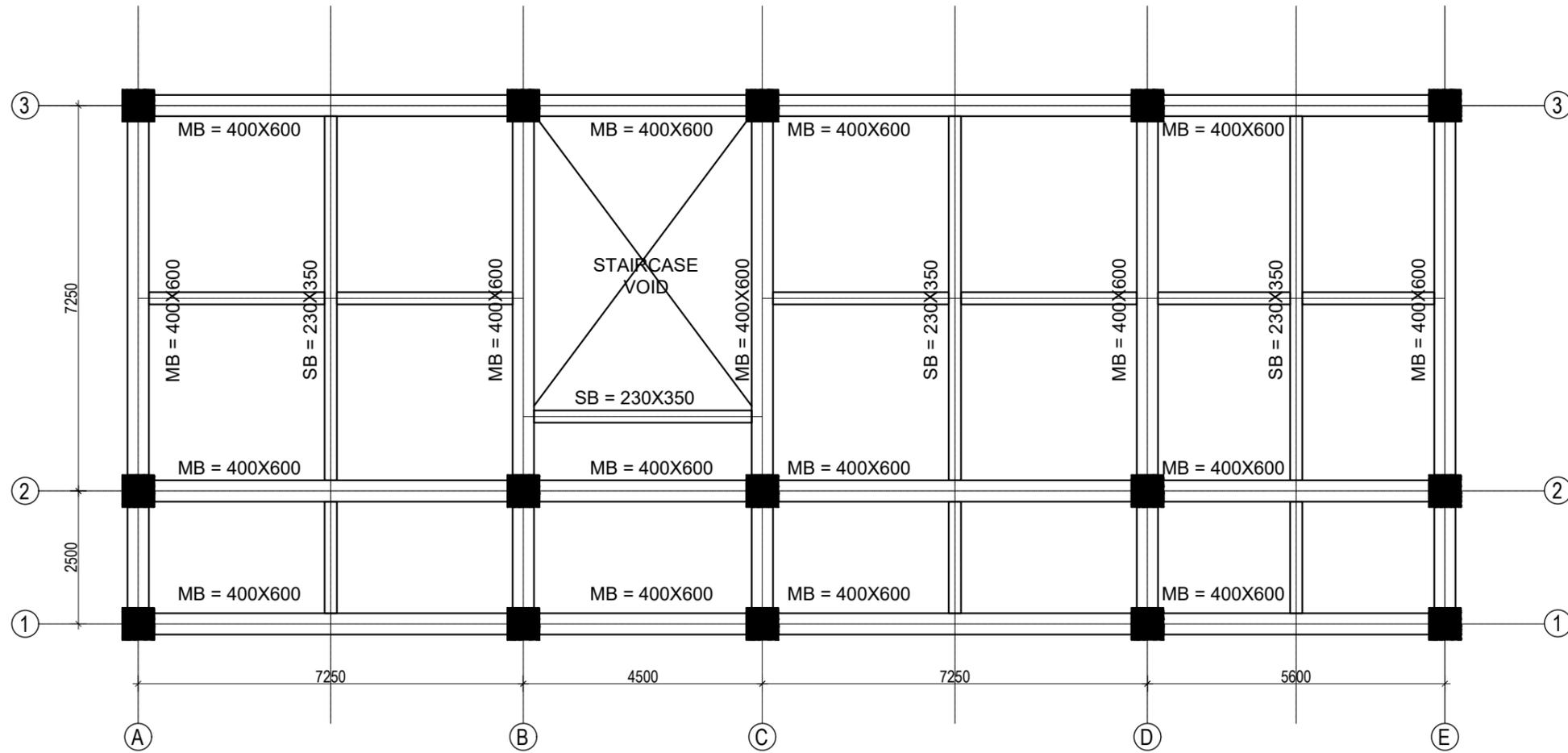
<p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>PROJECT TITLE</p> <p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>SHEET TITLE</p> <p>COLUMN DETAIL</p>	<p>CONSULTANT</p> <p>IDEAL SOLUTION PVT. LTD.</p>	<p>PLANNING DESIGN TEAM</p>			<p>SHEET NO.</p> <p>ST-09</p>	<p>REVISION NO.</p> <p>R-00</p>
				<p>ENGINEER:</p> <p>ARCHITECT:</p> <p>DRAWN :</p> <p>SCALE : 1: 120</p>	<p>STRUCTURE ER. :</p> <p>CHECKED:</p> <p>APPROVED:</p> <p>DATE: FEBRUARY, 2023</p>	<p>DWG CODE.</p> <p>3S6R-TARAI & VALLY</p>		



PLINTH BEAM LAYOUT PLAN

(Scale= 1:100)
LVL:- PL+0000

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-10	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	BEAM LAYOUT PLAN	IDEAL SOLUTION PVT. LTD.	ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S6R-TARAI & VALLY	



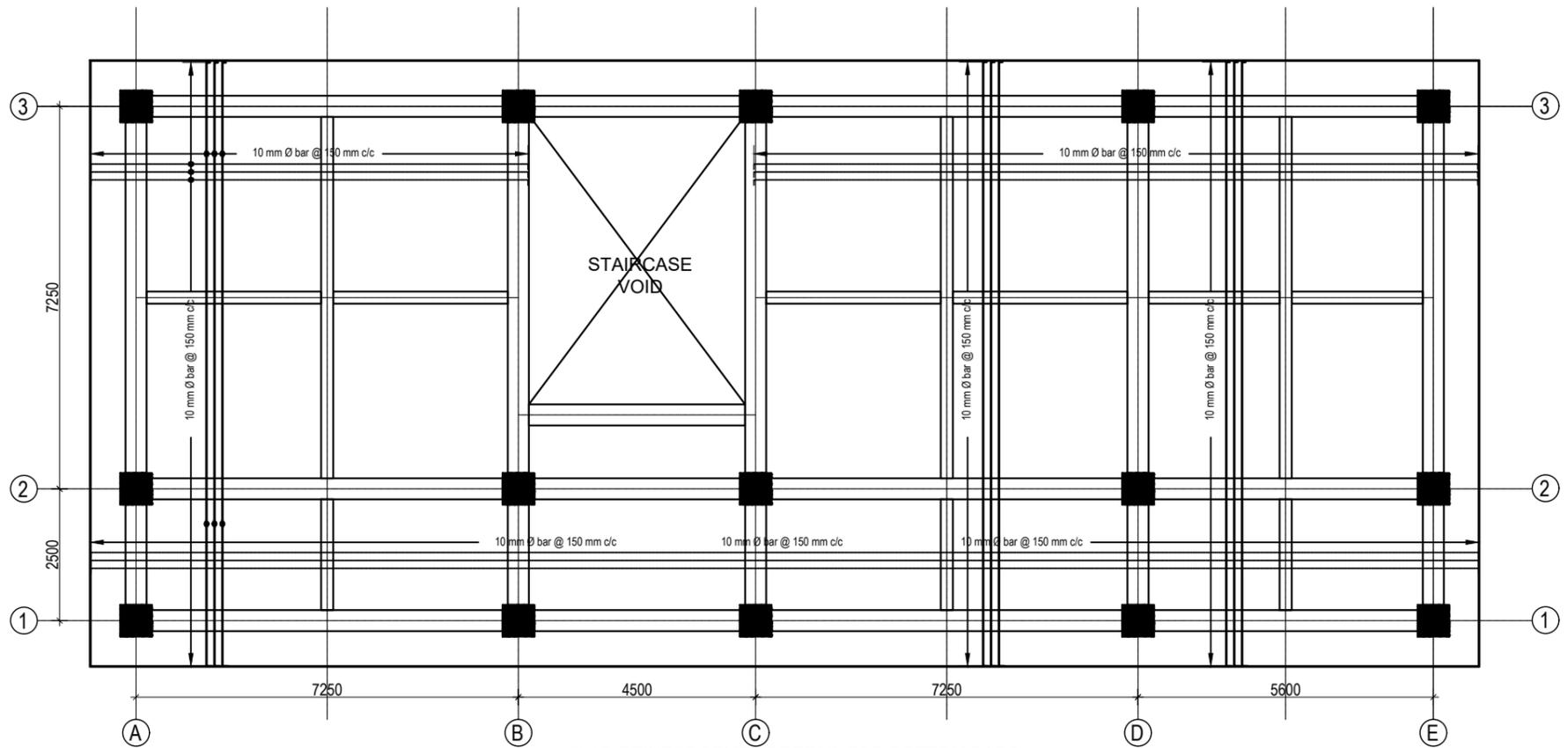
BEAM LAYOUT PLAN (FIRST, SECOND AND THIRD FLOOR)
(Scale= 1:100)

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM LAYOUT PLAN	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-11	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S6R-TARAI & VALLY	

COLUMN REINFORCEMENT DETAILS

S. NO.	GRID	BEAM SIZE	AT SUPPORT	AT MID	STIRRUPS BAR ORIENTATION	FLOOR LVL
1	1-1 2-2 3-3	400X600				FIRST FLOOR BEAMS SECOND FLOOR BEAMS
			4- Legged, 100mm c/c & 150 c/c			
2	A-A B-B C-C D-D E-E	400X600				REMAINING FLOOR BEAMS
			4- Legged, 100mm c/c & 150 c/c			
3	Sec. beam	230X350				ALL FLOOR BEAMS
2- Legged, 100mm c/c & 150 c/c						

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-12	REVISION NO. R-00
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	COLUMN DETAIL	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

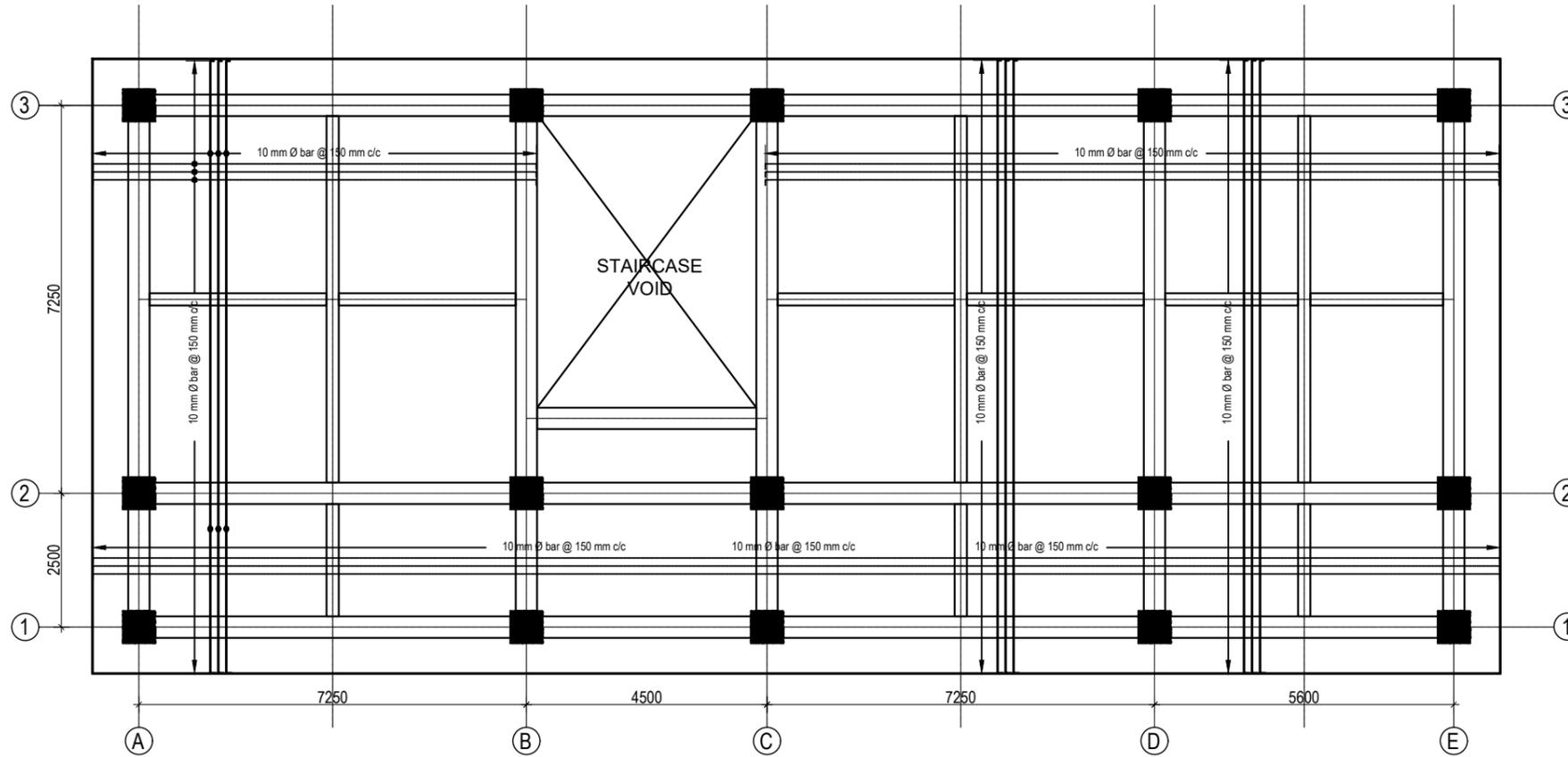


SLAB REINFORCEMENT DETAIL FOR BOTTOM BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 BOTTOM REINFORCEMENT: 8Ø@150 mm c/c

(Scale= 1:120)

125 mm SLAB THICKNESS

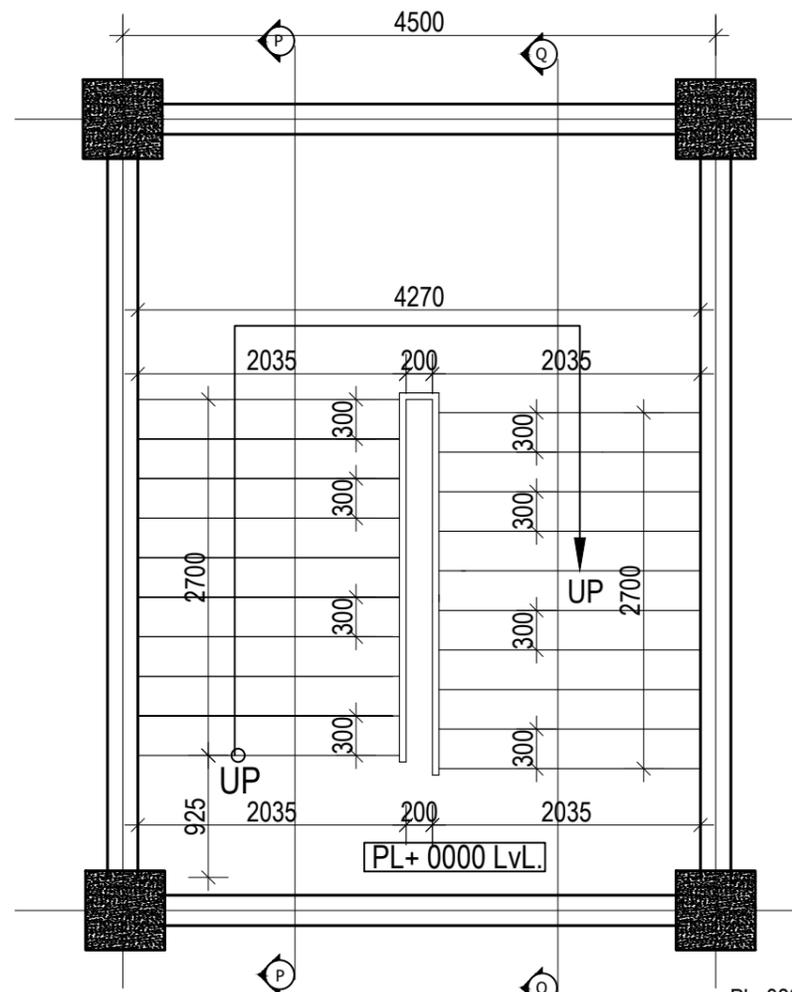
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-13	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S6R-TARAI & VALLY	



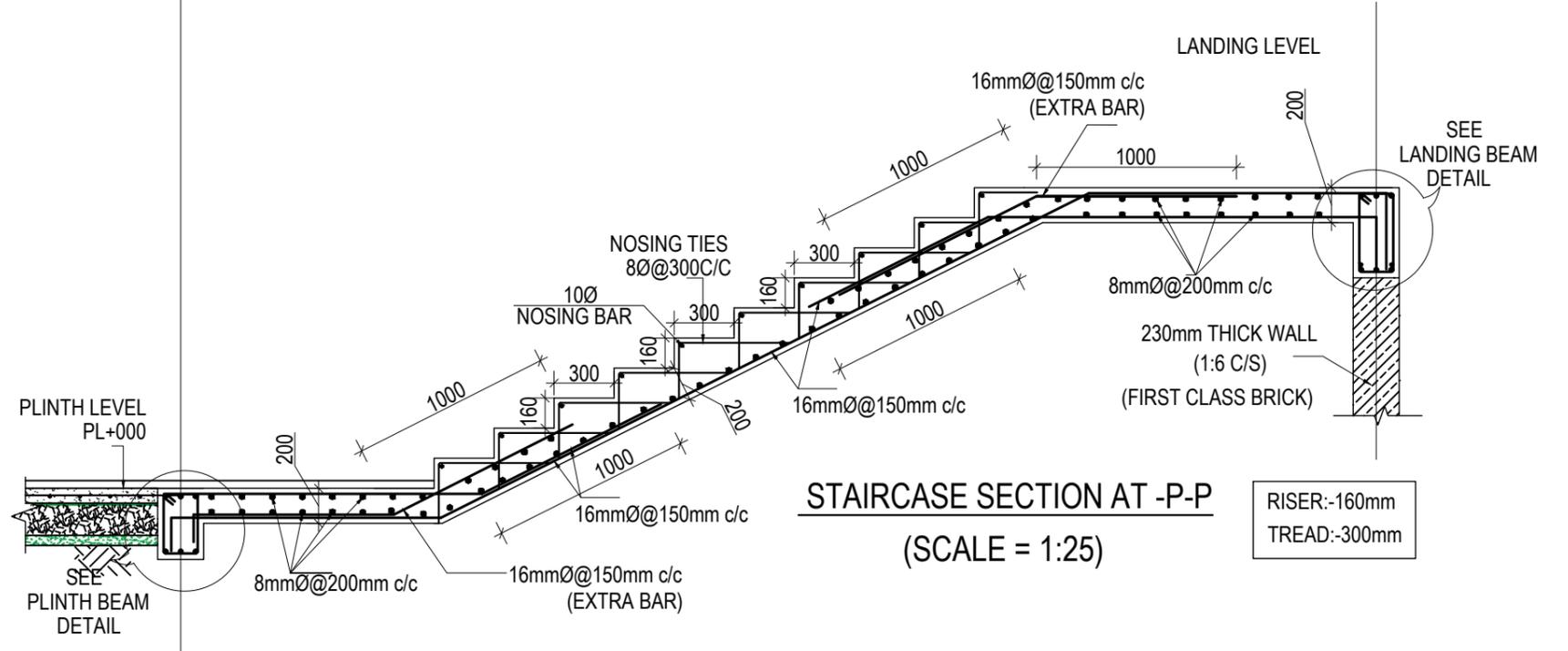
SLAB REINFORCEMENT DETAIL FOR TOP BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 TOP REINFORCEMENT: a. FOR MAIN BEAM : 10Ø@150 mm c/c
 b. FOR SECONDARY BEAM : 10Ø@200 mm c/c
 (Scale= 1:120)

125 mm SLAB THICKNESS

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-14	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S6R-TARAI & VALLY	

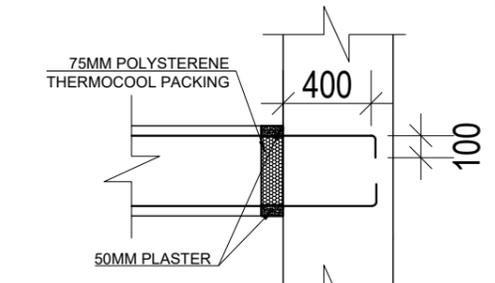


GROUND FLOOR STAIRCASE PLAN
(Scale= 1:50)

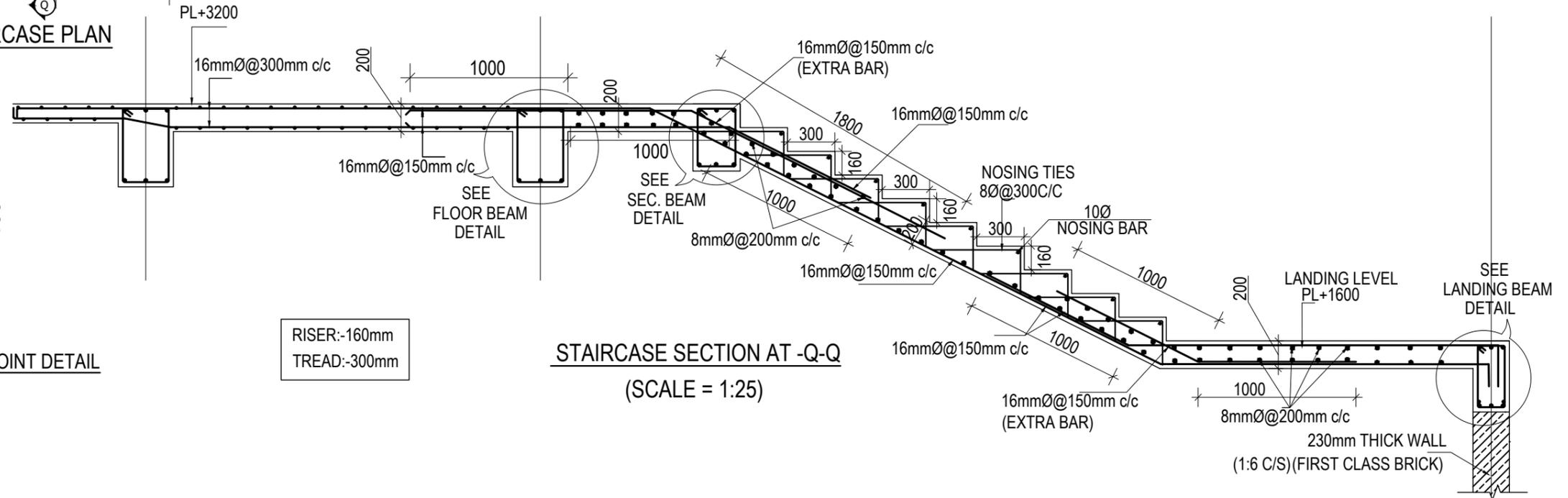


STAIRCASE SECTION AT -P-P
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm



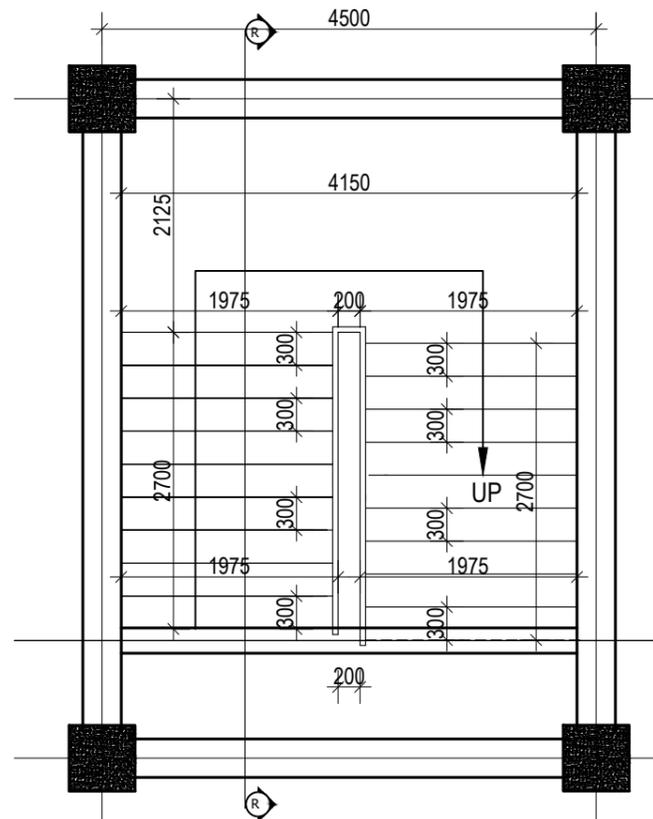
TYPICAL LANDING BEAM AND COLUMN JOINT DETAIL



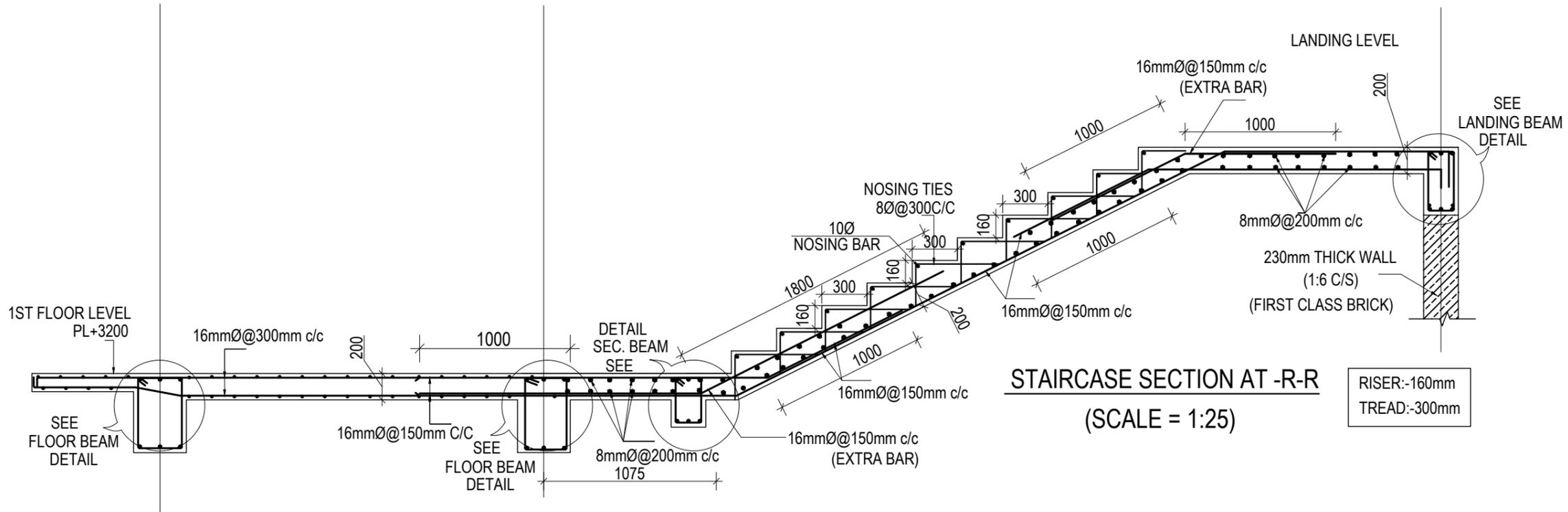
STAIRCASE SECTION AT -Q-Q
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE STAIRCASE DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-15	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

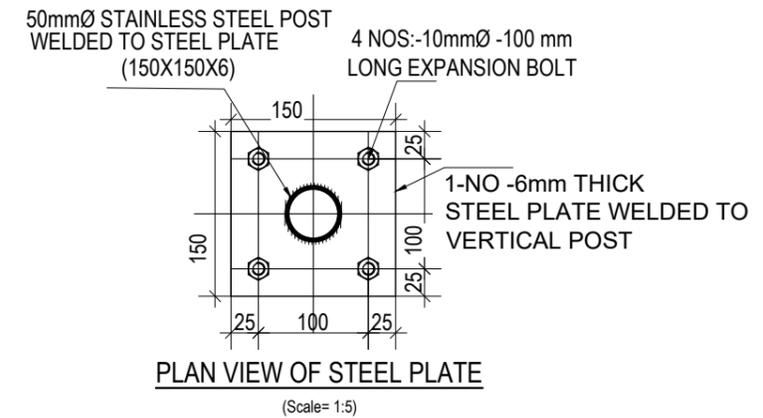
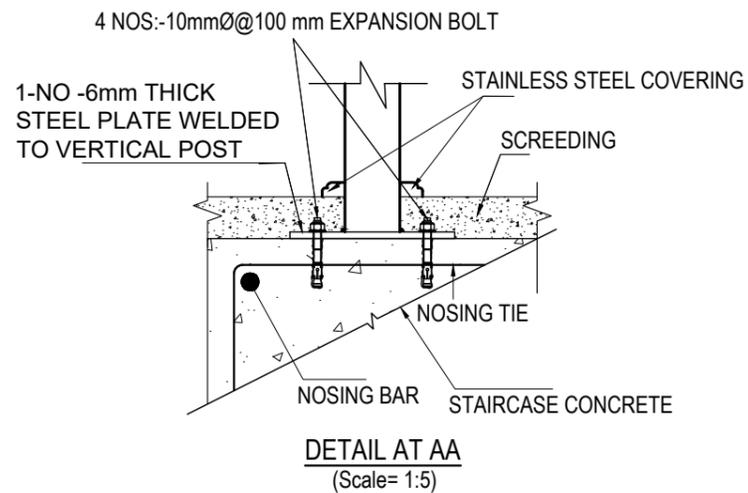
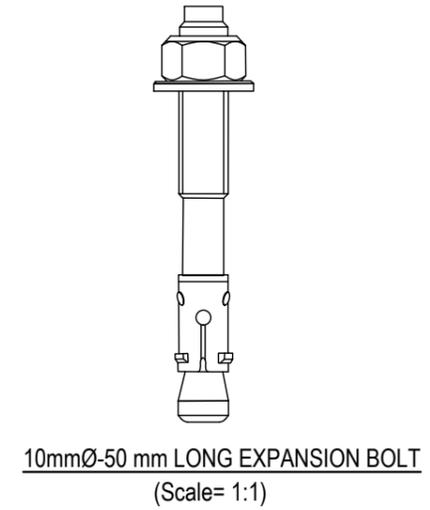
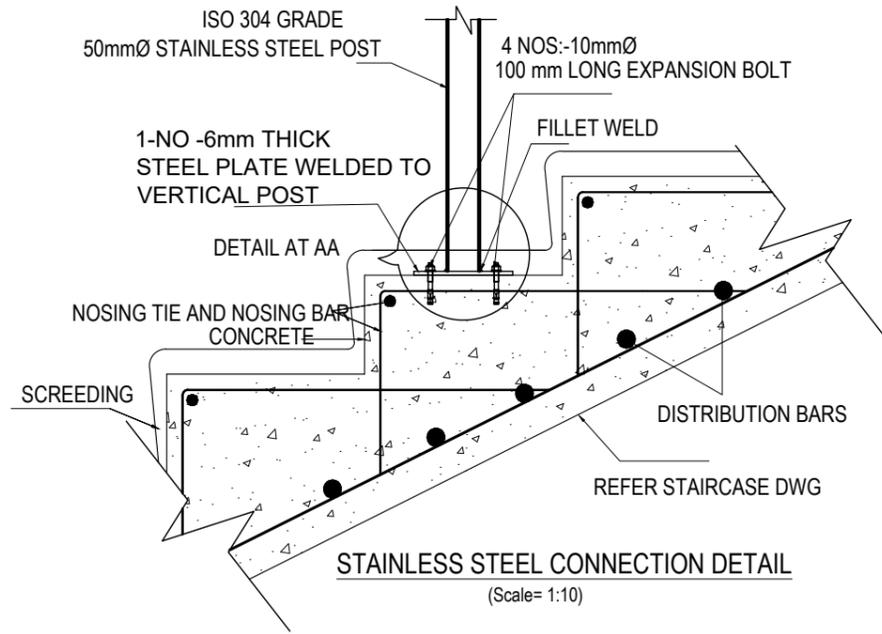


TYPICAL FLOOR STAIRCASE PLAN
(Scale= 1:50)



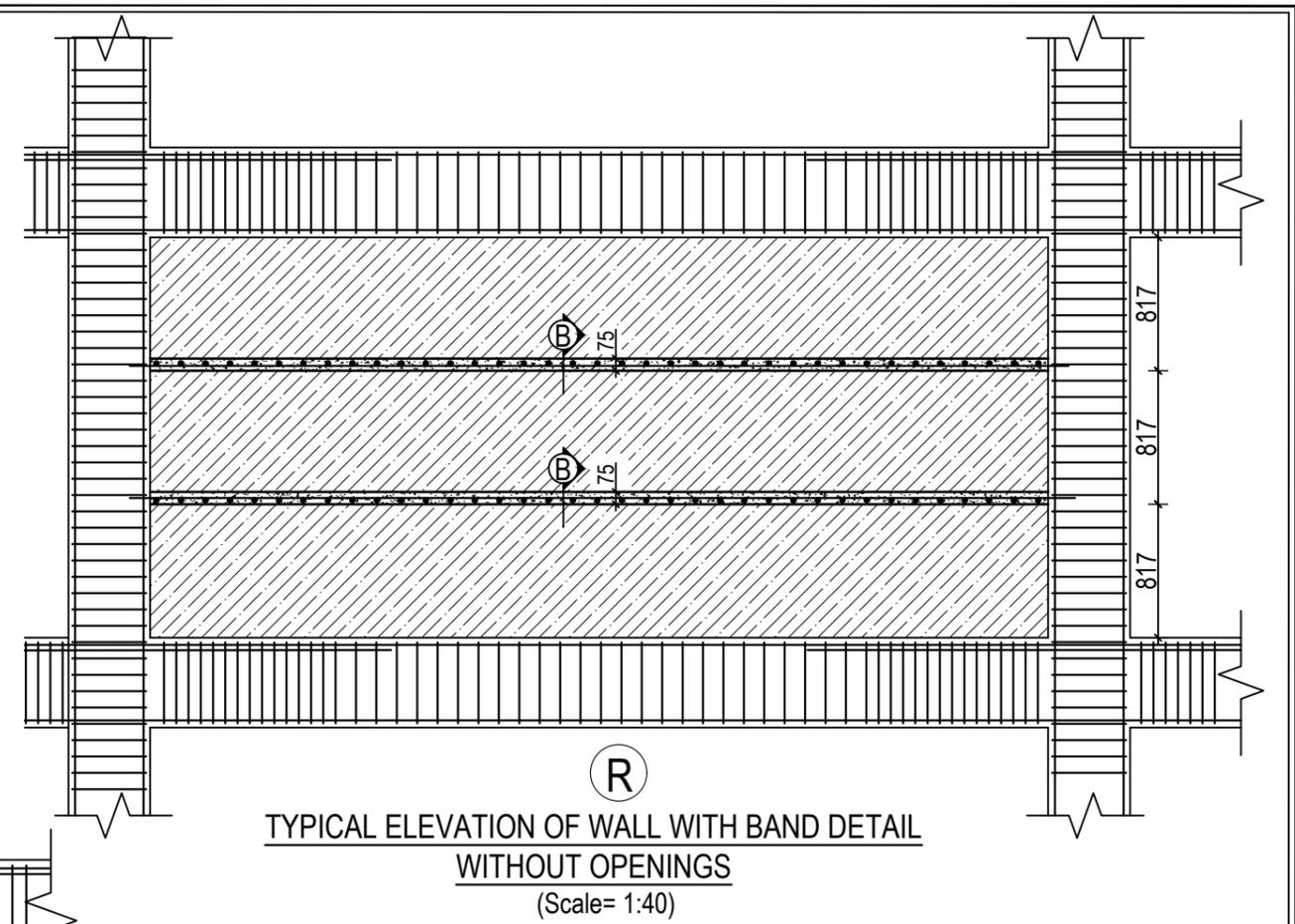
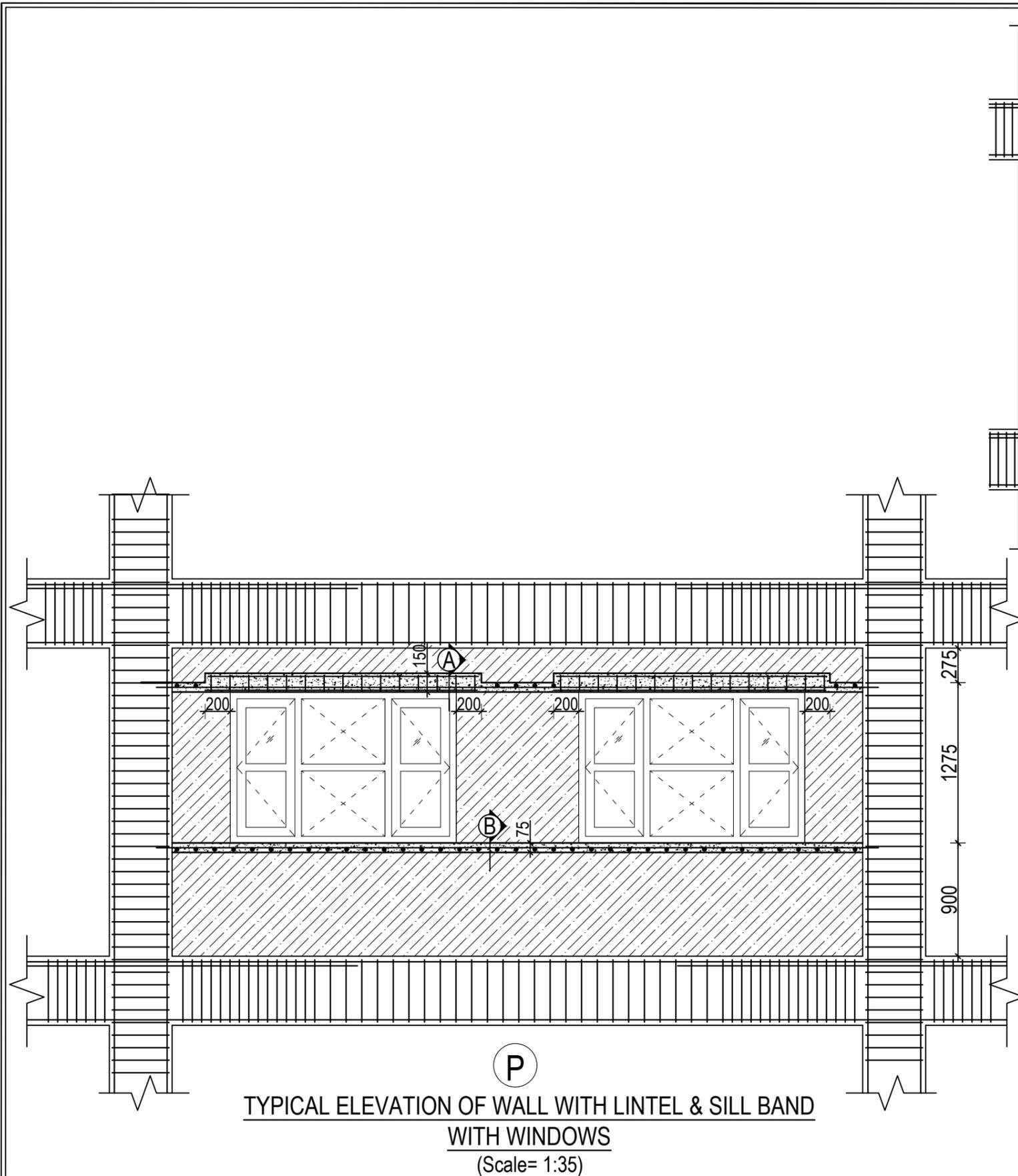
STAIRCASE SECTION AT -R-R
(SCALE = 1:25)

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-16	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	STAIRCASE DETAIL	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					



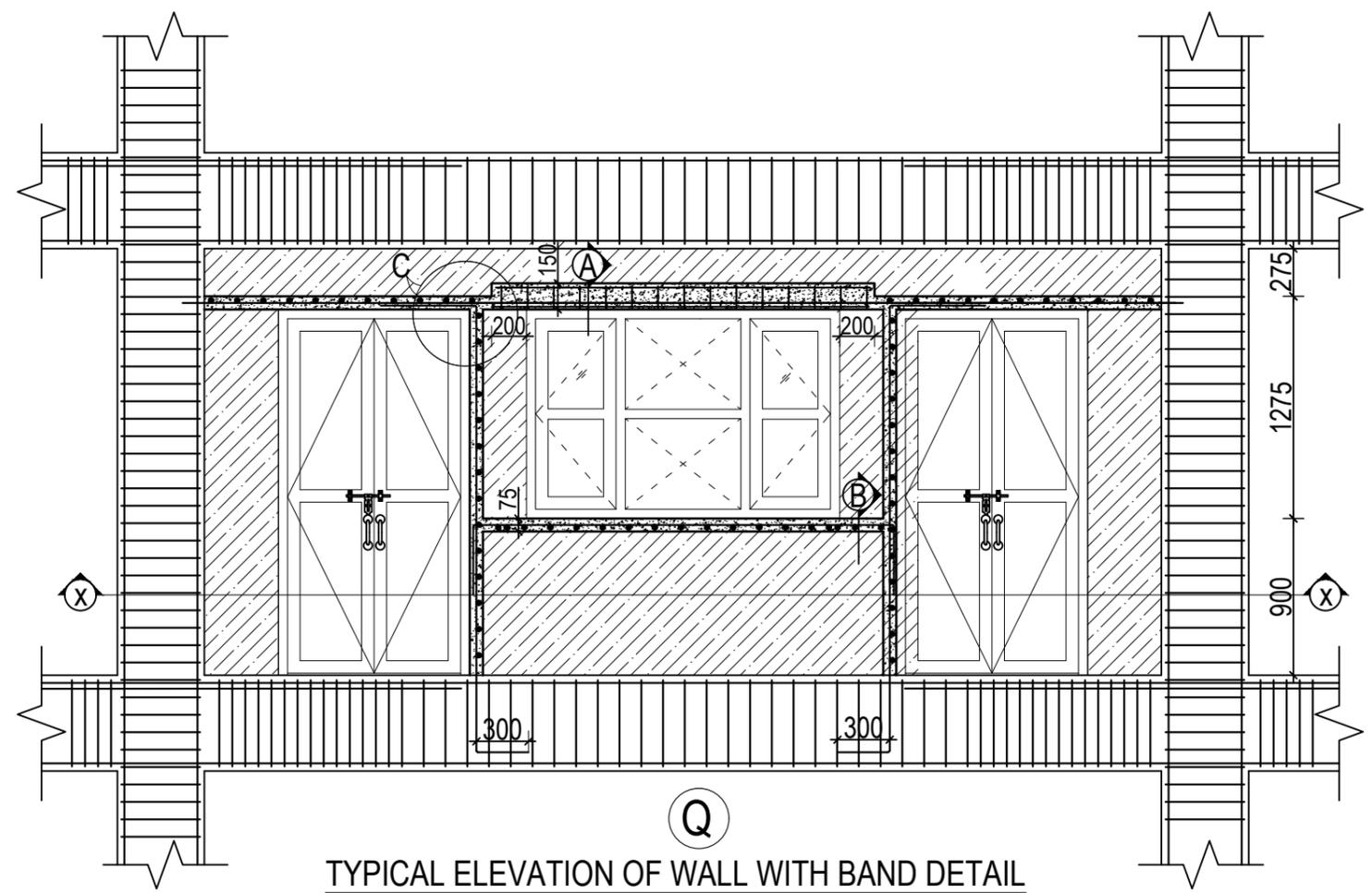
- NOTE:**
- 1) STAINLESS STEEL SHALL BE IN COMPLIANCE WITH ISO 304 GRADE
 - 2) DRILLED HOLE SHALL BE PROPERLY CLEANED BEFORE EMBEDMENT OF BOLT

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-17	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	STAIRCASE DETAIL	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					



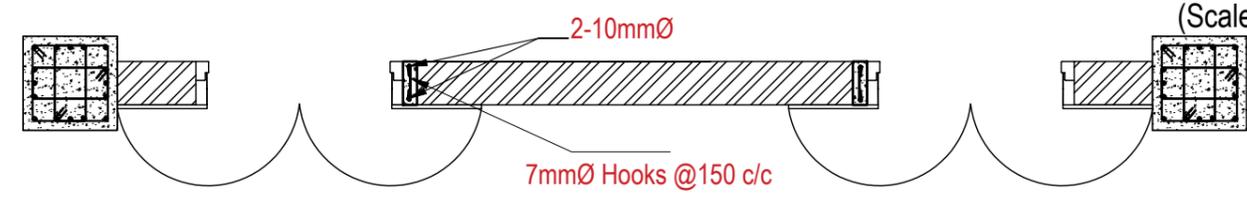
SN.	FLOOR	SECTION AT A-A	SECTION AT B-B
1.	GROUND, FIRST & SECOND FLOOR	<p>230 4NOS.-100 150 8mmØ TIES @150mm c/c 2NOS.-100</p>	<p>230 2NOS.-100 75 7mmØ TIES @150mm c/c</p>
2.	THIRD FLOOR	<p>230 4NOS.-100 150 8mmØ TIES @150mm c/c 2NOS.-120</p>	<p>230 2NOS.-120 75 7mmØ TIES @150mm c/c</p>

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
<p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>TYPICAL WALL DETAIL UPTO SECOND FLOOR</p>	<p>IDEAL SOLUTION PVT. LTD.</p>	ENGINEER:	STRUCTURE ER. :	<p>ST-18</p>	<p>R-00</p>
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023		DWG CODE.		3S6R-TARAI & VALLY	

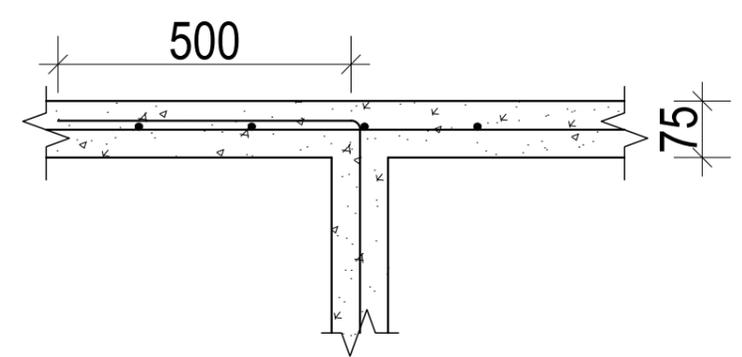


TYPICAL ELEVATION OF WALL WITH BAND DETAIL WITH DOORS AND WINDOWS

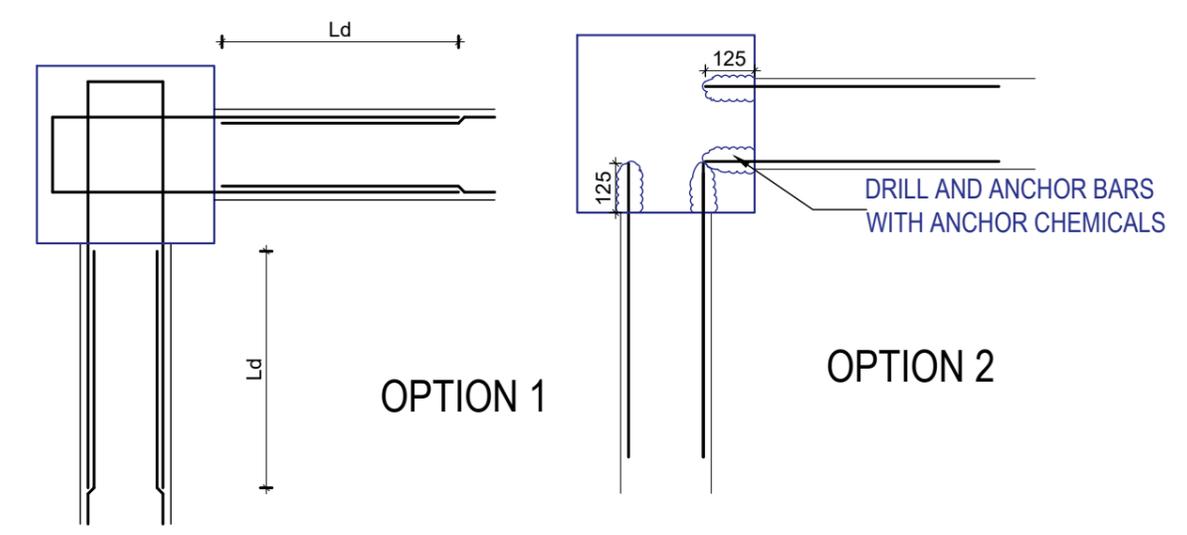
(Scale= 1:35)



SECTION AT X-X



DETAIL AT C

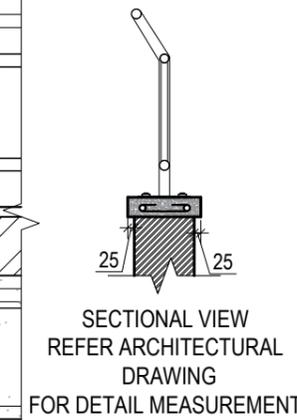
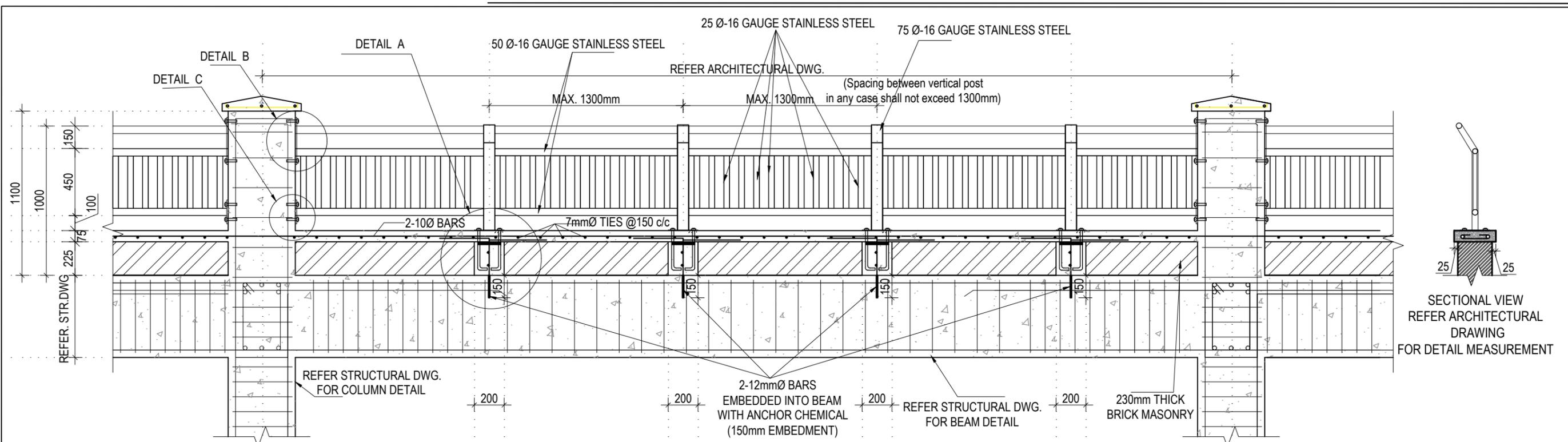


OPTION 1

OPTION 2

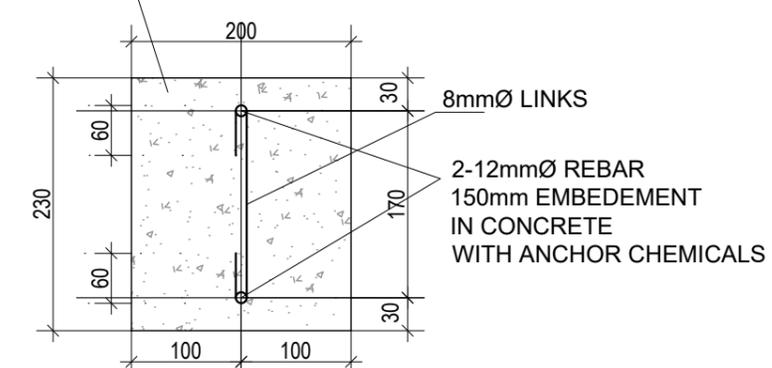
CONNECTION OF BAND REBARS AND COLUMN

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL WALL DETAIL UPTO SECOND FLOOR	IDEAL SOLUTION PVT. LTD.	ENGINEER:	STRUCTURE ER. :	ST-19	R-00
				ARCHITECT:	CHECKED:	DWG CODE.	
				DRAWN :	APPROVED:	3S6R-TARAI & VALLY	
				SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	



STAINLESS STEEL RAILING DETAIL
(Scale= 1:25)

M20 GRADE CONCRETE



BARS DETAIL AT A
PLAN VIEW

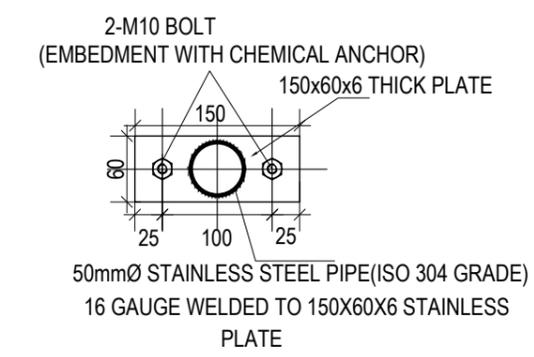
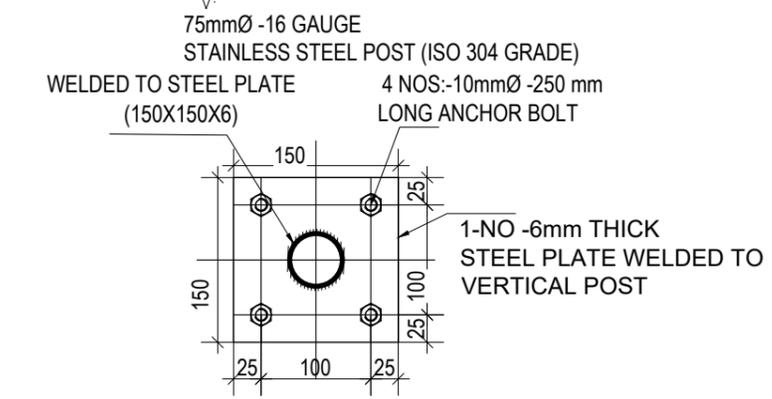


PLATE DETAIL AT C
PLAN VIEW



PLAN VIEW OF STEEL PLATE
PLATE DETAIL AT A

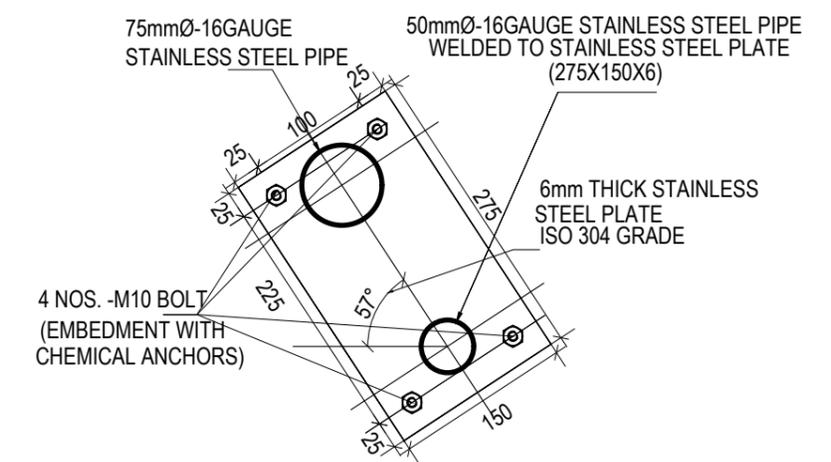
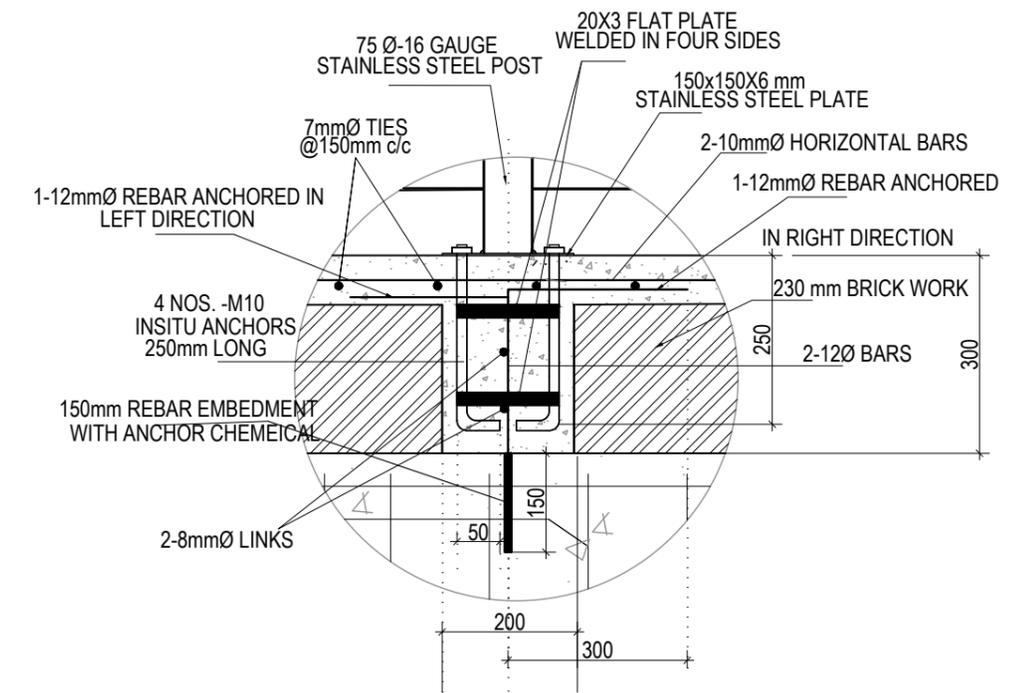


PLATE DETAIL AT B

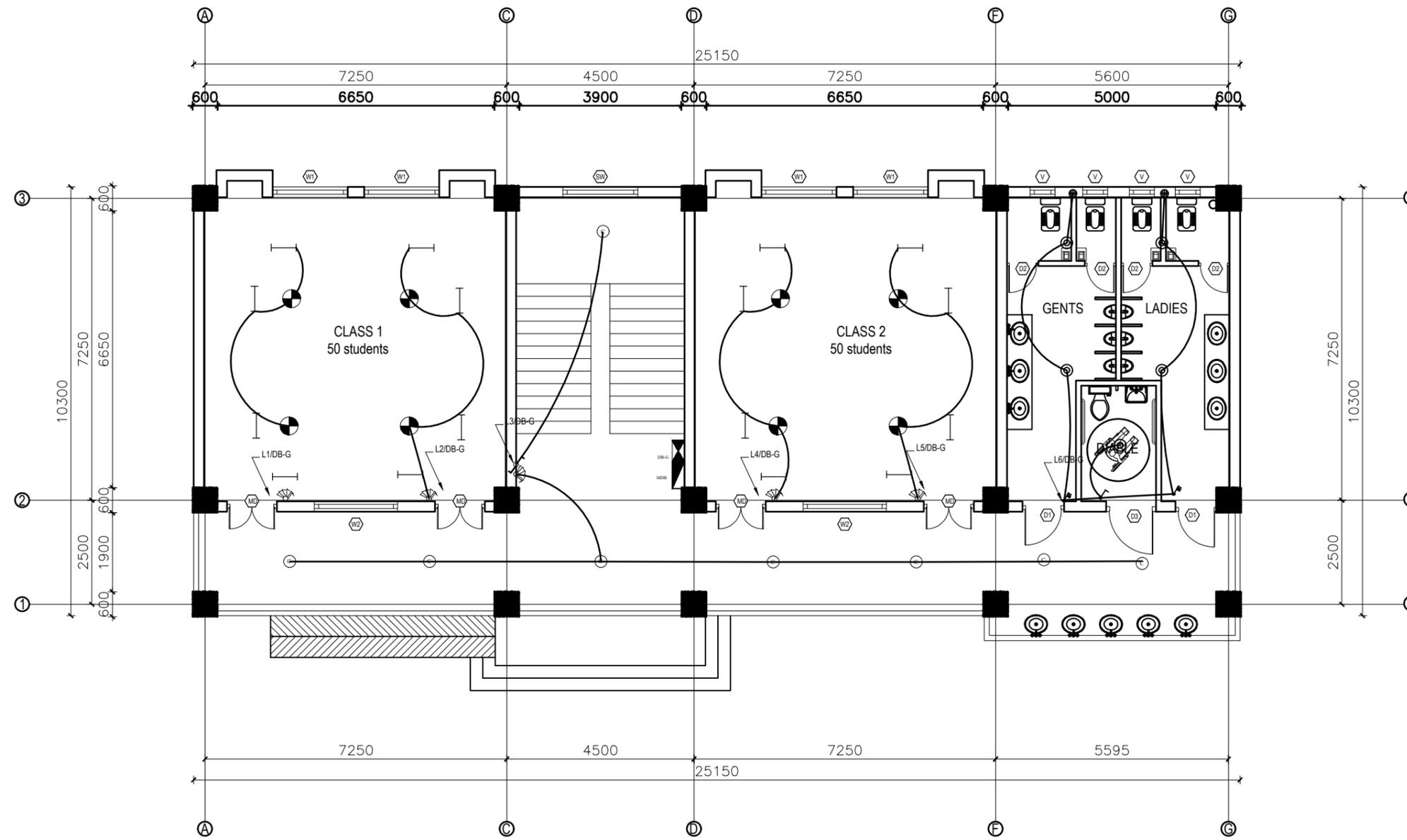


DETAIL AT A

NOTE:- STAINLESS STEEL SHALL BE ISO304 GRADE

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TYPICAL RAILING DETAILS	CONSULTANT IDEAL SOLUTION PVT. LTD.	PLANNING DESIGN TEAM		SHEET NO. ST-20	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

ELECTRICAL DRAWING

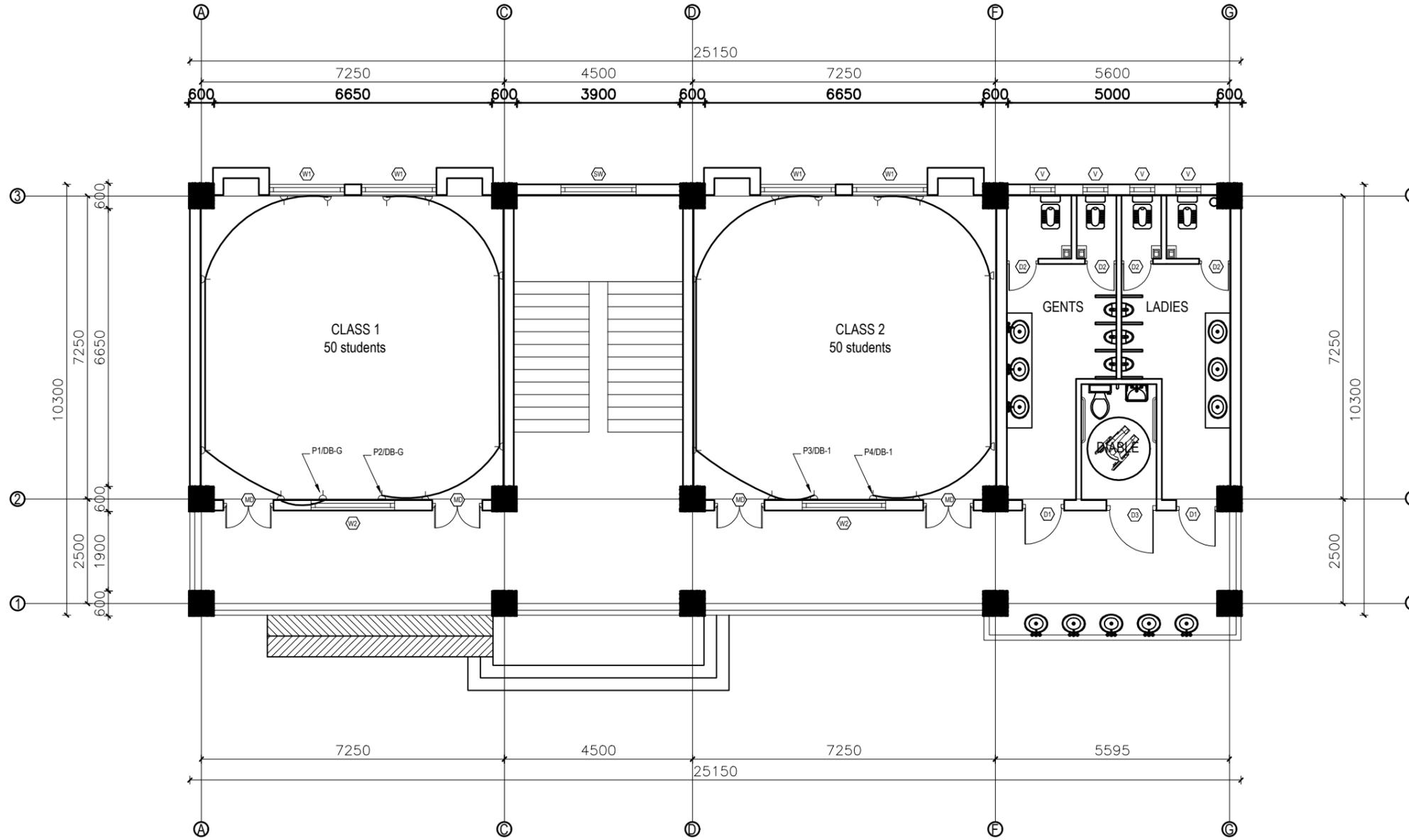


LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
○	12W CFL Light Bulb	Attached to ceiling
●	42" Ceiling Fan	Attached to ceiling
⊖	Power Socket	300mm from finished floor level
⊖	1,2,3 gang Switch	1.25m above finished floor level
⊖	4,5,6 gang Switch	1.25m above finished floor level
⊖	Two way Switch	1.25m above finished floor level
⊖	Distribution Box	2.5m above finished floor level
⊖	MDB	1m above finished floor level
⊖	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊖	VERTICAL AIR TERMINAL	-
⊖	CLIP TO HOLD DOWN CONDUCTOR	-
⊖	EARTH TEST LINK	-
⊖	EARTH PIT	-

GROUND FLOOR PLAN
FLOOR AREA: 260.805 sq.m

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



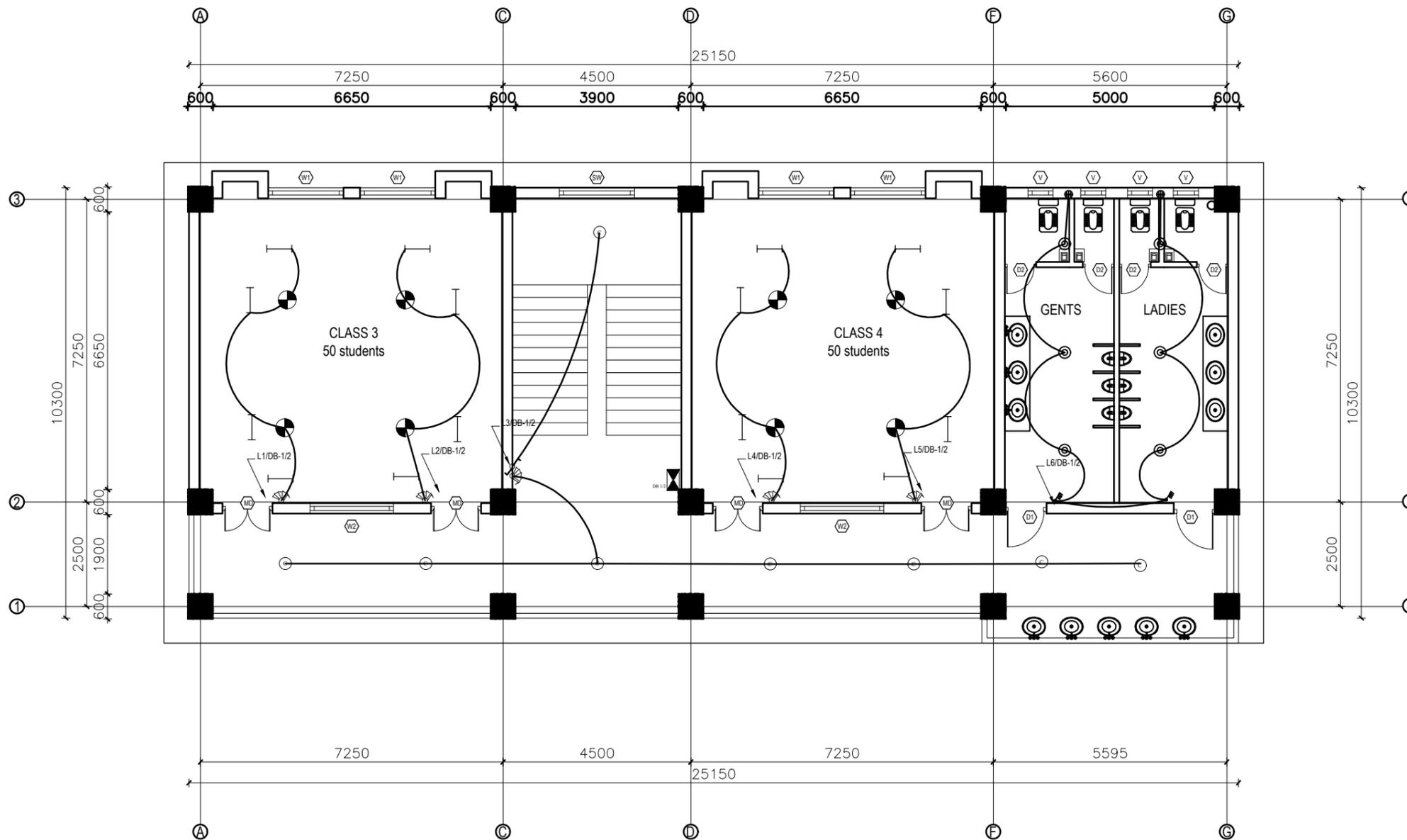
LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12WCFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	--
⊙	CLIP TO HOLD DOWN CONDUCTOR	--
⊙	EARTH TEST LINK	--
⊙	EARTH PIT	--

GROUND FLOOR PLAN

FLOOR AREA: 260.805 sq.m

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	ELECTRICAL DRAWING	IDEAL SOLUTION PVT.LTD.	ENGINEER:	STRUCTURE ER. :	02	R-00
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:	DWG CODE. 3S12R	
				SCALE : 1:20	PAPER SIZE : A3		

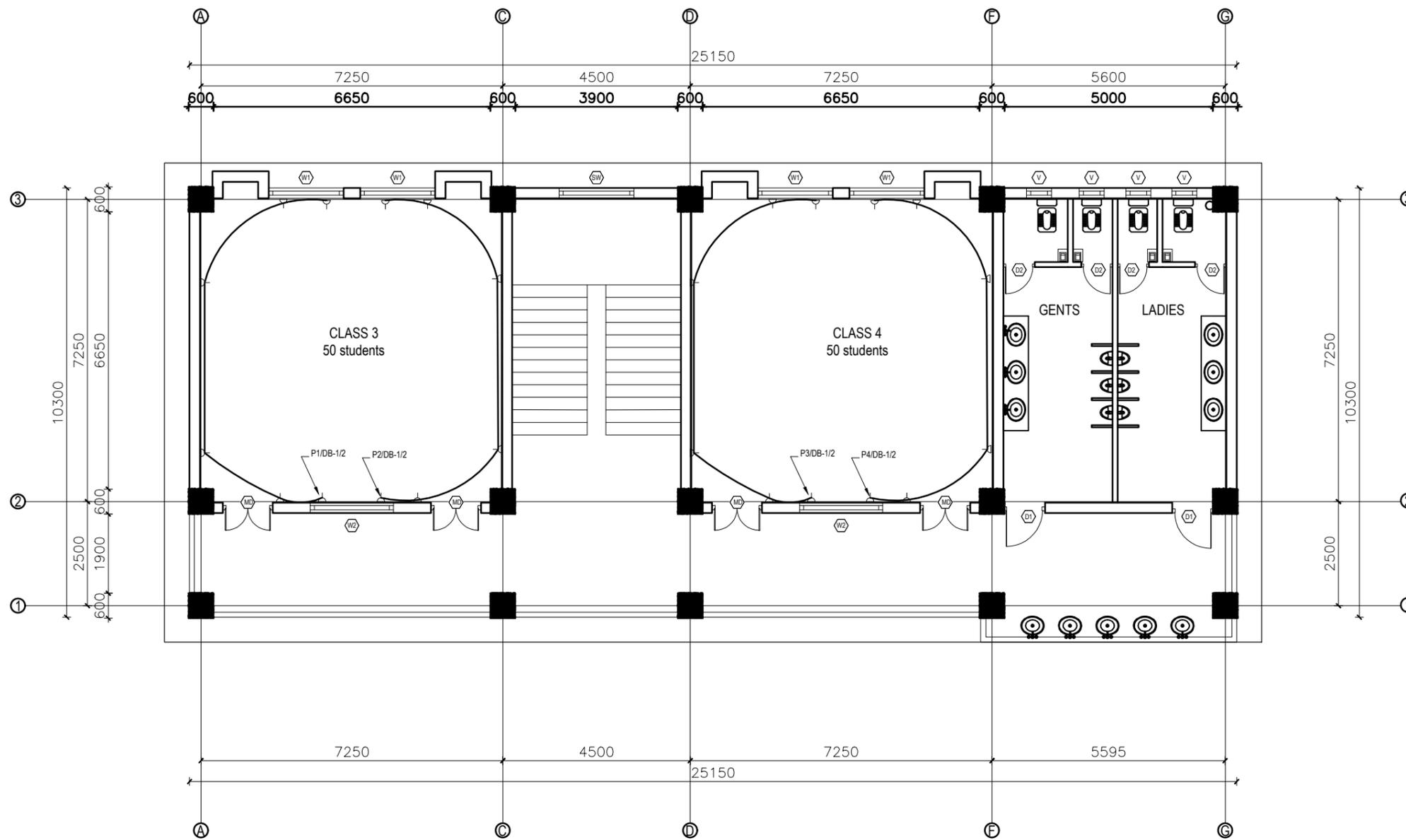


LEGEND		
SYMBOL	DESCRIPTION	MDUNT HEIGHT
—	40 W Tubelight	Attached to wall
○	12WCFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊕	Power Socket	300mm from finished floor level
⊕	1,2,3 gang Switch	1.25m above finished floor level
⊕	4,5,6 gang Switch	1.25m above finished floor level
⊕	Two way Switch	1.25m above finished floor level
⊕	Distribution Box	2.5m above finished floor level
⊕	MDB	1m above finished floor level
⊕	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊕	VERTICAL AIR TERMINAL	--
⊕	CLIP TO HOLD DOWN CONDUCTOR	--
⊕	EARTH TEST LINK	--
⊕	EARTH PIT	--

FIRST&SECOND FLOOR PLAN
FLOOR AREA: 260.805 sq.m

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 03	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



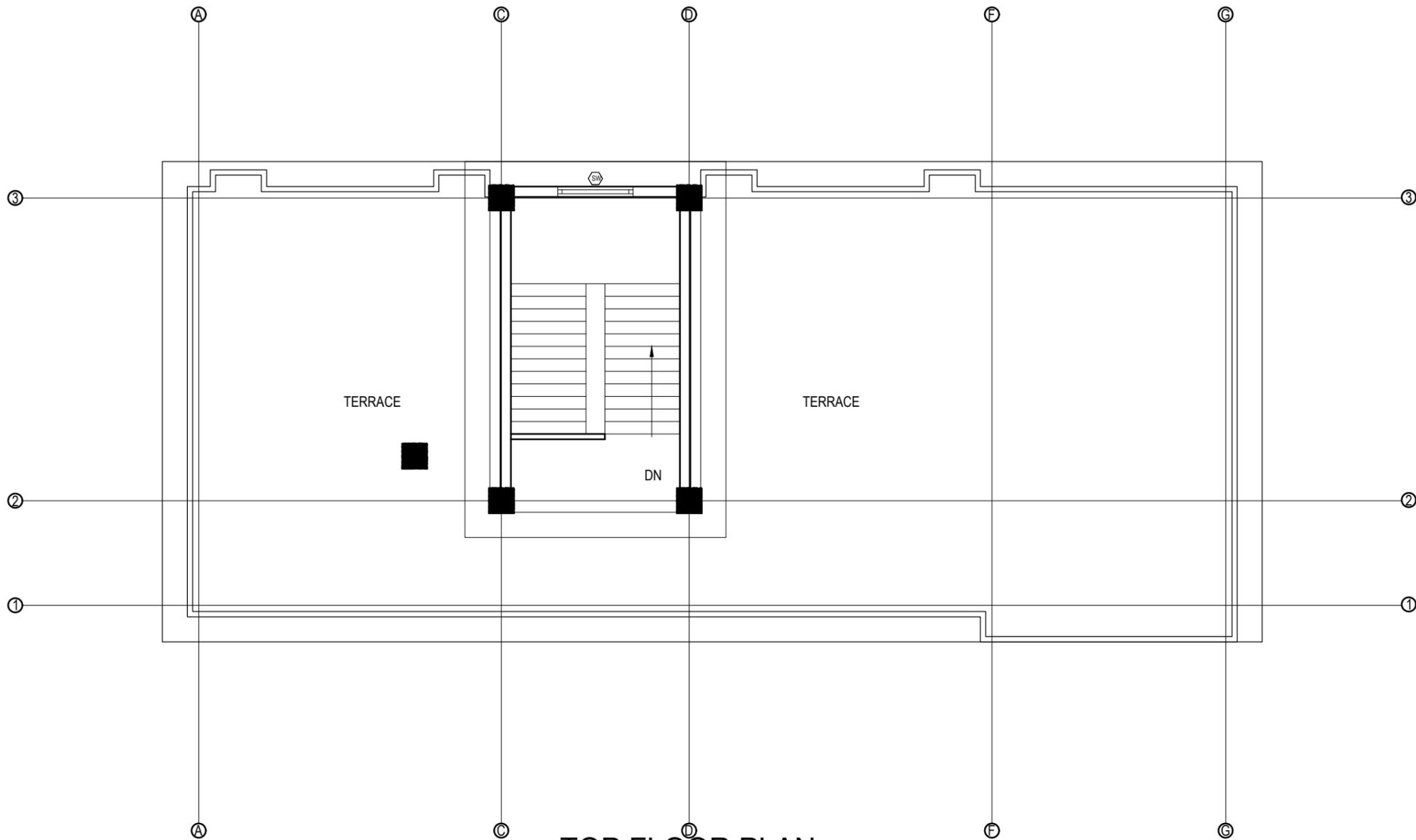
LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
○	12W CFL Light Bulb	Attached to ceiling
⊗	42" Ceiling Fan	Attached to ceiling
⊕	Power Socket	300mm from finished floor level
1, 2, 3	gang Switch	1.25m above finished floor level
4, 5, 6	gang Switch	1.25m above finished floor level
↔	Two way Switch	1.25m above finished floor level
⊞	Distribution Box	2.5m above finished floor level
⊞	MDB	1m above finished floor level
⊞	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊥	VERTICAL AIR TERMINAL	--
⊞	CLIP TO HOLD DOWN CONDUCTOR	--
⊞	EARTH TEST LINK	--
⊞	EARTH PIT	--

FIRST & SECOND FLOOR PLAN

FLOOR AREA: 260.805 sq.m

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 04	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R	



TOP FLOOR PLAN
FLOOR AREA: 39.39 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊖	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊥	VERTICAL AIR TERMINAL	--
⊖	CLIP TO HOLD DOWN CONDUCTOR	--
⊖	EARTH TEST LINK	--
⊖	EARTH PIT	--

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 05	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R	

INSTALLATION CONSIDERATION

- * The switch box should be at 200mm from the door and 1250mm above floor.
- * General room socket height should be at 150mm above skirting wall.
- * Kitchen socket height should be at 450mm above kitchen top.
- * Toilet socket/switch should be at 1250mm above floor level and mirror light at 50 mm above mirror as per mirror size.
- * Exhaust fan should be at 600mm below slab.
- * Wall Light should be at 2100mm from floor level.

CONDUIT SCHEDULE

CABLE SIZES	NO OF MAXIMUM CABLE AND PVC FRLS CONDUIT SIZES					
	16 mm Dia.	20 mm Dia.	25 mm Dia.	32 mm Dia.	40 mm Dia.	50 mm Dia.
1.5 SQ. MM/Equivalent	5	7	10	14	---	---
2.5 SQ. MM/Equivalent	3	5	8	12	---	---
4.0 SQ. MM/Equivalent	---	3	6	10	12	---
6.0 SQ. MM/Equivalent	---	2	4	8	9	---
10 SQ. MM/Equivalent	---	---	3	6	8	---
16 SQ. MM/Equivalent	---	---	2	3	4	8

CONVERSION TABLE

INCHES	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
mm	16	20	25	32	40	50	65	80	90	100	130	150

* Unless and otherwise stated, all final circuits shall be wired with multistranded CU wires in PVC Conduit and shall confirm to the following schedule:

WIRING SYSTEM

Air Conditioner/Heater/Range/Appliances
RJ - 45 Data / TV Point
RJ -11 Telecommunication point
Telephone Point
Outdoor Gate/ Post Top/Street Lights/Flood Lights
6 Amp switched outlet sockets
16 Amp Power Sockets Points
General Light Points (From DB to Switch Board)
Looping of Light Points

CABLE/CONDUCTOR SIZE

2x4.0 + 1x2.5 sq. mm copper wire
CAT 6 4 pairs Data cable
CAT 6 4 pairs Data cable
0.5mm dia PVC Insulated Tinned Cu Cable
3 x 2.5 sq. mm copper M/S wire
2x2.5 + 1x1.5 sq. mm copper M/S wire
2x4.0 + 1x2.5 sq. mm copper M/S wire
2x2.5 + 1x1.5 sq. mm copper M/S wire
2x1.5 + 1x1.0 sq. mm copper M/S wire

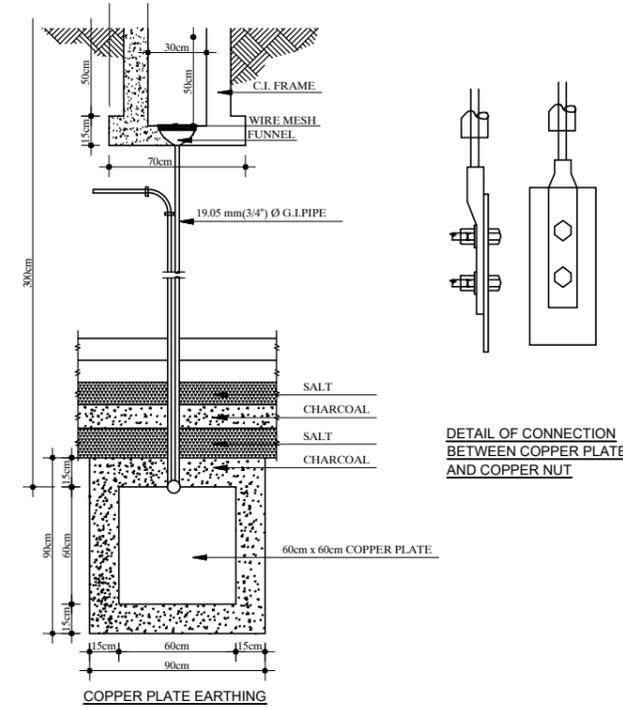
NOTE

- * Conduit Colors for Light/Power Circuit shall be Black, Security Wiring shall be Blue, Fire Alarm Wiring shall be Red, Low Voltage Circuits shall be Brown and UPS Circuits shall be Green.
- * L-N stands for Lighting Circuit, P-N for Power Circuit, AC-N for Air Condition, M/PC-N for Pump/Motor & Lp-N Light Outlet Circuit no.-N (Where N=1,2,3...)
- * For Circuit no., see Distribution Details
- * Unless and otherwise stated, all final circuits shall be wired by PVC CU M/S Wire in PVC Conduit and shall confirm to the following schedule:

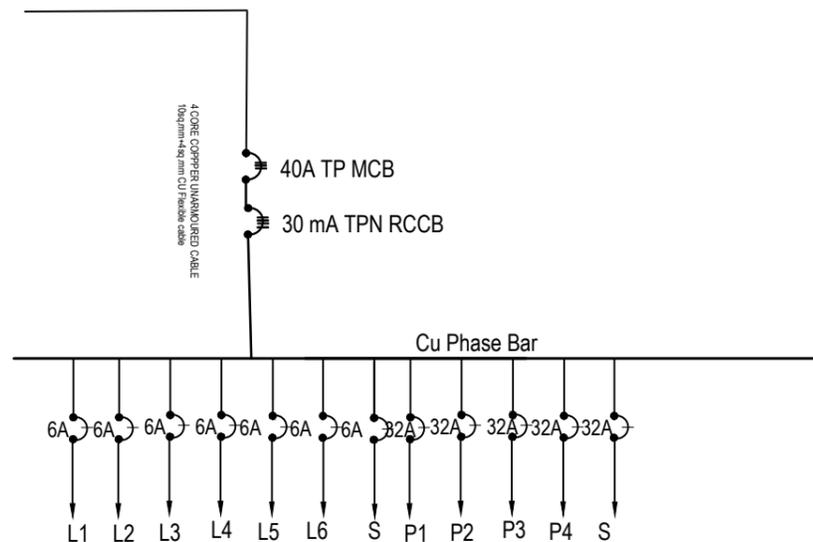
Rating (Amp)	6	10	20	32	40	63
Wire (sq. mm)	1.5	2.5	4.0	6.0	10	16

- * Unless and otherwise stated, maximum of 8 light points shall be wired in a final single lighting circuit where as maximum of 3 power socket outlet shall be wired in single power circuit.
- * Unless and otherwise stated, all 16 A outlets with the same circuit no. shall be wired in ring circuit.
- * Electrical drawings are schematic only, scale: NTS, use as shown purpose, do not measure directly.
- * Contractor should coordinate with interior for exact location of fixtures
- * Run separate conduit for TV, TEL and PS wherever they are in matching places
- * All the Kitchen/Bathroom Power Circuits should be feed by RCCB with 100 mA sensitivity - see schematic details
- * All the cables and conductors shall be PVC insulated CU and shall confirm to the following color codes:

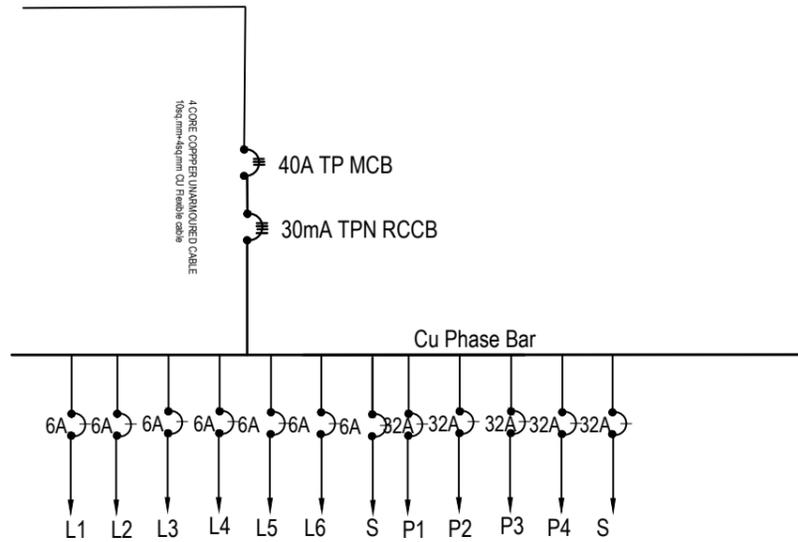
Neutral of AC 1/3 Phase	Black
Grounding/ Bounding/Earthing	Green
loop/common wire for 2 way switch	White
Live Phase A of 3 Phase	Red
Live Phase B of 3 Phase	Yellow
Live Phase C of 3 Phase	Blue



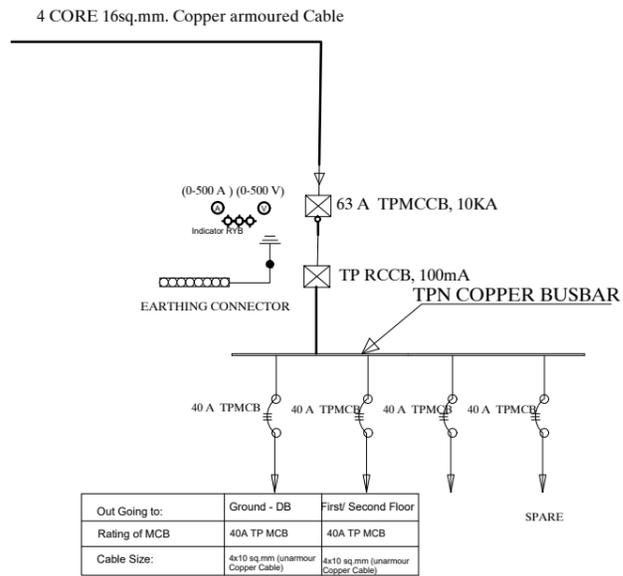
EARTHING DETAILS



GROUND FLOOR L/P DISTRIBUTION SYSTEM (DB-G)



FIRST/SECOND FLOOR L/P DISTRIBUTION SYSTEM (DB-1/2)



DETAILS OF Main -DB

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM	SHEET NO.	REVISION NO.
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	ELECTRICAL DRAWING	IDEAL SOLUTION PVT.LTD.	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	06 R-00
					DWG CODE. 3S12R	



Government of Nepal
Ministry of Education, Science & Technology
Center for Education and Human Resource Development
Sanothimi, Bhaktapur, Nepal

PREPARE SCHOOL BUILDING TYPE DESIGN FOR TERAI AND VALLEY REGION

Contract ID: CEHRD/SESP/SQ/Consultancy/04/2079/080

DETAIL DESIGN AND DRAWING

**3 STORY@12 ROOM WITH
(TOILET, WASH ROOM, CHANGING ROOM & BOOK CORNER)**

**SUBMITTED BY:
IDEAL SOLUTION PVT. LTD.**

FEBRUARY, 2023

ARCHITECTURE

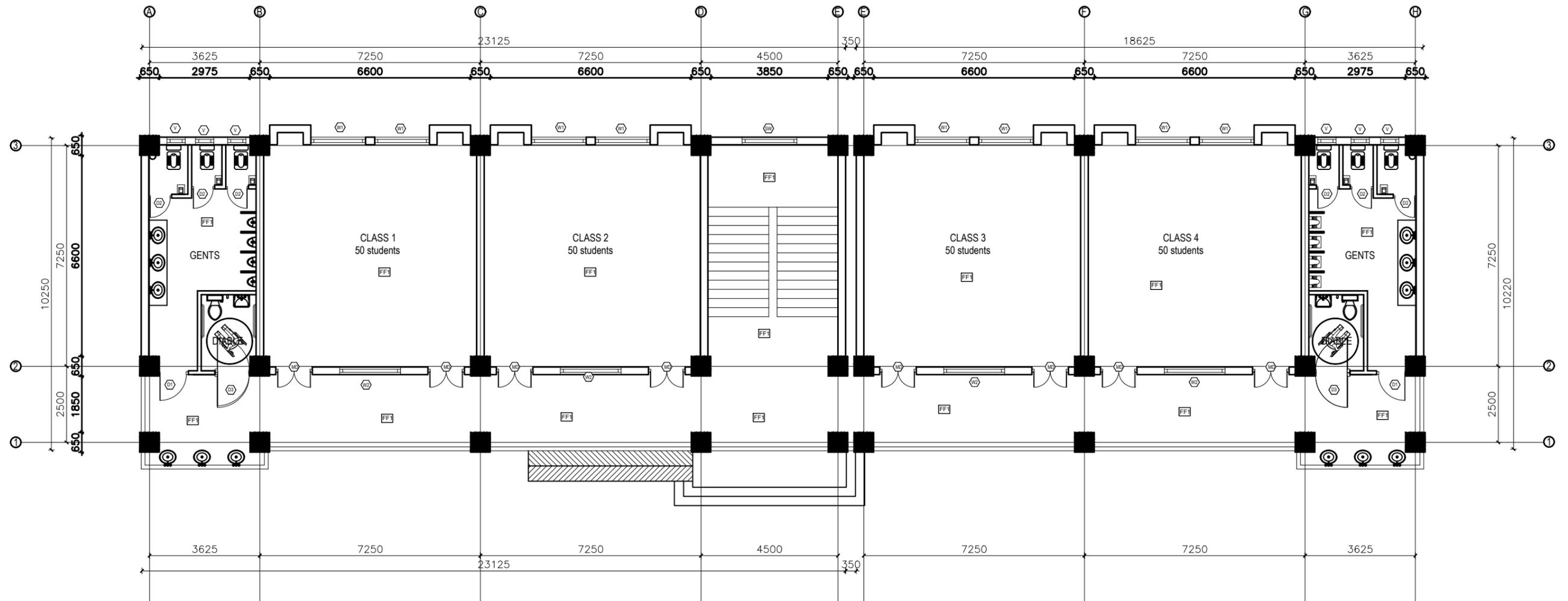
DRAWING

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
FF3	6 mm thick porcelain non-glaze tile with 20 mm cement sand mortar (1:4)

NOTES:

1. All measurements are in mm unless otherwise noted.
2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
4. Sill and Lintel dimensions are measured from the Slab Lvl.
5. Dimensions are excluding the plaster/POP thickness.



GROUND FLOOR PLAN
FLOOR AREA: 437.662 sq.m

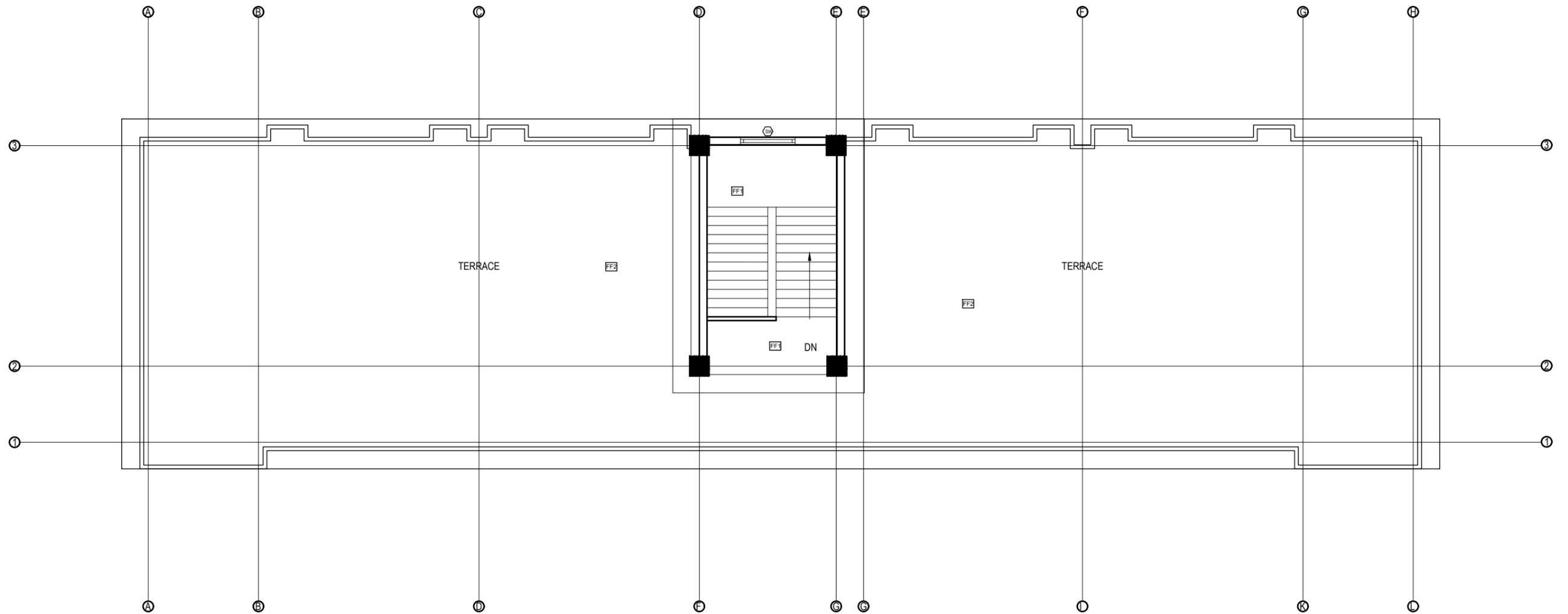
CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE	CONSULTANT IDEAL SOLUTION PVT.LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. AR-01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S12R-TERAI & VALLY	

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
FF3	6 mm thick porcelain non-glaze tile with 20 mm cement sand mortar (1:4)

NOTES:

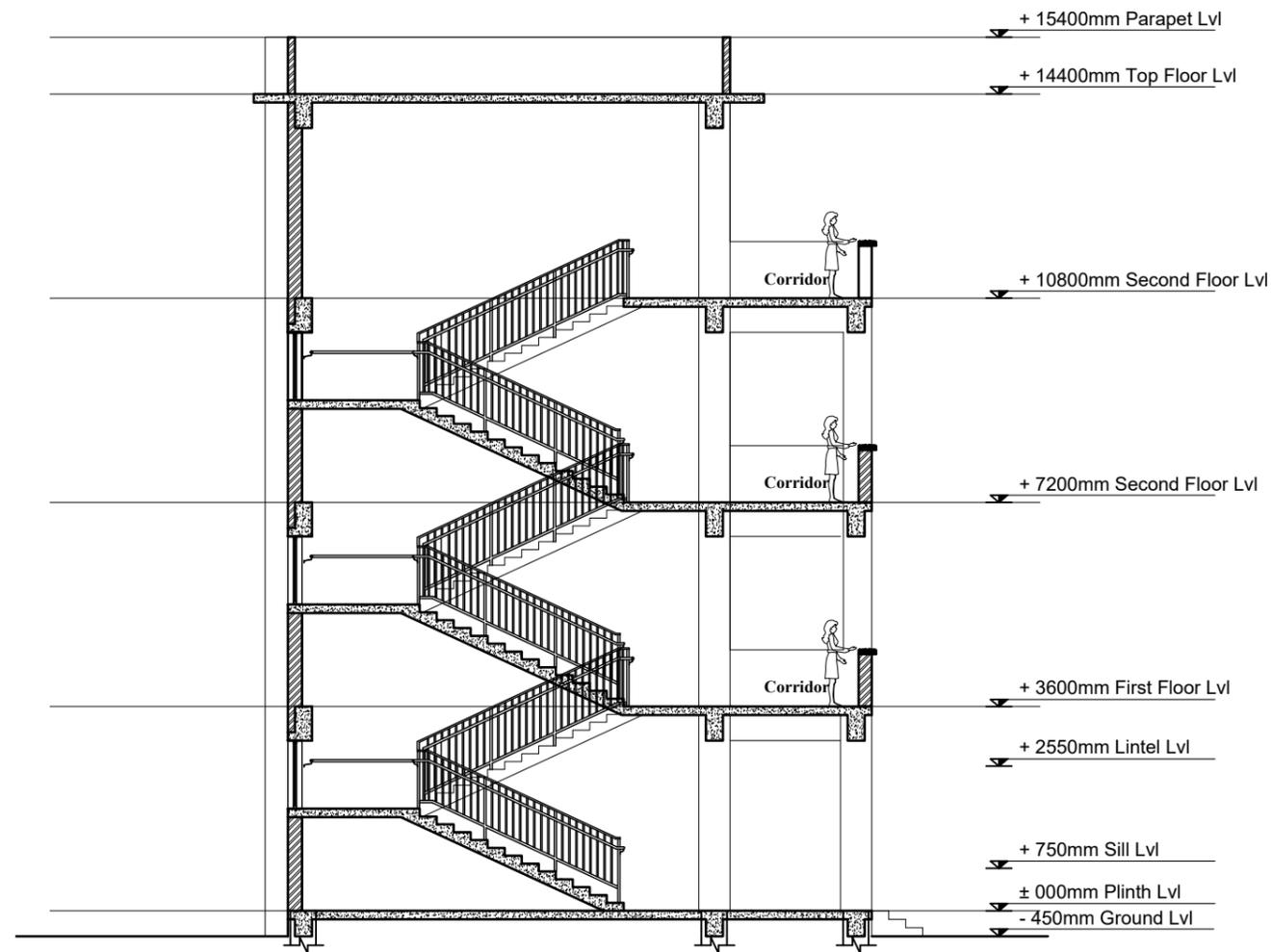
1. All measurements are in mm unless otherwise noted.
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3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
4. Sill and Lintel dimensions are measured from the Slab Lvl.
5. Dimensions are excluding the plaster/POP thickness.



TOP FLOOR PLAN
FLOOR AREA: 39.39 sq.m

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE	CONSULTANT IDEAL SOLUTION PVT.LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. AR-03	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



OPENING SCHEDULE

S.N.	SYMBOL	SIZES	G.F.	F.F.	S.F.	TOTAL	SILL HT.	REMARKS
1.	MD	1200 x 2550	8	8	8	24	-	
2.	D1	1000 x 2550	2	2	2	6	-	
3.	D2	750 x 2100	6	6	6	18	-	
4.	D3	1200 x 2550	2			2	-	
5.	W1	1800 x 1800	8	8	8	24	750 MM	
6.	W2	2000 x 1800	4	4	4	12	750 MM	
7.	SW	1800 x 1070	1	1		2	1530 MM	
8.	V1	600 x 600	6	6	6	18	1800 MM	

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-04	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE 3S12R-TERAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3		

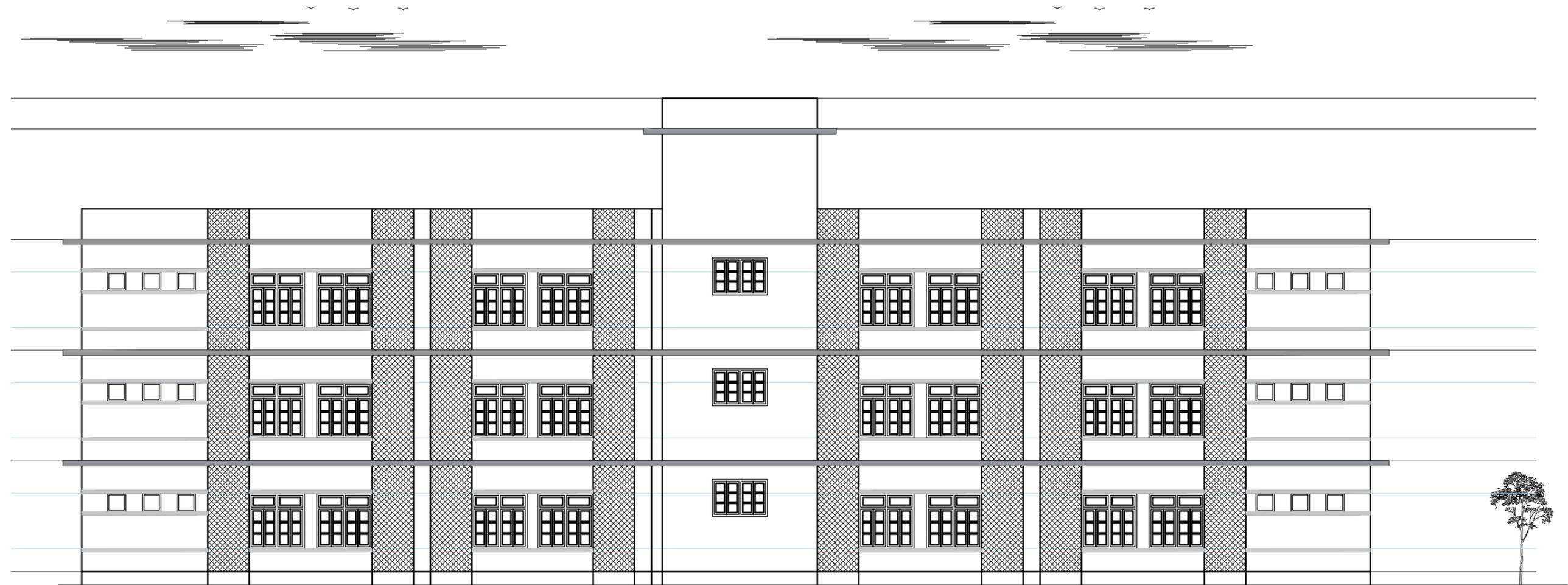
- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



FRONT ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-05	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S12R-TERAI & VALLY	

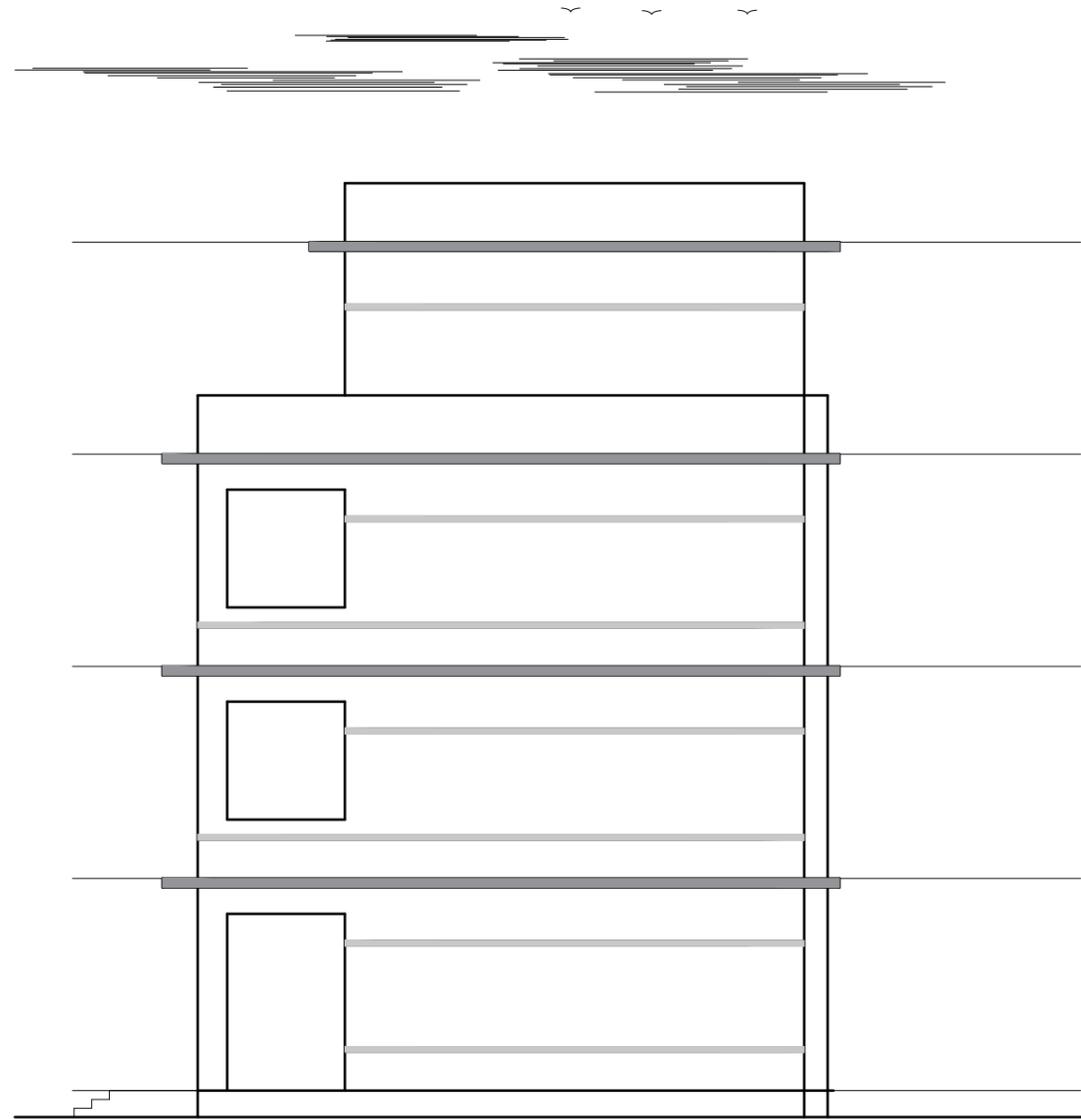
- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



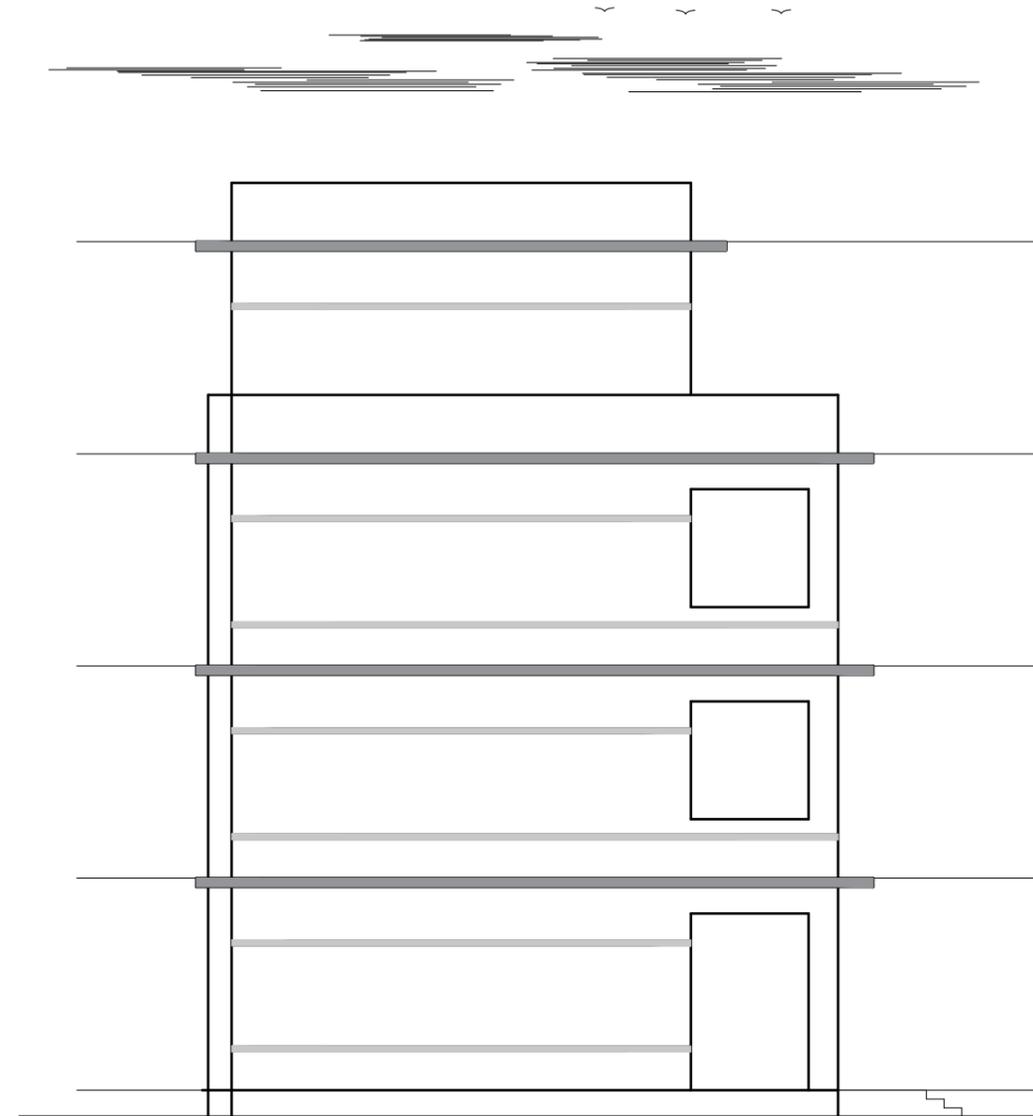
BACK ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-06	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S12R-TERAI & VALLY	

- NOTES:
1. All measurements are in mm unless otherwise noted.
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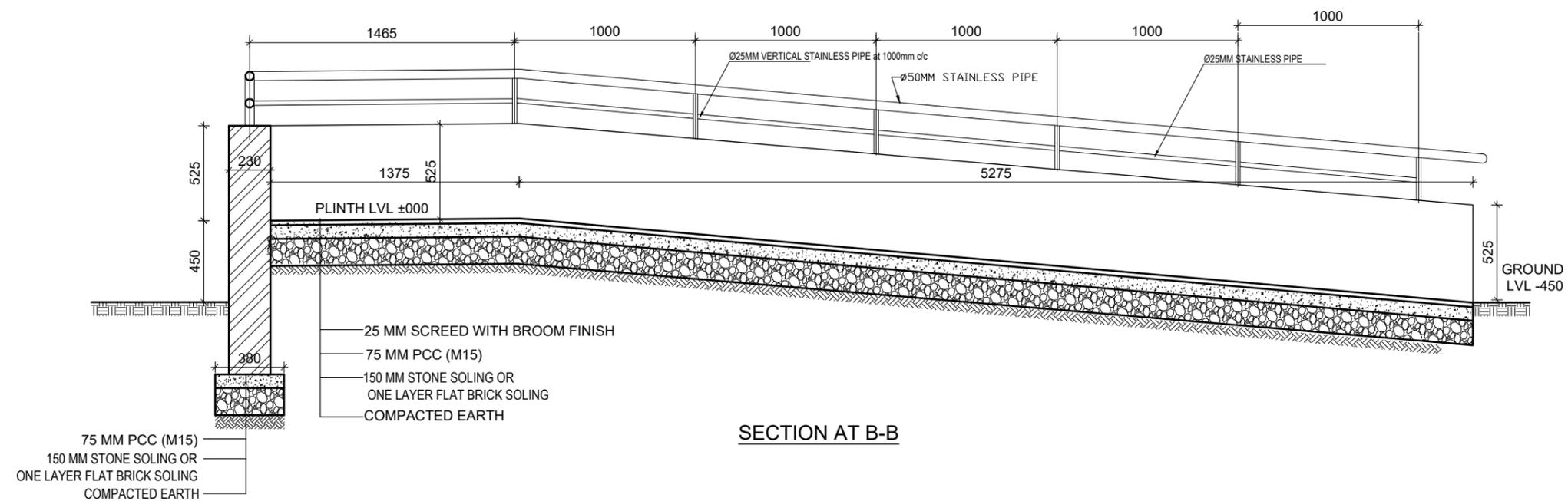
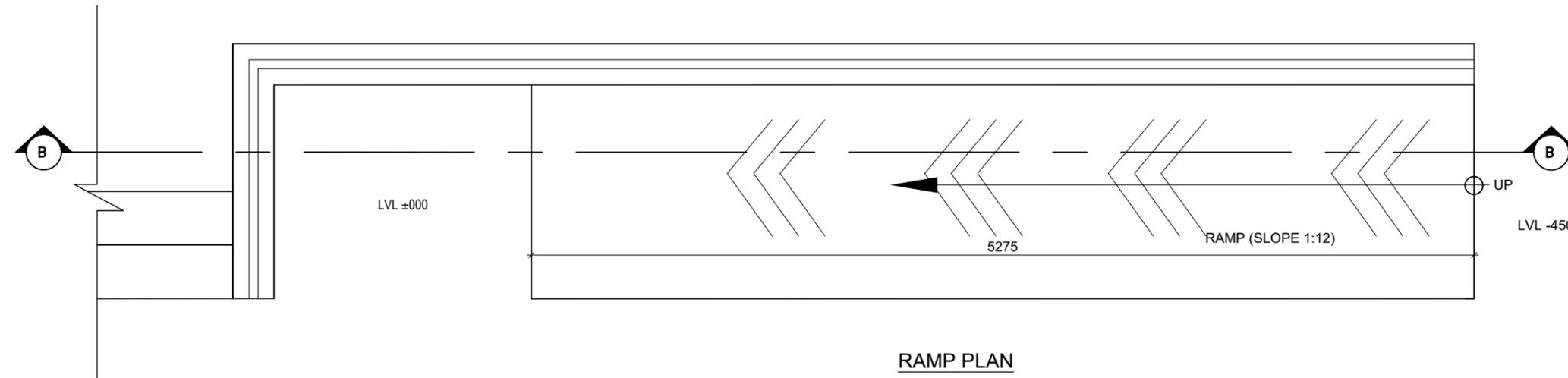
SIDE-1 ELEVATION



SIDE-2 ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-07	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S12R-TERAI & VALLY	

- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	AR-08	R-00
		ARCHITECT:	CHECKED:	DRAWN :	APPROVED:	DWG CODE 3S12R-TERAI & VALLY	
		SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023			

STRUCTURAL DRAWING

SN.	DRAWING LIST
1.	GENERAL NOTES
3.	FOOTING DETAIL FOR 100kN/m2
4.	TYPICAL FLOORING DETAIL
5.	SITE SPECIFIC DRAWING
6.	TYPICAL DETAILS OF FOUNDATION WALL
7.	COLUMN DETAIL
8.	BEAM PLAN
9.	BEAM DETAIL
10.	SLAB DETAIL
11.	STAIRCASE DETAIL
12.	BAND DETAIL
13.	RAILING DETAIL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TABLE OF CONTENTS	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	R-00	DWG CODE. 3S12R - TERAI & VALLEY
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120		PAPER SIZE : A3		DATE: FEBRUARY, 2023			

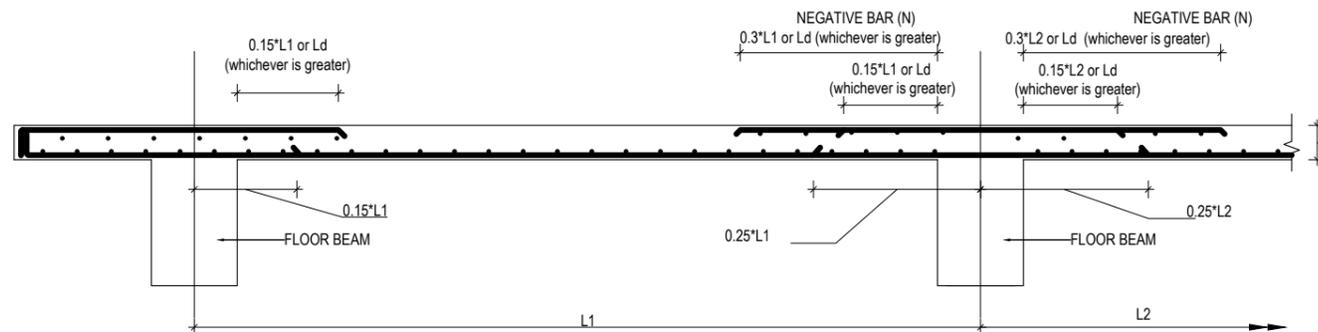
GENERAL NOTES:

- USE M25 GRADE CONCRETE FOR SLAB, BEAM, COLUMN, FOUNDATION, SILL & LINTEL BANDS (ALL RCC WORKS)
- USE Fe500 GRADE STEEL ($f_y=500\text{N/mm}^2$)
- CLEAR COVER TO BARS
 - FOR CONCRETE MEMBERS IN CONTACT WITH SOIL = MIN 50mm
 - FOR COLUMN (FROM FACE TO LATERAL TIES) = 40mm
 - FOR BEAMS (FROM FACE TO LATERAL STIRRUPS) = 25mm
 - FOR OUTER BARS IN SLAB = 15mm
 - FOR STAIRCASE = 20mm
- BARS IN COLUMNS SHALL BE SPLICED ONLY AT MID HEIGHT OF COLUMN.
- BARS SPLICING IN BEAM SHALL BE AVOIDED IN THE SPAN WHERE INTERMEDIATE BEAM IS CONNECTED AND SHALL BE ONLY AS SHOWN IN DWG.

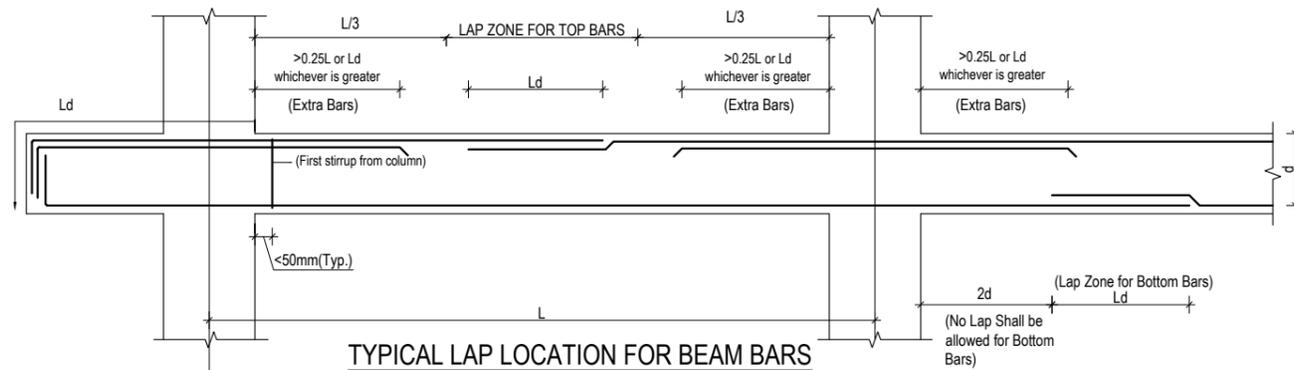
6. DEVELOPMENT / LAP LENGTH (L_d) FOR BARS.

BAR DIA-(mm)	8	10	12	16	20	25
FOR M25 L_d	400	490	590	790	980	1230

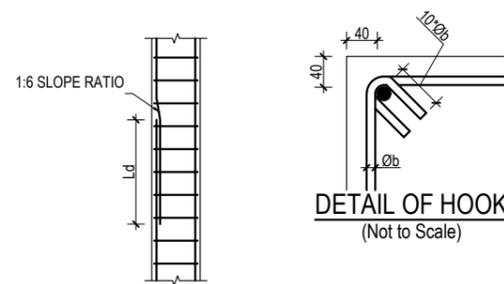
- TEMP./DISTRIBUTION REINFORCEMENT FOR SLAB - TMT ϕ @ 200 C/C
- CLEAR VERTICAL DISTANCE BETWEEN TWO ROWS (LAYERS) OF BARS=25mm OR MAXIMUM SIZE OF REBAR
- PROVIDE STIRRUPS OR TIES AT MIN 150 C/C AT LAP LOCATIONS IN BEAM AND AT MIN 100 C/C AT LAP LOCATION IN COLUMNS.
- FOUNDATION
- FOUNDATION DESIGN HAVE BEEN PROVIDED FOR SAFE BEARING CAPACITY OF 100KN/m². THIS S.B.C. SHALL BE CONFIRMED FROM GEO TECHNICAL INVESTIGATION AND CONSULTED TO DESIGNER.
- IF SAFE BEARING CAPACITY OF SOIL IS FOUND LESS THAN 100KN/m², SPECIAL STUDY FOR FOUNDATION DESIGN IS REQUIRED.
- H = CLEAR SPAN OF FLOOR.
- D=DEPTH OF BEAM
- d=EFFECTIVE DEPTH OF BEAM
- L_d =DEVELOPMENT LENGTH
- The seismic gap shall be as per codal requirement.



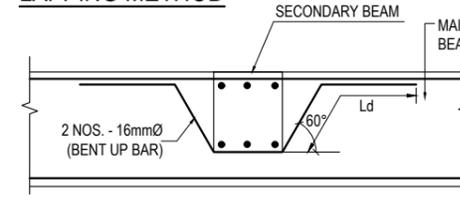
TYPICAL DETAIL FOR SLAB BARS



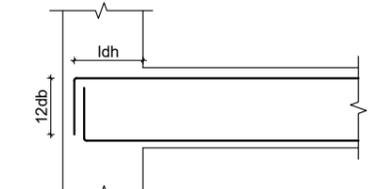
TYPICAL LAP LOCATION FOR BEAM BARS
(STIRRUPS NOT SHOWN FOR CLARITY)



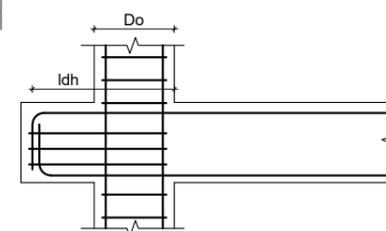
LAPPING METHOD



CONNECTION DETAIL BETWEEN
MAIN & SECONDARY BEAM



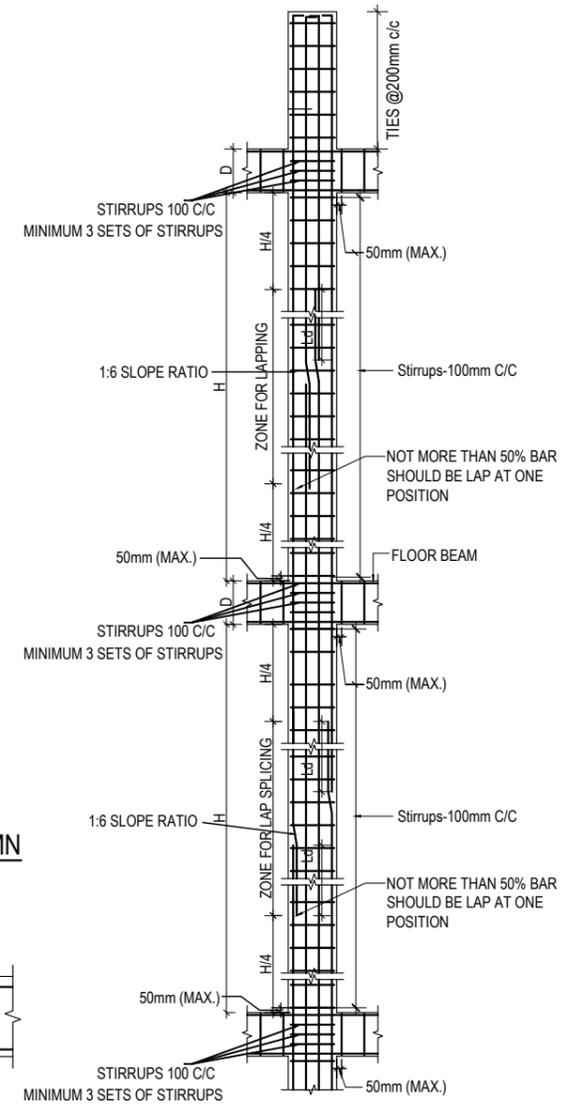
ANCHORAGE OF BEAM
LONGITUDINAL BAR IN COLUMN



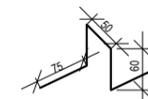
PROVISION OF BEAM STUB

f_y N/mm ²	f_{ck} N/mm ²	ϕ_b mm	l_{dh} mm	$12\phi_b$ mm
500	20	12	277	144
500	25	12	248	144
500	20	16	369	192
500	25	16	330	192
500	20	20	462	240
500	25	20	413	240
500	20	25	577	300
500	25	25	516	300

f_y = yield strength of steel
 f_{ck} = Characteristic Compressive strength of concrete
 ϕ_b = diameter of largest longitudinal bar in beam in mm

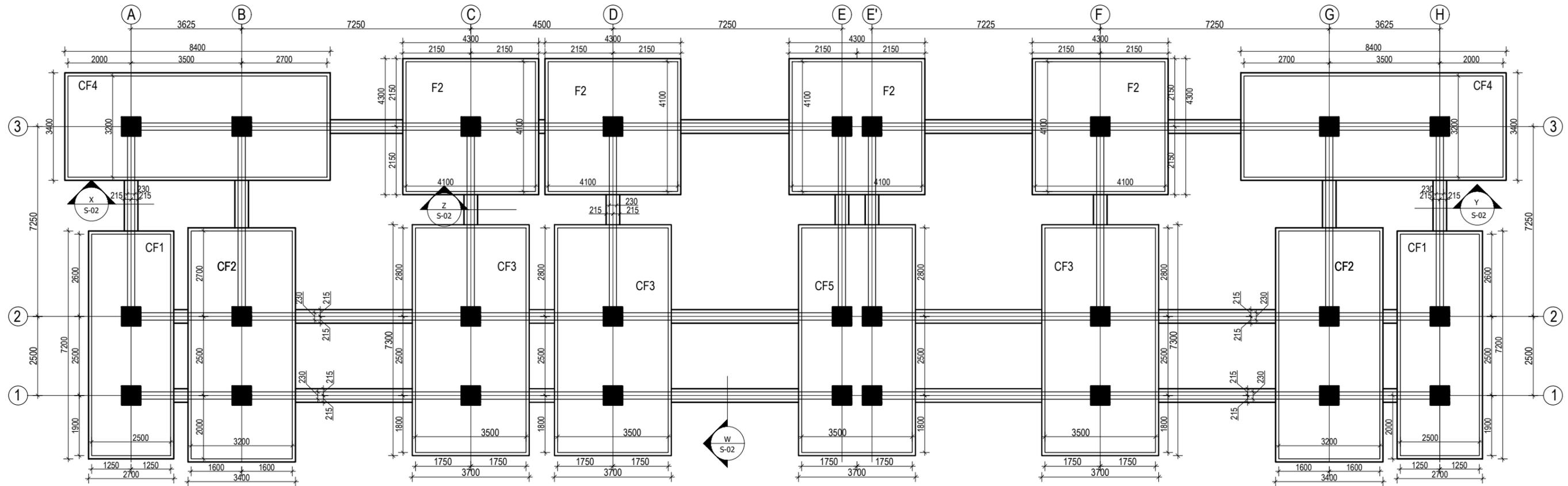


TYP. COLUMN SHEAR
REINFORCEMENT DETAIL



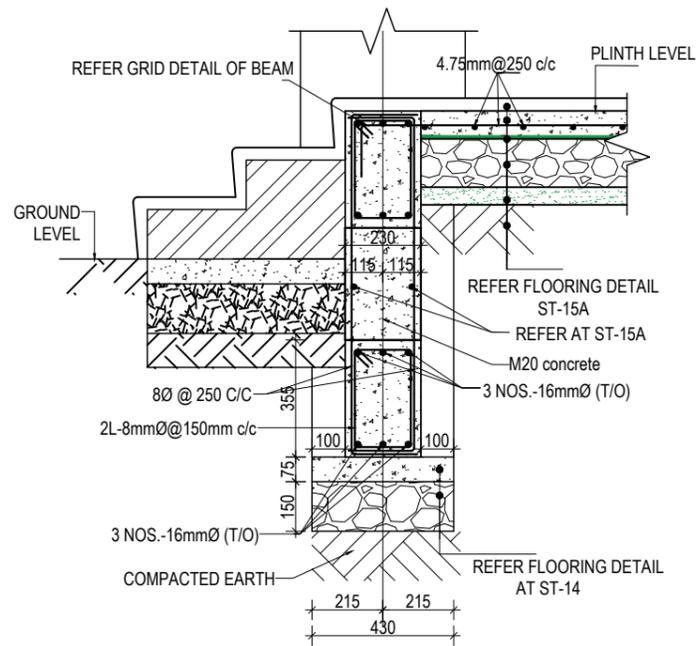
CHAIR RESTING ON BOTTOM BARS
@600 - 900 mm staggered position

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	GENERAL NOTES	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :		R-00
				ARCHITECT:	CHECKED:	DWG CODE.	
				DRAWN :	APPROVED:	3S12R - TERAI & VALLEY	
				SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	

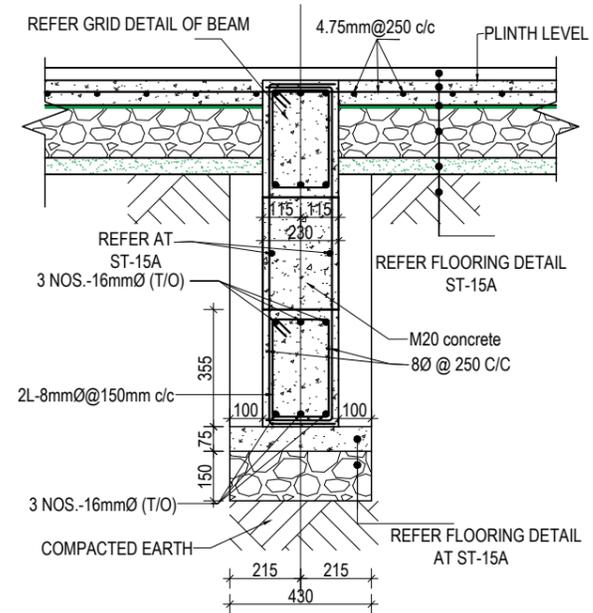


TRENCH PLAN FOR SAFE
BEARING CAPACITY 100kN/m²
(Scale= 1:100)

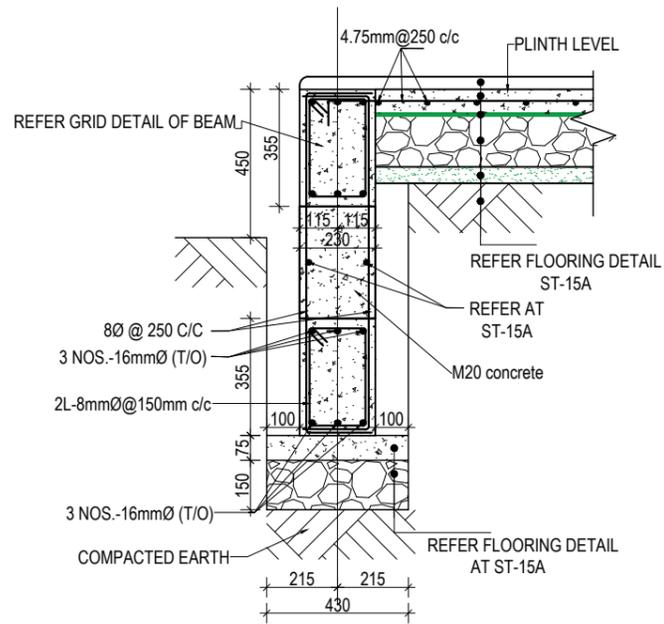
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TRENCH DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



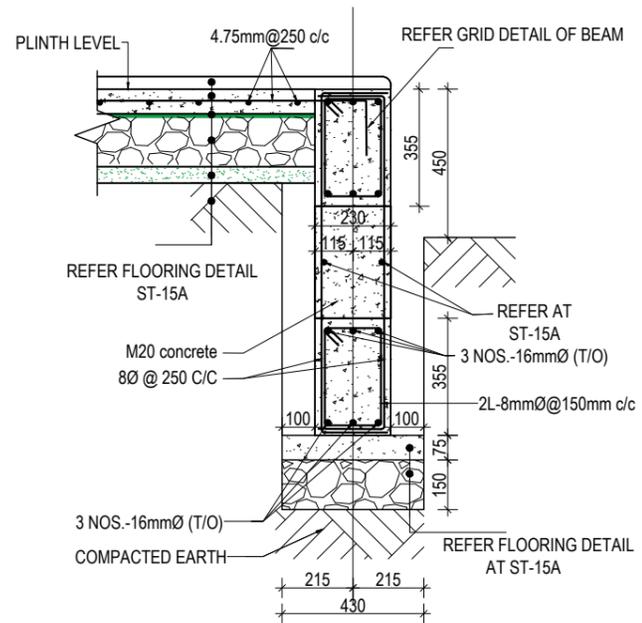
SECTION AT W-W
(Scale= 1:20)



SECTION AT Z-Z
(Scale= 1:20)

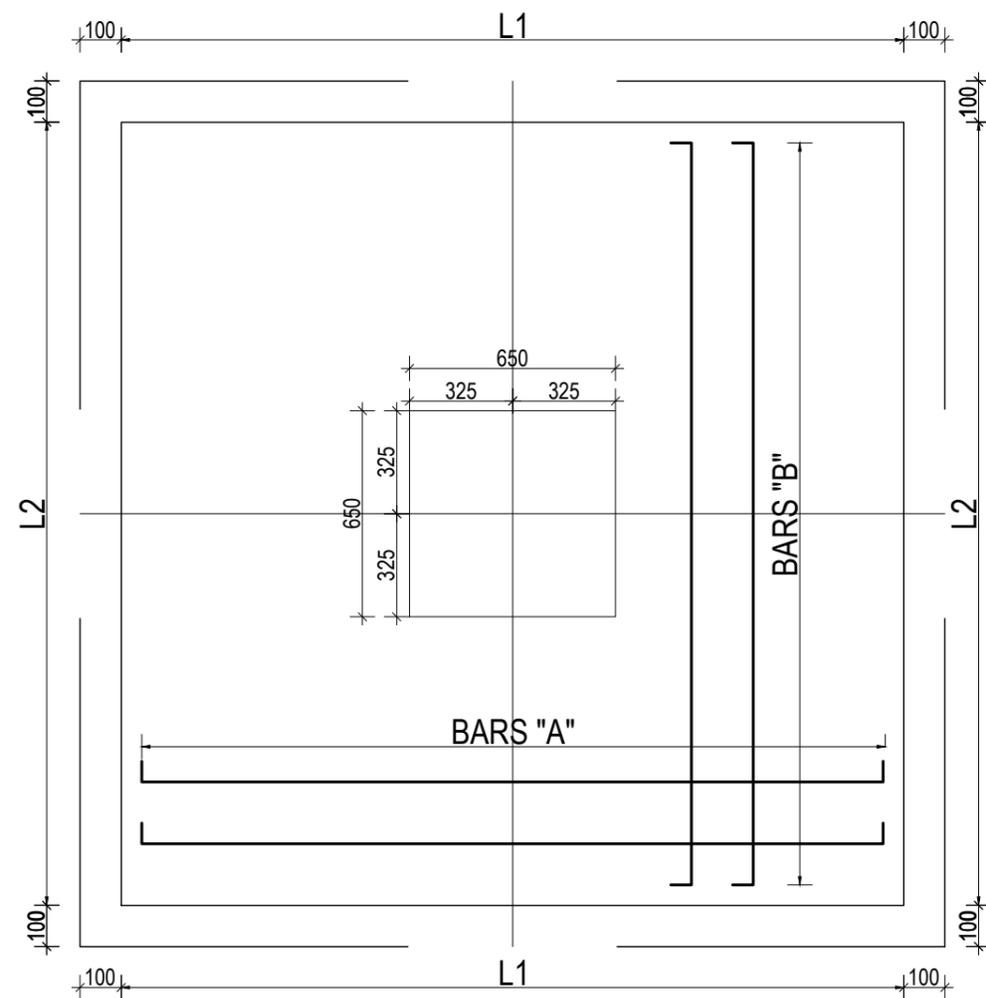


SECTION AT X-X
(Scale= 1:20)

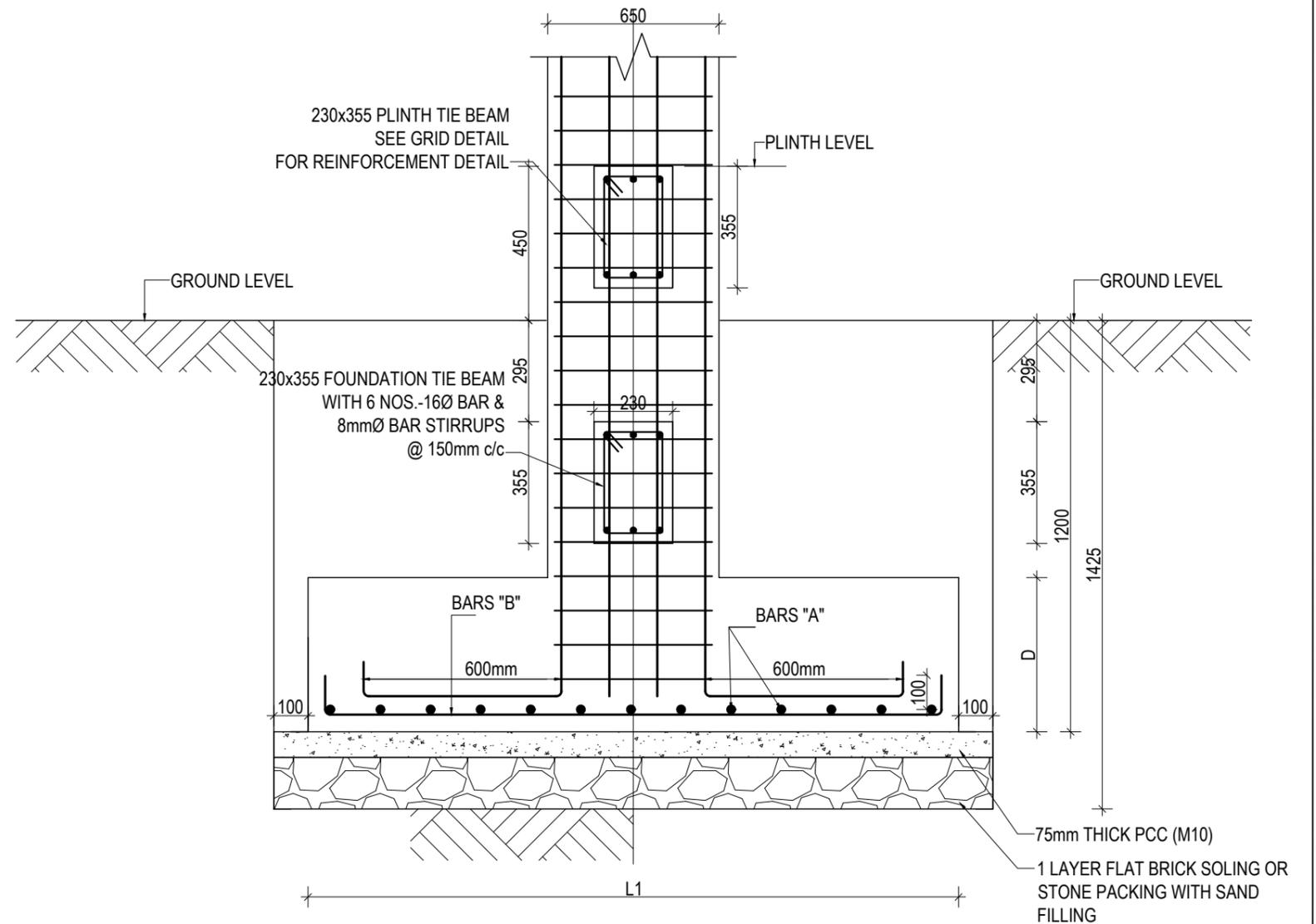


SECTION AT Y-Y
(Scale= 1:20)

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-02	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TRENCH DETAIL FOR S.B.C 100kN/m ²	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					



TYPICAL ISOLATED FOOTING PLAN

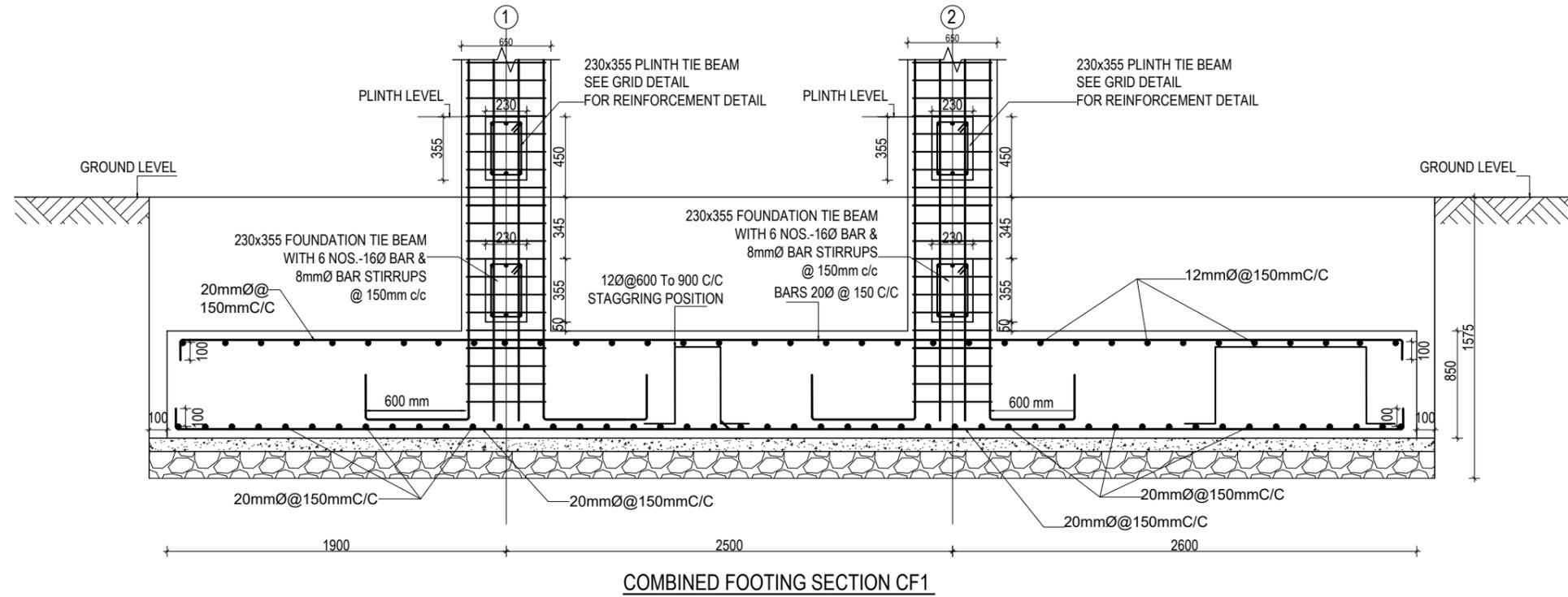
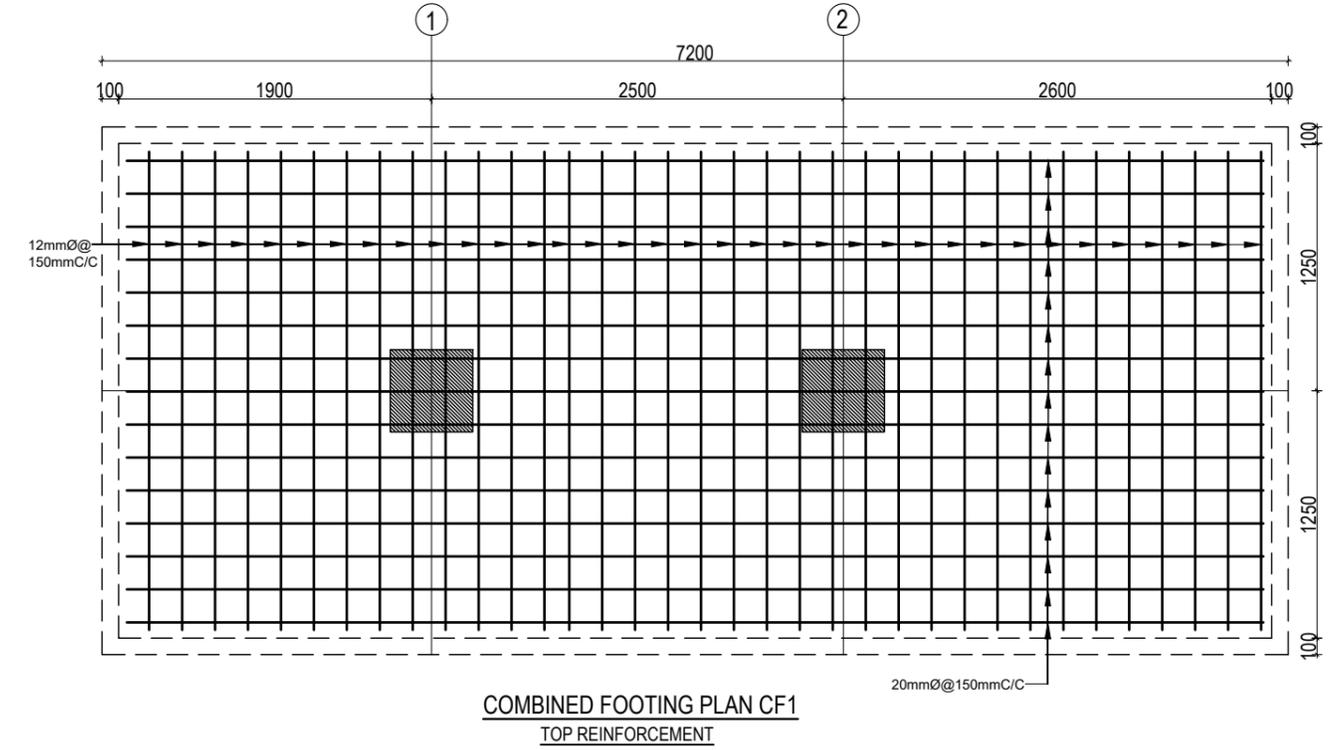
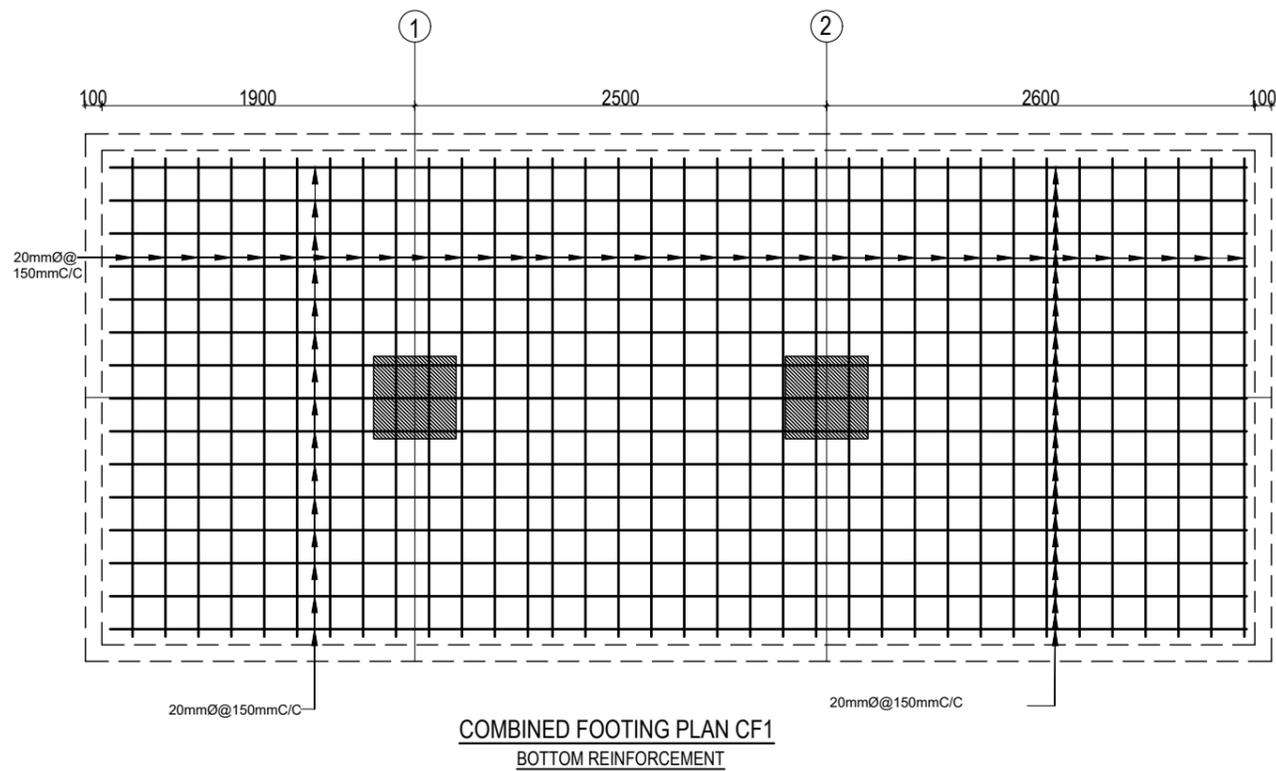


TYPICAL ISOLATED FOOTING SECTION

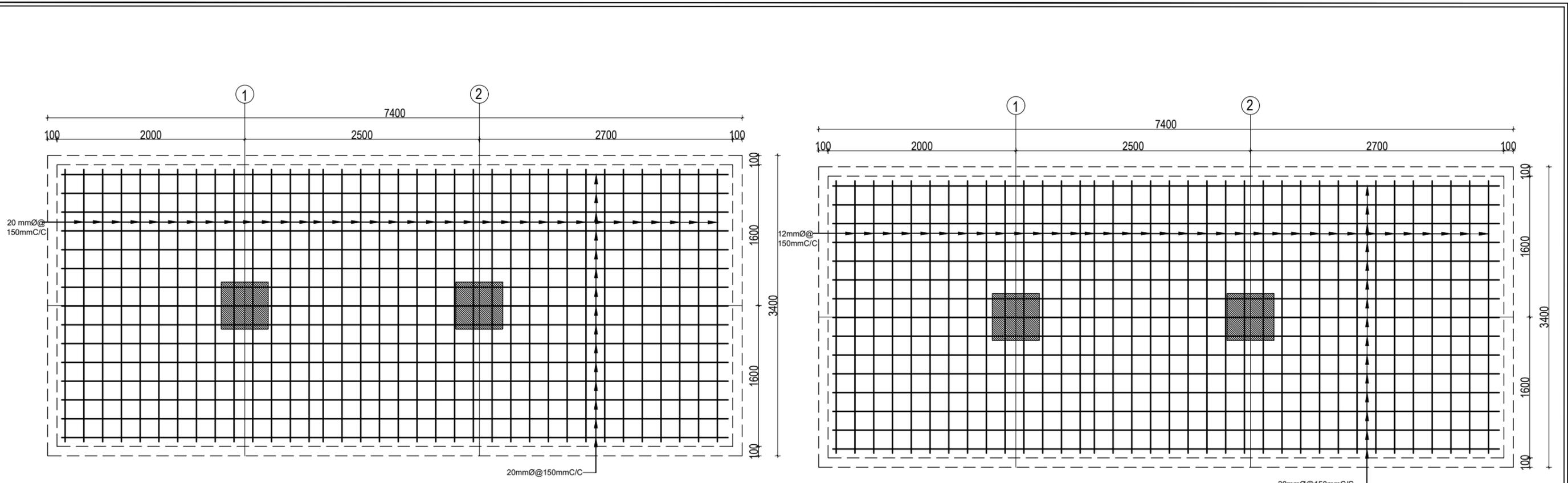
ISOLATED FOOTING SCHEDULE FOR S.B.C 100 kN/m²

FOOTING ID	L1	L2	DEPTH (D)	REINFORCEMENT DETAILS	
				BARS "A"	BARS "B"
F1	3700	3700	600	16Ø @ 150 C/C	16Ø @ 150 C/C
F2	4100	4100	750	16Ø @ 150 C/C	16Ø @ 150 C/C

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-03	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	FOOTING DETAIL FOR S.B.C 100kN/m ²	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

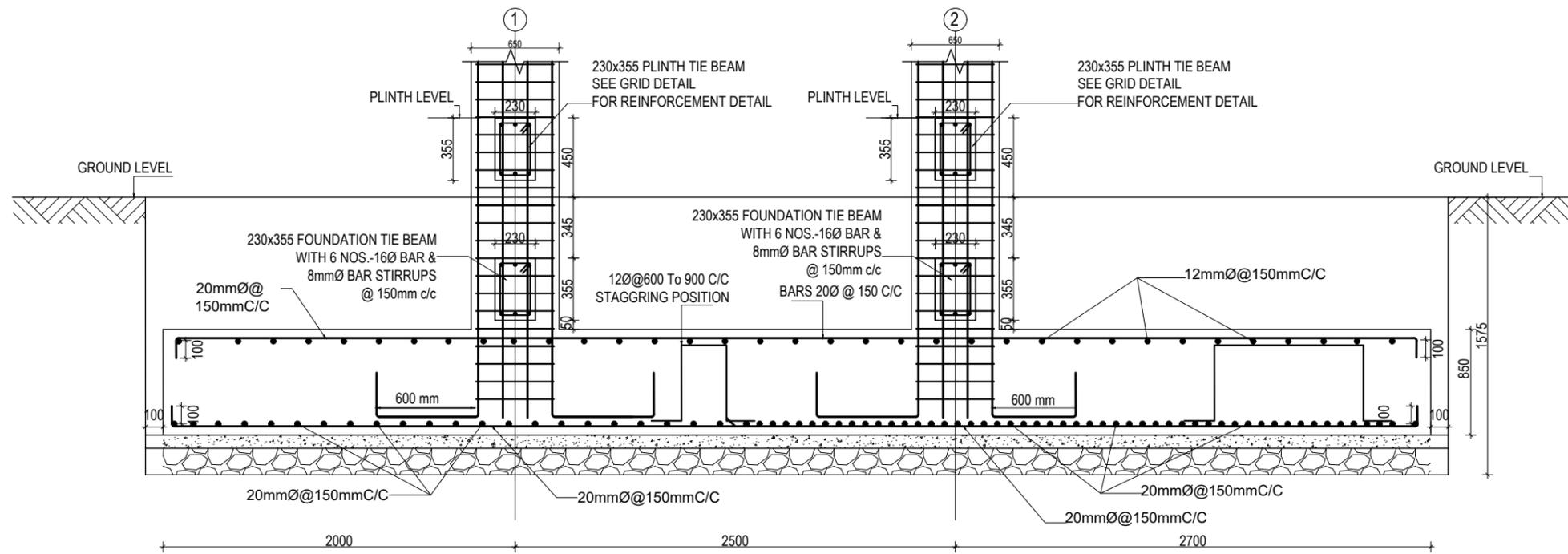


CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-04	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



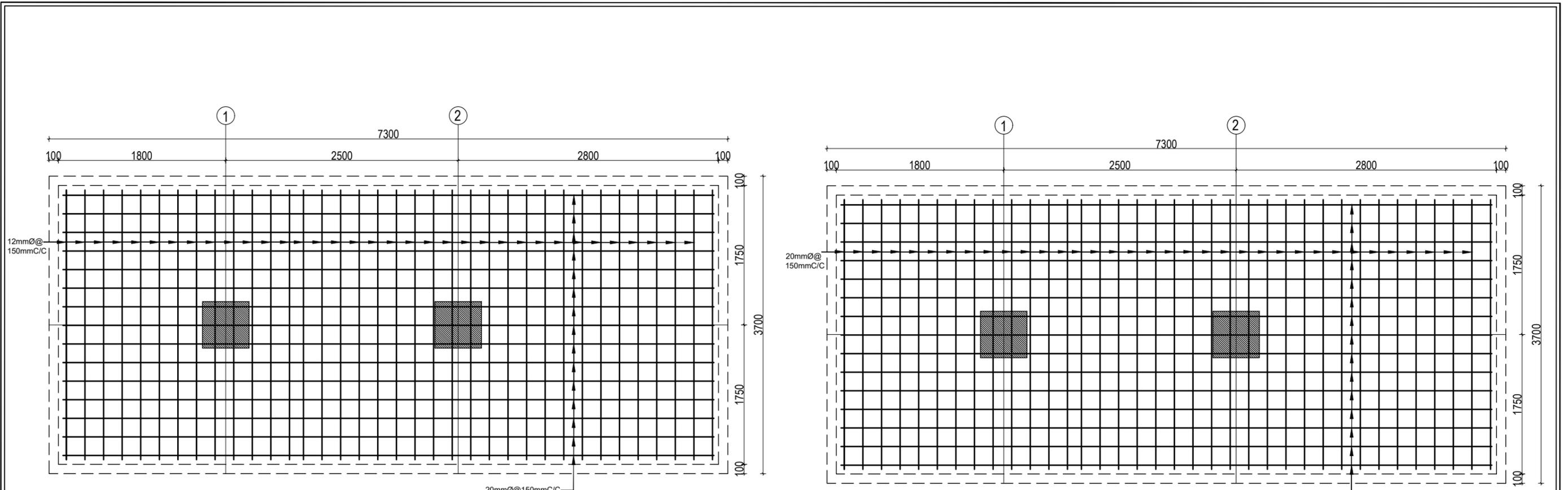
COMBINED FOOTING PLAN CF2
BOTTOM REINFORCEMENT

COMBINED FOOTING PLAN CF2
TOP REINFORCEMENT



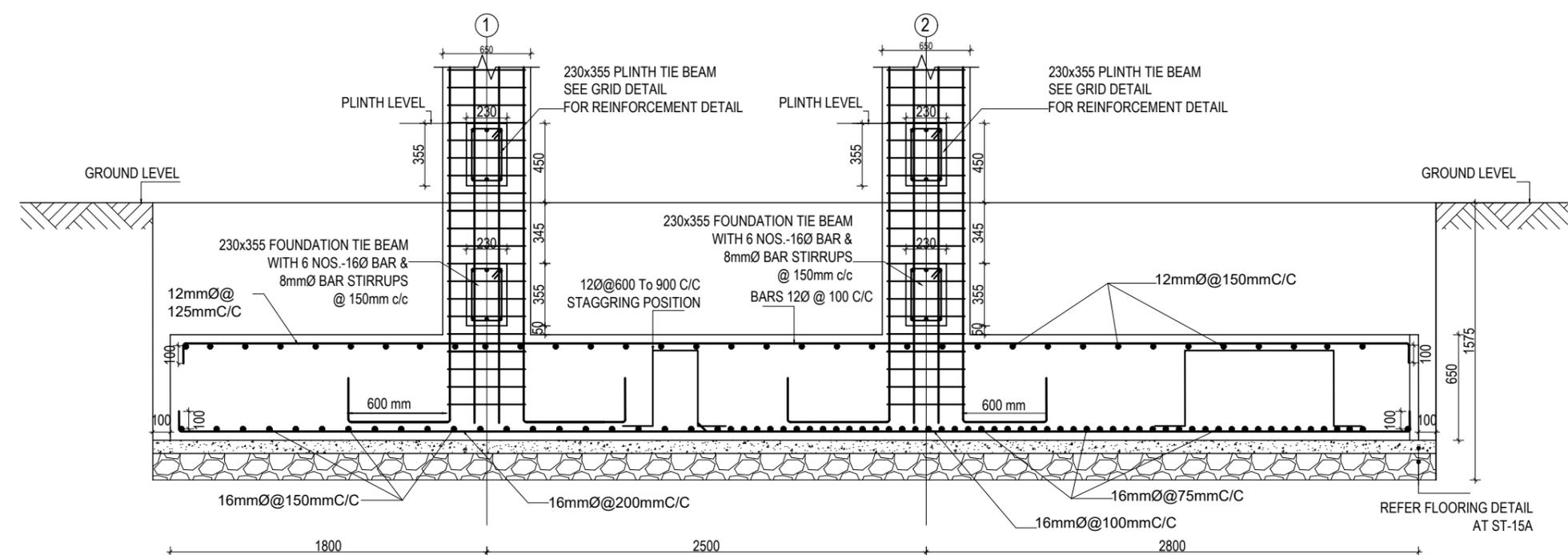
COMBINED FOOTING SECTION CF2

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-05	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	FOOTING DETAIL FOR S.B.C 100kN/m ²	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				SCALE : 1:120	PAPER SIZE : A3		



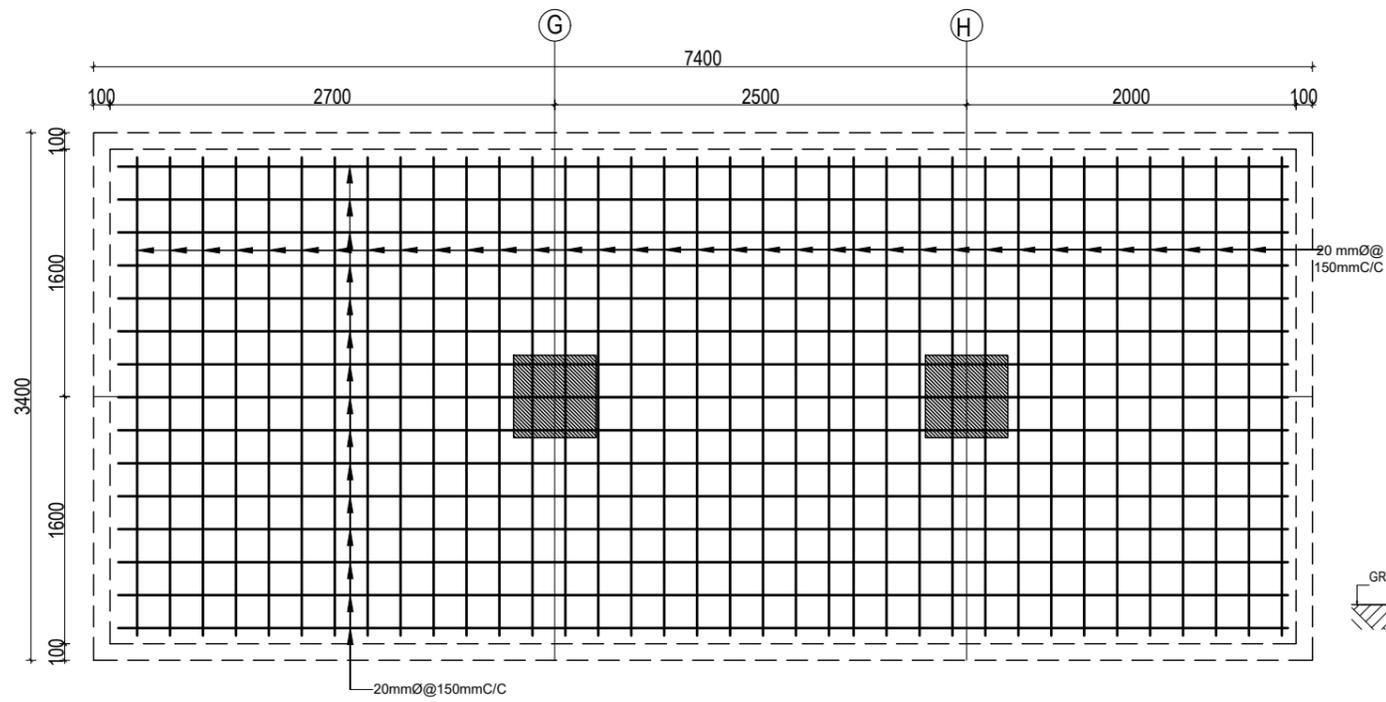
COMBINED FOOTING PLAN CF3
TOP REINFORCEMENT

COMBINED FOOTING PLAN CF3
BOTTOM REINFORCEMENT

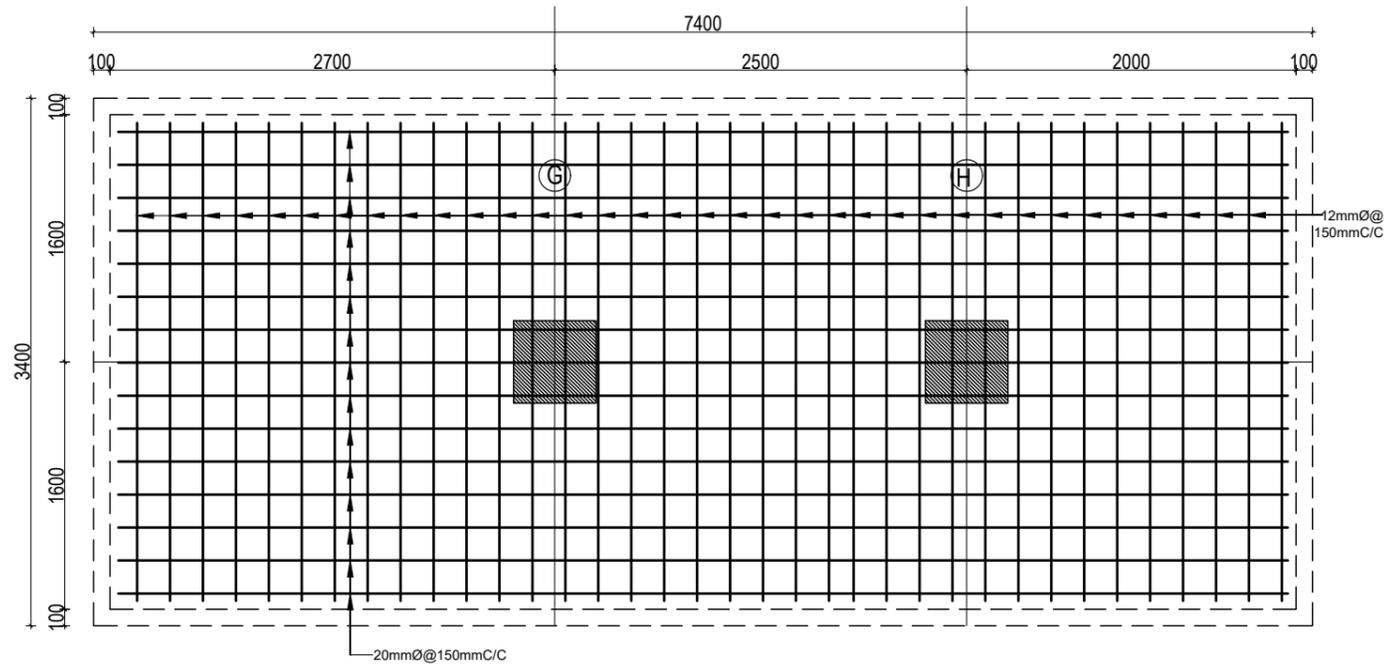


COMBINED FOOTING SECTION CF3

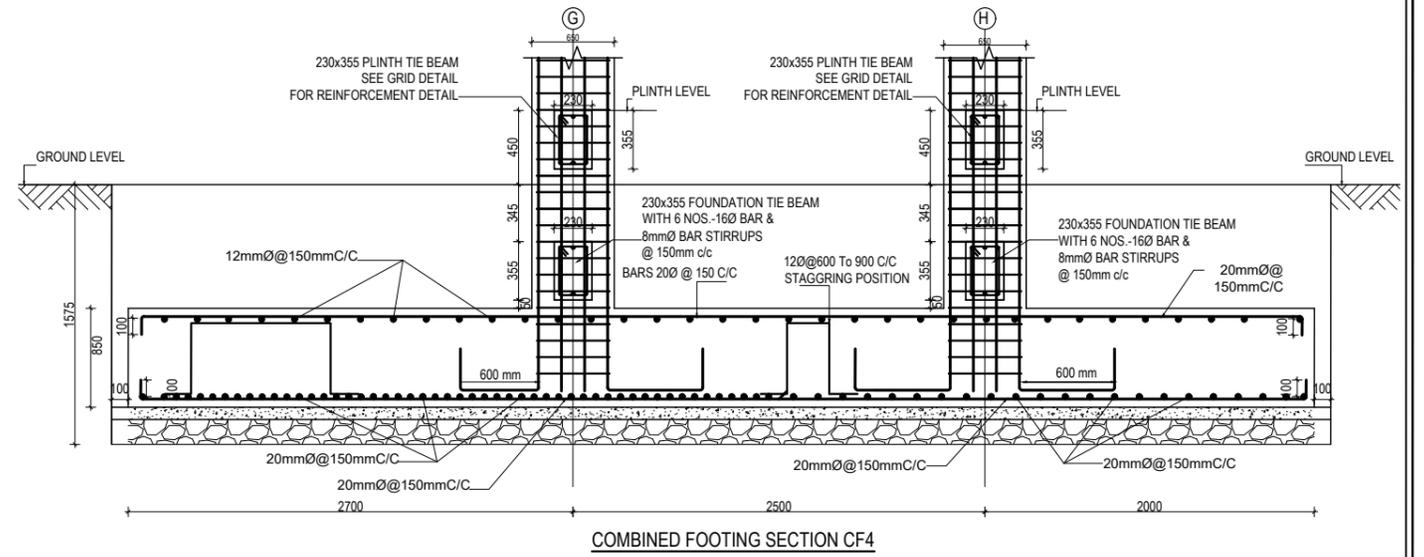
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-06	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



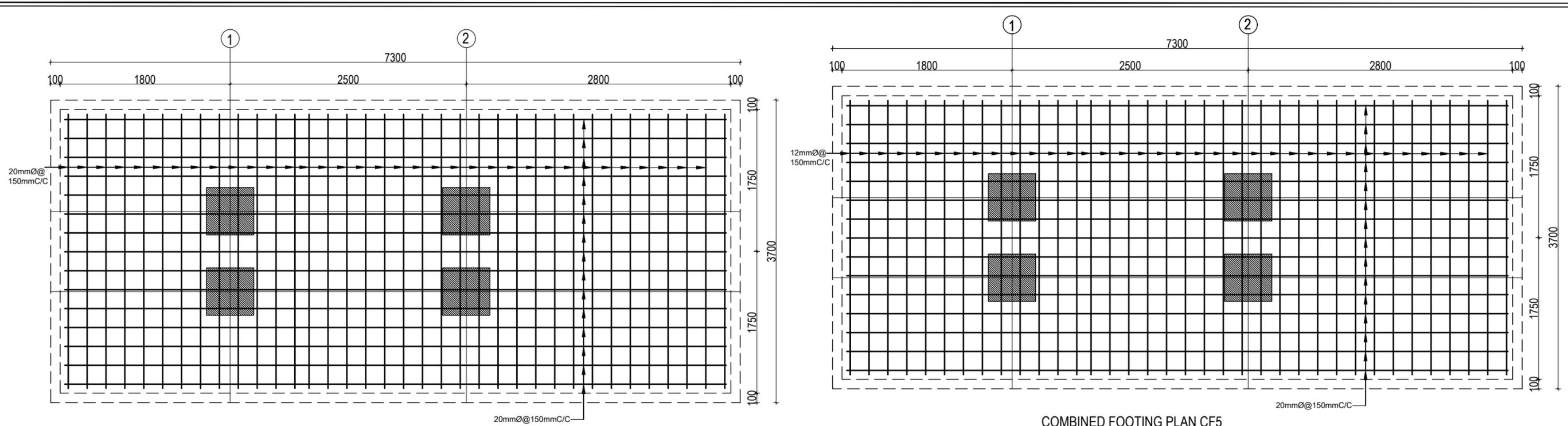
COMBINED FOOTING PLAN CF4
BOTTOM REINFORCEMENT



COMBINED FOOTING PLAN CF4
TOP REINFORCEMENT

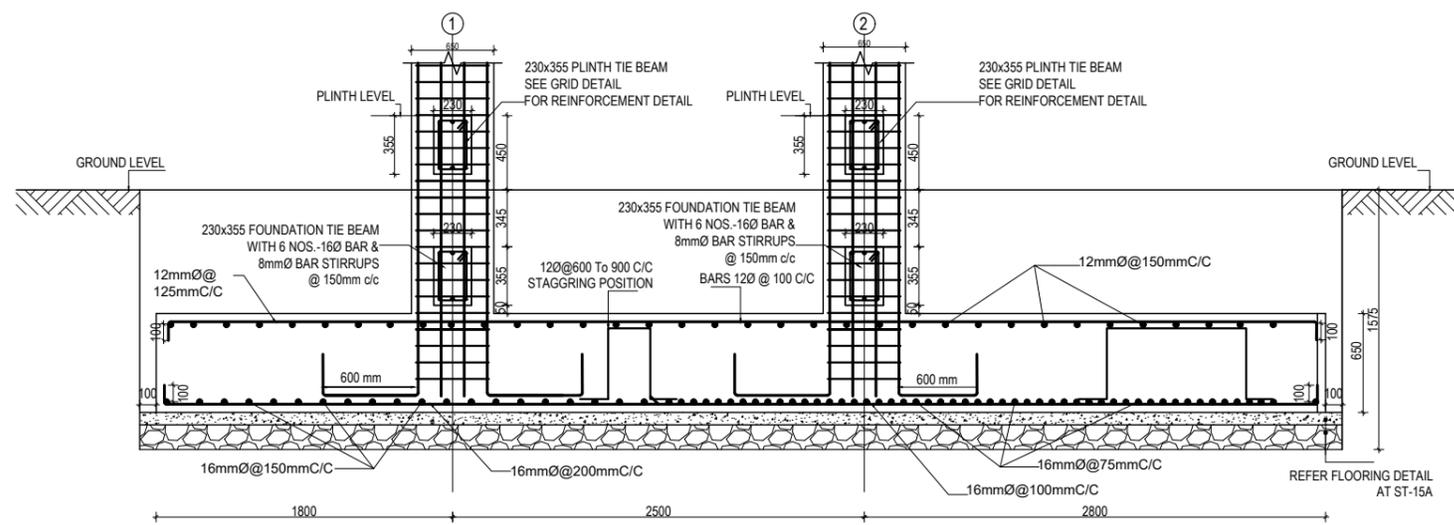


CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-07	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

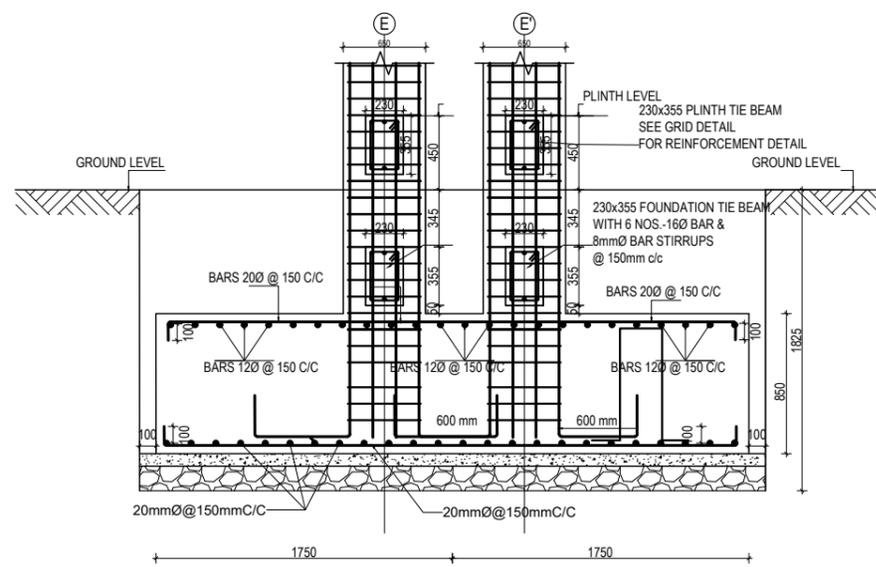


COMBINED FOOTING PLAN CF5
BOTTOM REINFORCEMENT

COMBINED FOOTING PLAN CF5
TOP REINFORCEMENT

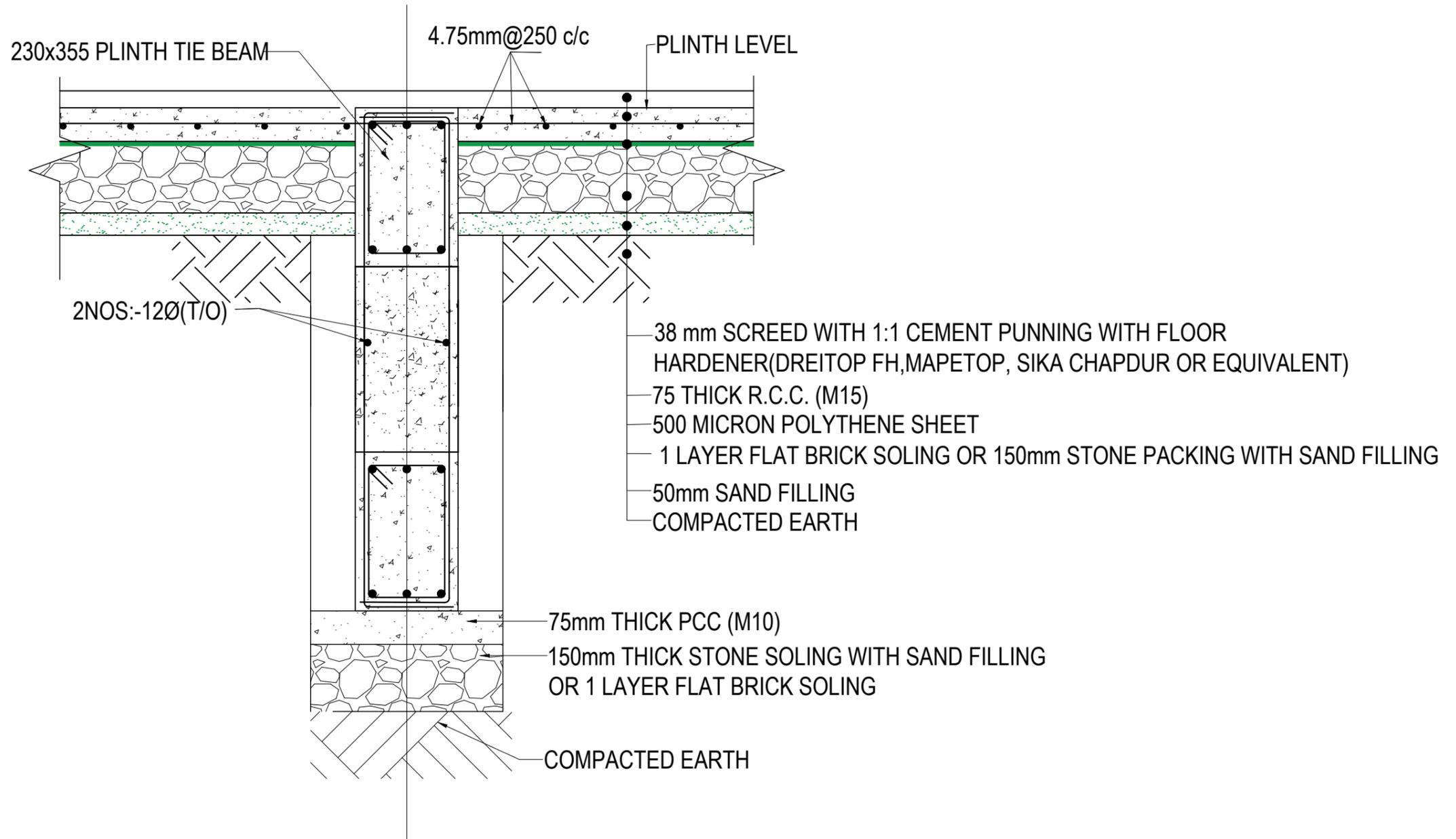


COMBINED FOOTING SECTION CF5 [L-SECTION]



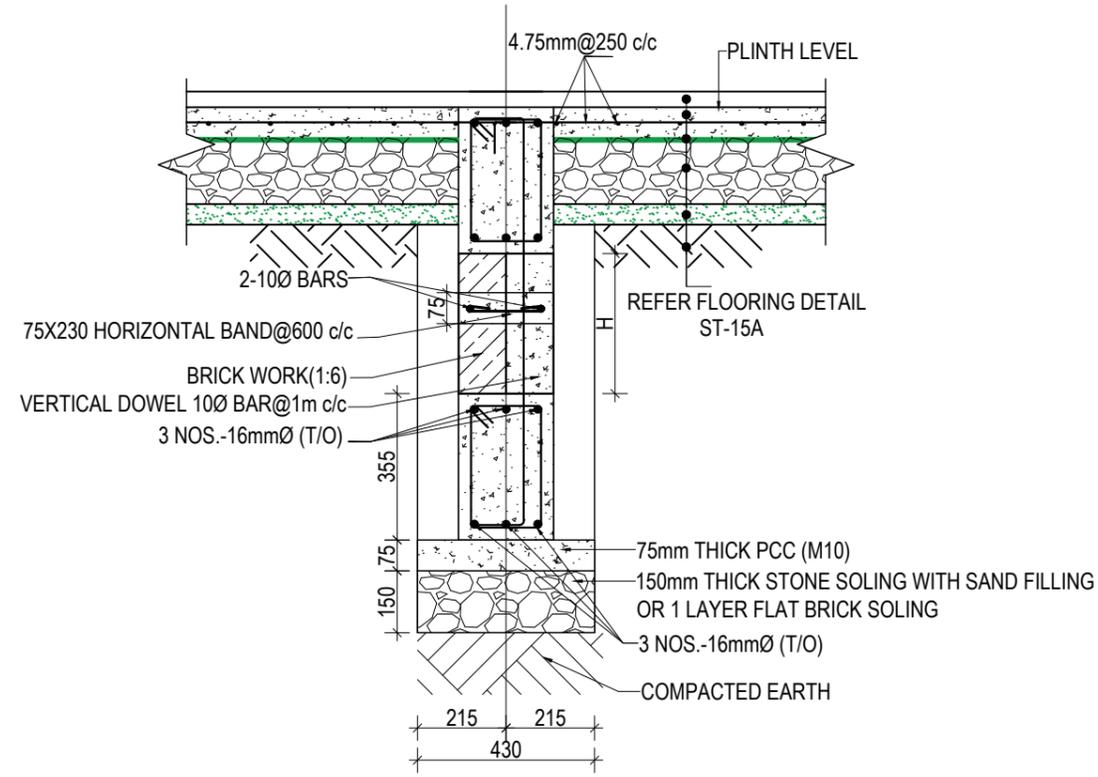
COMBINED FOOTING SECTION CF5 [X-SECTION]

 <p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>PROJECT TITLE</p> <p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>SHEET TITLE</p> <p>FOOTING DETAIL FOR S.B.C 100kN/m²</p>	<p>CONSULTANT</p> <p>IDEAL SOLUTION PVT. LTD. Nepal</p>	<p>PLANNING DESIGN TEAM</p>		<p>SHEET NO.</p> <p>ST-08</p>	<p>REVISION NO.</p> <p>R-00</p>
				<p>ENGINEER:</p> <p>ARCHITECT:</p> <p>DRAWN :</p> <p>SCALE : 1:120</p>	<p>STRUCTURE ER. :</p> <p>CHECKED:</p> <p>APPROVED:</p> <p>DATE: FEBRUARY, 2023</p>		



TYPICAL FLOORING DETAIL FF1
(Scale= 1:10)

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-09	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL FLOORING DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120		PAPER SIZE : A3		DATE: FEBRUARY, 2023			

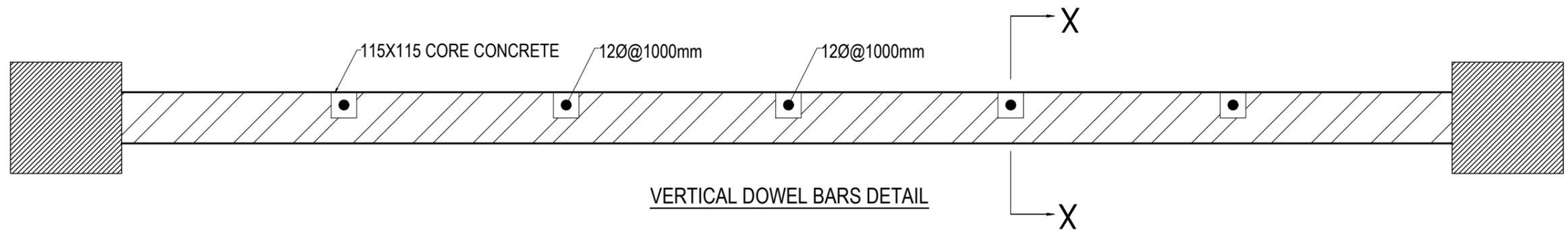


WALL DETAIL FOR DEPTH OF FOOTING MORE THAN 1500 mm

SECTION AT X-X

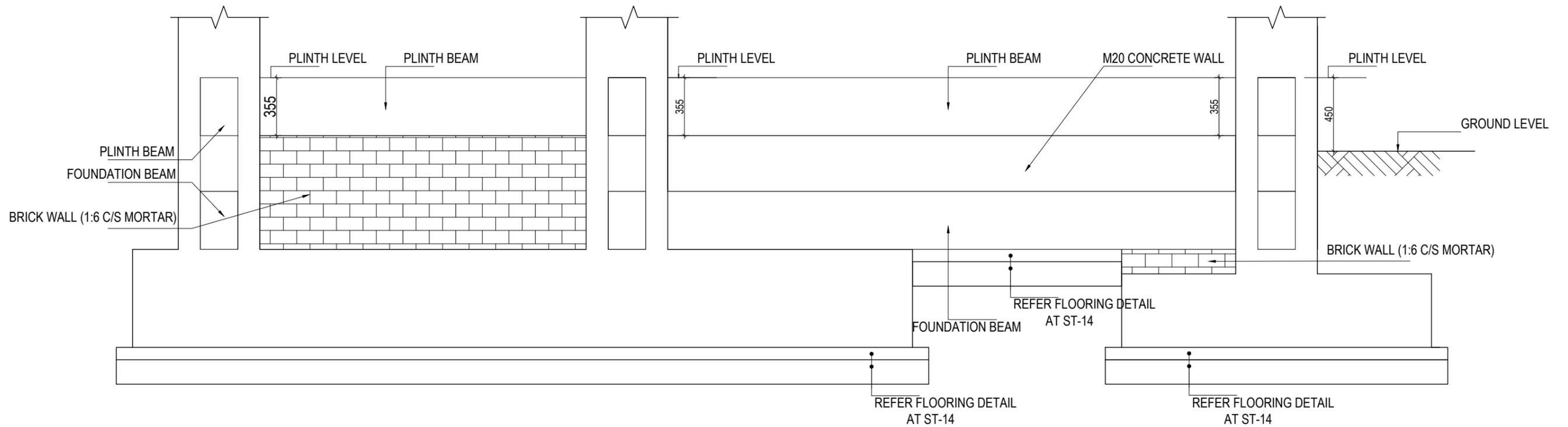
NOTES:-

- 1) BRICK WALL IS USED IF WALL IS CONFINED BY SOIL ON BOTH SIDES
- 2) IF THE HEIGHT OF THE BRICKWALL EXCEEDS 1800 mm ADDITIONAL BEAM SHALL BE PROVIDED OF SAME SIZE OF FOUNDATION BEAM(SAME REINFORCEMENT TO BE USED)



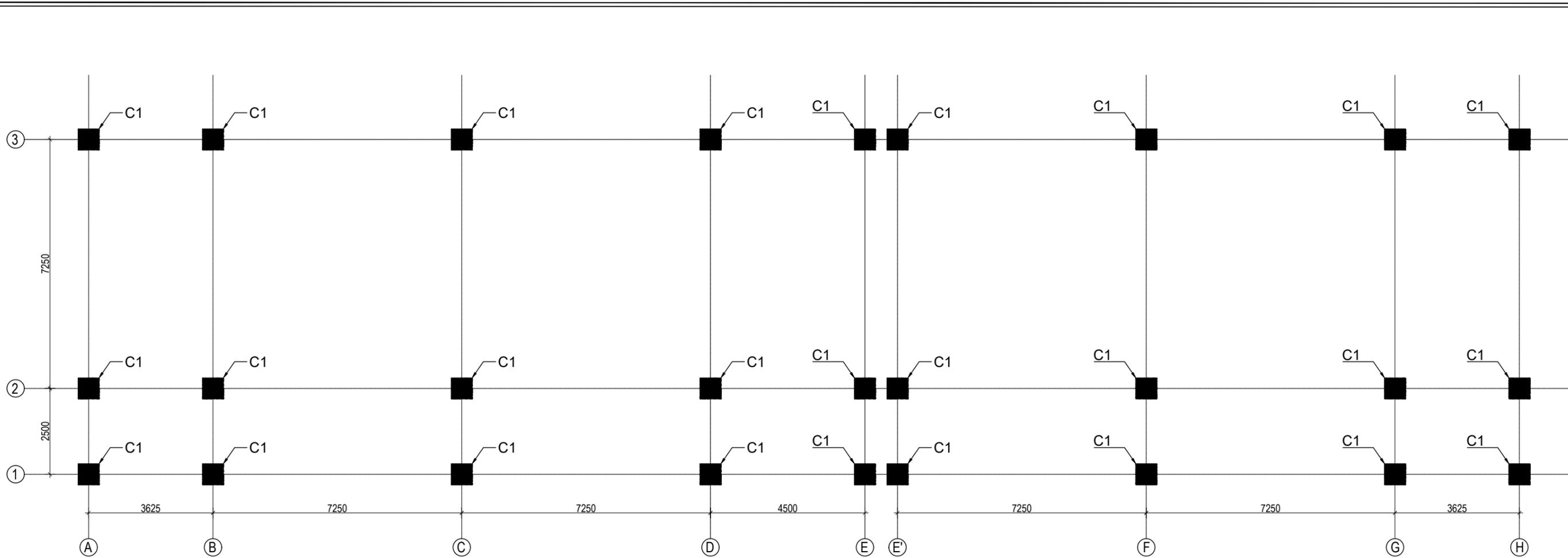
VERTICAL DOWEL BARS DETAIL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-10	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	SITE SPECIFIC DRAWING	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120		PAPER SIZE : A3		DATE: FEBRUARY, 2023			



TYPICAL DETAIL OF FOUNDATION WALL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-11	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL DETAIL OF FOUNDATION WALL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

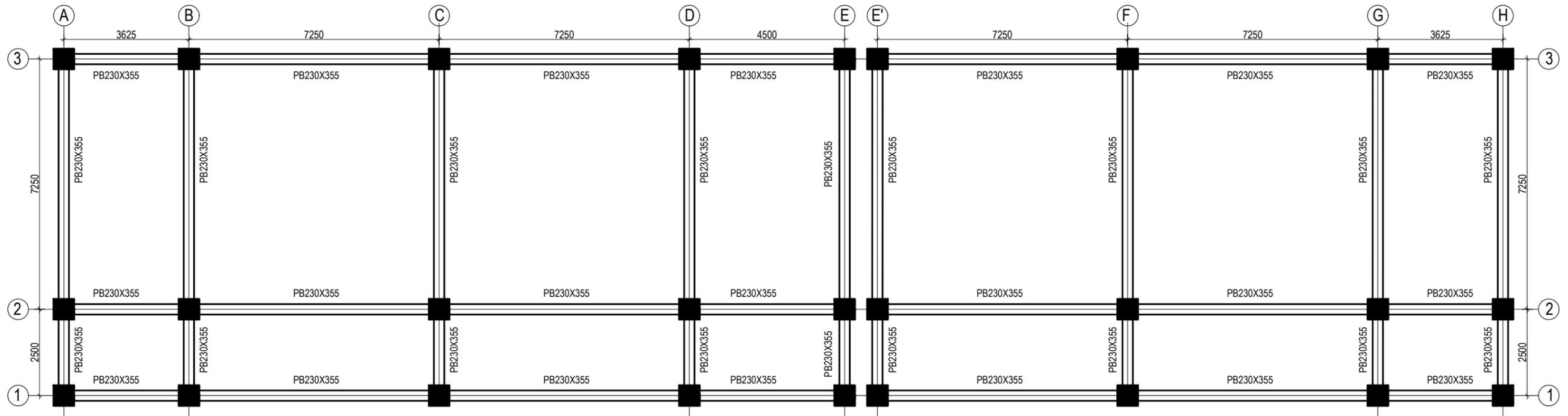


GROUND FLOOR COLUMN LAYOUT PLAN
(SCALE 1:100)

COLUMN REINFORCEMENT DETAILS

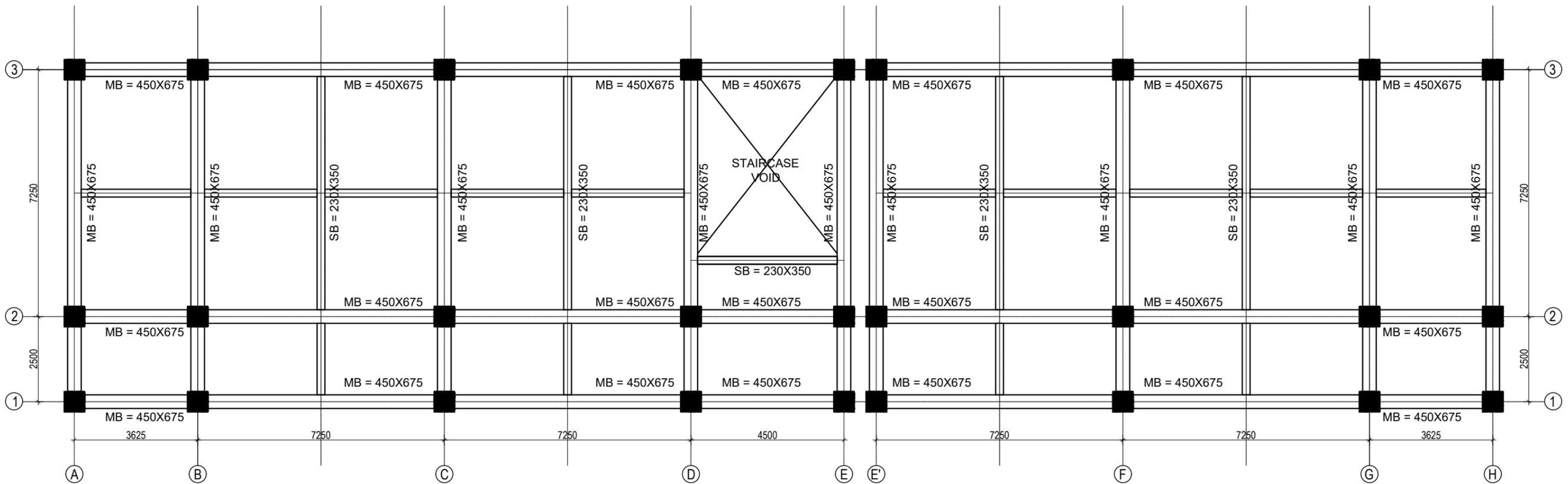
S. NO.	COLUMN	COLUMN SIZE	FLOOR					TIE BAR ORIENTATION
			GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	TOP FLOOR	
1	C1	650X650	<p>• 24 NOS. -25mmØ</p>	<p>A: 10Ø100c/c & B: 8Ø100c/c</p>				

<p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p align="center">PROJECT TITLE</p> <p align="center">Prepare School Building Type Design for Terai and Valley Region</p>	<p align="center">SHEET TITLE</p> <p align="center">COLUMN DETAIL</p>	<p align="center">CONSULTANT</p> <p align="center">IDEAL SOLUTION PVT. LTD. Nepal</p>	<p align="center">PLANNING DESIGN TEAM</p>			<p>SHEET NO. ST-12</p> <p>REVISION NO. R-00</p>
				<p>ENGINEER:</p> <p>ARCHITECT:</p> <p>DRAWN:</p> <p>SCALE : 1:120</p>	<p>STRUCTURE ER. :</p> <p>CHECKED:</p> <p>APPROVED:</p> <p>DATE: FEBRUARY, 2023</p>	<p>DWG CODE.</p> <p>3S12R - TERAI & VALLEY</p>	



PLINTH BEAM LAYOUT PLAN
 (Scale= 1:100)
 LVL:- PL+0000

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM LAYOUT PLAN	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-13	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R - TERAI & VALLEY	



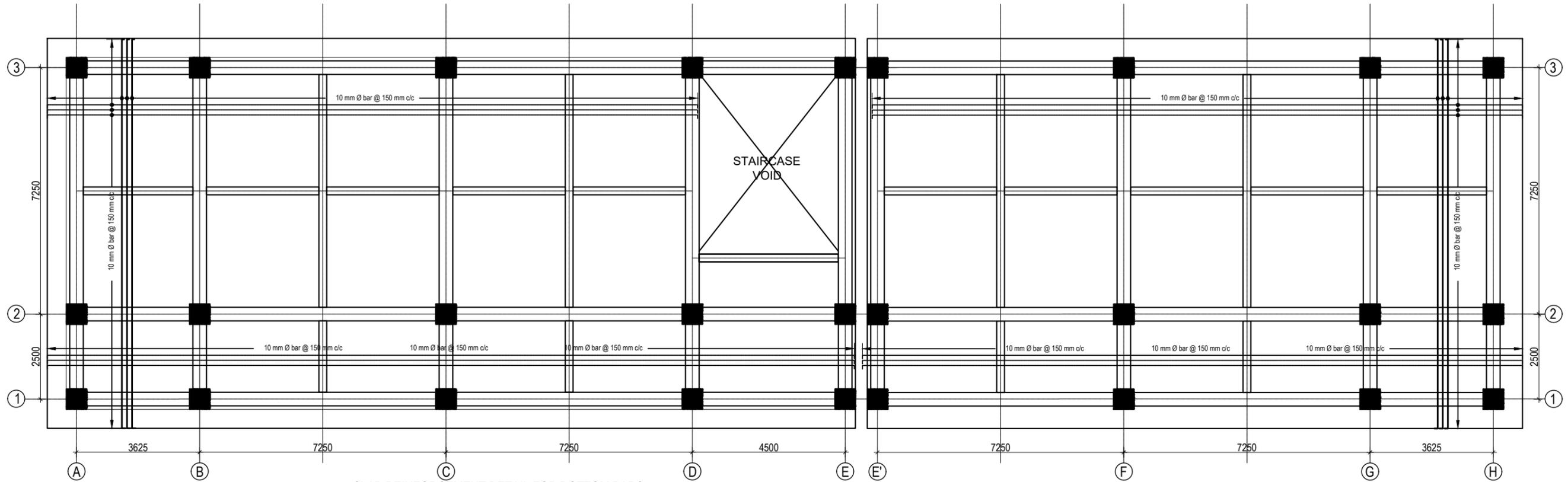
BEAM LAYOUT PLAN (FIRST, SECOND AND THIRD FLOOR)
(Scale= 1:100)

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM LAYOUT PLAN	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-14	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R - TERAI & VALLEY	

COLUMN REINFORCEMENT DETAILS

S. NO.	GRID	BEAM SIZE	AT SUPPORT	AT MID	STIRRUPS BAR ORIENTATION	FLOOR LVL
1	1-1 2-2 3-3	450X675				FIRST FLOOR BEAMS SECOND FLOOR BEAMS
2	A-A B-B C-C D-D E-E	450X675				REMAINING FLOOR BEAMS
3	Sec. beam	230X350				ALL FLOOR BEAMS

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-15	REVISION NO. R-00
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	BEAM DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

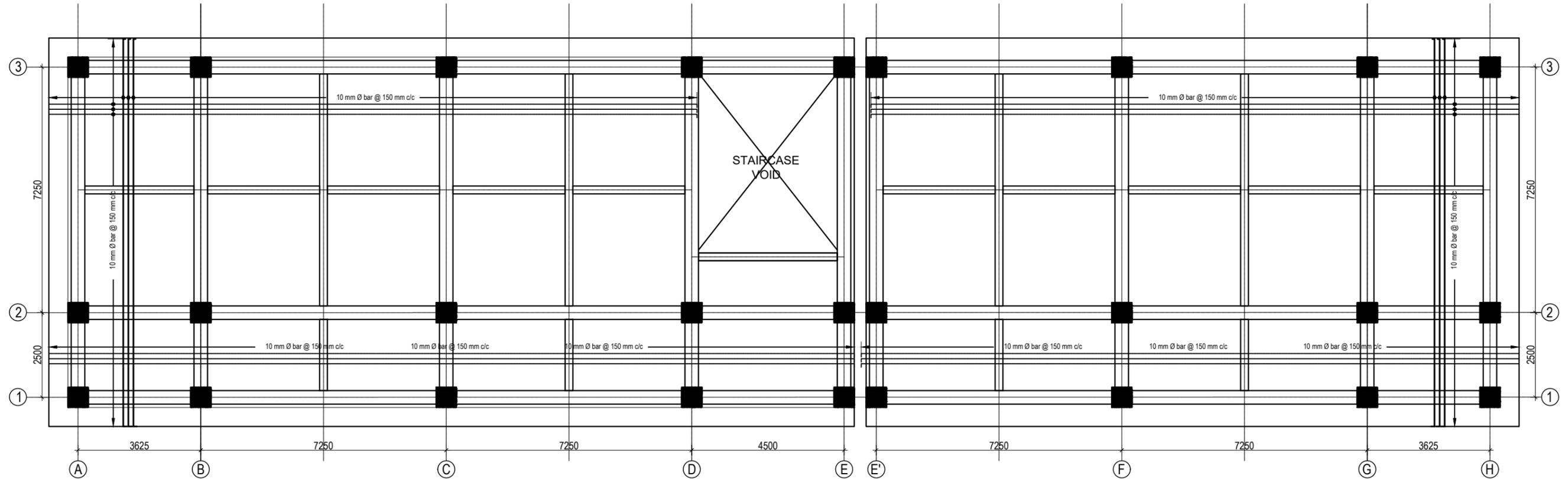


SLAB REINFORCEMENT DETAIL FOR BOTTOM BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 BOTTOM REINFORCEMENT: 8Ø@150 mm c/c

(Scale= 1:120)

125 mm SLAB THICKNESS

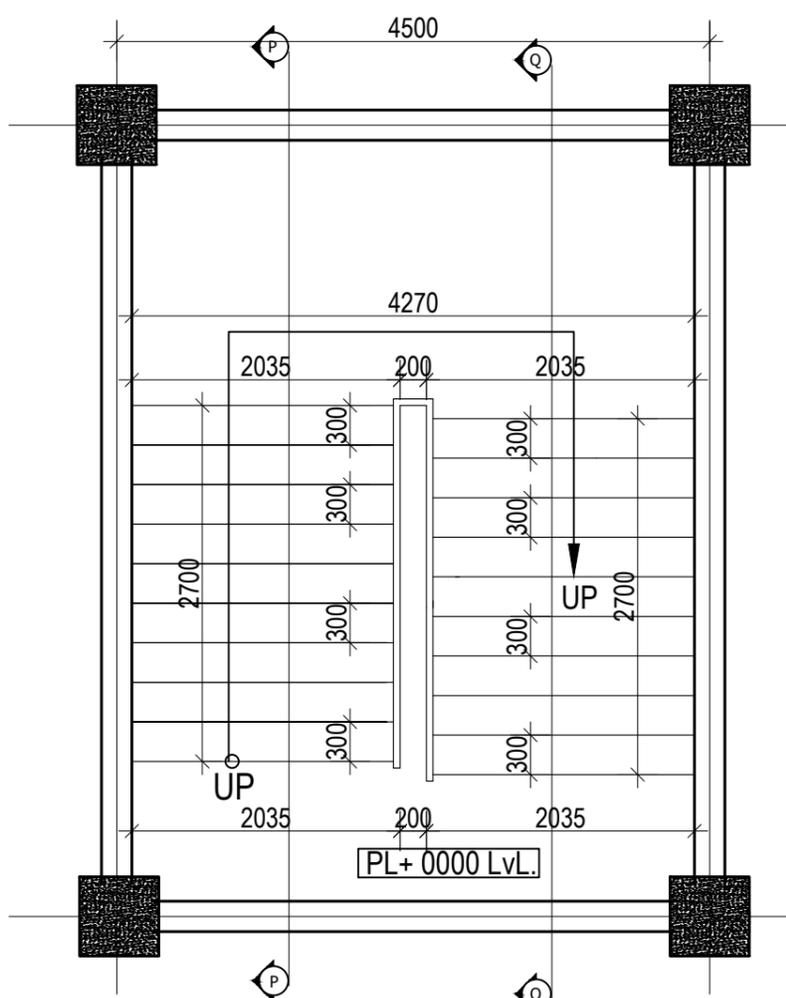
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-16	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R - TERAI & VALLEY	



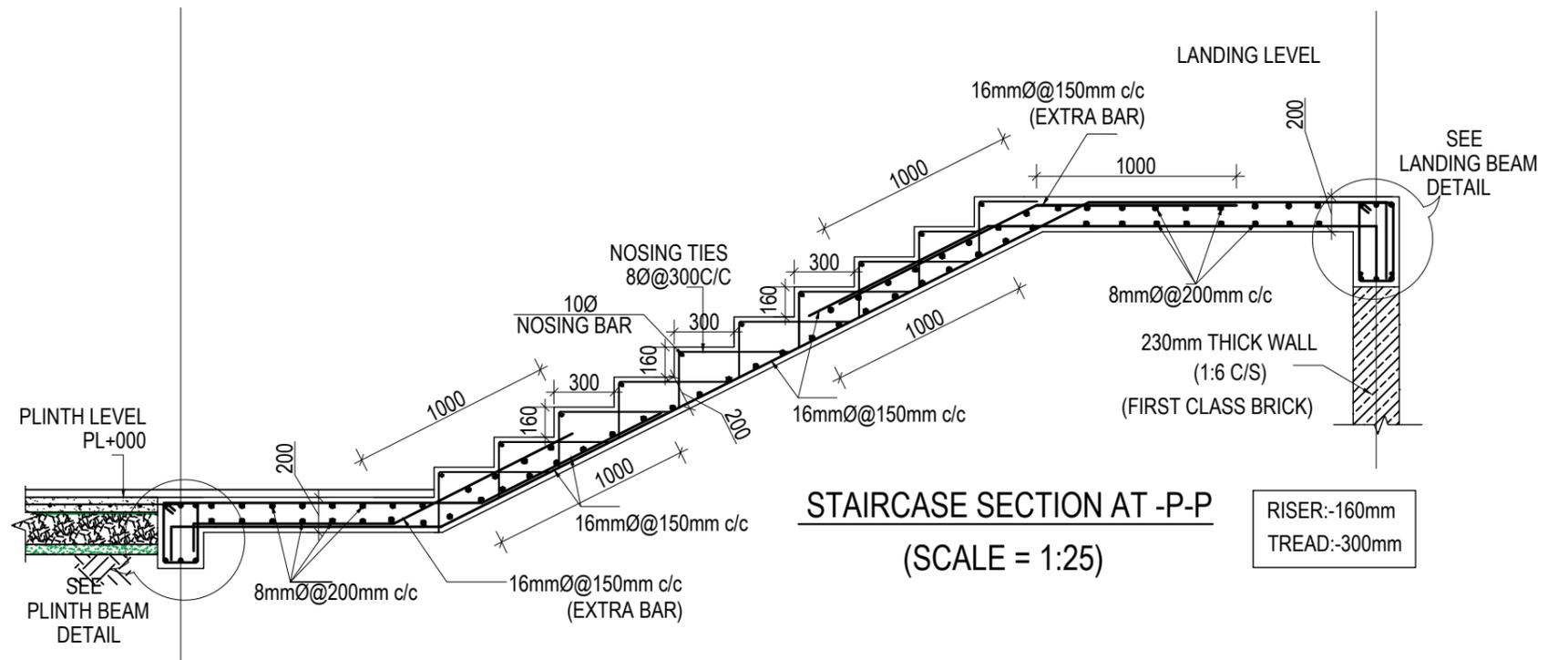
SLAB REINFORCEMENT DETAIL FOR TOP BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 TOP REINFORCEMENT: a. FOR MAIN BEAM :10Ø@150 mm c/c
 b. FOR SECONDARY BEAM :10Ø@200 mm c/c
 (Scale= 1:120)

125 mm SLAB THICKNESS

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	SLAB REINFORCEMENT DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	ST-17	R-00
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	DWG CODE. 3S12R - TERAI & VALLEY				

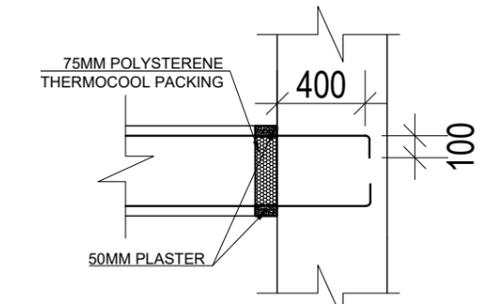


GROUND FLOOR STAIRCASE PLAN
(Scale= 1:50)

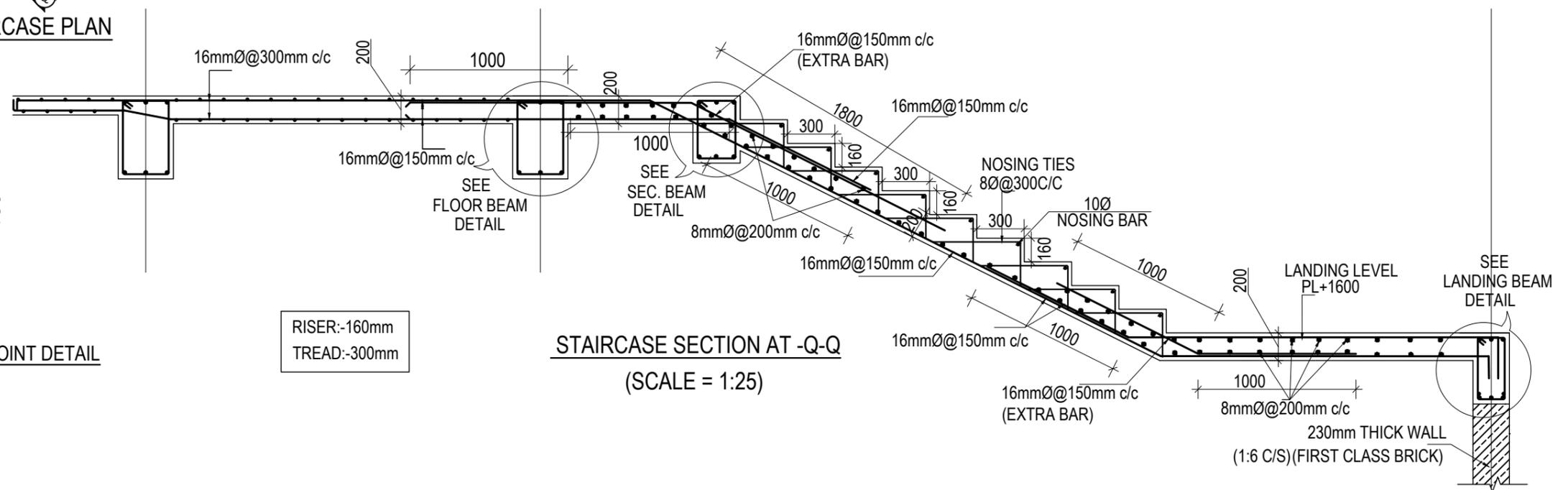


STAIRCASE SECTION AT -P-P
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm



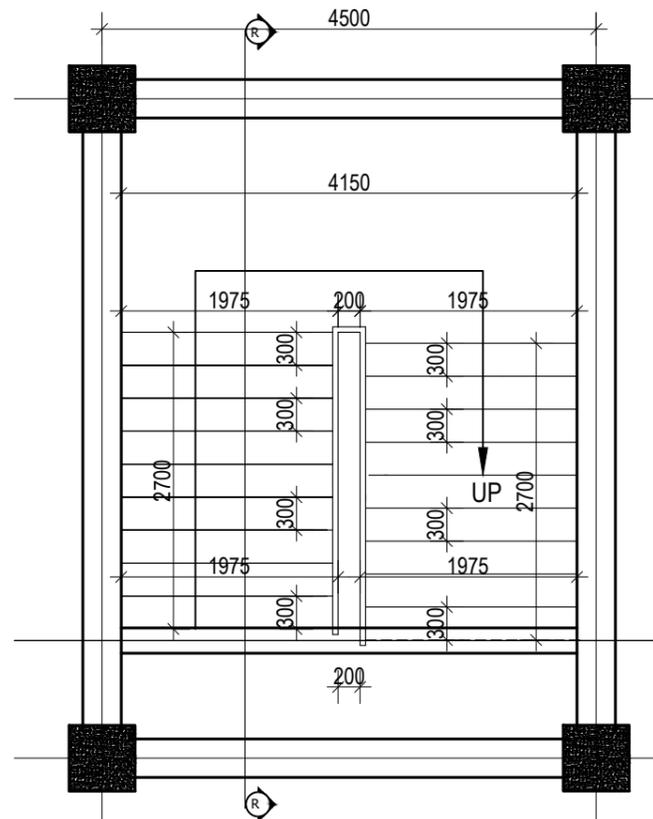
TYPICAL LANDING BEAM AND COLUMN JOINT DETAIL



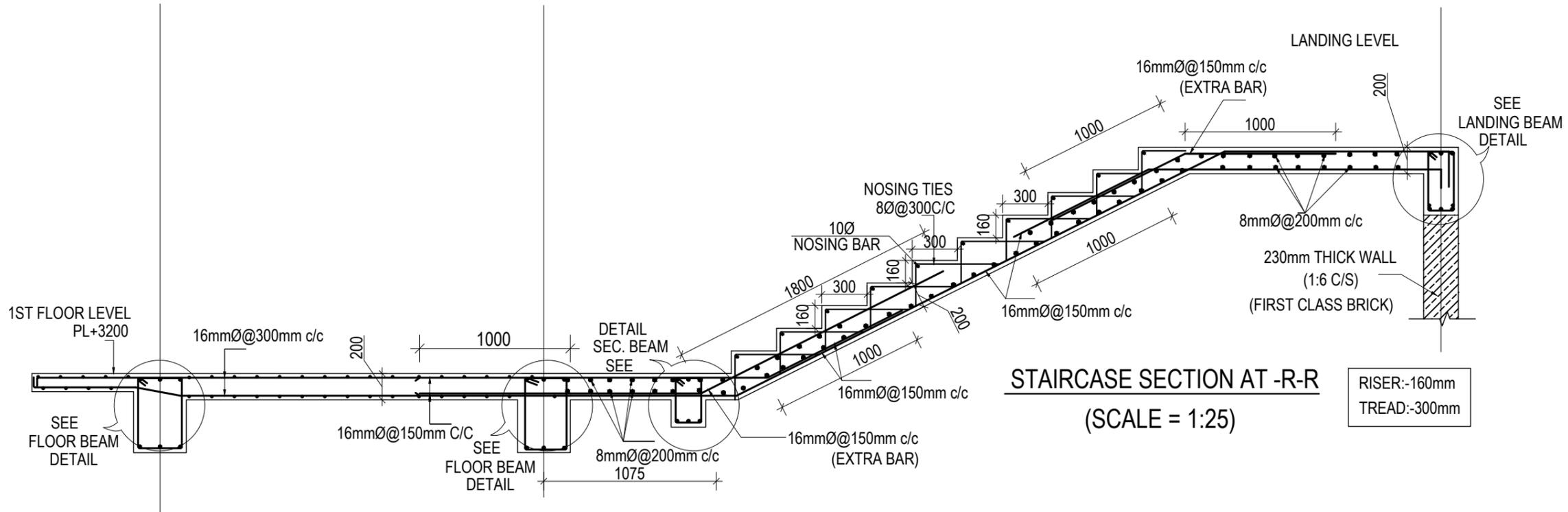
STAIRCASE SECTION AT -Q-Q
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE STAIRCASE DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-18	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



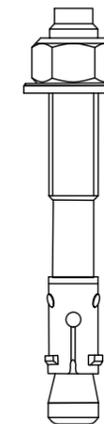
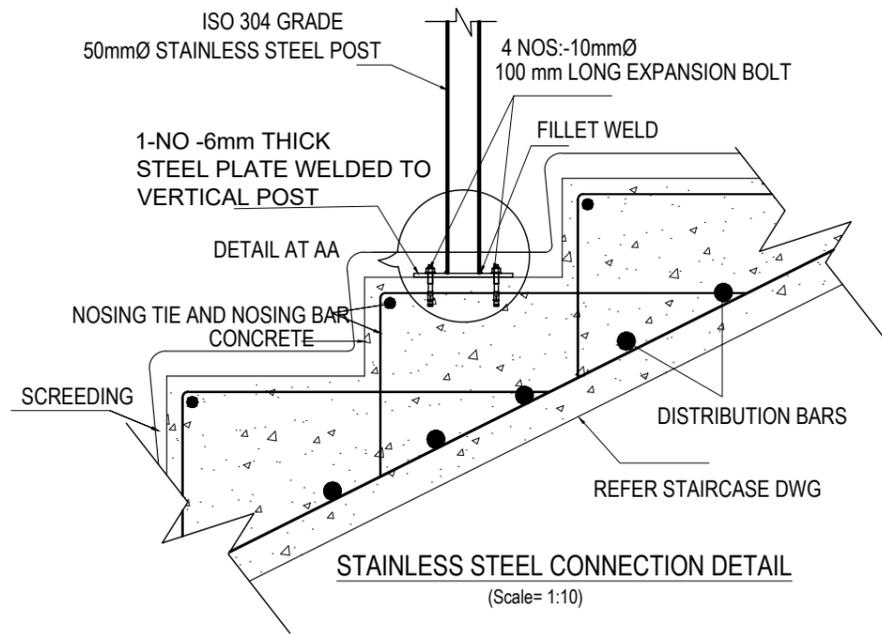
TYPICAL FLOOR STAIRCASE PLAN
(Scale= 1:50)



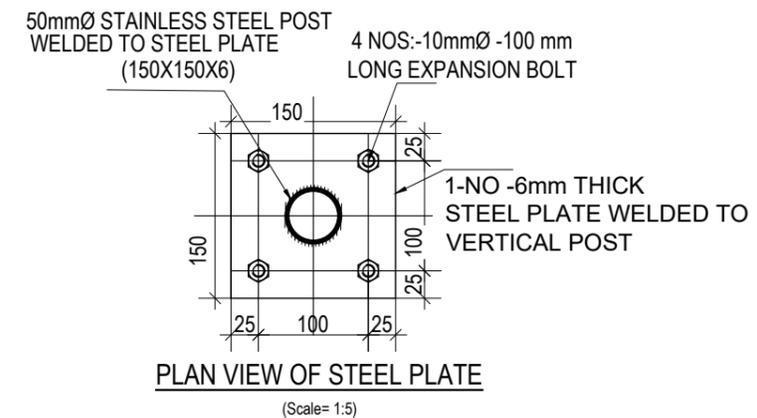
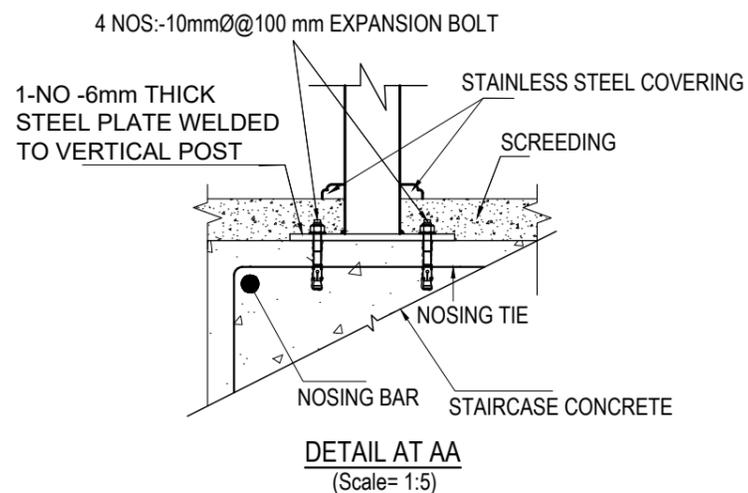
STAIRCASE SECTION AT -R-R
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-19	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	STAIRCASE DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3		



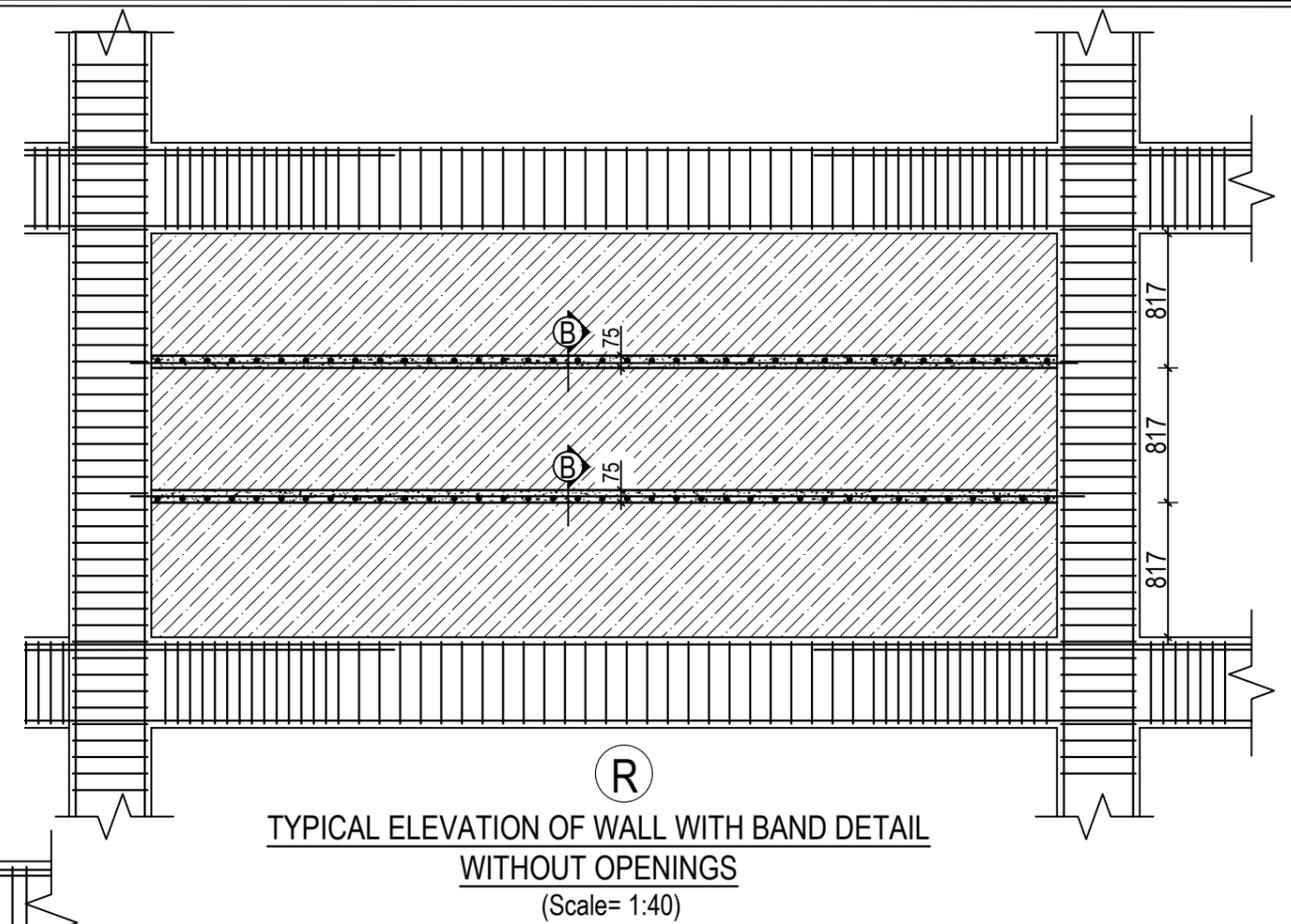
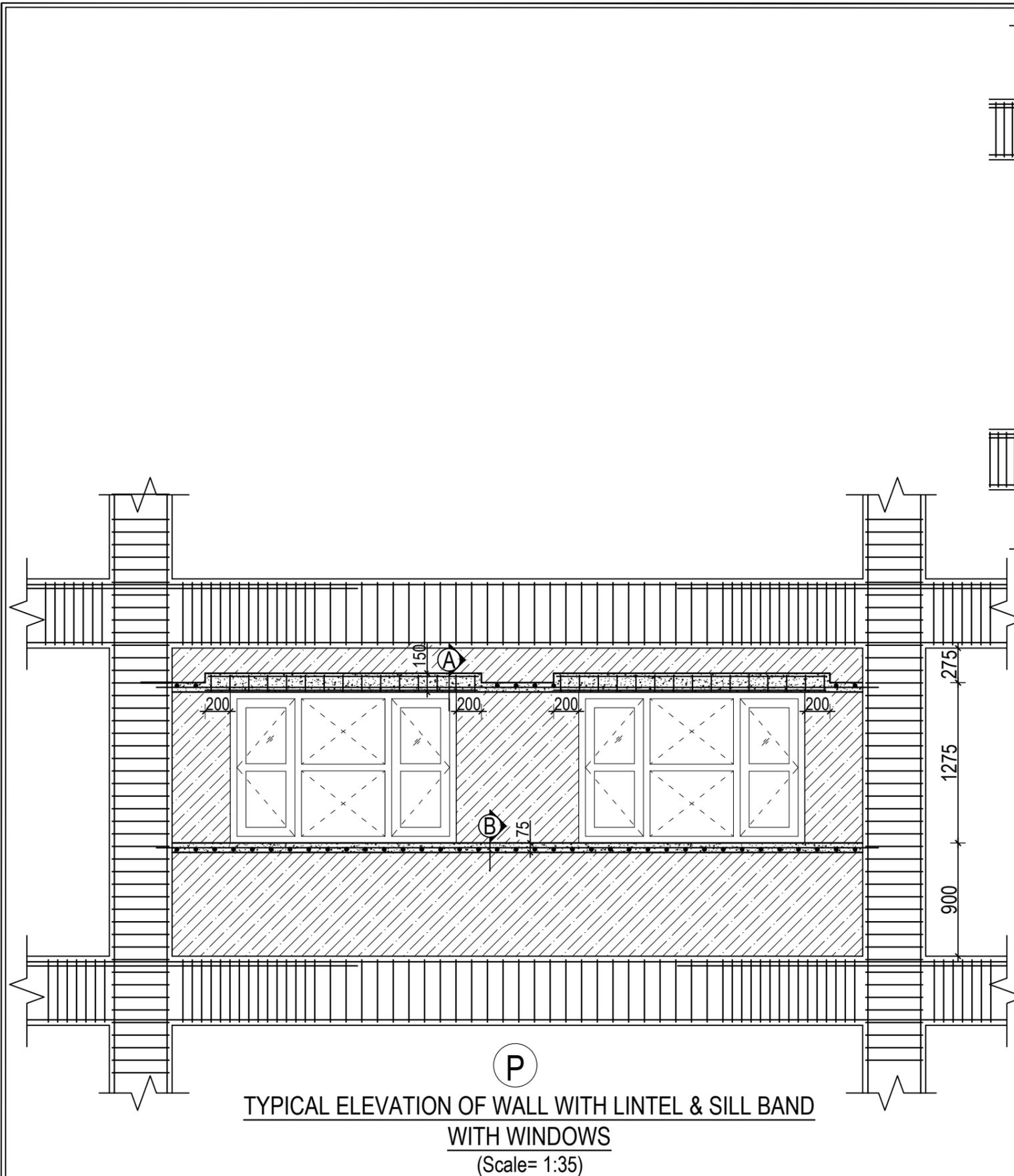
10mmØ-50 mm LONG EXPANSION BOLT
(Scale= 1:1)



NOTE:

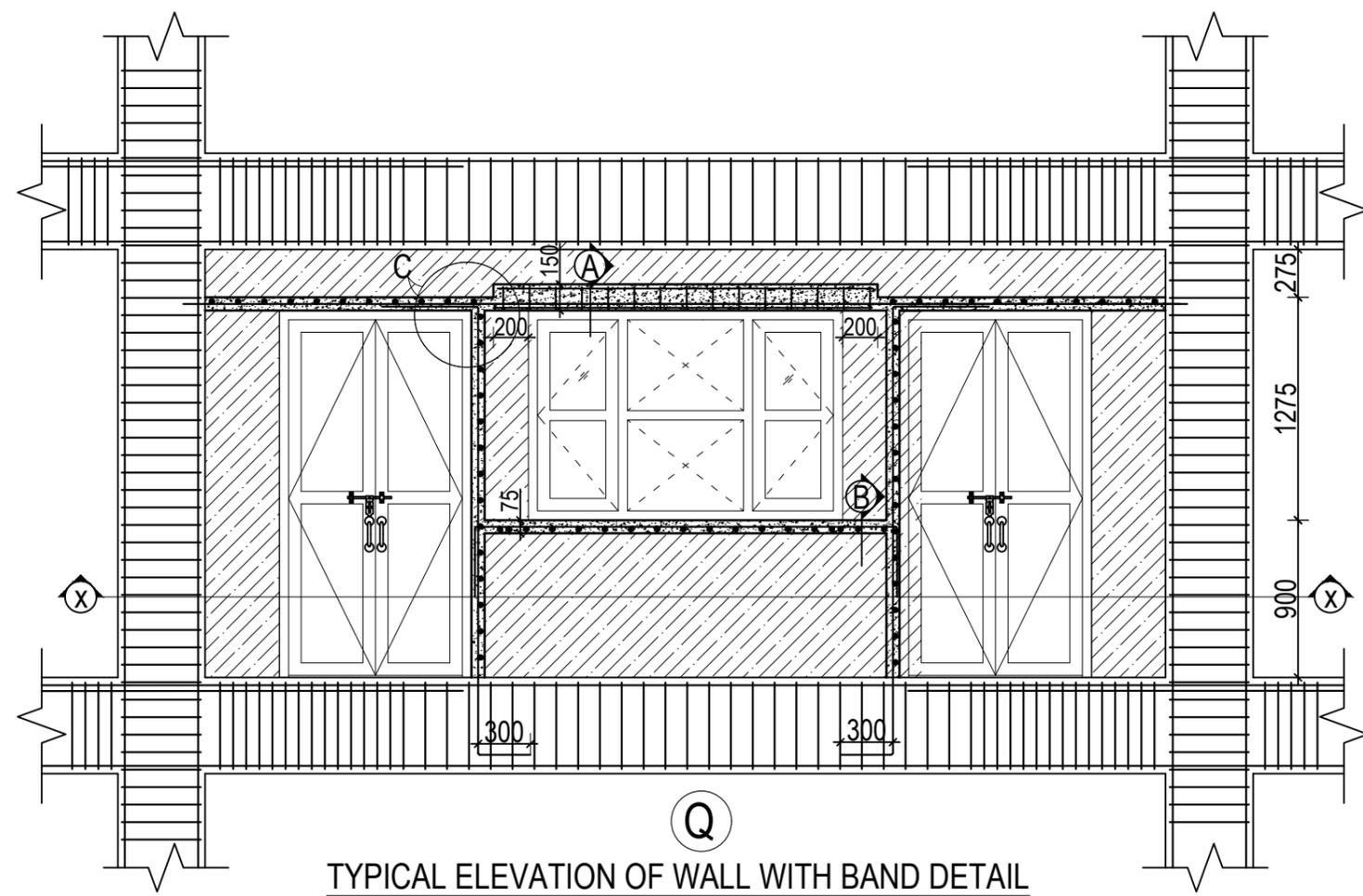
- 1) STAINLESS STEEL SHALL BE IN COMPLIANCE WITH ISO 304 GRADE
- 2) DRILLED HOLE SHALL BE PROPERLY CLEANED BEFORE EMBEDMENT OF BOLT

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-20	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	STAIRCASE DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					



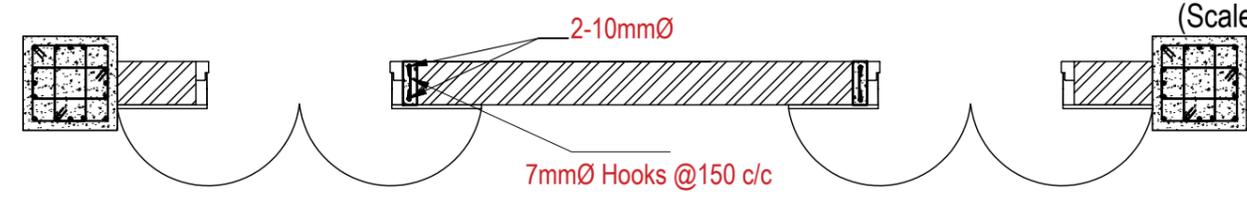
SN.	FLOOR	SECTION AT A-A	SECTION AT B-B
1.	GROUND, FIRST & SECOND FLOOR	<p>230 4NOS.-100 150 8mmØ TIES @150mm c/c 2NOS.-100</p>	<p>230 2NOS.-100 75 7mmØ TIES @150mm c/c</p>
2.	THIRD FLOOR	<p>230 4NOS.-100 150 8mmØ TIES @150mm c/c 2NOS.-120</p>	<p>230 2NOS.-120 75 7mmØ TIES @150mm c/c</p>

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL WALL DETAIL UPTO SECOND FLOOR	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	ST-21	R-00
				ARCHITECT:	CHECKED:	DWG CODE.	
				DRAWN :	APPROVED:	3S12R - TERAI & VALLEY	
SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

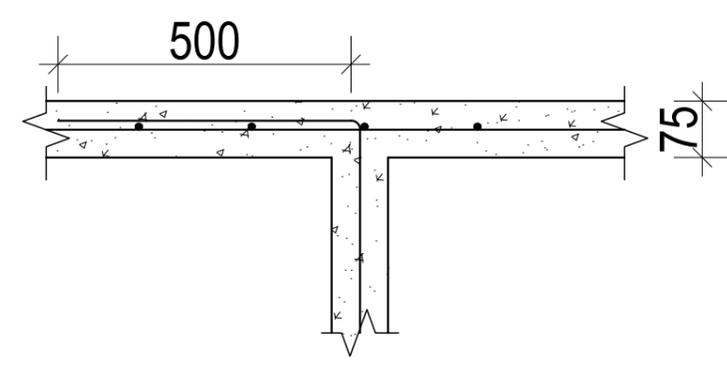


TYPICAL ELEVATION OF WALL WITH BAND DETAIL WITH DOORS AND WINDOWS

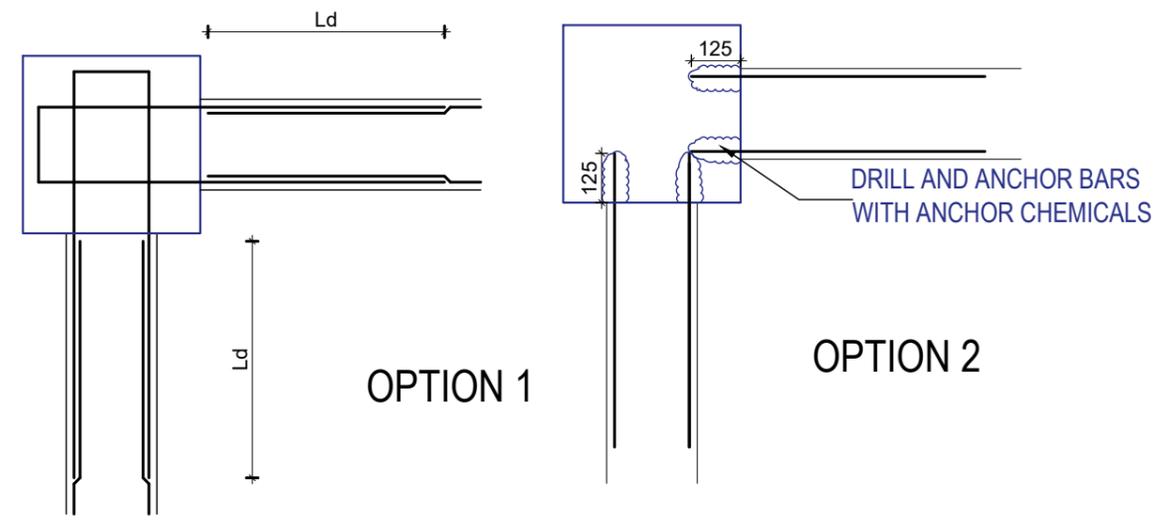
(Scale= 1:35)



SECTION AT X-X



DETAIL AT C

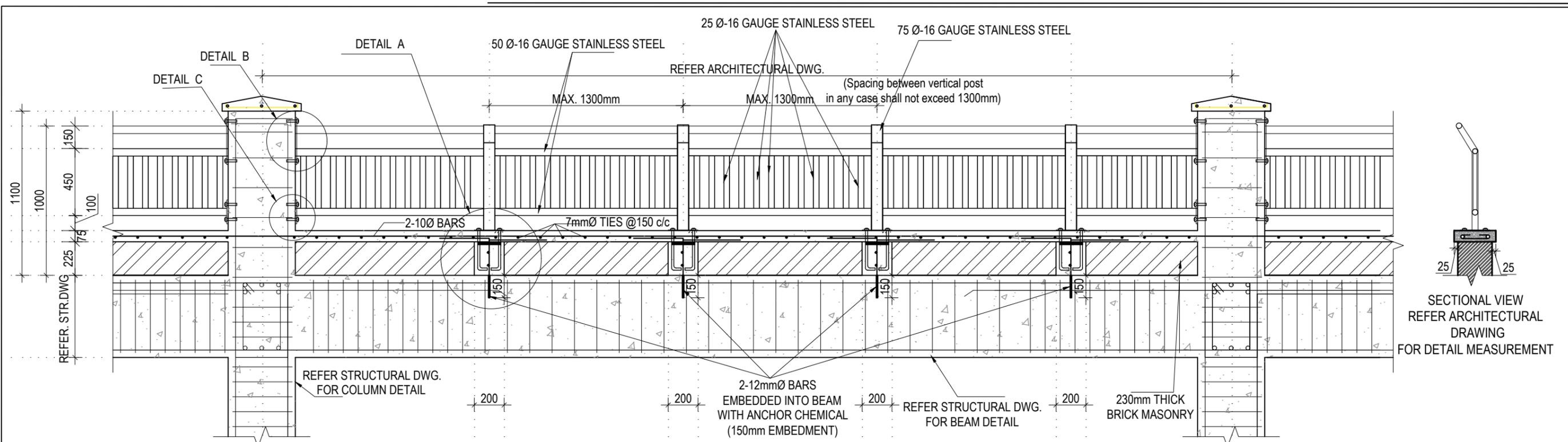


OPTION 1

OPTION 2

CONNECTION OF BAND REBARS AND COLUMN

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL WALL DETAIL UPTO SECOND FLOOR	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	ST-22	R-00
				ARCHITECT:	CHECKED:	DWG CODE.	
				DRAWN :	APPROVED:	3S12R - TERAI & VALLEY	
				SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	



STAINLESS STEEL RAILING DETAIL
(Scale= 1:25)

M20 GRADE CONCRETE

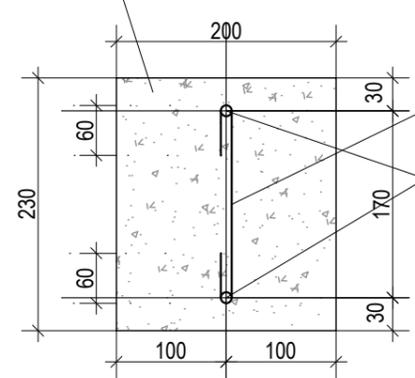


PLATE DETAIL AT C
PLAN VIEW

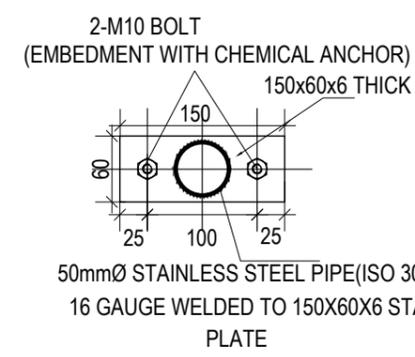


PLATE DETAIL AT B

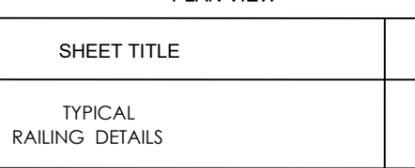
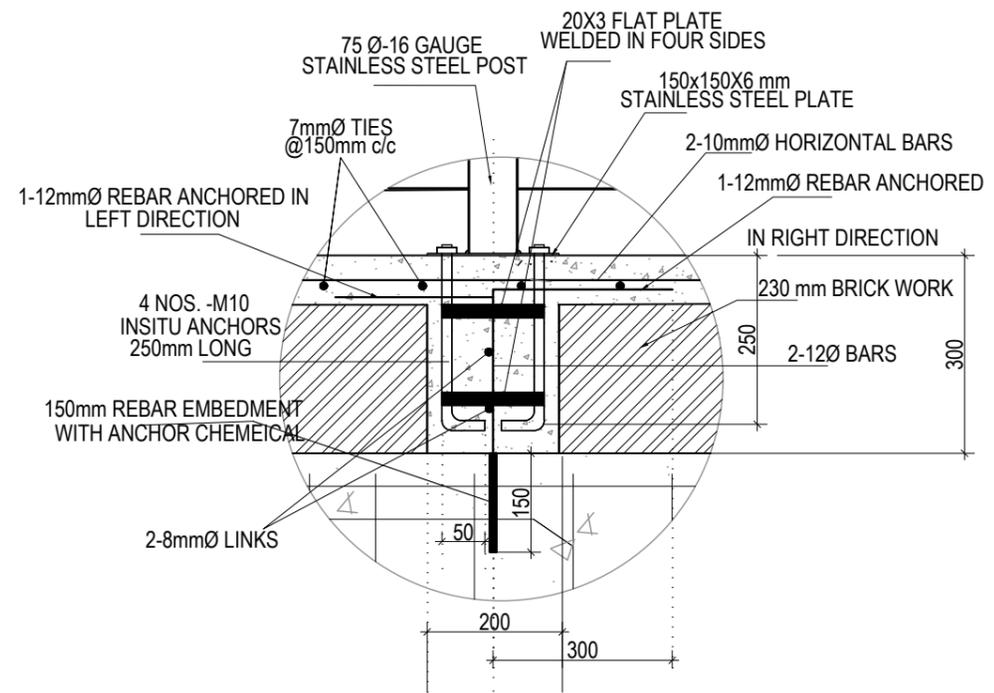


PLATE DETAIL AT A



PLATE DETAIL AT A



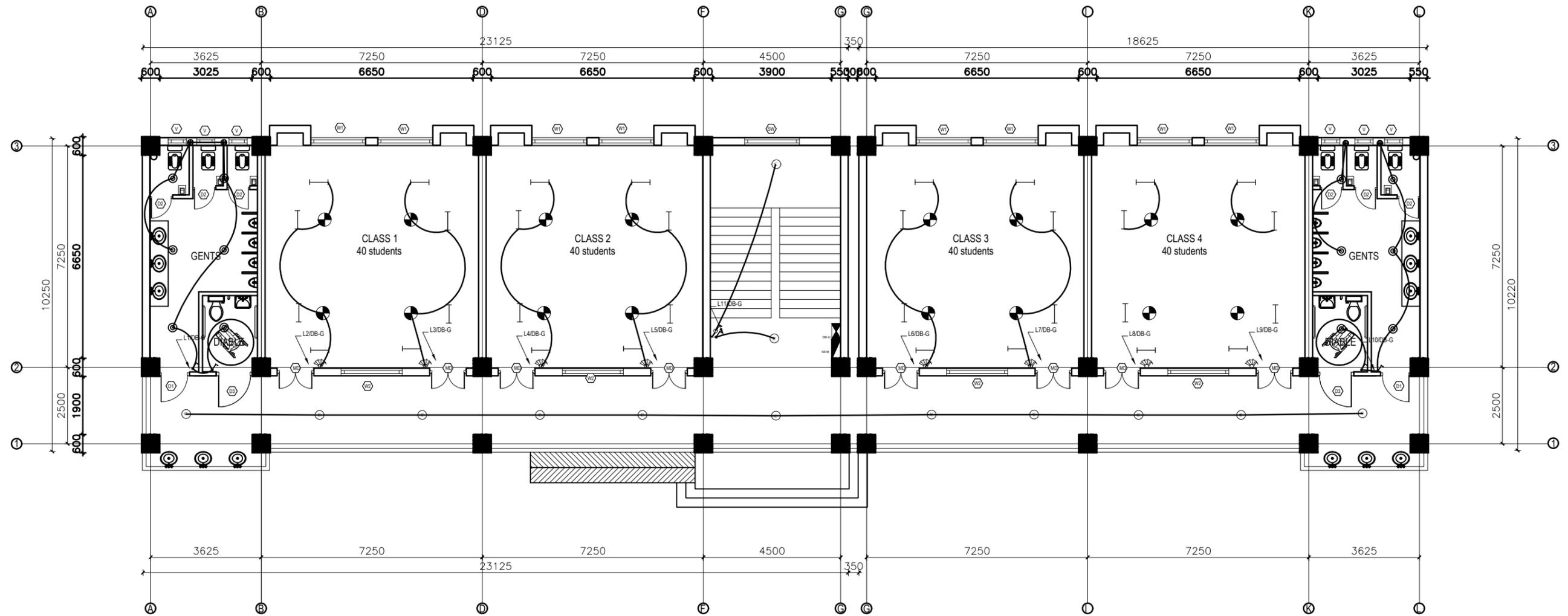
DETAIL AT A

NOTE:- STAINLESS STEEL SHALL BE ISO304 GRADE

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TYPICAL RAILING DETAILS	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-23	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN:	STRUCTURE ER.: CHECKED: APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	

ELECTRICAL

DRAWING

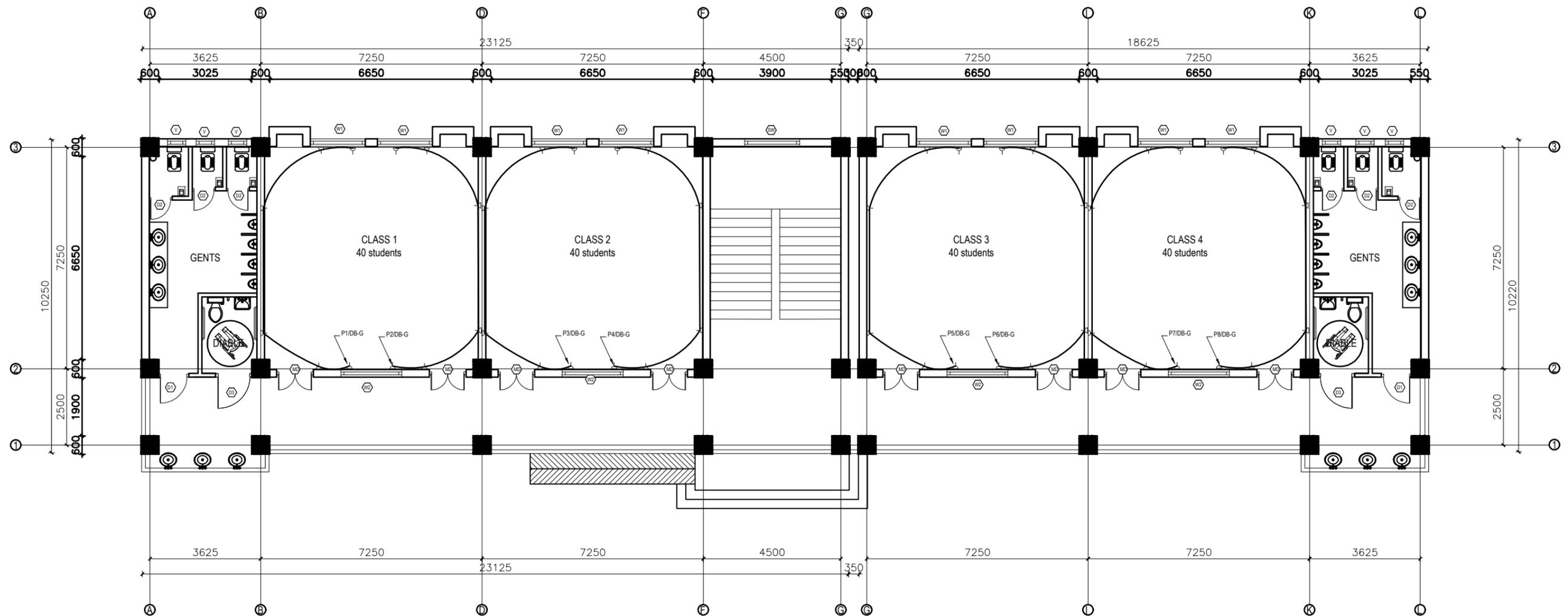


GROUND FLOOR PLAN
FLOOR AREA: 437.662 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊕	VERTICAL AIR TERMINAL	--
⊕	CLIP TO HOLD DOWN CONDUCTOR	--
⊕	EARTH TEST LINK	--
⊕	EARTH PIT	--

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

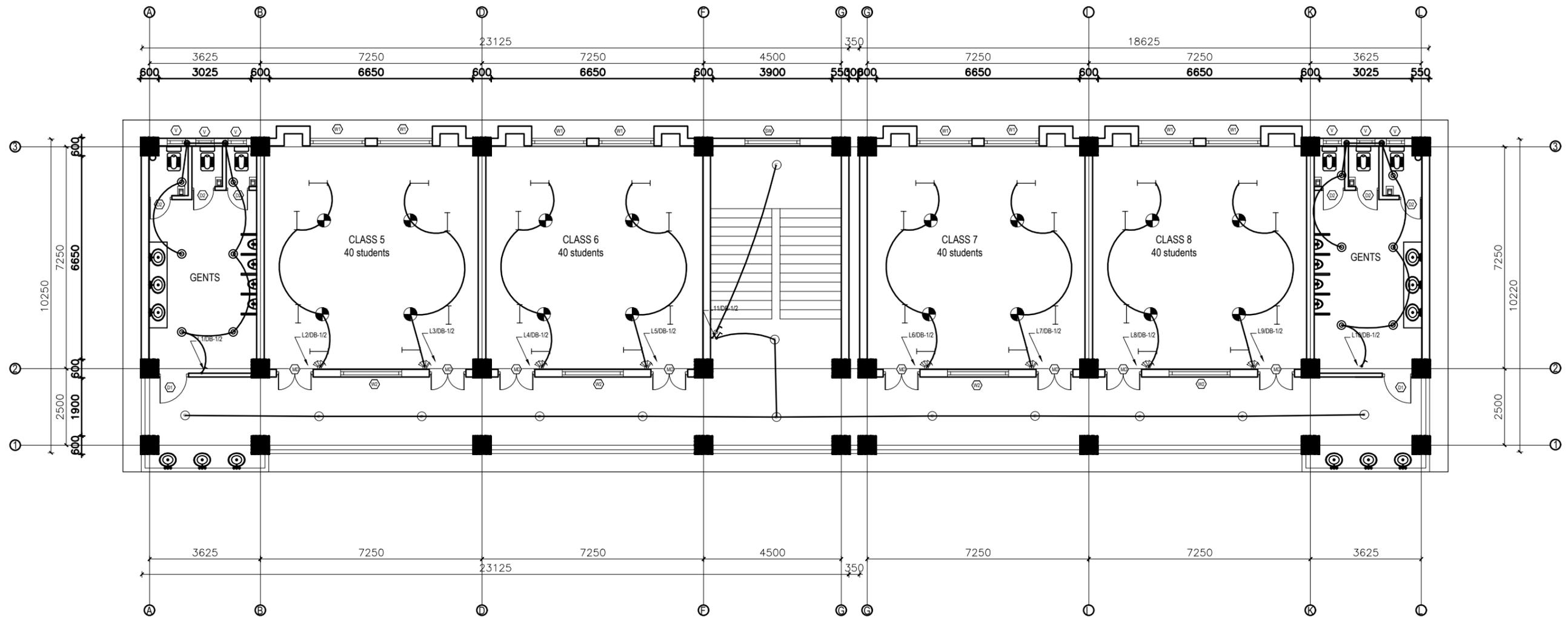


GROUND FLOOR PLAN
FLOOR AREA: 437.662 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	-
⊙	CLIP TO HOLD DOWN CONDUCTOR	-
⊙	EARTH TEST LINK	-
⊙	EARTH PIT	-

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 02	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R	



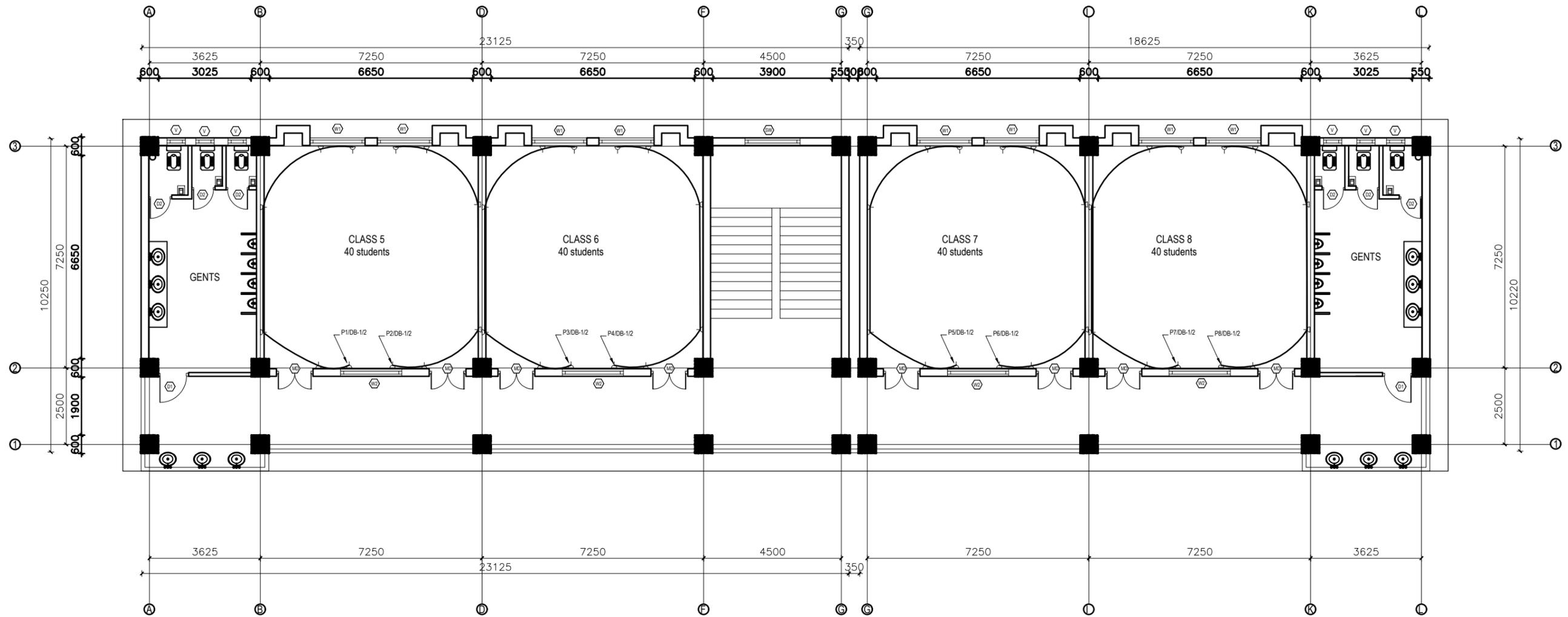
FIRST&SECOND FLOOR PLAN

FLOOR AREA: 437.662 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	--
⊙	CLIP TO HOLD DOWN CONDUCTOR	--
⊙	EARTH TEST LINK	--
⊙	EARTH PIT	--

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 03	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE :	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



FIRST&SECOND FLOOR PLAN

FLOOR AREA: 437.662 sq.m

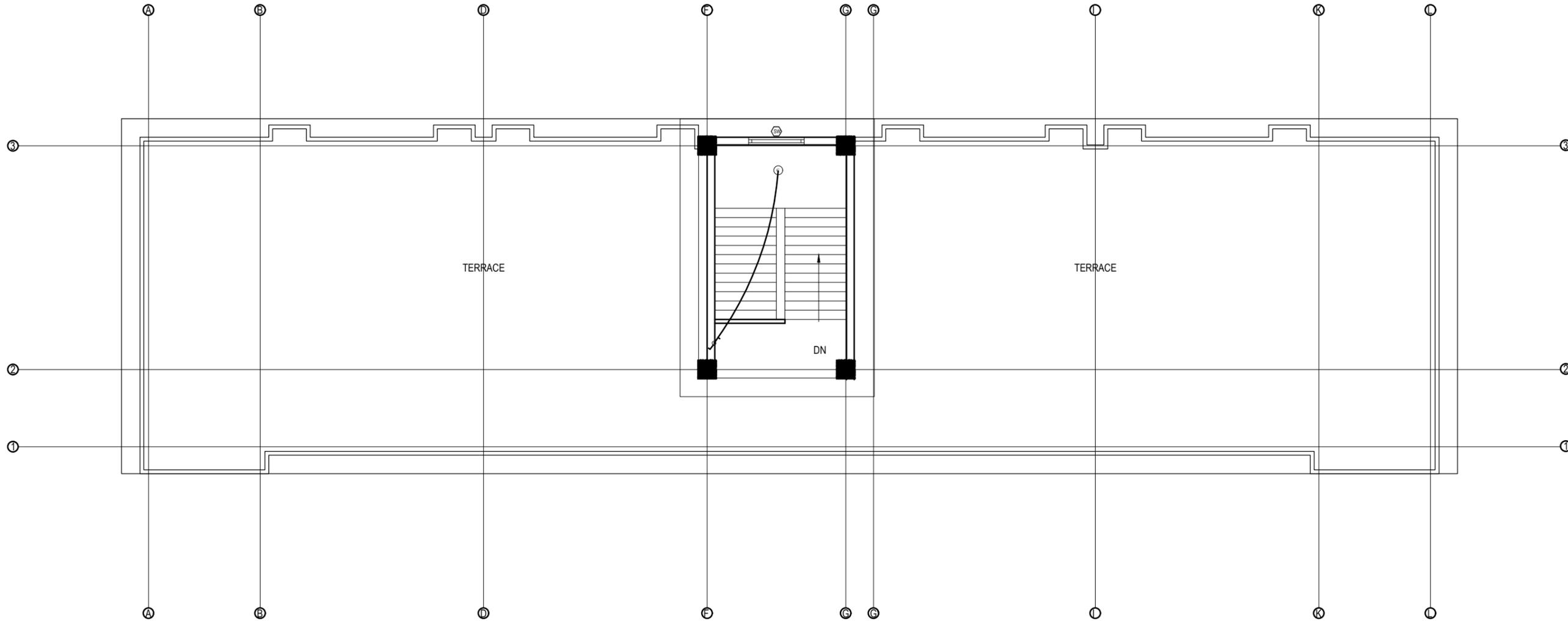
LEGEND

SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊕	Power Socket	300mm from finished floor level
⊕	1,2,3 gang Switch	1.25m above finished floor level
⊕	4,5,6 gang Switch	1.25m above finished floor level
⊕	Two way Switch	1.25m above finished floor level
⊕	Distribution Box	2.5m above finished floor level
⊕	MDB	1m above finished floor level
⊕	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊕	VERTICAL AIR TERMINAL	-
⊕	CLIP TO HOLD DOWN CONDUCTOR	-
⊕	EARTH TEST LINK	-
⊕	EARTH PIT	-

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 04	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE :	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R	



TOP FLOOR PLAN
FLOOR AREA: 39.39 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	--
⊙	CLIP TO HOLD DOWN CONDUCTOR	--
⊙	EARTH TEST LINK	--
⊙	EARTH PIT	--

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 05	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:20	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S12R	

INSTALLATION CONSIDERATION

- * The switch box should be at 200mm from the door and 1250mm above floor.
- * General room socket height should be at 150mm above skirting wall.
- * Kitchen socket height should be at 450mm above kitchen top.
- * Toilet socket/switch should be at 1250mm above floor level and mirror light at 50 mm above mirror as per mirror size.
- * Exhaust fan should be at 600mm below slab.
- * Wall Light should be at 2100mm from floor level.

CONDUIT SCHEDULE

CABLE SIZES	NO OF MAXIMUM CABLE AND PVC FRLS CONDUIT SIZES					
	16 mm Dia.	20 mm Dia.	25 mm Dia.	32 mm Dia.	40 mm Dia.	50 mm Dia.
1.5 SQ. MM/Equivalent	5	7	10	14	---	---
2.5 SQ. MM/Equivalent	3	5	8	12	---	---
4.0 SQ. MM/Equivalent	---	3	6	10	12	---
6.0 SQ. MM/Equivalent	---	2	4	8	9	---
10 SQ. MM/Equivalent	---	---	3	6	8	---
16 SQ. MM/Equivalent	---	---	2	3	4	8

CONVERSION TABLE

INCHES	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
mm	16	20	25	32	40	50	65	80	90	100	130	150

* Unless and otherwise stated, all final circuits shall be wired with multistranded CU wires in PVC Conduit and shall confirm to the following schedule:

WIRING SYSTEM

Air Conditioner/Heater/Range/Appliances
RJ - 45 Data / TV Point
RJ -11 Telecommunication point
Telephone Point
Outdoor Gate/ Post Top/Street Lights/Flood Lights
6 Amp switched outlet sockets
16 Amp Power Sockets Points
General Light Points (From DB to Switch Board)
Looping of Light Points

CABLE/CONDUCTOR SIZE

2x4.0 + 1x2.5 sq. mm copper wire
CAT 6 4 pairs Data cable
CAT 6 4 pairs Data cable
0.5mm dia PVC Insulated Tinned Cu Cable
3 x 2.5 sq. mm copper M/S wire
2x2.5 + 1x1.5 sq. mm copper M/S wire
2x4.0 + 1x2.5 sq. mm copper M/S wire
2x2.5 + 1x1.5 sq. mm copper M/S wire
2x1.5 + 1x1.0 sq. mm copper M/S wire

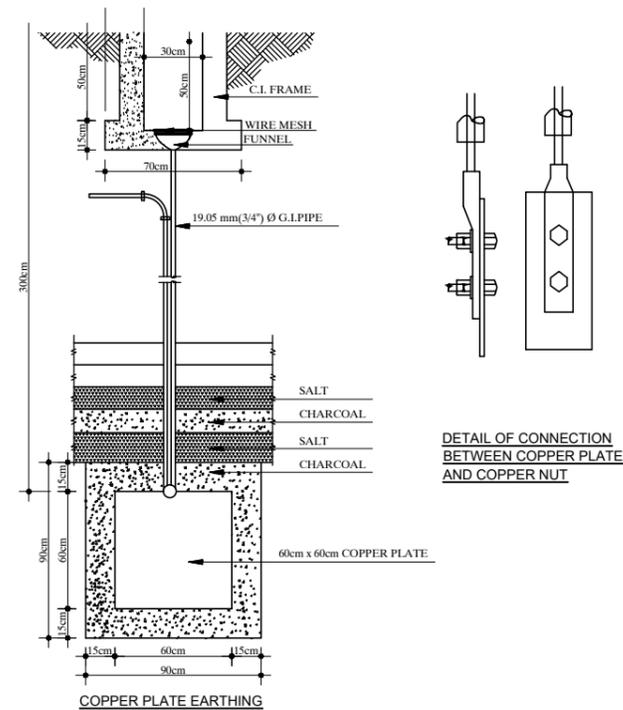
NOTE

- * Conduit Colors for Light/Power Circuit shall be Black, Security Wiring shall be Blue, Fire Alarm Wiring shall be Red, Low Voltage Circuits shall be Brown and UPS Circuits shall be Green.
- * L-N stands for Lighting Circuit, P-N for Power Circuit, AC-N for Air Condition, M/PC-N for Pump/Motor & Lp-N Light Outlet Circuit no.-N (Where N=1,2,3...)
- * For Circuit no., see Distribution Details
- * Unless and otherwise stated, all final circuits shall be wired up by PVC CU M/S Wire in PVC Conduit and shall confirm to the following schedule:

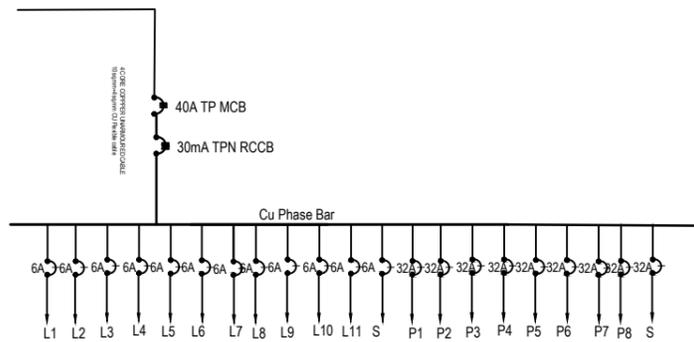
Rating (Amp)	6	10	20	32	40	63
Wire (sq. mm)	1.5	2.5	4.0	6.0	10	16

- * Unless and otherwise stated, maximum of 8 light points shall be wired in a final single lighting circuit where as maximum of 3 power socket outlet shall be wired in single power circuit.
- * Unless and otherwise stated, all 16 A outlets with the same circuit no. shall be wired in ring circuit.
- * Electrical drawings are schematical only, scale: NTS, use as shown purpose, do not measure directly.
- * Contractor should coordinate with interior for exact location of fixtures
- * Run separate conduit for TV, TEL and PS wherever they are in matching places
- * All the Kitchen/Bathroom Power Circuits should be feed by RCCB with 100 mA sensitivity - see schematic details
- * All the cables and conductors shall be PVC insulated CU and shall confirm to the following color codes:

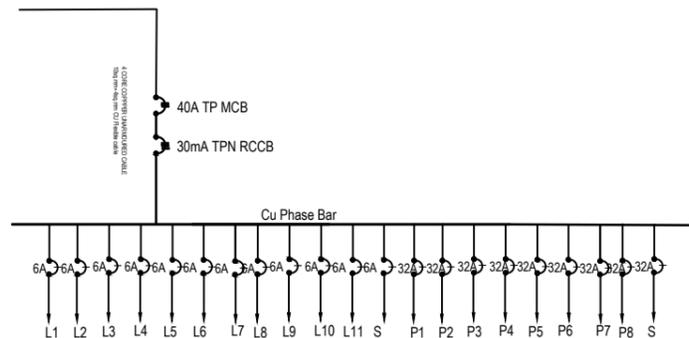
Neutral of AC 1/3 Phase	Black
Grounding/ Bonding/Earthing	Green
loop/common wire for 2 way switch	White
Live Phase A of 3 Phase	Red
Live Phase B of 3 Phase	Yellow
Live Phase C of 3 Phase	Blue



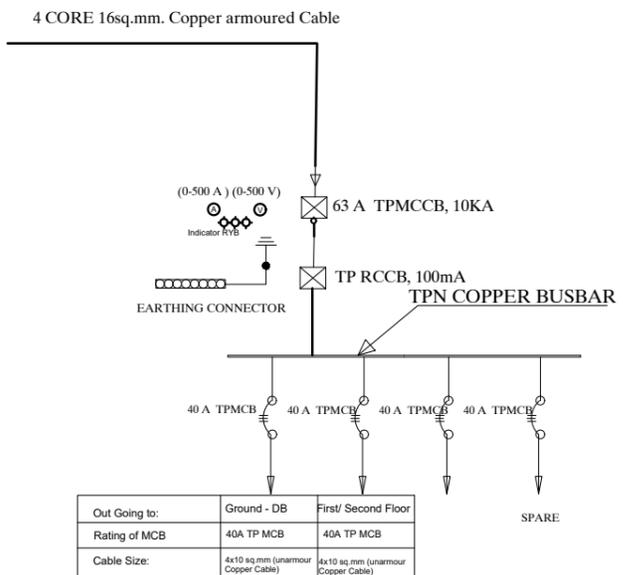
EARTHING DETAILS



GROUND FLOOR L/P DISTRIBUTION SYSTEM (DB-G1)



FIRST/SECOND FLOOR L/P DISTRIBUTION SYSTEM (DB-1/2)



DETAILS OF Main -DB

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	ELECTRICAL DRAWING	IDEAL SOLUTION PVT.LTD.	ENGINEER:	STRUCTURE ER. :	06	R-00
				ARCHITECT:	CHECKED:	DWG CODE. 3S12R	
				DRAWN :	APPROVED:		
				SCALE : 1:20	PAPER SIZE : A3	DATE: FEBRUARY, 2023	



Government of Nepal
Ministry of Education, Science & Technology
Center for Education and Human Resource Development
Sanothimi, Bhaktapur, Nepal

PREPARE SCHOOL BUILDING TYPE DESIGN FOR TERAI AND VALLEY REGION

Contract ID: CEHRD/SESP/SQ/Consultancy/04/2079/080

DETAIL DESIGN AND DRAWING

**3 STORY@18 ROOM WITH
(TOILET, WASH ROOM, CHANGING ROOM & BOOK CORNER)**

**SUBMITTED BY:
IDEAL SOLUTION PVT. LTD.**

FEBRUARY, 2023

ARCHITECTURE

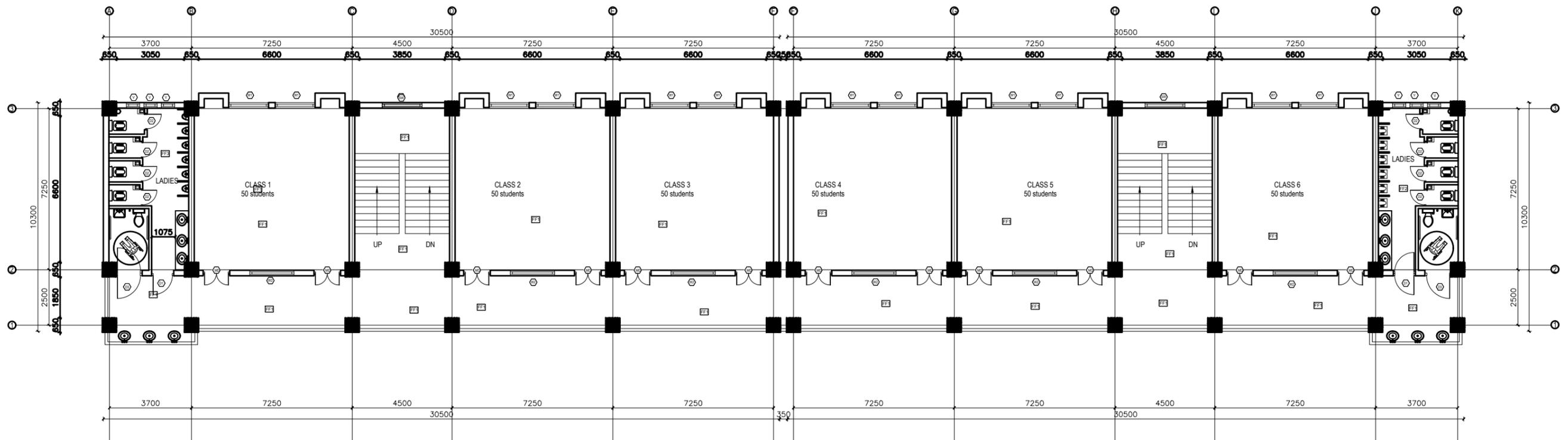
DRAWING

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
FF3	6 mm thick porcelain non-glaze tile with 20 mm cement sand mortar (1:4)

NOTES:

1. All measurements are in mm unless otherwise noted.
2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
4. Sill and Lintel dimensions are measured from the Slab Lvl.
5. Dimensions are excluding the plaster/POP thickness.



GROUND FLOOR PLAN
FLOOR AREA: 637.185 sq.m

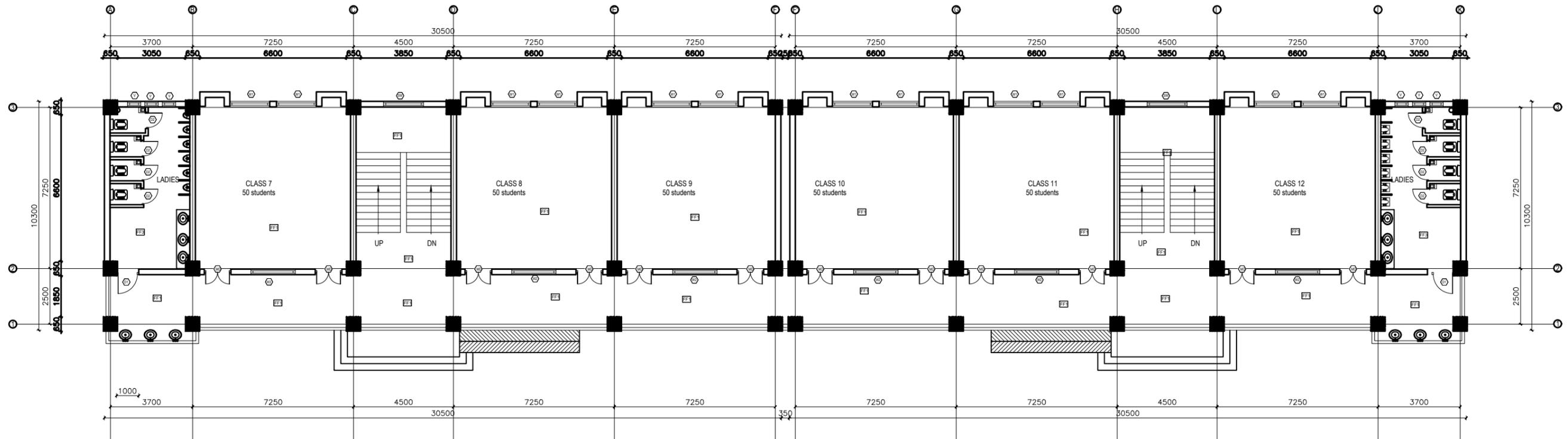
<p>CLIENT</p>  <p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>PROJECT TITLE</p> <p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>SHEET TITLE</p>	<p>CONSULTANT</p> <p>IDEAL SOLUTION PVT.LTD. Nepal</p>	<p>PLANNING DESIGN TEAM</p>		<p>SHEET NO. AR-01</p>	<p>REVISION NO. R-00</p>
				<p>ENGINEER:</p> <p>ARCHITECT:</p> <p>DRAWN :</p> <p>SCALE : 1:120</p>	<p>STRUCTURE ER. :</p> <p>CHECKED:</p> <p>APPROVED:</p> <p>DATE: FEBRUARY, 2023</p>		

FINISHING DETAILS:

FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread cut grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
FF3	6 mm thick porcelain non-glaze tile with 20 mm cement sand mortar (1:4)

NOTES:

1. All measurements are in mm unless otherwise noted.
2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
4. Sill and Lintel dimensions are measured from the Slab Lvl.
5. Dimensions are excluding the plaster/POP thickness.



FIRST&SECOND FLOOR PLAN
FLOOR AREA: 637.185 sq.m

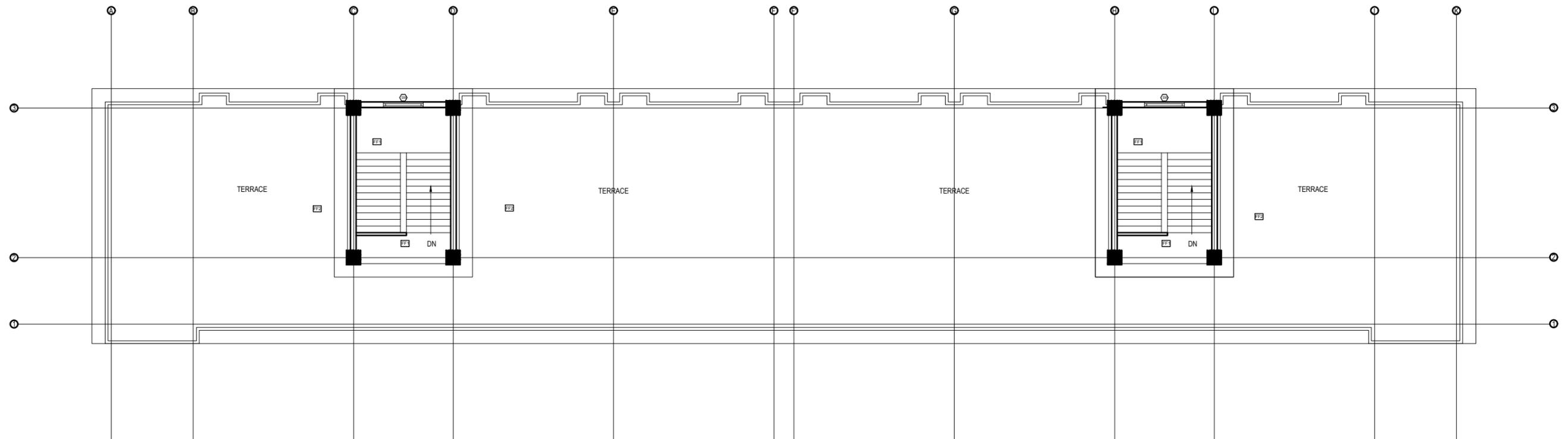
<p>CLIENT</p>  <p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>PROJECT TITLE</p> <p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>SHEET TITLE</p>	<p>CONSULTANT</p> <p>IDEAL SOLUTION PVT.LTD. Nepal</p>	<p>PLANNING DESIGN TEAM</p>		<p>SHEET NO. AR-02</p>	<p>REVISION NO. R-00</p>
				<p>ENGINEER:</p> <p>ARCHITECT:</p> <p>DRAWN :</p> <p>SCALE : 1:120</p>	<p>STRUCTURE ER. :</p> <p>CHECKED:</p> <p>APPROVED:</p> <p>DATE: FEBRUARY, 2023</p>		

NOTES:

1. All measurements are in mm unless otherwise noted.
2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
4. Sill and Lintel dimensions are measured from the Slab Lvl.
5. Dimensions are excluding the plaster/POP thickness.

FINISHING DETAILS:

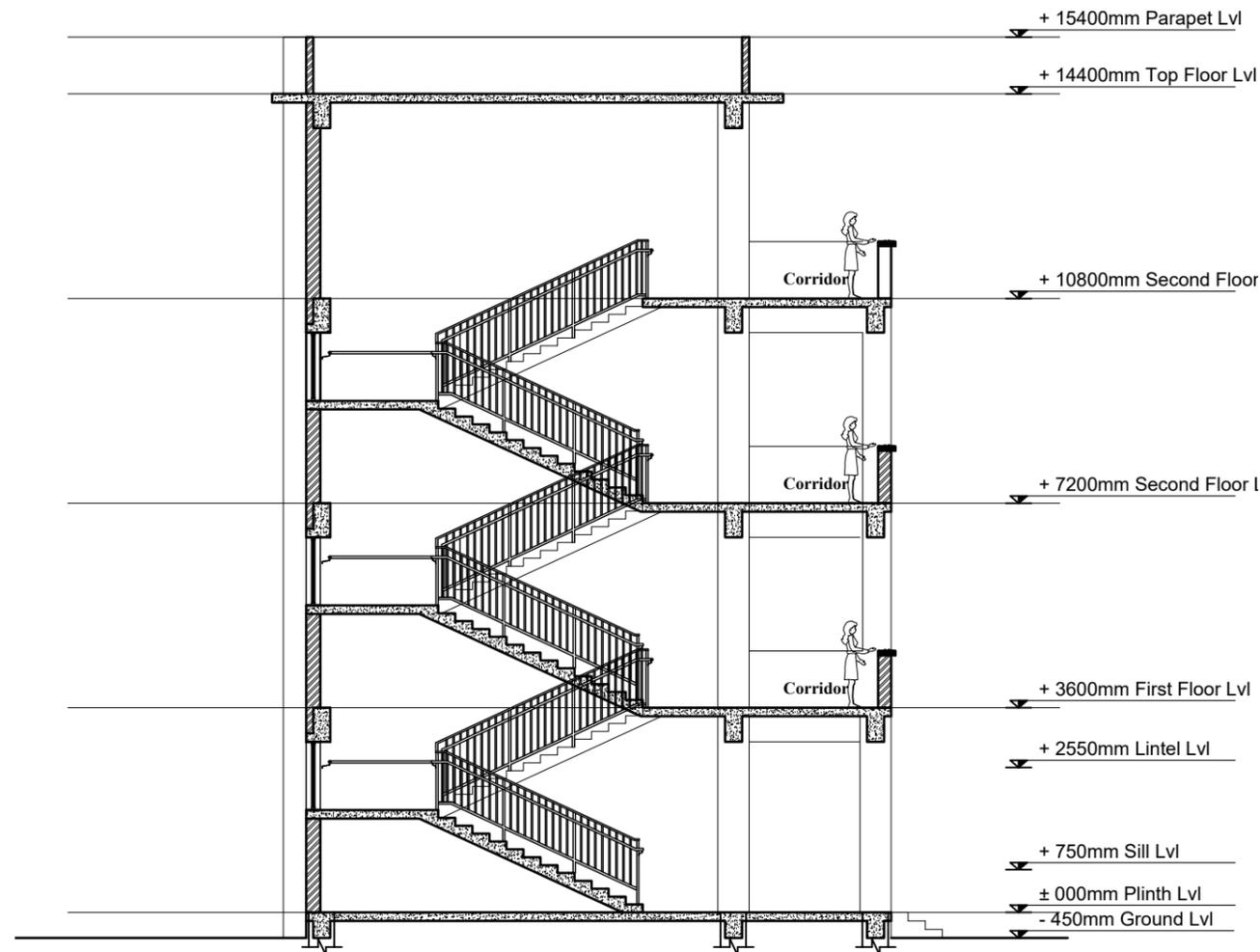
FF1	38 mm PCC (M15) with 1:1 cement punning with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent)
FF2	50 mm PCC (M15) with 1:1 cement punning in a 600X600 thread out grid with floor hardener (Dreitop FH, mapetop, Sika Chapdur or equivalent) and water proofing (safe-crete or equivalent)
FF3	6 mm thick porcelain non-glaze tile with 20 mm cement sand mortar (1:4)



TOP FLOOR PLAN
FLOOR AREA: 78.78 sq.m

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE	CONSULTANT IDEAL SOLUTION PVT.LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. AR-03	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S6R-TARAI & VALLY	

- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



OPENING SCHEDULE

S.N.	SYMBOL	SIZES	G.F.	F.F.	S.F.	TOTAL	SILL HT.	REMARKS
1.	MD	1200 x 2550	12	12	12	36	-	
2.	D1	1000 x 2550	2	2	2	6	-	
3.	D2	750 x 2100	6	6	6	18	-	
4.	D3	1200 x 2550	2			2	-	
5.	W1	1800 x 1800	12	12	12	36	750 MM	
6.	W2	2000 x 1800	6	6	6	18	750 MM	
7.	SW	1800 x 1070	1	1		2	1530 MM	
8.	V1	600 x 600	6	6	6	18	1800 MM	

SECTION AT A-A

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-04	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3		

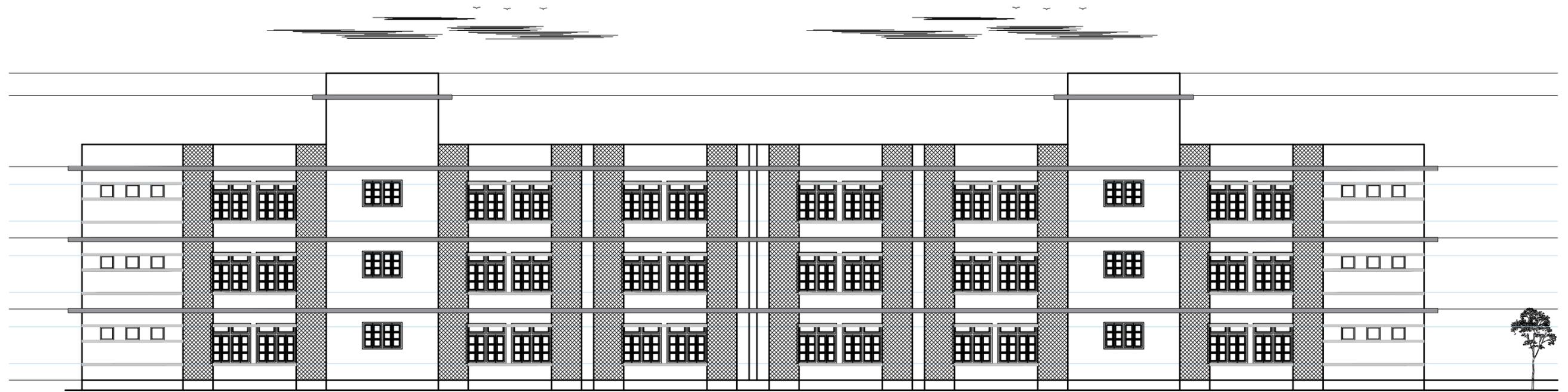
- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



FRONT ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-05	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER: ARCHITECT: DRAWN : SCALE : 1:120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE 3S6R-TARAI & VALLY	

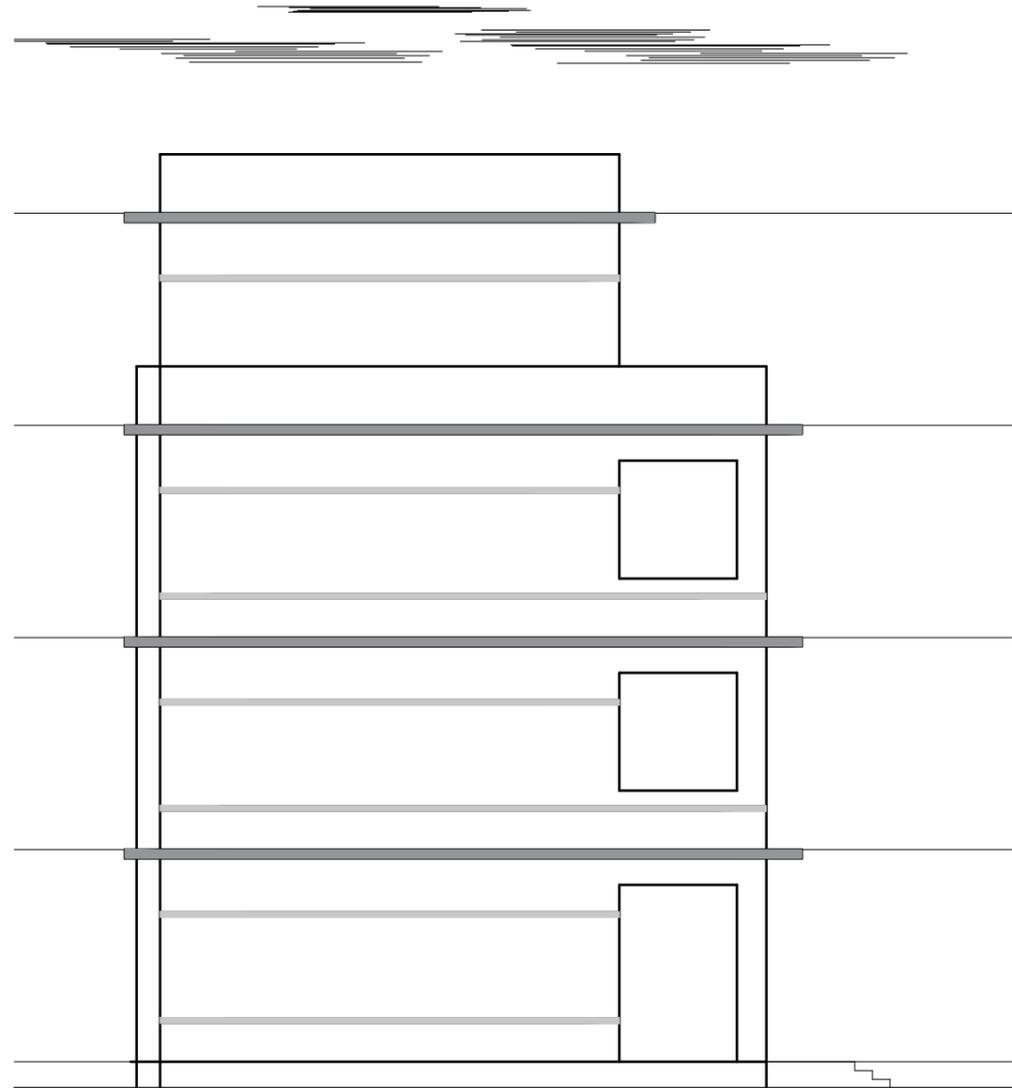
- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



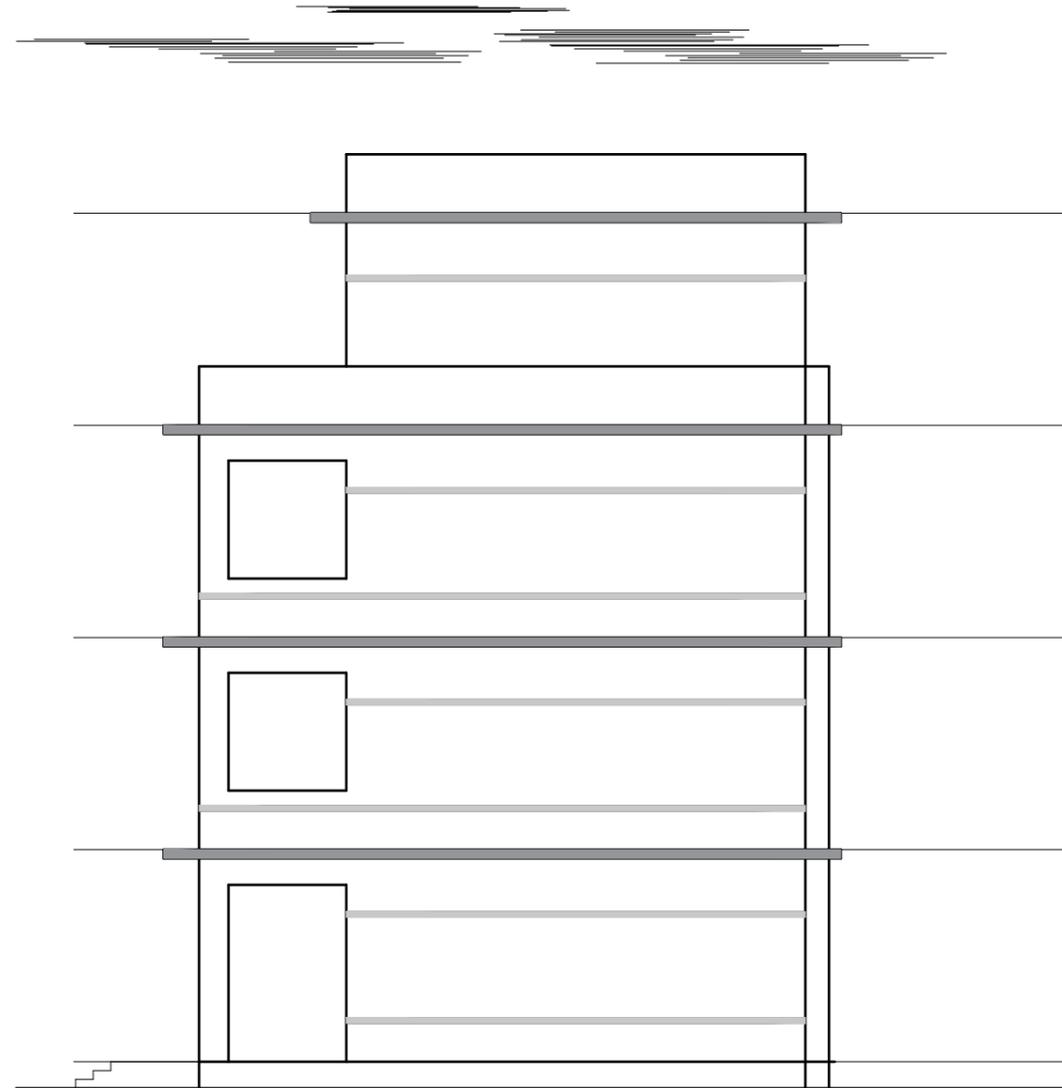
BACK ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-06	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3		

- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
 4. Sill and Lintel dimensions are measured from the Slab Lvl.
 5. Dimensions are excluding the plaster/POP thickness.



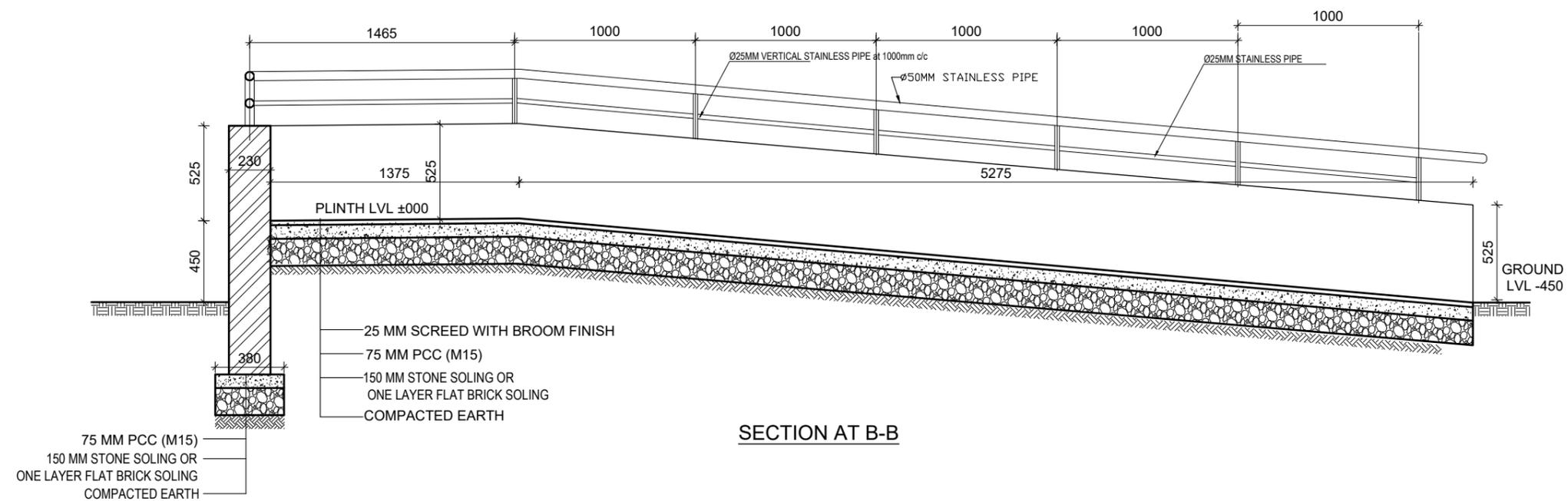
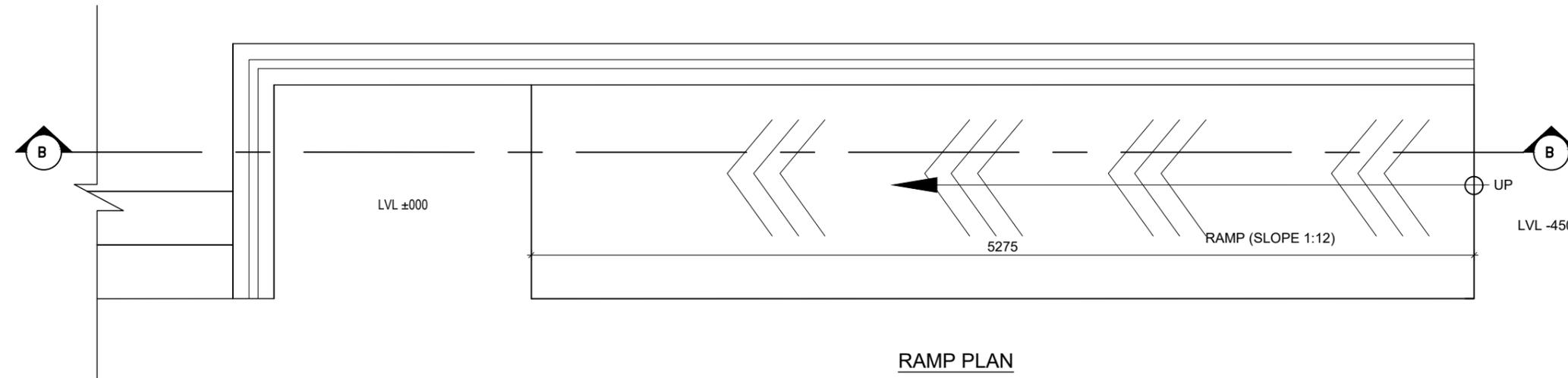
SIDE-2 ELEVATION



SIDE-1 ELEVATION

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. AR-07	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE 3S6R-TARAI & VALLY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1:120	PAPER SIZE : A3		

- NOTES:
1. All measurements are in mm unless otherwise noted.
 2. Architectural drawing should be read in conjunction with Structural, Sanitary and Electrical drawings.
 3. Site Engineer to notify the consultant if any discrepancy in dimensions found in drawings as per the site condition.
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CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM	SHEET NO. AR-08	REVISION NO. R-00
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region		IDEAL SOLUTION PVT.LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE 3S6R-TARAI & VALLY
				ARCHITECT:	CHECKED:	
				DRAWN :	APPROVED:	
				SCALE : 1:120	PAPER SIZE : A3	

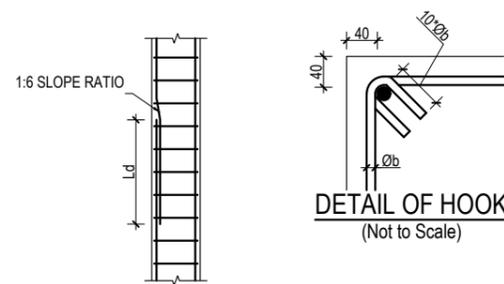
SN.	DRAWING LIST
1.	GENERAL NOTES
3.	FOOTING DETAIL FOR 100kN/m2
4.	TYPICAL FLOORING DETAIL
5.	SITE SPECIFIC DRAWING
6.	TYPICAL DETAILS OF FOUNDATION WALL
7.	COLUMN DETAIL
8.	BEAM PLAN
9.	BEAM DETAIL
10.	SLAB DETAIL
11.	STAIRCASE DETAIL
12.	BAND DETAIL
13.	RAILING DETAIL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TABLE OF CONTENTS	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	R-00 DWG CODE. 3S18R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120		PAPER SIZE : A3		DATE: FEBRUARY, 2023			

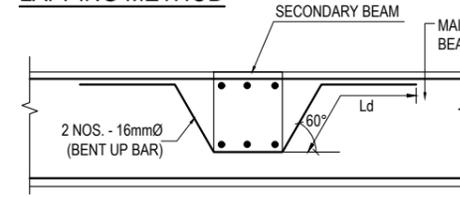
GENERAL NOTES:

- USE M25 GRADE CONCRETE FOR SLAB, BEAM, COLUMN, FOUNDATION, SILL & LINTEL BANDS (ALL RCC WORKS)
- USE Fe500 GRADE STEEL ($f_y=500N/mm^2$)
- CLEAR COVER TO BARS
 - FOR CONCRETE MEMBERS IN CONTACT WITH SOIL = MIN 50mm
 - FOR COLUMN (FROM FACE TO LATERAL TIES) = 40mm
 - FOR BEAMS (FROM FACE TO LATERAL STIRRUPS) = 25mm
 - FOR OUTER BARS IN SLAB = 15mm
 - FOR STAIRCASE = 20mm
- BARS IN COLUMNS SHALL BE SPLICED ONLY AT MID HEIGHT OF COLUMN.
- BARS SPLICING IN BEAM SHALL BE AVOIDED IN THE SPAN WHERE INTERMEDIATE BEAM IS CONNECTED AND SHALL BE ONLY AS SHOWN IN DWG.
- DEVELOPMENT / LAP LENGTH (L_d) FOR BARS.

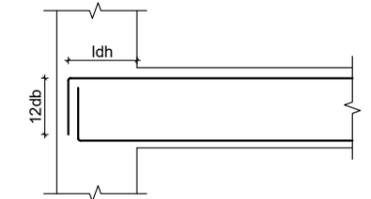
BAR DIA-(mm)	8	10	12	16	20	25
FOR M25 L_d	400	490	590	790	980	1230
- TEMP./DISTRIBUTION REINFORCEMENT FOR SLAB - TMT ϕ @ 200 C/C
- CLEAR VERTICAL DISTANCE BETWEEN TWO ROWS (LAYERS) OF BARS=25mm OR MAXIMUM SIZE OF REBAR
- PROVIDE STIRRUPS OR TIES AT MIN 150 C/C AT LAP LOCATIONS IN BEAM AND AT MIN 100 C/C AT LAP LOCATION IN COLUMNS.
- FOUNDATION
 - FOUNDATION DESIGN HAVE BEEN PROVIDED FOR SAFE BEARING CAPACITY OF 100KN/m². THIS S.B.C. SHALL BE CONFIRMED FROM GEO TECHNICAL INVESTIGATION AND CONSULTED TO DESIGNER.
 - IF SAFE BEARING CAPACITY OF SOIL IS FOUND LESS THAN 100KN/m², SPECIAL STUDY FOR FOUNDATION DESIGN IS REQUIRED.
- H = CLEAR SPAN OF FLOOR.
- D=DEPTH OF BEAM
- d=EFFECTIVE DEPTH OF BEAM
- L_d =DEVELOPMENT LENGTH
- The seismic gap shall be as per codal requirement.



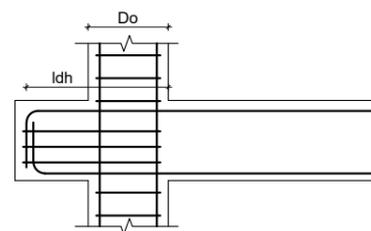
LAPPING METHOD



CONNECTION DETAIL BETWEEN MAIN & SECONDARY BEAM



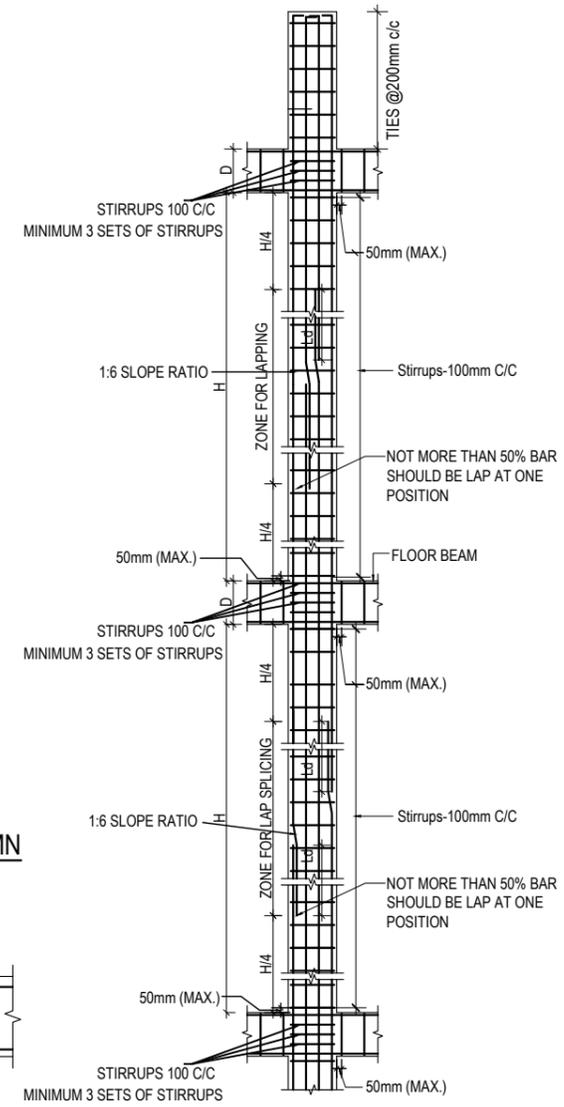
ANCHORAGE OF BEAM LONGITUDINAL BAR IN COLUMN



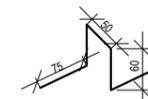
PROVISION OF BEAM STUB

f_y N/mm ²	f_{ck} N/mm ²	d_b mm	L_{dh} mm	$12d_b$ mm
500	20	12	277	144
500	25	12	248	144
500	20	16	369	192
500	25	16	330	192
500	20	20	462	240
500	25	20	413	240
500	20	25	577	300
500	25	25	516	300

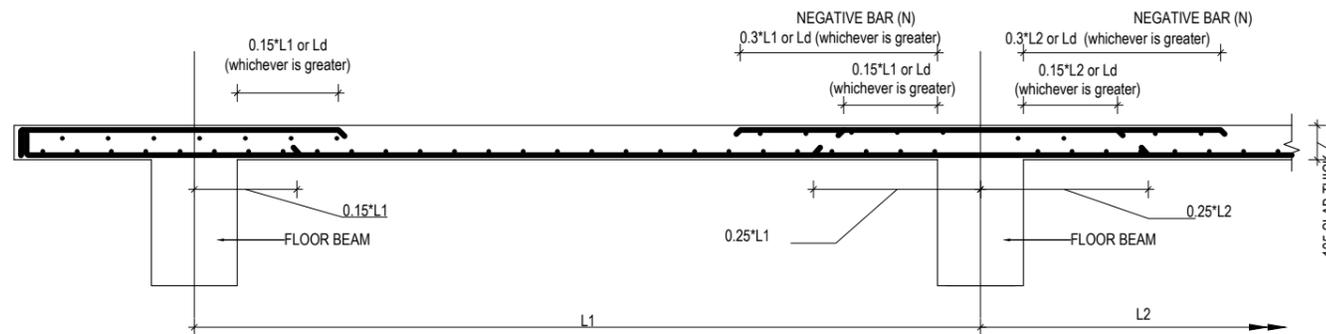
f_y = yield strength of steel
 f_{ck} = Characteristic Compressive strength of concrete
 d_b = diameter of largest longitudinal bar in beam in mm



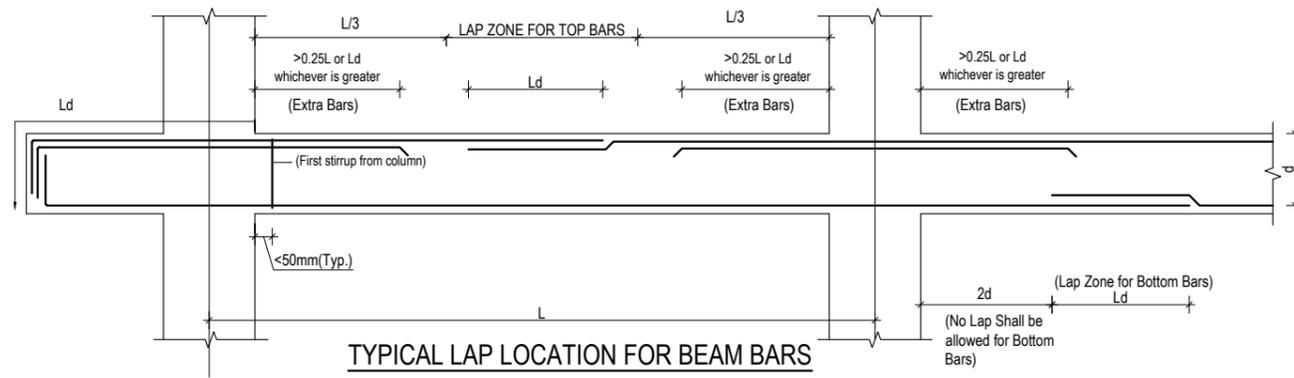
TYP. COLUMN SHEAR REINFORCEMENT DETAIL



CHAIR RESTING ON BOTTOM BARS @600 - 900 mm staggered position

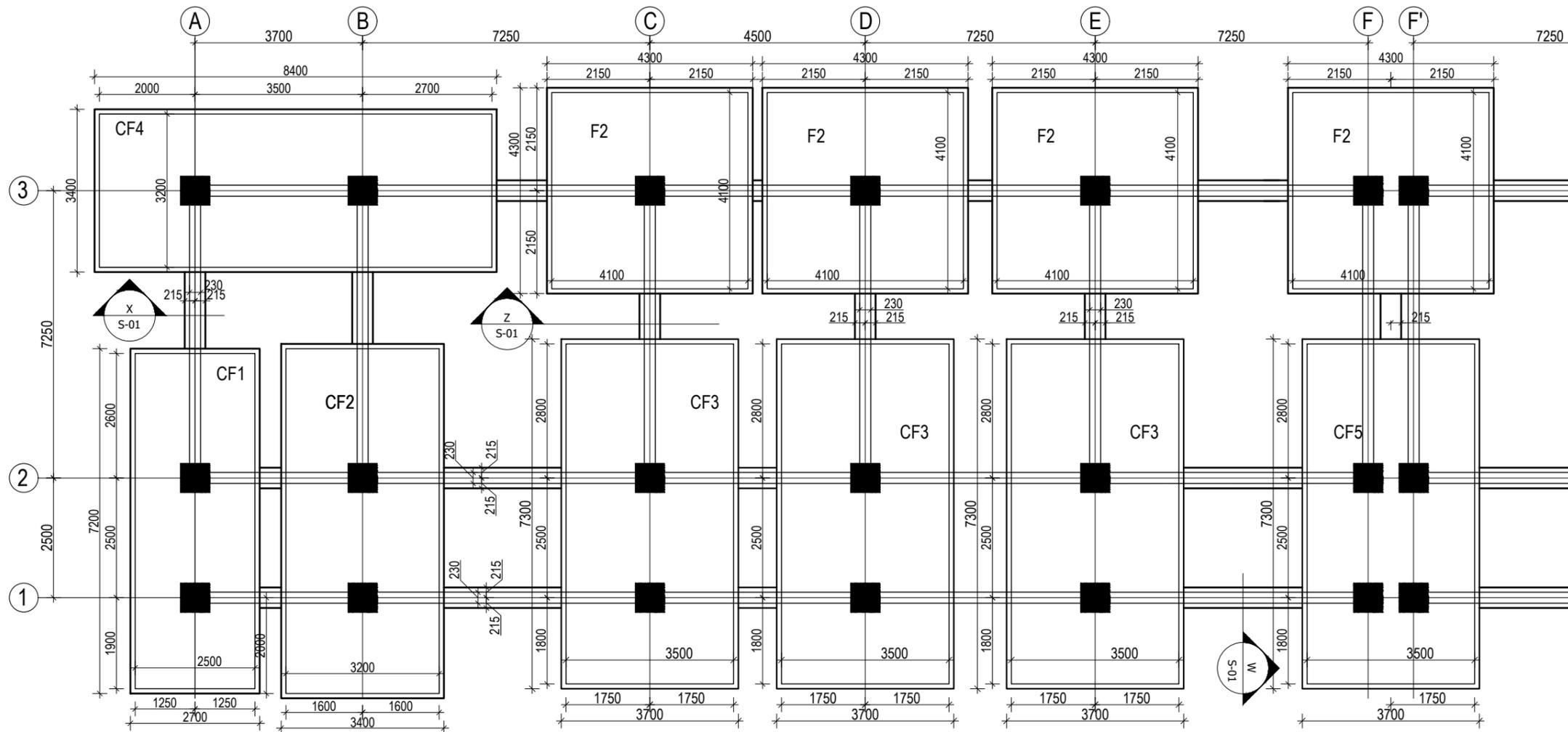


TYPICAL DETAIL FOR SLAB BARS



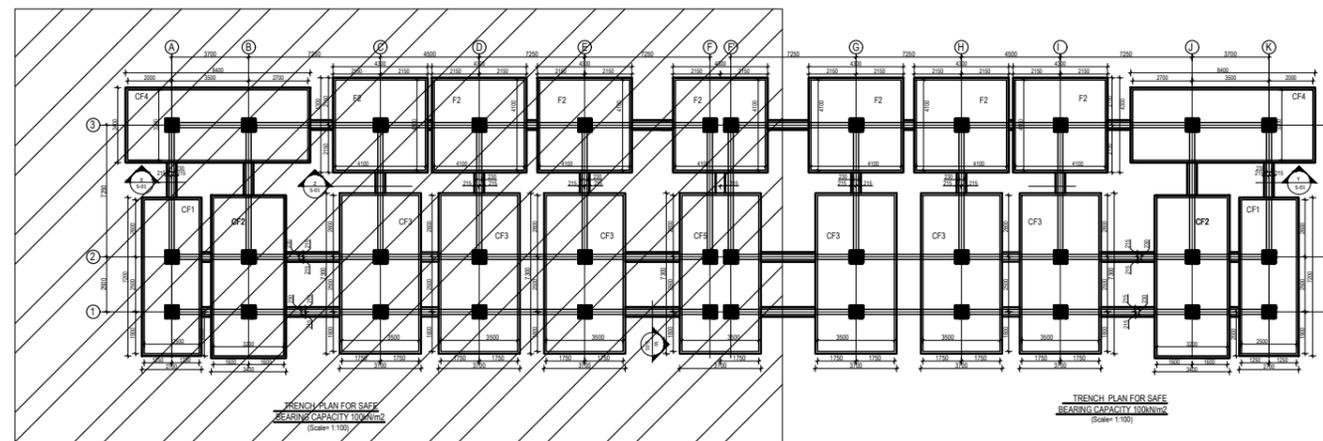
TYPICAL LAP LOCATION FOR BEAM BARS (STIRRUPS NOT SHOWN FOR CLARITY)

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	GENERAL NOTES	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	3S18R - TERAJ & VALLEY	R-00
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:	DWG CODE.	
				SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	

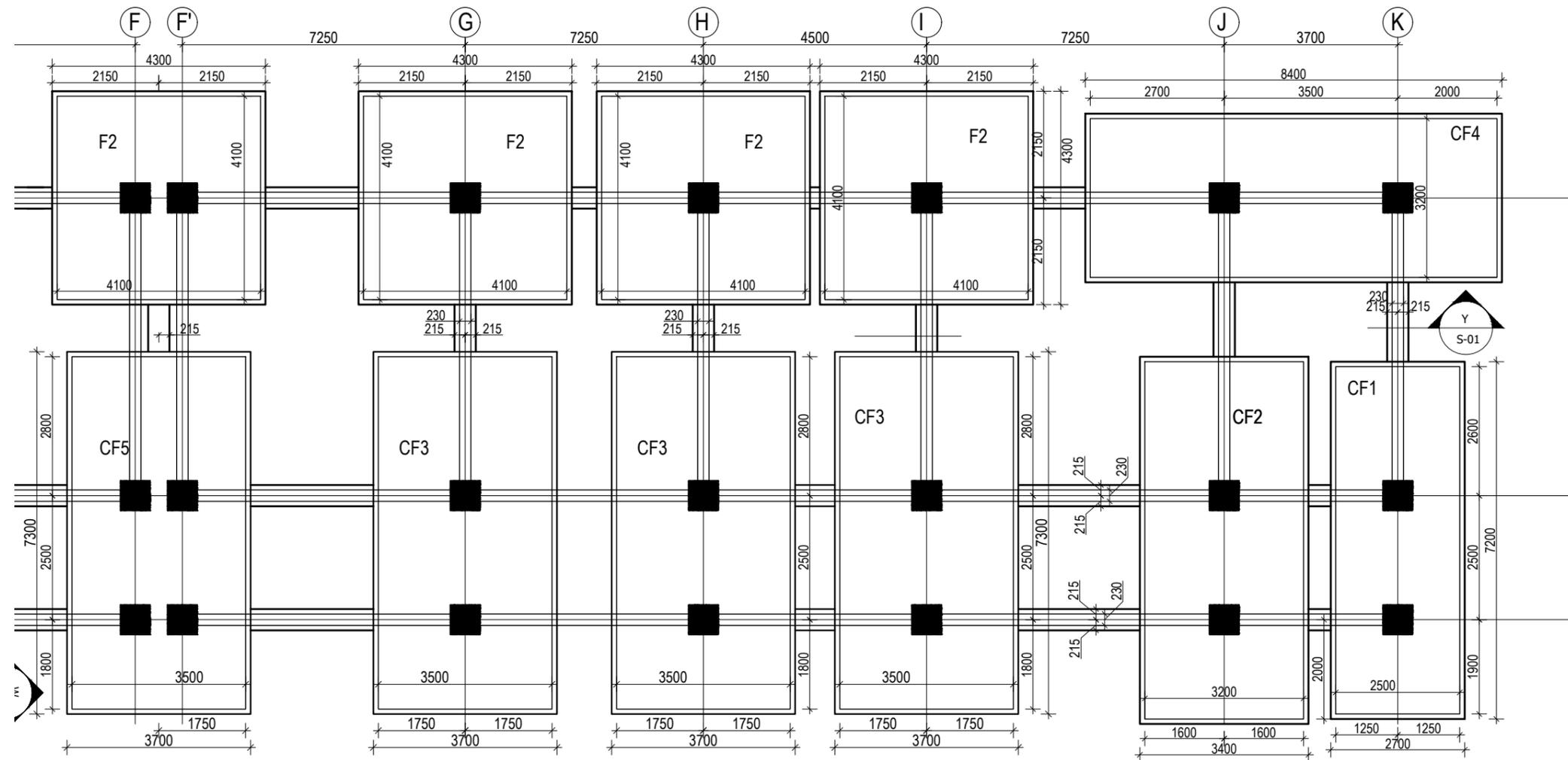


TRENCH PLAN FOR SAFE
BEARING CAPACITY 100kN/m²
(Scale= 1:100)

KEY PLAN

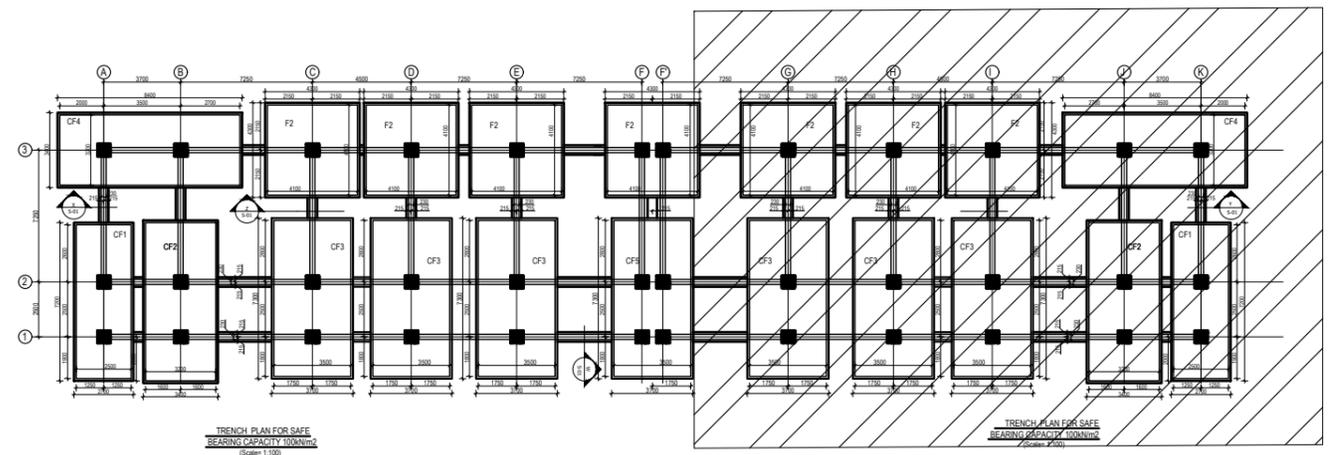


CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TRENCH DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-01	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

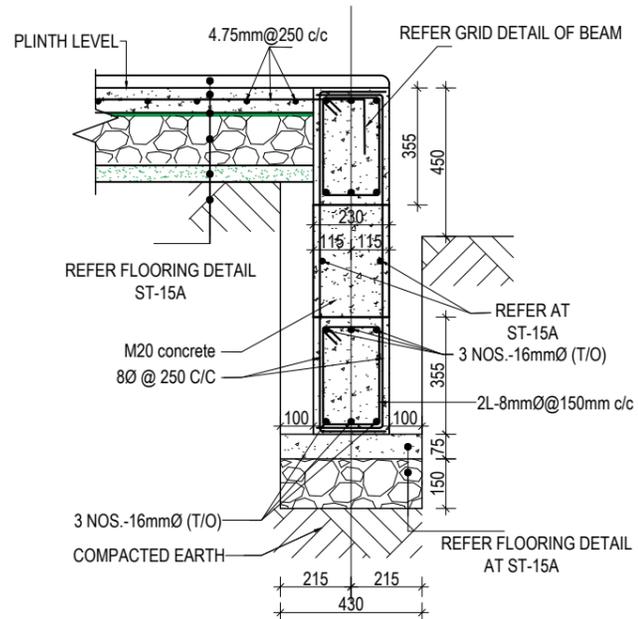


TRENCH PLAN FOR SAFE
BEARING CAPACITY 100kN/m²
(Scale= 1:100)

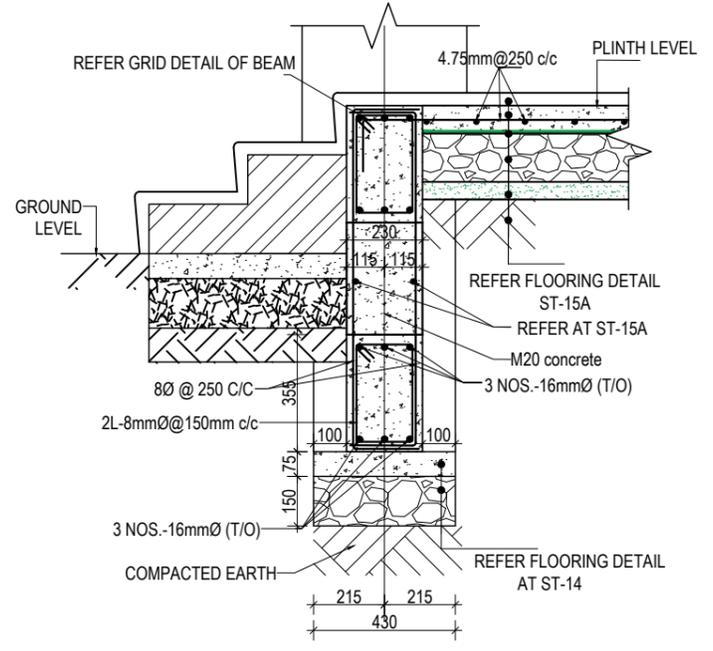
KEY PLAN



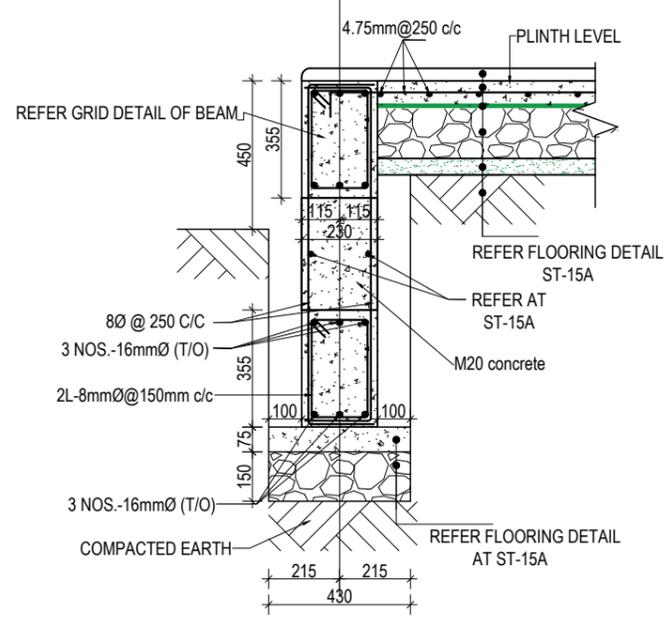
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TRENCH DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-02	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



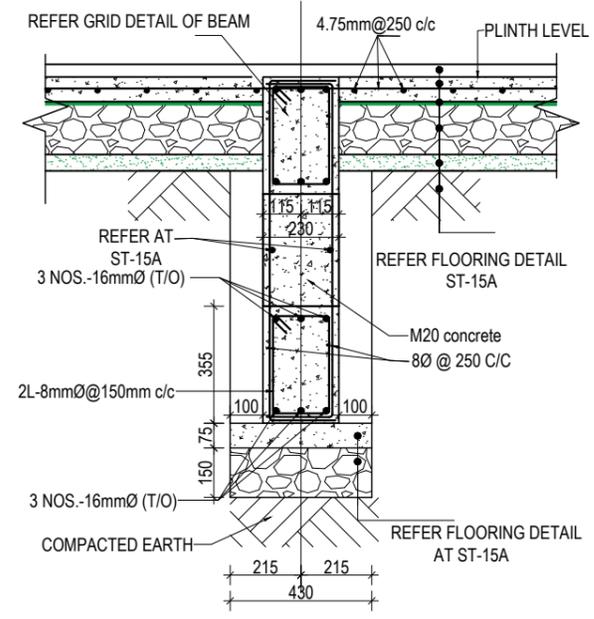
SECTION AT Y-Y
(Scale= 1:20)



SECTION AT W-W
(Scale= 1:20)

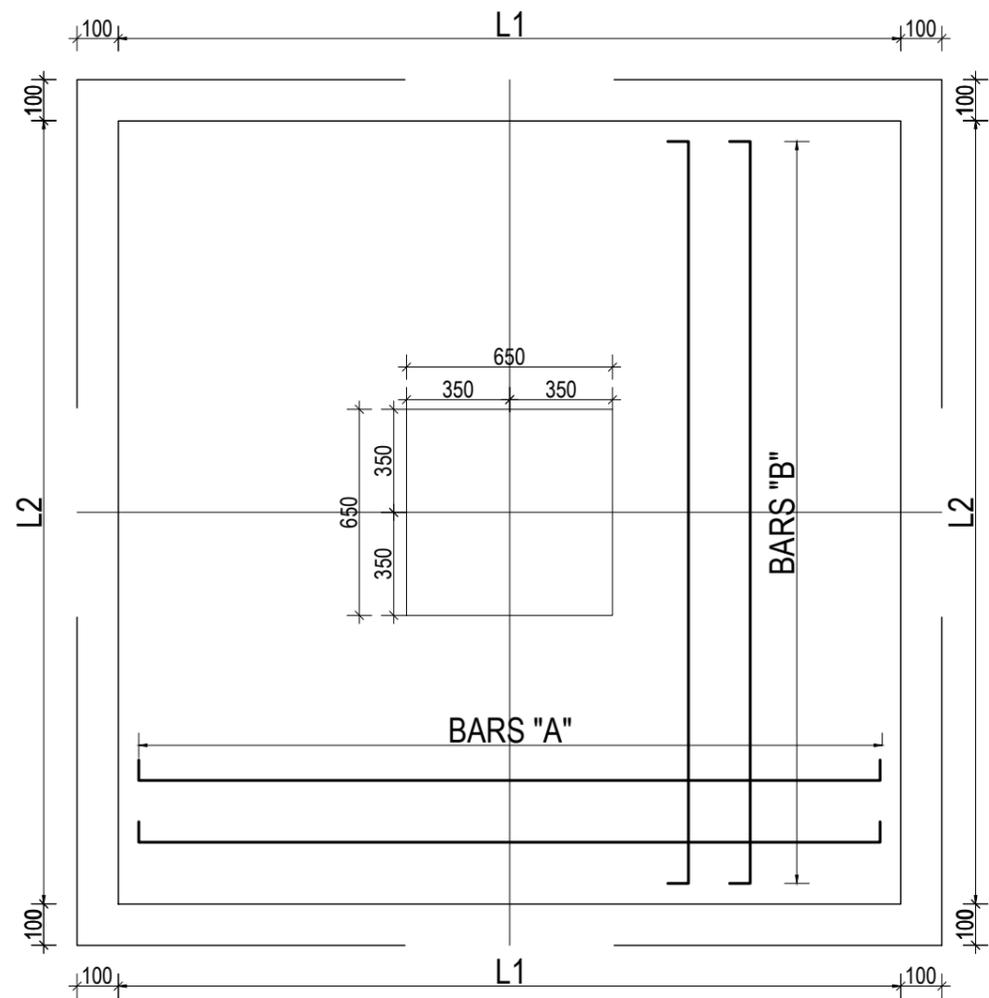


SECTION AT X-X
(Scale= 1:20)

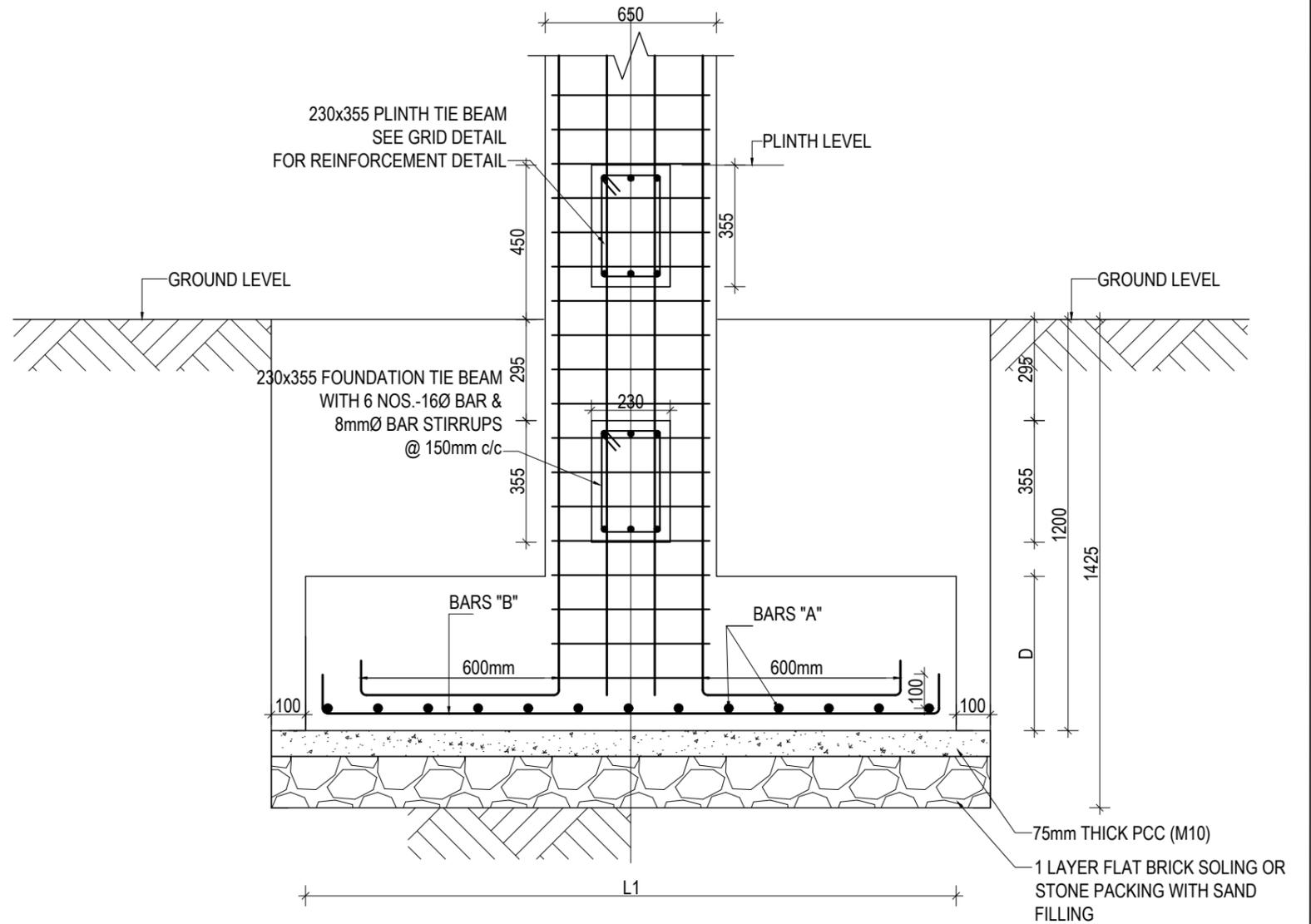


SECTION AT Z-Z
(Scale= 1:20)

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TRENCH DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-03	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN: SCALE : 1: 120	STRUCTURE ER.: CHECKED: APPROVED: DATE: FEBRUARY, 2023		



TYPICAL ISOLATED FOOTING PLAN

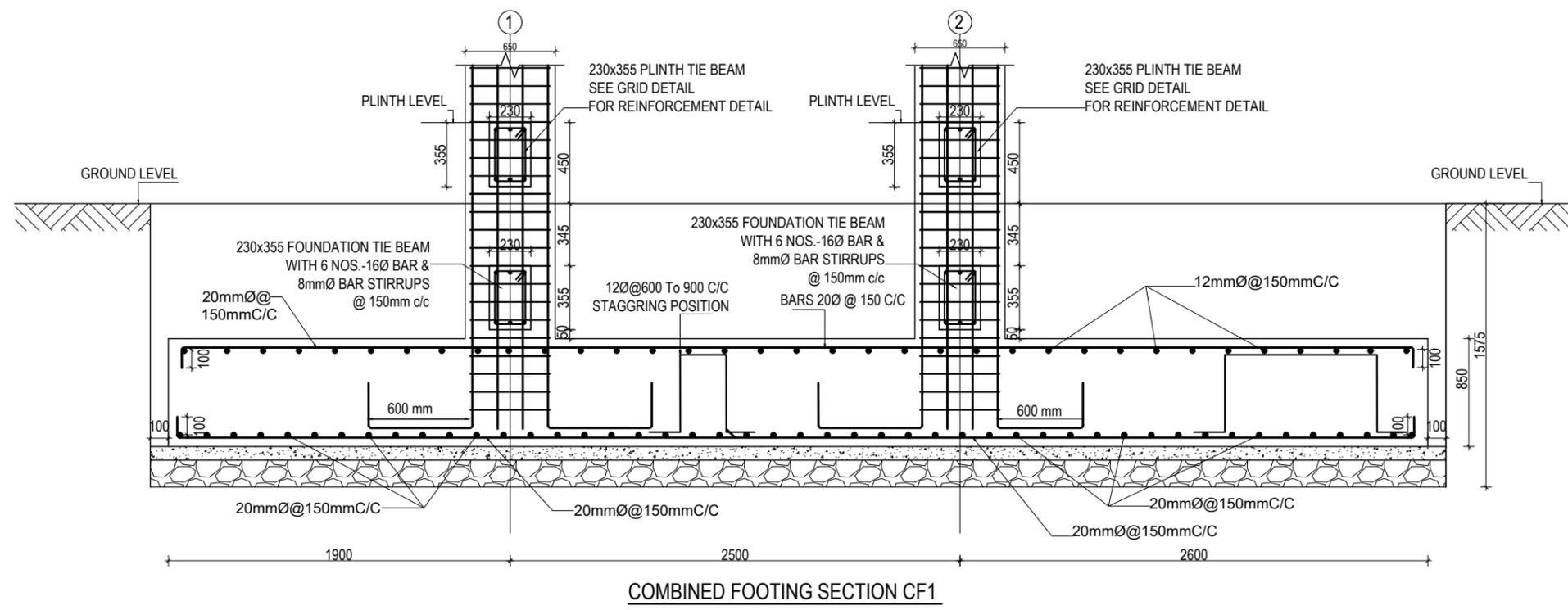
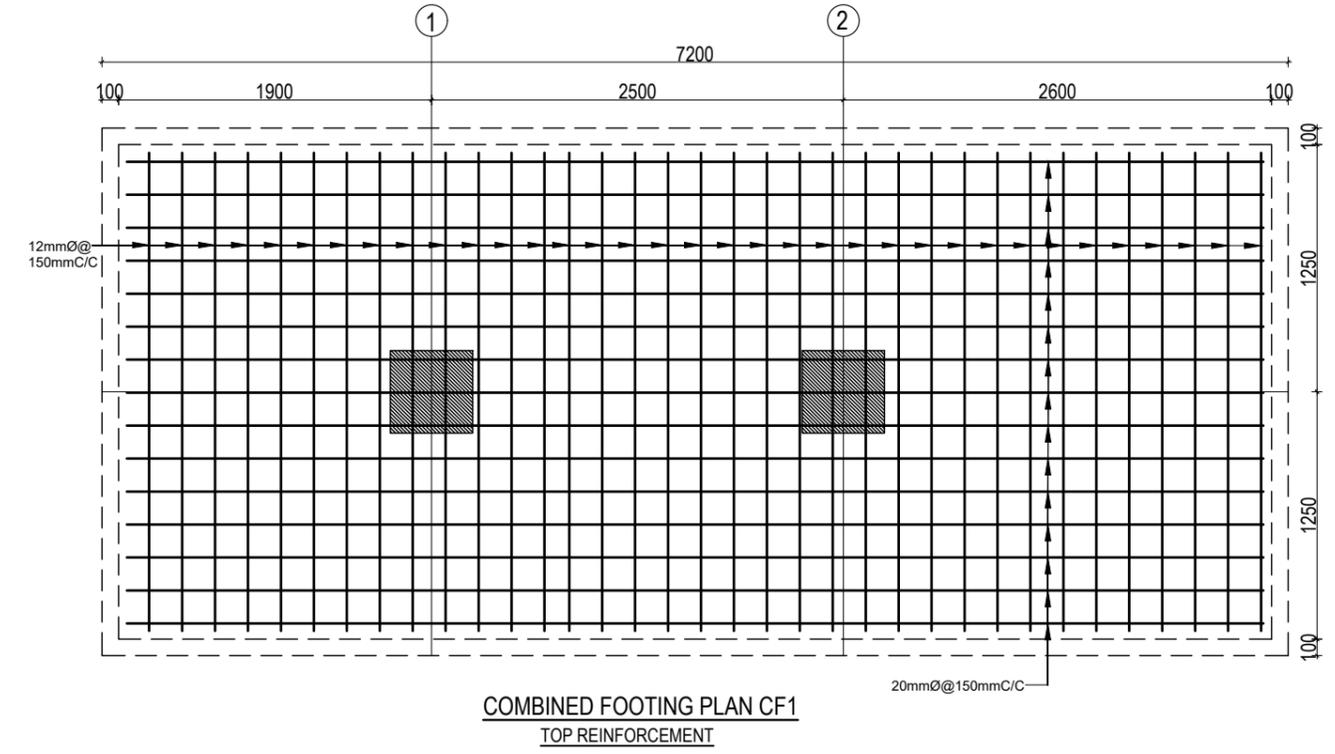
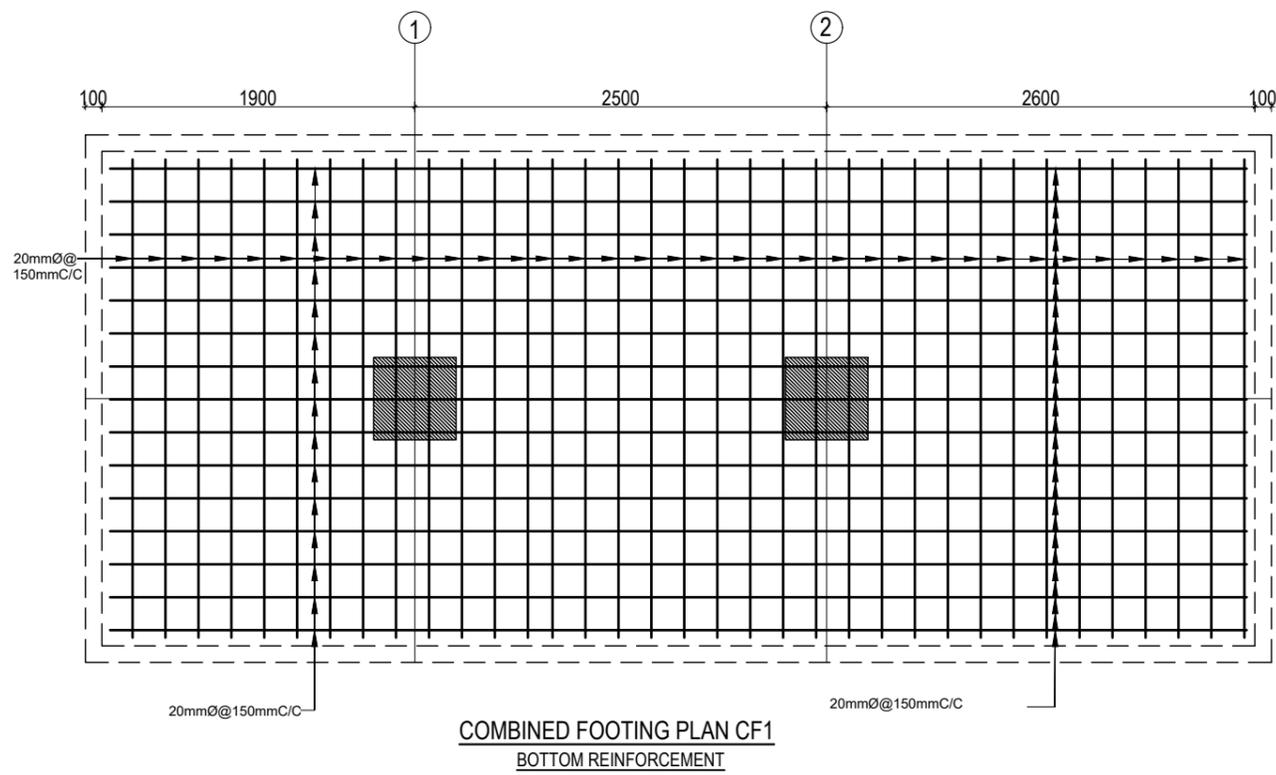


TYPICAL ISOLATED FOOTING SECTION

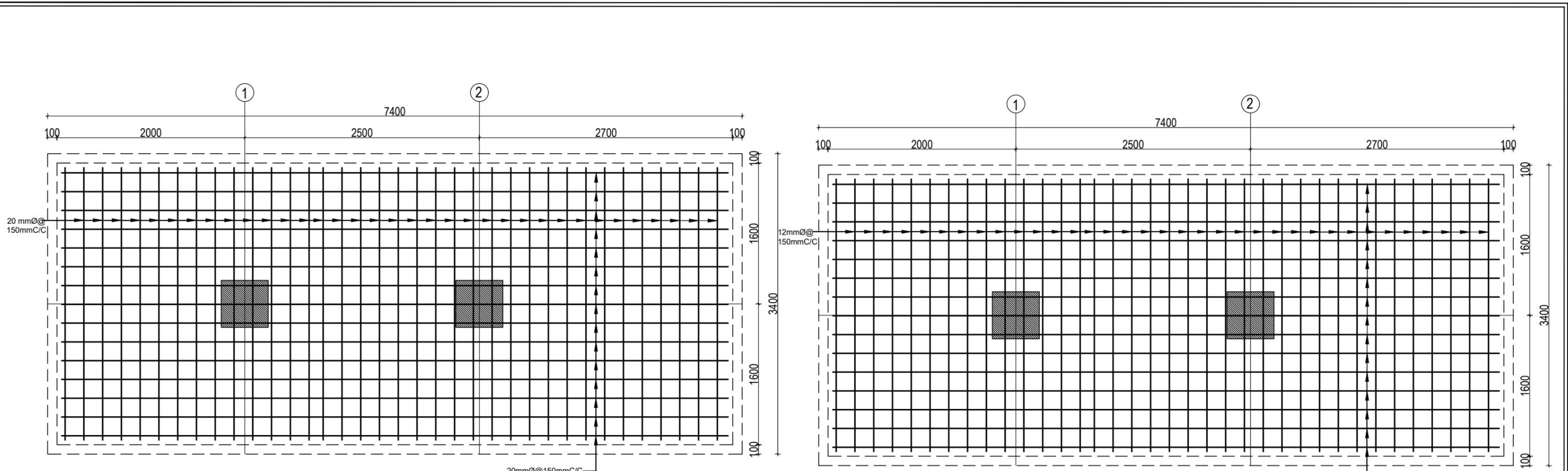
ISOLATED FOOTING SCHEDULE FOR S.B.C 100 kN/m²

FOOTING ID	L1	L2	DEPTH (D)	REINFORCEMENT DETAILS	
				BARS "A"	BARS "B"
F1	3700	3700	600	16Ø @ 150 C/C	16Ø @ 150 C/C
F2	4100	4100	750	16Ø @ 150 C/C	16Ø @ 150 C/C

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-04	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	FOOTING DETAIL FOR S.B.C 100kN/m ²	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S18R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
		SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023			

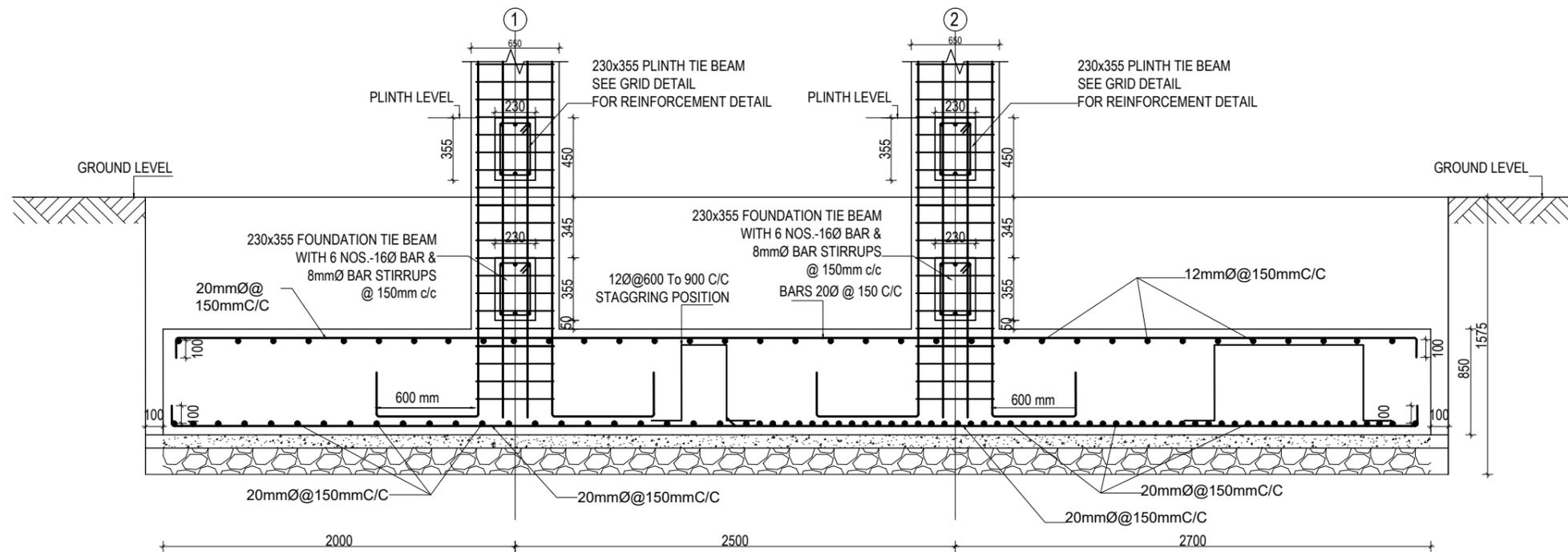


CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-05	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



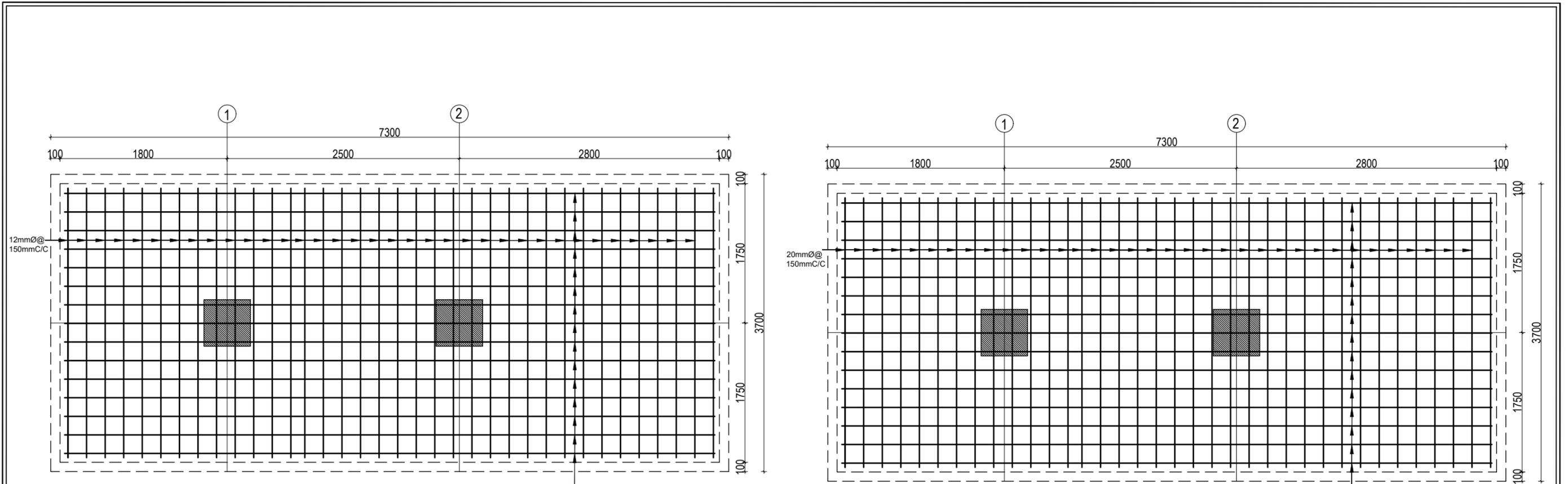
COMBINED FOOTING PLAN CF2
BOTTOM REINFORCEMENT

COMBINED FOOTING PLAN CF2
TOP REINFORCEMENT



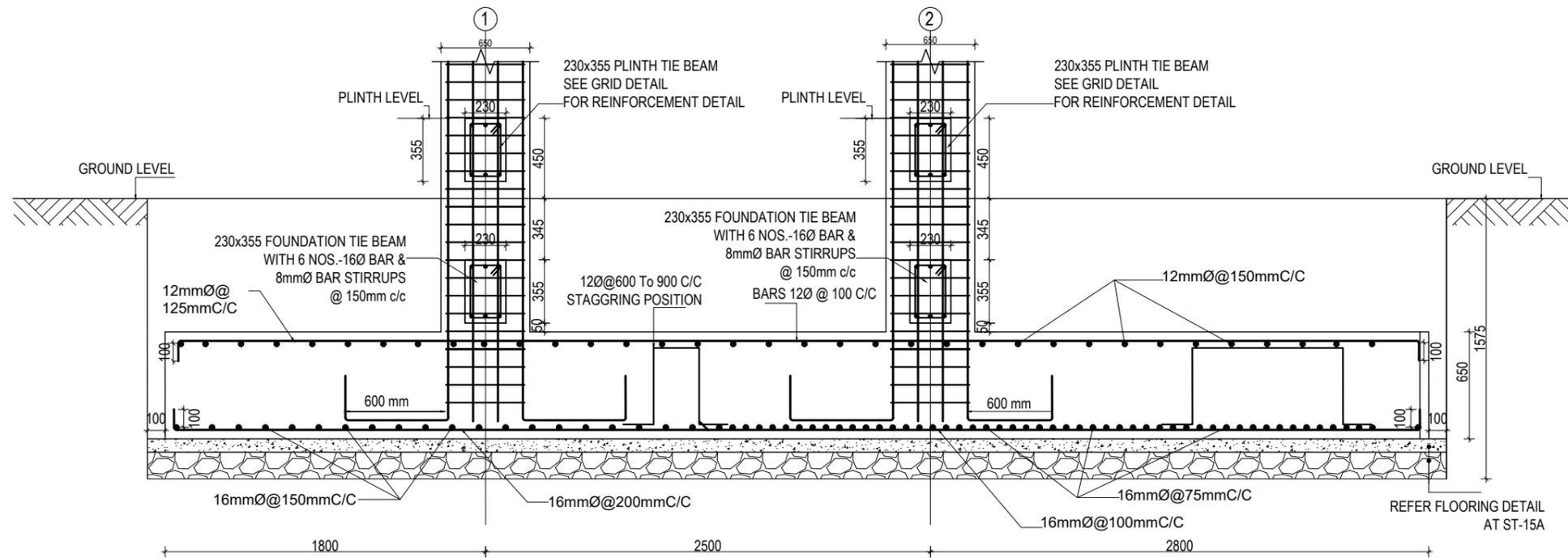
COMBINED FOOTING SECTION CF2

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-06	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN: SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S18R - TERAI & VALLEY	



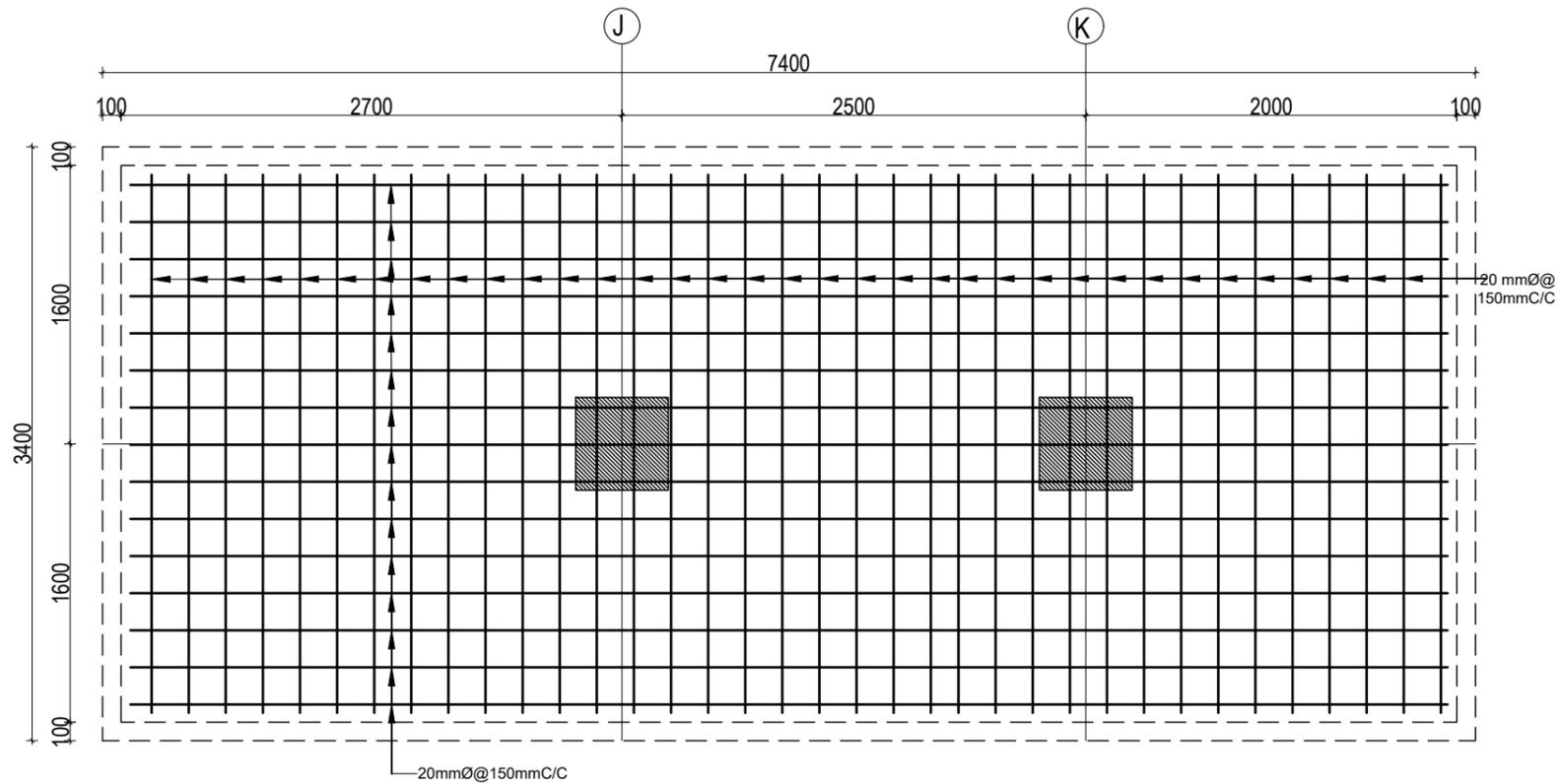
COMBINED FOOTING PLAN CF3
TOP REINFORCEMENT

COMBINED FOOTING PLAN CF3
BOTTOM REINFORCEMENT

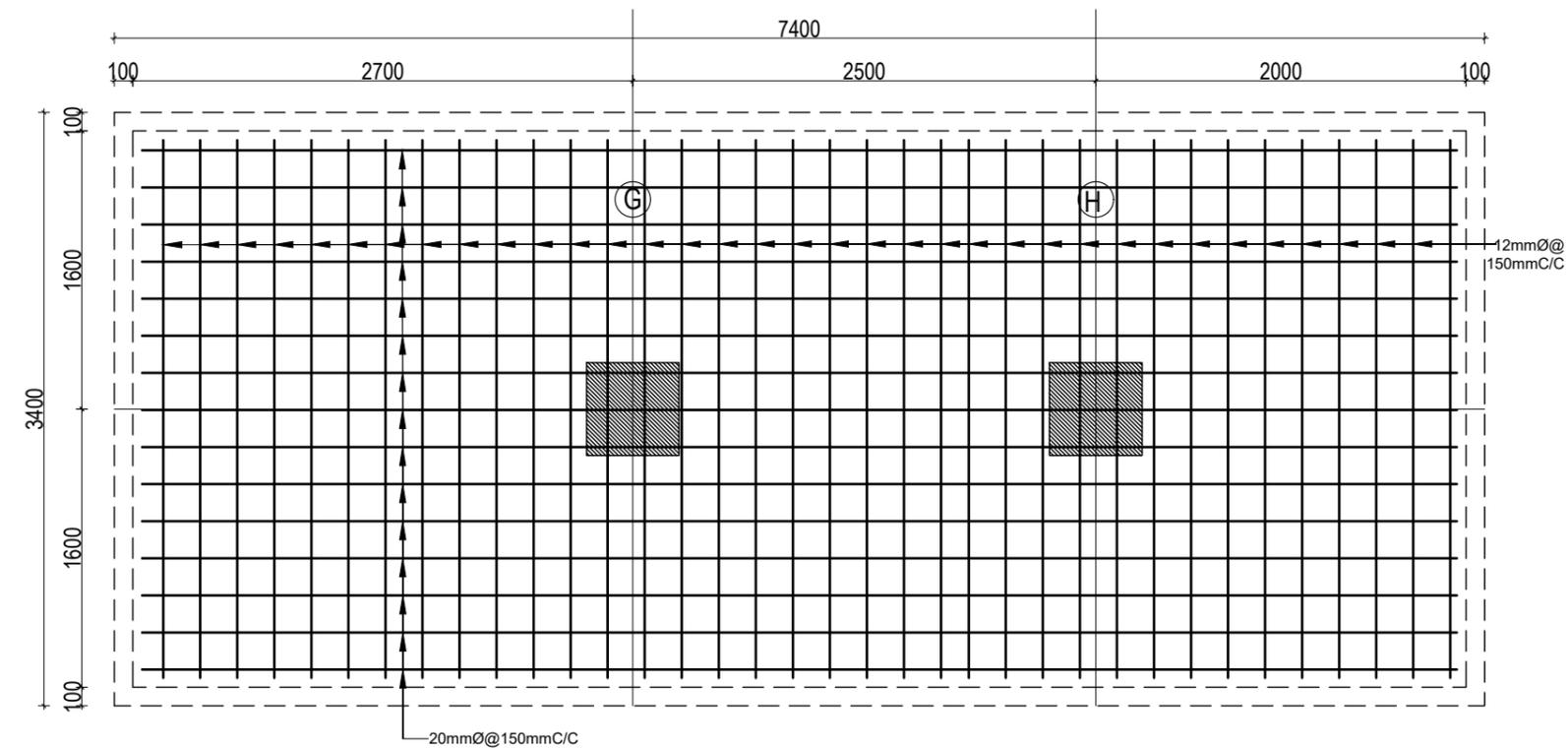


COMBINED FOOTING SECTION CF3

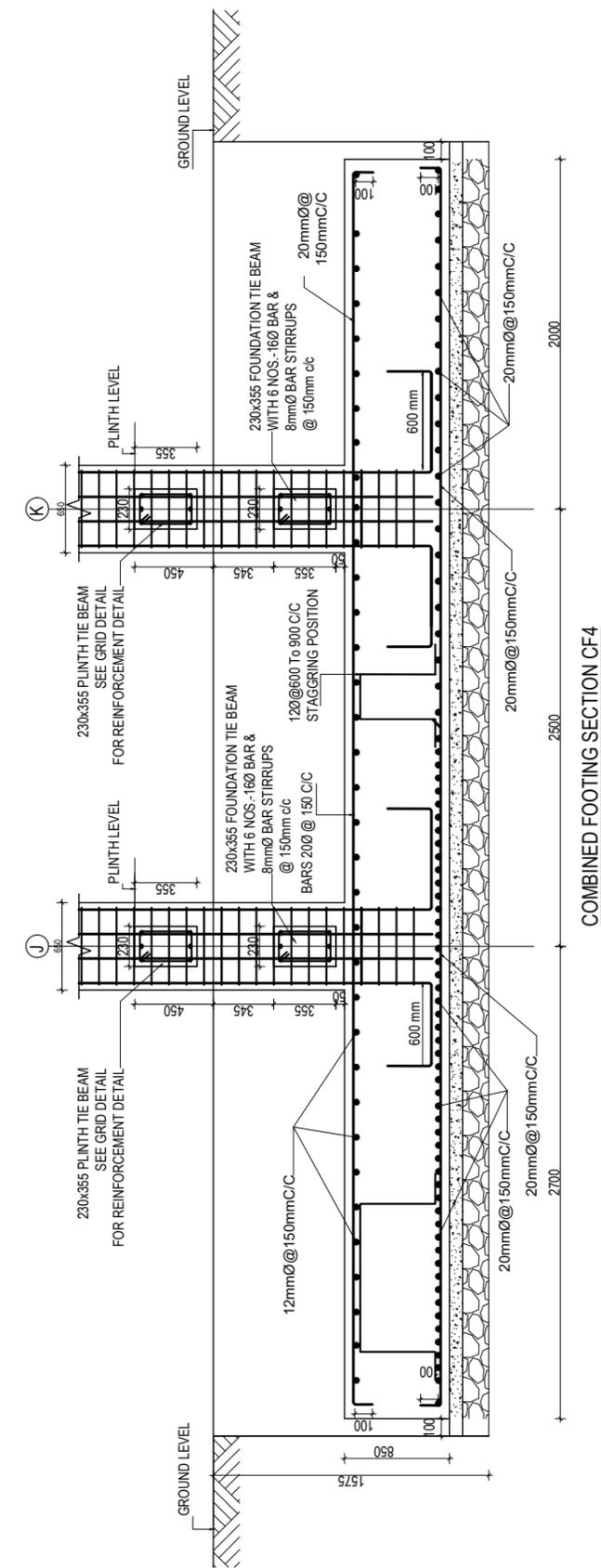
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-07	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



COMBINED FOOTING PLAN CF4
BOTTOM REINFORCEMENT

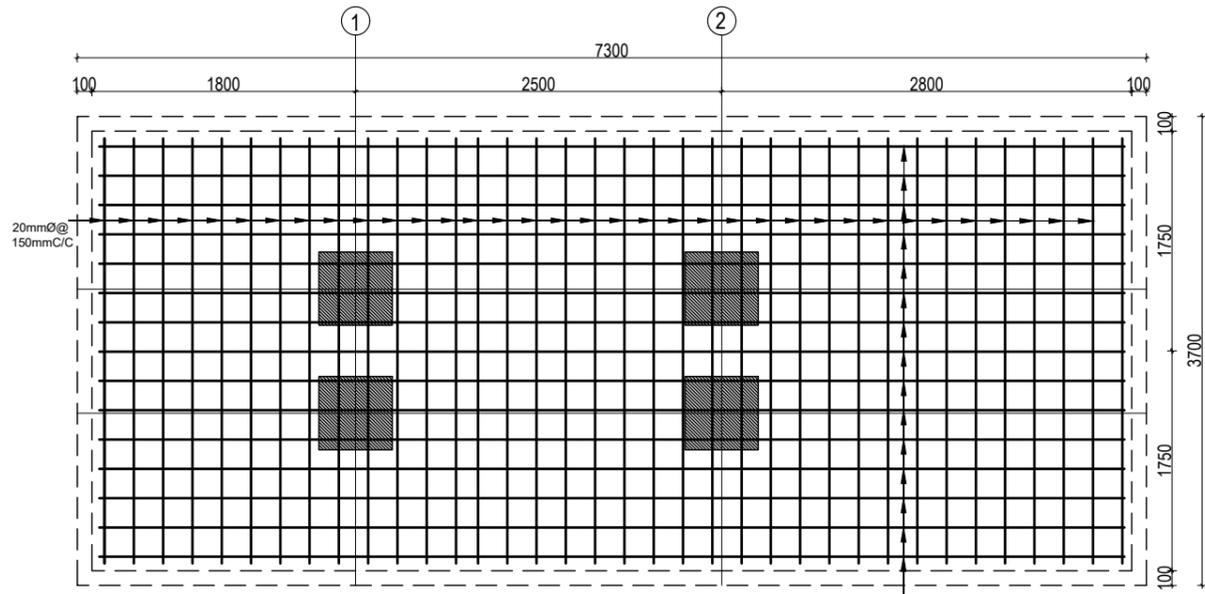


COMBINED FOOTING PLAN CF4
TOP REINFORCEMENT

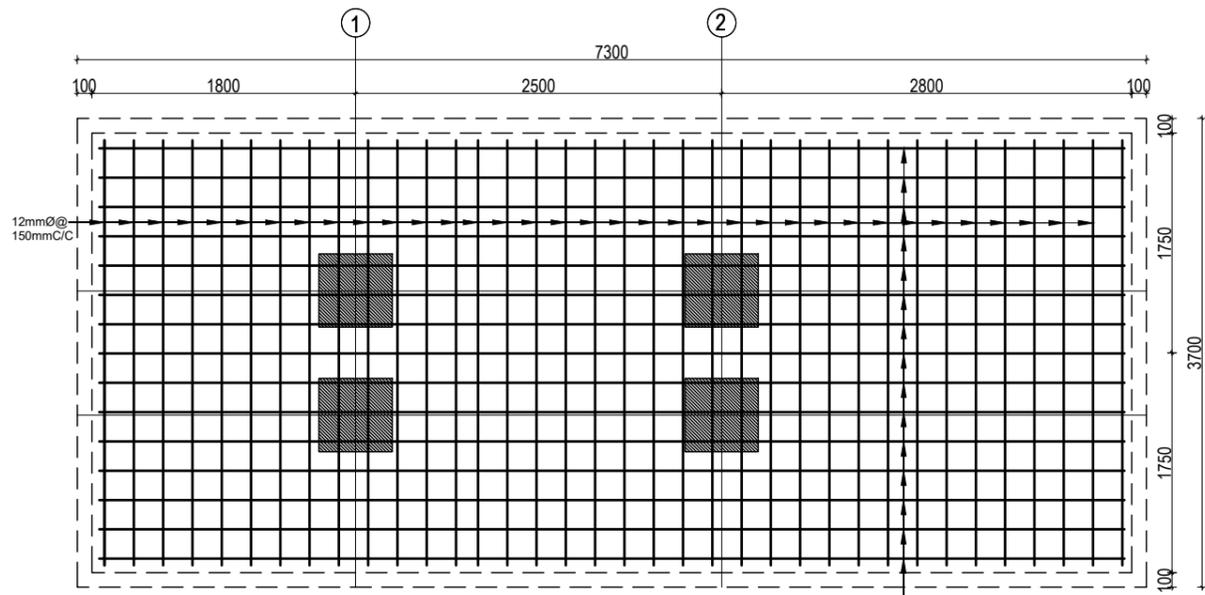


COMBINED FOOTING SECTION CF4

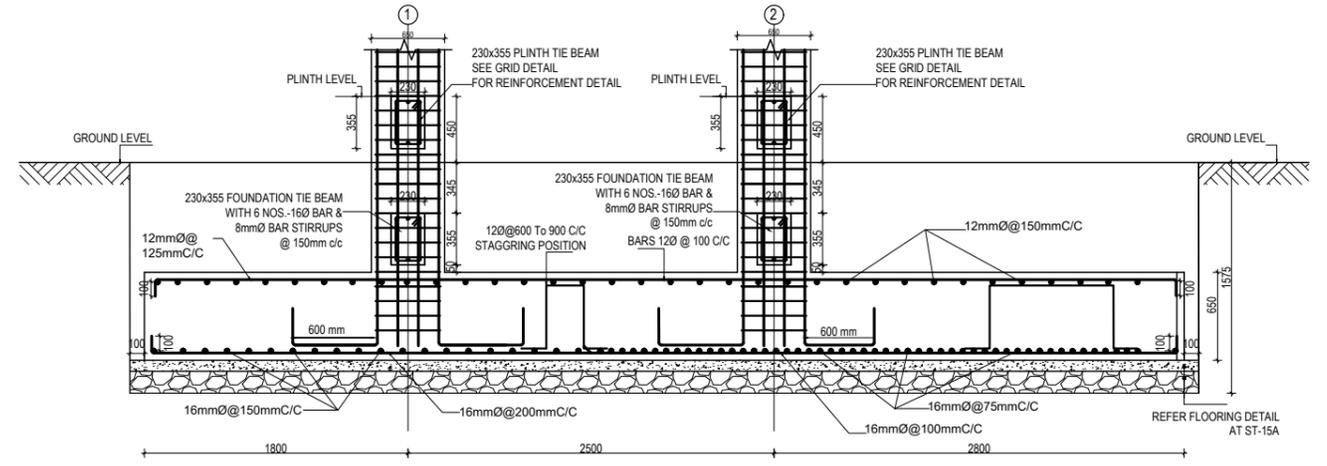
 CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-08	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



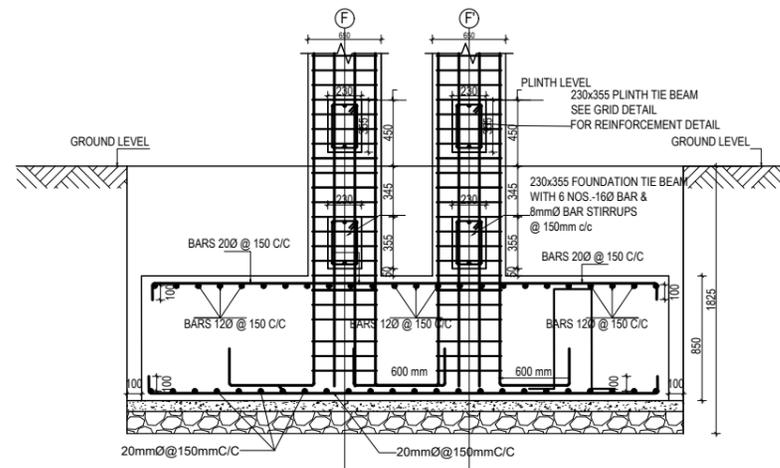
COMBINED FOOTING PLAN CF5
BOTTOM REINFORCEMENT



COMBINED FOOTING PLAN CF5
TOP REINFORCEMENT

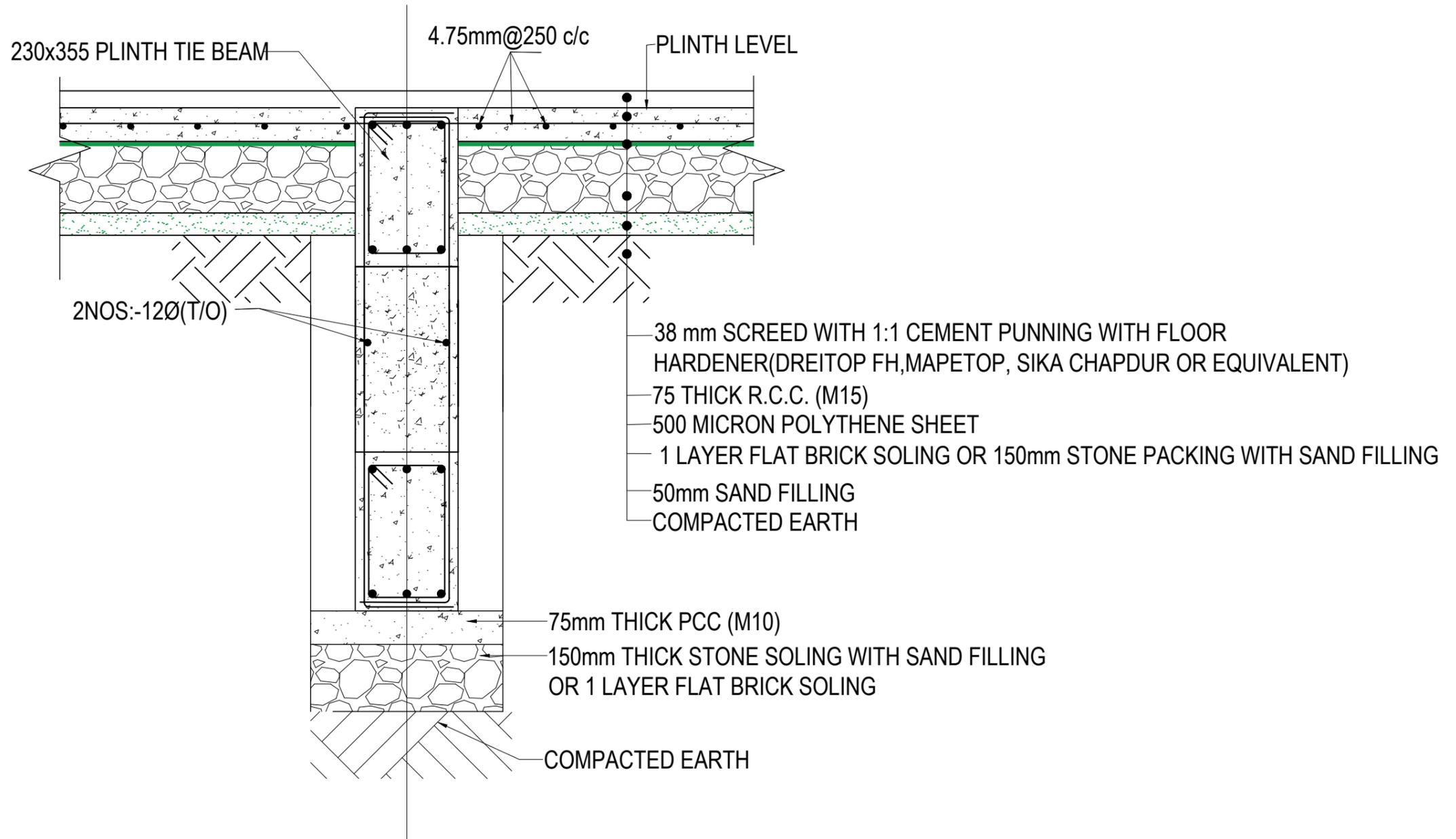


COMBINED FOOTING SECTION CF5 (L-SECTION)



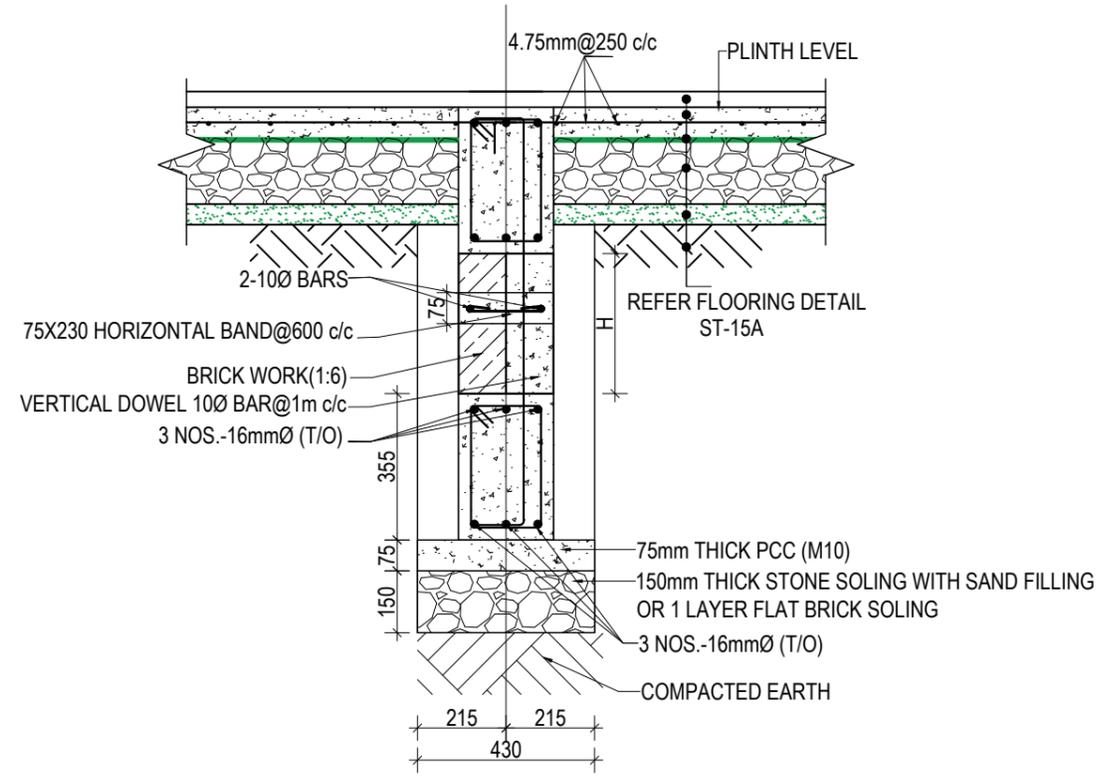
COMBINED FOOTING SECTION CF5 (X-SECTION)

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE FOOTING DETAIL FOR S.B.C 100kN/m ²	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-09	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN: SCALE : 1: 120	STRUCTURE ER.: CHECKED: APPROVED: DATE: FEBRUARY, 2023		



TYPICAL FLOORING DETAIL FF1
(Scale= 1:10)

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-10	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL FLOORING DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S18R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120		PAPER SIZE : A3		DATE: FEBRUARY, 2023			

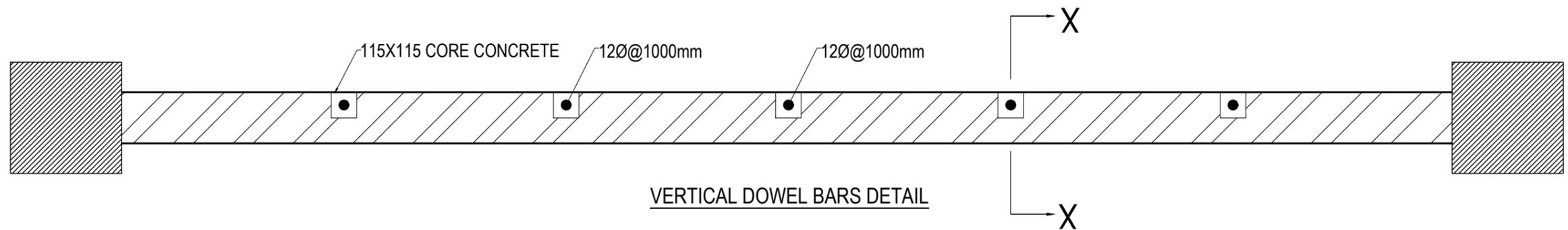


WALL DETAIL FOR DEPTH OF FOOTING MORE THAN 1500 mm

SECTION AT X-X

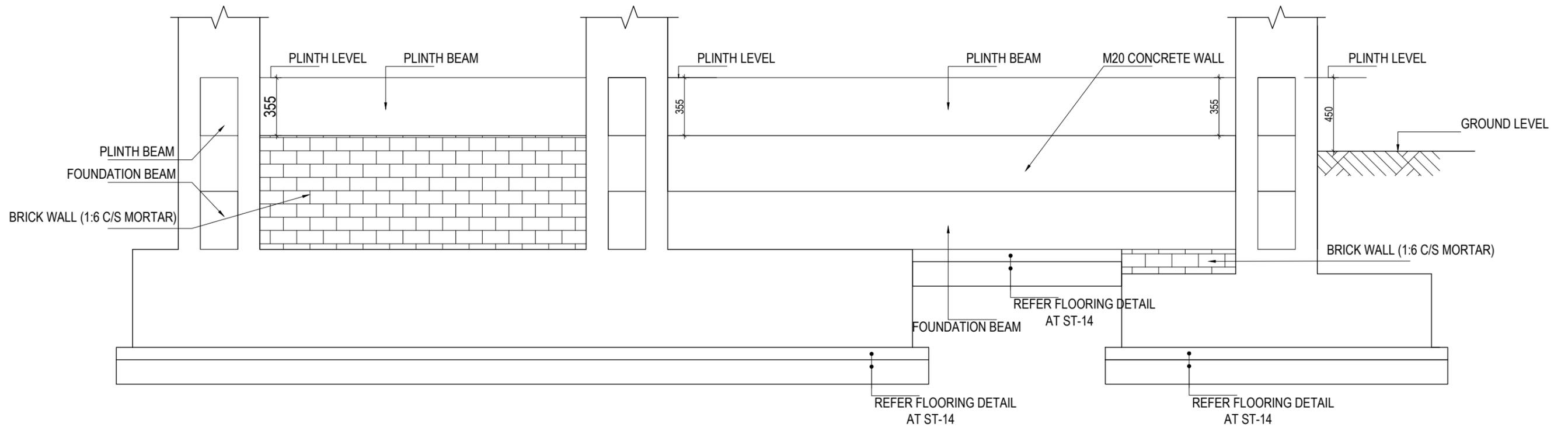
NOTES:-

- 1) BRICK WALL IS USED IF WALL IS CONFINED BY SOIL ON BOTH SIDES
- 2) IF THE HEIGHT OF THE BRICKWALL EXCEEDS 1800 mm ADDITIONAL BEAM SHALL BE PROVIDED OF SAME SIZE OF FOUNDATION BEAM(SAME REINFORCEMENT TO BE USED)



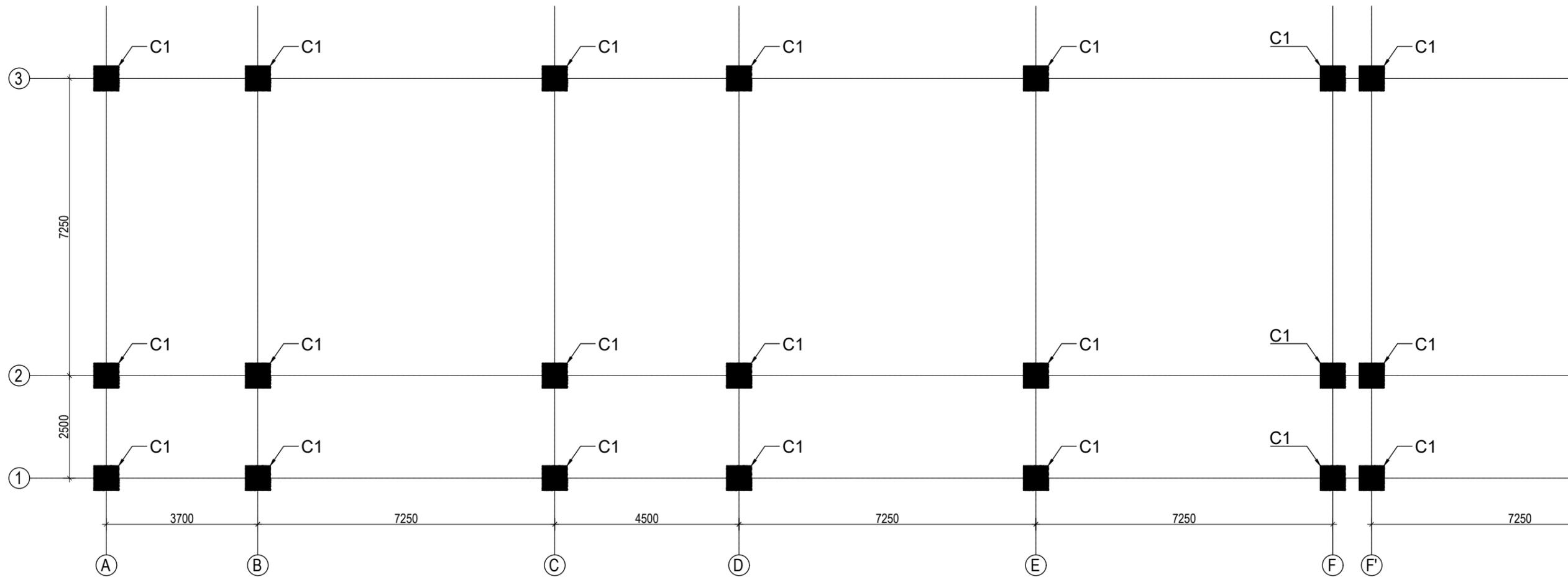
VERTICAL DOWEL BARS DETAIL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-11	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	SITE SPECIFIC DRAWING	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S18R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					



TYPICAL DETAIL OF FOUNDATION WALL

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL DETAIL OF FOUNDATION WALL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	ST-12	R-00
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1: 120	PAPER SIZE : A3		
						DWG CODE. 3S18R - TERAI & VALLEY	



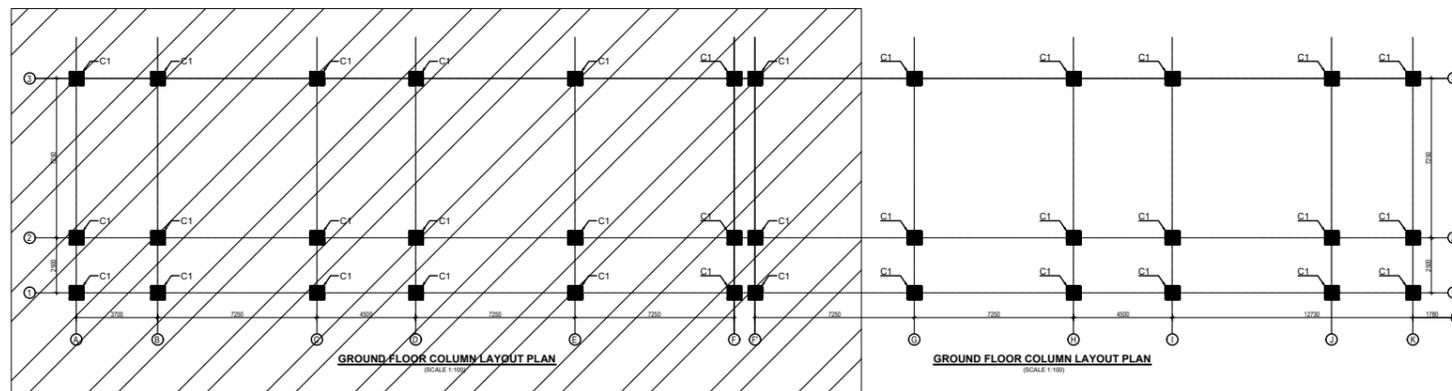
GROUND FLOOR COLUMN LAYOUT PLAN

(SCALE 1:100)

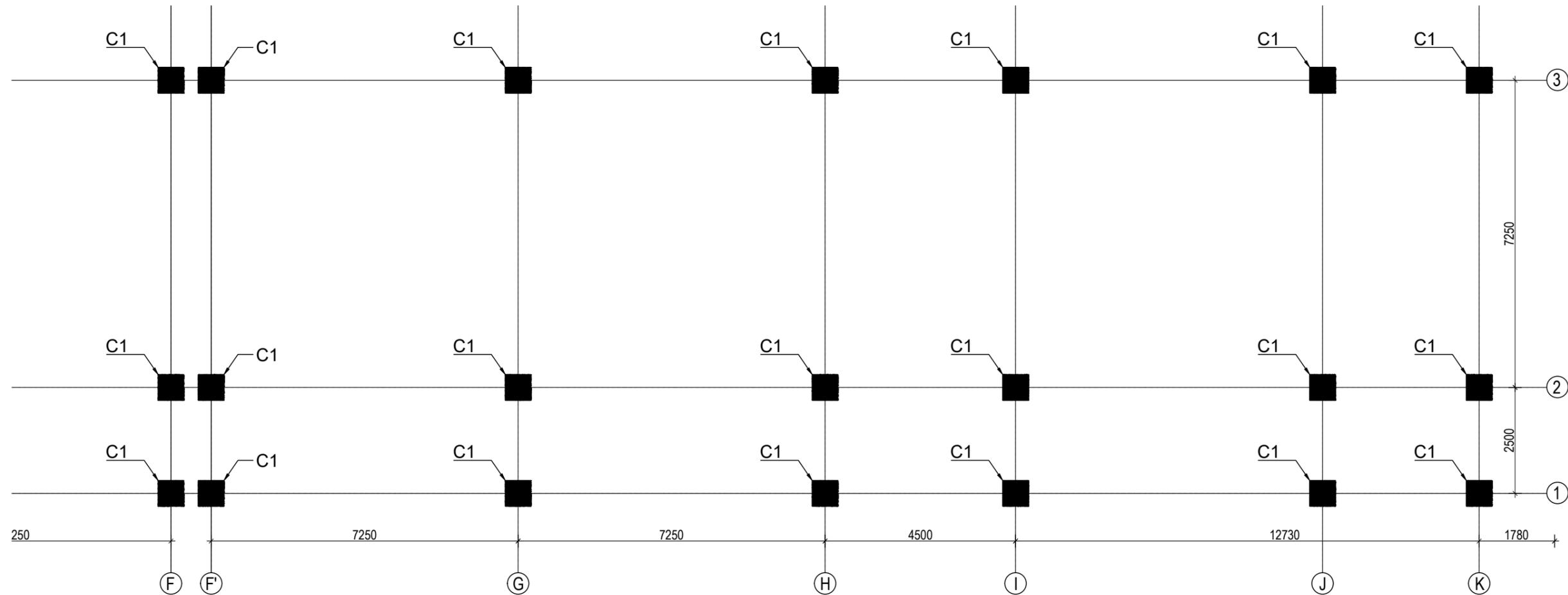
COLUMN REINFORCEMENT DETAILS

COLUMN	COLUMN SIZE	FLOOR					TIE BAR ORIENTATION
		GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	TOP FLOOR	
1	C1	650X650 • 24 NOS. -25mmØ		<p>A: 10Ø100c/c & B: 8Ø100c/c</p>			

KEY PLAN



CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-13	REVISION NO. R-00
<p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>COLUMN DETAIL</p>	<p>IDEAL SOLUTION PVT. LTD. Nepal</p>	ENGINEER:	STRUCTURE ER. :	<p>DWG CODE. 3S18R - TERAI & VALLEY</p>	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
				SCALE : 1: 120	PAPER SIZE : A3		

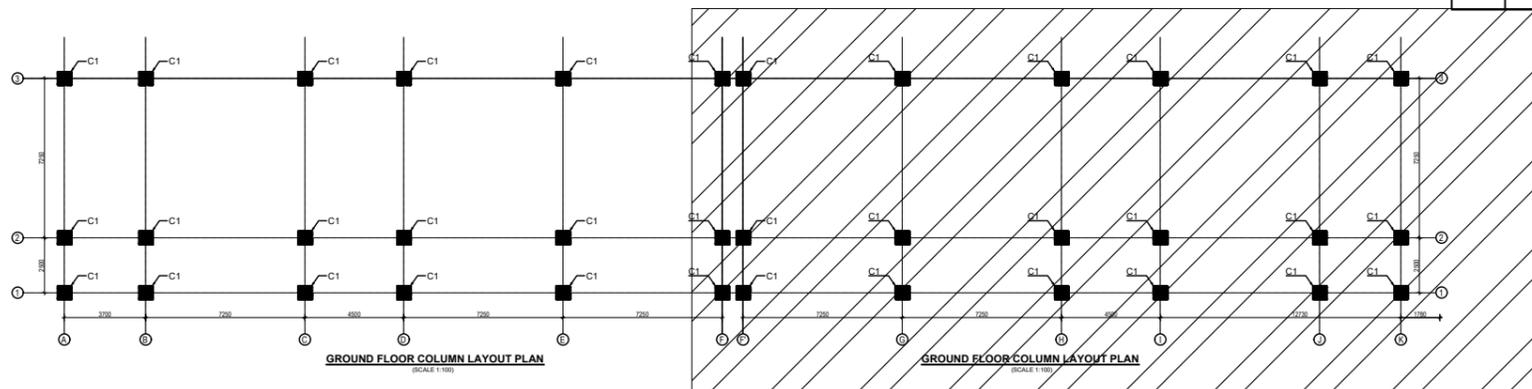


GROUND FLOOR COLUMN LAYOUT PLAN
(SCALE 1:100)

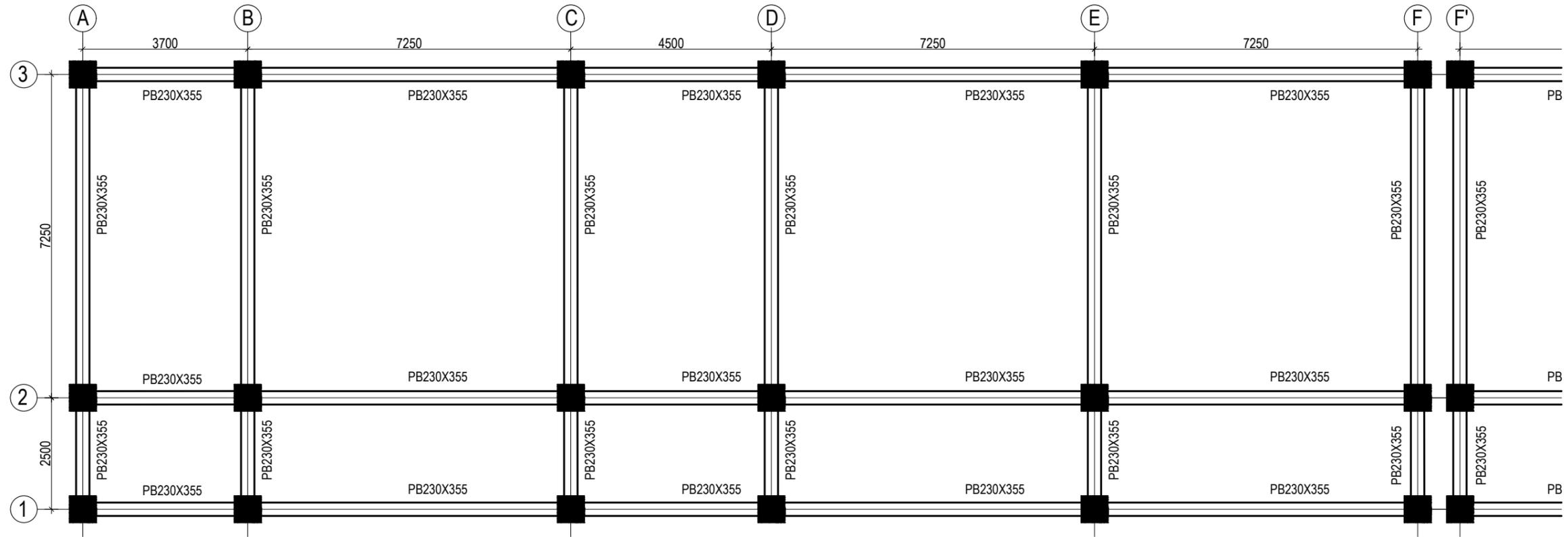
COLUMN REINFORCEMENT DETAILS

COLUMNS	COLUMN SIZE	FLOOR					TIE BAR ORIENTATION
		GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	TOP FLOOR	
1	C1	650X650 • 24 NOS. -25mmØ		<p>A: 10Ø100c/c & B: 8Ø100c/c</p>			

KEY PLAN

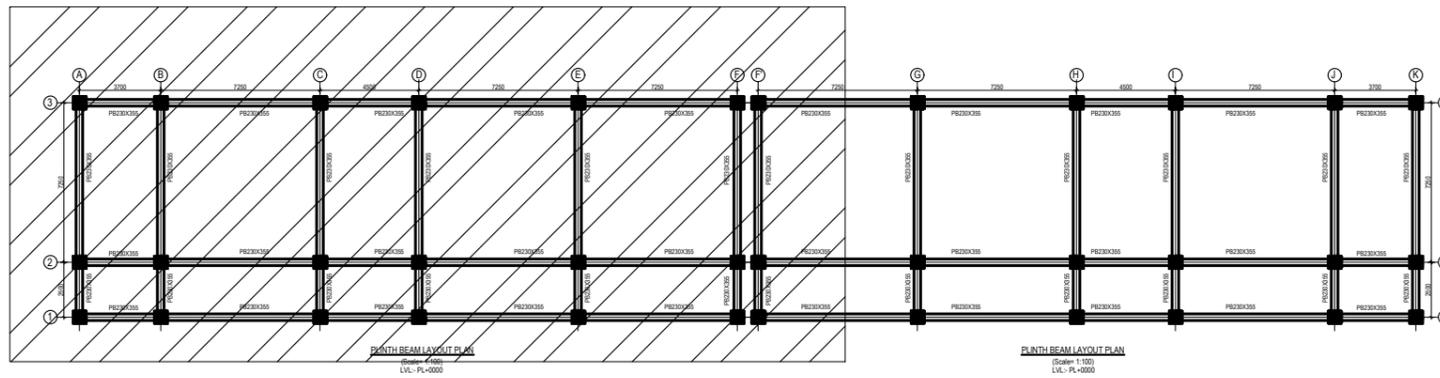


CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
<p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>COLUMN DETAIL</p>	<p>IDEAL SOLUTION PVT. LTD. Nepal</p>	ENGINEER:	STRUCTURE ER. :	<p>SHEET NO. ST-14</p> <p>REVISION NO. R-00</p> <p>DWG CODE. 3S18R - TERAI & VALLEY</p>	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

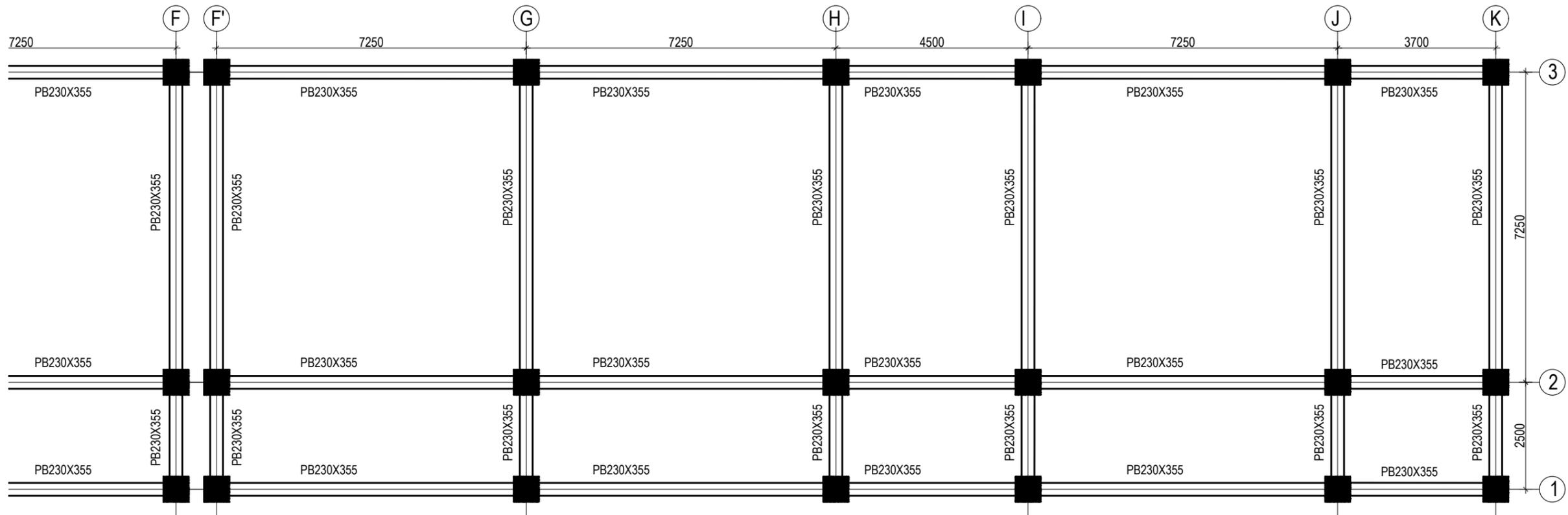


PLINTH BEAM LAYOUT PLAN
 (Scale= 1:100)
 LVL:- PL+0000

KEY PLAN

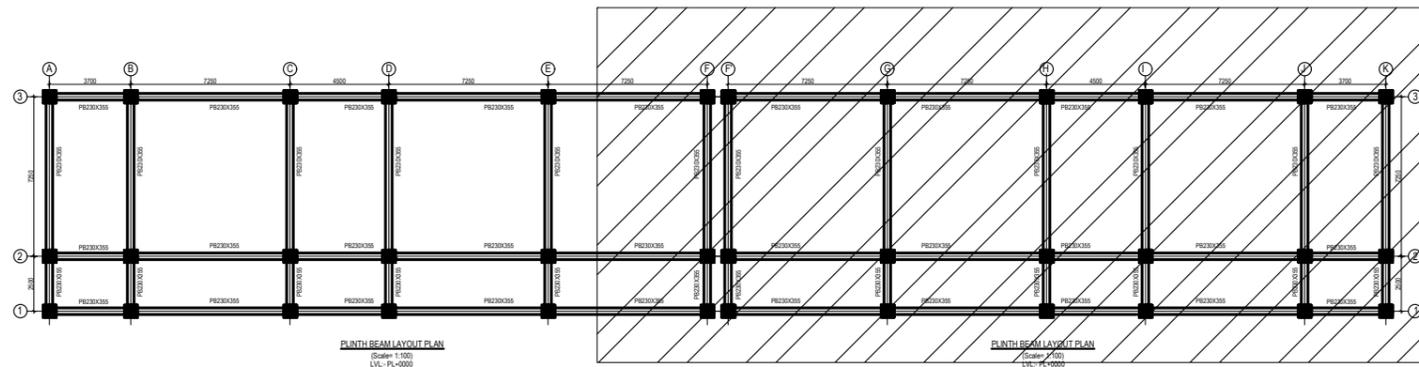


CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM LAYOUT PLAN	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-15	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S18R - TERAI & VALLEY	



PLINTH BEAM LAYOUT PLAN
 (Scale= 1:100)
 LVL:- PL+0000

KEY PLAN

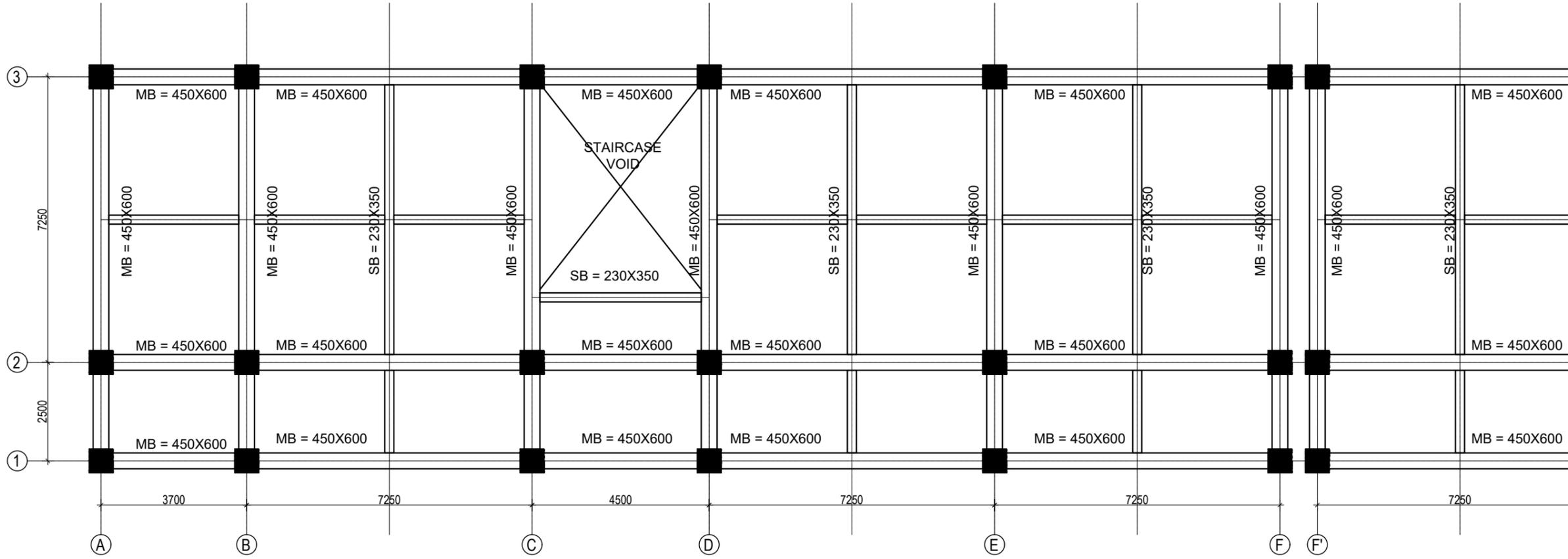


CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM LAYOUT PLAN	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-16	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S18R - TERAI & VALLEY	

COLUMN REINFORCEMENT DETAILS

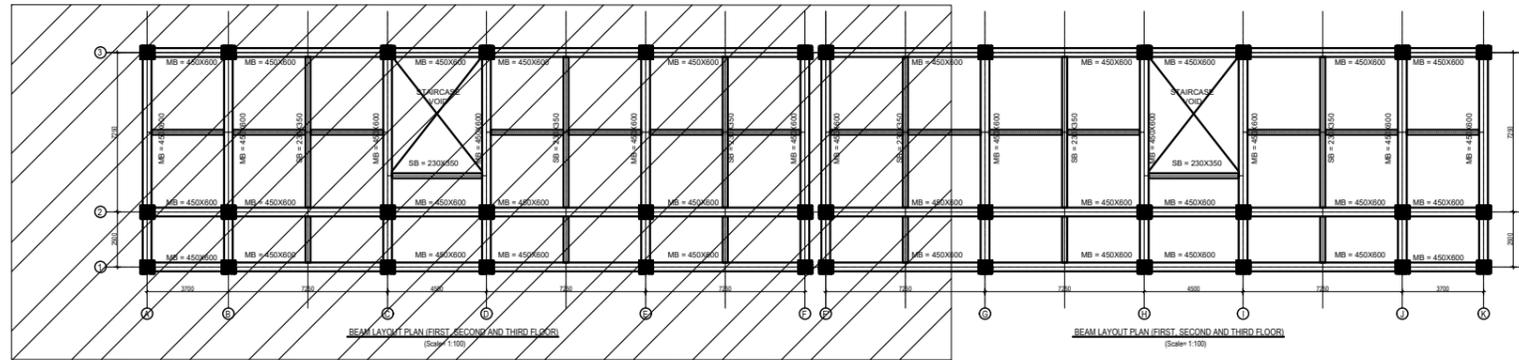
S. NO.	GRID	BEAM SIZE	AT SUPPORT	AT MID	STIRRUPS BAR ORIENTATION	FLOOR LVL
1	1-1 2-2 3-3	450X600				FIRST FLOOR BEAMS SECOND FLOOR BEAMS
						4- Legged, 100mm c/c & 150 c/c
2	A-A B-B C-C D-D E-E	450X600				REMAINING FLOOR BEAMS
						4- Legged, 100mm c/c & 150 c/c
3	Sec. beam	230X350				ALL FLOOR BEAMS
						2- Legged, 100mm c/c & 150 c/c

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-17	REVISION NO. R-00
Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	BEAM DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S18R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

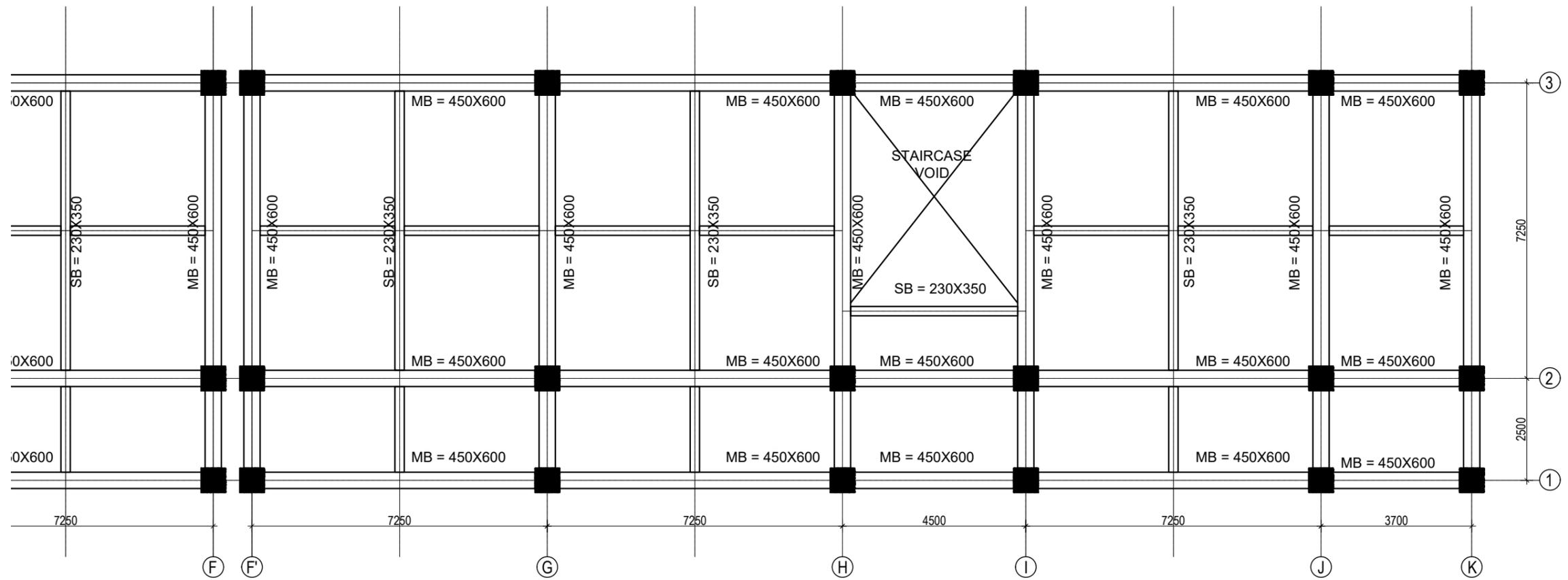


BEAM LAYOUT PLAN (FIRST, SECOND AND THIRD FLOOR)
(Scale= 1:100)

KEY PLAN

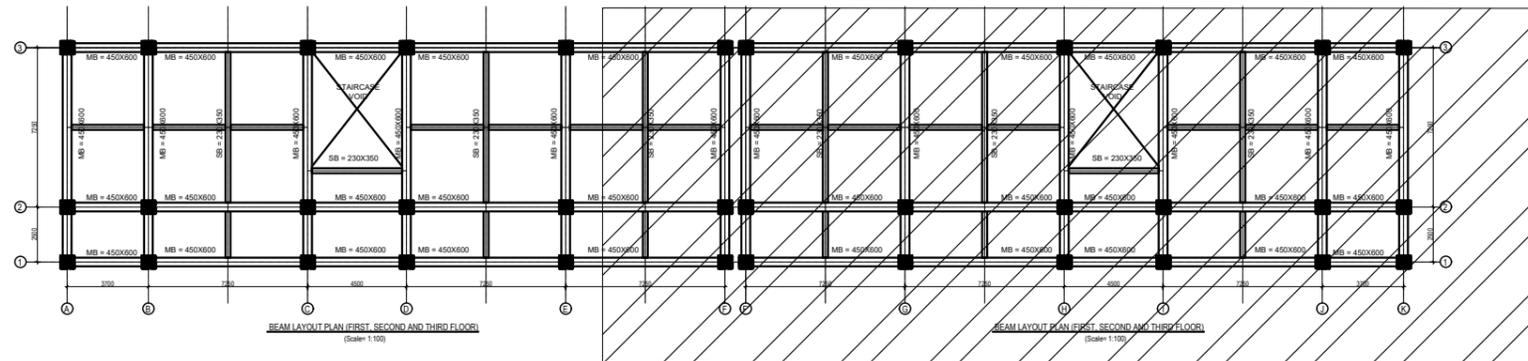


 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-18	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

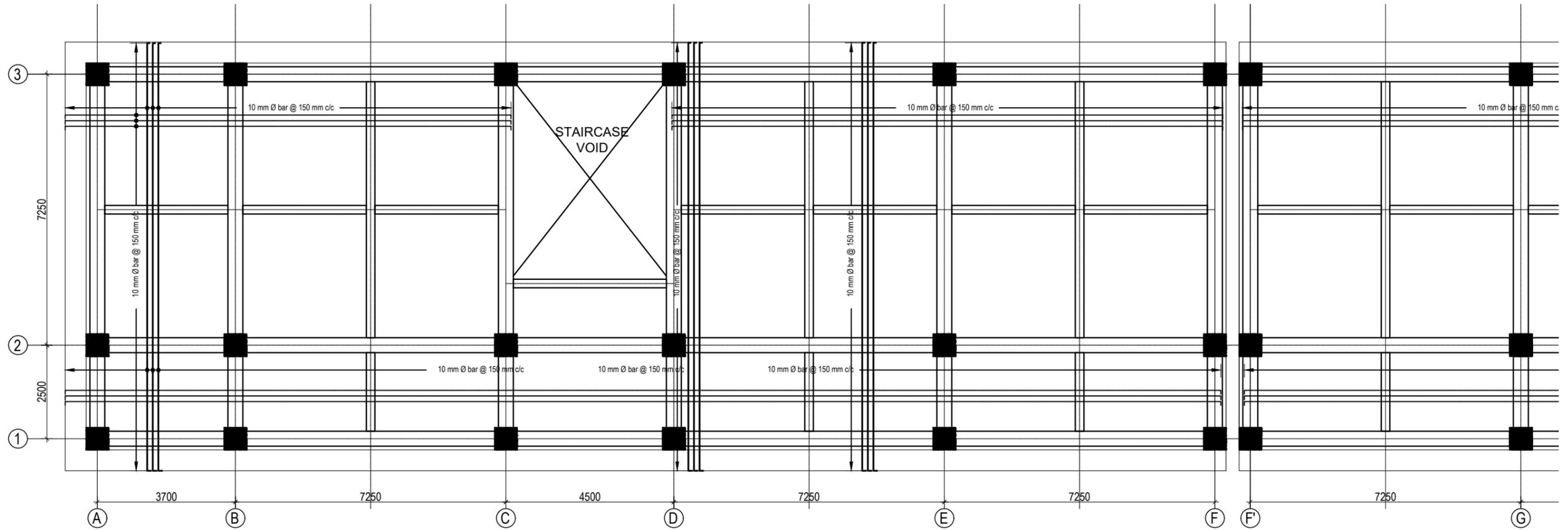


BEAM LAYOUT PLAN (FIRST, SECOND AND THIRD FLOOR)
(Scale= 1:100)

KEY PLAN

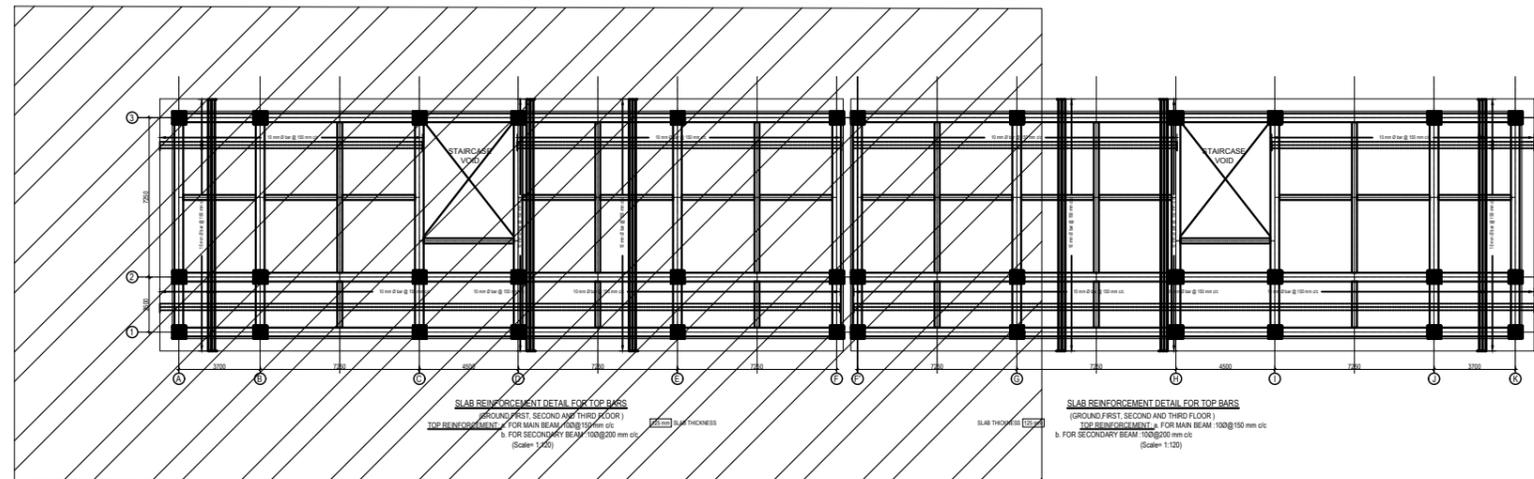


CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE BEAM DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-19	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S18R - TERAI & VALLEY	

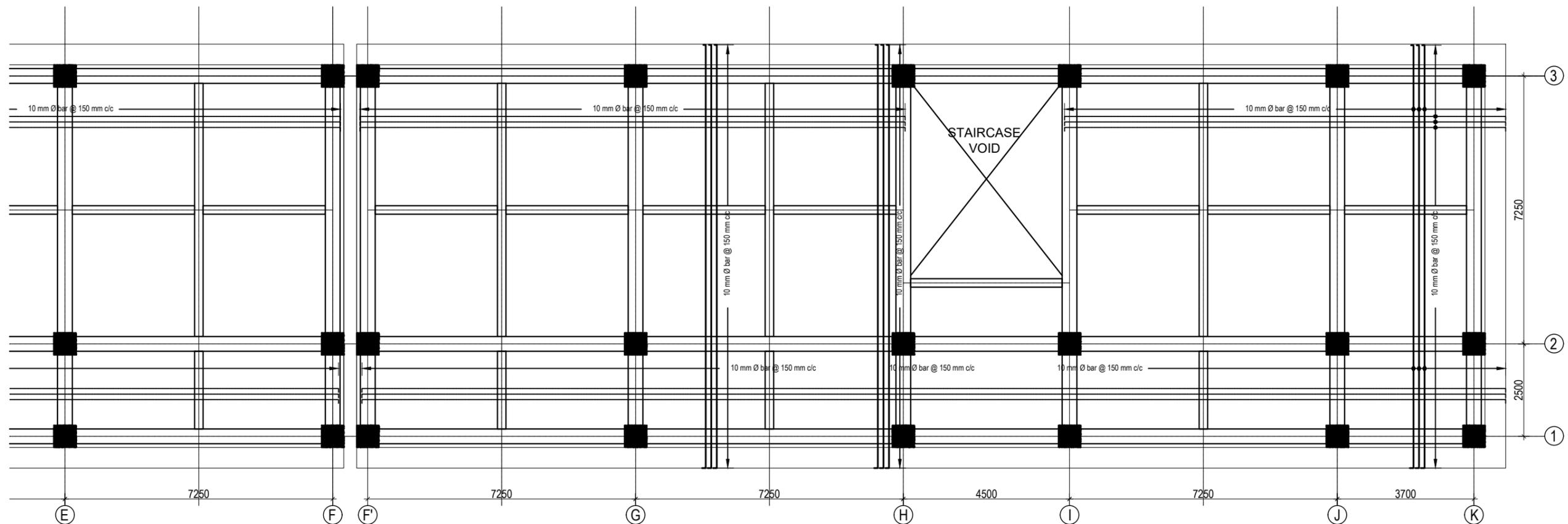


SLAB REINFORCEMENT DETAIL FOR TOP BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 TOP REINFORCEMENT: a. FOR MAIN BEAM :10Ø@150 mm c/c 125 mm SLAB THICKNESS
 b. FOR SECONDARY BEAM :10Ø@200 mm c/c
 (Scale= 1:120)

SLAB THICKNESS 125 mm



CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-20	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S18R - TERAI & VALLEY	

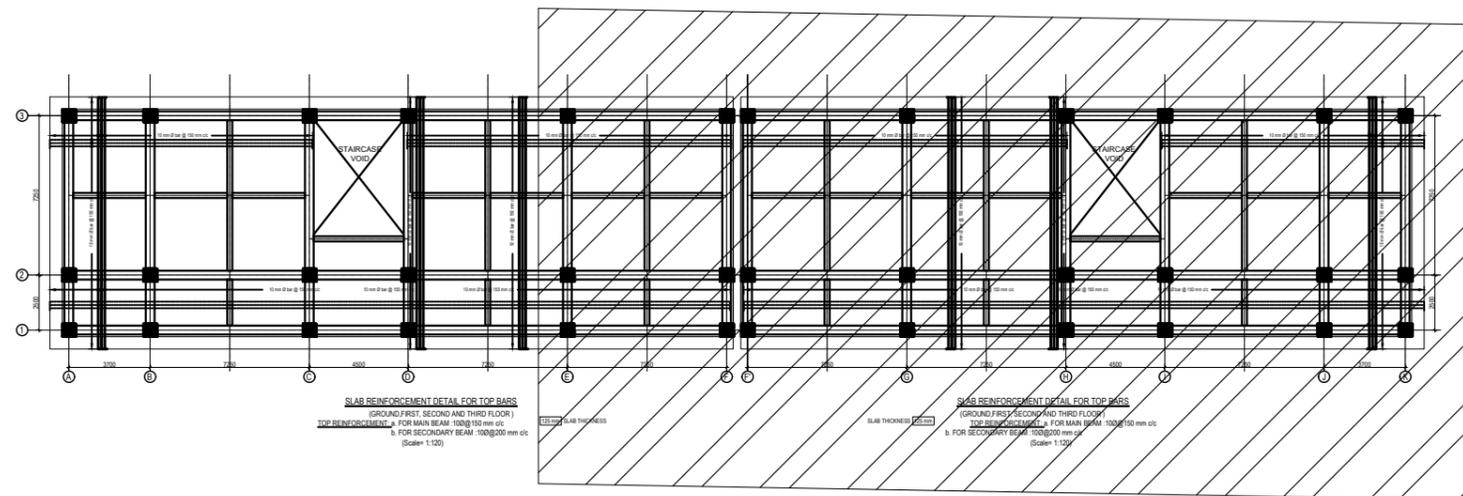


SLAB REINFORCEMENT DETAIL FOR TOP BARS

(GROUND, FIRST, SECOND AND THIRD FLOOR)
 TOP REINFORCEMENT: a. FOR MAIN BEAM : 10Ø@150 mm c/c
 b. FOR SECONDARY BEAM : 10Ø@200 mm c/c
 (Scale= 1:120)

125 mm SLAB THICKNESS

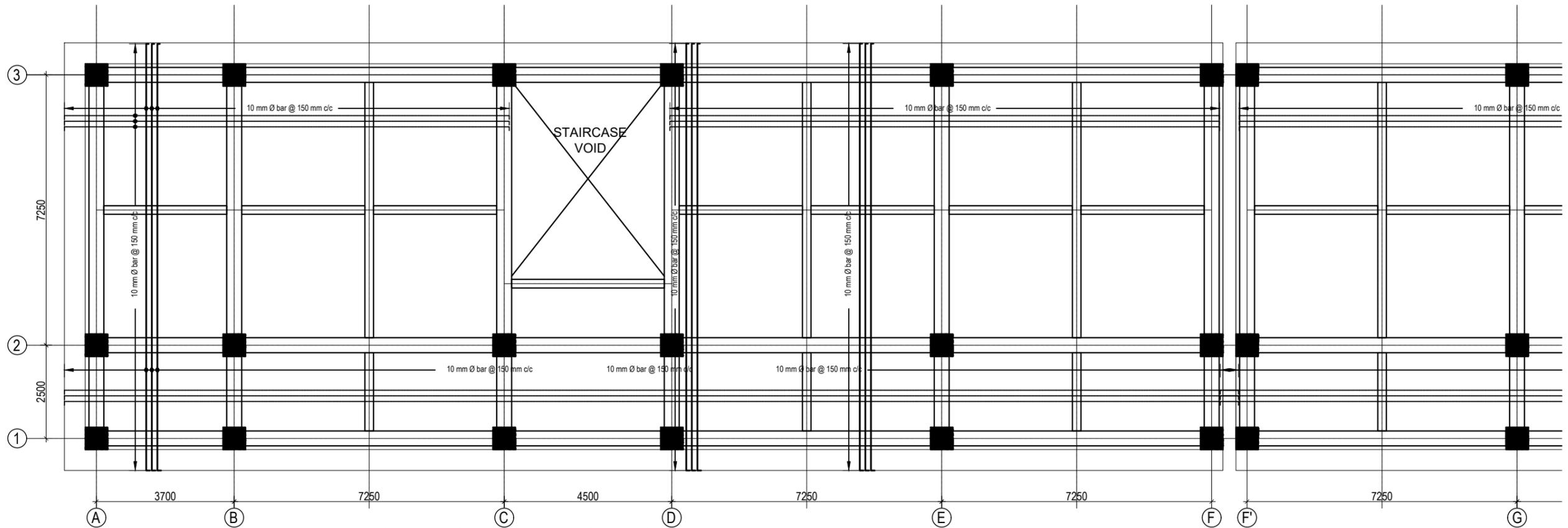
SLAB THICKNESS 125 mm



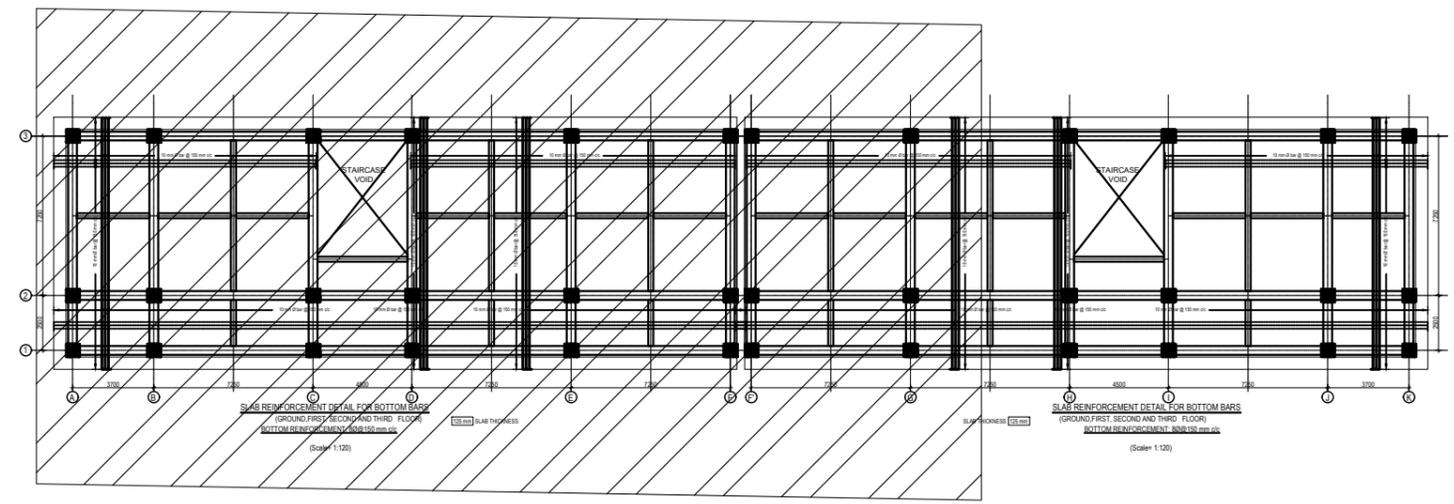
SLAB REINFORCEMENT DETAIL FOR TOP BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 TOP REINFORCEMENT: a. FOR MAIN BEAM : 10Ø@150 mm c/c
 b. FOR SECONDARY BEAM : 10Ø@200 mm c/c
 (Scale= 1:120)

SLAB REINFORCEMENT DETAIL FOR TOP BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 TOP REINFORCEMENT: a. FOR MAIN BEAM : 10Ø@150 mm c/c
 b. FOR SECONDARY BEAM : 10Ø@200 mm c/c
 (Scale= 1:120)

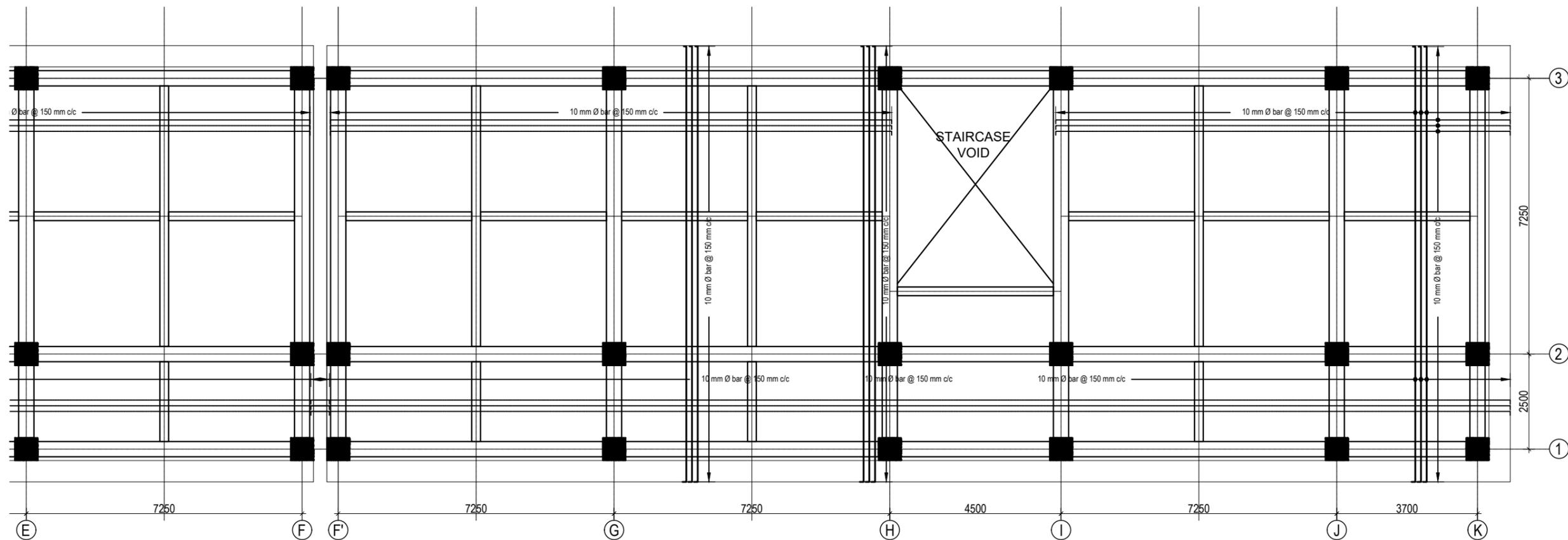
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-21	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		



SLAB REINFORCEMENT DETAIL FOR BOTTOM BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 BOTTOM REINFORCEMENT: 8Ø@150 mm c/c 125 mm SLAB THICKNESS
 (Scale= 1:120)



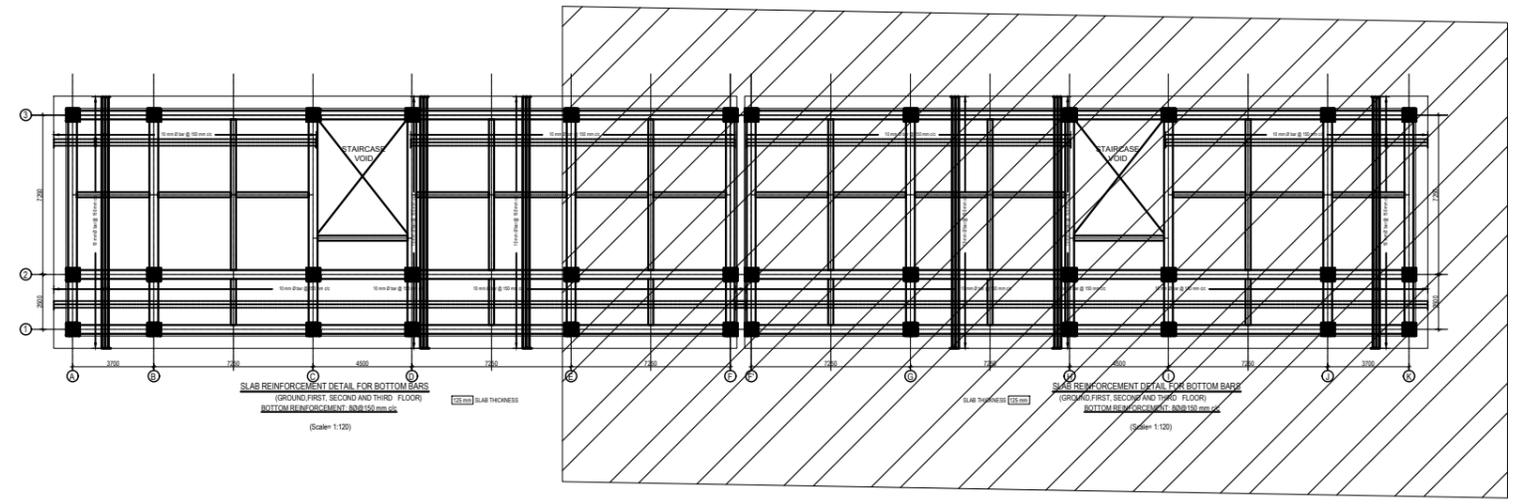
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-22	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN: SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023	DWG CODE. 3S18R - TERAI & VALLEY	



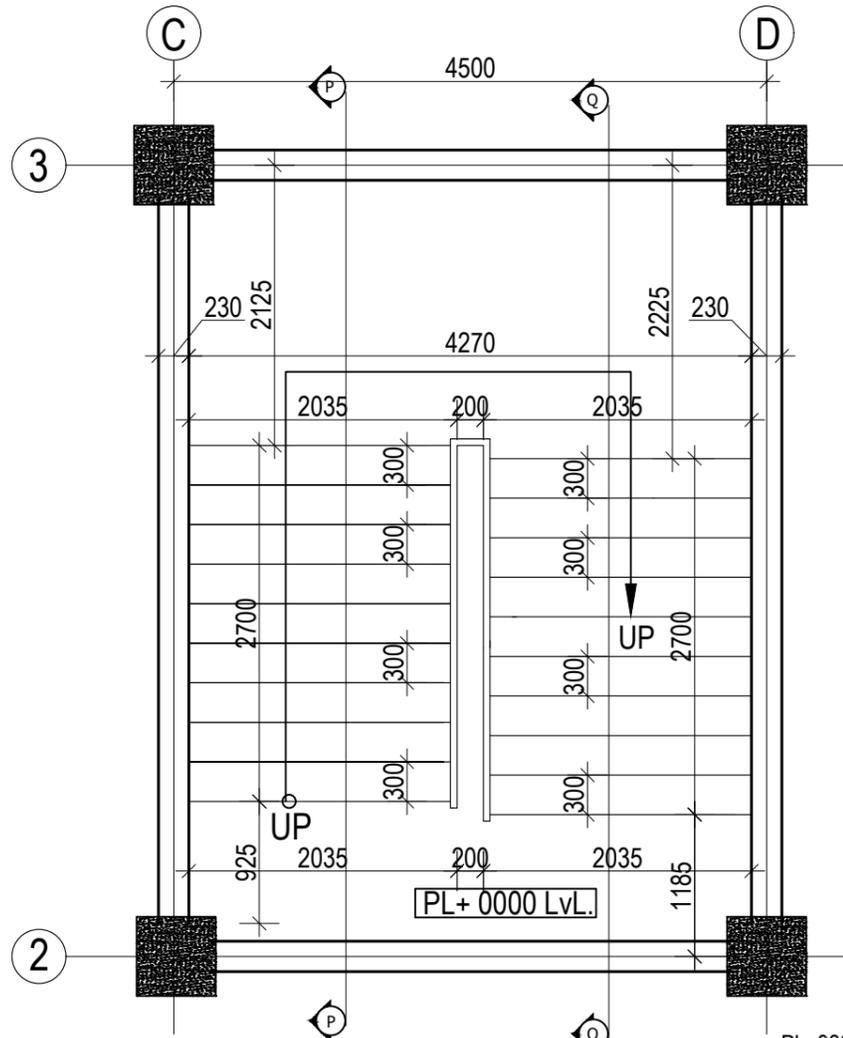
SLAB REINFORCEMENT DETAIL FOR BOTTOM BARS
 (GROUND, FIRST, SECOND AND THIRD FLOOR)
 BOTTOM REINFORCEMENT: 8Ø@150 mm c/c

(Scale= 1:120)

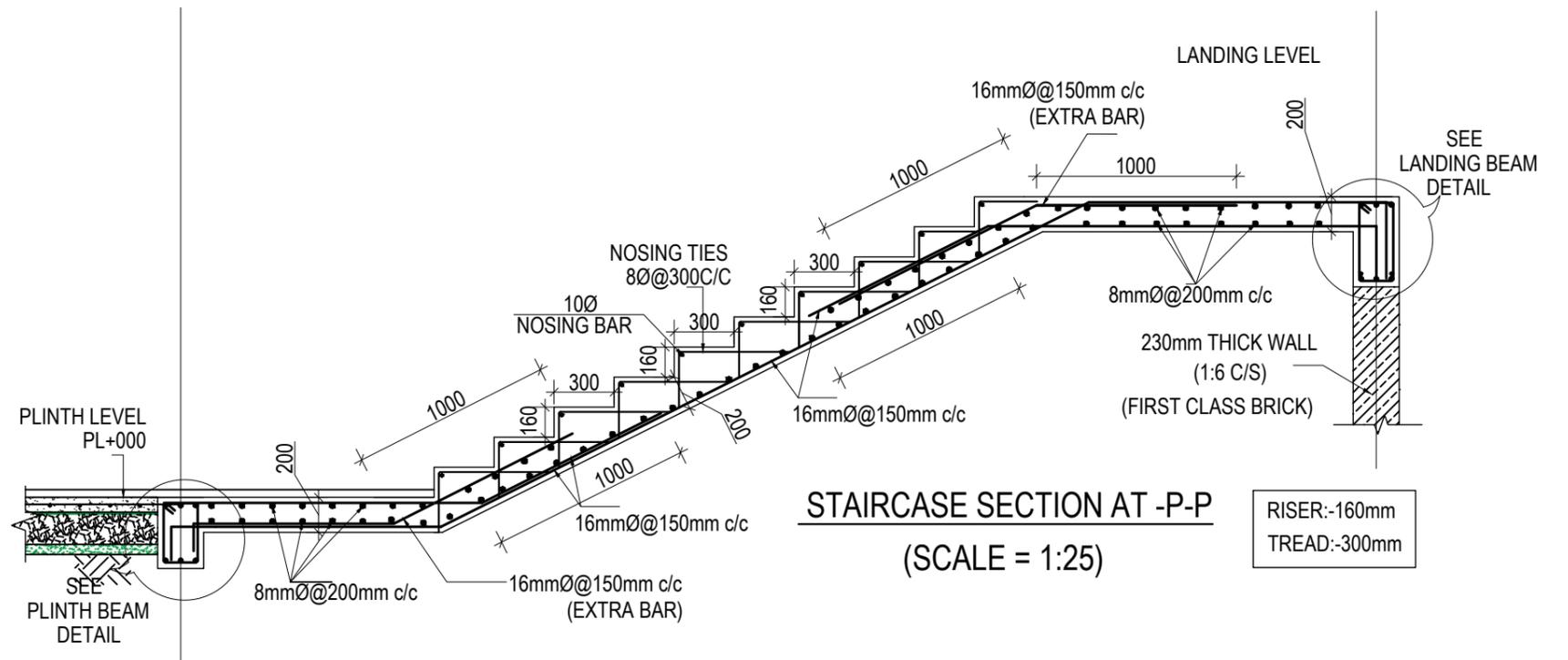
SLAB THICKNESS 125 mm



CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE SLAB REINFORCEMENT DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-23	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN : SCALE : 1: 120	STRUCTURE ER. : CHECKED: APPROVED: DATE: FEBRUARY, 2023		

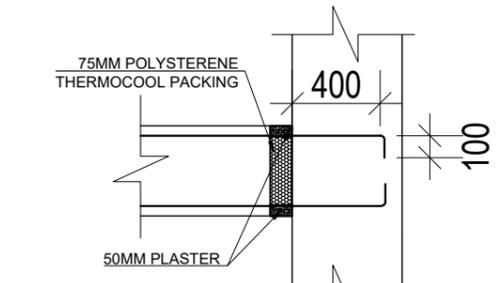


GROUND FLOOR STAIRCASE PLAN
(Scale= 1:50)

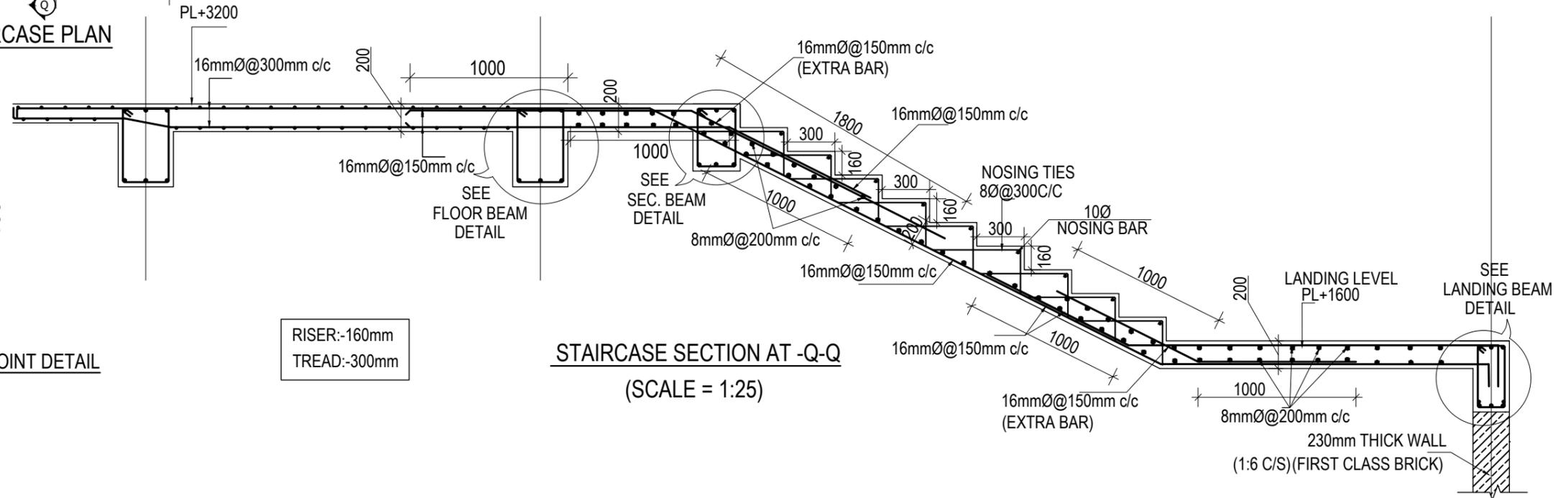


STAIRCASE SECTION AT -P-P
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm



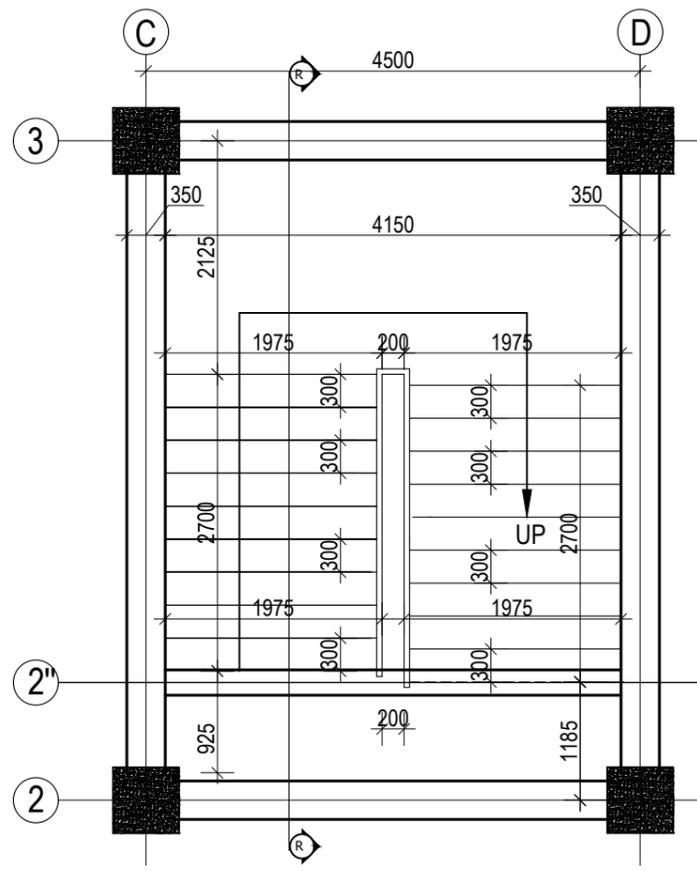
TYPICAL LANDING BEAM AND COLUMN JOINT DETAIL



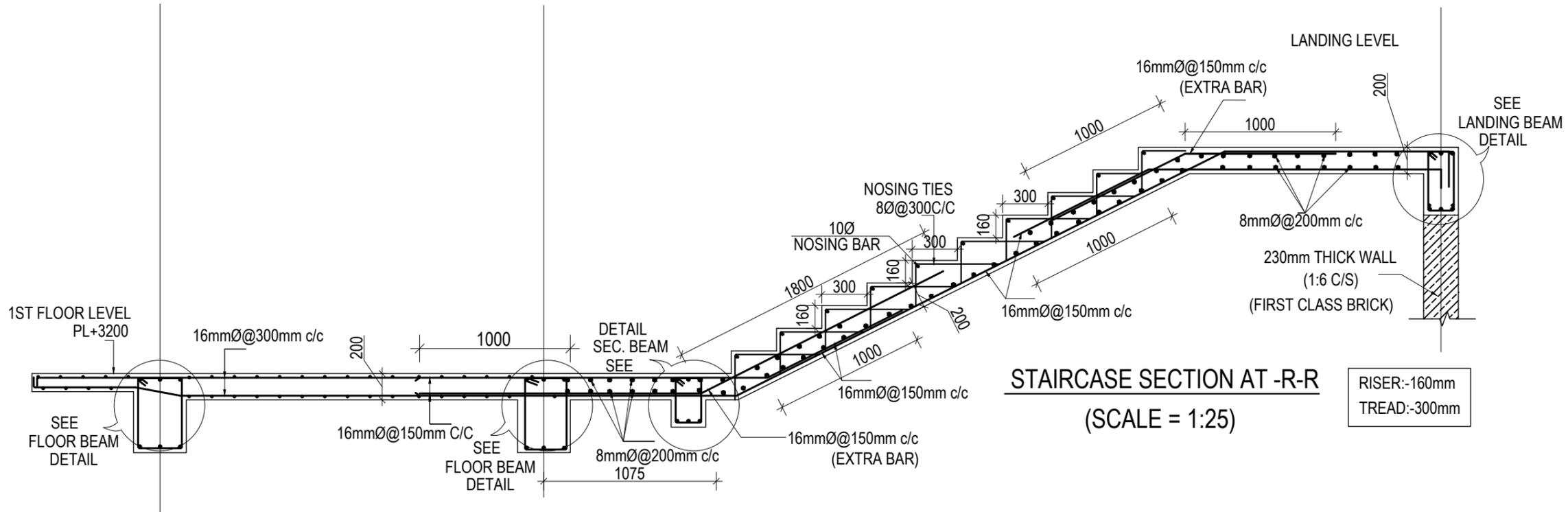
STAIRCASE SECTION AT -Q-Q
(SCALE = 1:25)

RISER:-160mm
TREAD:-300mm

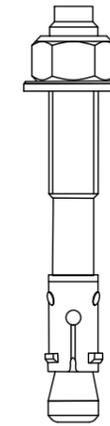
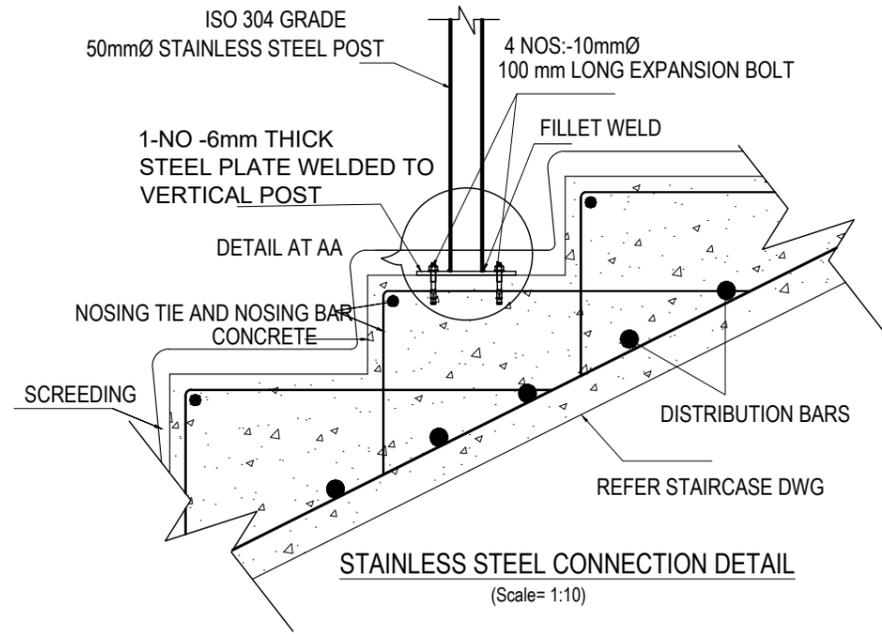
CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE STAIRCASE DETAIL	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-24	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN: SCALE : 1: 120	STRUCTURE ER.: CHECKED: APPROVED: DATE: FEBRUARY, 2023		



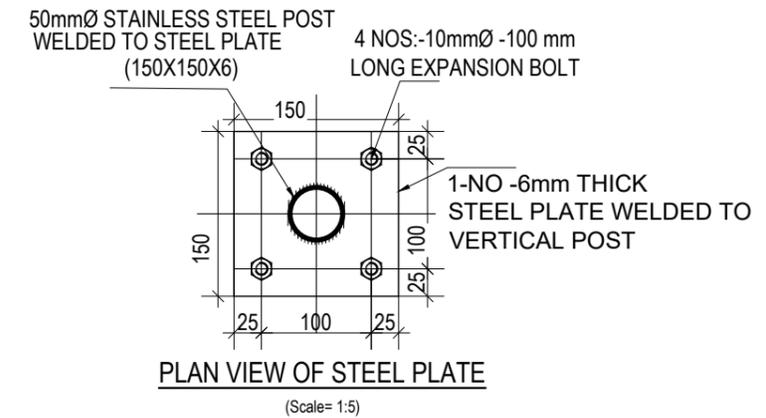
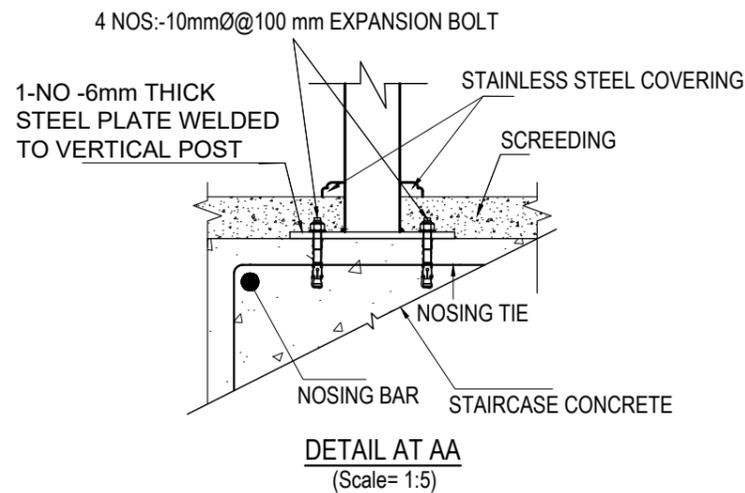
TYPICAL FLOOR STAIRCASE PLAN
(Scale= 1:50)



CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.	
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	STAIRCASE DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	ST-25	R-00	
				ARCHITECT:	CHECKED:			DWG CODE.
				DRAWN :	APPROVED:			
				SCALE : 1: 120	PAPER SIZE : A3			DATE: FEBRUARY, 2023



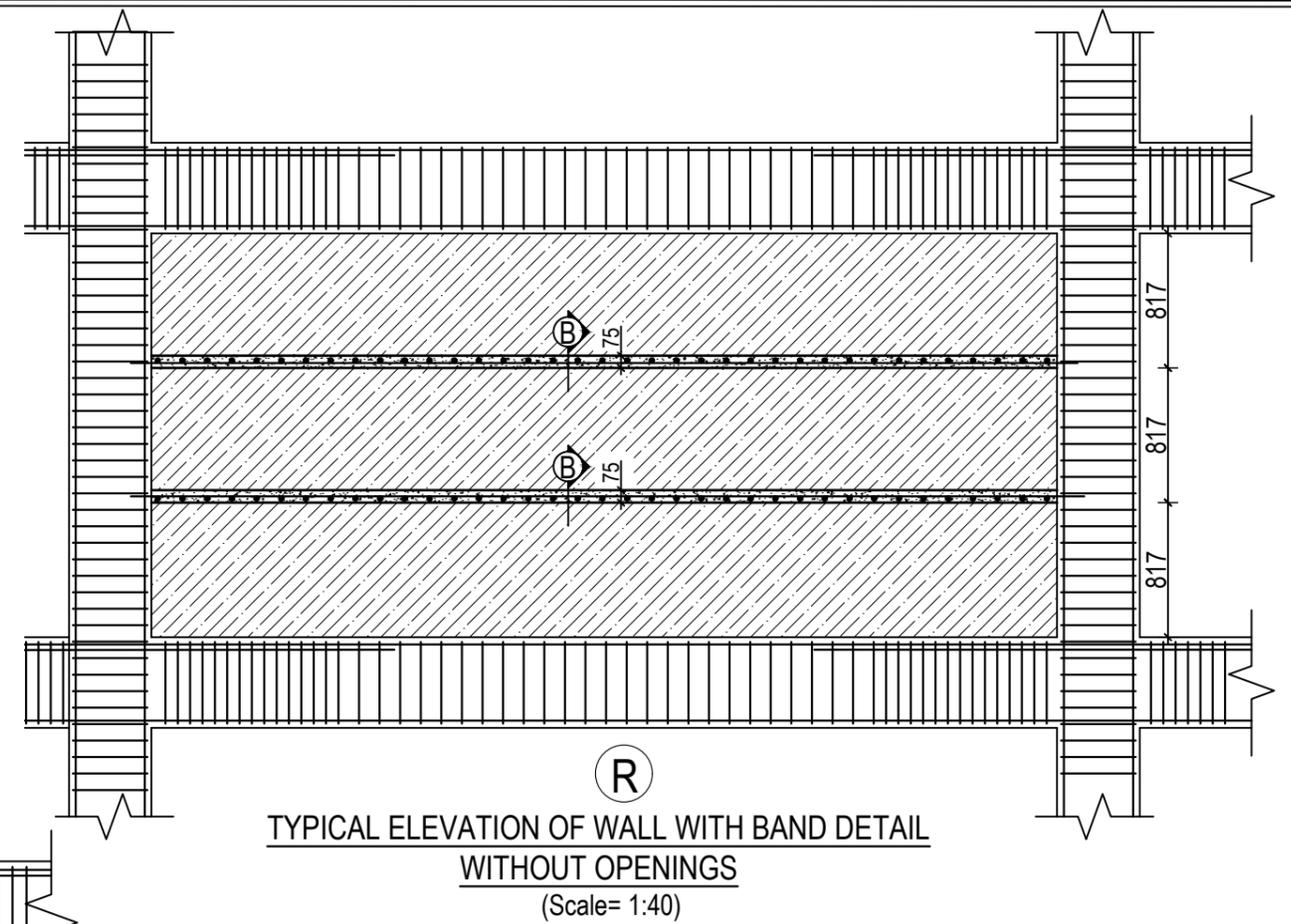
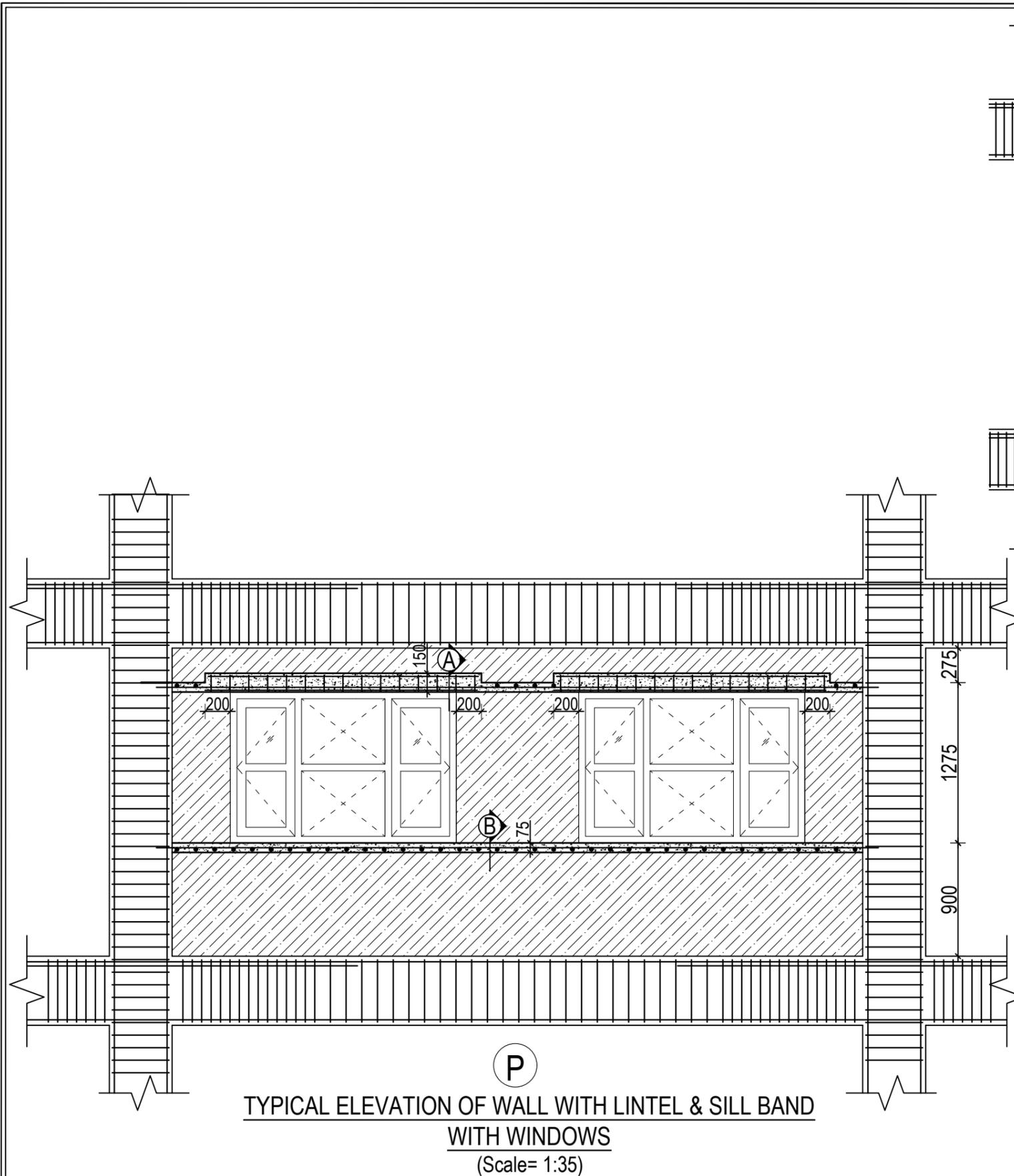
10mmØ-50 mm LONG EXPANSION BOLT
(Scale= 1:1)



NOTE:

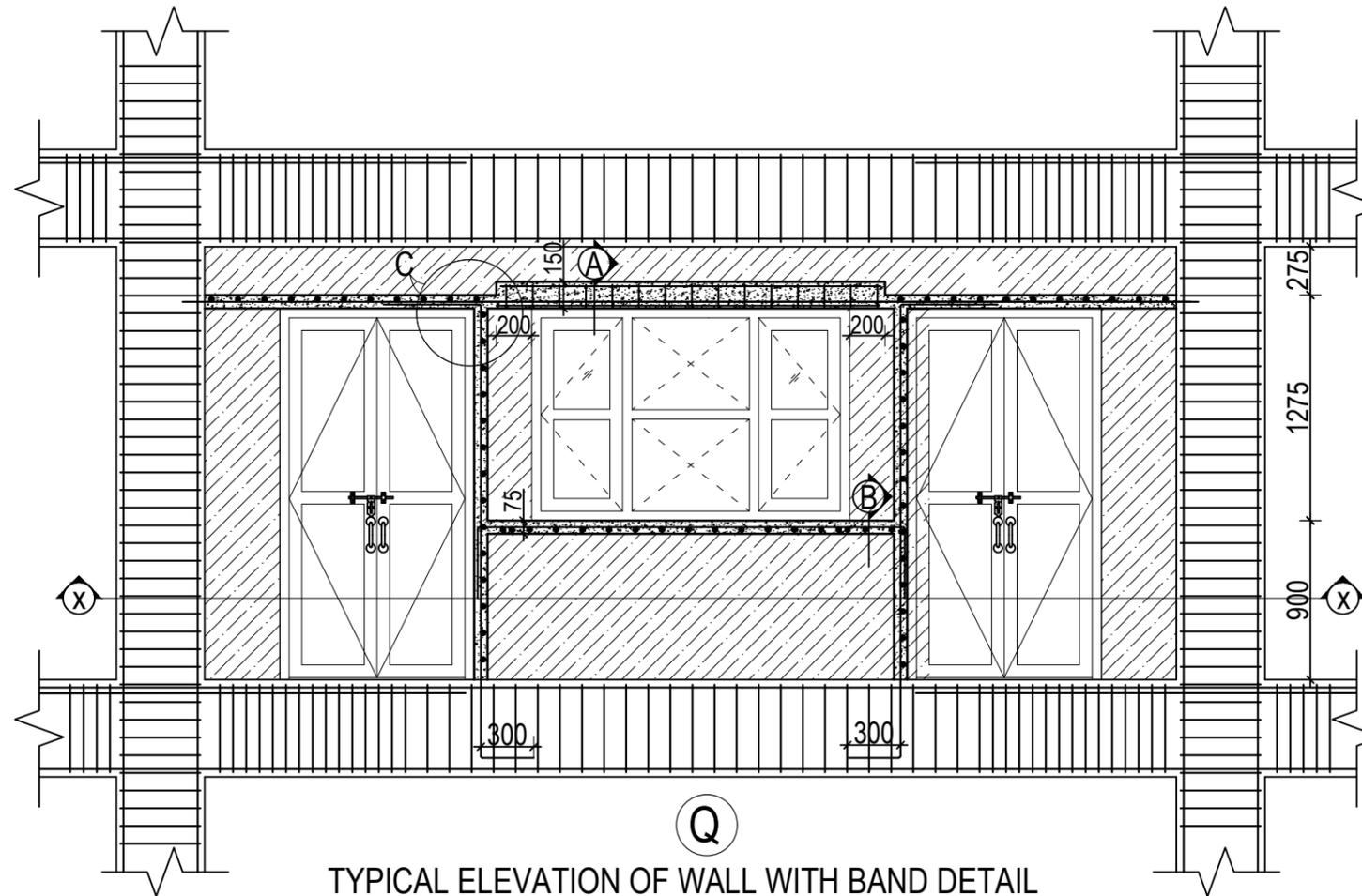
- 1) STAINLESS STEEL SHALL BE IN COMPLIANCE WITH ISO 304 GRADE
- 2) DRILLED HOLE SHALL BE PROPERLY CLEANED BEFORE EMBEDMENT OF BOLT

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. ST-26	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	STAIRCASE DETAIL	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S18R - TERAI & VALLEY	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023					



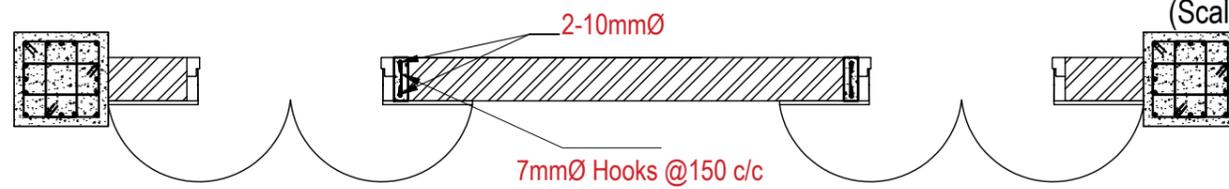
SN.	FLOOR	SECTION AT A-A	SECTION AT B-B
1.	GROUND, FIRST & SECOND FLOOR	<p>230 4NOS.-100 150 8mmØ TIES @150mm c/c 2NOS.-100</p>	<p>230 2NOS.-100 75 7mmØ TIES @150mm c/c</p>
2.	THIRD FLOOR	<p>230 4NOS.-100 150 8mmØ TIES @150mm c/c 2NOS.-120</p>	<p>230 2NOS.-120 75 7mmØ TIES @150mm c/c</p>

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.	
<p>Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal</p>	<p>Prepare School Building Type Design for Terai and Valley Region</p>	<p>TYPICAL WALL DETAIL UPTO SECOND FLOOR</p>	<p>IDEAL SOLUTION PVT. LTD. Nepal</p>	ENGINEER:	STRUCTURE ER. :	ST-27	R-00	
				ARCHITECT:	CHECKED:			DWG CODE.
				DRAWN :	APPROVED:			
SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023						

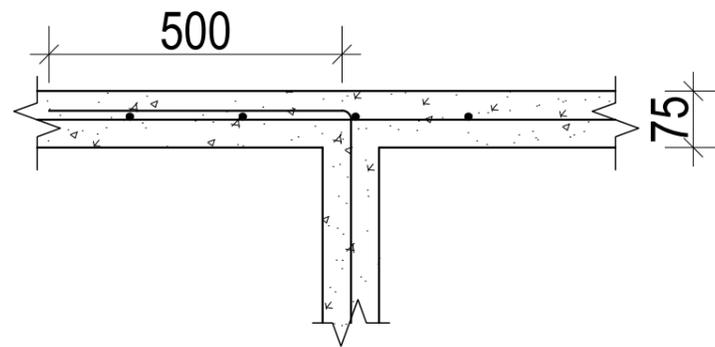


TYPICAL ELEVATION OF WALL WITH BAND DETAIL WITH DOORS AND WINDOWS

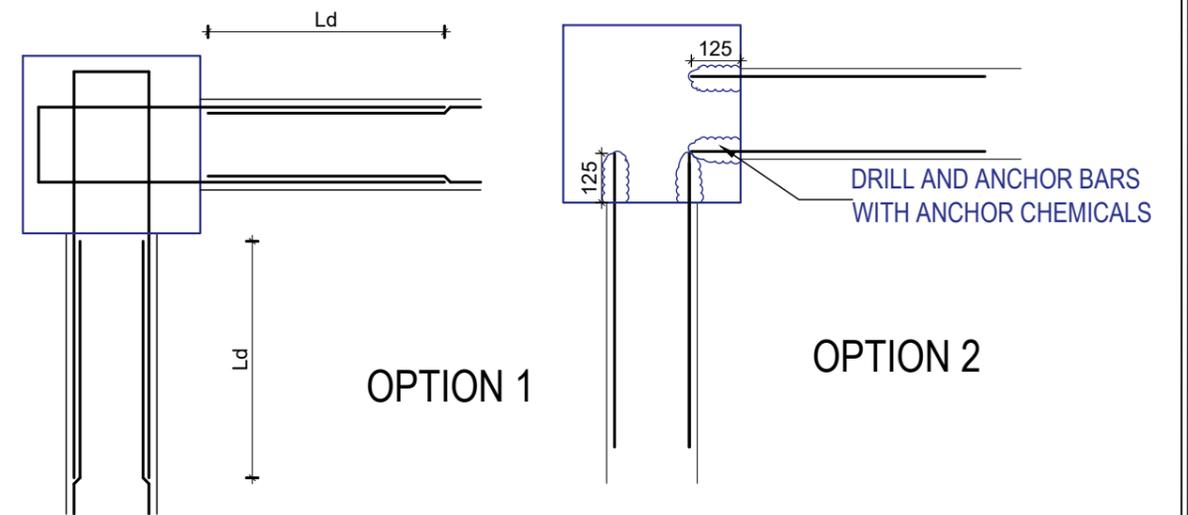
(Scale= 1:35)



SECTION AT X-X



DETAIL AT C

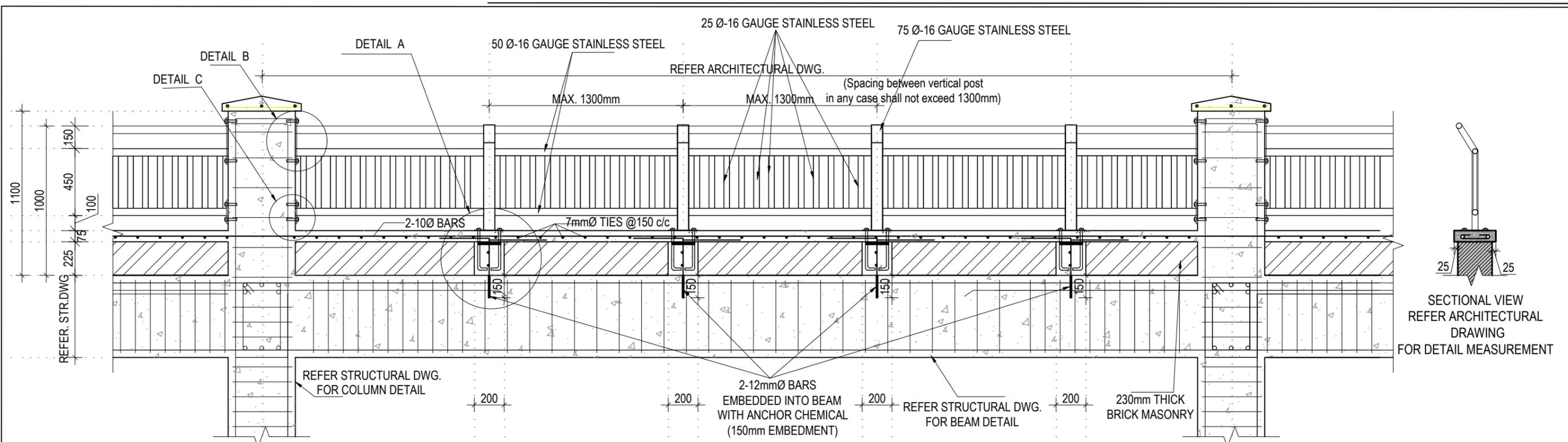


OPTION 1

OPTION 2

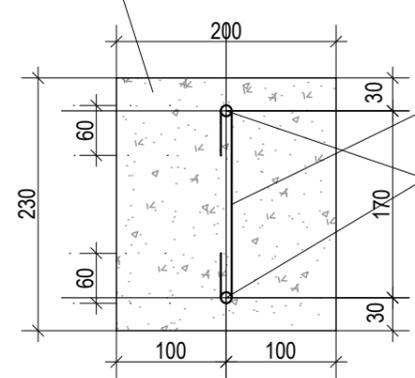
CONNECTION OF BAND REBARS AND COLUMN

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO.	REVISION NO.
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	TYPICAL WALL DETAIL UPTO SECOND FLOOR	IDEAL SOLUTION PVT. LTD. Nepal	ENGINEER:	STRUCTURE ER. :	ST-28	R-00
				ARCHITECT:	CHECKED:	DWG CODE.	
				DRAWN :	APPROVED:	3S18R - TERAI & VALLEY	
				SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	



STAINLESS STEEL RAILING DETAIL
(Scale= 1:25)

M20 GRADE CONCRETE



BARS DETAIL AT A
PLAN VIEW

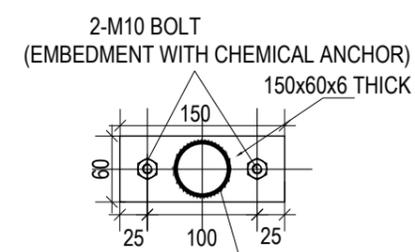
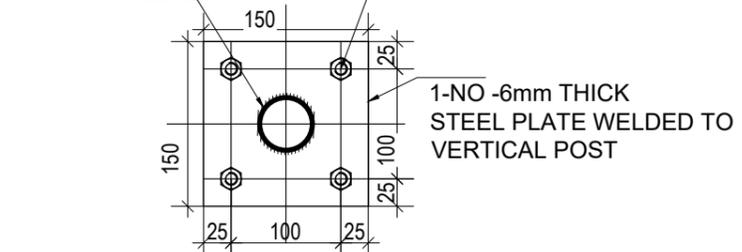


PLATE DETAIL AT C
PLAN VIEW

50mm Ø STAINLESS STEEL PIPE (ISO 304 GRADE)
16 GAUGE WELDED TO 150X60X6 STAINLESS PLATE

PLATE DETAIL AT C
PLAN VIEW

75mm Ø -16 GAUGE STAINLESS STEEL POST (ISO 304 GRADE)
WELDED TO STEEL PLATE (150X150X6)
4 NOS:-10mm Ø -250 mm LONG ANCHOR BOLT



PLAN VIEW OF STEEL PLATE
PLATE DETAIL AT A

75mm Ø-16 GAUGE STAINLESS STEEL PIPE
50mm Ø-16 GAUGE STAINLESS STEEL PIPE WELDED TO STAINLESS STEEL PLATE (275X150X6)

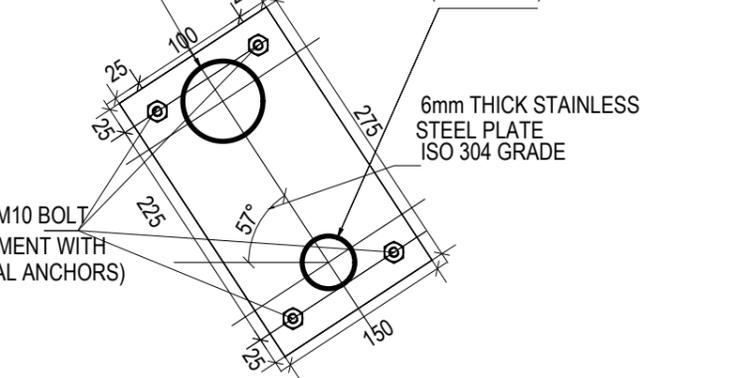
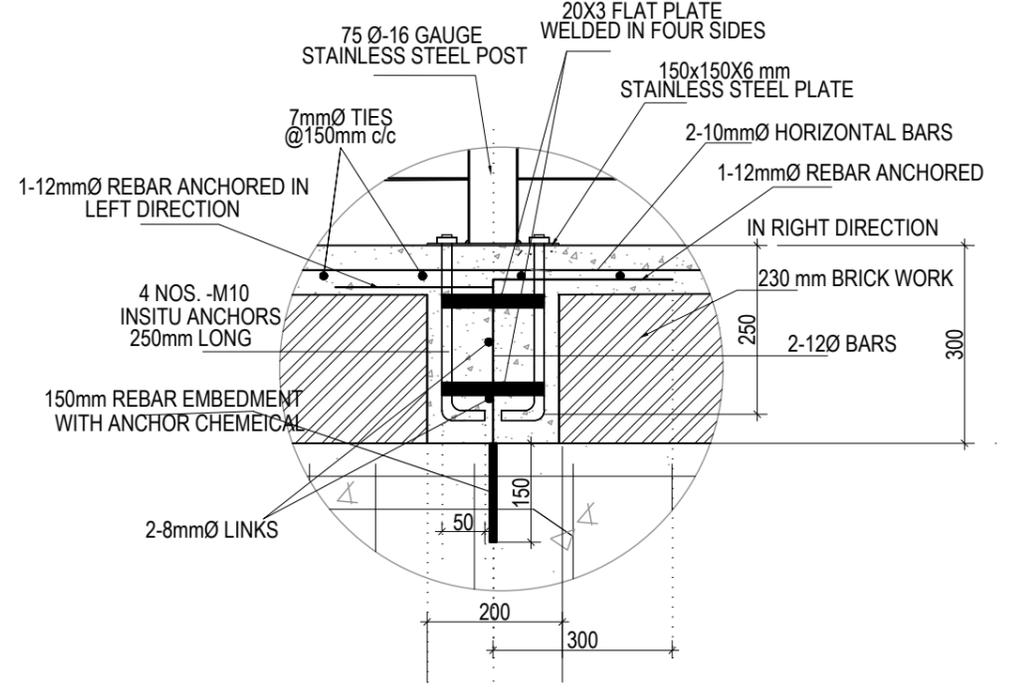


PLATE DETAIL AT B



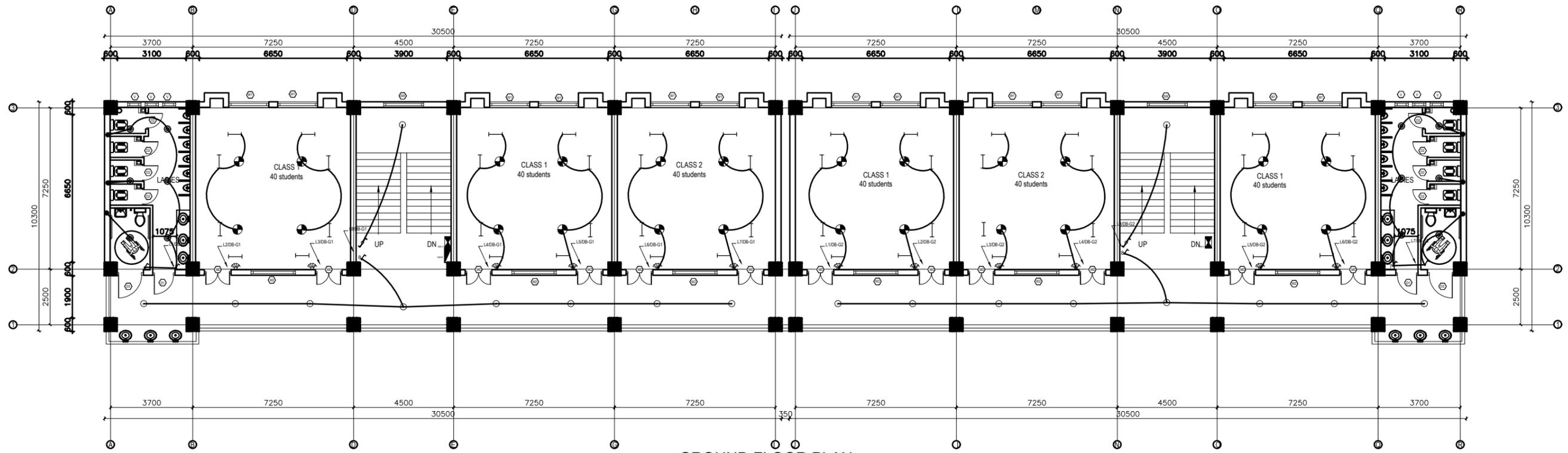
DETAIL AT A

NOTE:- STAINLESS STEEL SHALL BE ISO304 GRADE

CLIENT  Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE TYPICAL RAILING DETAILS	CONSULTANT IDEAL SOLUTION PVT. LTD. Nepal	PLANNING DESIGN TEAM		SHEET NO. ST-29	REVISION NO. R-00
				ENGINEER: ARCHITECT: DRAWN :	STRUCTURE ER. : CHECKED: APPROVED:		
				SCALE : 1: 120	PAPER SIZE : A3	DATE: FEBRUARY, 2023	

ELECTRICAL

DRAWING

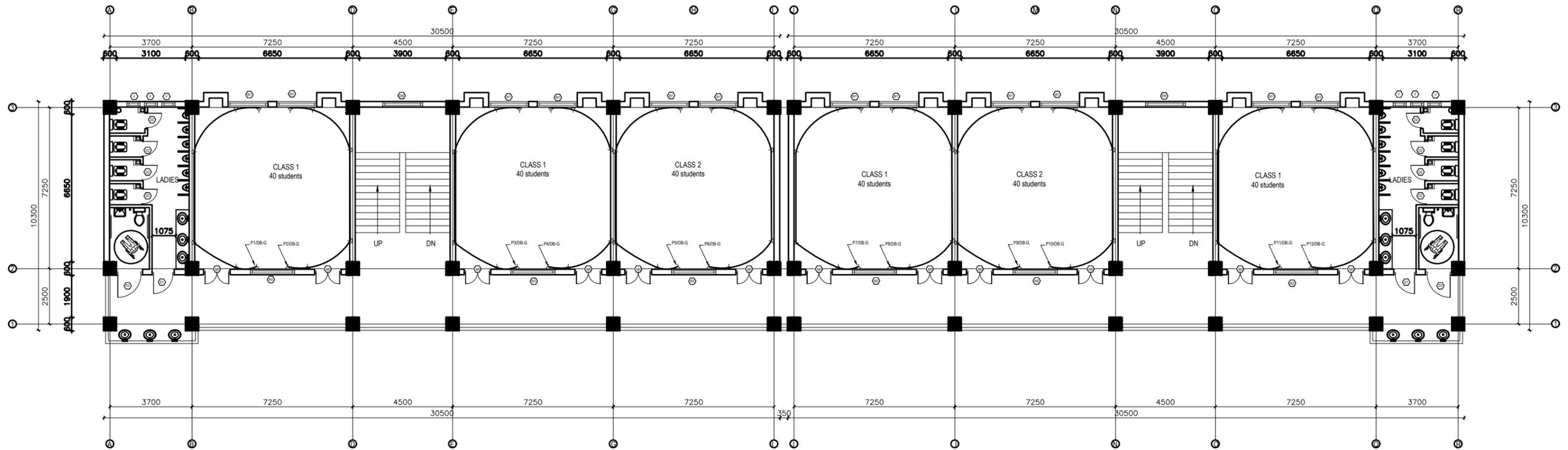


GROUND FLOOR PLAN
FLOOR AREA: 637.185 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
○	12WCFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊕	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊕	VERTICAL AIR TERMINAL	--
⊕	CLIP TO HOLD DOWN CONDUCTOR	--
⊕	EARTH TEST LINK	--
⊕	EARTH PIT	--

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 01	REVISION NO. R-00
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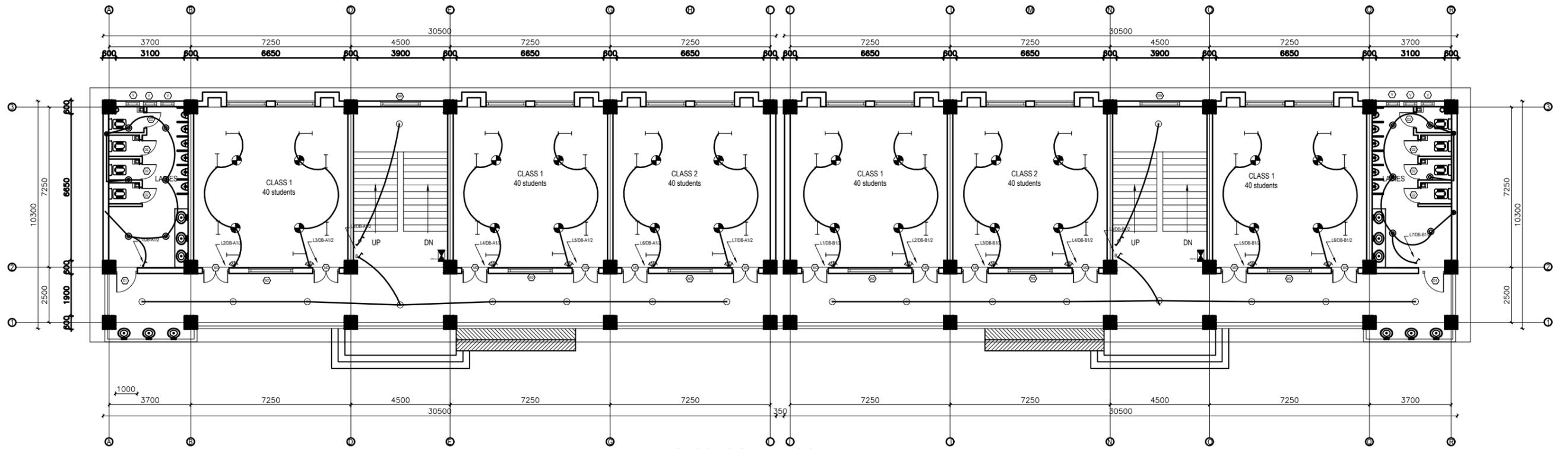


GROUND FLOOR PLAN
FLOOR AREA: 637.185 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	--
⊙	CLIP TO HOLD DOWN CONDUCTOR	--
⊙	EARTH TEST LINK	--
⊙	EARTH PIT	--

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 02	REVISION NO. R-00
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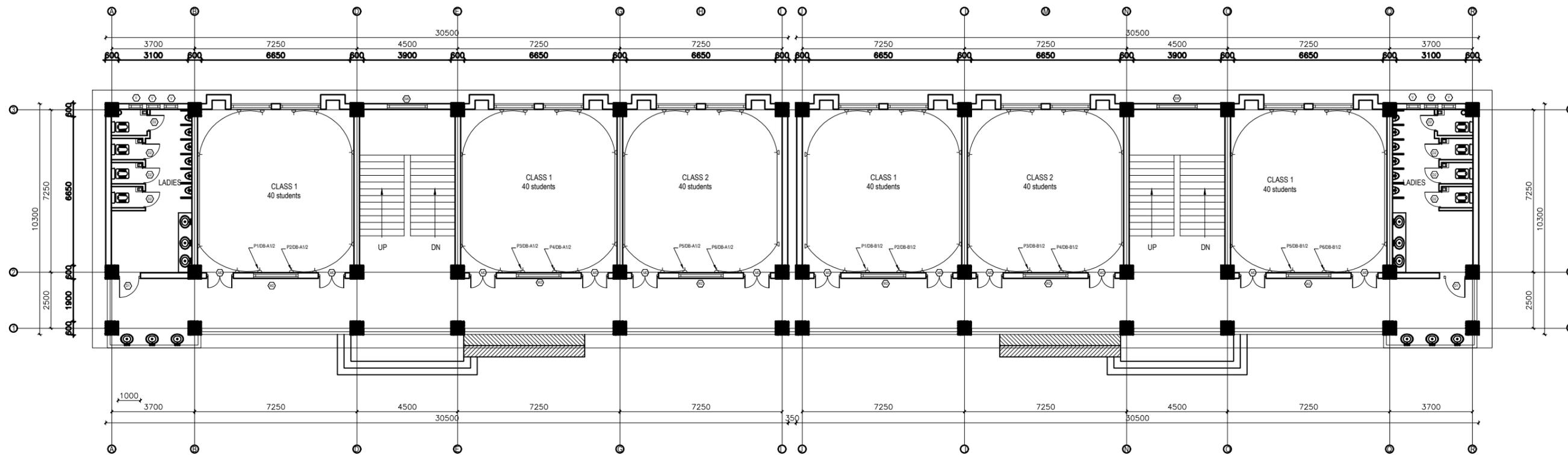


FIRST&SECOND FLOOR PLAN
FLOOR AREA: 637.185 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
○	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊕	Power Socket	300mm from finished floor level
⊕	1,2,3 gang Switch	1.25m above finished floor level
⊕	4,5,6 gang Switch	1.25m above finished floor level
⊕	Two way Switch	1.25m above finished floor level
⊕	Distribution Box	2.5m above finished floor level
⊕	MDB	1m above finished floor level
⊕	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊕	VERTICAL AIR TERMINAL	--
⊕	CLIP TO HOLD DOWN CONDUCTOR	--
⊕	EARTH TEST LINK	--
⊕	EARTH PIT	--

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 03	REVISION NO. R-00
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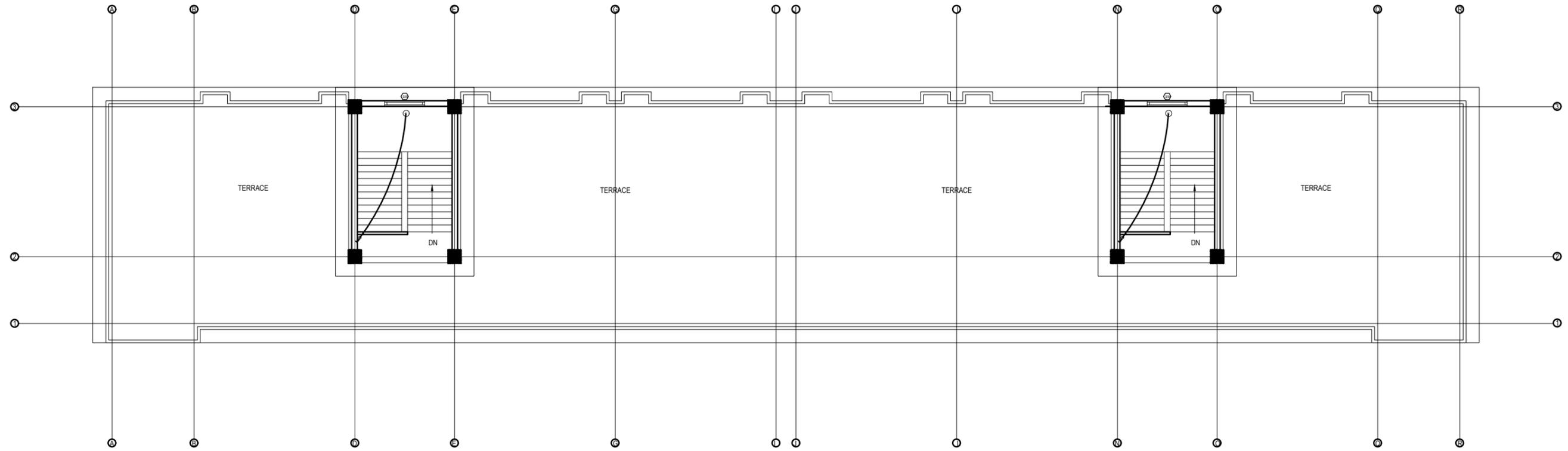


FIRST&SECOND FLOOR PLAN
FLOOR AREA: 637.185 sq.m

LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12W CFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	--
⊙	CLIP TO HOLD DOWN CONDUCTOR	--
⊙	EARTH TEST LINK	--
⊙	EARTH PIT	--

CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 04	REVISION NO. R-00
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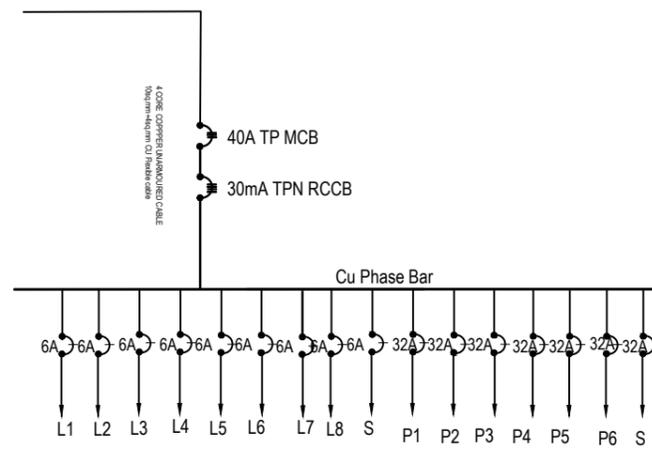


TOP FLOOR PLAN
FLOOR AREA: 78.78 sq.m

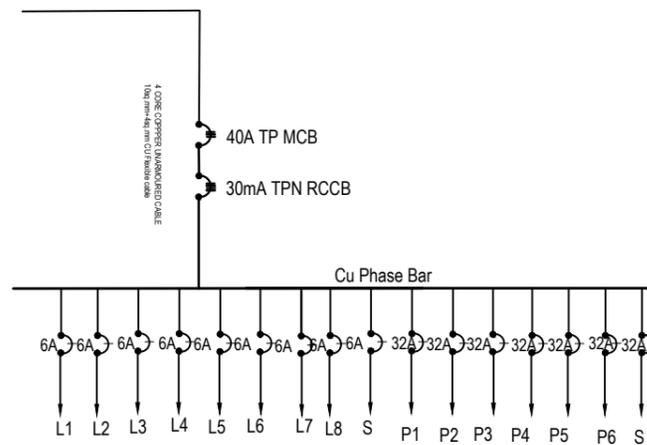
LEGEND		
SYMBOL	DESCRIPTION	MOUNT HEIGHT
—	40 W Tubelight	Attached to wall
⊙	12WCFL Light Bulb	Attached to ceiling
⊙	42" Ceiling Fan	Attached to ceiling
⊙	Power Socket	300mm from finished floor level
⊙	1,2,3 gang Switch	1.25m above finished floor level
⊙	4,5,6 gang Switch	1.25m above finished floor level
⊙	Two way Switch	1.25m above finished floor level
⊙	Distribution Box	2.5m above finished floor level
⊙	MDB	1m above finished floor level
⊙	9" Exhaust Fan	24" BELOW SLAB

EARTHING & LIGHTNING PROTECTION SYSTEM		
SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
⊙	VERTICAL AIR TERMINAL	--
⊙	CLIP TO HOLD DOWN CONDUCTOR	--
⊙	EARTH TEST LINK	--
⊙	EARTH PIT	--

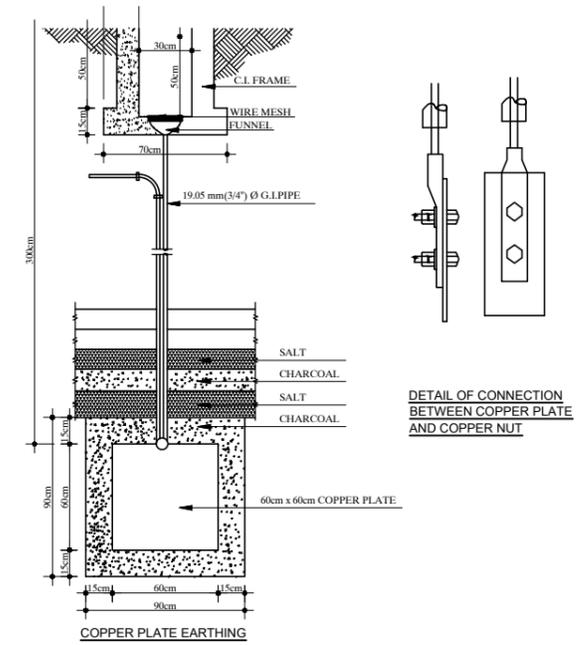
CLIENT Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	PROJECT TITLE Prepare School Building Type Design for Terai and Valley Region	SHEET TITLE ELECTRICAL DRAWING	CONSULTANT IDEAL SOLUTION PVT.LTD.	PLANNING DESIGN TEAM		SHEET NO. 05	REVISION NO. R-00
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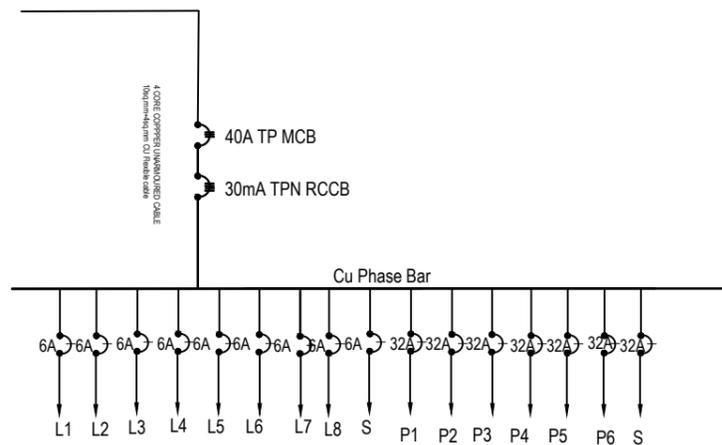
GROUND FLOOR L/P DISTRIBUTION SYSTEM (DB-G1)



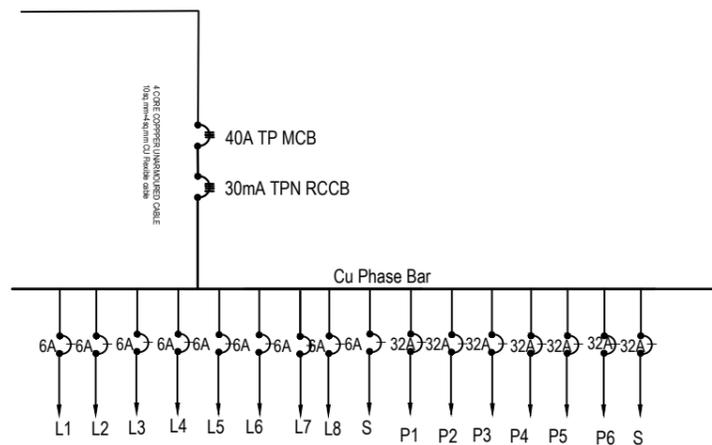
FIRST/SECOND FLOOR L/P DISTRIBUTION SYSTEM (DB-A1/2)



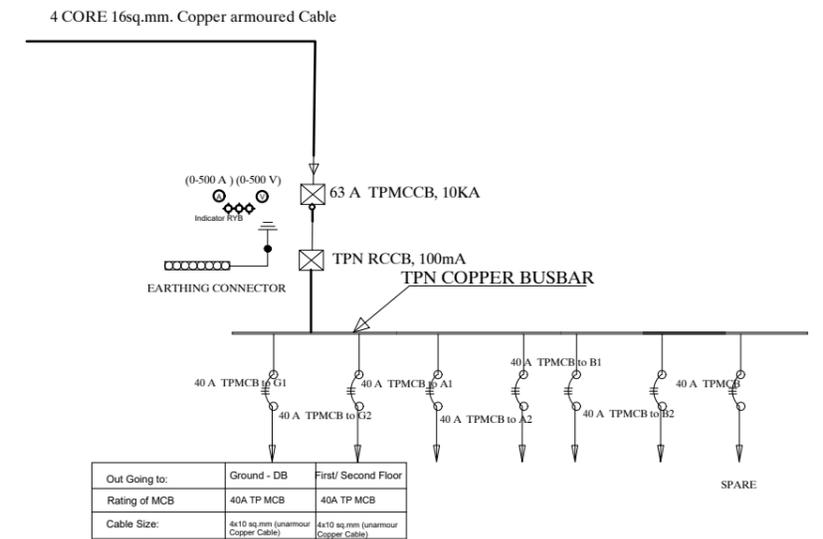
EARTHING DETAILS



GROUND FLOOR L/P DISTRIBUTION SYSTEM (DB-G2)



FIRST/SECOND FLOOR L/P DISTRIBUTION SYSTEM (DB-B1/2)



DETAILS OF Main -DB

CLIENT	PROJECT TITLE	SHEET TITLE	CONSULTANT	PLANNING DESIGN TEAM		SHEET NO. 06	REVISION NO. R-00
 Government of Nepal Ministry of Education, Science & Technology Center for Education and Human Resource Development Sanothimi, Bhaktapur, Nepal	Prepare School Building Type Design for Terai and Valley Region	ELECTRICAL DRAWING	IDEAL SOLUTION PVT.LTD.	ENGINEER:	STRUCTURE ER. :	DWG CODE. 3S12R	
				ARCHITECT:	CHECKED:		
				DRAWN :	APPROVED:		
SCALE :	PAPER SIZE : A3	DATE: FEBRUARY, 2023					

INSTALLATION CONSIDERATION

- * The switch box should be at 200mm from the door and 1250mm above floor.
- * General room socket height should be at 150mm above skirting wall.
- * Kitchen socket height should be at 450mm above kitchen top.
- * Toilet socket/switch should be at 1250mm above floor level and mirror light at 50 mm above mirror as per mirror size.
- * Exhaust fan should be at 600mm below slab.
- * Wall Light should be at 2100mm from floor level.

CONDUIT SCHEDULE

PVC CON. DIA. CABLE SIZES	NO OF MAXIMUM CABLE AND PVC FRLS CONDUIT SIZES					
	16 mm Dia.	20 mm Dia.	25 mm Dia.	32 mm Dia.	40 mm Dia.	50 mm Dia.
1.5 SQ. MM/Equivalent	5	7	10	14	---	---
2.5 SQ. MM/Equivalent	3	5	8	12	---	---
4.0 SQ. MM/Equivalent	---	3	6	10	12	---
6.0 SQ. MM/Equivalent	---	2	4	8	9	---
10 SQ. MM/Equivalent	---	---	3	6	8	---
16 SQ. MM/Equivalent	---	---	2	3	4	8

CONVERSION TABLE

INCHES	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
mm	16	20	25	32	40	50	65	80	90	100	130	150

* Unless and otherwise stated, all final circuits shall be wired with multistranded CU wires in PVC Conduit and shall confirm to the following schedule:

WIRING SYSTEM

Air Conditioner/Heater/Range/Appliances
RJ - 45 Data / TV Point
RJ -11 Telecommunication point
Telephone Point
Outdoor Gate/ Post Top/Street Lights/Flood Lights
6 Amp switched outlet sockets
16 Amp Power Sockets Points
General Light Points (From DB to Switch Board)
Looping of Light Points

CABLE/CONDUCTOR SIZE

2x4.0 + 1x2.5 sq. mm copper wire
CAT 6 4 pairs Data cable
CAT 6 4 pairs Data cable
0.5mm dia PVC Insulated Tinned Cu Cable
3 x 2.5 sq. mm copper M/S wire
2x2.5 + 1x1.5 sq. mm copper M/S wire
2x4.0 + 1x2.5 sq. mm copper M/S wire
2x2.5 + 1x1.5 sq. mm copper M/S wire
2x1.5 + 1x1.0 sq. mm copper M/S wire

NOTE

* Conduit Colors for Light/Power Circuit shall be Black, Security Wiring shall be Blue, Fire Alarm Wiring shall be Red, Low Voltage Circuits shall be Brown and UPS Circuits shall be Green.

* L-N stands for Lighting Circuit, P-N for Power Circuit, AC-N for Air Condition, M/PC-N for Pump/Motor & Lp-N Light Outlet Circuit no.-N (Where N=1,2,3...)

* For Circuit no., see Distribution Details

* Unless and otherwise stated, all final circuits shall be wired up by PVC CU M/S Wire in PVC Conduit and shall confirm to the following schedule:

Rating (Amp)	6	10	20	32	40	63
Wire (sq. mm)	1.5	2.5	4.0	6.0	10	16

* Unless and otherwise stated, maximum of 8 light points shall be wired in a final single lighting circuit where as maximum of 3 power socket outlet shall be wired in single power circuit.

* Unless and otherwise stated, all 16 A outlets with the same circuit no. shall be wired in ring circuit.

* Electrical drawings are schematic only, scale: NTS, use as shown purpose, do not measure directly.

* Contractor should coordinate with interior for exact location of fixtures

* Run separate conduit for TV, TEL and PS wherever they are in matching places

* All the Kitchen/Bathroom Power Circuits should be feed by RCCB with 100 mA sensitivity - see schematic details

* All the cables and conductors shall be PVC insulated CU and shall confirm to the following color codes:

Neutral of AC 1/3 Phase	Black
Grounding/ Bounding/Earthing	Green
loop/common wire for 2 way switch	White
Live Phase A of 3 Phase	Red
Live Phase B of 3 Phase	Yellow
Live Phase C of 3 Phase	Blue

CLIENT



Government of Nepal
Ministry of Education, Science & Technology
Center for Education and Human Resource Development
Sanothimi, Bhaktapur, Nepal

PROJECT TITLE

Prepare School Building Type Design for Terai and Valley Region

SHEET TITLE

ELECTRICAL DRAWING

CONSULTANT

IDEAL SOLUTION PVT.LTD.

PLANNING DESIGN TEAM

ENGINEER:	STRUCTURE ER. :
ARCHITECT:	CHECKED:
DRAWN :	APPROVED:
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SHEET NO. **07** REVISION NO. R-00

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