

Proposed 18 Classroom at  
Sn.Hithadhoo Sharafuddin School  
(03 Storey)

*ARCHITECTURAL & STRUCTURAL DRAWINGS*  
Client: Ministry of Education



RIYAN PRIVATE LIMITED

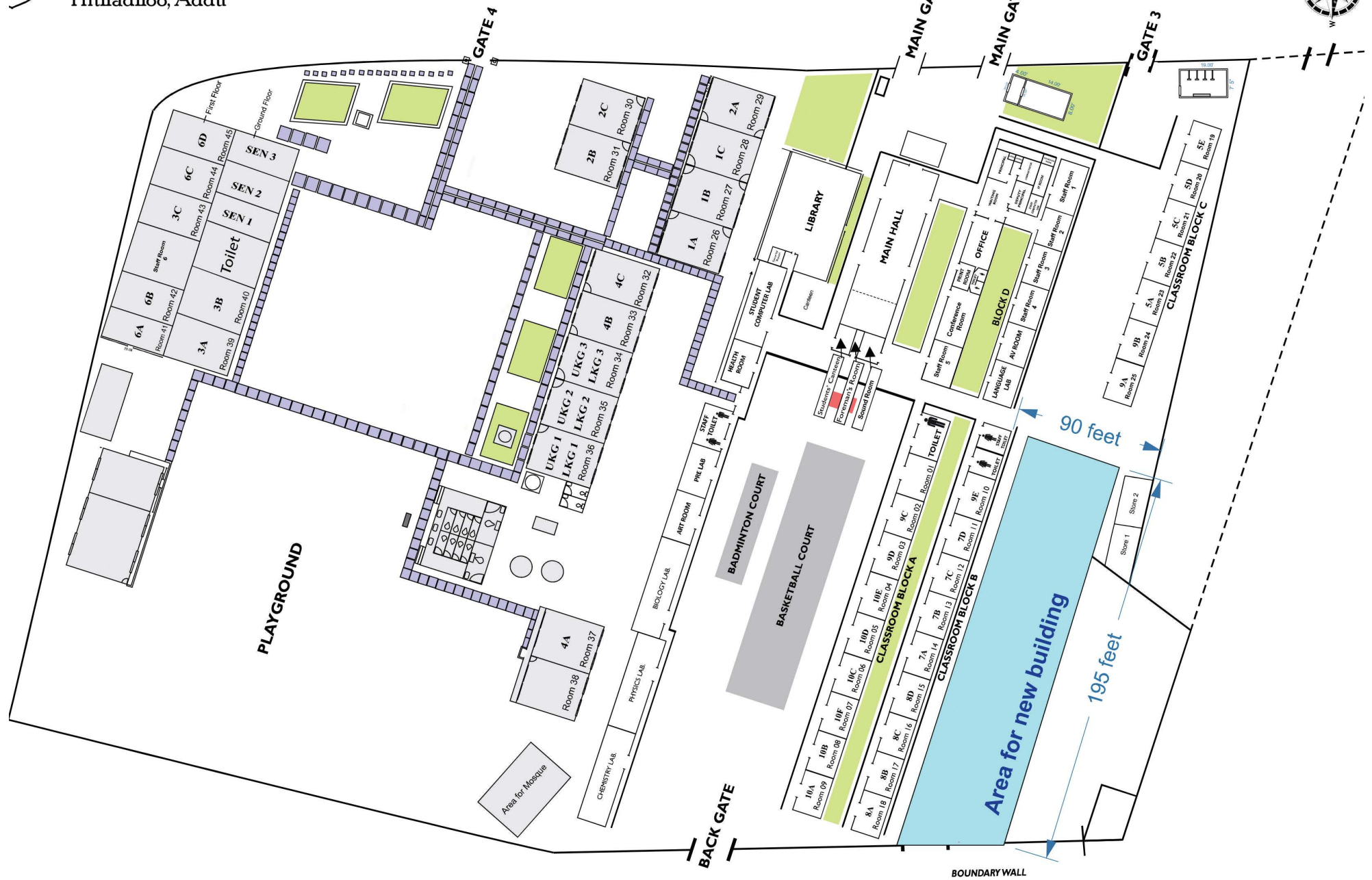
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e: info@riyan.com.mv

w: www.riyan.com.mv  
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# FLOOR PLAN



**NOTE:**



PROPOSED BUILDING LOCATION

EXISTING TREES / VEGETATION NEED TO BE REMOVED AS PER THE SCHOOL

## SITE PLAN



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e : info@riyan.com.mv  
w : www.riyan.com.mv  
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Client: Ministry of Education

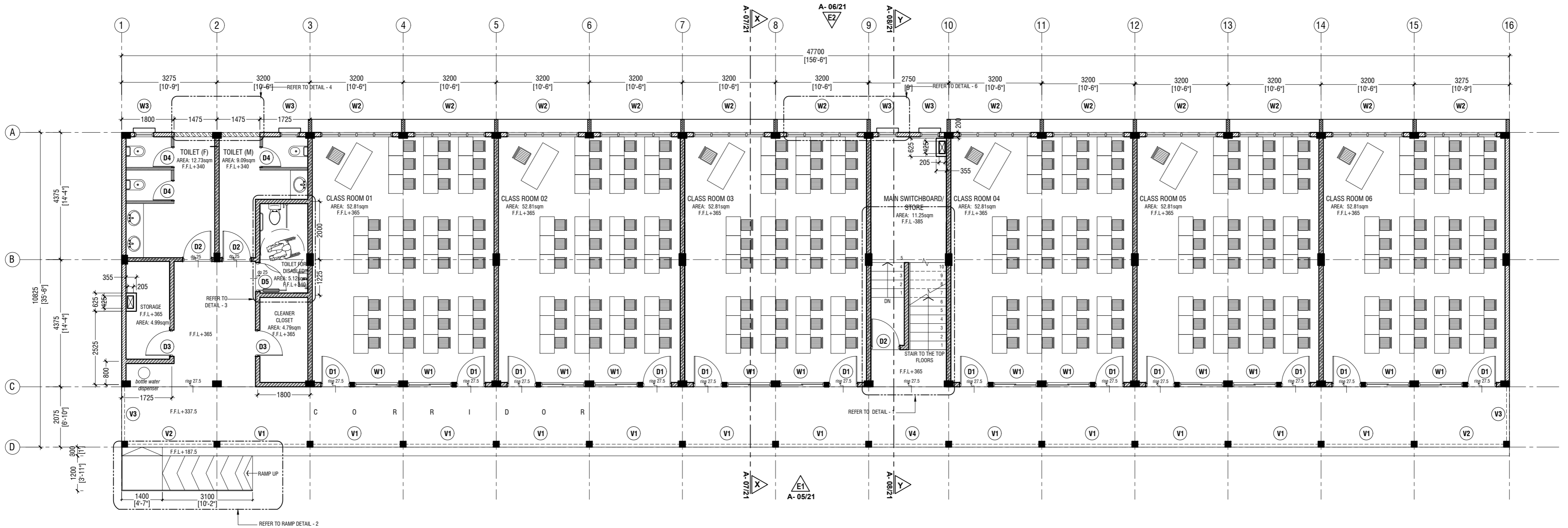
Project Number: RI/2020/006  
Date: January 2021

Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -

Rev no	Date
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Title: Site Plan

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**GROUND FLOOR PLAN**  
SCALE 1:100



- NOTE:**
- PROPOSED 150mm THICK SOLID BLOCK - INTERIOR MASONRY WALL  
WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH
  - PROPOSED 150mm THICK SOLID BLOCK - EXTERIOR MASONRY WALL  
WITH 20mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH
  - PROPOSED 100mm THICK SOLID BLOCK - INTERIOR MASONRY WALL  
WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH
  - PROPOSED 120mm THICK RC WALL TO BE WATER PROOFED WITH  
WATER PROOFING AGENT
  - PROPOSED 100mm THICK 2400mm HIGH SOLID BLOCK MASONRY WALL  
WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH
- THE SCREEDING AND TILES ARE INCORPORATED IN THE FLOOR FINISH LEVELS
- REFER TO ARCHITECT FOR FURTHER ASSISTANCE.



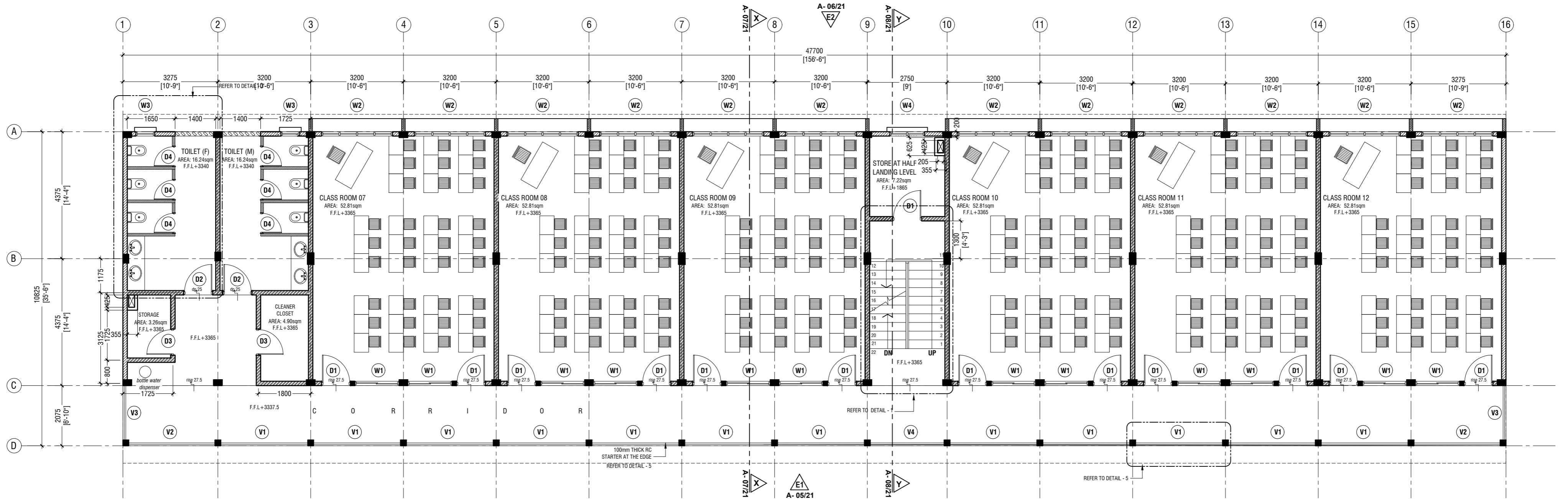
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E: info@riyan.com.mv  
W: www.riyan.com.mv  
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**Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)**  
**Client: Ministry of Education**

Project Number: RI/2020/006  
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Engineer: Mohamed Muththalib Waleed  
Drawn by: Mariyam Leevan Jaleel  
Services: Aishath Ahmed  
Interior: -

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Title: Ground Floor Plan  
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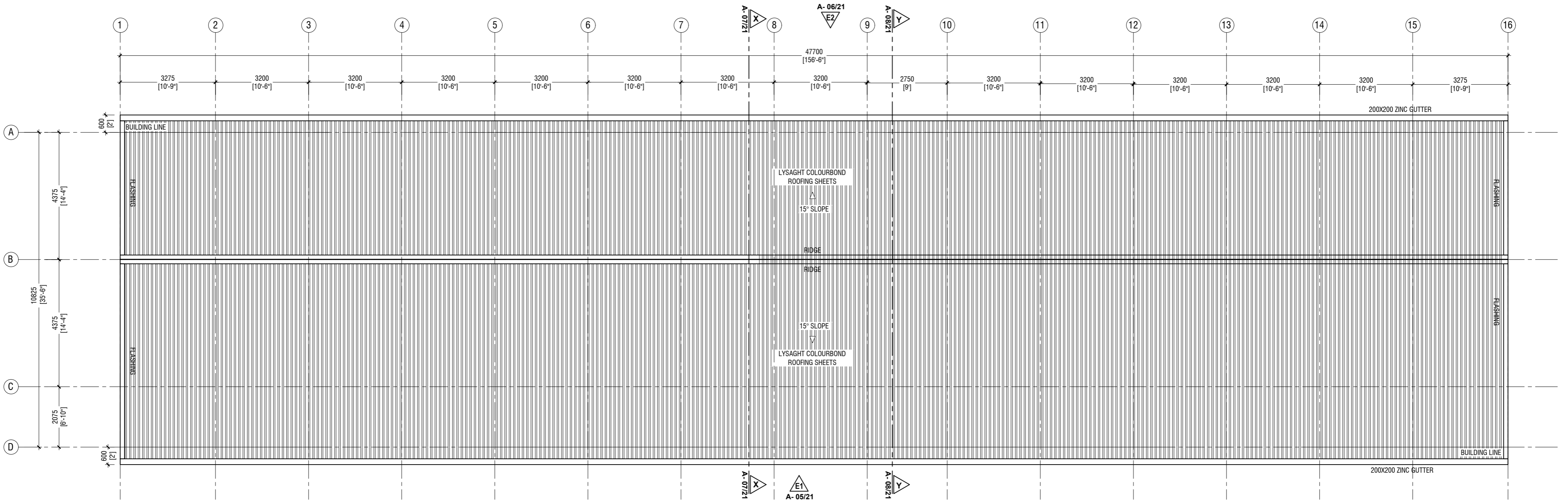


# FIRST - SECOND FLOOR PLAN

SCALE 1:100

0 0.5 1 2 3 4 5



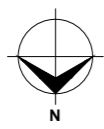


NOTE:

ROOF MATERIAL: LYSAGHT COLOURBOND ROOFING SHEETS  
ROOF SLOPE : 15°  
ROOF OVERHANG: 600mm

ROOF PLAN

SCALE 1:100



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Services: Aishath Ahmed

Interior: -

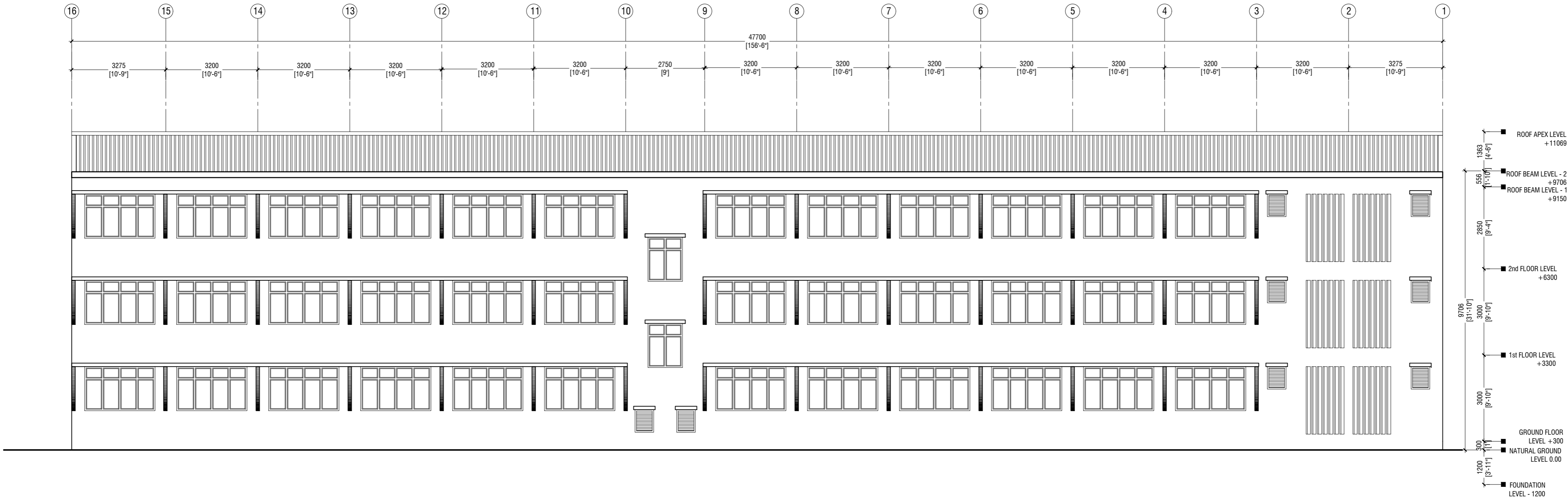
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Title: Roof Plan

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ELEVATION - E2

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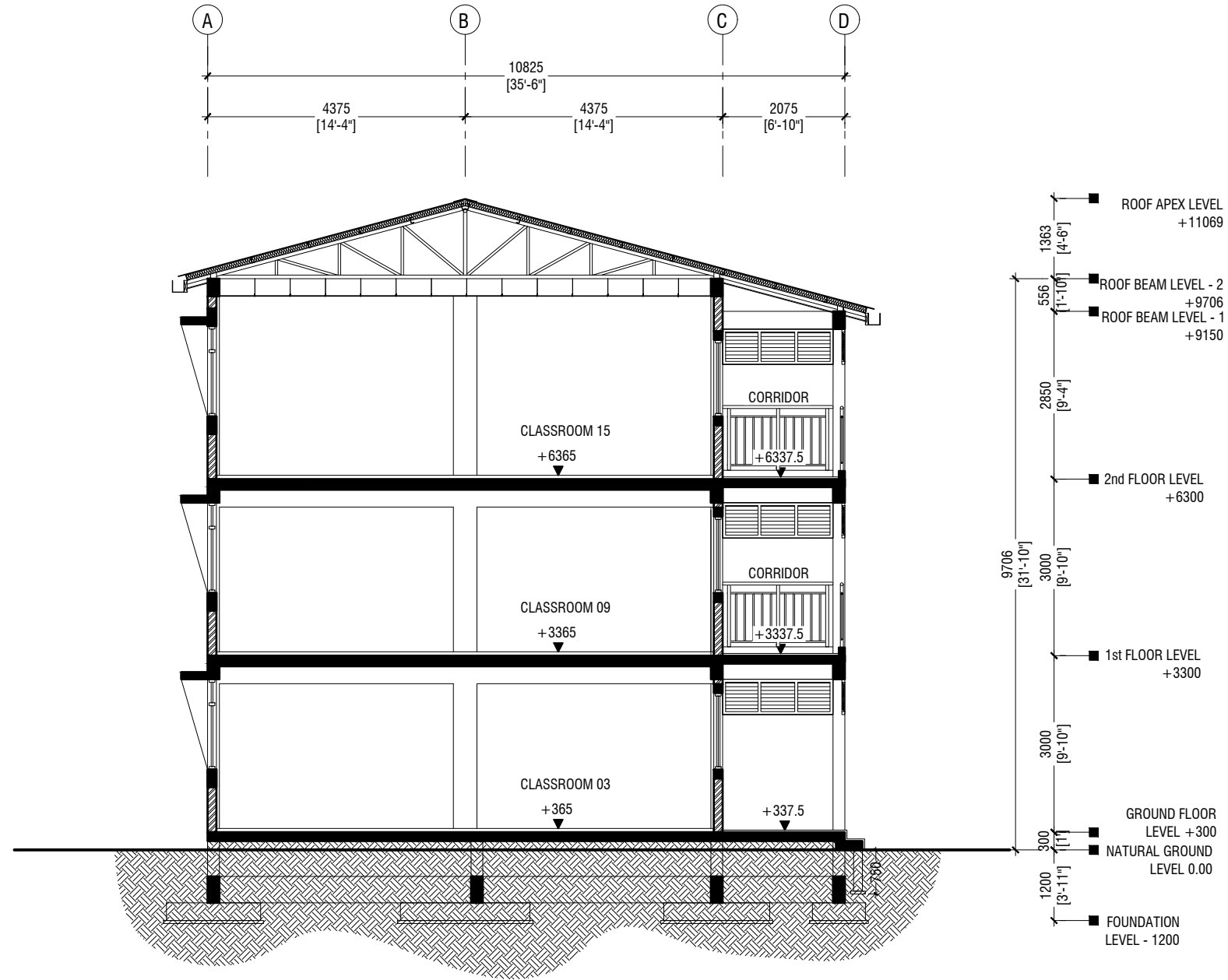
Services: Aishath Ahmed

Interior: -

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Title: Elevation E2

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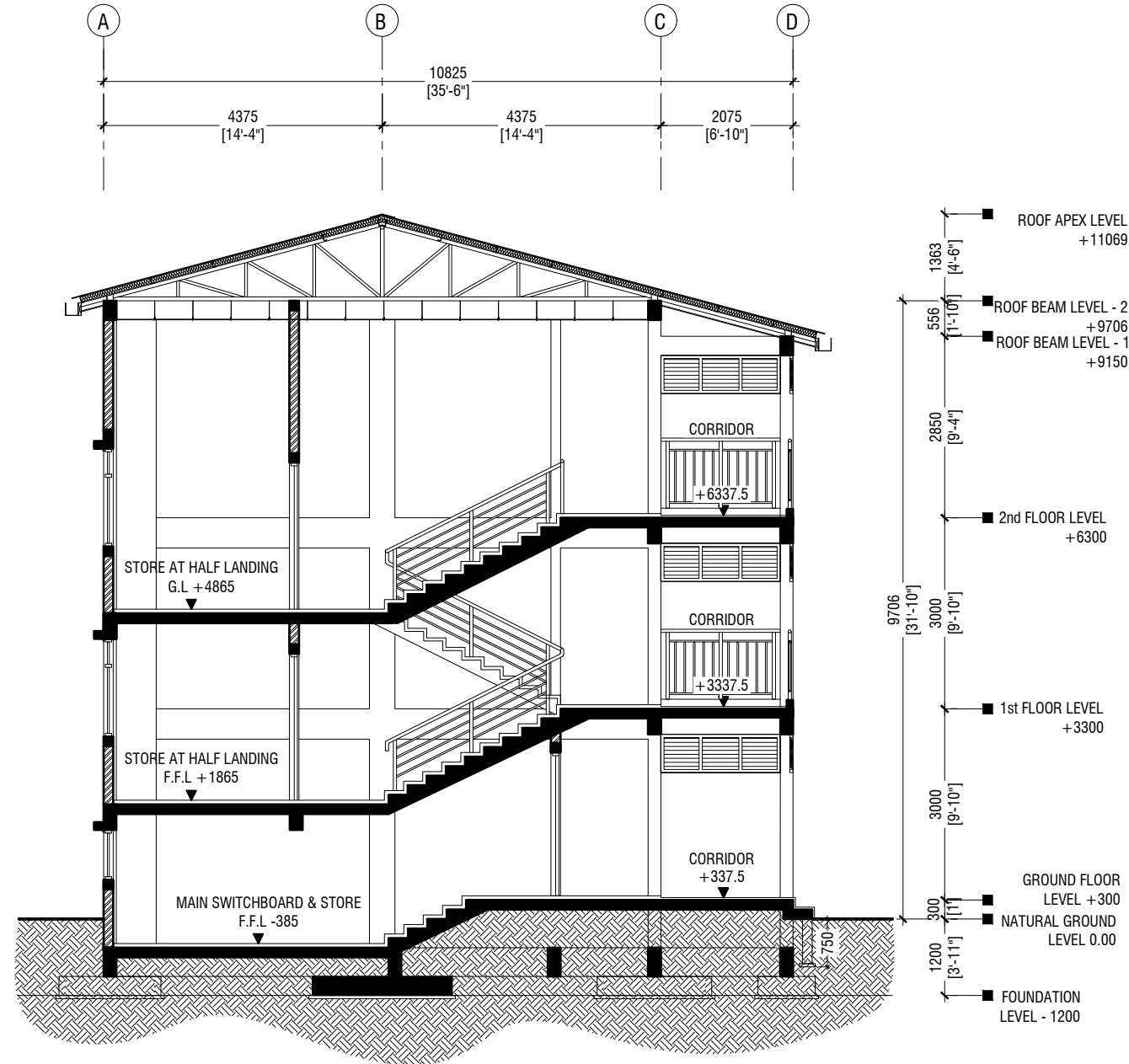
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Services : Aishath Ahmed  
Interior : -

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Title: Section X-X  
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## SECTION Y-Y

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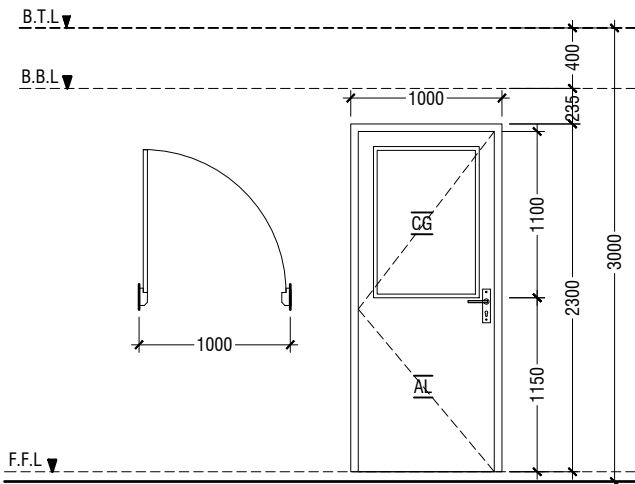
Project Number: RI/2020/006  
Date: January 2021

Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -

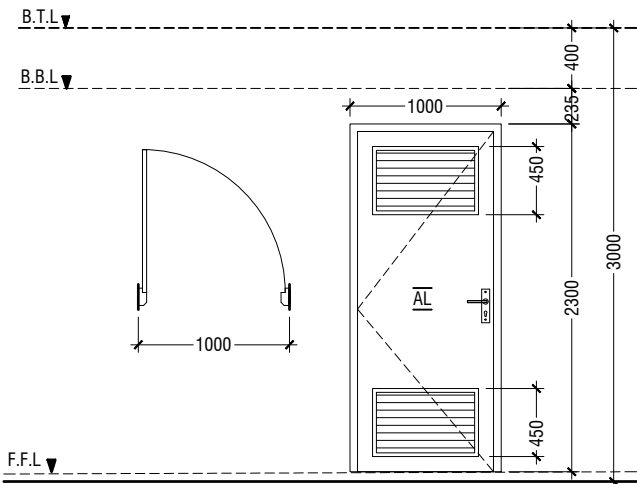
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Title: Section Y-Y

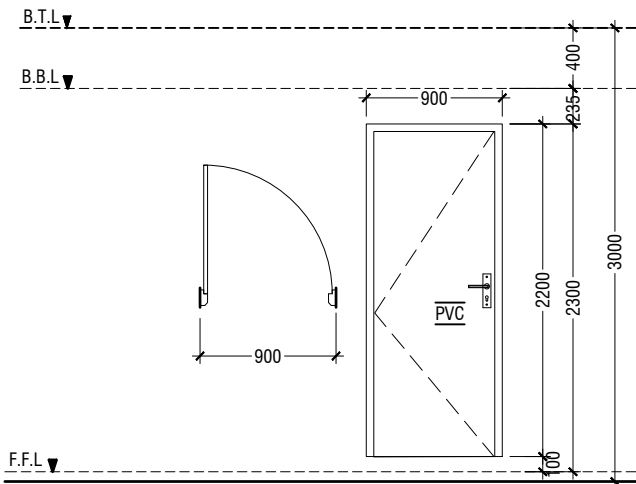
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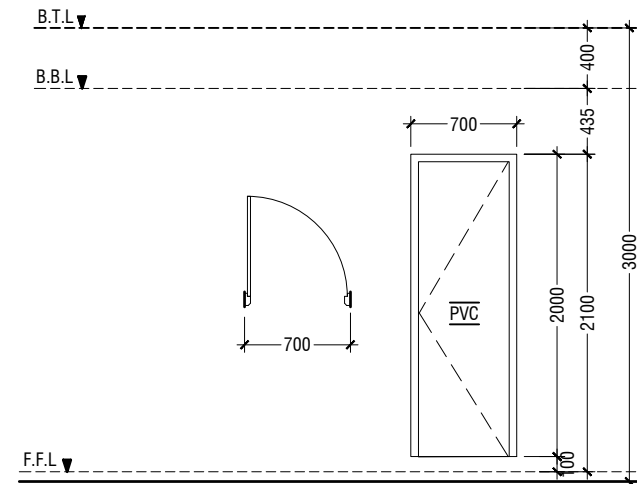
D1	SWING DOOR
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL AND 6mm THICK CLEAR GLASS
LOCATION	CLASSROOMS & HALF LANDING STORE ROOM
QUANTITY	38 NOS
OPEN AREA	2.03 sqm



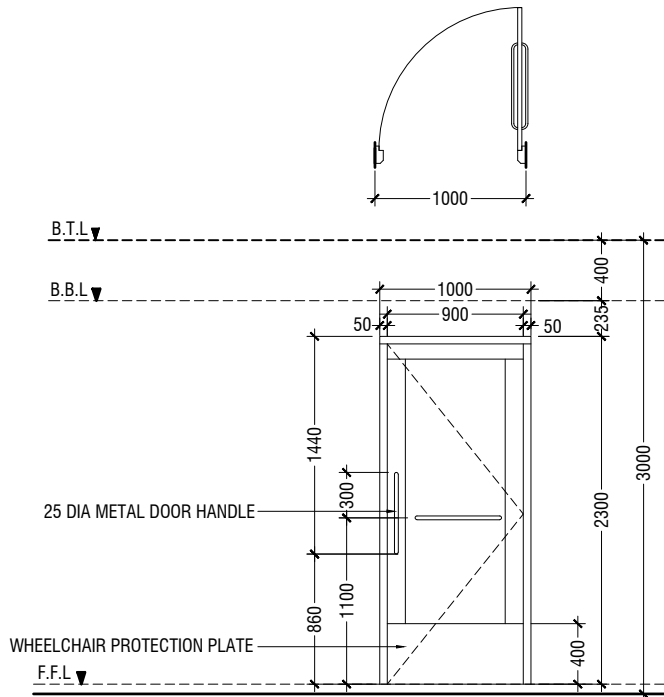
D2	SWING DOOR WITH ALUMINIUM LOUVERS
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL AND ALUMINUM LOUVERS
LOCATION	TOILETS & MAIN SWITCH BOARD STORE
QUANTITY	07 NOS
OPEN AREA	2.03 sqm



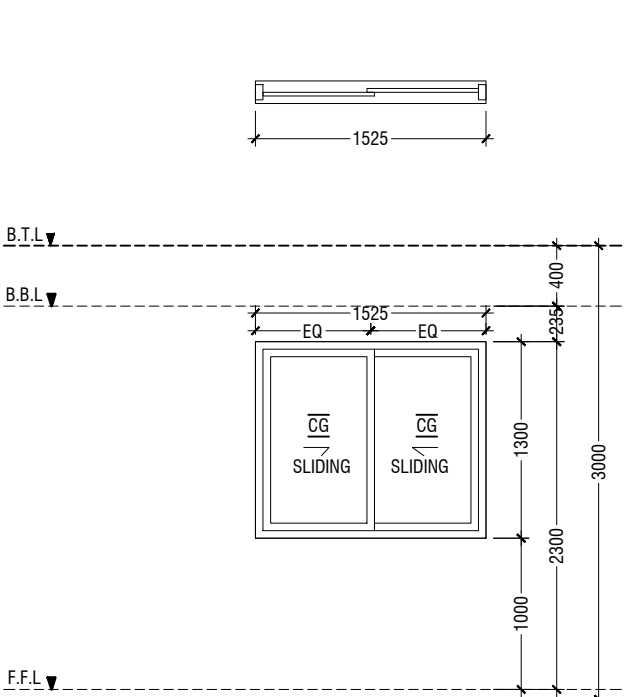
D3	PVC SWING DOOR
REMARKS	PVC WHITE FRAME AND PANEL
LOCATION	STORE & CLEANER CLOSET
QUANTITY	06 NOS
OPEN AREA	1.98 SQM



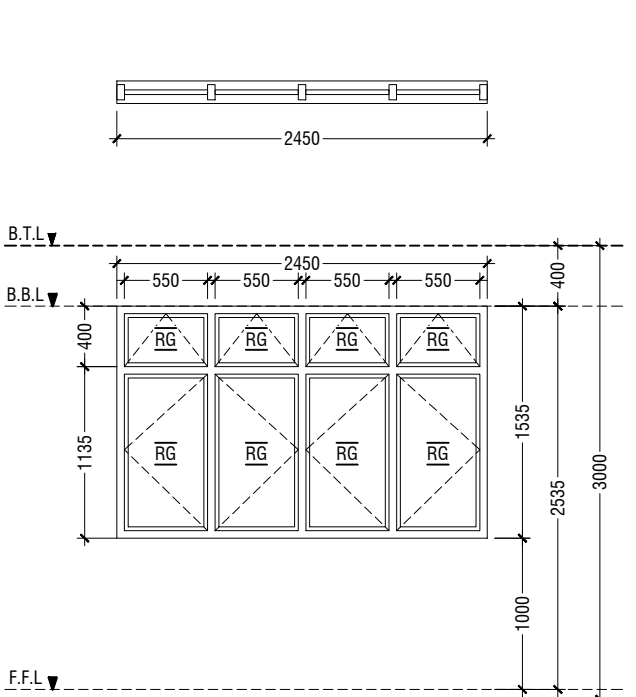
D4	PVC SWING DOOR
REMARKS	PVC WHITE FRAME AND PANEL
LOCATION	TOILETS STALLS
QUANTITY	15 NOS
OPEN AREA	1.17 SQM



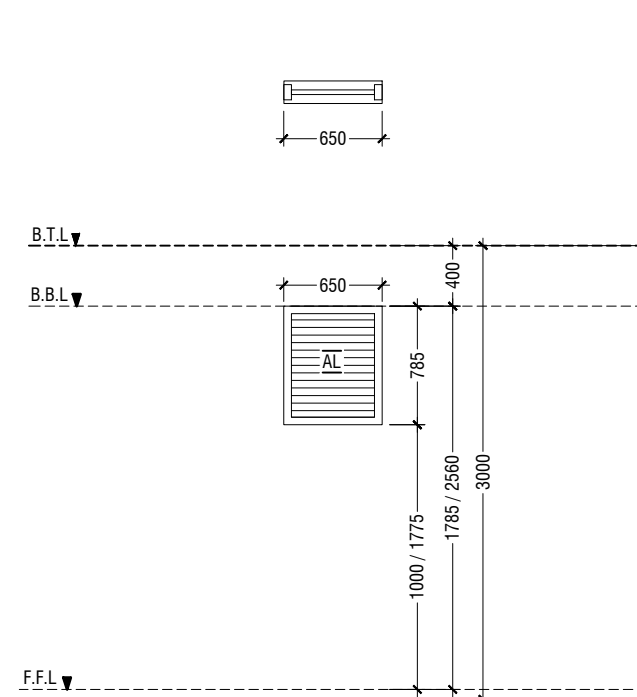
D5	SWING DOOR
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL
LOCATION	DISABLED TOILET
QUANTITY	01 NOS
OPEN AREA	2.03 sqm



W1	SLIDING WINDOW
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL AND 6mm THICK CLEAR GLASS
LOCATION	CLASSROOMS
QUANTITY	36 NOS
OPEN AREA	0.83 sqm



W2	SWING WINDOW
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WINDOW WITH 6mm THICK REFLECTIVE GLASS
LOCATION	CLASSROOMS
QUANTITY	36 NOS
OPEN AREA	2.97 sqm



W3	WINDOW WITH ALUMINIUM LOUVERS
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM LOUVERS
LOCATION	TOILETS & MAIN SWITCH BOARD STORE
QUANTITY	08 NOS
OPEN AREA	0.36 SQM



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t : +9603315049 f : +9603310776  
e : info@riyan.com.mv  
w : www.riyan.com.mv  
3rd floor, H. Azum, Ameenemagu, Male'

## Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey) Client: Ministry of Education

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Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -

Rev no	Date
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Title: Door & Window  
Schedule - 1

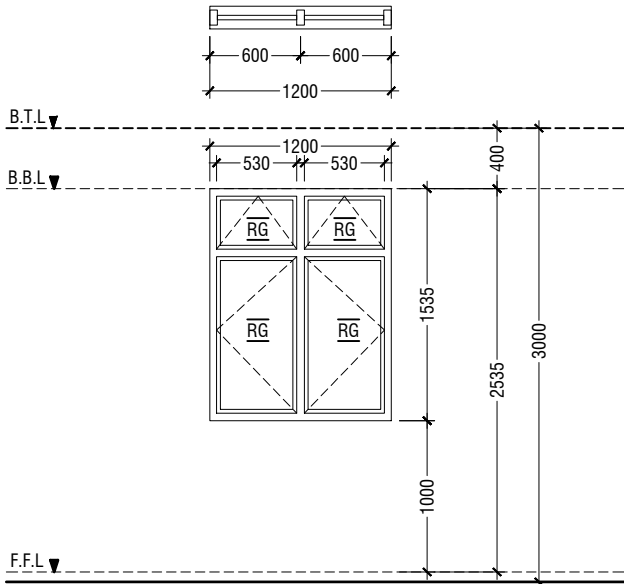
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- NOTE:-
1. FLOOR TO FLOOR HEIGHT VARIES AND WILL BE SUBJECTED TO CHANGES
  2. MAINTAIN FLOOR TO WINDOW SILL STANDARD HEIGHT REGULATION OF 1M.
  3. REFER TO ARCHITECT FOR FURTHER ASSISTANCE.
  4. ALL DOORS & WINDOWS TO BE CHECKED ON SITE BEFORE FABRICATION.
  5. ALL DOOR & WINDOWS VIEWED FROM EXTERIOR, FOR DOOR SWING, REFER TO FLOOR PLANS.
  6. THE DOORS / WINDOWS WHICH DO NOT TOUCH THE BEAM SHALL HAVE A LINTEL BEAM (LB) ABOVE THE DOOR / WINDOW.
  7. FOR ALL THE WINDOWS PUT A SILL BEAM BELOW THE WINDOW (SB)
  8. FOR SAFETY PURPOSES REFER TO TECHNICAL SPECIFICATIONS FOR GLASS THICKNESS.

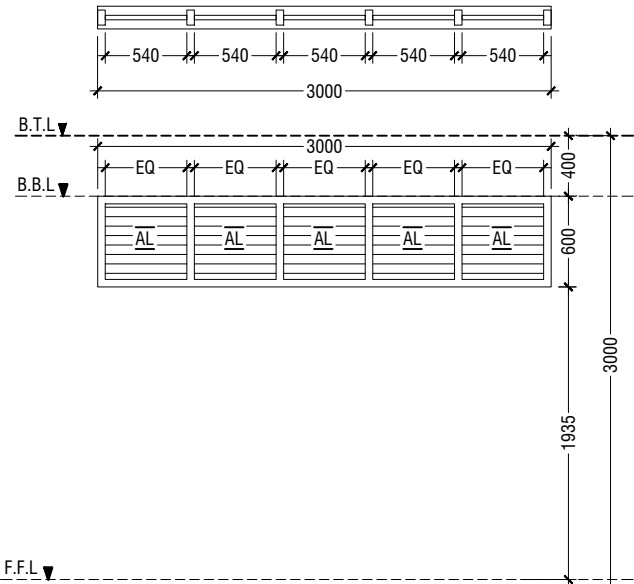
## DOOR & WINDOW SCHEDULE - 1

SCALE: 1:50

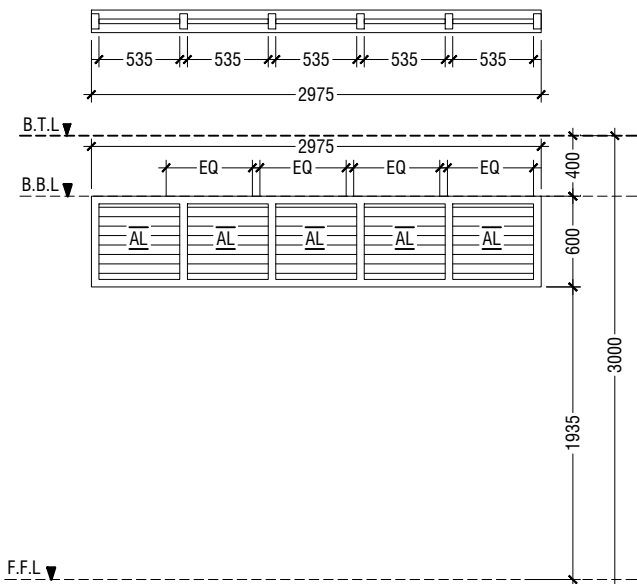
LEGEND:  
CG - CLEAR GLASS  
RG - REFLECTED GLASS  
AL - ALUMINIUM  
PVC - POLYVINYL CHLORIDE



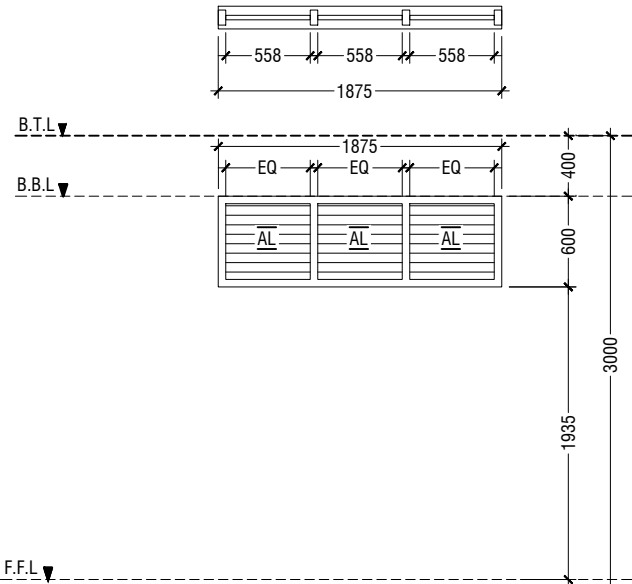
W4	SWING WINDOW
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WINDOW WITH 6mm THICK REFLECTIVE GLASS
LOCATION	HALF LANDING STORE ROOM
QUANTITY	2 NOS
OPEN AREA	1.43 sqm



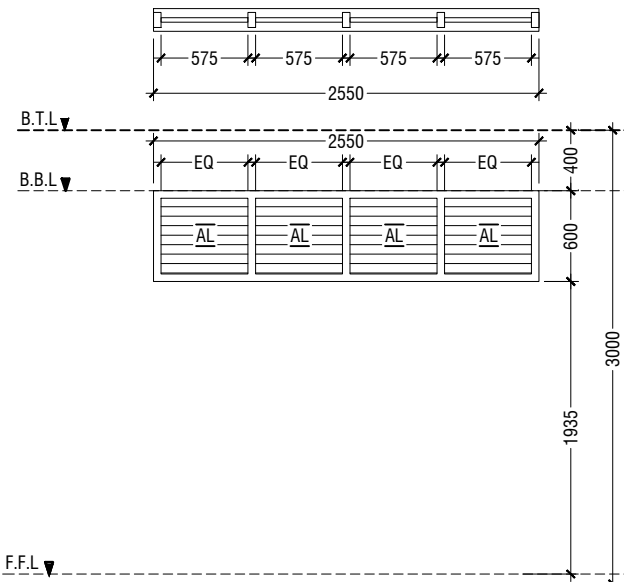
V1	SUNSHADING
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS
LOCATION	CORRIDOR
QUANTITY	36 NOS
OPEN AREA	1.35 SQM



V2	SUNSHADING
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS
LOCATION	CORRIDOR
QUANTITY	06 NOS
OPEN AREA	1.35 SQM



V3	SUNSHADING
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS
LOCATION	CORRIDOR
QUANTITY	06 NOS
OPEN AREA	0.84 SQM



V4	SUNSHADING
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS
LOCATION	CORRIDOR
QUANTITY	03 NOS
OPEN AREA	1.15 SQM

LEGEND:  
CG - CLEAR GLASS  
RG - REFLECTED GLASS  
AL - ALUMINIUM  
PVC - POLYVINYL CHLORIDE

- NOTE:-
1. FLOOR TO FLOOR HEIGHT VARIES AND WILL BE SUBJECTED TO CHANGES
  2. MAINTAIN FLOOR TO WINDOW SILL STANDARD HEIGHT REGULATION OF 1M.
  3. REFER TO ARCHITECT FOR FURTHER ASSISTANCE.
  4. ALL DOORS & WINDOWS TO BE CHECKED ON SITE BEFORE FABRICATION.
  5. ALL DOOR & WINDOWS VIEWED FROM EXTERIOR, FOR DOOR SWING, REFER TO FLOOR PLANS.
  6. THE DOORS / WINDOWS WHICH DO NOT TOUCH THE BEAM SHALL HAVE A LINTEL BEAM (LB) ABOVE THE DOOR / WINDOW.
  7. FOR ALL THE WINDOWS PUT A SILL BEAM BELOW THE WINDOW (SB)
  8. FOR SAFETY PURPOSES REFER TO TECHNICAL SPECIFICATIONS FOR GLASS THICKNESS.

## DOOR & WINDOW SCHEDULE - 2

SCALE 1:50

0 0.25 0.5 1 1.5 2 2.5

## SCHEDULE OF VENTILATION FOR S.HITHADHOO SHARAFUDDIN SCHOOL

Room name/ Number	Room Areas (sqm) ( Specify centre to centre or clear)	Window (opening) number	Required opening areas (sqm)	Designed opening areas (sqm)	Open %
<b>Ground Floor</b>					
1 Classroom 1	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
2 Classroom 2	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
3 Classroom 3	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
4 Classroom 4	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
5 Classroom 5	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
6 Classroom 6	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
7 Toilet (F)	12.73			W3 & RC FINS	
8 Toilet (M)	9.09			W3 & RC FINS	
9 Toilet for disabled	5.12			Mechanical Ventilation	
10 Main switchboard /store	11.25			Mechanical Ventilation	
<b>First to Second Floor</b>					
1 Classroom 7	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
2 Classroom 8	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
3 Classroom 9	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
4 Classroom 10	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
5 Classroom 11	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
6 Classroom 12	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
7 Toilet (F)	12.64			W3 & RC FINS	
8 Toilet (M)	12.65			W3 & RC FINS	
9 Store at half landing level	7.22	W4	0.72	1.43	19.81%

## VENTILATION SCHEDULE

NO SCALE



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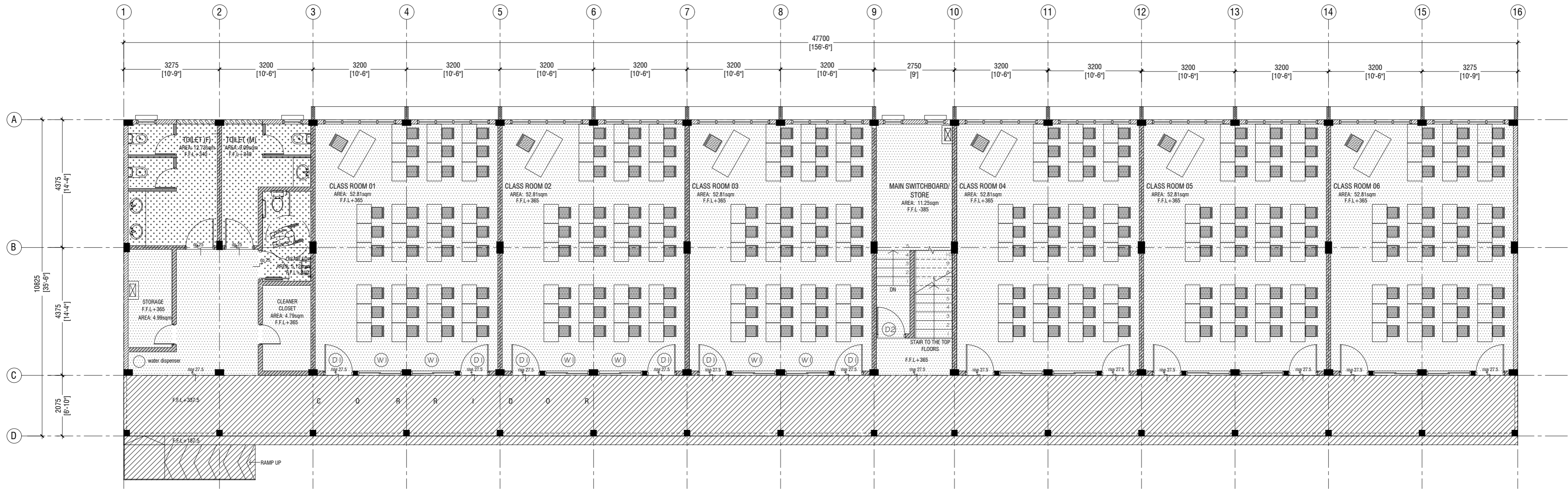
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Interior : -

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Title: Door/Window - 2 &  
Ventilation Schedule

Page: A-10/21



## GROUND FLOOR FLOOR FINISHES PLAN

SCALE 1:100



### LEGEND

CODE	DESCRIPTION
	600X600mm HOMOGENOUS NON-SLIP TILES OVER 50mm SCREEDING
	35mm NORMAL SCREEDING WITH 2.5mm SELF LEVELING CEMENT WITH EPOXY FLOOR PAINT (2 COATS OF EPOXY)
	300X300mm HOMOGENOUS NON-SLIP TILES OVER 25mm SCREEDING



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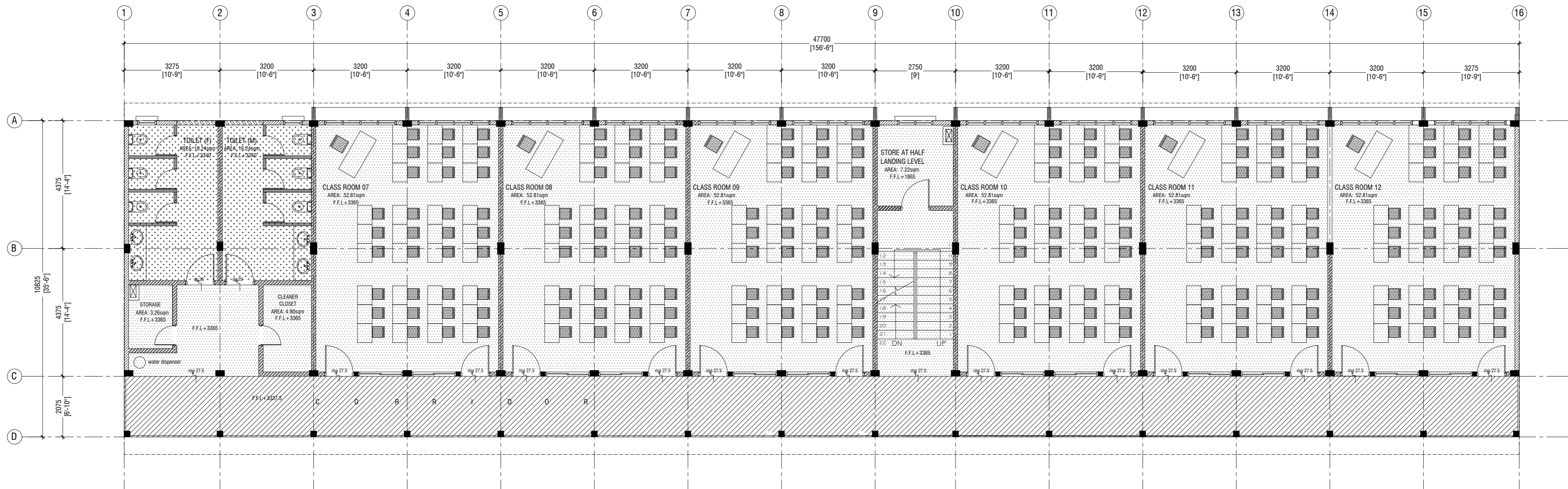
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Title: Ground Floor Plan  
Floor Finishes Plan

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## FIRST - SECOND FLOOR FLOOR FINISHES PLAN

SCALE 1:100



### LEGEND

CODE	DESCRIPTION
	600X600mm HOMOGENOUS NON-SLIP TILES OVER 50mm SCREEDING
	35mm NORMAL SCREEDING WITH 2.5mm SELF LEVELING CEMENT WITH EPOXY FLOOR PAINT (2 COATS OF EPOXY)
	300X300mm HOMOGENOUS NON-SLIP TILES OVER 25mm SCREEDING



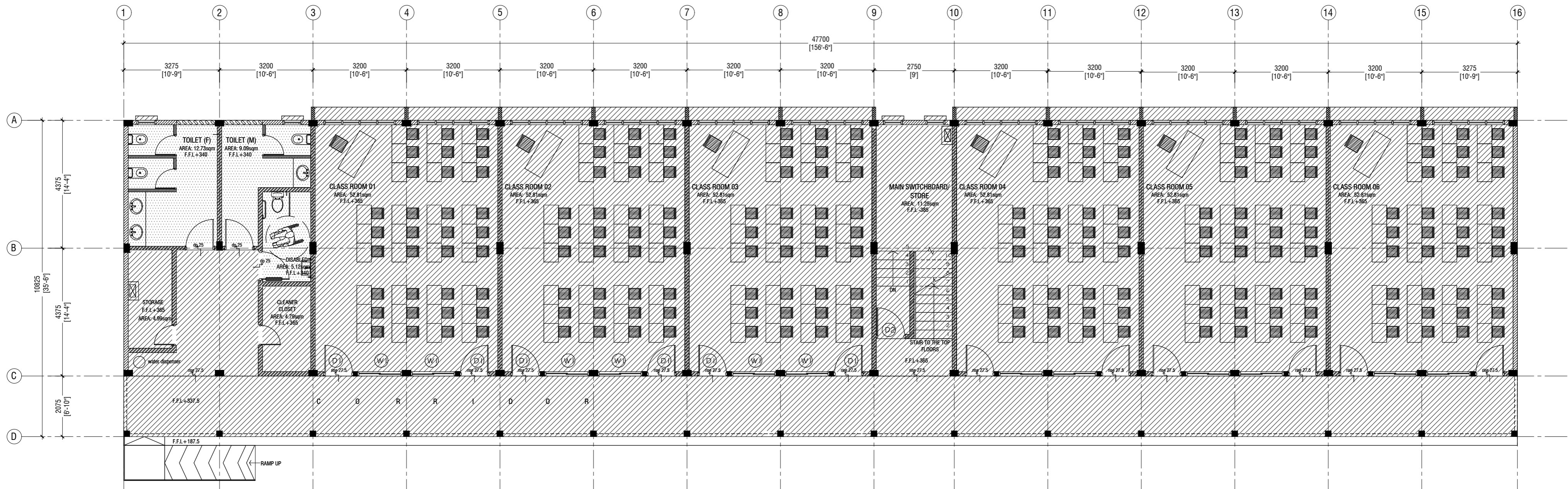
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Architect: Mariyam Irasha Shareef  
Engineer: Mohamed Muththalib Waleed  
Drawn by: Mariyam Leevan Jaleel  
Services: Aishath Ahmed  
Interior: -

Rev no	Date
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Title: First - Seond Floor  
Floor Finishes Plan  
Page: A-12/21



**GROUND FLOOR  
REFLECTED CEILING PLAN**  
SCALE 1:100



**LEGEND**

CODE	DESCRIPTION
	EXPOSED SLAB SOFFIT TO BE GROUND SMOOTH IN SELECT PAINT FINISH (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)
	6mm THICK CEMENT BOARD ON ROOF EAVE/GABLE CEILING (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)



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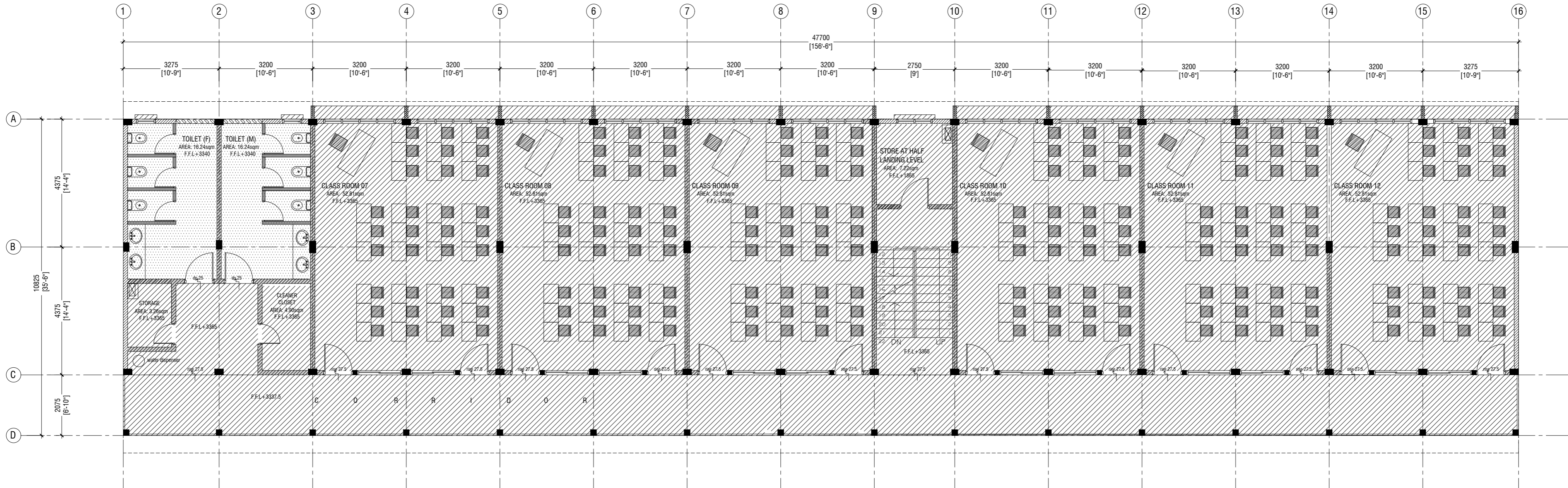
Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)  
Client: Ministry of Education

Project Number: RI/2020/006  
Date: January 2021  
Architect: Mariyam Irasha Shareef  
Engineer: Mohamed Muththalib Waleed  
Drawn by: Mariyam Leevan Jaleel  
Services: Aishath Ahmed  
Interior: -

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Title: Ground Floor Reflected  
Ceiling Plan

Page: A-13/21



**FIRST FLOOR  
REFLECTED CEILING PLAN**

SCALE 1:100



**LEGEND**

CODE	DESCRIPTION
	EXPOSED SLAB SOFFIT TO BE GROUND SMOOTH IN SELECT PAINT FINISH ( ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)
	6mm THICK CEMENT BOARD ON ROOF EAVE/GABLE CEILING (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)



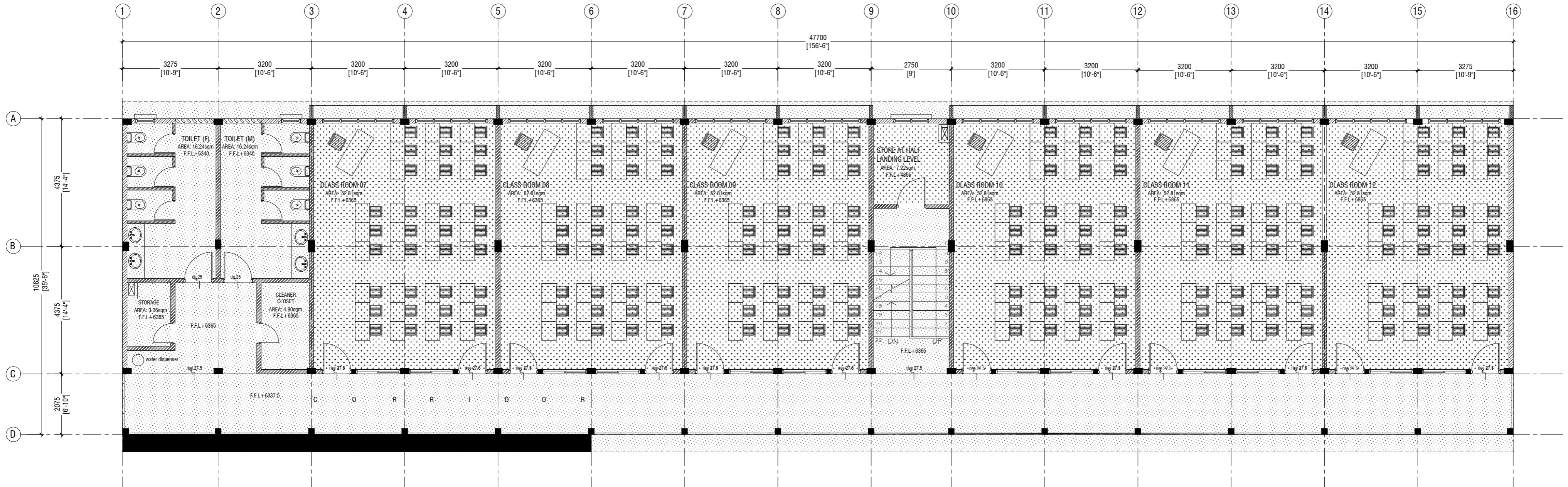
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Client: Ministry of Education

Project Number: RI/2020/006  
Date: January 2021  
Architect: Mariyam Irasha Shareef  
Engineer: Mohamed Muththalib Waleed  
Drawn by: Mariyam Leevan Jaleel  
Services: Aishath Ahmed  
Interior: -

Rev no	Date
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Title: First Floor Reflected  
Ceiling Plan  
Page: A-14/21



## SECOND FLOOR REFLECTED CEILING PLAN

SCALE 1:100



### LEGEND

CODE	DESCRIPTION
	9mm THICK FIXED CEILING 'BORAL' OR EQUIVALENT PLASTERBOARD CEILING SYSTEM WITH TIMBER FRAMES, APPLIED WITH GROUND SMOOTH FINISH IN SELECTED PAINT
	6mm THICK CEMENT BOARD ON ROOF EAVE/GABLE CEILING (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)



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Client: Ministry of Education

Project Number: RI/2020/006

Date: January 2021

Architect: Mariyam Irasha Shareef

Engineer: Mohamed Muththalib Waleed

Drawn by: Mariyam Leevan Jaleel

Services: Aishath Ahmed

Interior: -

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Title: Second Floor Reflected  
Ceiling Plan

Page: A-15/21



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Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
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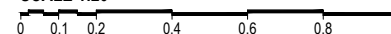
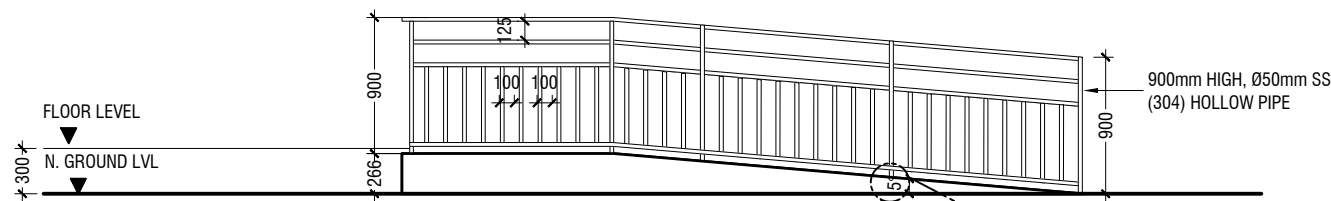
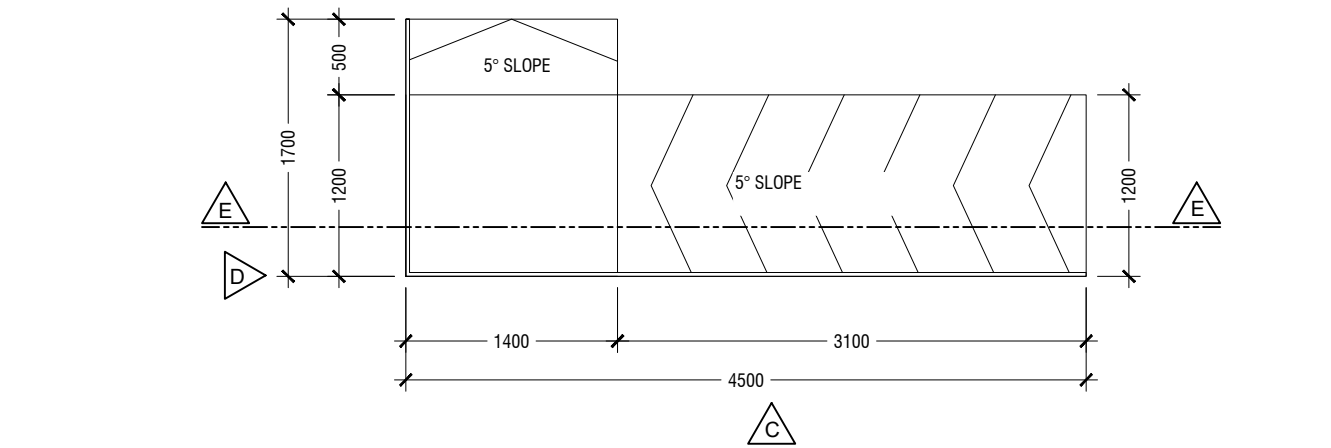
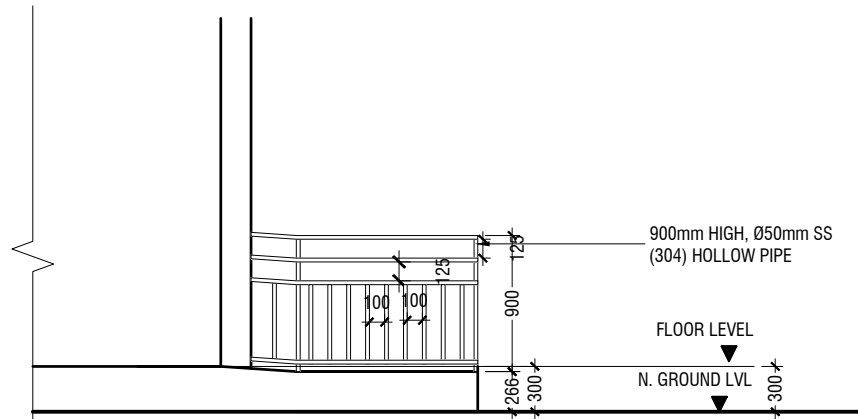


Figure 1 is a horizontal bar chart showing the distribution of the number of nodes in the network. The x-axis represents the number of nodes, ranging from 0 to 1. The y-axis represents the frequency or count of nodes. The chart shows a distribution with peaks at 0, 0.1, 0.2, 0.4, 0.6, and 0.8.



**ELEVATION C**

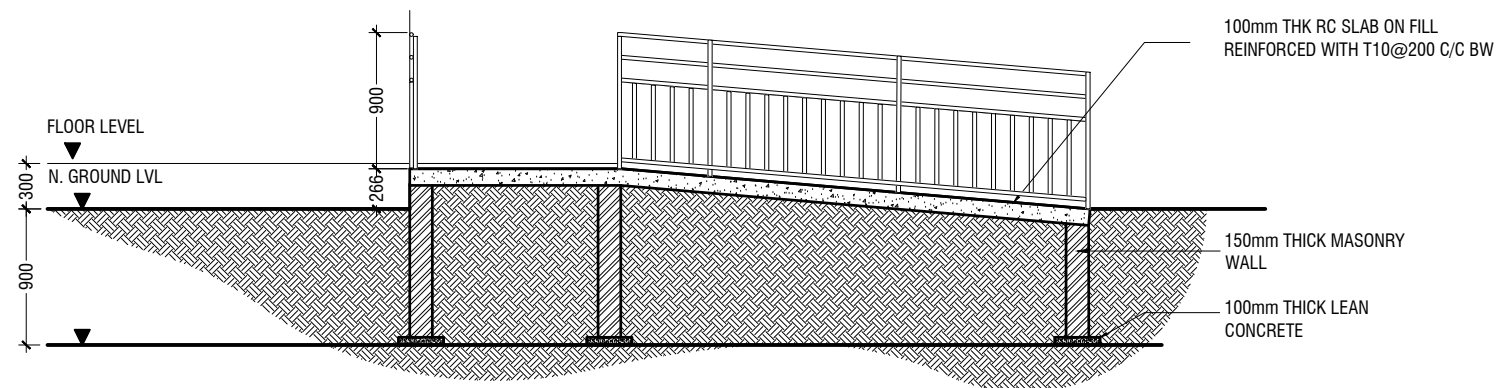
Ø50mm SS (304) HOLLOW PIPE  
4 NOS. 12mm ANCHOR BOLTS FIXED TO THE RC FLOOR  
WITH SS PLATE AND COVERED BY PLASTERING  
100mm THICK RC CONCRETE SLAB



**ELEVATION D**

## DETAIL - 2 MAIN ENTRANCE RAMP DETAILS

SCALE 1:50  
0 0.25 0.5 1 1.5 2 2.5



**SECTION E-E**



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Client: Ministry of Education

Project Number: RI/2020/006  
Date: January 2021

Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
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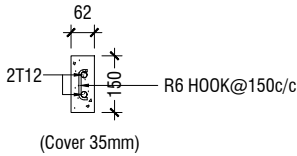
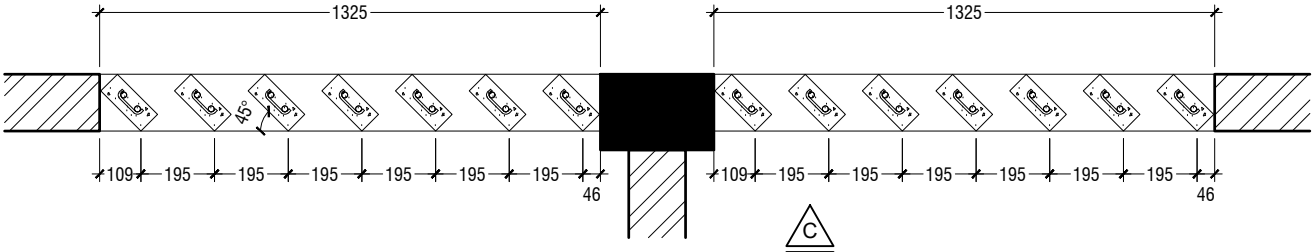
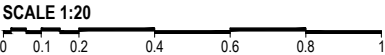
Rev no	Date
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Title: Main Entrance Ramp  
Details

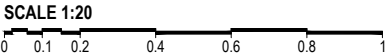
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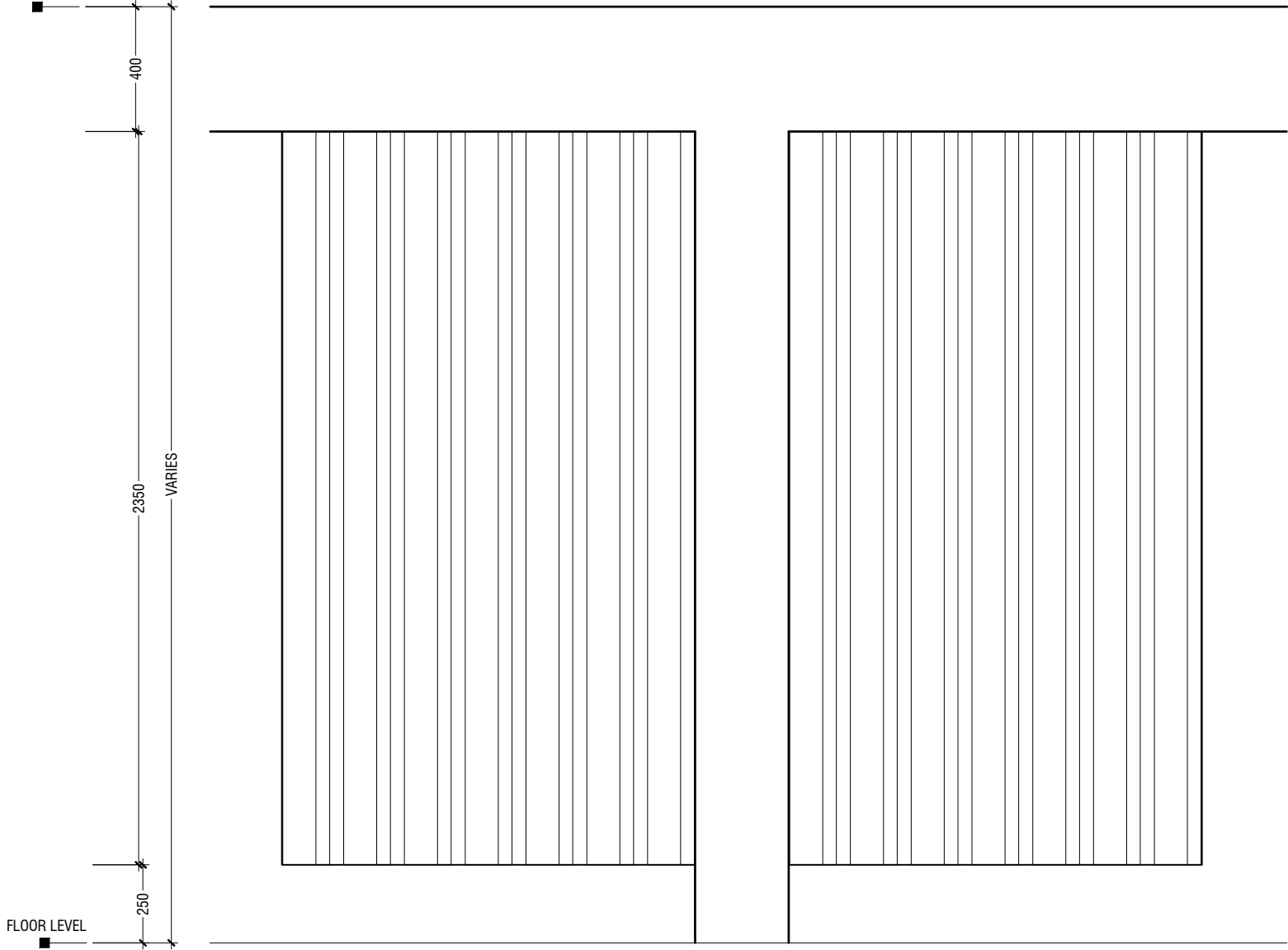
PLAN



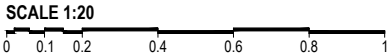
RC FIN DETAIL



FLOOR LEVEL



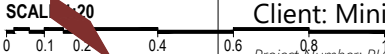
ELEVATION - C



NOTE:-  
FLOOR TO FLOOR HEIGHT VARIES AND WILL BE SUBJECTED TO CHANGES

DETAIL - 4

RC FIN DETAILS (TOILET)



Project: L. F. Rashid School - 12 Classroom (03 Storey)  
Client: Ministry of Education

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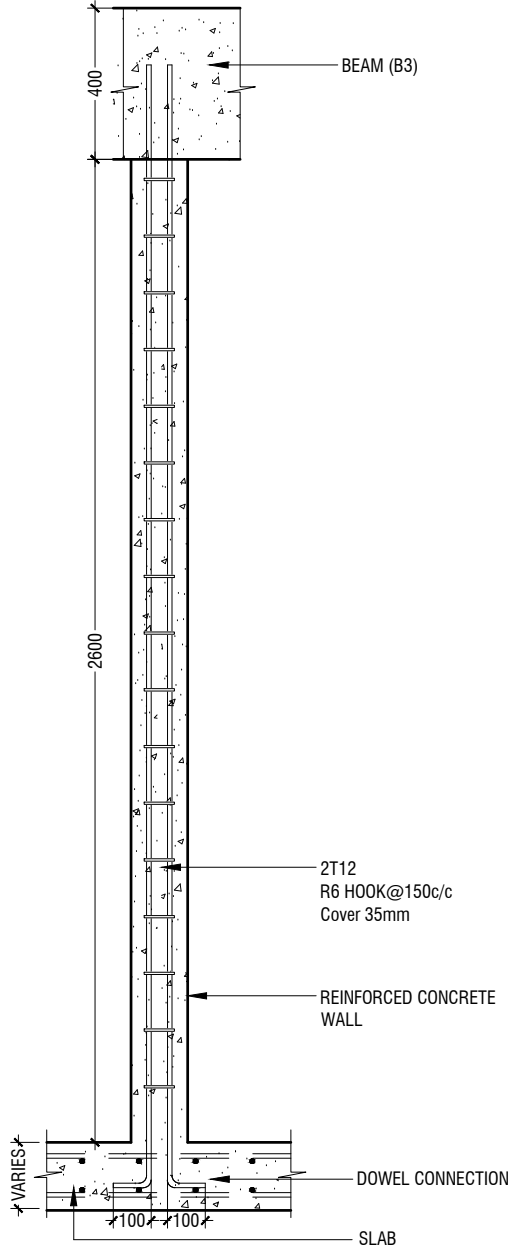
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Project Number: RI/2020/006  
Date: April 2020  
Architect : Razana Amir  
Engineer : Ahmed Zuhail Zaeem  
Drawn by : Aishath Mohamed Rasheed  
Services : Aishath Ahmed  
Interior : -

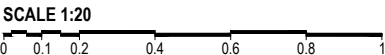
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01	02 April 2020
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Title: RC Fin Detail

Page: A-20/23



SECTION C-C





## **DETAIL - 5**

### **RAILING DETAILS**



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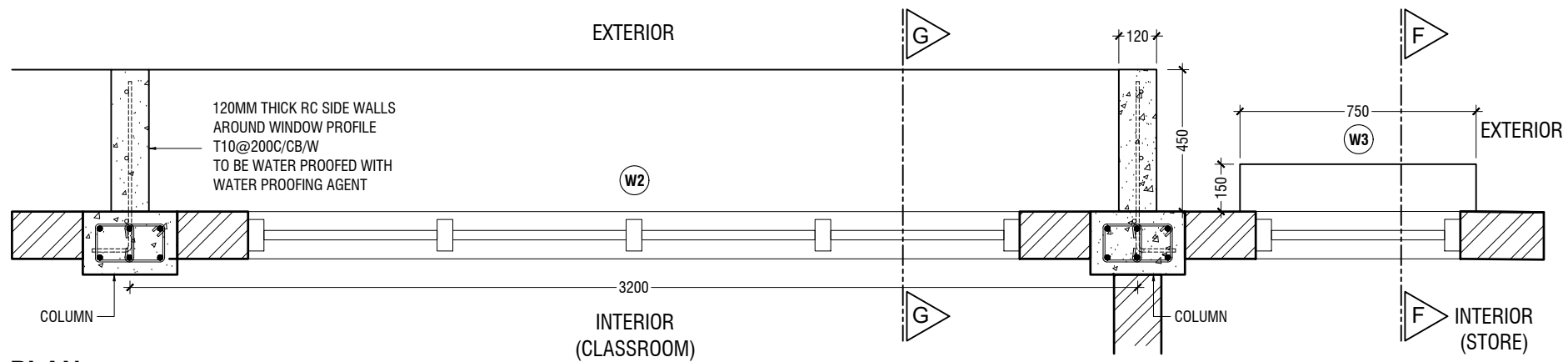
Project Number: RI/2020/006  
Date: January 2021  
Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -

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Title: Railing Details

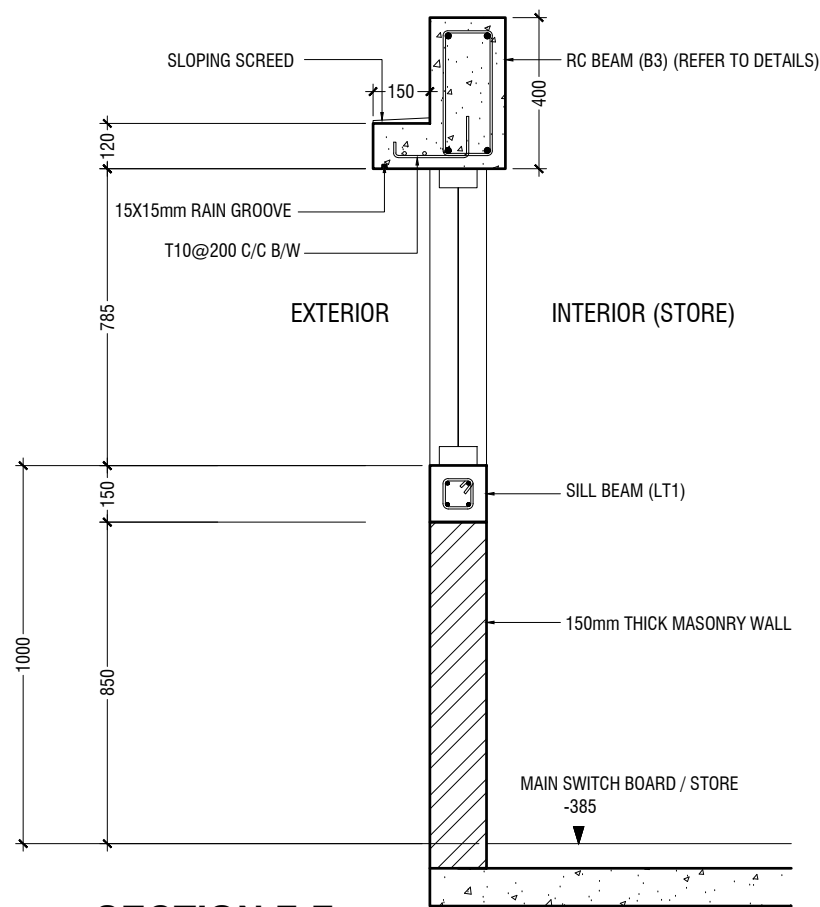
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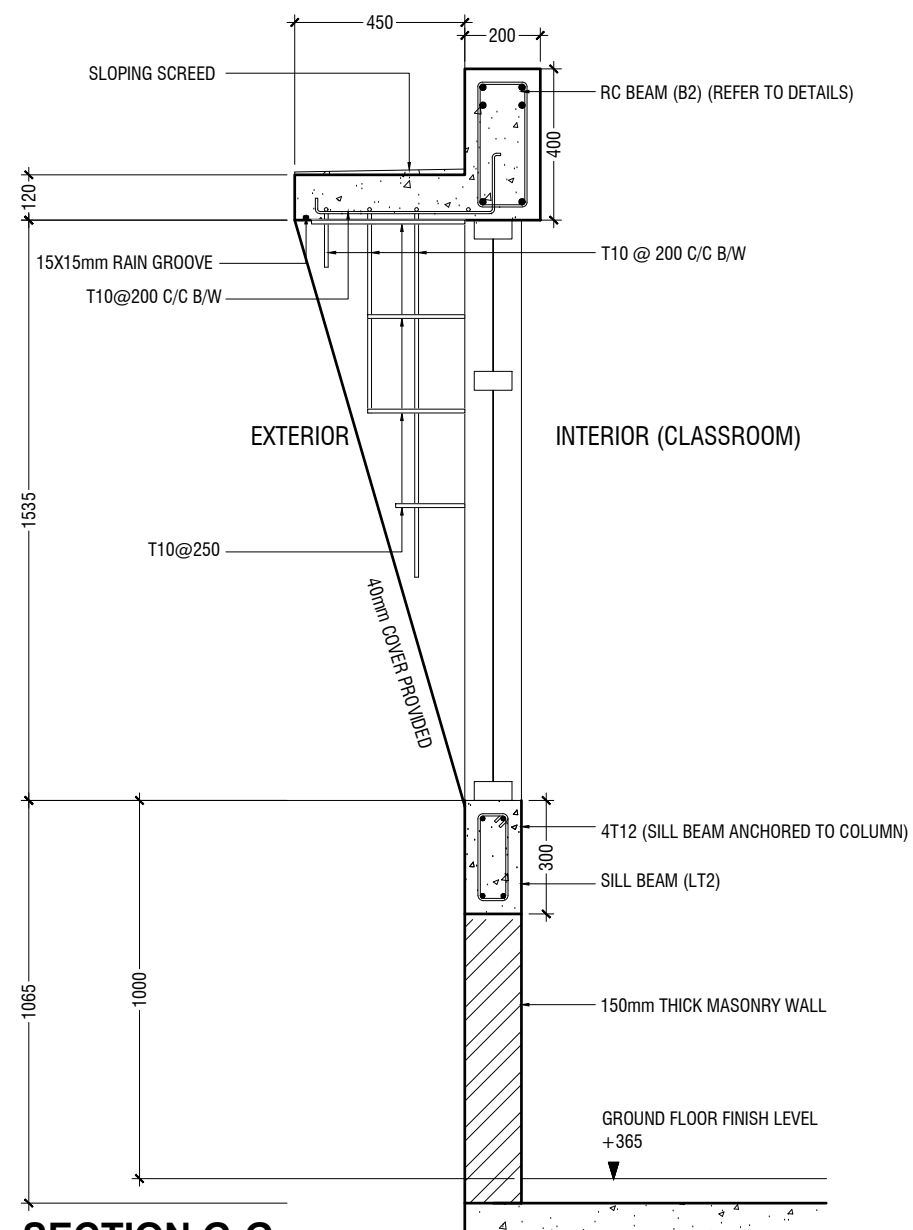
## PLAN

SCALE 1:20



## SECTION F-F

SCALE 1:20

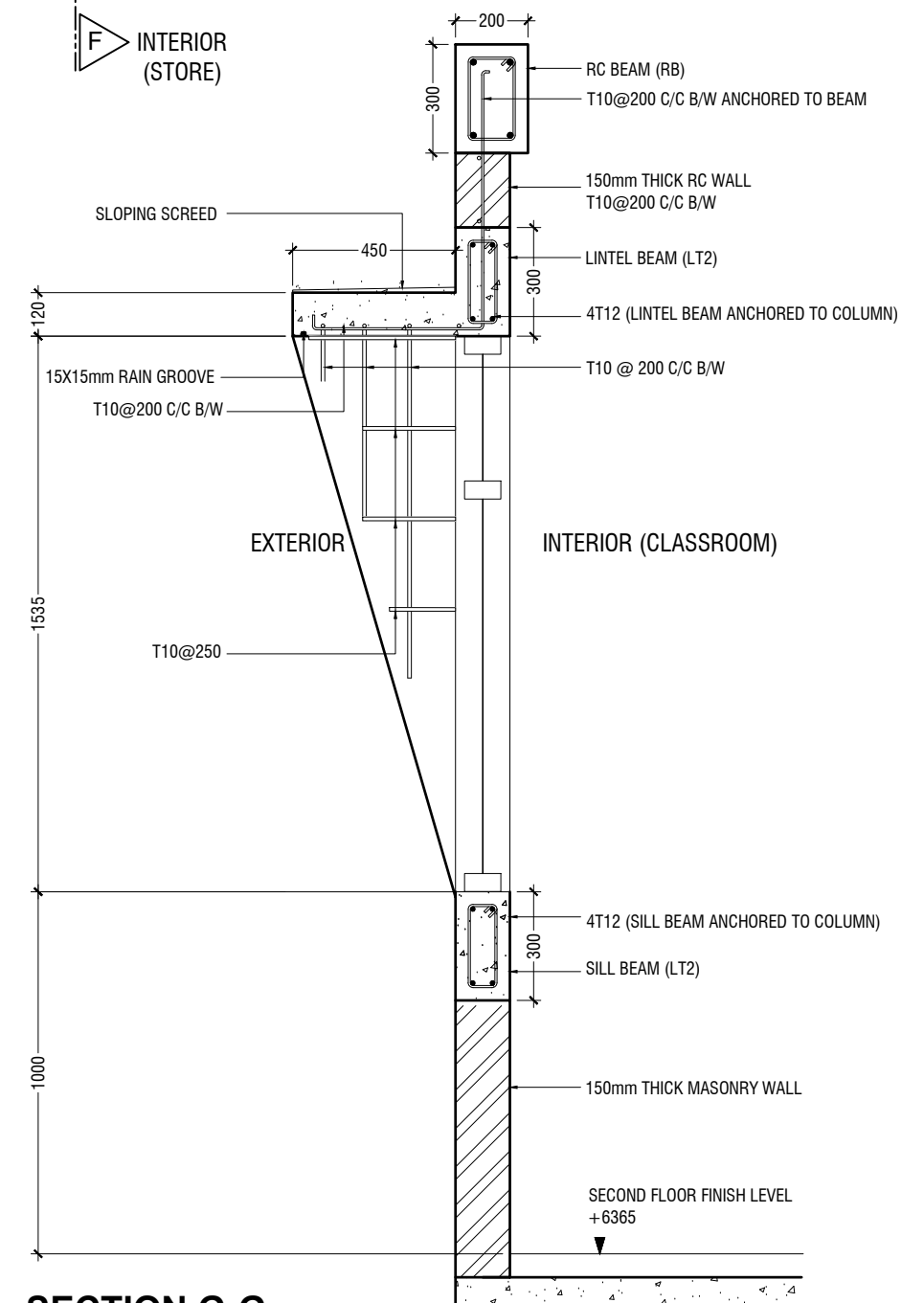


## SECTION G-G

SCALE 1:20

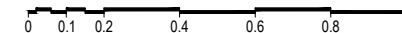


\* NOTE: GROUND FLOOR



## SECTION G-G

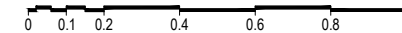
SCALE 1:20



\* NOTE: SECOND FLOOR

## DETAIL - 6 RC WALL DETAILS

SCALE 1:20



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Client: Ministry of Education

Project Number: RI/2020/006  
Date: January 2021

Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -

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Title: RC Wall Details

Page: A-21/21

## GENERAL NOTES

THE GENERAL NOTES SHALL BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS AND DRAWINGS. REGARDLESS OF WHETHER OR NOT SHOWN IN DRAWINGS OR OTHER TENDER DOCUMENTS, THE STANDARD PROVISIONS SPECIFIED HEREUNDER FOR COMPLIANCE BY THE CONTRACTOR SHALL APPLY TO ALL RELEVANT PORTIONS OF THE STRUCTURAL WORKS AND SHALL FORM PART OF THIS CONTRACT.

### 1.0 VERIFICATION OF DIMENSIONS AND LEVELS

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE, AND RESOLVE ALL DISCREPANCIES WITH THE ARCHITECT OR ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- DRAWING INDICATES GENERAL & TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE OF SIMILAR CHARACTER TO DETAILS SHOWN AND ALTHOUGH NOT SPECIFICALLY INDICATED, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECTED TO REVIEW BY THE ENGINEER.
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS IN THE CONTRACT DRAWINGS.
- DISCREPANCIES IN DRAWINGS ARISING FROM SUCH VERIFICATION WORKS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

### 2.0 SHOP DRAWINGS

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING TOTAL COORDINATION OF ALL WORKS AND SHALL TAKE SITE MEASUREMENTS PRIOR TO THE PREPARATION OF ANY SHOP DRAWINGS OR BEFORE COMMENCING FABRICATION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL SPECIALIST TRADES, SUCH AS PRESTRESSING, CURTAIN WALLING, ETC. FOR REVIEWS AND COMMENTS BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCEMENT OF WORK. SUCH SHOP DRAWINGS SUBMITTED SHALL INCORPORATE ALL NECESSARY CONNECTION DETAILS TO THE STRUCTURAL MEMBERS SUCH AS CAST-IN INSERTS, EMBEDDED PLATES, ETC.

### 3.0 INCORPORATION OF M&E REQUIREMENTS IN THE STRUCTURE

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING TOTAL COORDINATION OF STRUCTURAL, M & E PENETRATION DRAWINGS OF SERVICES AND SUBMIT SUCH SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEWS AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- THESE SHOP DRAWINGS SHALL INCORPORATE ALL MECHANICAL, ELECTRICAL AND SANITARY WORKS TO BE EMBEDDED IN CONCRETE AND ALL OPENINGS FOR ALL PIPE OR DUCT WORKS, BASED ON THE REQUIREMENTS OF M & E DRAWINGS IN HIS POSSESSION.
- HE SHALL CHECK AND RESOLVE ALL DISCREPANCIES WITH THE RESPECTIVE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

### 4.0 LEAN CONCRETE FOR SUSPENDED STRUCTURES

- UNLESS OTHERWISE STATED, 50 MM THICK LEAN CONCRETE WITH A MINIMUM 28-DAY CUBE STRENGTH OF 15N/MM<sup>2</sup> SHALL BE PROVIDED ON ALL SOIL SURFACES FORMING THE UNDERSIDE OF STRUCTURAL CONCRETE MEMBERS.

### 5.0 STRUCTURAL ELEMENTS ON GRADE

- UNLESS OTHERWISE STATED, A SINGLE LAYER OF 0.25 MM(HEAVY DUTY) POLYTHENE SHEET, OR EQUIVALENT THERMOPLASTIC MATERIAL, LAID OVER A COMPACTED 60 MM THICK LAYER OF HARD CORE BLINDED WITH SAND TO PREVENT GROUT LOSS FROM SEEPAGE INTO THE GROUND SHALL BE PROVIDED ON ALL SOIL SURFACES FORMING THE UNDERSIDE OF THE NON-SUSPENDED SLABS.

### 6.0 SUBGRADE UNDER STRUCTURAL ELEMENTS

- WHERE THE CONTRACTOR REQUIRES REMOVAL AND SUBSEQUENT BACKFILL OF SUBGRADE PRIOR TO CASTING OF PILECAP/WALL/BEAM/SLAB, HE SHALL ENSURE THAT THE BACKFILL IS OF APPROVED MATERIAL AND THAT THE BACKFILL SHALL BE REASONABLY COMPACTED TO ENSURE THAT THE COMPACTED SOIL IS ABLE TO WITHSTAND THE WEIGHT OF THE WET CONCRETE. THE CONTRACTOR SHALL EXERCISE PROPER SKILL AND CARE TO AVOID DAMAGE TO ADJACENT INSTALLED STRUCTURES ARISING FROM HIS CONSTRUCTION SEQUENCE.

### 7.0 WATERPROOFING FOR STRUCTURES

- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND METHOD STATEMENTS FOR THE ENGINEER'S APPROVAL PRIOR TO COMMENCEMENT OF WORK. REQUIRED SHOP DRAWING DETAILS INCLUDE BUT ARE NOT LIMITED TO TREATMENT OF FLASHINGS, WATERSTOP AT CONSTRUCTION JOINTS, WALL AND SLAB PENETRATIONS.
- ALL PENETRATIONS THROUGH STRUCTURAL ELEMENTS SHALL BE CAST-IN, SLEEVED AND PROVIDED WITH APPROVED PUDDLE FLANGE DETAIL. IF FOR ANY REASON THE CONTRACTOR IS UNABLE TO LAY WATERSTOP AT CONSTRUCTION JOINTS AS INDICATED IN THE DRAWINGS, HE SHALL AT HIS OWN EXPENSES PROVIDE ADEQUATE GROUT TUBES FOR WATERPROOF PRESSURE GROUTING TO ENSURE WATERTIGHTNESS OF THE JOINT.
- ALL GROUT TUBES SHALL BE MARKED AND PROTECTED FROM BLOCKAGE.
- BACKFILLING OPERATIONS AGAINST VERTICAL SURFACE SHALL BE CARRIED OUT AS SOON AS THE WATERPROOFING BARRIER IS INSTALLED TO THE SATISFACTION OF THE ENGINEER.

### 8.0 CASTING LAYERS

- INCLINED CASTING LAYERS AND INCLINED CONSTRUCTION JOINTS SHALL BE AVOIDED.
- HORIZONTAL CASTING LAYERS SHALL NOT IN GENERAL EXCEED 0.6 M THICKNESS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

### 9.0 FOUNDATIONS

- ALL FOUNDATIONS HAS BEEN DESIGNED FOR SAFE GROUND PRESSURE OF 150 KN/M.
- ALL BACKFILL SHOULD BE DONE WITH MATERIALS APPROVED BY THE CONSULTANT AND SOURCE. ALL BACKFILL SHOULD BE STRUCTURAL FILL, COMPACTED IN LAYERS AS SPECIFIED.
- WEAK POCKETS FOUND BELOW THE ASSUMED FOUNDATION LEVELS SHALL BE REMOVED AND REPLACED BY PLAIN CONCRETE.
- IN CASE OF EXCAVATIONS BELOW THE ASSUMED LEVEL OF THE FOUNDATION, THE SOIL SHALL BE REPLACED BY PLAIN CONCRETE.
- IN CASE GROUND WATER IS PRESENT ABOVE FOUNDATION LEVEL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING THE BELOW LEVEL OF FOUNDATIONS.
- THE CONTRACTOR SHALL MAINTAIN DRY WORKING CONDITIONS THROUGH OUT THE CONSTRUCTION PERIOD. RESTORING WATER TABLE CAN BE DONE AFTER BACKFILLING AND COMPACTION UP TO THE SLAB ON GRADE LEVEL, OR AS DIRECTED BY THE ENGINEER.
- NO BACK FILLING SHALL BE PLACED AGAINST WALLS RETAINING EARTH, UNLESS THE WALLS ACHIEVE SUFFICIENT STRENGTH TO PREVENT MOVEMENT OR STRUCTURAL DAMAGE.

### 10.0 CONSTRUCTION LOAD AND SHORING

- CONSTRUCTION LIVE LOAD IMPOSED ON ANY SINGLE FLOOR SHALL NOT EXCEED 1.5 KN/M<sup>2</sup>. UNLESS OTHERWISE APPROVED BY THE ENGINEER, DEAD LOAD OF THE TOP CONSTRUCTION FLOOR SHALL BE SUPPORTED BY TWO COMPLETED FLOORS DIRECTLY BELOW IT.
- PROPS TO BEAMS AND SLABS AT ANY FLOORS SHALL NOT BE REMOVED UNTIL THE TWO IMMEDIATE FLOORS ABOVE THAT LEVEL ARE CAPABLE OF SUPPORTING THEMSELVES AS WELL AS ANY LOADS IMPOSED DURING CONSTRUCTION. CONSIDERATIONS GOVERNING REMOVAL OF PROPS INCLUDE BUT ARE NOT LIMITED TO THE ATTAINMENT OF 28-DAY STRENGTH FOR THE CONCRETE, DESIGN LOAD CAPACITY OF THE FLOOR UNDER REVIEW AND THE COMPLETION OF PRESTRESSING AND GROUTING OPERATIONS IN THE CASE OF A PRESTRESSED STRUCTURAL FLOOR SYSTEM.

- PROPS SHALL BE LEFT IN PLACE FOR SUPPORTING THE CONSTRUCTION LOADS APPROVED BY THE ENGINEER.
- NO ALLOWANCE HAS BEEN MADE IN THE DESIGN OF THE PERIMETER BEAMS/WALLS FOR THE SUPPORT OF TEMPORARY SCAFFOLDINGS.
- THE CONTRACTER SHALL ENGAGE HIS OWN PROFESSIONAL ENGINEER TO DESIGN AND STRENGTHEN THE BEAMS/WALLS.
- THE CONTRACTER SHALL ENGAGE HIS OWN PROFESSIONAL ENGINEER CHECK THE ADEQUACY OF SHORING DETAIL PROVIDED PROCEEDING THE WORK, AS SHORING WAS DESIGNED, CONSIDERING THE STATUS OF THE BUILDING AT THE TIME OF DESIGN.

### 11.0 CONCRETE COVER

- MINIMUM COVER TO OUTERMOST REINFORCEMENT INCLUDING LINKS SHALL BE AS FOLLOWS.

STRUCTURAL ELEMENT	COVER (mm)
RAFT BEAM & SLAB (EARTH FACE)	60
RAFT BEAM & SLAB (INTERNAL FACE)	60
COLUMN	40
BEAM	35
BEAM (EXTERNAL FACE)	40
SLAB	30
INTERNAL WALL	30
EXTERNAL WALL	40

- NOTE: EARTH FACE COVER OF BEAMS, COLUMNS & WALLS SHOULD BE 50mm

### 12.0 MATERIAL STRENGTHS

#### 12.1 CONCRETE

- UNLESS OTHERWISE STATED, ORDINARY PORTLAND CEMENT CONFORMING TO BS 12, TO BE USED FOR ALL THE RC STRUCTURAL ELEMENTS.
- THE MINIMUM 28-DAY COMPRESSIVE CUBE STRENGTH OF CONCRETE FOR SPECIFIED STRUCTURAL ELEMENTS SHALL BE AS FOLLOWS UNLESS OTHERWISE STATED:

MAIN BUILDING	
LEAN CONCRETE	15 N/mm <sup>2</sup>
MASS CONCRETE	30 N/mm <sup>2</sup>
COLUMN, BEAM AND SLAB	30 N/mm <sup>2</sup>
EXTERNAL WORK	
PAVEMENTS	30 N/mm <sup>2</sup>
ALL OTHERS (CULVERT, DRAINS, MANHOLE, ETC)	30 N/mm <sup>2</sup>
FOUNDATION	
PILECAP, FOOTING, RAFT TIE-BEAM, CAPPING BEAM	30 N/mm <sup>2</sup>

- CEMENT SHALL BE ORDINARY PORTLAND CEMENT TO BS 12.

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Client: Ministry of Education

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Engineer : Mohamed Muithalib Waleed	--	-----
Drawn by : Mariyam Leevan Jaleel	--	-----
Services : Alishath Ahmed	--	-----
Interior : -	--	-----



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12.2 REINFORCEMENT

- UNLESS OTHERWISE STATED, BAR SIZE 10MM DIAMETER OR LARGER SHALL BE HIGH TENSILE TYPE II DEFORMED BARS. THE MINIMUM YIELD STRENGTH OF STEEL BAR REINFORCEMENT SHALL BE AS FOLLOWS:

MILD STEEL PLAIN BAR	250 N/mm2
HIGH TENSILE TYPE II DEFORMED BAR	415 N/mm2

12.25 REINFORCEMENT ANCHORAGE OR LAPPING IS AS FOLLOWS U.N.O.

	BAR GRADE 415
TENSION	45Ø
COMPRESSION	45Ø

Ø IS DIAMETER OF THE SMALLER SIZED LAPPED BAR.

- NO SPLICE SHALL BE MADE AT POINT OF MAXIMUM STRESS,EG IN BEAMS AND SLABS, THERE SHALL BE NO SPLICING OF TOP BARS OVER SUPPORTS NOR BOTTOM BARS AT MID-SPANS. SPLICES SHALL BE STAGGERED WHEREVER POSSIBLE. LAP LENGTH FOR UNEQUAL SIZE BARS (OR WIRES IN FABRIC) MAY BE BASED UPON THE SMALLER BAR. FOR BUNDLED BARS, THE EQUIVALENT DIAMETER SHALL BE USED. CRANKING OF BARS SHALL NOT EXCEED A SLOPE OF 1:10.
- FOR LAP LENGTH, WHERE SYMBOLS ARE NOT INDICATED, THE TENSION LAP LENGTH SHALL BE FOLLOWED.

13.0 STIRRUPS, LINKS AND TIES

- ALL STIRRUPS, LINKS AND TIES IN BEAMS, COLUMNS AND WALLS RESPECTIVELY SHALL TERMINATE NOT MORE THAN 75mm FROM THE FACE OF ANY ADJACENT STRUCTURAL MEMBERS.

14.0 SLAB DISTRIBUTION BARS

- REGARDLESS OF WHETHER OR NOT SHOWN ON PLAN, ALL DISTRIBUTION BARS FOR SLAB SHALL COMPRISE TYPICALLY ONE OF THE FOLLOWING COMBINATIONS, UNLESS OTHERWISE STATED IN THE RELEVANT DRAWINGS :

SLAB THICKNESS (mm)	MIN. DISTRIBUTION BAR
250 OR LESS	T10-300
GREATER THAN 250 BUT LESS THAN OR EQUAL TO 300	T10-200
GREATER THAN 300 BUT LESS THAN OR EQUAL TO 400	T10-150

15.0 FLOOR RENDERING

- THICKNESS OF SCREED RENDERING/MASS CONCRETE TOPPING EXCEEDING 60 OR MORE SHALL BE REINFORCED WITH ONE LAYER OF R6.

16.0 SHRINKAGE CRACKS

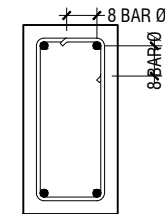
- THE SURFACE OF CONCRETE SHALL BE ADEQUATELY AND CONTINUOUSLY CURED TO SPECIFICATION TO PREVENT FORMATION OF SHRINKAGE CRACKS.THOUGH SHRINKAGE CRACKS HAVE NO EFFECT ON THE STRENGTH AND INTEGRITY OF THE STRUCTURE,THEY SHOULD BE SEALED BY EPOXY PRESSURE GROUTING. ALL COST INCURRED FOR THE NECESSARY SEALING UP OF SHRINKAGE CRACKS BY EPOXY PRESSURE GROUTING SHALL BE DEEMED TO BE INCLUDED IN THE CONCRETE WORK AS TENDERED.

17.0 STEEL BAR CORROSION PROTECTION

- ALL EXPOSED BARS FOR FUTURE CONSTRUCTION PURPOSES (EXCEEDING 3 MONTHS) MUST BE COATED WITH MASTER EMACO 8100 AP OR APPROVED EQUIVALENT AND PROVIDED WITH ADEQUATE MAINTENANCE.

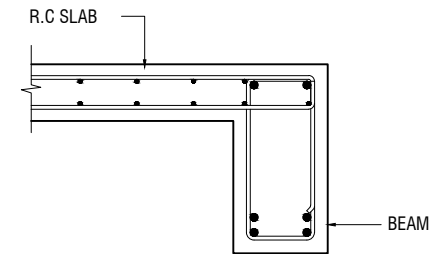
18.0 SPACER BARS

- ALL SPACER BARS BETWEEN 2 OR MORE LAYERS OF REINFORCEMENT SHALL T25 OR BAR DIAMETER (WHICHEVER IS GREATER) AT ±1-5M C/C.

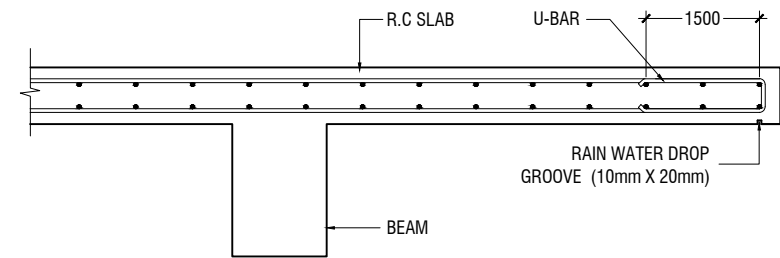


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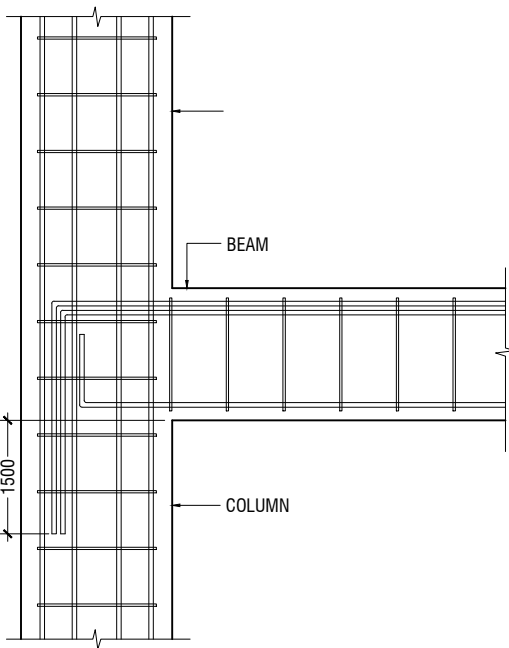
SHEAR LINKS ANCHORAGE DETAIL



SLAB-BEAM ANCHORAGE DETAIL



CANTILEVERED SLAB EDGE DETAIL



BEAM TO COLUMN CONNECTION

Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)  
Client: Ministry of Education

Rev no	Date
--	----
--	----
--	----
--	----

Project Number: RI/2020/006  
Date: January 2021  
Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -



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Title: General Notes

Page: S-00/12

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19.0 STRUCTURAL TIMBER SPECIFICATION

19.1 THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.

19.2 THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

19.3 ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

19.4 ALL TIMBER FOR STRUCTURAL USE SHALL BE HARDWOOD OR SOFTWOOD OF VISUAL GRADE C/D IN ACCORDANCE WITH BS 5756 WITH THE FOLLOWING MINIMUM GRADE STRESSES:

19.5 CONNECTIONS  
PLATES - STAINLESS STEEL GRADE 316 OF STATED THICKNESS  
BOLTS - SS GRADE 316

19.6 TIMBER TREATMENT  
MOISTURE - PRESSURE IMPREGNATION OF CCA  
INSECTS - TERMITE TREATMENT FOR TIMBER IN / NEAR GROUND

20.0 STRUCTURAL STEEL SPECIFICATION

1. SEE 21.0 ON PRIMARY CODES AND SPECIFICATIONS.

2. MATERIALS:

W-SHAPES & WT-SHAPES..... ASTM A992  
S-SHAPES, M-SHAPES, HP-SHAPES..... ASTM A36  
ST-SHAPES & MT-SHAPES..... ASTM A36  
C-SHAPES & MC-SHAPES..... ASTM A36  
ANGLES & PLATES..... ASTM A36  
HSS SHAPES..... ASTM A500, GRADE B  
STEEL PIPE..... ASTM A53 (TYPE E OR S), GRADE B  
HIGH STRENGTH BOLTS..... ASTM A325  
MACHINE BOLTS..... ASTM A307  
ANCHOR RODS.....ASTM F1554, GRADE 55 TYPE S1(UNO)  
WELDED HEADED STUDS..... ASTM A108  
DEFORMED BAR ANCHORS..... ASTM A496  
WELDING ELECTRODES..... AWS D1.1, E70 SERIES

3. NON-SHRINK, NON-METALLIC GROUT WITH A 28 DAY STRENGTH OF 35MPa SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO BS EN 12390-3 AND EN 196-1. MASTERFLOW 542 OR EQUIVALENT MAYBE USED.

23.0 POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD (EOR) PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSINGS OR MISPLACED ANCHORS.

2. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REINFORCING WHEN DRILLING HOLES. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE.

3. SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL ADHESIVE AND MECHANICAL ANCHOR INSTALLATIONS AS REQUIRED BY THE EOR. INDEPENDENT ON-SITE PROOF LOAD TESTING SHALL BE PERFORMED AS REQUIRED BY THE EOR. CONTACT EOR FOR NUMBER OF ANCHORS REQUIRED TO BE TESTED AND REQUIRED PROOF LOAD MAGNITUDE.



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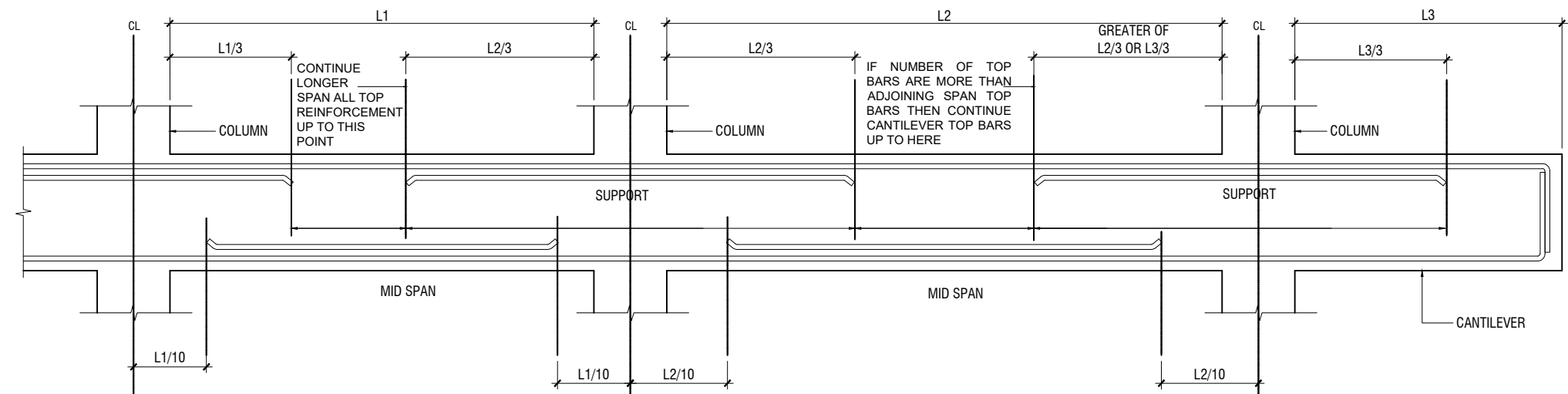
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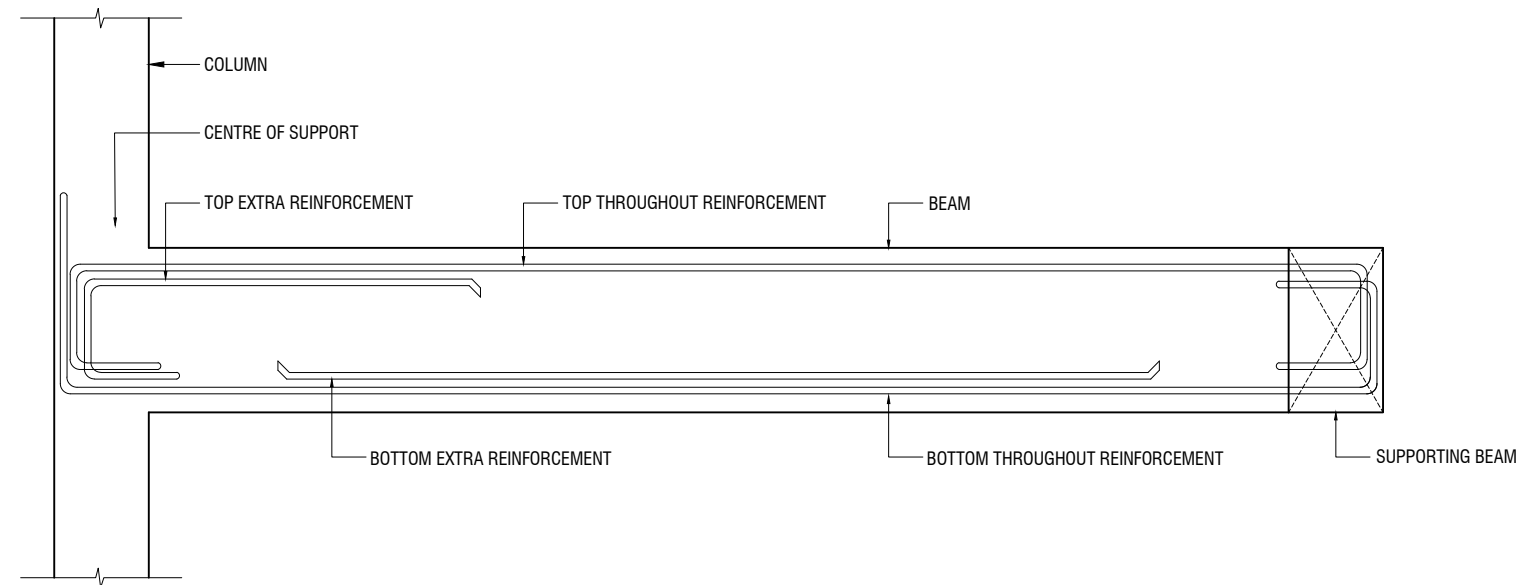
Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)  
Client: Ministry of Education

Project Number: RI/2020/006	Rev no	Date
Date: January 2021	--	-----
Architect : Mariyam Irasha Shareef	--	-----
Engineer : Mohamed Muththalib Waleed	--	-----
Drawn by : Mariyam Leevan Jaleel	--	-----
Services : Aishath Ahmed	--	-----
Interior : -	--	-----

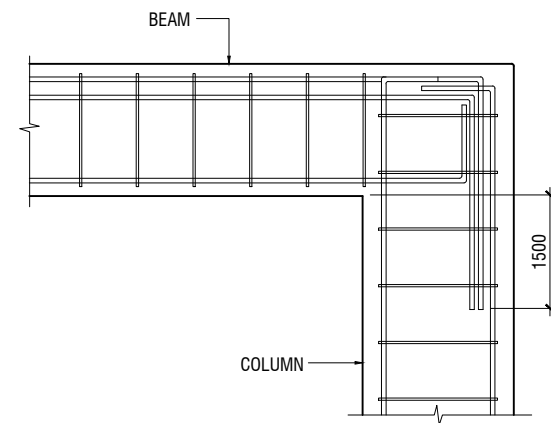


SIMPLIFIED DETAILING RULES FOR BEAMS (BS8110-1)

L1 = SHORTER SPAN  
L2 = LONGER SPAN  
L3 = CANTILEVER LENGTH



LONGITUDINAL SECTION OF TYPICAL SLAB BEAM SPANNING BETWEEN A COLUMN AND BEAM  
SHOWING END SPAN MID SPAN REINFORCEMENT DETAILS



END COLUMN TO BEAM CONNECTION

NOTE:  
STANDARD DETAILS GIVEN HERE ALSO APPLIES TO FOUNDATION MEMBERS  
OTHER DETAILS NOT FOUND HERE SHALL BE REFEREED TO IN RELEVANT BS  
CODES OR SHALL BE APPROVED BY CLIENT'S ENGINEER

Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)  
Client: Ministry of Education

Project Number	Rev no	Date
R/2020/006	--	-----
Date: January 2021	--	-----
Architect : Mariyam Irasha Shareef	--	-----
Engineer : Mohammed Muththalib Waleed	--	-----
Drawn by : Mariyam Leevan Jaleel	--	-----
Services : Alishah Ahmed	--	-----
Interior : -	--	-----



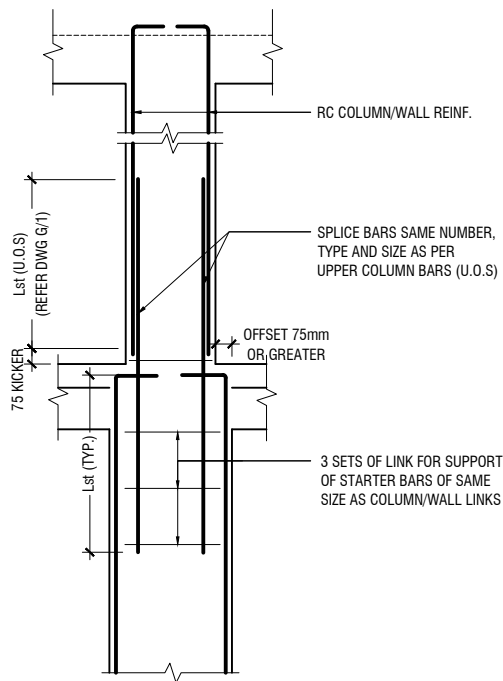
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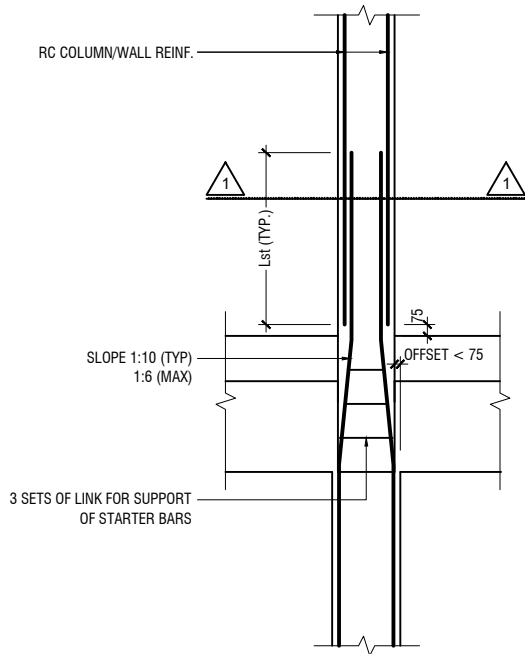
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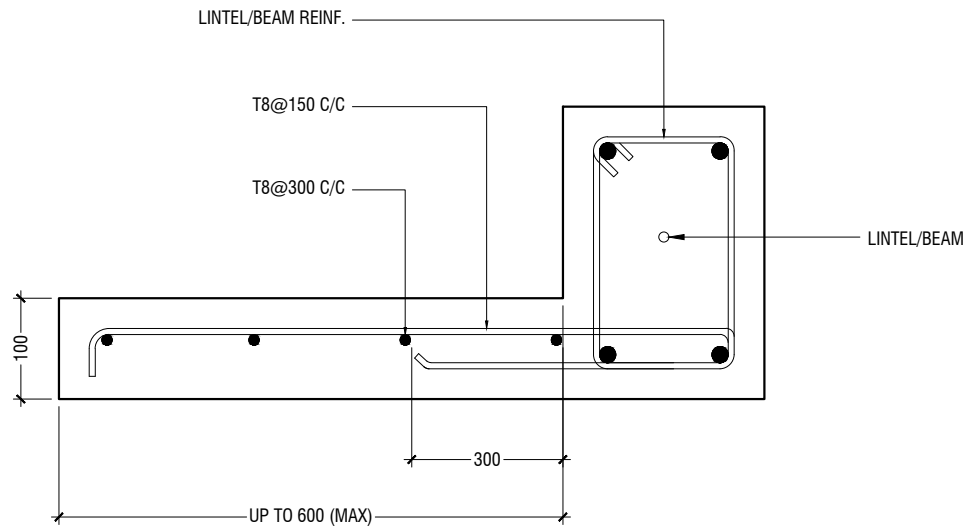


A) FOR COLUMN OFFSET > 75mm  
TO BE VERIFIED BY THE CONSULTING ENGINEER

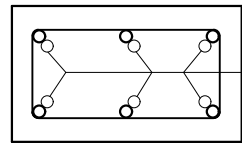


B) FOR COLUMN OFFSET < 75mm

#### COLUMN/WALL REINF. LAPPING DETAIL AT FLOOR LEVEL

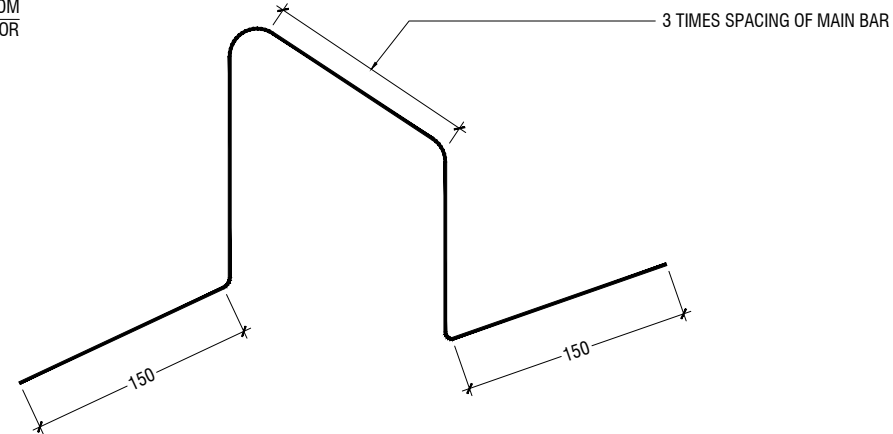


#### TYPICAL CANTILEVER DETAILS

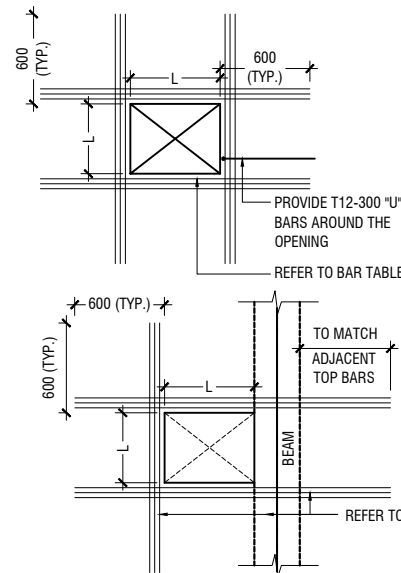


#### SECTION-1-1

REINF. FROM LOWER FLOOR



#### TYPICAL CHAIR DETAIL



FLOOR OPENING (L)	ADD BARS
LESS THAN 250	3T12 T & B
L = > 250 < 500	3T16 T & B
L = ≥ 500 < 1000	3T16 T & B

#### NOTE:-

- FOR OPENINGS LESS THAN 200x200. SLAB REBARS TO BE ADJUSTED AROUND OPENING.
- FOR OPENINGS GREATER THAN 250x250 TO BE APPROVED BY THE ENGINEER.
- ALL SLAB OPENINGS LOCATION TO BE APPROVED BY THE ENGINEER.
- EQUIVALENT OPENING AREA SHALL APPLY THE DETAILS SHOWN ABOVE.
- EQUIVALENT OPENING AREA SHALL INCLUDE RECTANGLE, TRIANGLE AND ANY POLYGON SHAPE.
- EXCEPT HACKING, NO SLAB CORING ARE ADVISABLE FOR POST-TENSIONED SLAB.

#### TYPICAL TRIMMER BARS DETAILS FOR OPENING IN SLABS

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Client: Ministry of Education

Project Number: Ri/2020/006	Rev no	Date
Date: January 2021	--	-----
Architect : Mariyam Irasha Shareef	--	-----
Engineer : Mohamed Muththalib Waleed	--	-----
Drawn by : Mariyam Leevan Jaleel	--	-----
Services : Alishah Ahmed	--	-----
Interior : -	--	-----



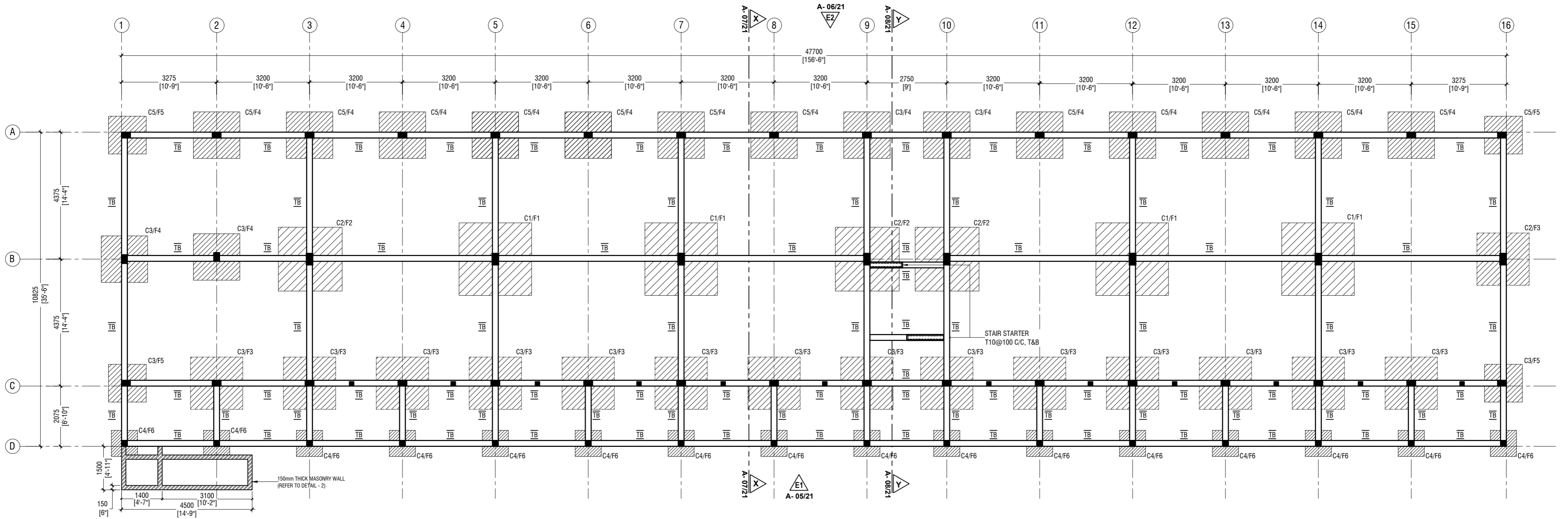
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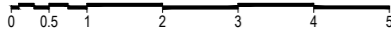
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## FOUNDATION PLAN

SCALE 1:100



### NOTE:

#### COLUMN SIZES

C1	: 225 x 400 mm
C2	: 225 x 400 mm
C3	: 200 x 300 mm
C4	: 200 x 200 mm
C5	: 200 x 300 mm
SC	: 150 x 150 mm
COVER	: 40mm

#### FOUNDATION PAD SIZES

	DIMENSION	REINFORCEMENT
F1	2500 x 2500 x 400	T16@125 C/C B/W (B)
F2	2200 x 2200 x 350	T16@150 C/C B/W (B)
F3	1800 x 1800 x 300	T12@125 C/C B/W (B)
F4	1600 x 1600 x 300	T12@125 C/C B/W (B)
F5	1300 x 1300 x 300	T12@150 C/C B/W (B)
F6	900 x 900 x 300	T12@150 C/C B/W (B)

### NOTE:

#### CONCRETE COVER

COLUMN	: 40mm
SLAB	: 30mm
BEAM	: 35mm
FOOTING	: 50mm
TIE BEAM	: 50mm

#### LAP LENGTH FOR BARS

25MM	: 1125 mm
20MM	: 900 mm
16MM	: 720 mm
12MM	: 550 mm
10MM	: 450 mm

CONCRETE GRADE = M25

SAFE BEARING CAPACITY = 150KPa

HOOK LENGTH AND OTHER DETAILS ARE PROVIDED IN THE GENERAL NOTES

FOUNDATION DEPTH : 1200mm BELOW GROUND LEVEL

ALL FOOTINGS ARE TO BE LAID ON TOP OF 50mm THICK LEAN CONCRETE  
APPLY WATER PROOFING TO SUBSTRUCTURE (BELOW GROUND ELEMENTS)

#### TIE BEAM SIZES

TB	: 200 x 450 mm
COVER	: 50mm

GROUND SLAB : 100mm THK RC SLAB ON FILL  
REINFORCED WITH T10@200 C/C BW

-150mm THK. SOLID MASONRY BLOCK WALL

RAMP SLAB : 100mm THK RC SLAB ON COMPACTED FILL  
REINFORCED WITH T10@200 C/C BW



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Client: Ministry of Education

Project Number: RI/2020/006

Date: January 2021

Architect : Mariyam Irasha Shareef

Engineer : Mohamed Muththalib Waleed

Drawn by : Mariyam Leevan Jaleel

Services : Aishath Ahmed

Interior : -

Rev no Date

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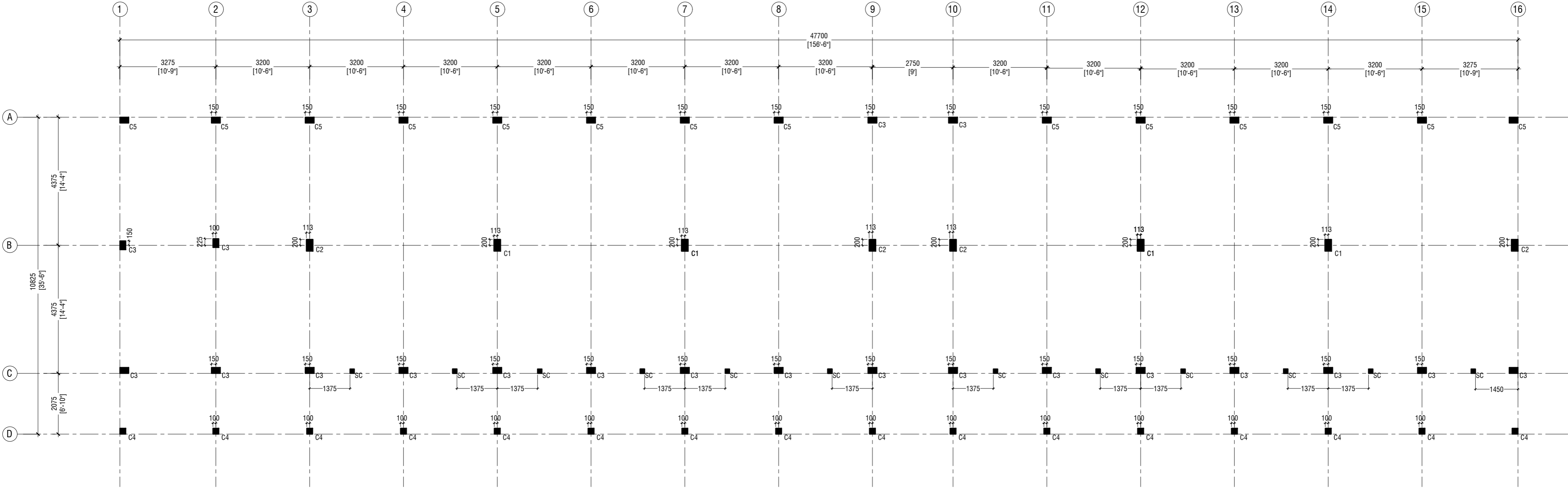
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Title: Foundation Plan

Page: S-01/12

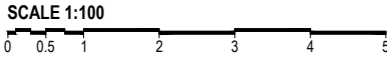


NOTE:

COLUMN SIZES

- C1 : 225 x 400 mm
- C2 : 225 x 400 mm
- C3 : 200 x 300 mm
- C4 : 200 x 200 mm
- C5 : 200 x 300 mm
- SC : 150 x 150 mm
- COVER : 40mm

FIRST - SECOND FLOOR COLUMN LAYOUT PLAN



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Client: Ministry of Education

Project Number: RI/2020/006

Date: January 2021

Architect: Mariyam Irasha Shareef

Engineer: Mohamed Muththalib Waleed

Drawn by: Mariyam Leevan Jaleel

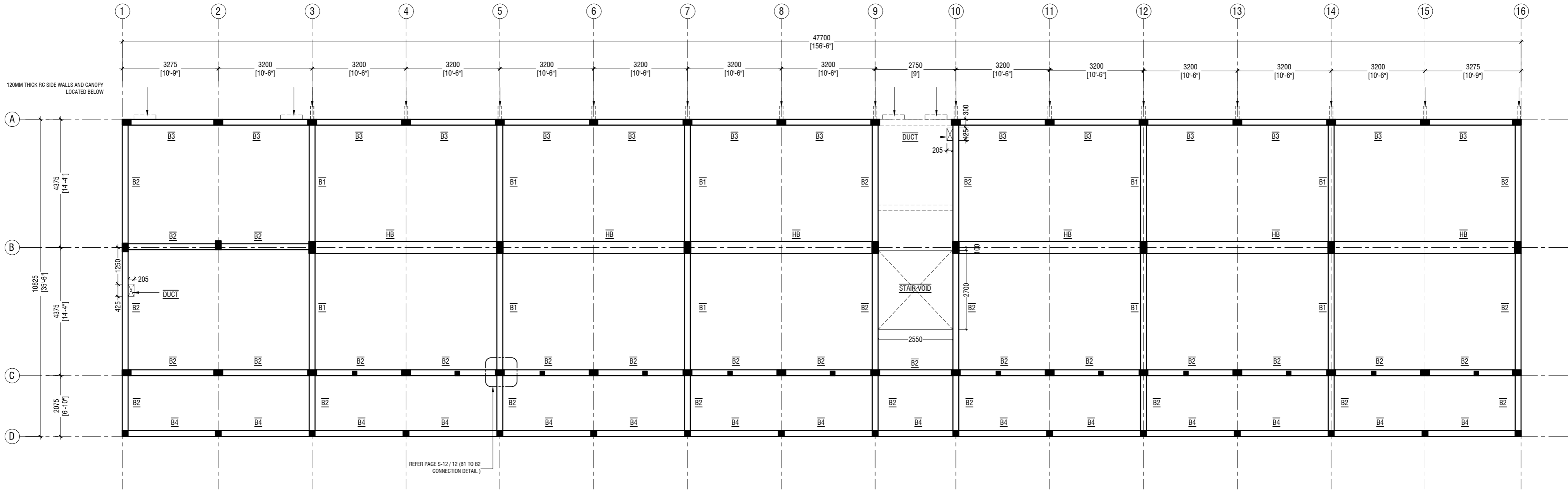
Services: Aishath Ahmed

Interior: -

Rev no	Date
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Title: Column Layout Plan

Page: S-02/12



NOTE:

COLUMN SIZES

C1	: 225 x 400 mm
C2	: 225 x 400 mm
C3	: 200 x 300 mm
C4	: 200 x 200 mm
C5	: 200 x 300 mm
SC	: 150 x 150 mm
COVER	: 40mm

BEAM SIZES

B1	: 200x475 mm
B2	: 200x400 mm
B3	: 200x400 mm
HB	: 400x180 mm
COVER	: 35mm

FIRST - SECOND FLOOR BEAM PLAN

SCALE 1:100



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Date: January 2021

Architect: Mariyam Irasha Shareef

Engineer: Mohamed Muththalib Waleed

Drawn by: Mariyam Leevan Jaleel

Services: Aishath Ahmed

Interior: -

Rev no

Date

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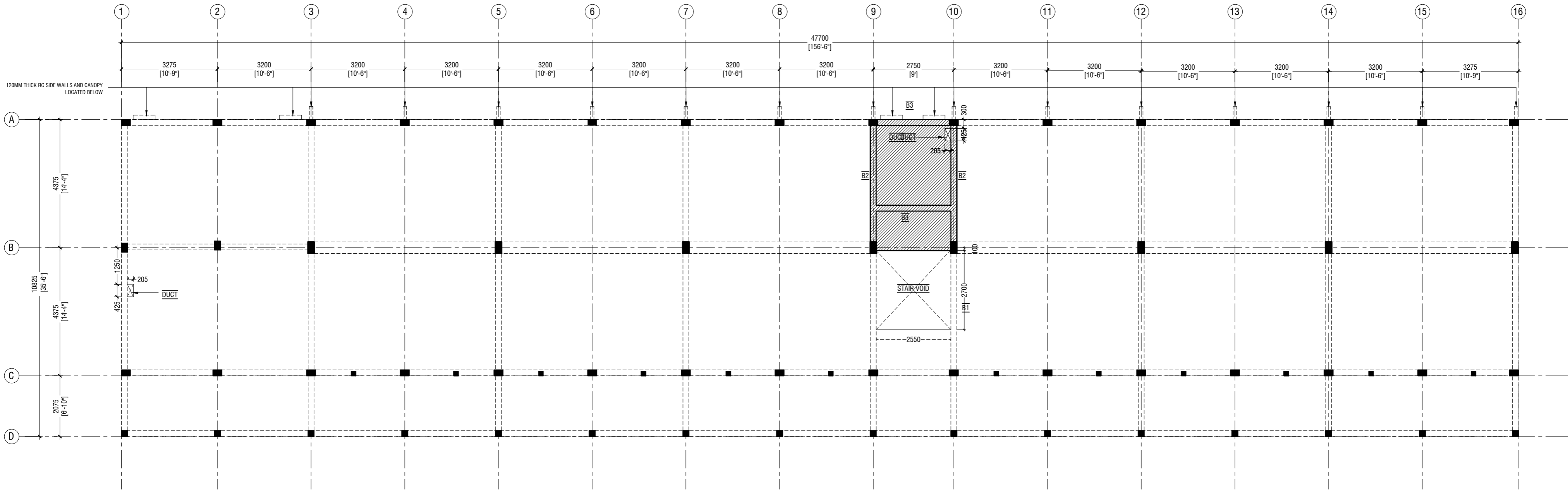
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Title: 1st - 2nd Beam Plan

Page: S-03/12



NOTE:

COLUMN SIZES

C1 : 225 x 400 mm  
C2 : 225 x 400 mm  
C3 : 200 x 300 mm  
C4 : 200 x 200 mm  
C5 : 200 x 300 mm  
SC : 150 x 150 mm  
COVER : 40mm

BEAM SIZES

B1 : 200x475 mm  
B2 : 200x400 mm  
B3 : 200x400 mm  
HB : 400x180 mm  
COVER : 35mm



SLAB THICKNESS: 150mm

REINFORCEMENT: T10@150C/C B/W (T&B)

ALL REINFORCEMENT TO BE DISCONTINUOUS OVER THE VOIDS

STORE / HALF LANDING FLOOR BEAM & SLAB REINFORCEMENT PLAN (+1865 & +4865)

SCALE 1:100



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Engineer: Mohamed Muththalib Waleed

Drawn by: Mariyam Leevan Jaleel

Services: Aishath Ahmed

Interior: -

Rev no

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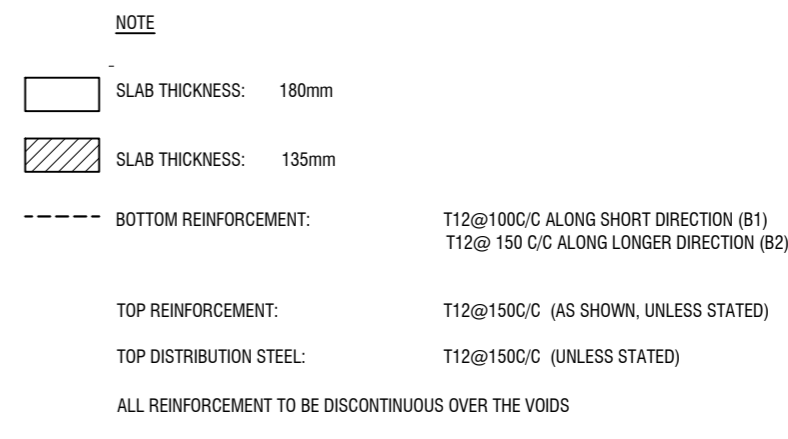
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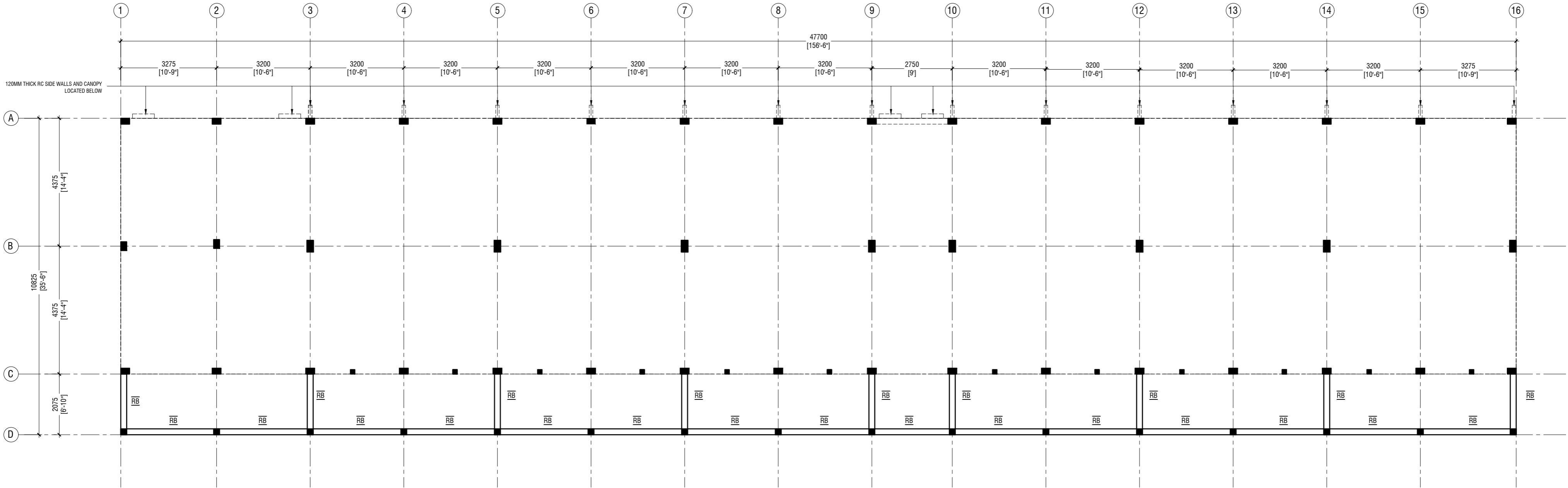
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Title: Store Half Landing & Slabe Reinf. Plan

Page: S-04/12



SCALE 1:100



NOTE:

COLUMN SIZES	
C1	: 225 x 400 mm
C2	: 225 x 400 mm
C3	: 200 x 300 mm
C4	: 200 x 200 mm
C5	: 200 x 300 mm
SC	: 150 x 150 mm
COVER	: 40mm

BEAM SIZES	
RB	: 200x300 mm
COVER	: 35mm

ROOF BEAM PLAN - 1 @9.15 FROM F.F.L

SCALE 1:100



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Client: Ministry of Education

Project Number: RI/2020/006

Date: January 2021

Architect : Mariyam Irasha Shareef

Engineer : Mohamed Muththalib Waleed

Drawn by : Mariyam Leevan Jaleel

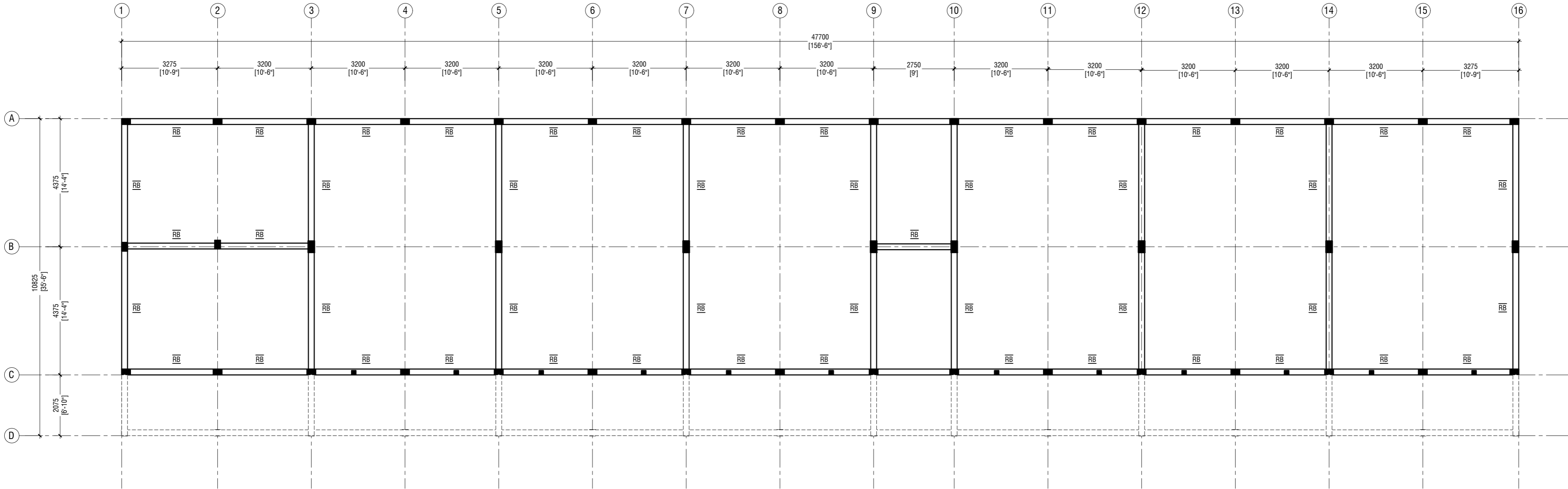
Services : Aishath Ahmed

Interior : -

Rev no	Date
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Title: Roof Beam Plan - 1

Page: S-06/12



NOTE:	
COLUMN SIZES	
C1	: 225 x 400 mm
C2	: 225 x 400 mm
C3	: 200 x 300 mm
C4	: 200 x 200 mm
C5	: 200 x 300 mm
SC	: 150 x 150 mm
COVER	: 40mm
BEAM SIZES	
RB	: 200x300 mm
COVER	: 35mm

**ROOF BEAM PLAN - 2 @9.706 FROM F.F.L**

SCALE 1:100



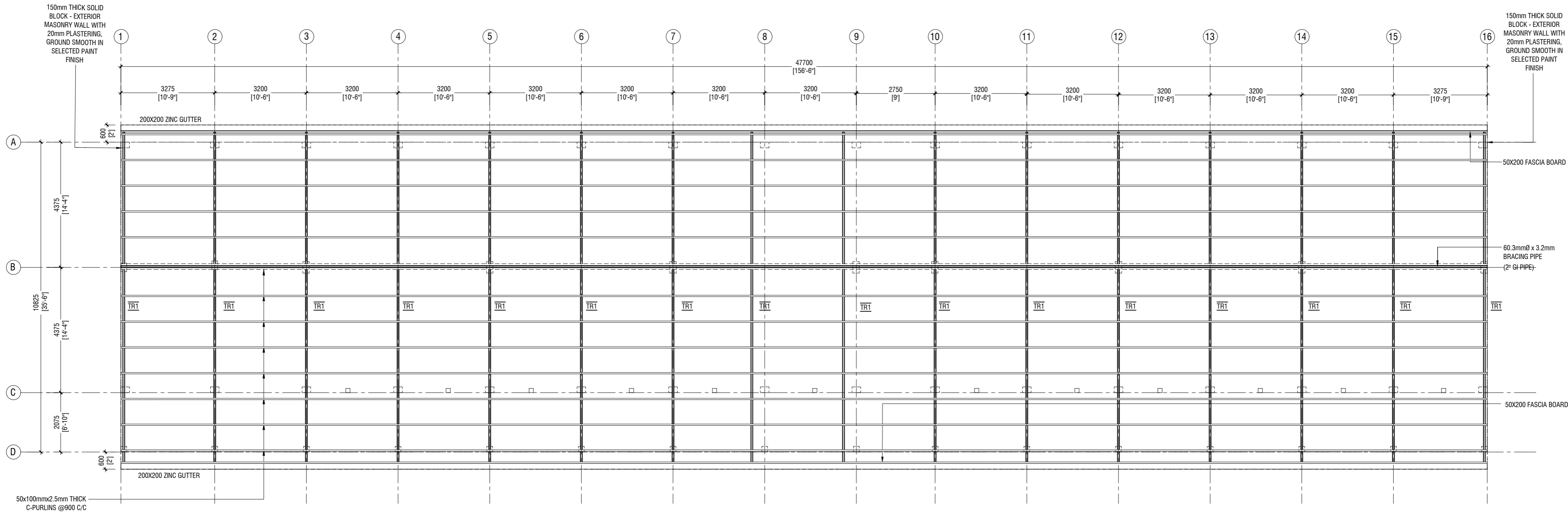
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Date: January 2021  
Architect: Mariyam Irasha Shareef  
Engineer: Mohamed Muththalib Waleed  
Drawn by: Mariyam Leevan Jaleel  
Services: Aishath Ahmed  
Interior: -

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Title: Roof Beam Plan 2  
Page: S-07/12



## ROOF TRUSS & FRAMING PLAN

SCALE 1:100



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Architect: Mariyam Irasha Shareef

Engineer: Mohamed Muththalib Waleed

Drawn by: Mariyam Leevan Jaleel

Services: Aishath Ahmed

Interior: -

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Title: Roof Truss & Framing Plan

Page: S-08/12



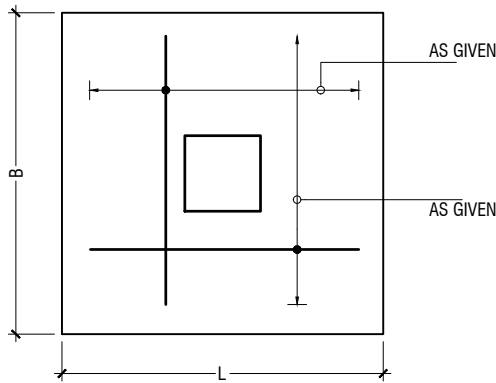
	DIMENSION	REINFORCEMENT
F1	2500 x 2500 x 400	T16@125 C/C B/W (B)
F2	2200 x 2200 x 350	T16@150 C/C B/W (B)
F3	1800 x 1800 x 300	T12@125 C/C B/W (B)
F4	1600 x 1600 x 300	T12@125 C/C B/W (B)
F5	1300 x 1300 x 300	T12@150 C/C B/W (B)
F6	900 x 900 x 300	T12@150 C/C B/W (B)

FOUNDATION DEPTH = 1200mm

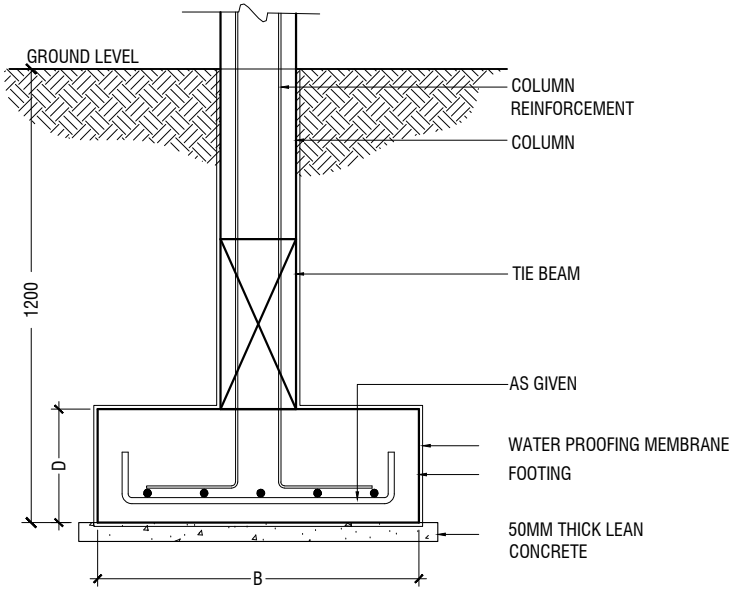
NOTE:-  
COVER TO FOUNDATION = 50mm  
COVER TO COLUMNS = 40mm  
COVER TO BEAMS = 35mm  
COVER TO SLAB = 30mm  
LAPS = Ø OF BAR x 45  
BEAMS @END SUPPORT = Ø OF BAR x 12

GRADE OF CONCRETE = M25

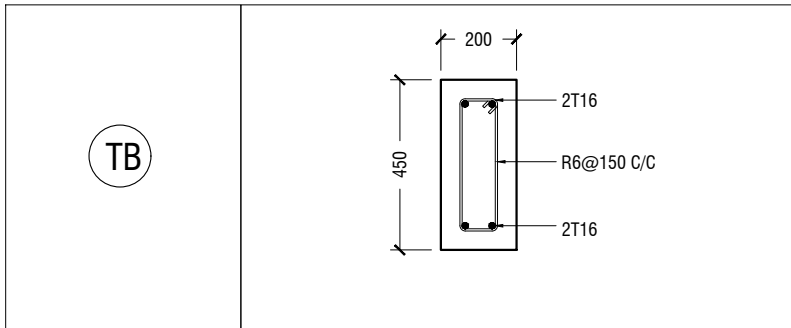
### FOUNDATION PADS



PLAN



TYPICAL FOOTING SECTION



FOUNDATION DETAILS

	GROUND & 1ST FLOOR
C1	
C2	
C3	
C4	
C5	
SC	

### COLUMN DETAIL

### STRUCTURAL DETAILS - 1

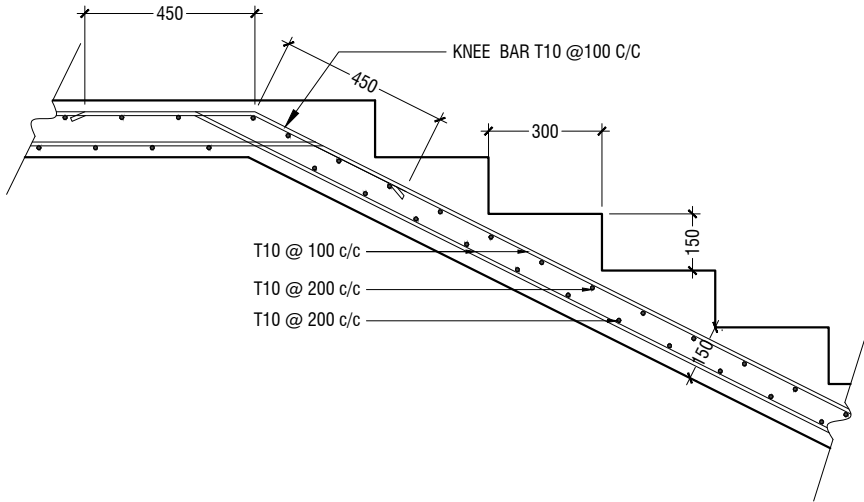
SCALE 1:20



	MIDSPAN	SUPPORT
B1		
B2		
B3		
B4		
RB		
HB		

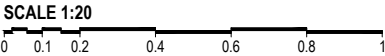
LT1	
LT2	

LINTELS OVER ALL DOORS, WINDOWS  
(THAT DOES NOT RISE TO ROOF BEAM LEVEL)  
LT2 FOR WINDOW (W2) ONLY



MAIN STAIRCASE REINFORCEMENT DETAIL

STRUCTURAL DETAILS - 2



BEAM DETAIL

Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)

Client: Ministry of Education

Project Number: RI/2020/006

Date: January 2021

Architect : Mariyam Irasha Shareef

Engineer : Mohamed Muththalib Waleed

Drawn by : Mariyam Leevan Jaleel

Services : Aishath Ahmed

Interior : -

Rev no

Date

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Title: Structural Details - 2

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NOTE:

PROVIDE 25MM SPACER BAR @ 2000 C/C BETWEEN TWO LAYERS  
OF BEAM REINFORCEMENT

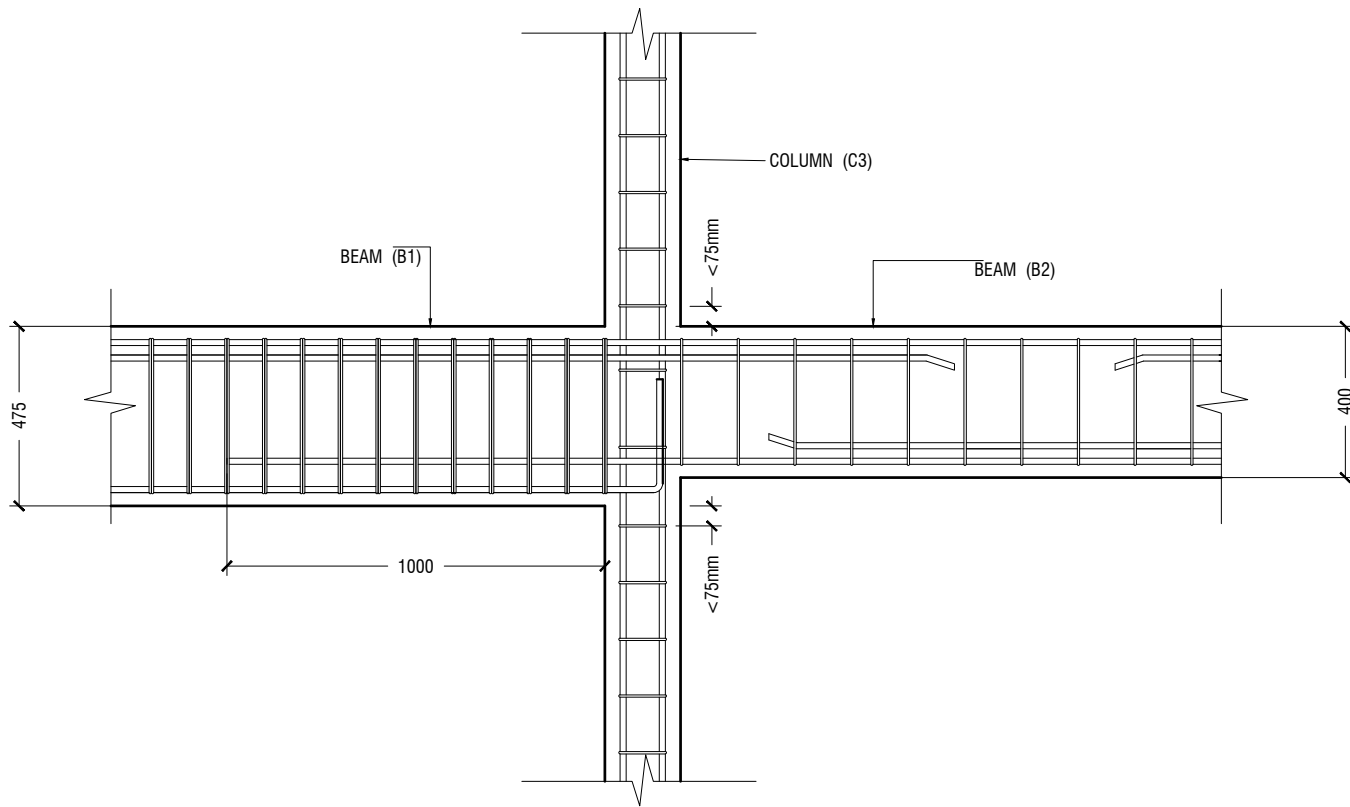
RIYAN PRIVATE LIMITED

t: +9603315049 f: +9603310776

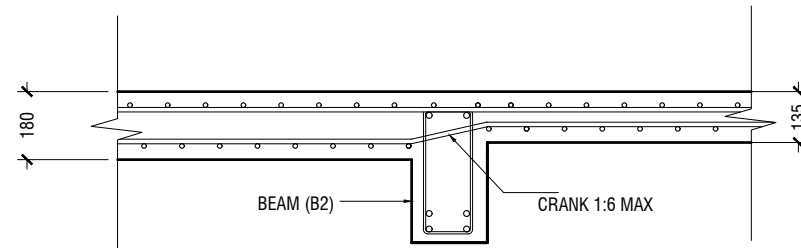
e: info@riyan.com.mv

w: www.riyan.com.mv

3rd floor, H. Azum, 'Ameeneemagu, Male'



**B1 TO B2 CONNECTION DETAIL**



**SLAB THICKNESS REDUCTION DETAIL**

### **STRUCTURAL DETAILS - 3**

SCALE 1:20



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w : www.riyan.com.mv  
3rd floor, H. Azum, Ameenemagu, Male'

**Sn.Hithadhoo Sharafuddin School - 18 Classroom (03 Storey)**  
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Project Number: RI/2020/006  
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Architect : Mariyam Irasha Shareef  
Engineer : Mohamed Muththalib Waleed  
Drawn by : Mariyam Leevan Jaleel  
Services : Aishath Ahmed  
Interior : -

Rev no	Date
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Title: Structural Details - 3

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