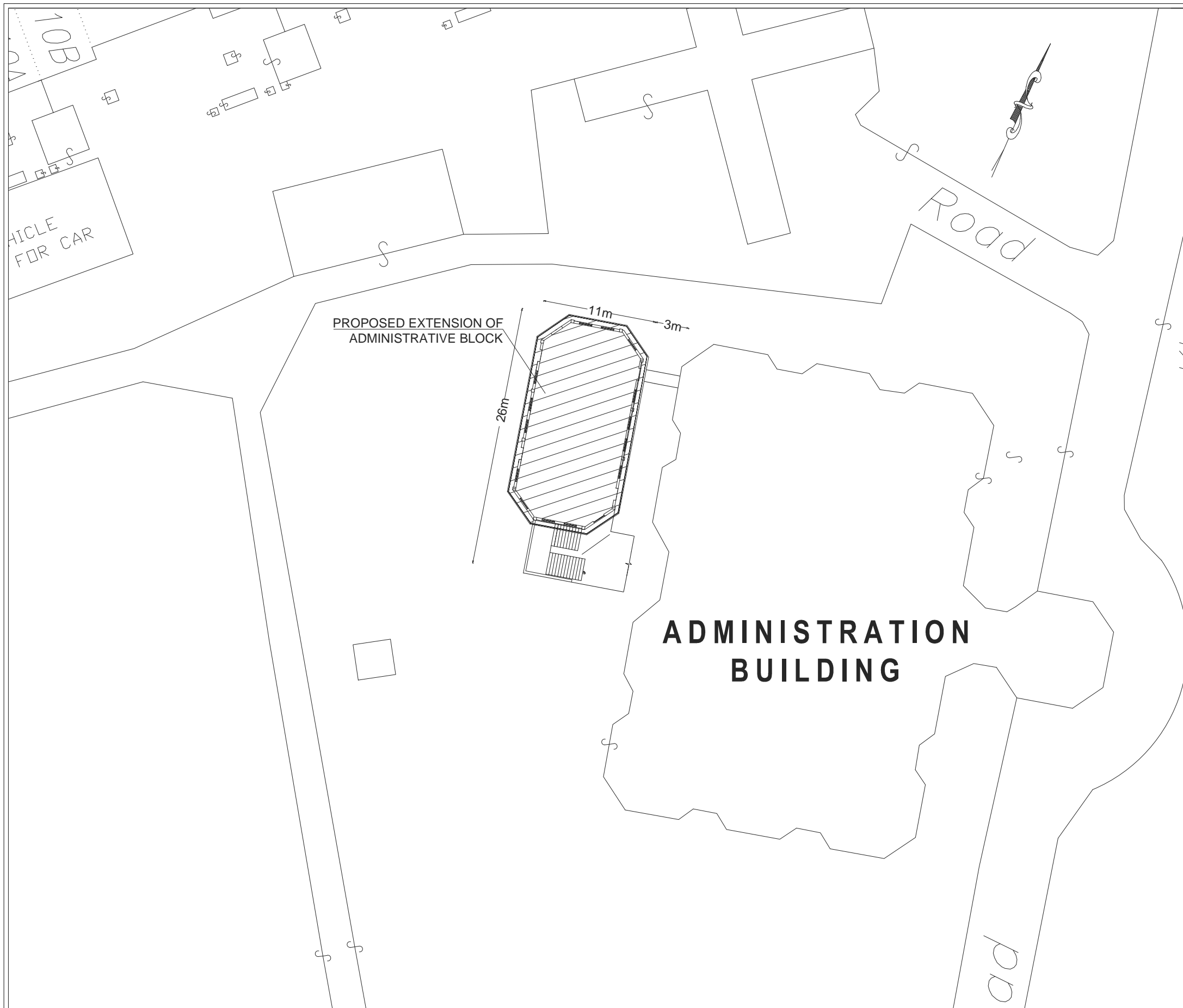


# Section - 08

PROPOSED EXTENSION OF ADMINISTRATIVE SECRETARIAT BUILDING AT  
THE SOUTH EASTERN UNIVERSITY,  
OLUVIL, SRILANKA.

DRAWINGS

SOUTH EASTERN UNIVERSITY OF SRILANKA,  
UNIVERSITY PARK,  
OLUVIL.



SOUTH EASTERN  
UNIVERSITY OF SRI LANKA

PROJECT NAME :  
PROPOSED EXTENSION OF  
ADMINISTRATIVE BLOCK  
AT SEUSL OLUVIL

DRAWN BY :

DESIGNED&CHECKED BY:

RECOMMENDED BY : User Department

APPROVED BY : V.C

DRAWING TITLE :  
LOCATION PLAN

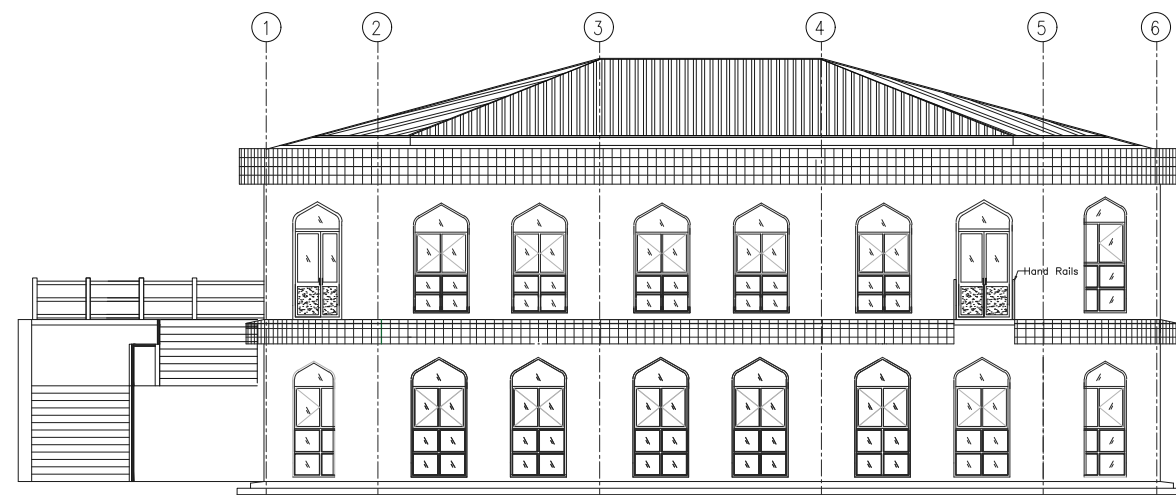
DRAWING NO : SEUSL/WE/2020/00

SCALE : NTS      DATE : 06/02/2020

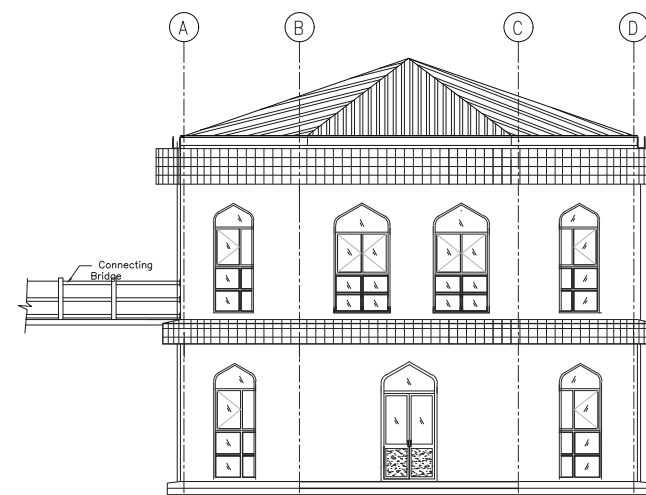


SOUTH EASTERN  
UNIVERSITY OF SRI LANKA

PROJECT NAME :  
PROPOSED EXTENSION OF ADMINISTRATIVE  
BLOCK, AT SEUSL OLUVIL



3 FRONT ELEVATION



4 SIDE ELEVATION

DRAWN BY : M.S.M Fahath D.M

DESIGNED&CHECKED BY:M.S.M Fazeel WE

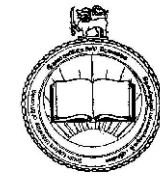
RECOMMENDED BY : User Department

APPROVED BY : V.C

DRAWING TITLE :  
ELEVATION - FRONT, SIDE

DRAWING NO : SEUSL/WE/2020/01

SCALE : NTS DATE : 06/01/2020



SOUTH EASTERN  
UNIVERSITY OF SRI LANKA

PROJECT NAME :  
PROPOSED EXTENSION OF ADMINISTRATIVE  
BLOCK, AT SEUSL OLUVIL

DRAWN BY : M.S.M Fahath D.M

DESIGNED & CHECKED BY: M.S.M Fazeel WE

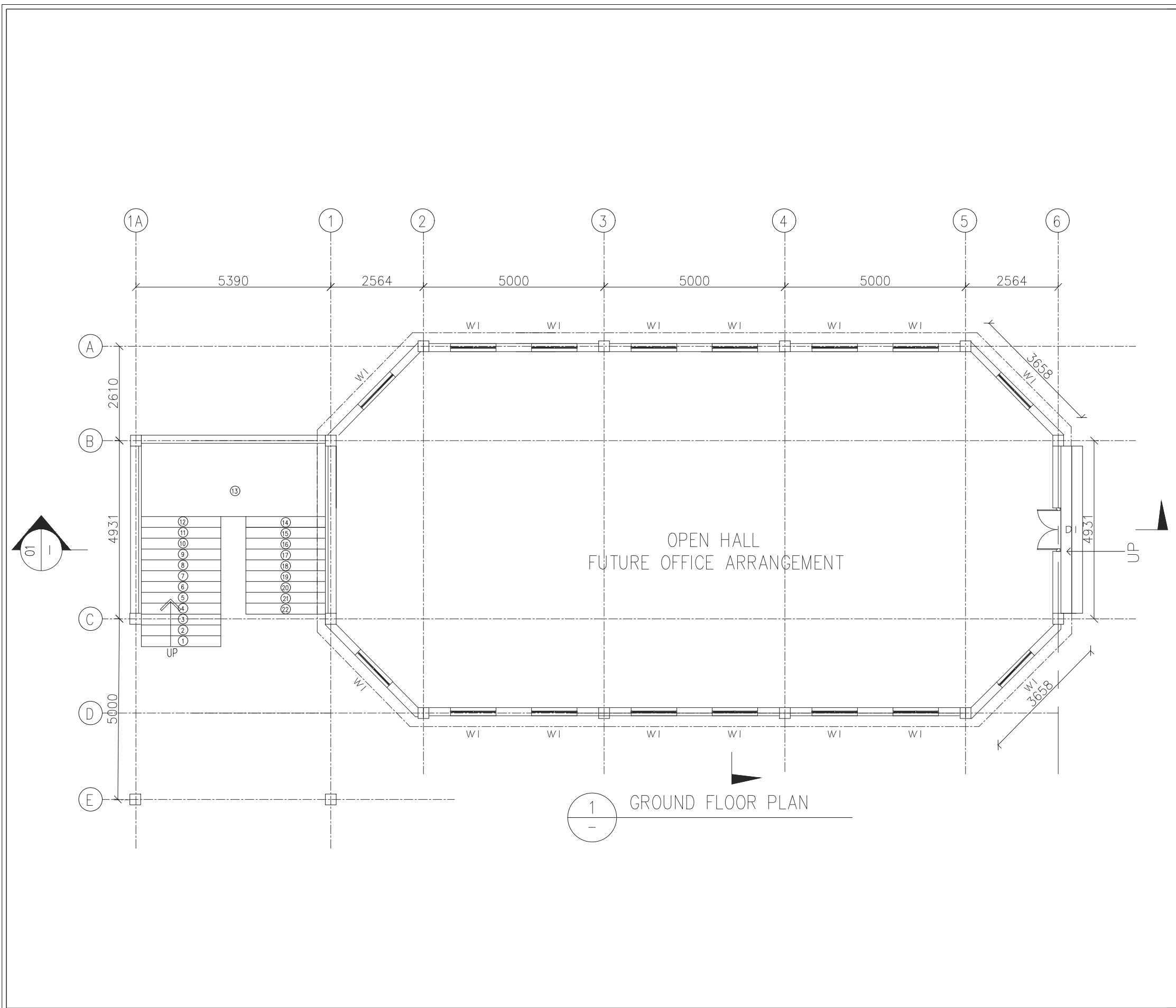
RECOMMENDED BY : User Department

APPROVED BY : V.C

DRAWING TITLE :  
GROUND FLOOR PLAN

DRAWING NO : SEUSL/WE/2020/02

SCALE : NTS      DATE : 06/01/2020



1  
-  
GROUND FLOOR PLAN



SOUTH EASTERN  
UNIVERSITY OF SRI LANKA

PROJECT NAME :  
PROPOSED EXTENSION OF ADMINISTRATIVE BLOCK, AT SEUSL OLUVIL

DRAWN BY : M.S.M Fahath D.M

DESIGNED & CHECKED BY: M.S.M Fazeel WE

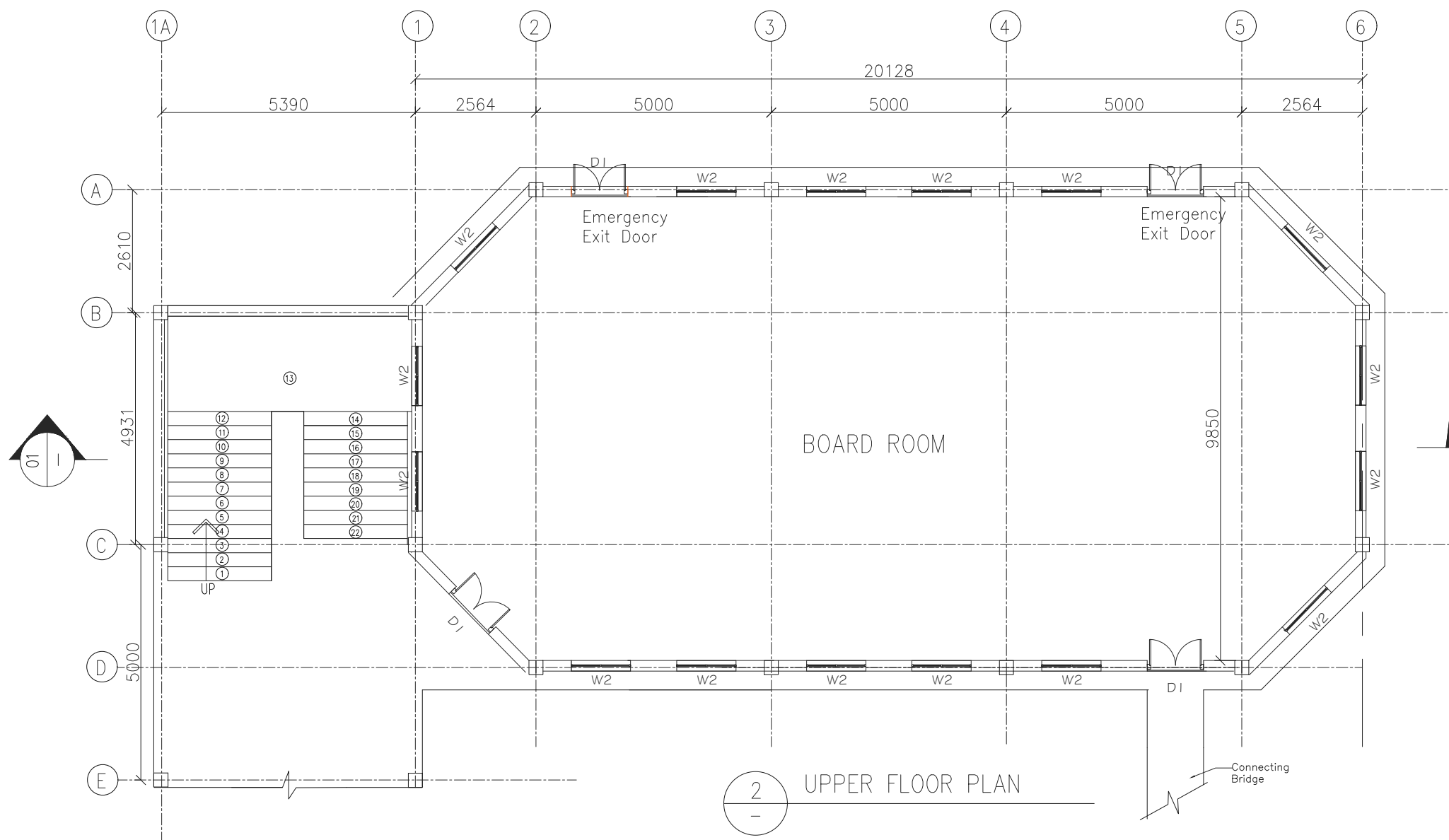
RECOMMENDED BY : User Department

APPROVED BY : V.C

DRAWING TITLE :  
UPPER FLOOR PLAN

DRAWING NO : SEUSL/WE/2020/03

SCALE : NTS DATE : 06/01/2020



2  
-  
UPPER FLOOR PLAN

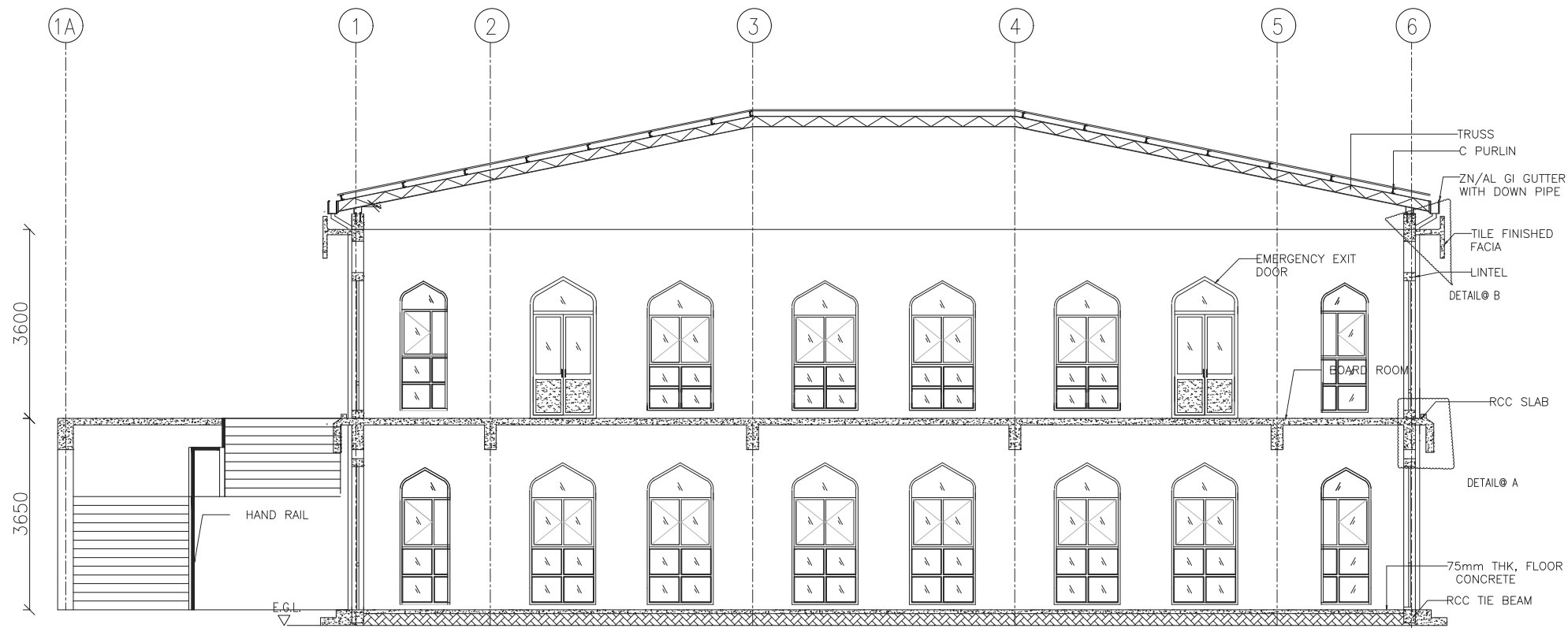
SCHEDULE OF DOORS & WINDOWS

TYPE	SIZE	DESCRIPTION	Nos.
D1	1260 X 2700	ALUMINIUM FRAMED DOOR	05
W1	1260 X 2700	ALUMINIUM FRAMED GLAZED WINDOW	16
W1	1260 X 2500	ALUMINIUM FRAMED GLAZED WINDOW	16

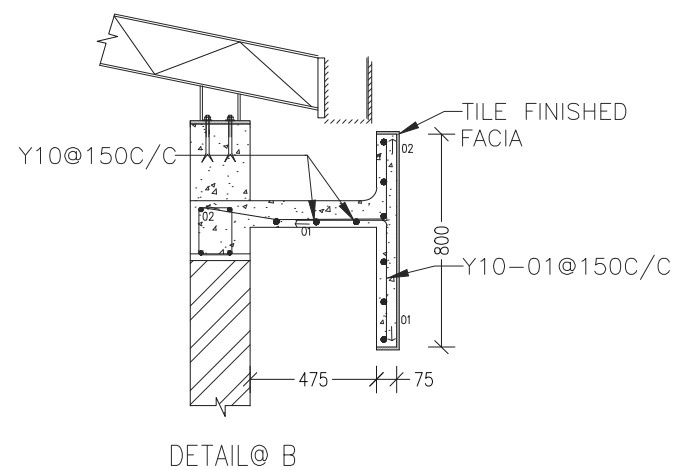
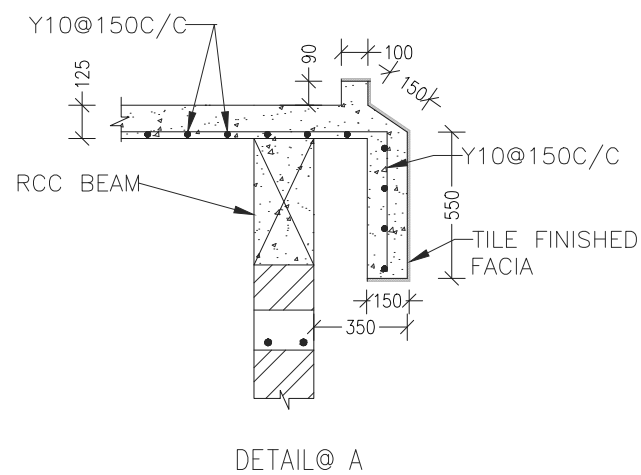


SOUTH EASTERN  
UNIVERSITY OF SRI LANKA

PROJECT NAME :  
PROPOSED EXTENSION OF ADMINISTRATIVE  
BLOCK, AT SEUSL OLUVIL



5 SECTION 01-01



DRAWN BY : M.S.M Fahath D.M

DESIGNED&CHECKED BY:M.S.M Fazeel WE

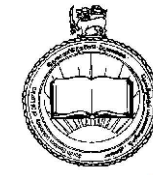
RECOMMENDED BY : User Department

APPROVED BY : V.C

DRAWING TITLE :  
SECTIONS

DRAWING NO : SEUSL/WE/2020/04

SCALE : NTS DATE : 06/02/2020



SOUTH EASTERN  
UNIVERSITY OF SRI LANKA

PROJECT NAME :  
PROPOSED EXTENSION OF ADMINISTRATIVE BLOCK, AT SEUSL OLUVIL

DRAWN BY : M.S.M Fahath D.M

DESIGNED&CHECKED BY:M.S.M Fazeel WE

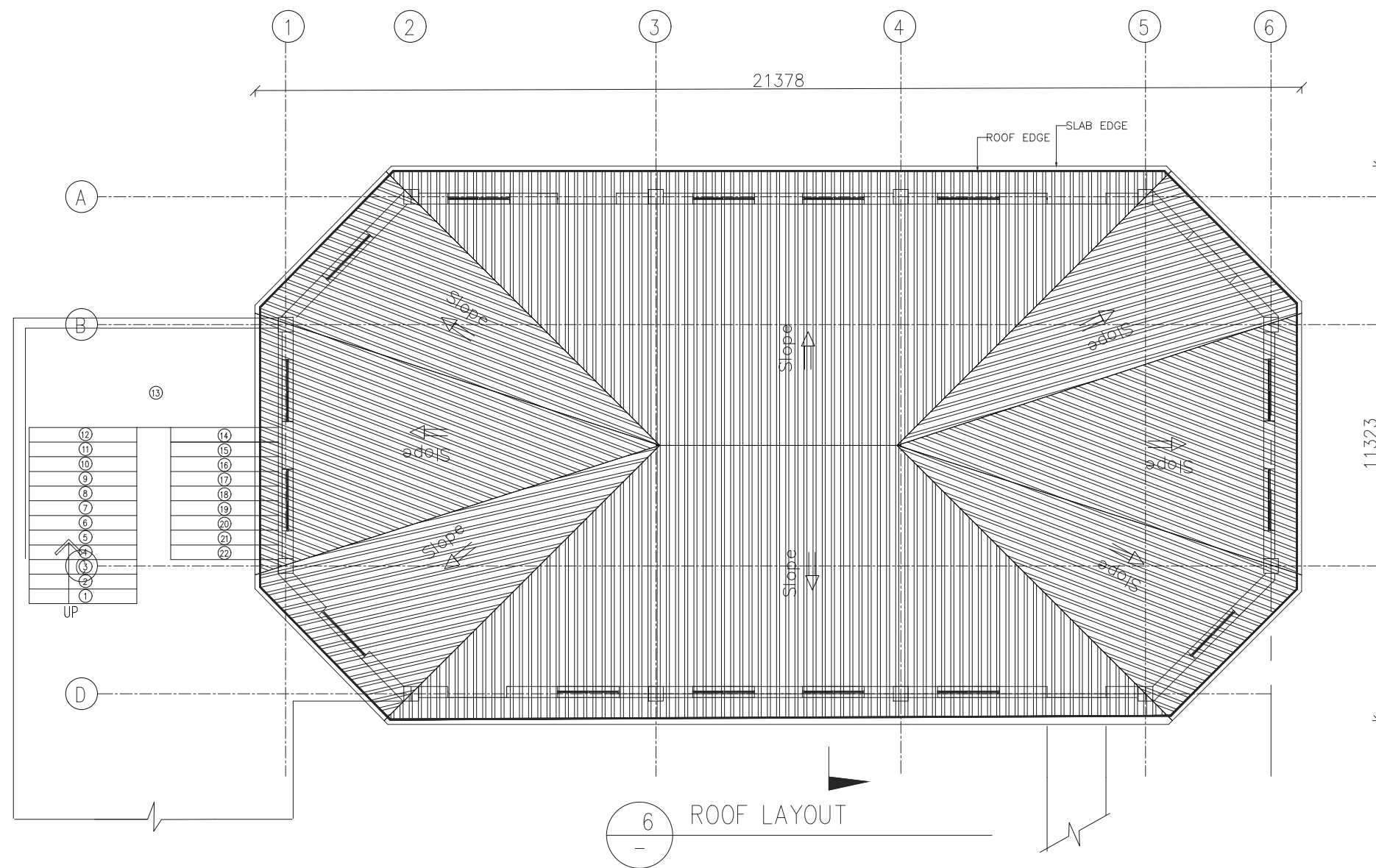
RECOMMENDED BY : User Department

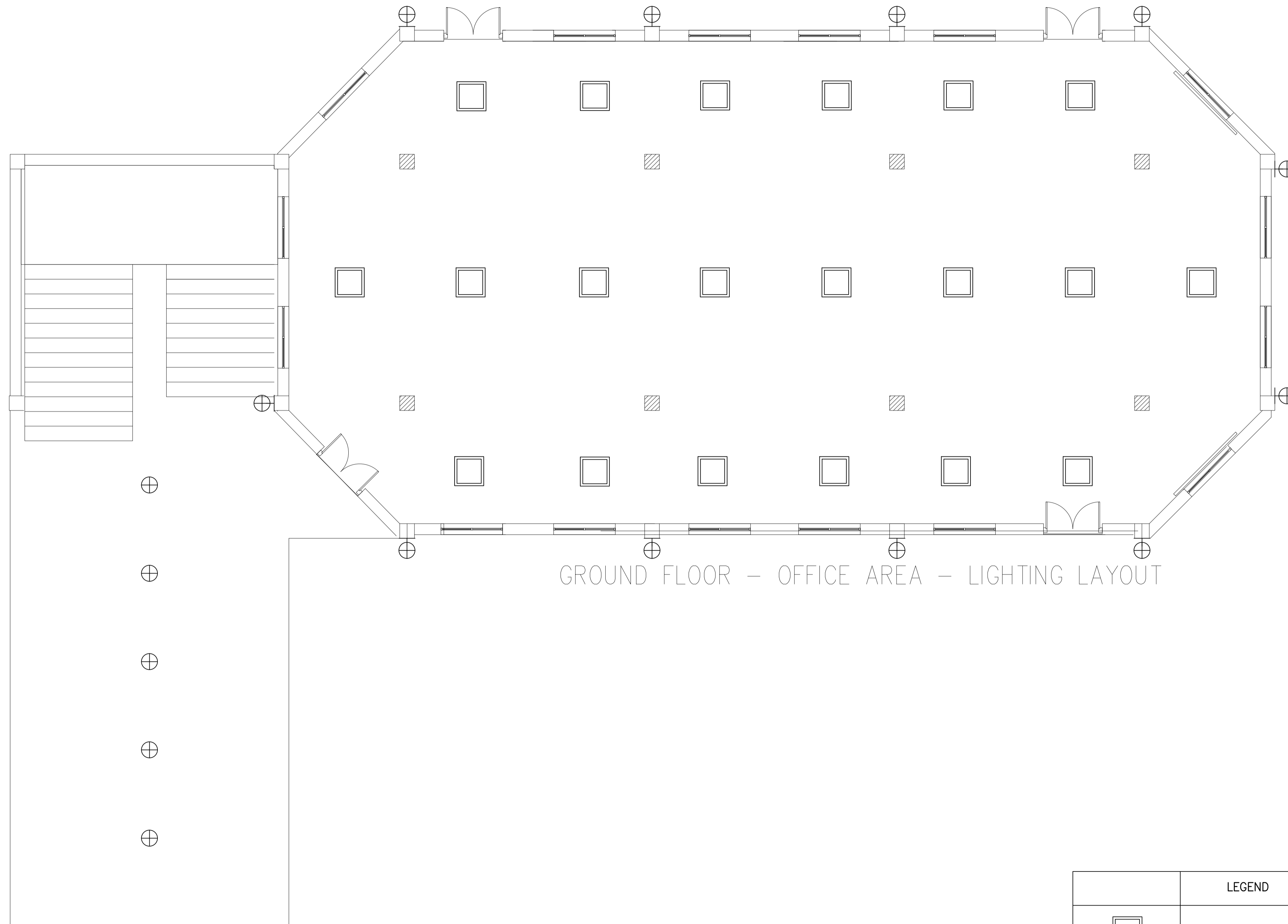
APPROVED BY : V.C

DRAWING TITLE :  
ROOF LAYOUT

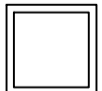

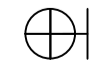
DRAWING NO : SEUSL/WE/2020/06

SCALE : NTS DATE : 06/02/2020





GROUND FLOOR - OFFICE AREA - LIGHTING LAYOUT

LEGEND	
	600x600mm SQUARE TYPE LED PANEL
	SOFIT MOUNTED LIGHT
	WALL MOUNTED LIGHT

Project Title:  
**PROPOSED ADMINISTRATIVE SECRETARIAT BUILDING AT THE SOUTH EASTERN UNIVERSITY**  
 OLUVIL, SRI LANKA.

Client:  
 SOUTH EASTERN UNIVERSITY OF SRI LANKA

Consultants:



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Engineer:

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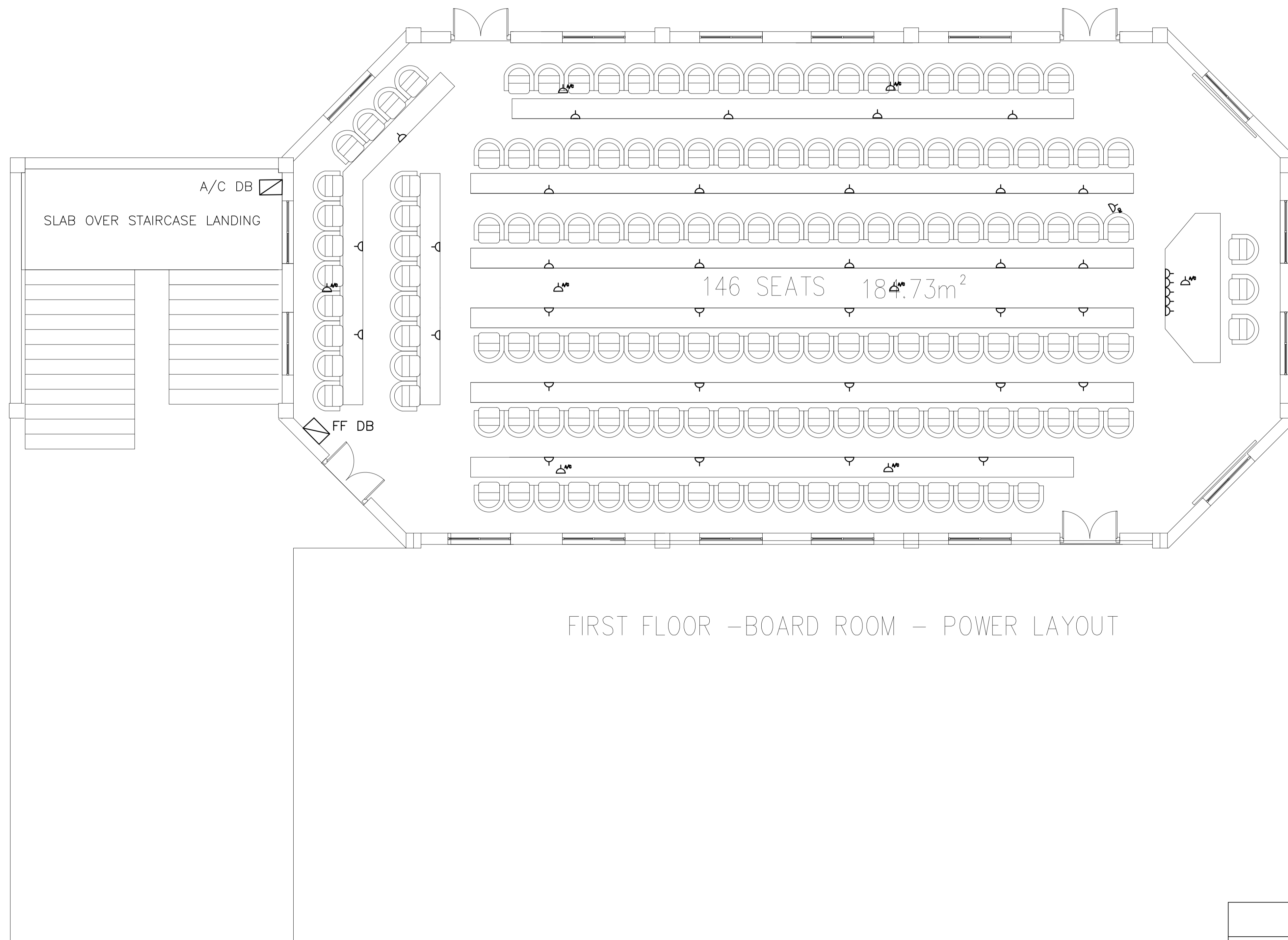
Check all dimensions on site prior to construction. Do not scale drawings. Report any discrepancies. If in doubt, ask. Do not keep superseded drawings on site.

Drawing Title:

**LIGHTING LAYOUT OF OFFICE AREA**

DESIGNED BY: AM	DRAWN BY: TN
SCALE: NOT TO SCALE	CHECKED BY: JD
DATE: 05.05.2021	APPROVED BY:
PAPER SIZE: A1	
DRG.No: CLEF/2021/002/MEP-03	Revision no: 00





LEGEND	
△*	A/C SOCKET
△°	13A SOCKET (CEILING MOUNTED)
△	13A SOCKET
□	DISTRIBUTION BOARD

Project Title:  
**PROPOSED ADMINISTRATIVE SECRETARIAT  
 BUILDING AT  
 THE SOUTH EASTERN UNIVERSITY**  
 OLUVIL, SRI LANKA.

Client:  
 SOUTH EASTERN UNIVERSITY OF  
 SRI LANKA

Consultants:  
  
**CLEFF CONSULTANTS (PVT) LTD**  
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Engineer:

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Drawing Title:  
**POWER LAYOUT OF  
 BOARD ROOM**

DESIGNED BY: AM	DRAWN BY: TN
SCALE: NOT TO SCALE	CHECKED BY: JD
DATE: 17.05.2021	APPROVED BY:
PAPER SIZE: A1	
DRG.No: CLEFF/2021/002/MEP-01	Revision no: 00

1. GENERAL NOTES

- 1.1 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT BRITISH OR SRI LANKAN STANDARDS WITH CURRENT AMENDMENTS.
- 1.2 LIVE LOADS ARE TAKEN AS PER BS 6399: PART 1: 1996.
  - A. STAIRS 5.0kN/m<sup>2</sup>
  - B. BOARD ROOM 4.0kN/m<sup>2</sup>
- 1.3 THE HORIZONTAL AND VERTICAL DIMENSIONS OF THE STRUCTURE SHALL BE VERIFIED DURING THE CONSTRUCTION, ANY VARIATIONS OR DISCREPANCIES IN THE DIMENSIONS SHALL BE BROUGHT TO THE CONSULTANT'S ATTENTION IMMEDIATELY.
- 1.4 DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS ARE IN MILLIMETERS. DO NOT SCALE DRAWINGS.
- 1.5 ANY SETTING-OUT DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE VERIFIED ON SITE AND WITH ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS.
- 1.6 THE CONTRACTOR SHALL CO-ORDINATE THE STRUCTURAL DETAILS WITH ARCHITECTURAL DETAILS AND WITH OTHER DISCIPLINES SUCH AS MECHANICAL, ELECTRICAL AND PLUMBING. REPORT CONFLICTS OR DISCREPANCIES TO THE CONSULTANT PRIOR TO FABRICATING OR INSTALLING OR CONSTRUCTING STRUCTURAL MEMBERS.
 

SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

  - A. SIZE AND LOCATION OF ALL NON-LOAD BEARING PARTITIONS.
  - B. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVELS, CHAMFERS, GROOVES, INSERTS, ETC.
  - C. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS.
  - D. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.

SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

  - A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL, ROOF AND FLOOR OPENINGS, ETC. NOT SHOWN OR NOTED.
  - B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
  - C. ANCHORAGE AND BRACING FOR ELECTRICAL, MECHANICAL OR PLUMBING EQUIPMENT.
  - D. ANCHOR BOLTS FOR MOTOR MOUNTS.
  - E. SIZE AND LOCATION OF MACHINE AND EQUIPMENT BASES.
- 1.7 OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS, SUCH ITEMS SHALL BE BROUGHT TO CONSULTANT'S ATTENTION FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION OF STRUCTURAL MEMBERS.
- 1.8 THE CONTRACT DOCUMENT REPRESENTS THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AND SHALL BE RESPONSIBLE FOR ALL MEASURES NECESSARY TO PROTECT THE WORKS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING, FORM WORK, PROPS, AND SEQUENCING OF THE REMOVAL OF THE SAME.
- 1.9 THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN LIVE LOADS INDICATED AND THAT THESE LOADS ARE NOT PUT ON THE STRUCTURAL MEMBERS PRIOR TO THE TIME THAT THE CONCRETE REACHES THE FULL DESIGN STRENGTH AND ALL FRAMING MEMBERS AND THEIR CONNECTIONS ARE IN PLACE.
- 1.10 LOADING FOR MECHANICAL ROOMS ARE BASED ON ASSUMED WEIGHTS OF EQUIPMENT AS INDICATED ON THE MECHANICAL DRAWINGS (INCLUDING THE WEIGHT OF CONCRETE PADS, WHERE INDICATED) ANY CHANGES IN TYPE, SIZE, OR NUMBER OF PIECES OF EQUIPMENT SHALL BE REPORTED TO THE CONSULTANT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.
- 1.11 REFER TO ARCHITECTURAL DRAWINGS FOR BLOCK WALL THICKNESS WHERE NOT MENTIONED ON THESE DRAWINGS AND FOR FALLS IN SLABS, EXTRA PACKING, WATER-PROOFING MEMBRANES, ROOF MEMBRANE CONTRACTION JOINT FILLING MATERIALS AND ALL ARCHITECTURAL FEATURES SUCH AS DRIP GROOVES, POUR BREAKS IN OFF-FORM CONCRETE, FILLETS, ETC.
- 1.12 WHERE EXCAVATION WORK IS TO BE CARRIED OUT ADJACENT TO EXISTING FOOTINGS, THE EXACT LEVEL OF THE UNDERSIDE OF THE FOOTINGS SHALL BE OBTAINED BY TEST PITS PRIOR TO EXCAVATION. UNDERPINNING AND SHORING OF THE STRUCTURE SHALL BE CARRIED OUT AS NECESSARY AND THE EXISTING STRUCTURE SHALL BE MAINTAINED IN A STABLE AND UNDAMGED CONDITION.
- 1.13 GENERALLY IT IS INEVITABLE FOR REINFORCED AND PRE-STRESSED CONCRETE MEMBERS TO CRACK RESULTING FROM VARIOUS REASONS. THE FOLLOWING CRACKS OBSERVED IN THE STRUCTURAL ELEMENTS AFTER CASTING SHALL BE GROUTED USING LOW VISCOSITY EPOXY RESINS TO THE ENGINEER'S APPROVAL. THE CONTRACTOR IS DEEMED TO HAVE INCLUDED FOR THIS IN HIS PRICE.
  - A. ALL STRUCTURES IN CONTACT WITH EARTH AND ALL LIQUID RETAINING STRUCTURES.
  - B. ALL OTHER RC STRUCTURES - CRACKS WIDER THAN 0.3mm
  - C. ALL PRE-STRESSED STRUCTURES - CRACKS WIDER THAN 0.1mm
- 1.14 CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING THE FOLLOWING DOCUMENTS FOR THE CONSULTANT'S APPROVAL AT LEAST TWO WEEKS BEFORE THE COMMENCEMENT OF WORKS.
  - A. METHOD STATEMENT OF THE WORK.
  - B. CO-ORDINATION DRAWINGS.
  - C. SHOP DRAWINGS (FOR FORM WORK, MASONRY WORK INCLUDING THE STIFFENER COLUMN/BEAM ARRANGEMENT, ZINCALUME ROOFING SYSTEM INCLUDING FRAME WORK ETC.)
  - D. BAR-BENDING SCHEDULES FOR R.C. WORKS.
  - E. CONSTRUCTION DRAWINGS FOR ALL TEMPORARY WORKS.
  - F. DRAWINGS FOR POURING PATTERNS, CASTING SEQUENCE, CONSTRUCTION JOINTS ETC.

2. CONCRETE NOTES

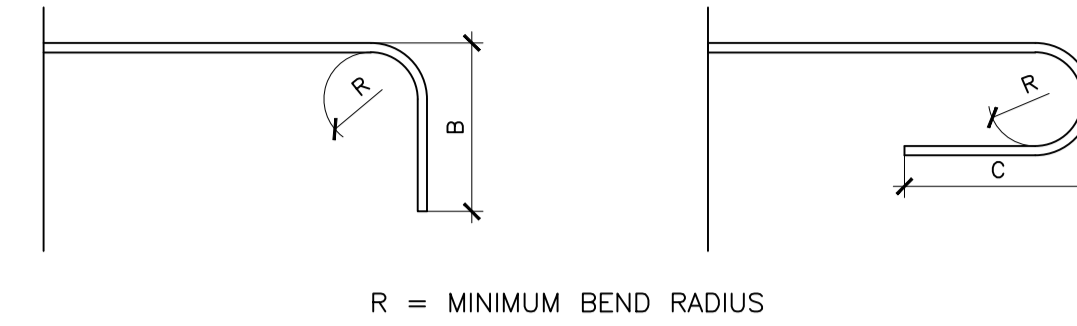
- 2.1 ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH BS 8110, BS 8007 AND SPECIFICATIONS.
- 2.2 CONCRETE TESTING SHALL BE IN ACCORDANCE WITH BS 5328, UNLESS OTHERWISE SPECIFIED.
- 2.3 ALL CONCRETE SHALL BE READY MIX AND SUPPLIED ACCORDING TO THE APPROVED DESIGNED MIXES UNLESS PRIOR APPROVAL TAKEN FROM THE CONSULTANT
- 2.4 CONCRETE QUALITY - SLUMP TO BE 125±25%, UNLESS OTHERWISE SPECIFIED.
- 2.5 CONCRETE IN THE FOLLOWING AREAS SHALL HAVE SAND AND CRUSHED STONE AGGREGATES, ORDINARY PORTLAND CEMENT PROPORTIONED TO PRODUCE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. IT SHALL ALSO HAVE THE PROPERTIES INDICATED BELOW.
  - A. ALL CONCRETE FOR REINFORCED CONCRETE WORK SHALL BE GRADE 25 WITH MAXIMUM AGGREGATE SIZE 20mm UNLESS NOTED OTHERWISE.
  - B. ALL CONCRETE FOR CONCRETE SCREED SHALL BE GRADE 15.
  - C. CONCRETE FOR THE LINTELS, BEAMS TO BE GRADE 25.
- 2.6 MIX DESIGNS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR FOR APPROVAL OF THE CONSULTANT. THE CONTRACTOR SHALL SUBMIT RESULT OF TRIAL MIXES, GRADING CURVES AND ALL OTHER DETAILS TO ENABLE THE CONSULTANT TO EVALUATE THE PROPOSED MIX DESIGNS.
- 2.7 ALL CONCRETE MAY CONTAIN AN APPROVED WATER-REDUCING, CEMENT DISPERSING ADMIXTURE CONFORMING TO ASTM C494, TYPE A, D, E, F, OR G.
- 2.8 CONCRETE SHALL BE WELL COMPACTED BY MECHANICAL MEANS WITHOUT SEGREGATION.
- 2.9 MAXIMUM CEMENT CONTENT OF THE CONCRETE MIX SHALL NOT EXCEED 400kg/m<sup>3</sup>. MINIMUM LIMIT OF THE SAME SHALL BE 300kg/m<sup>3</sup>.
- 2.10 ALL CONCRETE SURFACES, EXCEPT THOSE COVERED BY FORM WORK, SHALL BE CURED TO THE SATISFACTION OF THE CONSULTANT (COST OF CURING SHALL BE INCLUDED IN THE RATES).
- 2.11 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS WHERE SLAB IS PLACED INTEGRALLY WITH THE BEAM.
- 2.12 NO PENETRATIONS, RECESSES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- 2.13 ALL OPENINGS FOR PIPING AND CONVEYANCE SHALL BE FORMED IN POSITION BEFORE CASTING CONCRETE.
- 2.14 EXCEPT AS DETAILED ON STRUCTURAL DRAWINGS, NO SLABS, OR BEAMS, SHALL BE SLEEVED FOR PIPING OR DUCTS, UNLESS APPROVED BY THE CONSULTANT.
- 2.15 BLOCK WORK MUST NOT BE BUILT ON CONCRETE SLABS OR BEAMS UNTIL FORMWORK SUPPORTING THE SAME HAS BEEN REMOVED. UNLESS APPROVED BY THE CONSULTANTS.
- 2.16 CONCRETING OF SLABS-ON-GRADE (GROUND SLABS, OTHER THAN RAFT) SHALL BE PLACED IN BAYS WHERE LENGTHS AND WIDTHS DO NOT EXCEED SIX METERS UNLESS APPROVED BY THE CONSULTANT.
- 2.17 CONTRACTOR SHALL SUBMIT CONSTRUCTION JOINT LAYOUT, POURING PATTERN AND CASTING SEQUENCE FOR APPROVAL OF THE CONSULTANT AT LEAST TWO WEEKS BEFORE THE POURING OF CONCRETE.
- 2.18 ALL BEAM VERTICAL CONSTRUCTION JOINTS SHALL BE MADE AT ONE THIRD OF THE SPAN POINTS USING VERTICAL BULKHEADS WITH SHEAR KEYS AND DOWELS. (WHEN A SECONDARY BEAM INTERSECTS A PRIMARY BEAM AT THIS POINT, THE JOINT IN THE PRIMARY BEAM SHALL BE OFFSET A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM) THE LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE CONSULTANT.
- 2.19 HORIZONTAL CONSTRUCTION JOINTS SHALL BE PERMITTED ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE CONSULTANT. HORIZONTAL OR NEARLY HORIZONTAL JOINTS SHALL BE PREPARED BY ROUGHENING THE SURFACE IN AN APPROVED MANNER SO THAT THE AGGREGATES ARE EXPOSED UNIFORMLY, LEAVING NO LAITANCE, LOOSE PARTICLES OR DAMAGED CONCRETE.
- 2.20 WATER-STOPS SHALL BE PROVIDED IN ALL CONSTRUCTION JOINTS OF WALLS OR SLABS EXPOSED TO THE GROUND, WEATHER OR WATER SUCH AS RETAINING WALLS, SWIMMING POOLS, OPEN AREAS AND MECHANICAL FLOORS, ETC. WHETHER SHOWN ON DRAWINGS OR NOT.
- 2.21 A MINIMUM 50mm THICK LEAN CONCRETE LAYER (GRADE 15) SHALL BE PROVIDED ON ALL SOIL SURFACES FORMING THE UNDERSIDE OF ANY REINFORCED CONCRETE BEAMS, SLABS, RAFTS, SLUMP PITS, PILE CAPS, FOOTINGS, ETC.
- 2.22 UNLESS STATED OTHERWISE HEAVY DUTY POLYTHENE SHEET (1000g) SHALL BE INCORPORATED UNDERNEATH ALL SLAB ON GRADE.
- 2.23 THE CONTRACTOR SHALL CONTROL THE PEAK AND MAXIMUM DIFFERENTIAL TEMPERATURES IN CONCRETE IN STRUCTURAL ELEMENTS THICKER THAN 1500mm BY APPROVED MEANS, e.g. USING CHILLED WATER, PBFC, CILICA ETC., AND MONITOR THESE IN ACCORDANCE WITH THE SPECIFICATION.
- 2.24 WHERE CONDUITS RUN IN SLABS, THEY SHALL BE POSITIONED AT MID-DEPTH OF SLAB. CONDUIT SIZE SHALL NOT EXCEED 33% OF THE SLAB DEPTH. NO CONDUIT SHALL BE PLACED IN SLABS WITH ACTUAL CONCRETE THICKNESS LESS THAN 75mm. THERE SHALL BE A MINIMUM OF 75mm OF CLEAR SPACE BETWEEN CONDUITS. ALUMINIUM CONDUITS ARE PROHIBITED. PLACE CHAIRS OF 10mm DIA. STEEL PERPENDICULAR TO THE CONDUIT PATH. THE ADDED R/F SHALL EXTEND 400mm ON BOTH SIDES AND SPACING OF THE ADDED R/F TO BE 600mm - 825mm.
- 2.25 PROVIDE CHAMFERS AS SPECIFIED AND AS DETAILED ON ARCHITECTURAL/STRUCTURAL DRAWINGS.
- 2.26 ALL FOREIGN MATERIAL SHALL BE ENTIRELY REMOVED FROM FORMS PRIOR TO PLACING OF CONCRETE. ANY DEFECTS IN THE HARDENED CONCRETE SHALL BE SATISFACTORILY REPAIRED &/OR REPLACED AS DEEMED APPROPRIATE BY THE CONSULTANT. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY CONCRETE WHICH FAILS TO ATTAIN SPECIFIED STRENGTHS, IF SO DIRECTED BY THE CONSULTANT.
- 2.27 MAXIMUM FREE FALL OF CONCRETE SHOULD BE LIMITED TO 1500mm DURING THE PLACEMENT OF CONCRETE. IN THE EVENT LIFT HEIGHT IS GREATER THAN 1500mm TREMIE PIPE OR SIMILAR APPROVED ARRANGEMENT SHOULD BE USED. CASTING OF COLUMNS TOGETHER WITH SLABS AND BEAMS WILL NOT BE ALLOWED.
- 2.28 CONCRETING OF ALL STRUCTURAL ELEMENTS CAN BE DONE ONLY AFTER CLIENT'S/CONSULTANT'S REPRESENTATIVE HAS CHECKED & APPROVED EACH AND EVERY STEEL CONNECTION.

3. REINFORCEMENT STEEL NOTES

- 3.1 ALL REINFORCING STEEL SHALL COMPLY WITH BS 4449 GRADE 460 HIGH TOR DEFORMED TYPE 2 BARS, GRADE 500 TMT BARS OR GRADE 250 MILD STEEL BARS. USE OF REINFORCEMENT FOR THE WORK WILL BE CONSIDERED ONLY UPON SUBMITTAL OF RELEVANT INFORMATION TO THE CONSULTANT FOR APPROVAL. SUBMITTALS SHALL INCLUDE MILL CERTIFICATES OR OTHER RECOGNIZED CERTIFICATIONS CLEARLY INDICATING THE MATERIAL COMPOSITION, TOR STRENGTH, ULTIMATE STRENGTH, AND BAR BEND TEST. THE CONSULTANT MAY ORDER ADDITIONAL TESTS TO BE CARRIED OUT, AS MAY BE REQUIRED, THE COSTS OF WHICH SHALL BE BORNE BY THE CONTRACTOR.
- 3.2 NO REINFORCING BARS SHALL BE WELDED, UNLESS SPECIFICALLY NOTED OR APPROVED BY THE CONSULTANT.
- 3.3 PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENTS UNLESS NOTED ON DRAWINGS. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE AS NOTED BELOW, UNLESS OTHERWISE INDICATED.
  - A. CONCRETE SURFACES PROTECTED AGAINST WEATHER OR AGGRESSIVE CONDITION - 40mm (INTERIOR AREAS)
  - B. ALL CONCRETE SURFACES EXPOSED TO RAIN OR ALTERNATE WETTING & DRYING, CONTINUOUSLY UNDER WATER - 40mm
  - C. CONTACT WITH SOIL - 50mm
  - E. FOR OTHER APPLICATIONS - 25mm

(COVER IS THE CLEAR DISTANCE FROM THE CONCRETE SURFACE TO THE NEAREST OF ANY REINFORCEMENT)
- 3.4 PROVIDE CONCRETE COVER BLOCKS OR STANDARD BAR CHAIRS WITH PROTECTIVE TIPS AND SPACERS SPACED AS REQUIRED TO PROVIDE SPECIFIED PROTECTION FOR REINFORCEMENT BUT NOT TO EXCEED 900mm ON CENTRE FOR ALL SLABS AND BEAMS. PLACE BAR CHAIRS OR COVER BLOCKS LONGITUDINALLY IN ALL BEAMS DIRECTLY BELOW THE STIRRUPS. BAR SHALL BE TIED IN PLACE WITH 16 GAUGE DOUBLED-ANNEALED IRON WIRE.
- 3.5 REINFORCEMENT SHALL NOT BE CUT ON SITE FOR ANY PURPOSES UNLESS PERMITTED BY THE ENGINEER. BARS CONFLICTING WITH SMALL HOLES OR OTHER MINOR COMPLICATIONS SHALL BE DISPLACED AS DIRECTED ON SITE.
- 3.6 ALL RODS IN TRIMMER ROD GROUPS ARE TO BE OF THE SAME LENGTH (ONE ROD IS ONLY SHOWN FULL LENGTH ON PLAN). SPACE RODS AT APPROX. 75mm CENTERS.
- 3.7 REINFORCEMENT MUST NOT BE CONTINUOUS THROUGH CONTRACTION/EXPANSION JOINTS.
- 3.8 THE FACE OF ALL CONCRETE AGAINST WHICH NEW CONCRETE IS TO BE CAST IS TO BE THOROUGHLY SCRABBLED, FULLY EXPOSING THE AGGREGATE.
- 3.9 FIRST SLAB BAR IS TO BE POSITIONED MAX. 100mm FROM FACE OF BEAMS, CONCRETE WALLS AND SLAB THICKENINGS PARALLEL TO BAR. FIRST BEAM LINK TO BE PLACED MAXIMUM 50mm FROM FACE OF COLUMN OR SUPPORTING WALL UNDER.
- 3.10 ABBREVIATIONS FOR REINFORCEMENT
  - \* 'R' - MILD STEEL OF CHARACTERISTIC STRENGTH OF 250 N/mm<sup>2</sup> TO BS 4449
  - \* 'T' - HIGH YIELD TOR STEEL OF CHARACTERISTIC STRENGTH OF 460 N/mm<sup>2</sup> TO BS 4449
  - \* BAR NOTATIONS
- 3.11 FABRICATION OF REINFORCEMENT SHALL COMPLY WITH BS 4466
- 3.12 TYPICAL LAPPING AND CRANKING DETAIL (UNLESS OTHERWISE INDICATED)
- 3.13 APPLICABLE MINIMUM TENSION ANCHORAGE LENGTH IS TO BE 41xBAR SIZE AND MINIMUM COMPRESSION ANCHORAGE LENGTH IS TO BE 32xBAR SIZE.

REBARS ANCHORAGE STANDARD DETAILS



R = MINIMUM BEND RADIUS

NOTES ON POST-INSTALLED ANCHORS

- \*\* ALL POST-INSTALLED ANCHORS SHALL COMPLY WITH STANDARDS PUBLISHED BY FOLLOWING AUTHORITIES.
  - EOTA-EUROPEAN ORGANIZATION FOR TECHNICAL APPROVALS
  - CFR - CONSTRUCTION FIXING ASSOCIATION OF UNITED KINGDOM
- \*\* PULL OUT TESTING OF ANCHORS SHALL BE PERFORMED BY THE CONTRACTOR AS FOLLOWS.
  - NO OF ANCHORS, 4% OR 4 NOS WHICH IS GREATER.
  - LOAD VALUES, AS INSTRUCTED BY THE CONSULTANT

LEGEND

- R.C. WALLS OR COLUMNS ABOVE THE SLAB LEVEL.
- R.C. WALLS OR COLUMNS BELOW THE SLAB LEVEL.
- BRICK/BLOCK WALL SHOWN THUS

STRUCTURAL STEEL NOTES:

- 4.1 ALL BOLT HOLES TO BE MACHINE DRILLED.
- 4.2 ALL FILLET WELDS ARE ACCORDING TO STRUCTURAL DRAWINGS AND ARE 8mm TK. CONTINUOUS FILLET WELDS.
- 4.3 ALL STEEL MEMBERS SHOULD BE PAINTED WITH 'FREEMASTIC G-316' EPOXY PAINT OR APPROVED EQUIVALENT. COLOUR TO ARCHITECT'S SPECIFICATIONS.
- 4.4 ALL STEEL MEMBERS TO BE GRADE 43 STEEL.
- 4.5 ALL BOLTS TO BE GRADE 8.8 TO BS 4190. DIMENSIONS ARE GIVEN CENTER TO CENTER UNLESS OTHERWISE SHOWN.
- 4.6 TECHNICAL DETAILS INCLUDING MILL CERTIFICATES OF BOLTS, NUTS, J-BOLTS, ANCHOR BOLTS ETC. TO BE FORWARDED TO STRUCTURAL CONSULTANT BY CONTRACTOR AT LEAST 2 WEEKS BEFORE ERECTION OF STRUCTURE.
- 4.7 CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF STEEL STRUCTURE FOR CONSULTANTS APPROVAL AT LEAST 2 WEEKS BEFORE ERECTION OF STRUCTURE.
- 4.8 CONTRACTOR IS REQUIRED TO PERFORM TESTS TO VERIFIED STRUCTURAL STEEL STRENGTH AT A RECOGNIZED INSTITUTION AS PER ENGINEER'S DIRECTIONS.

STANDARD HOOK LENGTH			
BAR TYPE	R (mm)	STANDARD 90° BEND	STANDARD 90° BEND
		B (mm)	C (mm)
T10	30	180	150
T12	40	250	175
T16	48	300	200
T20	60	400	250
T25	100	450	350
T28	112	500	375
T32	128	600	425

Project Title:  
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 OLUVIL, SRI LANKA.

Client:  
**SOUTH EASTERN UNIVERSITY OF SRI LANKA**

Consultants:  
  
**CLEF CONSULTANTS (PVT) LTD**  
 17, Fatima Circular Road, Kapuwatta  
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 E: info@clefcon.com W: www.clefcon.com

Structural Engineer:

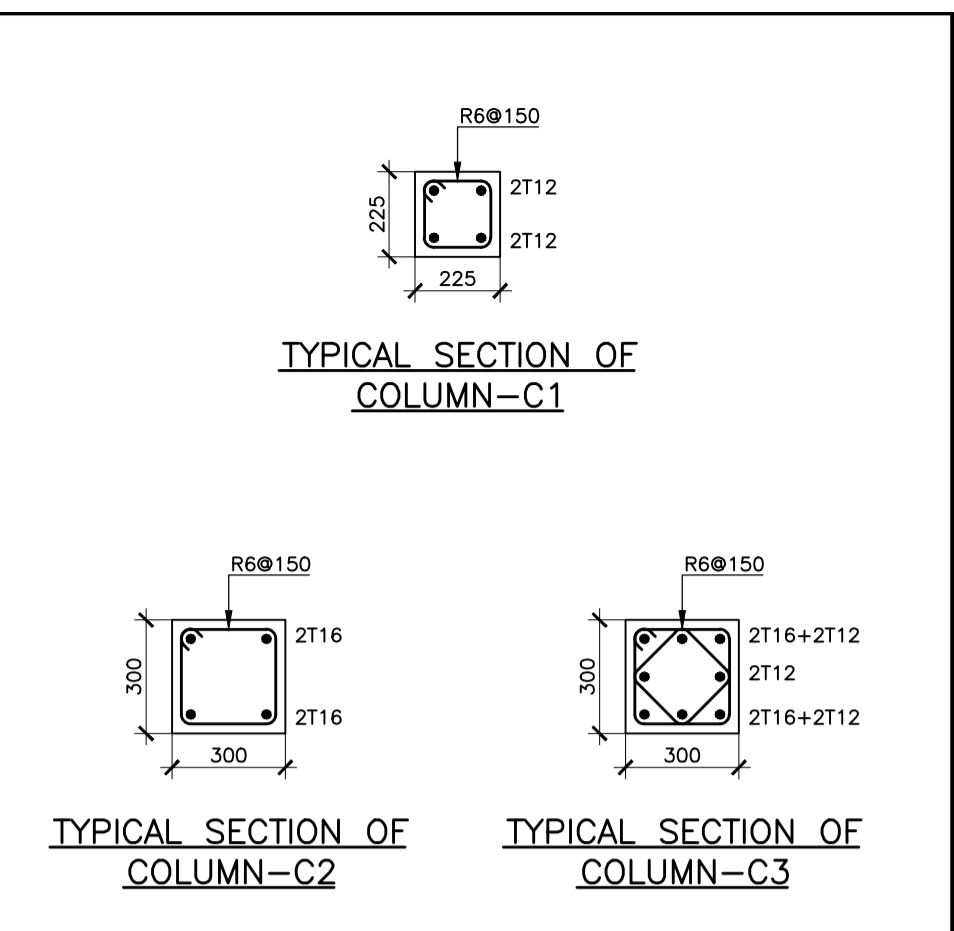
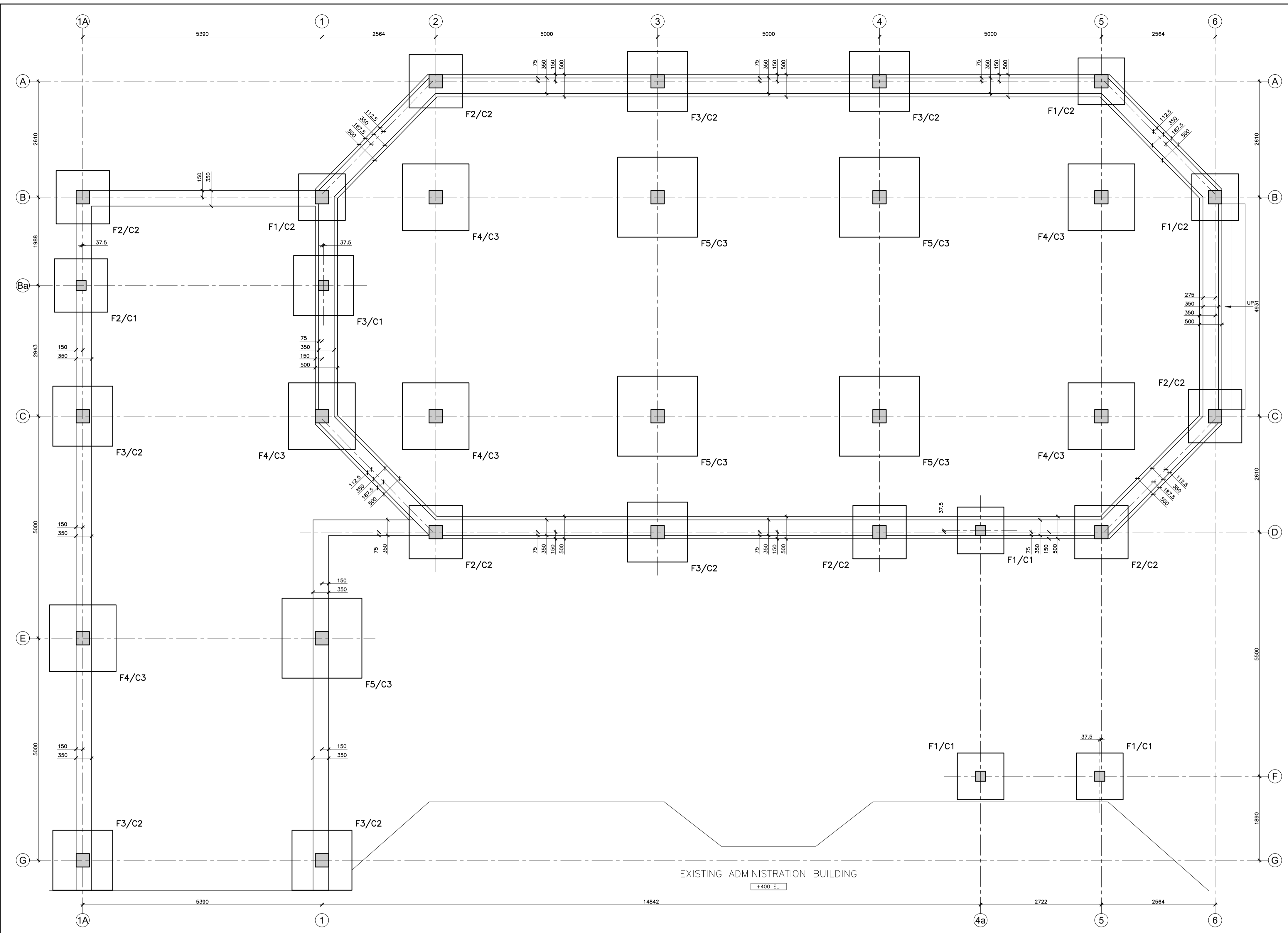
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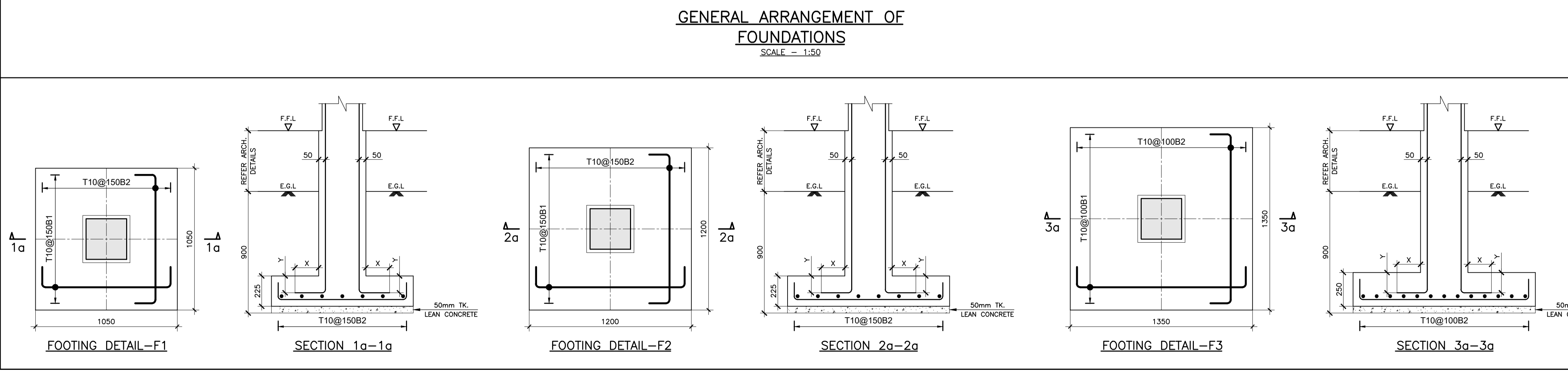
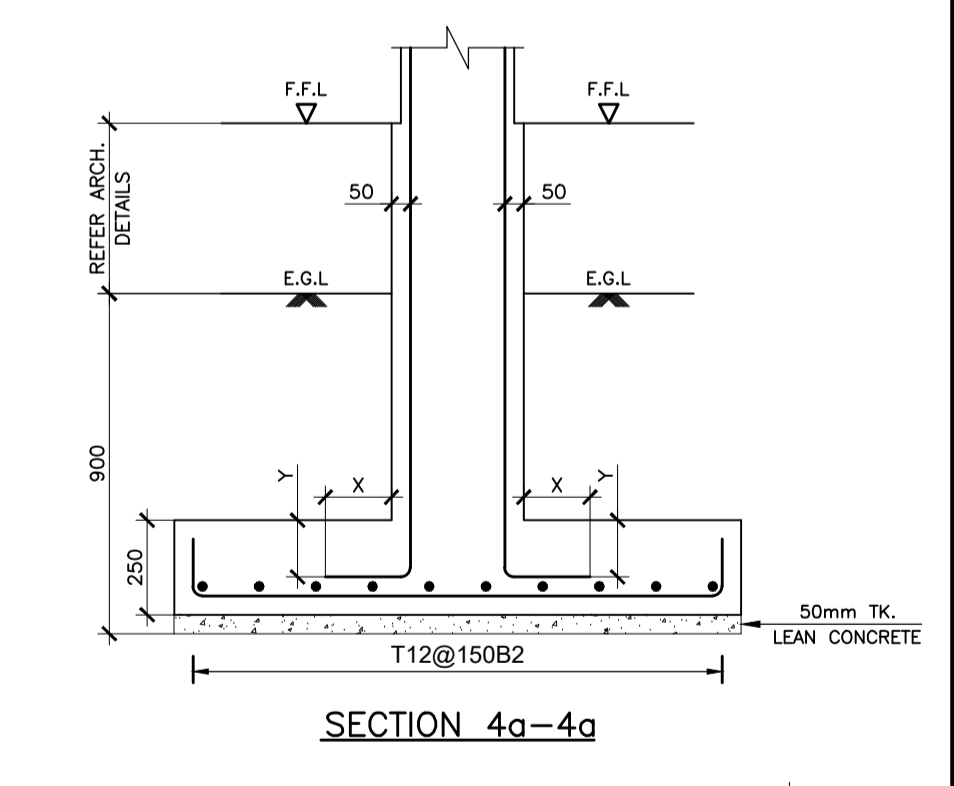
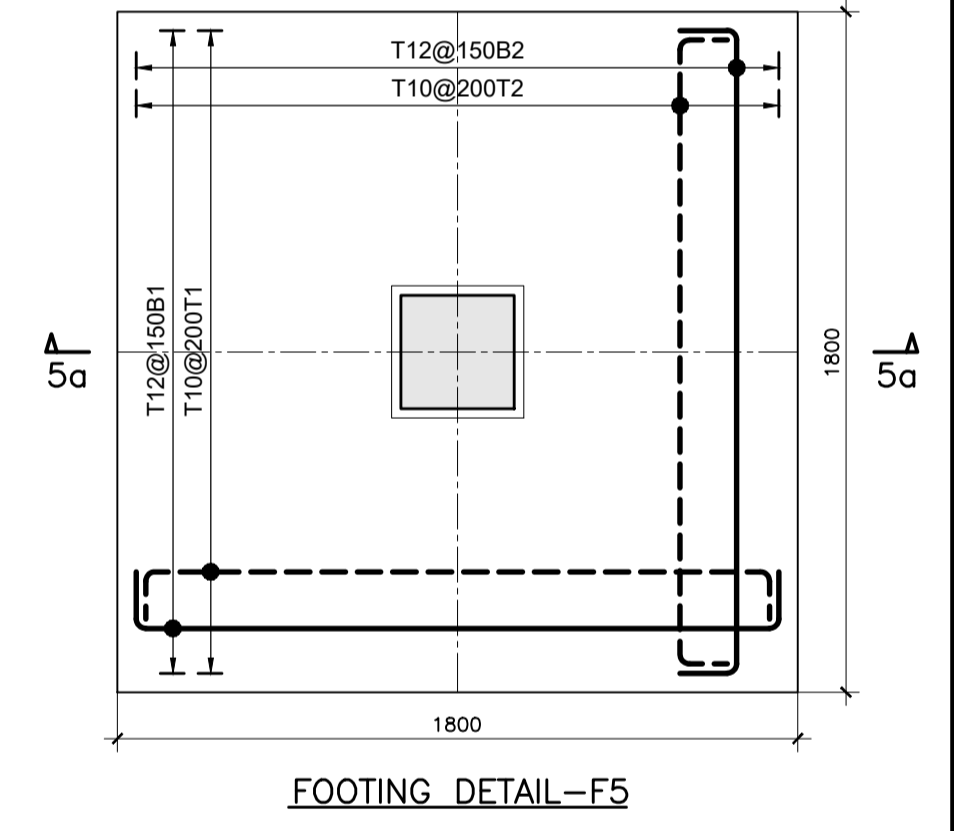
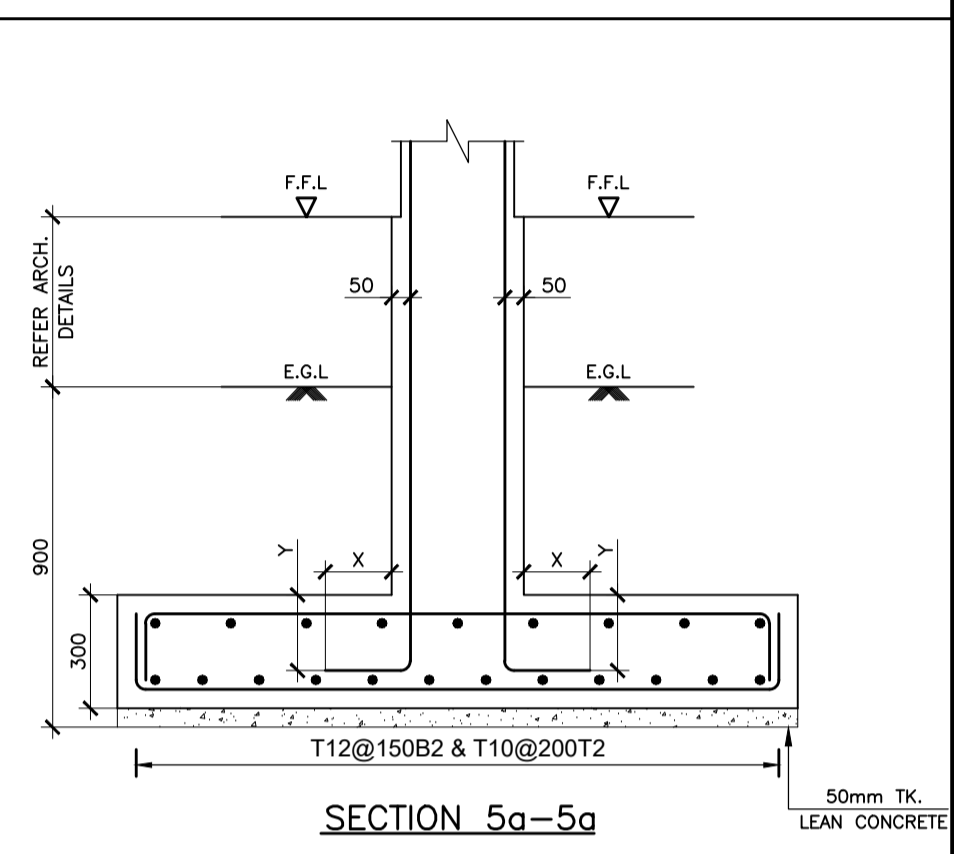
Drawing Title:

GENERAL NOTES

DESIGNED BY: AM	DRAWN BY: TN
SCALE: NOT TO SCALE	CHECKED BY: JD
DATE: 17.05.2021	APPROVED BY:
PAPER SIZE: A1	
DRG.No: CLEF/2021/002/ST-01	Revision no: 00



- Notes:
01. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND SPECIFICATIONS.
  02. MAXIMUM AGGREGATE SIZE NOT GREATER THAN 20mm.  
INDICATE CONCRETE GRADES TO BE AS FOLLOWS:  
FOUNDATIONS - GRADE 25  
PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
FOUNDATIONS - 50mm  
SLABS - 25mm  
BEAMS - 40mm  
COLUMNS (BELOW GROUND LEVEL) - 50mm  
COLUMNS (ABOVE GROUND LEVEL) - 40mm
  05. 11T10-06-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 10mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
  06. MINIMUM LAP IN REINFORCEMENT TO BE 52 $\phi$  SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
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Project Title:  
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OLUVIL, SRI LANKA.

Client:  
SOUTH EASTERN UNIVERSITY OF SRI LANKA

Consultants:  
  
Engineering Consultancy  
Construction Project Management

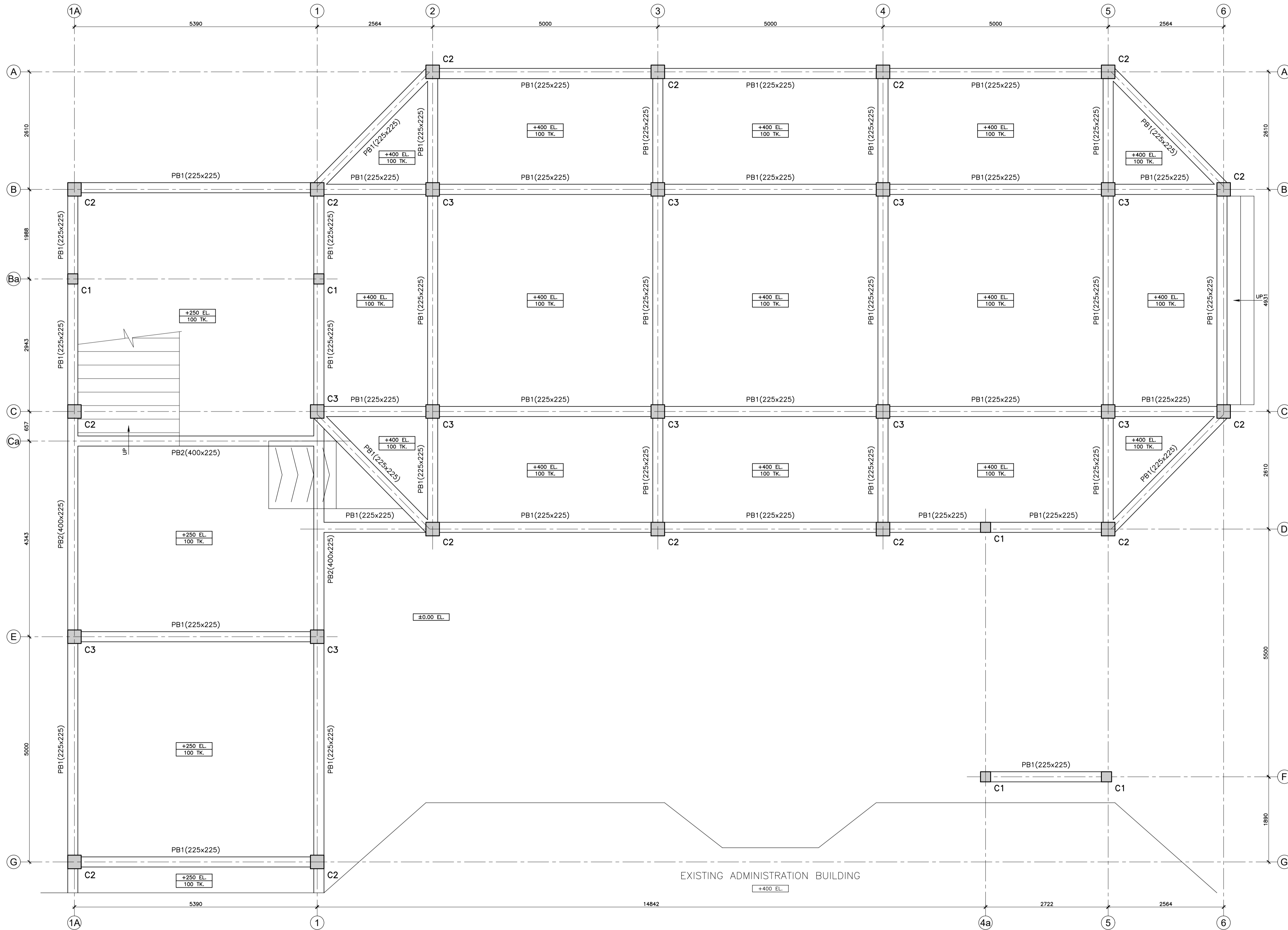
**CLEFF CONSULTANTS (PVT) LTD**  
17, Fatima Circular Road, Kapuwatta  
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Drawing Title:  
**GENERAL ARRANGEMENT OF FOUNDATIONS AND TYPICAL DETAILS**

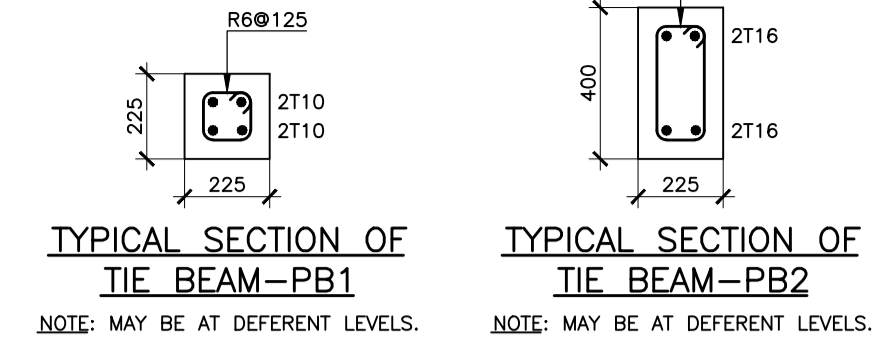
DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEFF/2021/002/ST-02	Revision no: 00



**GENERAL ARRANGEMENT OF PLINTH BEAMS**

SCALE - 1:50

\*\*\* NOTE: PLINTH BEAMS MAY BE IN DIFFERENT LEVELS

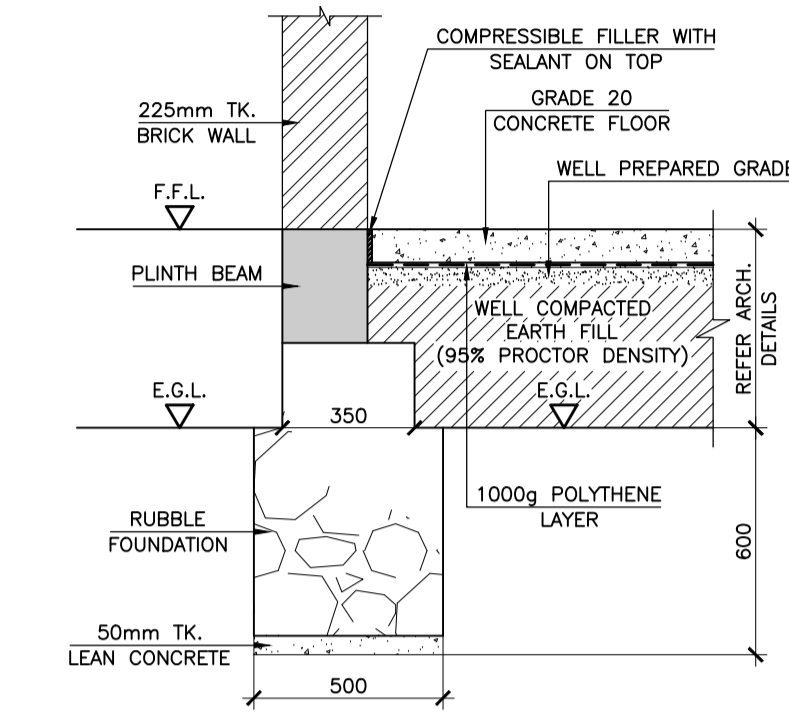


TYPICAL SECTION OF TIE BEAM-PB1

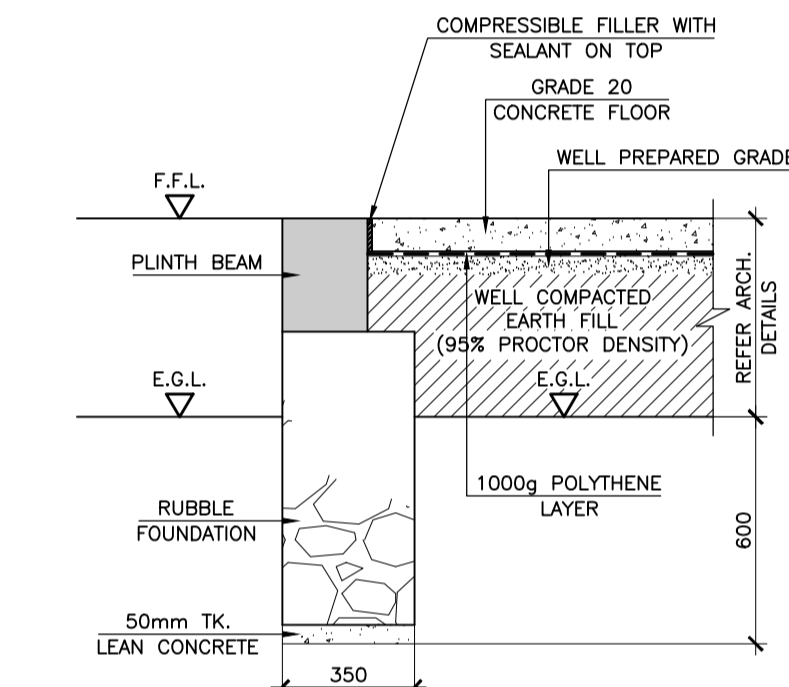
NOTE: MAY BE AT DEFERENT LEVELS.

TYPICAL SECTION OF TIE BEAM-PB2

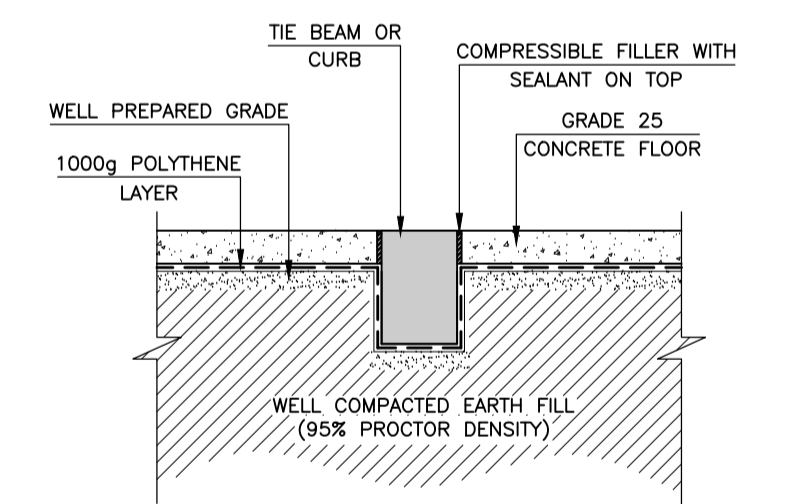
NOTE: MAY BE AT DEFERENT LEVELS.



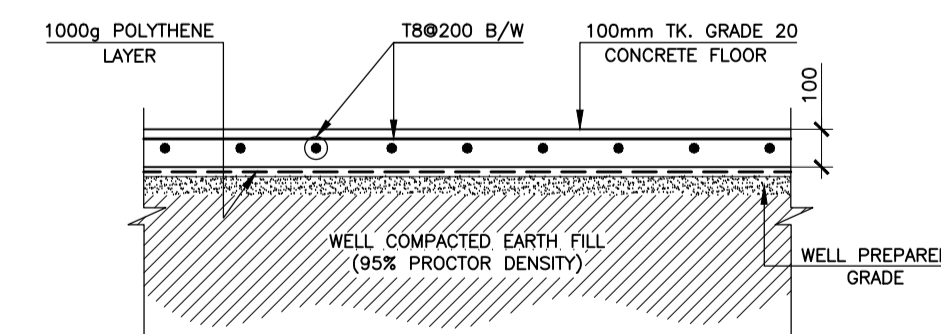
TYPICAL FOUNDATION OF 225mm TK. EXTERNAL LOAD BARING WALLS



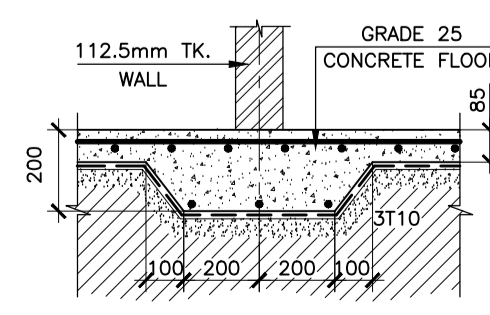
TYPICAL FOUNDATION OF LEVEL DROPS



TYPICAL SECTION OF PLINTH BEAM ON GRADE



TYPICAL DETAIL OF 100mm TK. GROUND FLOOR SLAB



TYPICAL FOUNDATION DETAIL OF 100mm TK. WALLS

Notes:

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02. MAXIMUM AGGREGATE SIZE NOT GREATER THAN 20mm. INDICATE CONCRETE GRADES TO BE AS FOLLOWS:  
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BEAMS - GRADE 25  
SLABS - GRADE 25
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04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
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SLABS -25mm  
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COLUMNS (BELOW GROUND LEVEL) -50mm  
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05. 11T10-05-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 10mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
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Project Title:

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OLUVIL, SRI LANKA.

Client:

**SOUTH EASTERN UNIVERSITY OF SRI LANKA**

Consultants:

**Clef**  
Engineering Consultancy  
Construction Project Management  
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Structural Engineer:

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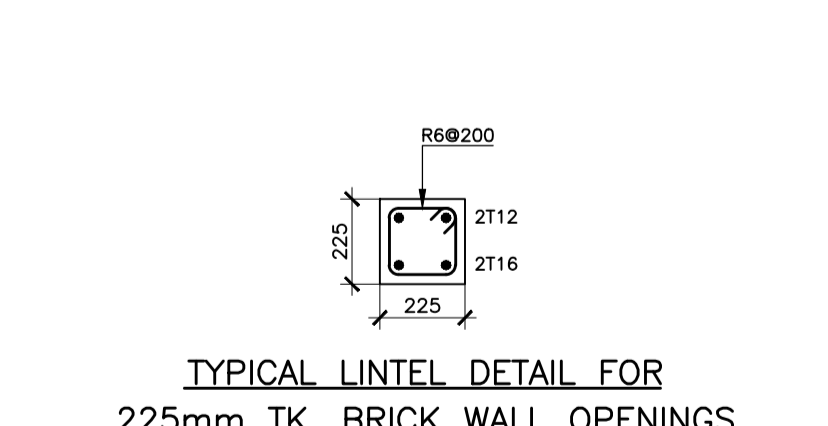
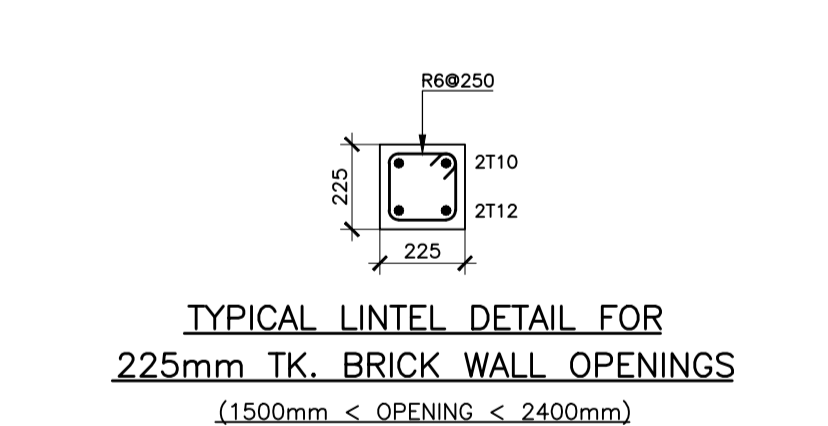
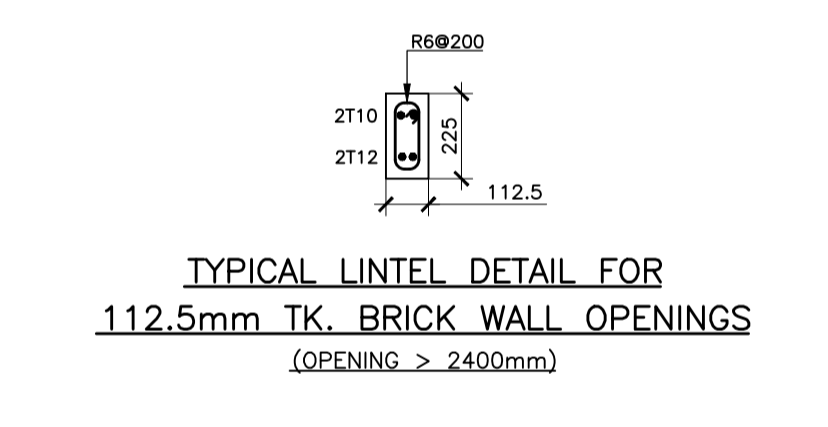
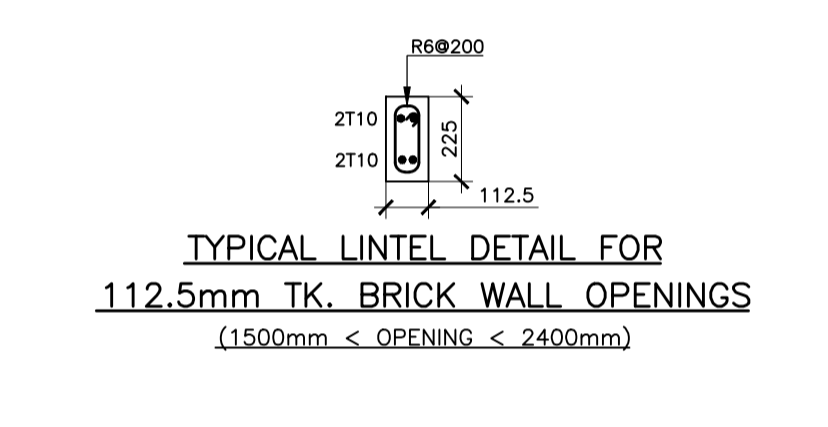
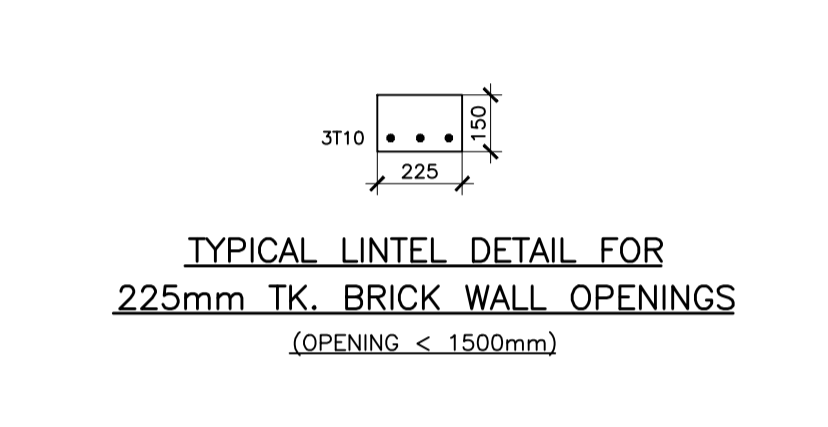
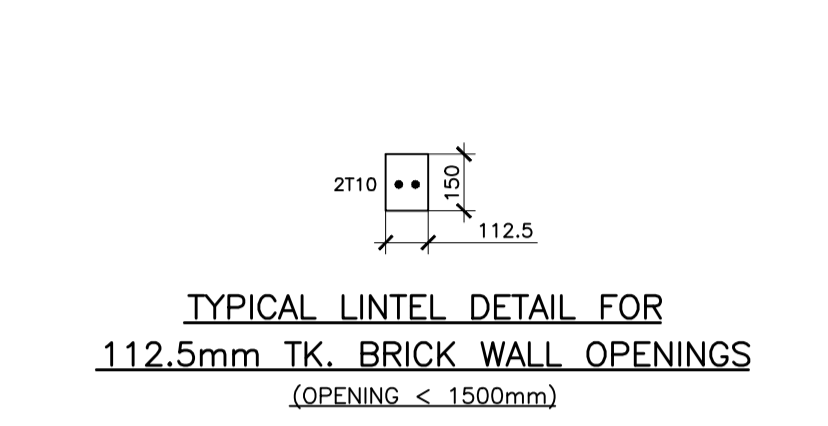
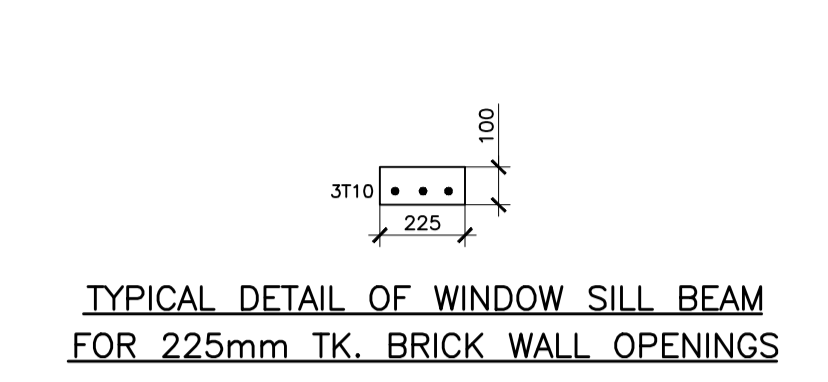
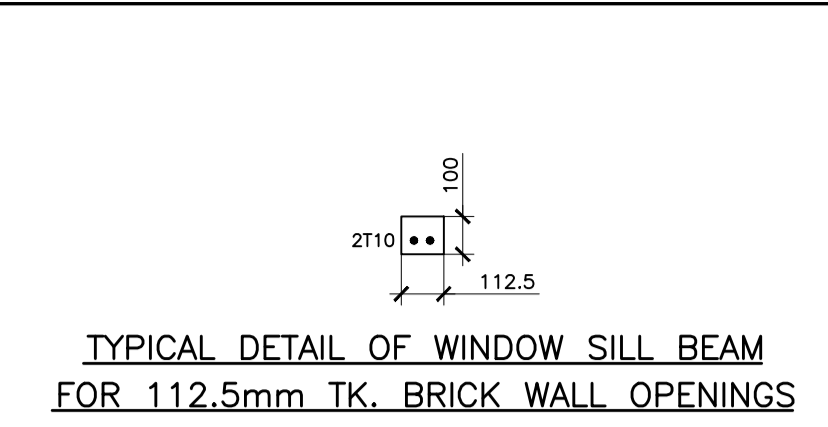
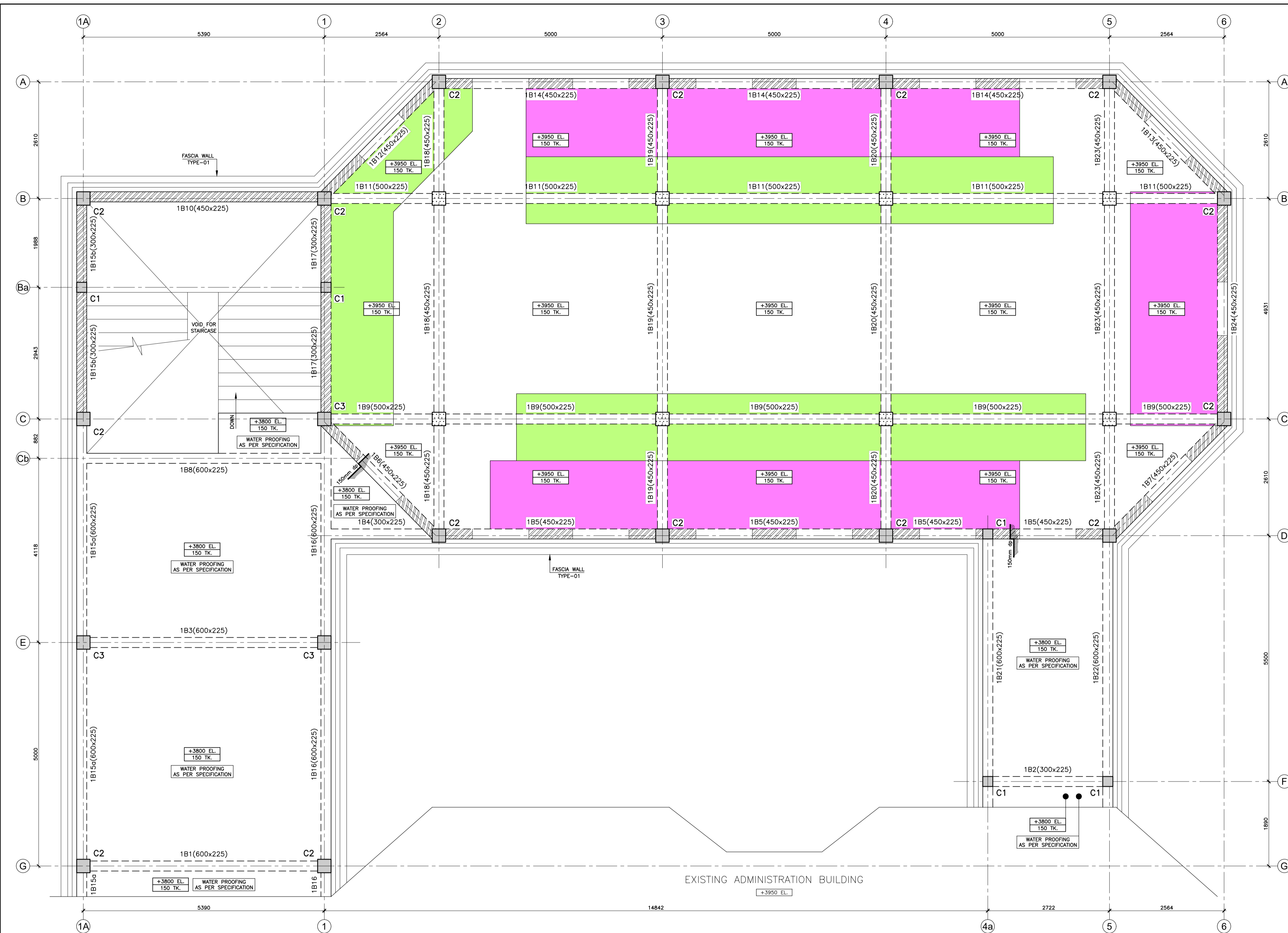
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Drawing Title:

**GENERAL ARRANGEMENT OF PLINTH BEAMS AND TYPICAL DETAILS**

DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEF/2021/002/ST-03	Revision no: 00



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PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
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  05. 11T10-06-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 10mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
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**Project Title:**  
**PROPOSED EXTENSION TO ADMINISTRATIVE SECRETARIAT BUILDING AT THE SOUTH EASTERN UNIVERSITY OLUVIL, SRI LANKA.**

**Client:**  
 SOUTH EASTERN UNIVERSITY OF SRI LANKA

**Consultants:**  
  
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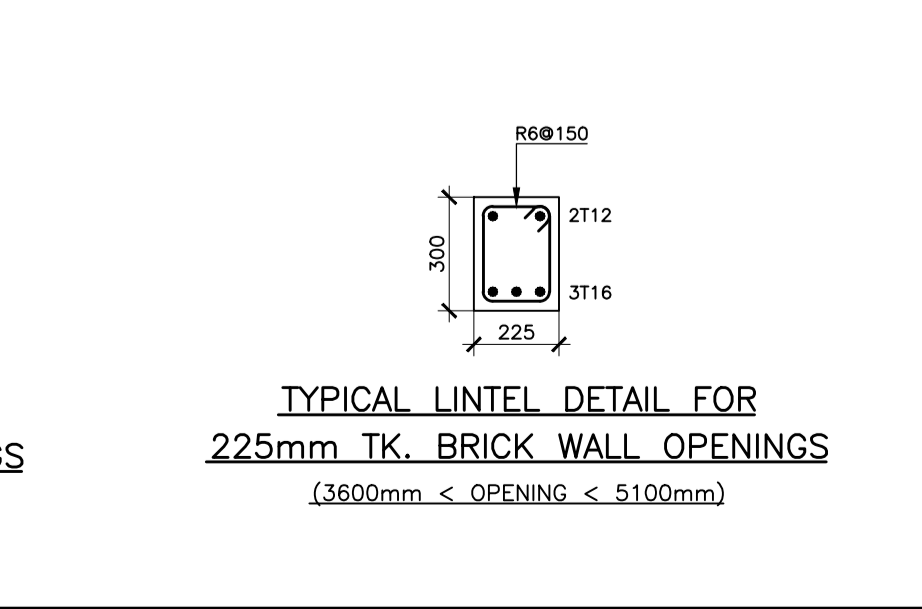
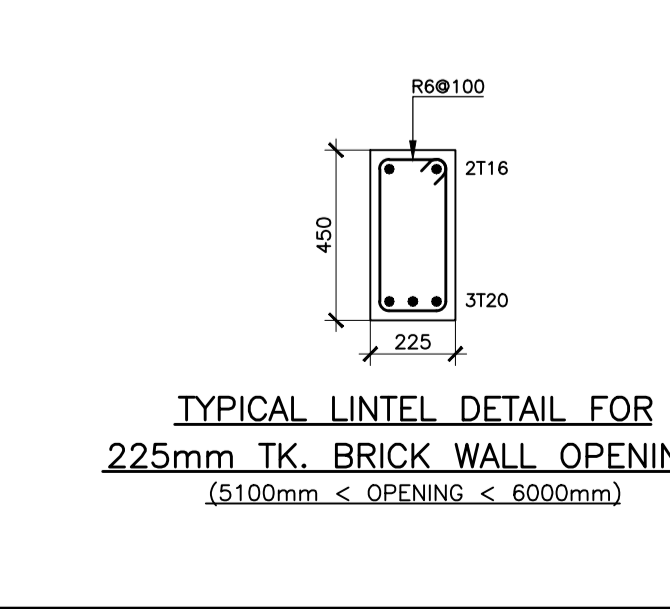
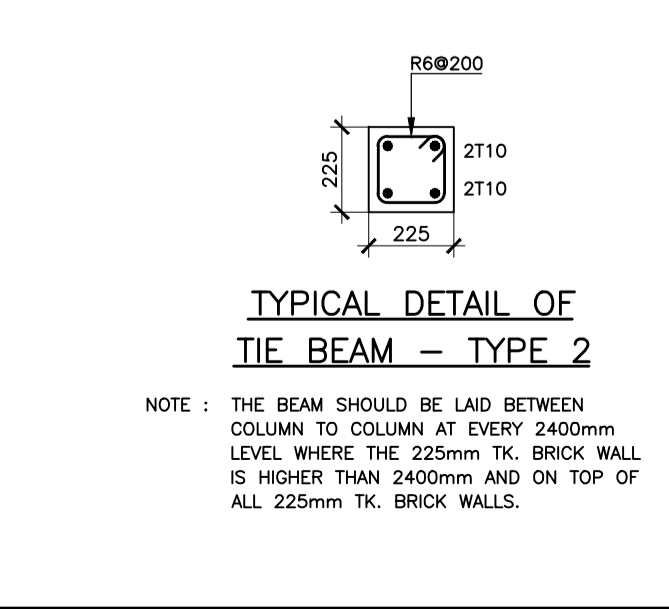
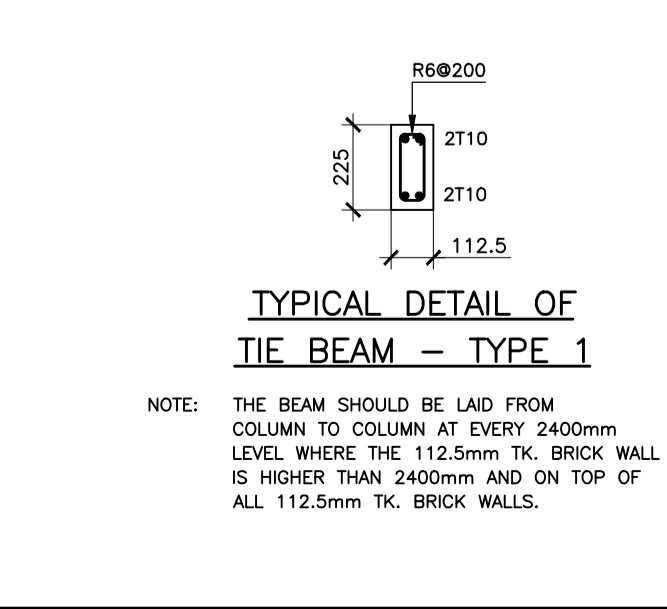
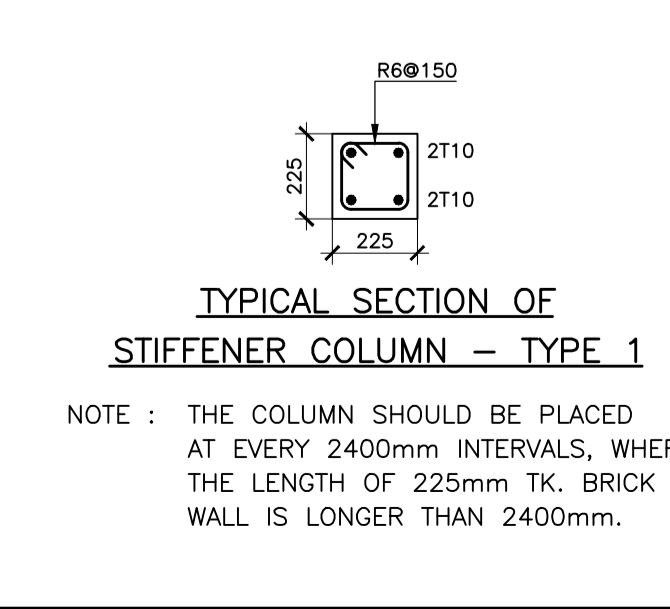
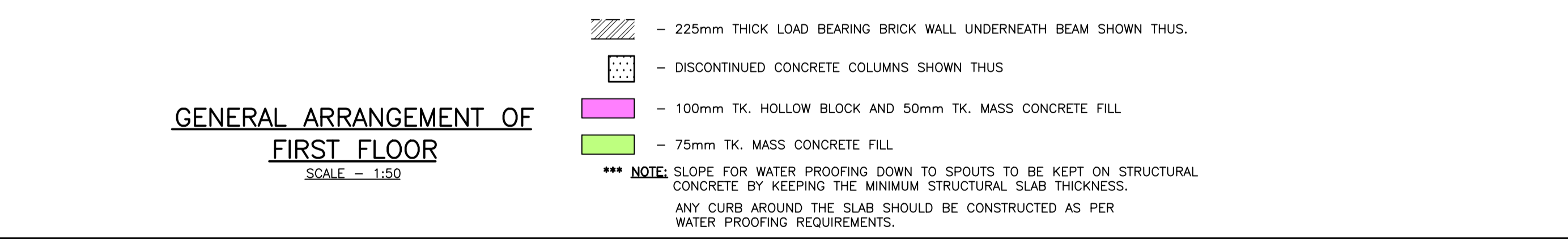
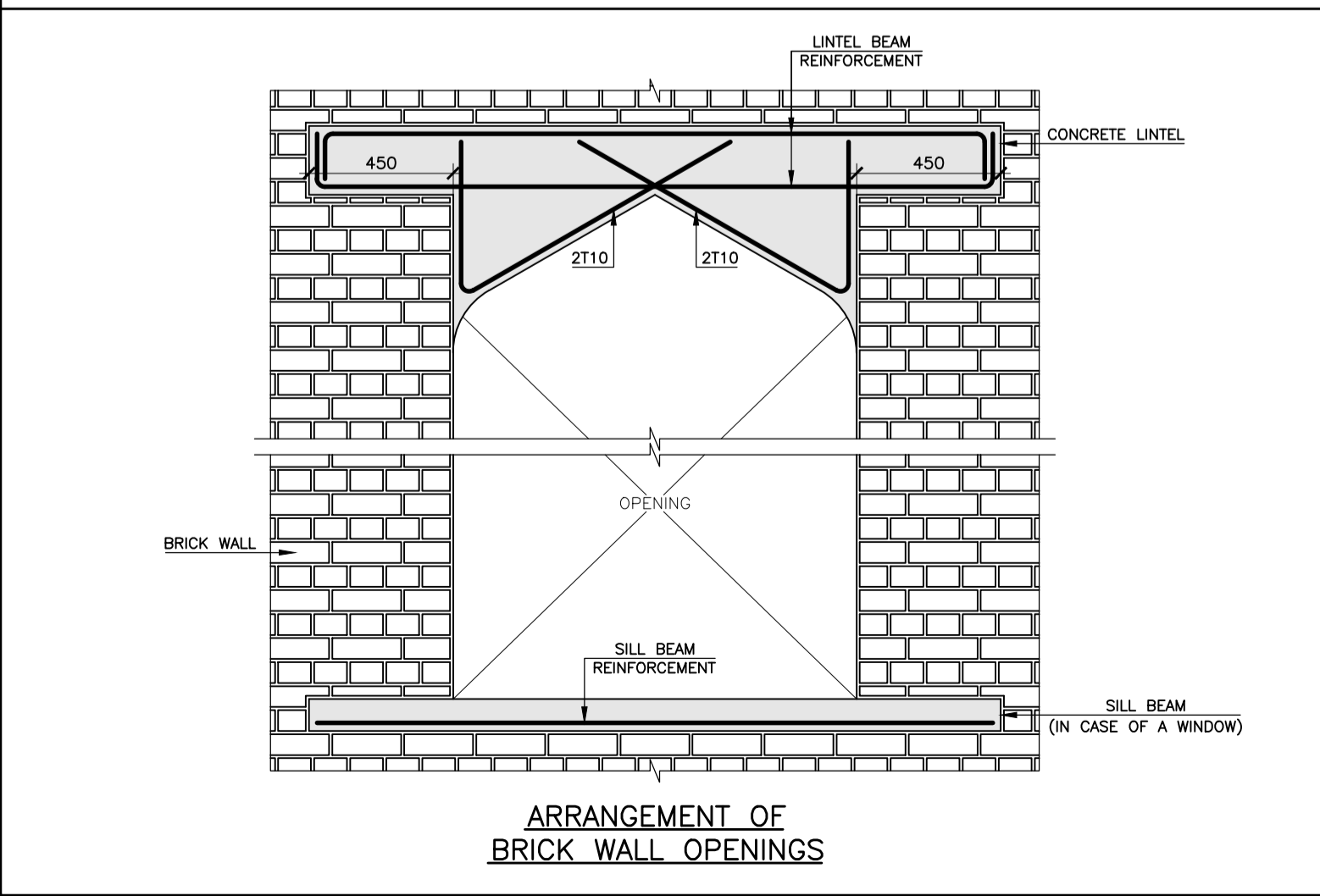
**Structural Engineer:**

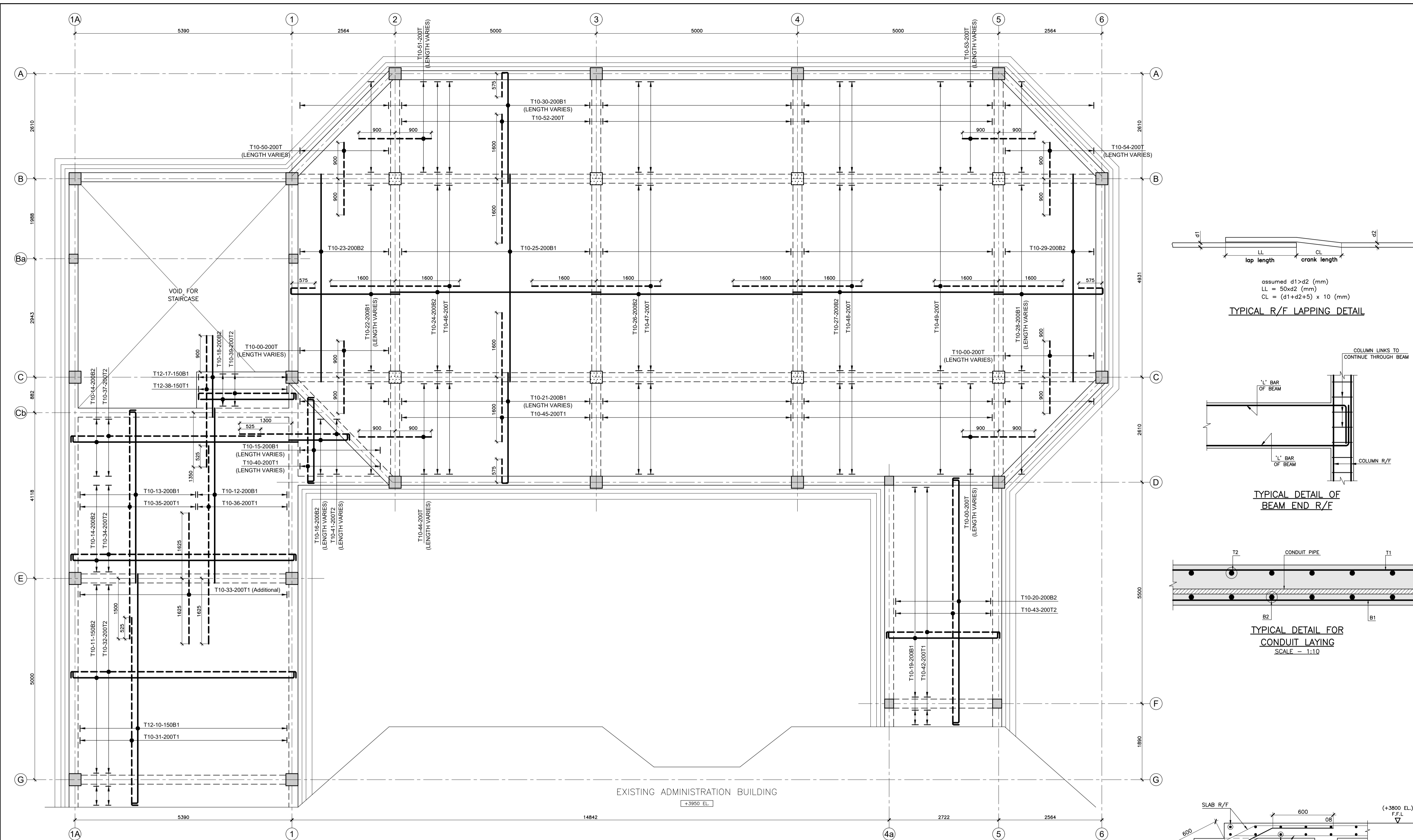
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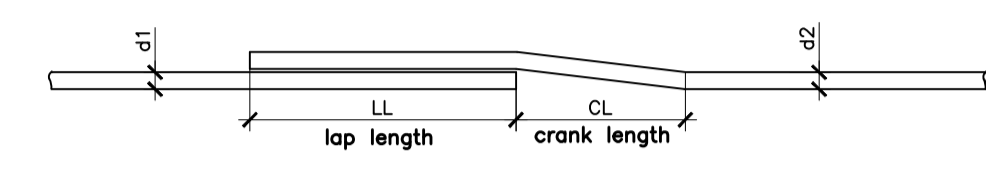
**Drawing Title:**  
**GENERAL ARRANGEMENT OF FIRST FLOOR AND LINTEL DETAILS**

DESIGNED BY: AM	DRAWN BY: TN
SCALE: 1:50, 1:20	CHECKED BY: JD
DATE: 17.05.2021	APPROVED BY:
PAPER SIZE: A1	
DRG.No: CLEF/2021/002/ST-04	Revision no: 00



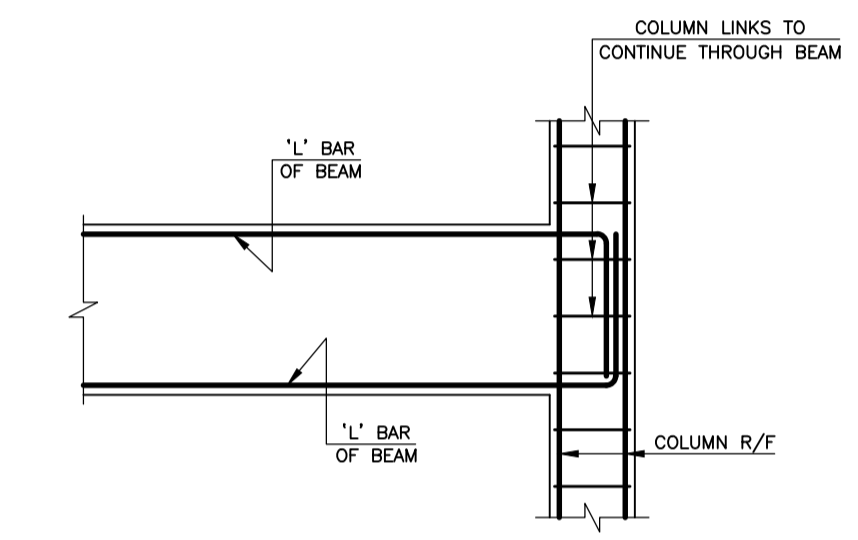


- Notes:**
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  - MAXIMUM AGGREGATE SIZE NOT GREATER THAN 20mm.  
 FOUNDATIONS - GRADE 25  
 PLINTH BEAMS - GRADE 25  
 BEAMS - GRADE 25  
 SLABS - GRADE 25
  - FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  - INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
 FOUNDATIONS -50mm  
 SLABS -25mm  
 BEAMS -40mm  
 COLUMNS (BELOW GROUND LEVEL) -50mm  
 COLUMNS (ABOVE GROUND LEVEL) -40mm
  - 11T10-05-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 10mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
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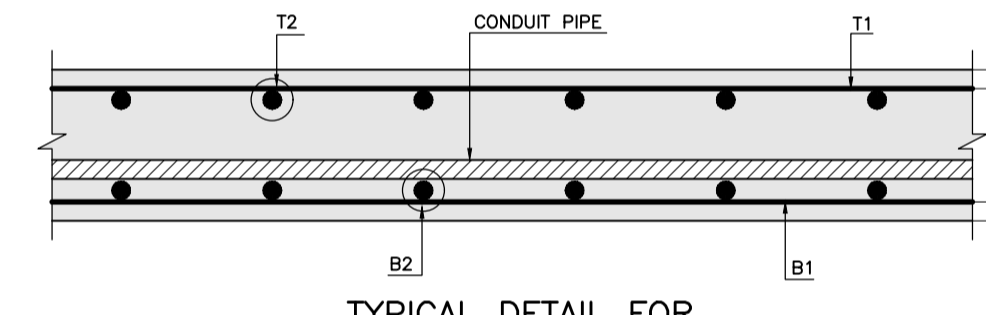


assumed  $d1 > d2$  (mm)  
 $LL = 50d2$  (mm)  
 $CL = (d1 + d2 + 5) \times 10$  (mm)

**TYPICAL R/F LAPPING DETAIL**



**TYPICAL DETAIL OF BEAM END R/F**



**TYPICAL DETAIL FOR CONDUIT LAYING**  
 SCALE - 1:10

Project Title:  
**PROPOSED EXTENSION TO ADMINISTRATIVE SECRETARIAT BUILDING AT THE SOUTH EASTERN UNIVERSITY**  
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Structural Engineer:

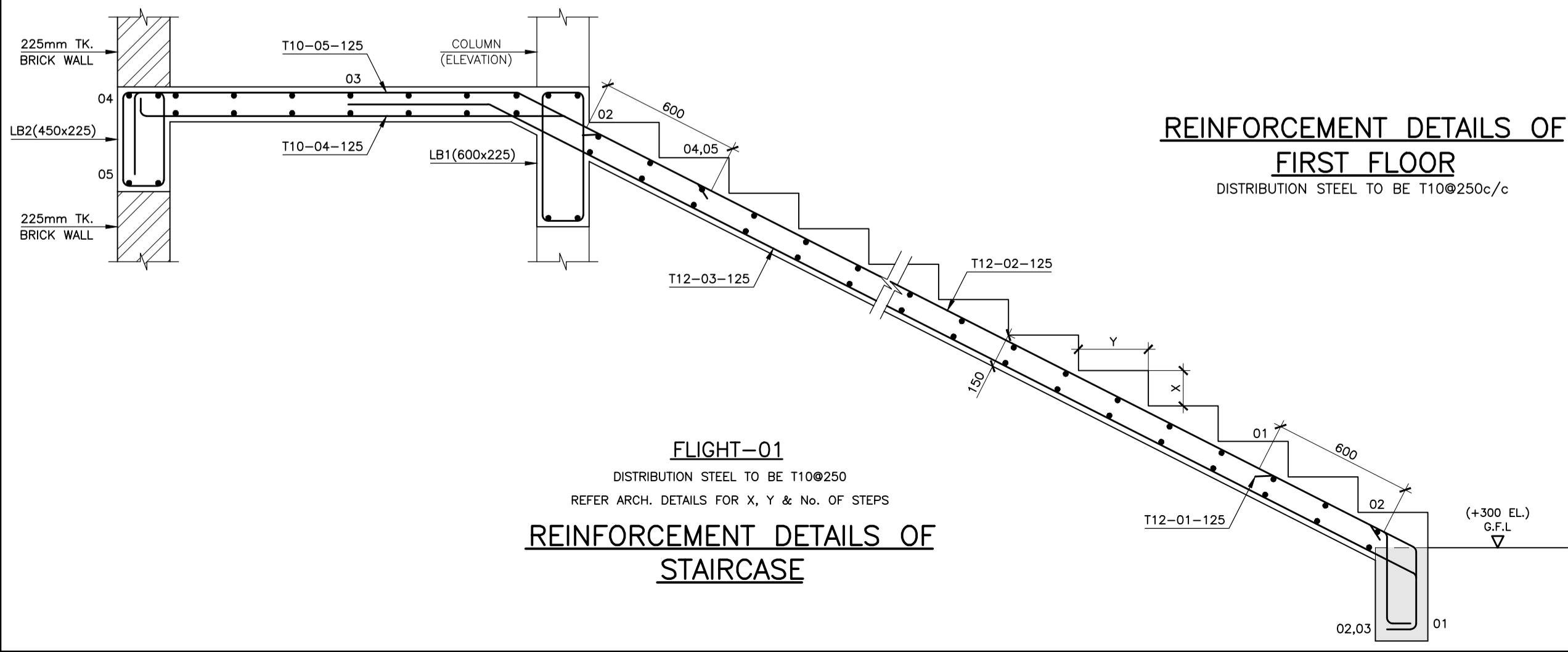
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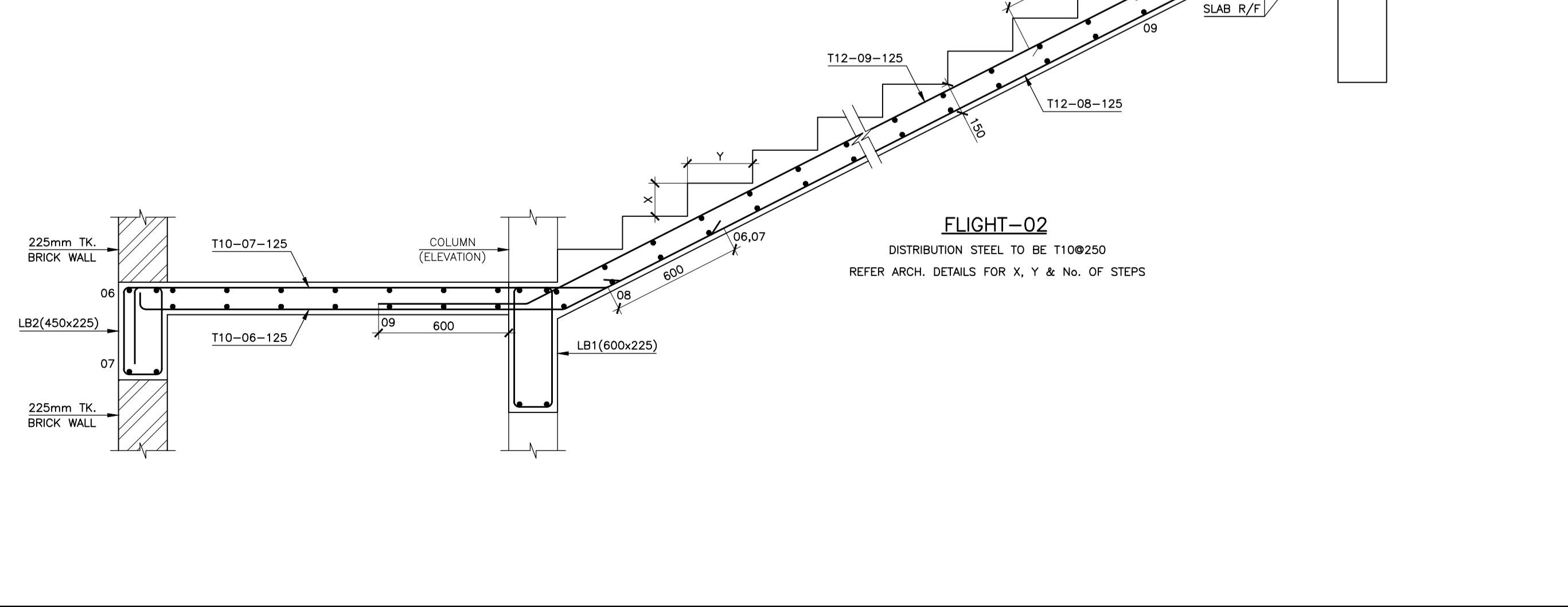
Drawing Title:  
**REINFORCEMENT DETAILS OF FIRST FLOOR, STAIRCASE DETAILS AND TYPICAL DETAILS**

DESIGNED BY: AM  
 SCALE: 1:50, 1:20  
 DATE: 17.05.2021  
 PAPER SIZE: A1  
 DRAWN BY: TN  
 CHECKED BY: JD  
 APPROVED BY:

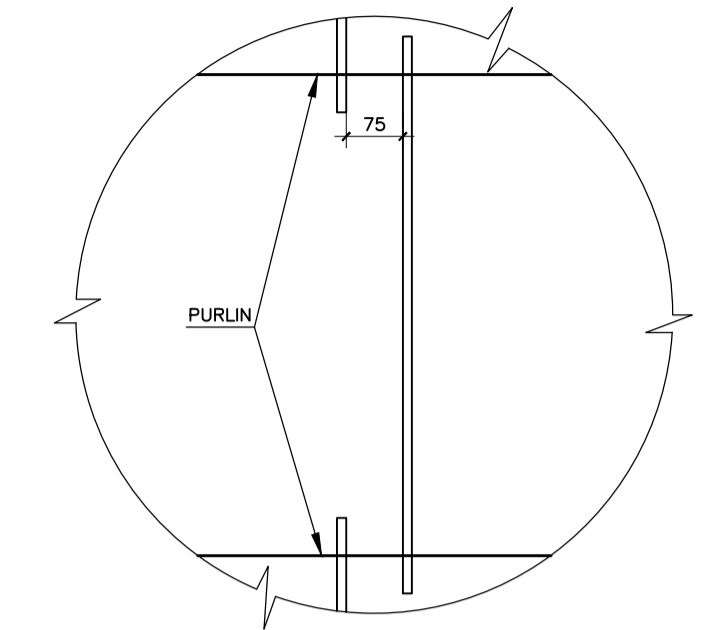
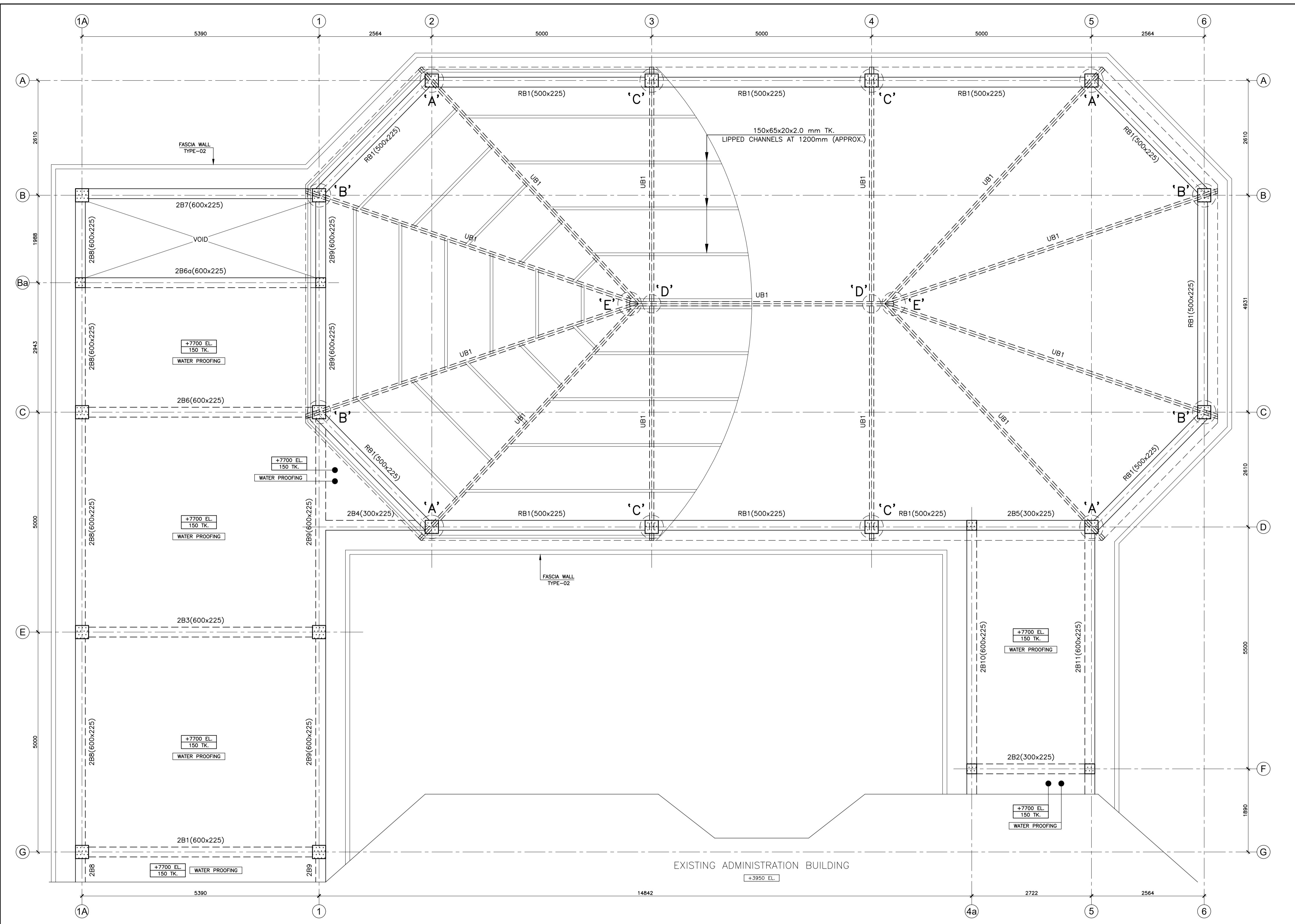
DRG.No: CLEF/2021/002/ST-05  
 Revision no: 00



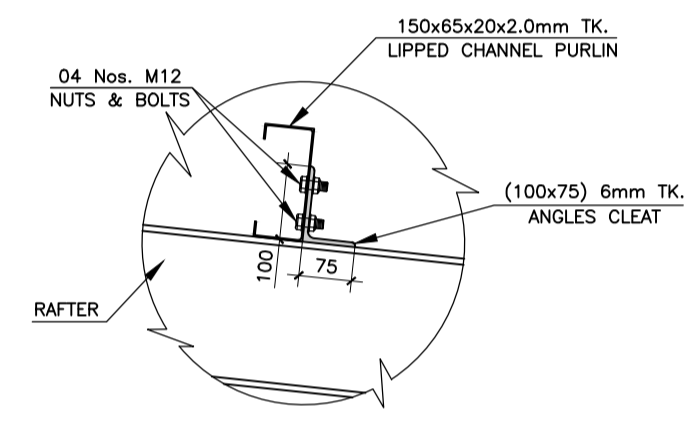
**REINFORCEMENT DETAILS OF FIRST FLOOR**  
 DISTRIBUTION STEEL TO BE T10@250c/c



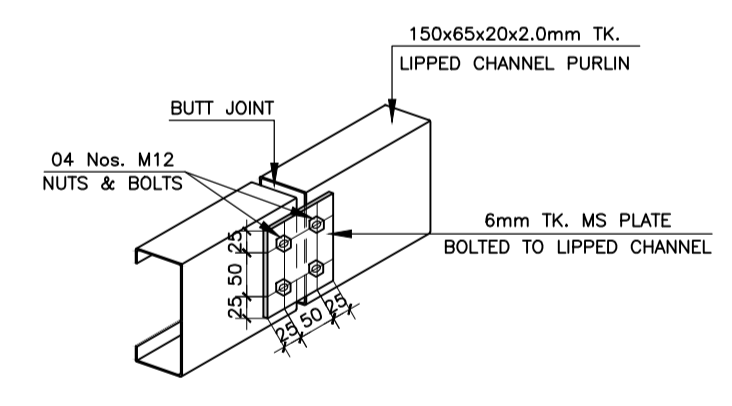
**FLIGHT-02**  
 DISTRIBUTION STEEL TO BE T10@250  
 REFER ARCH. DETAILS FOR X, Y & No. OF STEPS



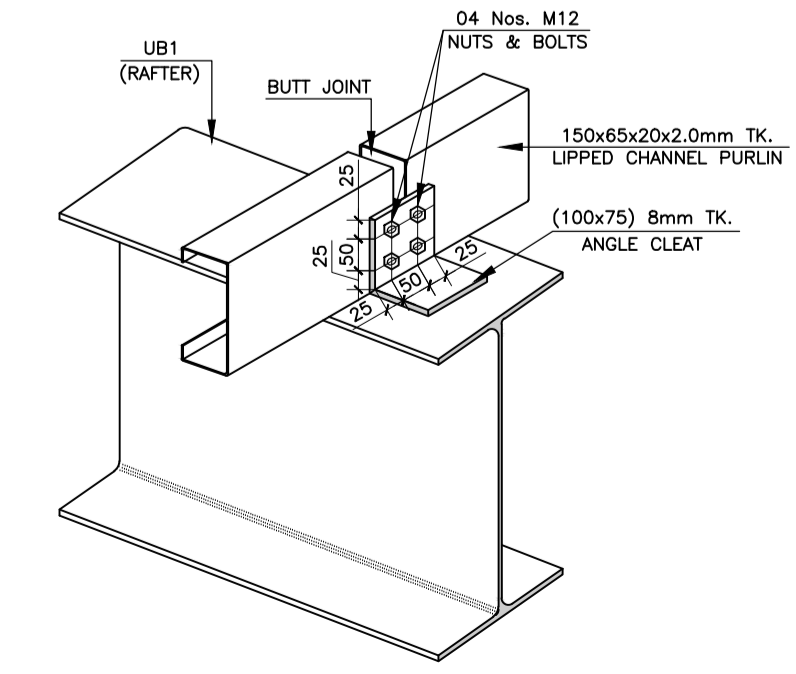
**DETAIL OF SAG ROD SPACING (PLAN VIEW)**  
SCALE A1 - 1:10



**CLEAT DETAIL FOR LIPPED CHANNEL PURLINS (ON RAFTER)**  
SCALE A1 - 1:10



**TYPICAL CONNECTION DETAIL OF PURLINS (FOR 150x65x20x2.0mm TK. PURLIN)**  
(JOINTS TO BE STAGGERED.)  
SCALE A1 - 1:10



**TYPICAL CONNECTION DETAIL OF PURLINS ON RAFTER**  
SCALE A1 - 1:10

- Notes:**
01. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND SPECIFICATIONS.
  02. MAXIMUM AGGREGATE SIZE NOT GREATER THAN 20mm. INDICATE CONCRETE GRADES TO BE AS FOLLOWS:  
FOUNDATIONS - GRADE 25  
PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
FOUNDATIONS -50mm  
SLABS -25mm  
BEAMS -40mm  
COLUMNS (BELOW GROUND LEVEL) -50mm  
COLUMNS (ABOVE GROUND LEVEL) -40mm
  05. 11T0-06-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 10mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
  06. MINIMUM LAP IN REINFORCEMENT TO BE 52d SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
'R'-MILD STEEL OF CHARACTERISTIC STRENGTH 250 N/mm<sup>2</sup> TO BS 4449.  
'T'-HIGH TOR STEEL OF CHARACTERISTIC STRENGTH 460 N/mm<sup>2</sup> TO BS 4449 & 4461.

- Structural Steel Notes:**
- 2.1 ALL BOLT HOLES TO BE MACHINE DRILLED.
  - 2.2 ALL FILLET WELDS ARE ACCORDING TO STRUCTURAL DRAWINGS AND ARE 6mm TK. CONTINUOUS FILLET WELDS.
  - 2.3 ALL STEEL MEMBERS SHOULD BE PAINTED WITH 'FREEMASTIC C-316' EPOXY PAINT OR APPROVED EQUIVALENT, COLOUR TO ARCHITECT'S SPECIFICATIONS.
  - 2.4 ALL STEEL MEMBERS TO BE GRADE 43 STEEL.
  - 2.5 ALL BOLTS TO BE GRADE 8.8 TO BS 4190. DIMENSIONS ARE GIVEN CENTER TO CENTER UNLESS OTHERWISE SHOWN.
  - 2.6 TECHNICAL DETAILS INCLUDING MILL CERTIFICATES OF BOLTS, NUTS, J-BOLTS, ANCHOR BOLTS ETC. TO BE FORWARDED TO STRUCTURAL CONSULTANT BY CONTRACTOR AT LEAST 2 WEEKS BEFORE ERECTION OF STRUCTURE.
  - 2.7 CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF STEEL STRUCTURE FOR CONSULTANT'S APPROVAL AT LEAST 2 WEEKS BEFORE ERECTION OF STRUCTURE.
  - 2.8 CONTRACTOR IS REQUIRED TO PERFORM TESTS TO VERIFY STRUCTURAL STEEL STRENGTH AT A RECOGNIZED INSTITUTION AS PER ENGINEER'S DIRECTIONS.

**Project Title:**  
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OLUVIL, SRI LANKA.

**Client:**  
SOUTH EASTERN UNIVERSITY OF SRI LANKA

**Consultants:**  
  
**CLEF CONSULTANTS (PVT) LTD**  
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E: info@clefcon.com W: www.clefcon.com

**Structural Engineer:**

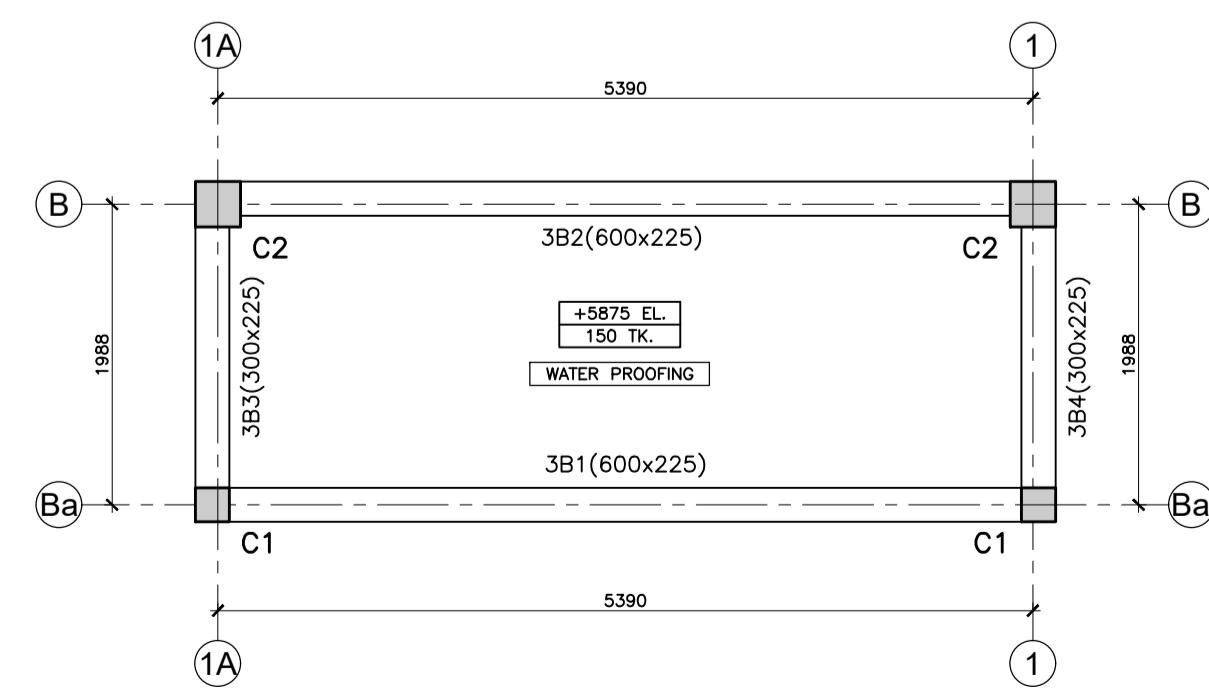
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**Drawing Title:**  
**GENERAL ARRANGEMENT OF ROOF LEVEL AND ROOF TYPICAL DETAILS**

DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:

DRG.No: CLEF/2021/002/ST-06  
Revision no: 00

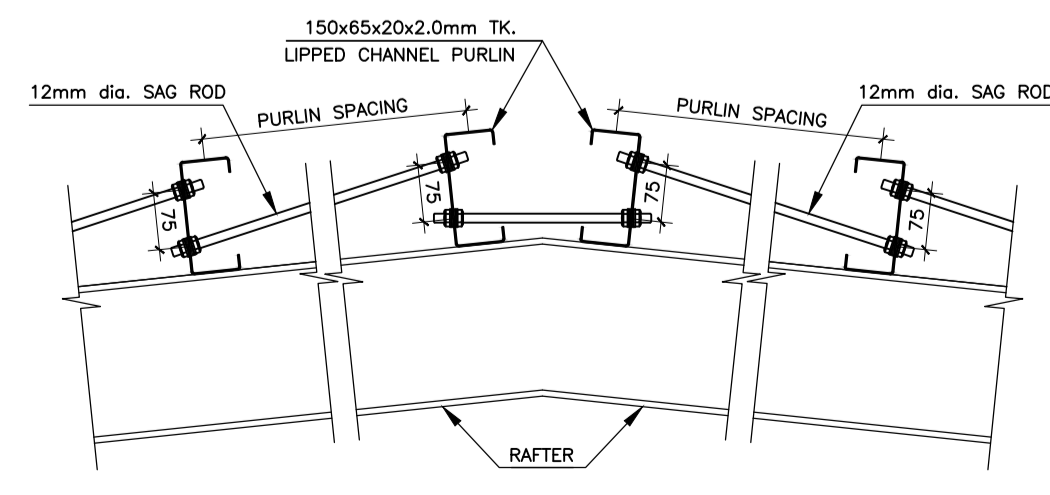


**GENERAL ARRANGEMENT OF COVER SLAB OVER STAIRCASE LANDING (+5875mm LEVEL)**  
SCALE - 1:50

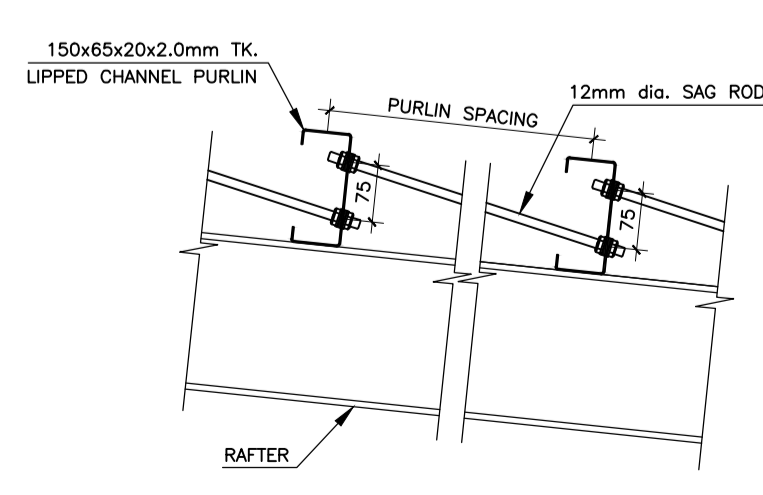
**GENERAL ARRANGEMENT OF ROOF LEVEL**  
SCALE - 1:50

\*\* UB1 - 200x100x18.2kg/m UNIVERSAL BEAM

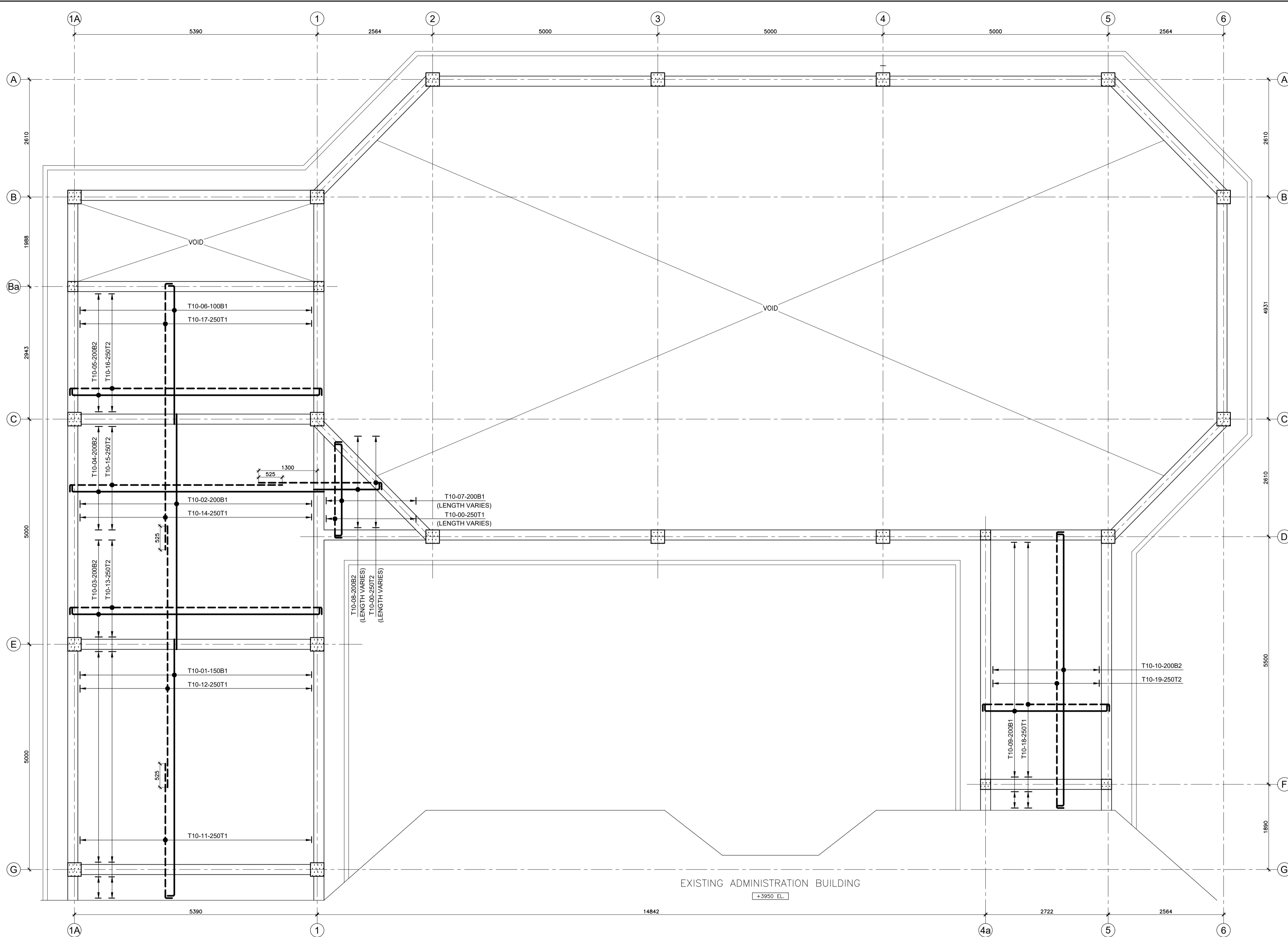
--- DISCONTINUED CONCRETE COLUMNS SHOWN THUS  
\*\*\* NOTE: SLOPE FOR WATER PROOFING DOWN TO SPOUTS TO BE KEPT ON STRUCTURAL CONCRETE BY KEEPING THE MINIMUM STRUCTURAL SLAB THICKNESS. ANY CURB AROUND THE SLAB SHOULD BE CONSTRUCTED AS PER WATER PROOFING REQUIREMENTS.



**SAG ROD CONNECTION DETAIL AT RIDGE (SECTIONAL VIEW)**  
SCALE A1 - 1:10

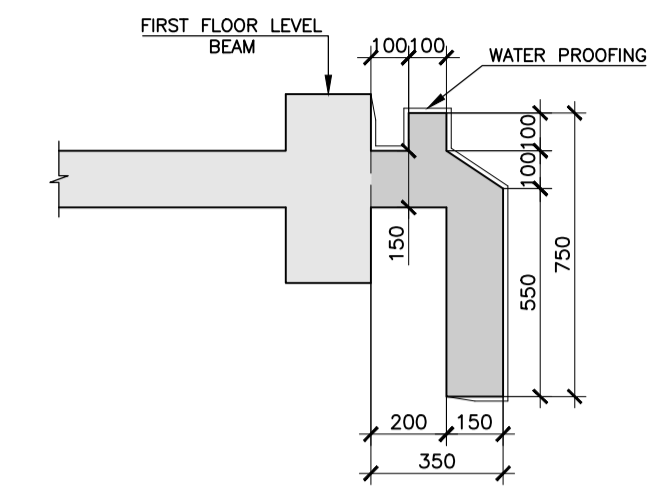


**SAG ROD CONNECTION DETAIL (SECTIONAL VIEW)**  
SCALE A1 - 1:10

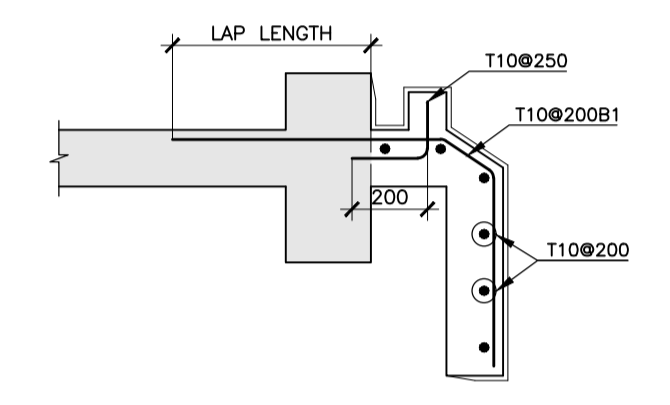


**REINFORCEMENT DETAILS OF ROOF LEVEL**  
DISTRIBUTION STEEL TO BE T10@250c/c

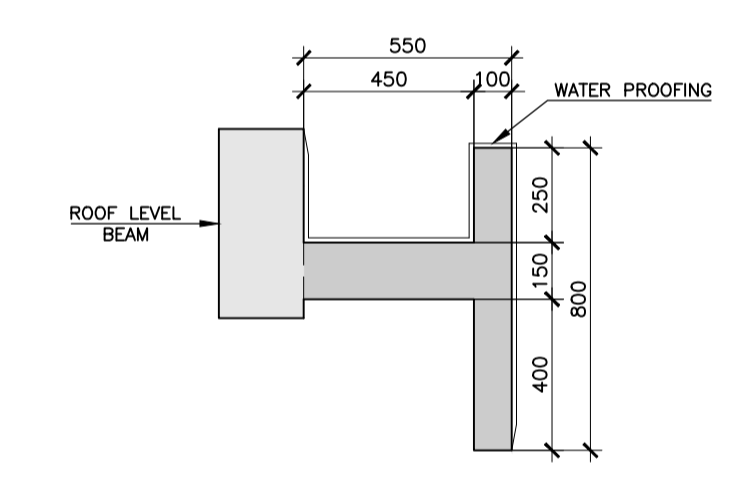
**REINFORCEMENT DETAILS OF COVER SLAB OVER STAIRCASE LANDING (+5875mm LEVEL)**



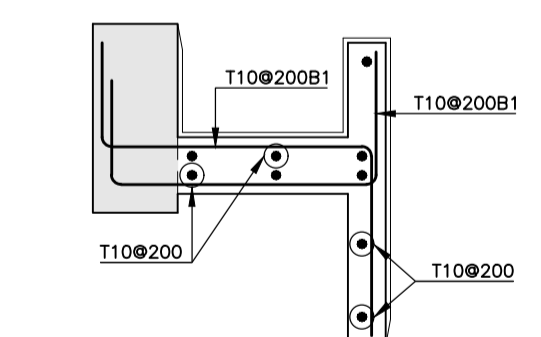
TYPICAL SECTION OF FASCIA WALL TYPE-01



TYPICAL REINFORCEMENT DETAILS OF FASCIA WALL TYPE-01



TYPICAL SECTION OF FASCIA WALL TYPE-02




TYPICAL REINFORCEMENT DETAILS OF FASCIA WALL TYPE-02

- Notes:**
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  02. MAXIMUM AGGREGATE SIZE NOT GREATER THAN 20mm.  
FOUNDATIONS - GRADE 25  
PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
FOUNDATIONS -50mm  
SLABS -25mm  
BEAMS -40mm  
COLUMNS (BELOW GROUND LEVEL) -50mm  
COLUMNS (ABOVE GROUND LEVEL) -40mm
  05. 11T10-06-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 10mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
  06. MINIMUM LAP IN REINFORCEMENT TO BE 52d SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
"R"-MILD STEEL OF CHARACTERISTIC STRENGTH 250 N/mm<sup>2</sup> TO BS 4449,  
"T"-HIGH TOR STEEL OF CHARACTERISTIC STRENGTH 460 N/mm<sup>2</sup> TO BS 4449 & 4461.

Project Title:  
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Structural Engineer:

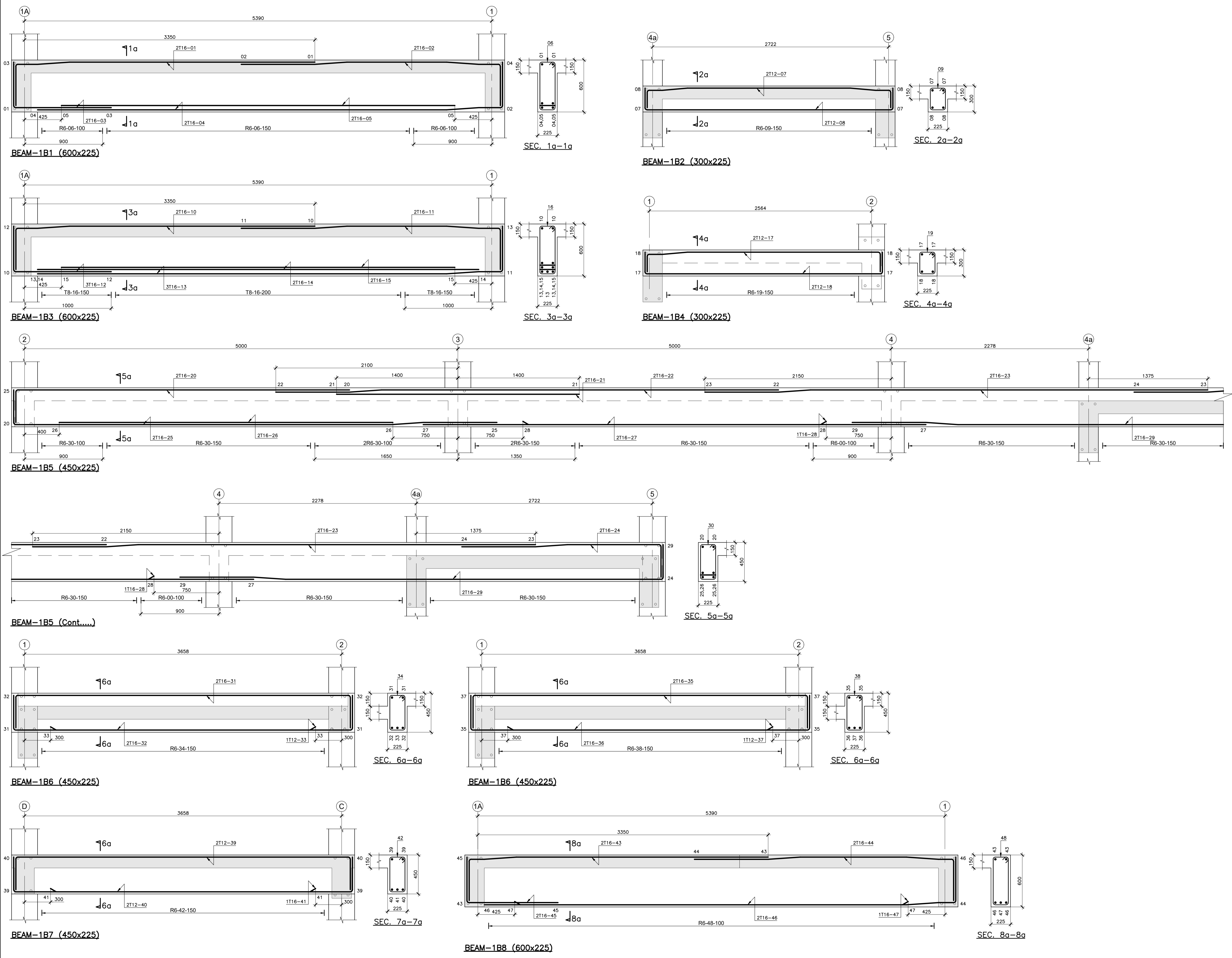
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Drawing Title:  
**REINFORCEMENT DETAILS OF ROOF LEVEL, COVER SLAB OVER STAIRCASE LANDING AND FASCIA WALL DETAILS**

DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEF/2021/002/ST-07	Revision no: 00





- Notes:**
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SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
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BEAMS -40mm  
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COLUMNS (ABOVE GROUND LEVEL) -40mm
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  06. MINIMUM LAP IN REINFORCEMENT TO BE 52φ SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
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"T"-HIGH TOR STEEL OF CHARACTERISTIC STRENGTH 460 N/mm<sup>2</sup> TO BS 4449 & 4461.

**Project Title:**  
**PROPOSED EXTENSION TO ADMINISTRATIVE SECRETARIAT BUILDING AT THE SOUTH EASTERN UNIVERSITY OLUVIL, SRI LANKA.**

**Client:**  
 SOUTH EASTERN UNIVERSITY OF SRI LANKA

**Consultants:**  
  
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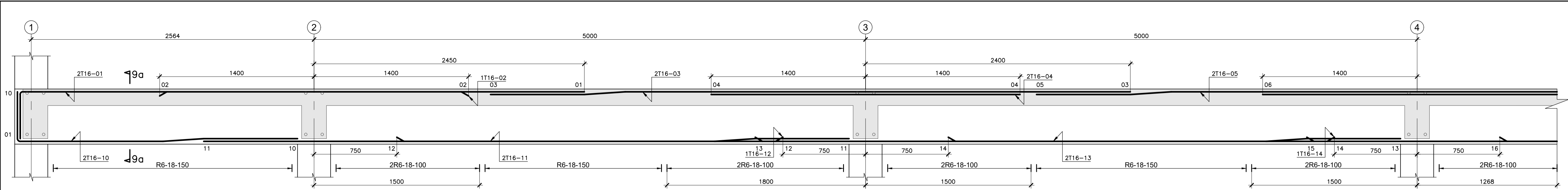
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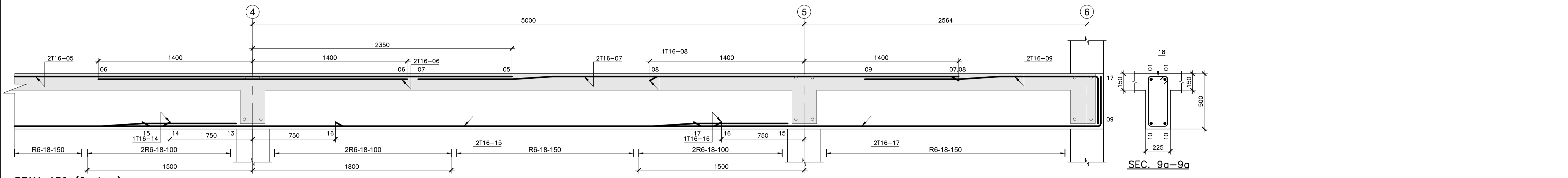
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**Drawing Title:**  
 FIRST FLOOR BEAMS

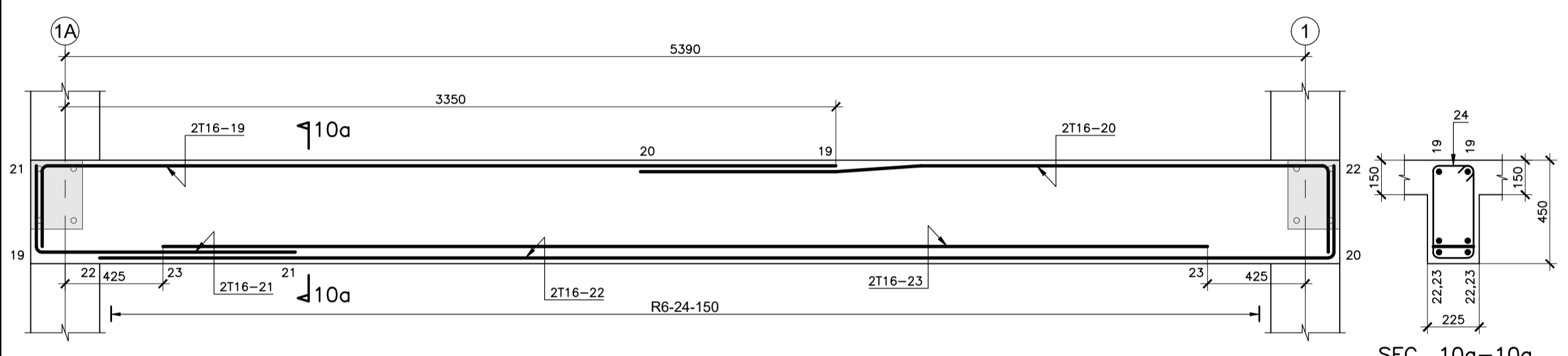
DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEF/2021/002/ST-08	Revision no: 00



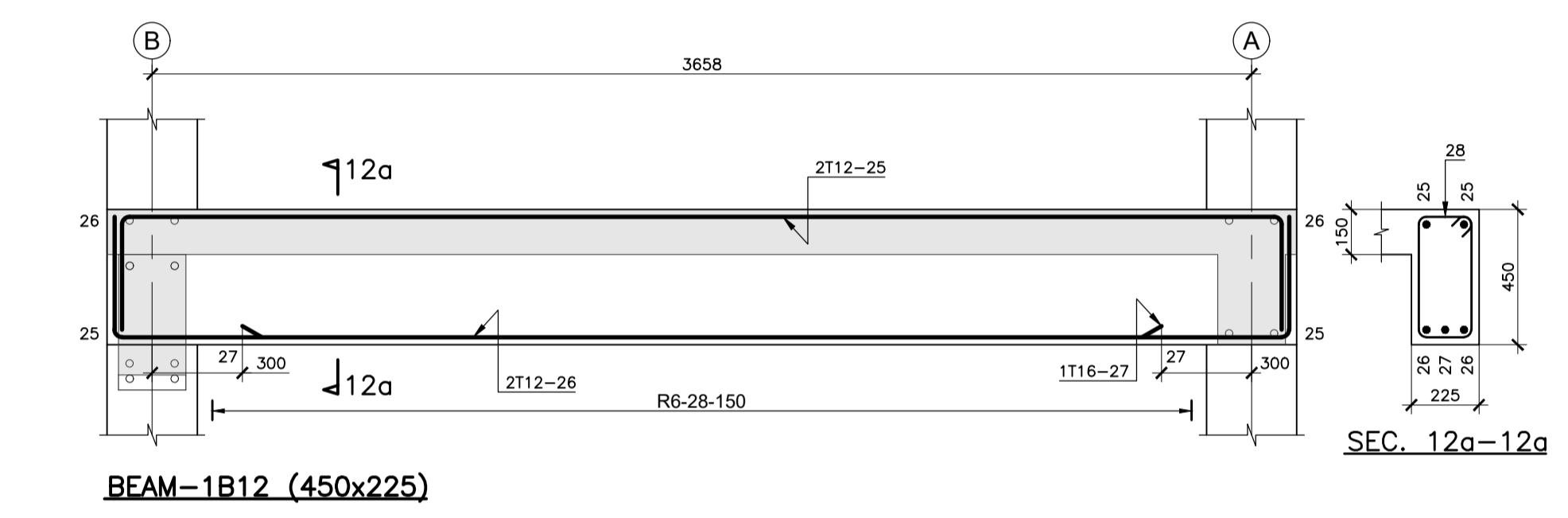
**BEAM-1B9 (500x225)**  
SIMILAR BEAM-1B11



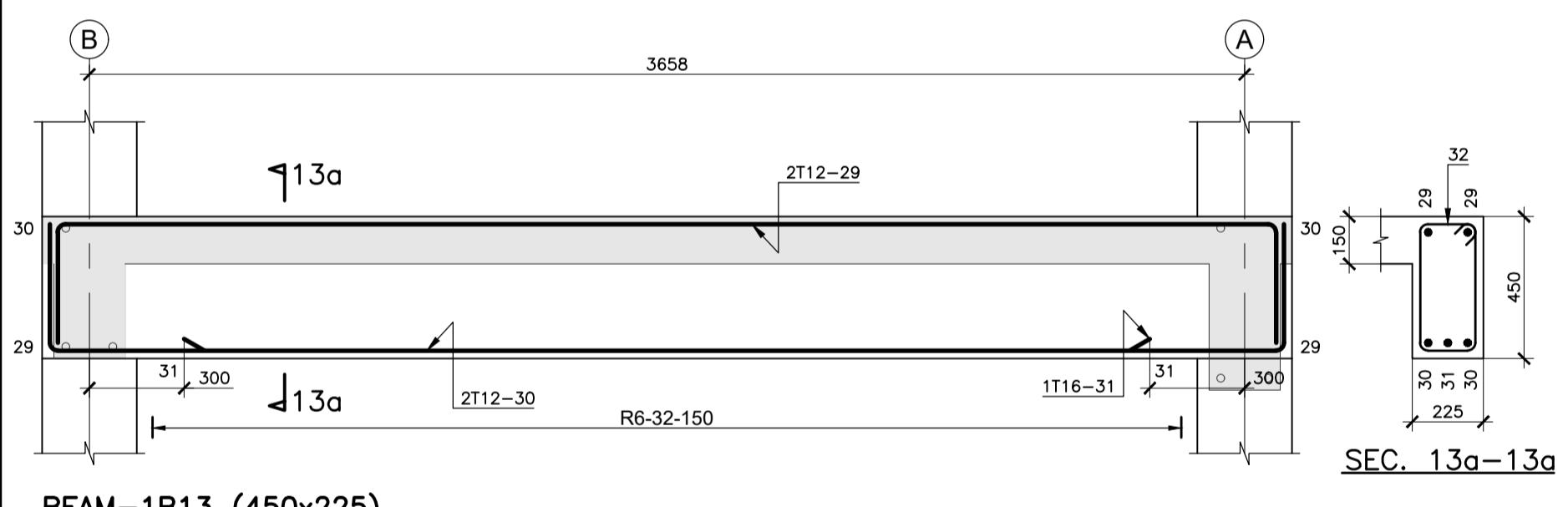
**BEAM-1B9 (Cont....)**



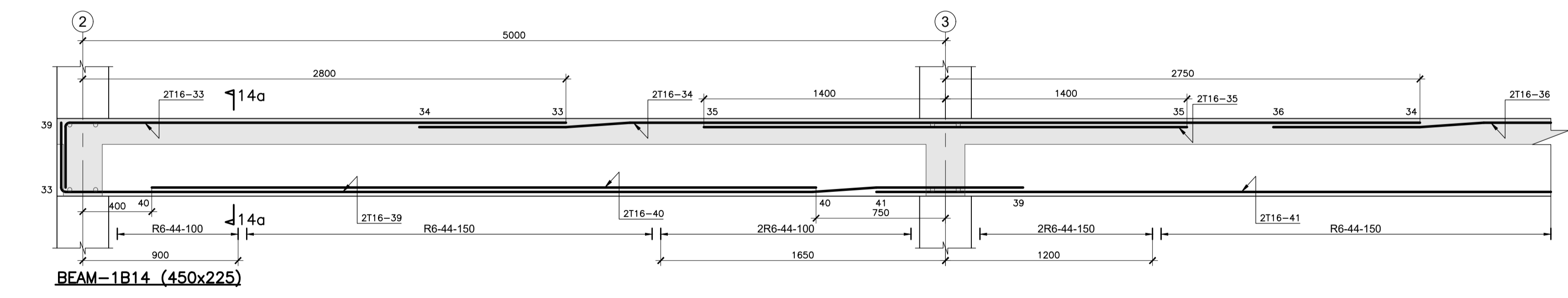
**BEAM-1B10 (450x225)**



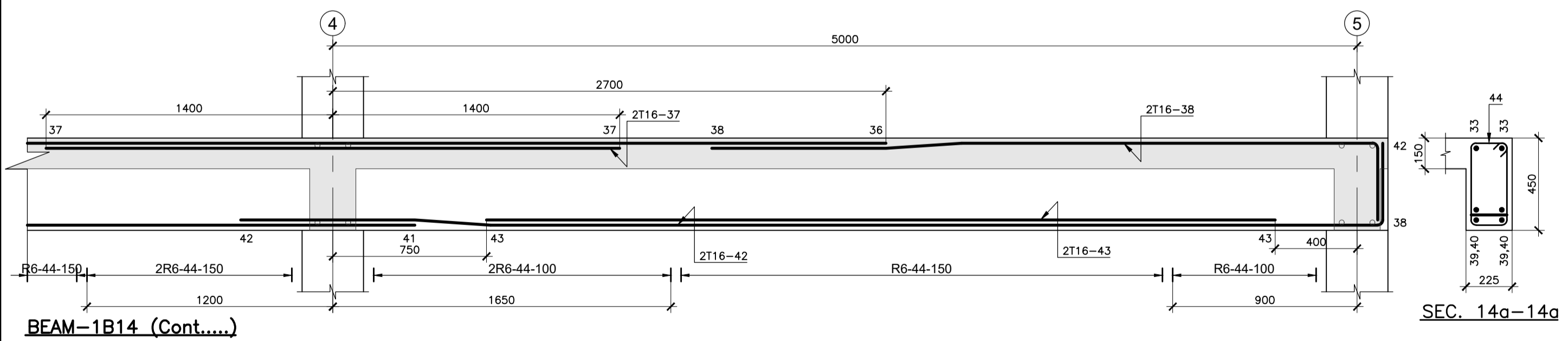
**BEAM-1B12 (450x225)**



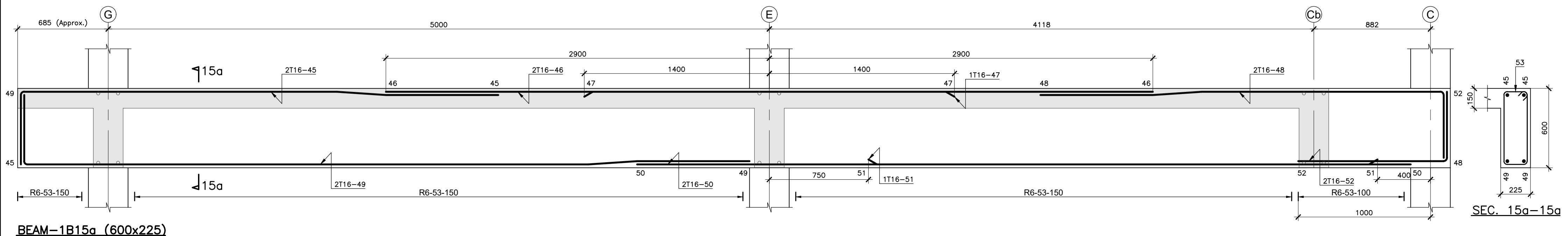
**BEAM-1B13 (450x225)**



**BEAM-1B14 (450x225)**



**BEAM-1B14 (Cont....)**



**BEAM-1B15a (600x225)**

- Notes:**
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FOUNDATIONS - GRADE 25  
PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
FOUNDATIONS -50mm  
SLABS -25mm  
BEAMS -40mm  
COLUMNS (BELOW GROUND LEVEL) -50mm  
COLUMNS (ABOVE GROUND LEVEL) -40mm
  05. 1T16-06-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 16mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
  06. MINIMUM LAP IN REINFORCEMENT TO BE 52d SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
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"T"-HIGH TOR STEEL OF CHARACTERISTIC STRENGTH 460 N/mm<sup>2</sup> TO BS 4449 & 4461.

Project Title:  
**PROPOSED EXTENSION TO ADMINISTRATIVE SECRETARIAT BUILDING AT THE SOUTH EASTERN UNIVERSITY**  
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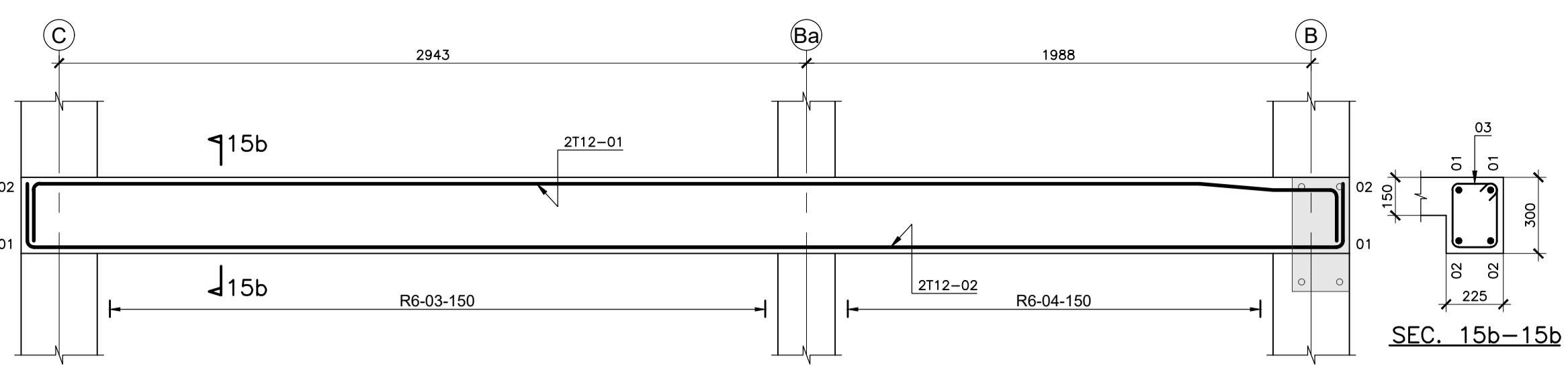
Structural Engineer:

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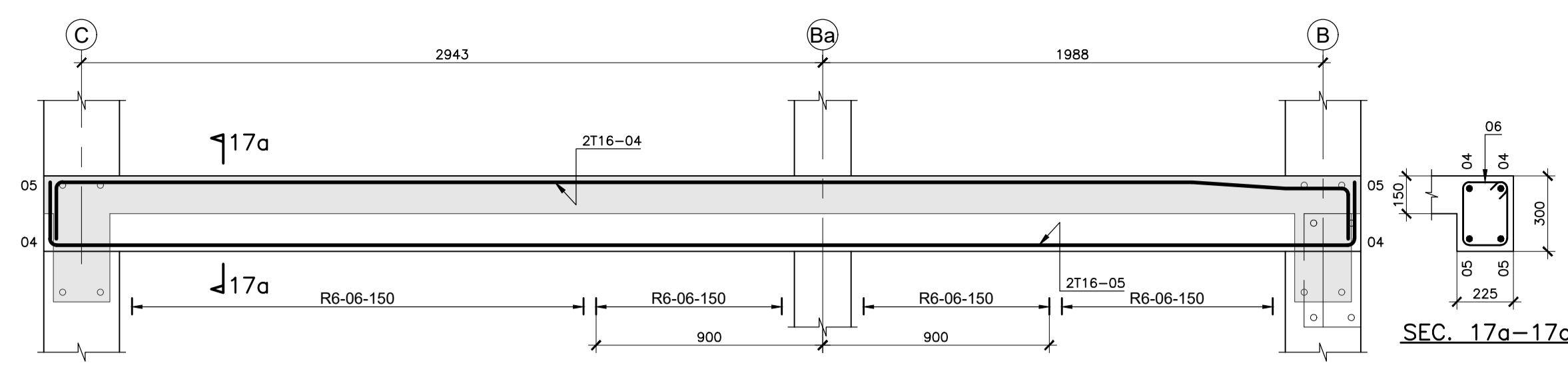
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Drawing Title:  
**FIRST FLOOR BEAMS**

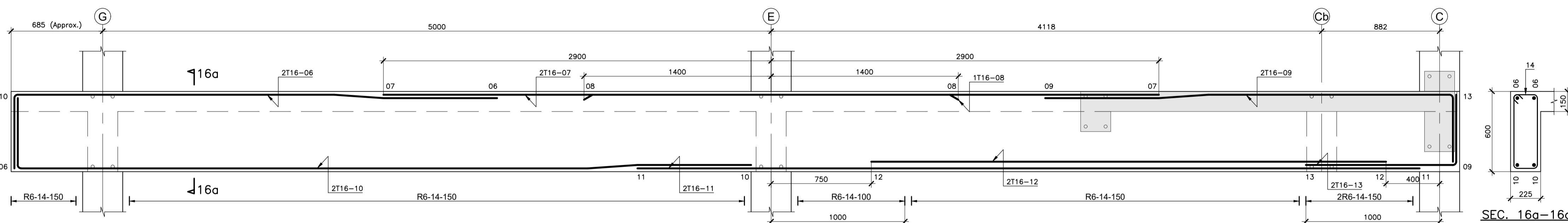
DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEF/2021/002/ST-09	Revision no: 00



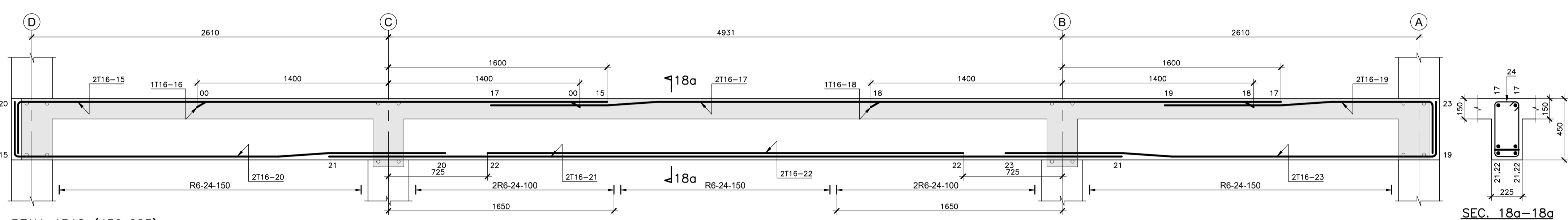
BEAM-1B15b (300x225)



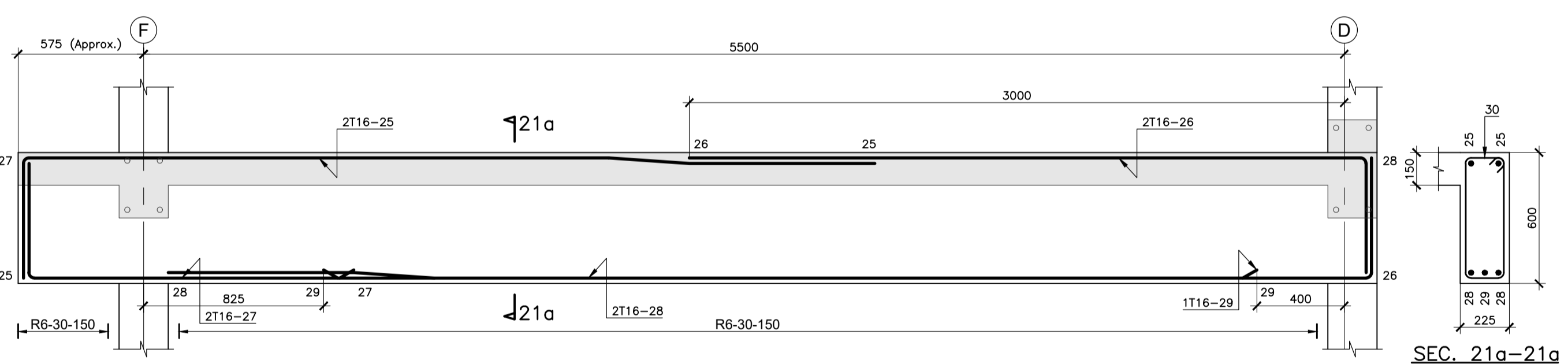
BEAM-1B17 (300x225)



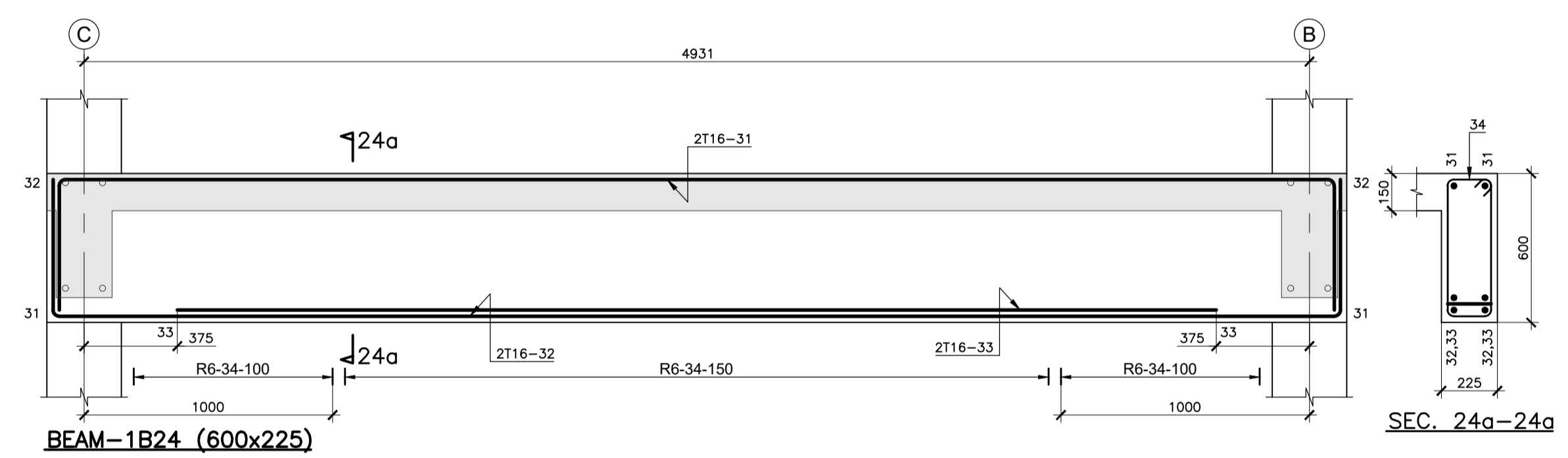
BEAM-1B16 (600x225)



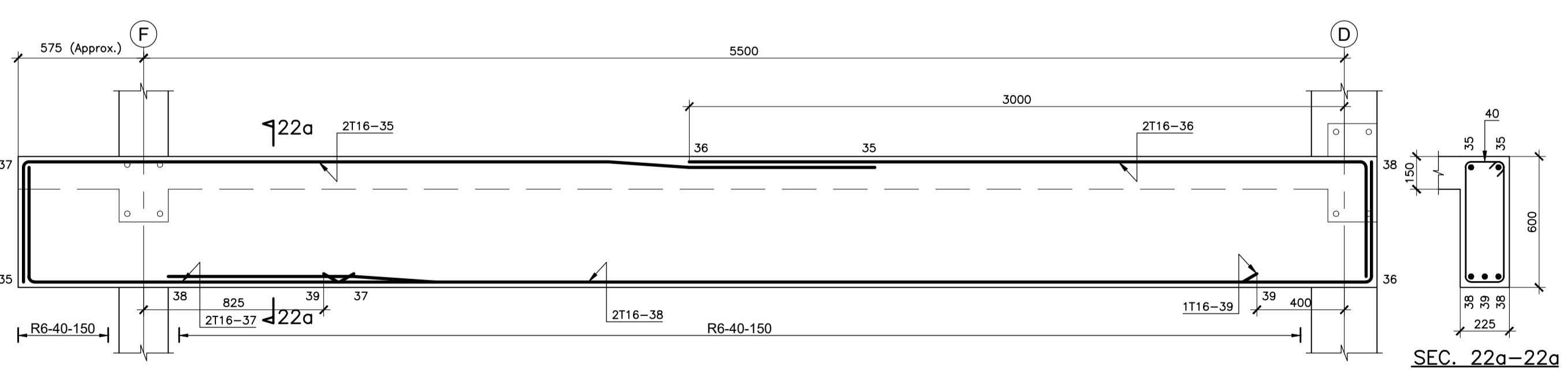
BEAM-1B18 (450x225)  
SIMILAR BEAM-1B19, 1B20, 1B23



BEAM-1B21 (600x225)  
SIMILAR BEAM-2B10



BEAM-1B24 (600x225)



BEAM-1B22 (600x225)  
SIMILAR BEAM-2B11

- Notes:
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PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
FOUNDATIONS -50mm  
SLABS -25mm  
BEAMS -40mm  
COLUMNS (BELOW GROUND LEVEL) -50mm  
COLUMNS (ABOVE GROUND LEVEL) -40mm
  05. 11T16-06-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 16mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
  06. MINIMUM LAP IN REINFORCEMENT TO BE 52φ SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
"R"-MILD STEEL OF CHARACTERISTIC STRENGTH 250 N/mm<sup>2</sup> TO BS 4449.  
"T"-HIGH TOR STEEL OF CHARACTERISTIC STRENGTH 460 N/mm<sup>2</sup> TO BS 4449 & 4461.

Project Title:  
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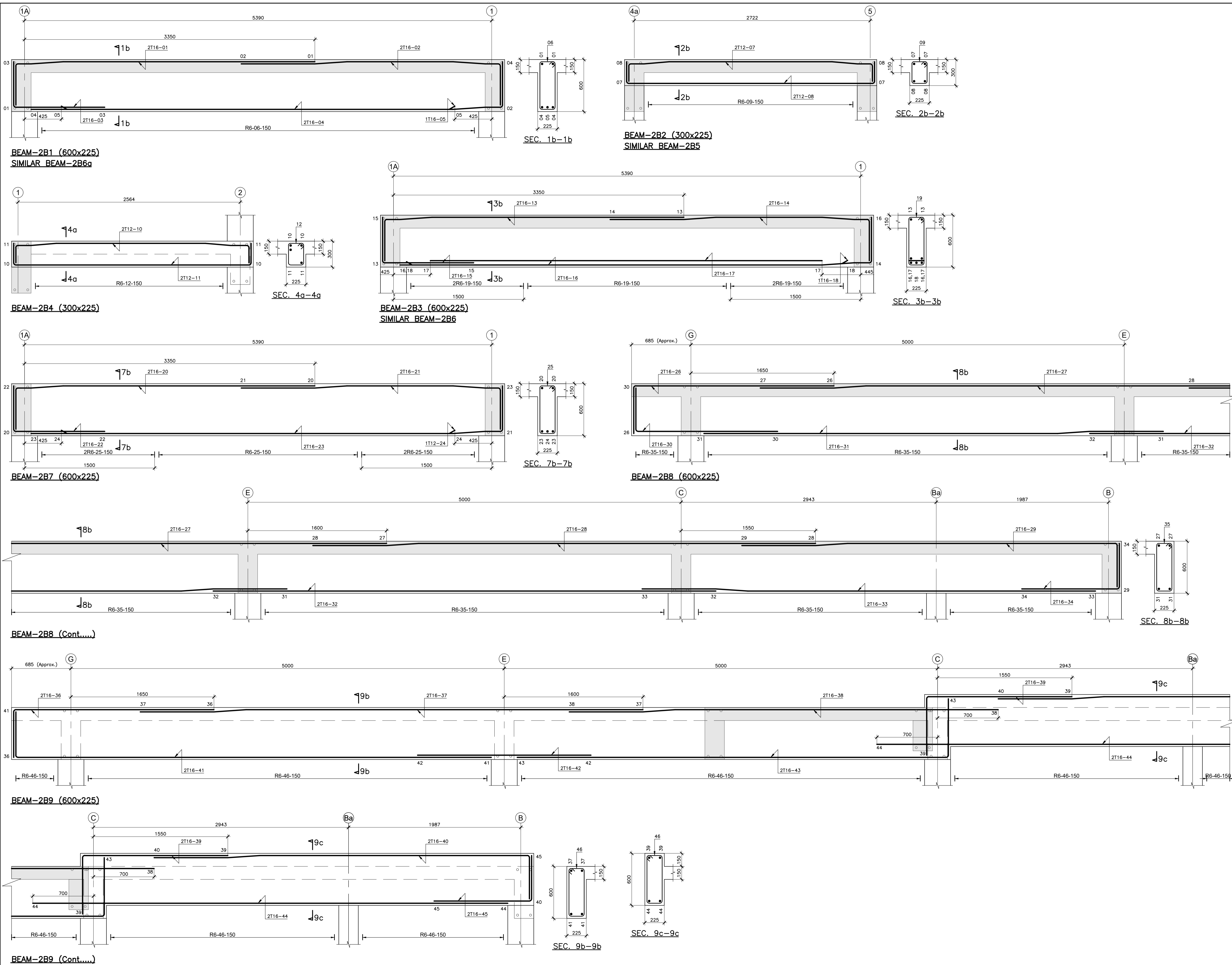
Structural Engineer:

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Drawing Title:  
**FIRST FLOOR BEAMS**


DESIGNED BY: AM	DRAWN BY: TN
DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEF/2021/002/ST-10	Revision no: 00



- Notes:**
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  06. MINIMUM LAP IN REINFORCEMENT TO BE 52 $\phi$  SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
"R"-MILD STEEL OF CHARACTERISTIC STRENGTH 250 N/mm<sup>2</sup> TO BS 4449.  
"T"-HIGH TOR STEEL OF CHARACTERISTIC STRENGTH 460 N/mm<sup>2</sup> TO BS 4449 & 4461.

**Project Title:**  
**PROPOSED EXTENSION TO ADMINISTRATIVE SECRETARIAT BUILDING AT THE SOUTH EASTERN UNIVERSITY**  
OLUVIL, SRI LANKA.

**Client:**  
SOUTH EASTERN UNIVERSITY OF SRI LANKA

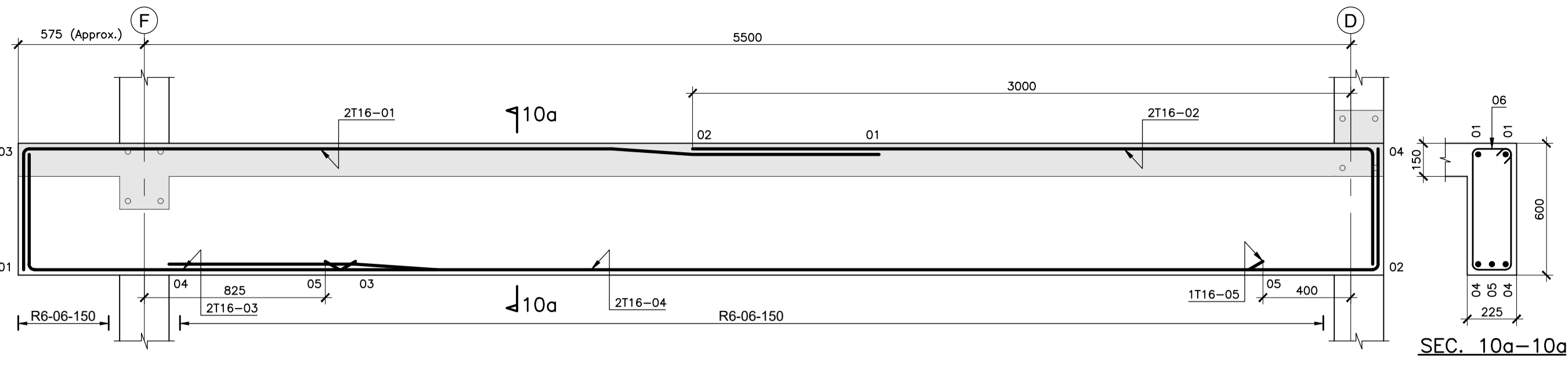
**Consultants:**  
  
**CLEFF CONSULTANTS (PVT) LTD**  
17, Fatima Circular Road, Kapuwatta  
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**Structural Engineer:**

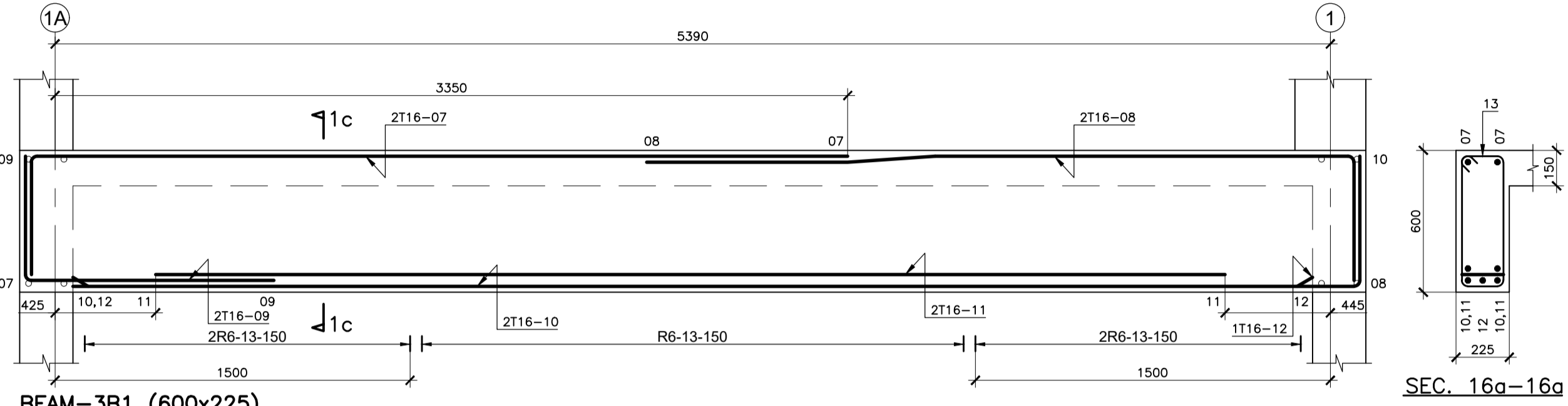
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**Drawing Title:**  
**SECOND FLOOR BEAMS**

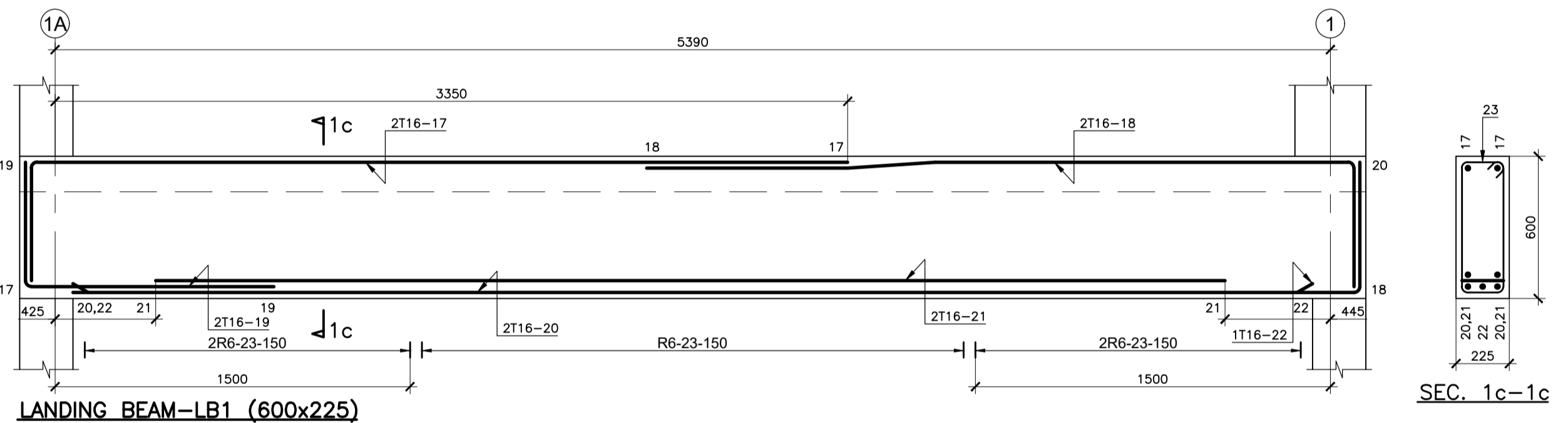
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DATE: 17.05.2021	CHECKED BY: JD
PAPER SIZE: A1	APPROVED BY:
DRG.No: CLEFF/2021/002/ST-11	Revision no: 00



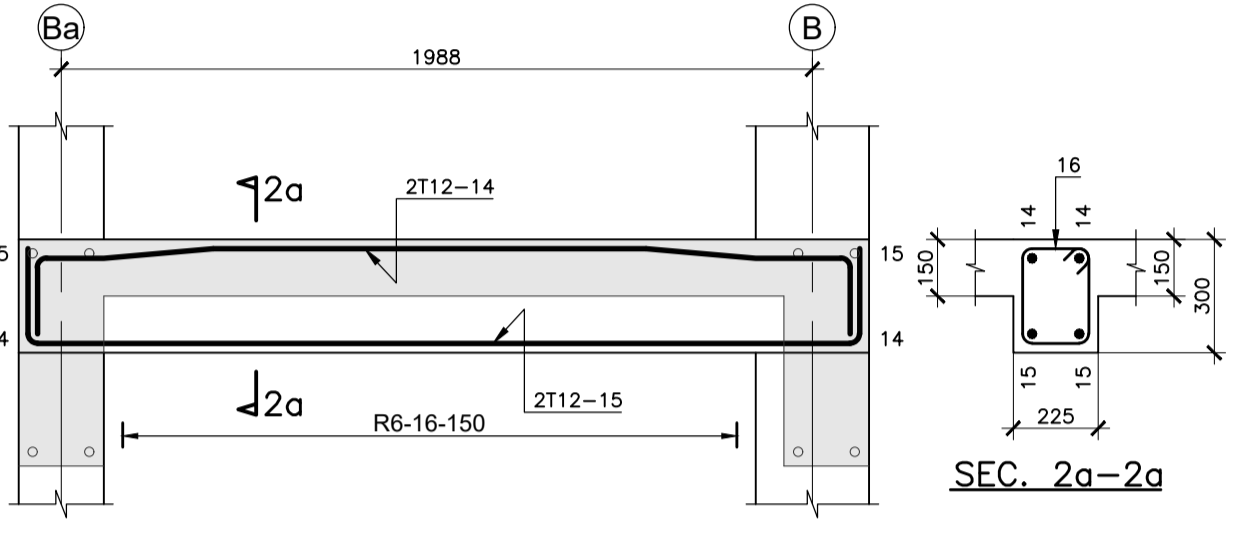
**BEAM-2B10 (600x225)**  
SIMILAR BEAM-2B11



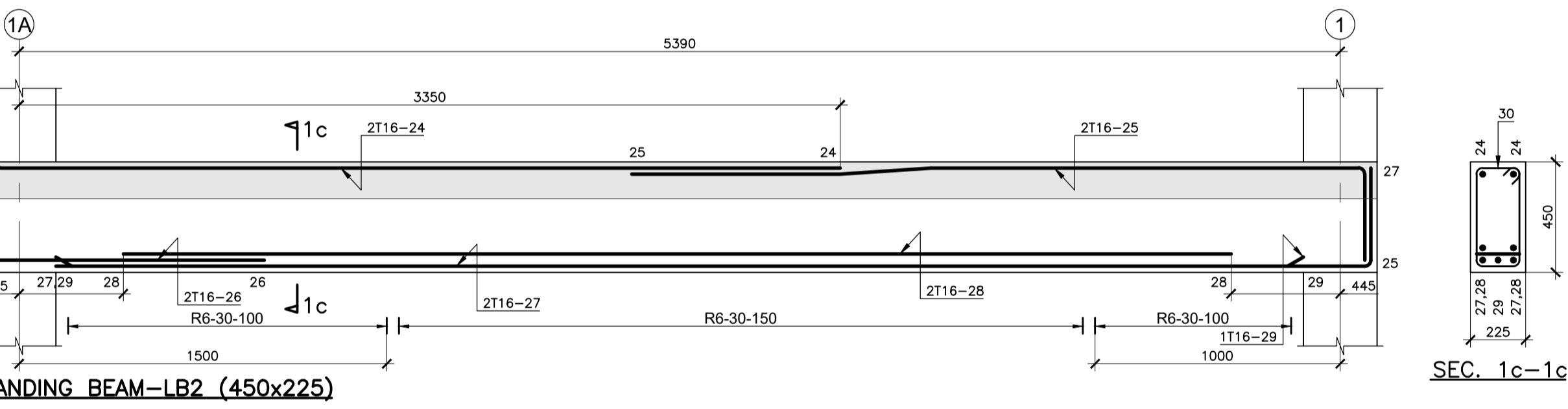
**BEAM-3B1 (600x225)**  
SIMILAR BEAM-3B2



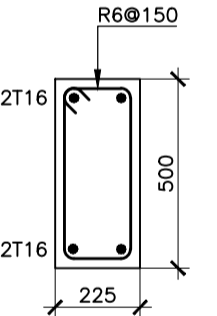
**LANDING BEAM-LB1 (600x225)**



**BEAM-3B1 (300x225)**  
SIMILAR BEAM-3B2



**LANDING BEAM-LB2 (450x225)**



**TYPICAL SECTION OF BEAM-RB1 (ROOF LEVEL BEAM)**

- Notes:**
01. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND SPECIFICATIONS.
  02. MAXIMUM AGGREGATE SIZE NOT GREATER THAN 20mm. INDICATE CONCRETE GRADES TO BE AS FOLLOWS:  
FOUNDATIONS - GRADE 25  
PLINTH BEAMS - GRADE 25  
BEAMS - GRADE 25  
SLABS - GRADE 25
  03. FOR ALL RUBBLE, BLOCK & BRICK WORK USE 1:5 CEMENT, SAND MORTAR.
  04. INDICATED CLEAR COVER TO REINFORCEMENTS TO BE AS FOLLOWS:  
FOUNDATIONS -50mm  
SLABS -25mm  
BEAMS -40mm  
COLUMNS (BELOW GROUND LEVEL) -50mm  
COLUMNS (ABOVE GROUND LEVEL) -40mm
  05. 11T16-05-150B1 TO BE READ AS 11 Nos. HIGH TOR BARS OF 16mm DIA. BEARING IDENTIFICATION NO 06 PLACED AT 150mm CENTERS IN THE BOTTOM LAYER.
  06. MINIMUM LAP IN REINFORCEMENT TO BE 52φ SMALLER BAR DIAMETER (UNLESS SPECIFIED).
  07. THE ABBREVIATIONS:-  
"R"-MILD STEEL OF CHARACTERISTIC STRENGTH 250 N/mm<sup>2</sup> TO BS 4449.  
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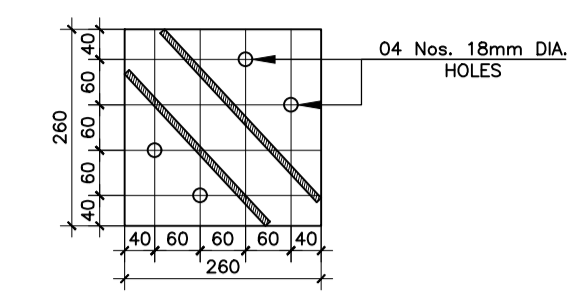
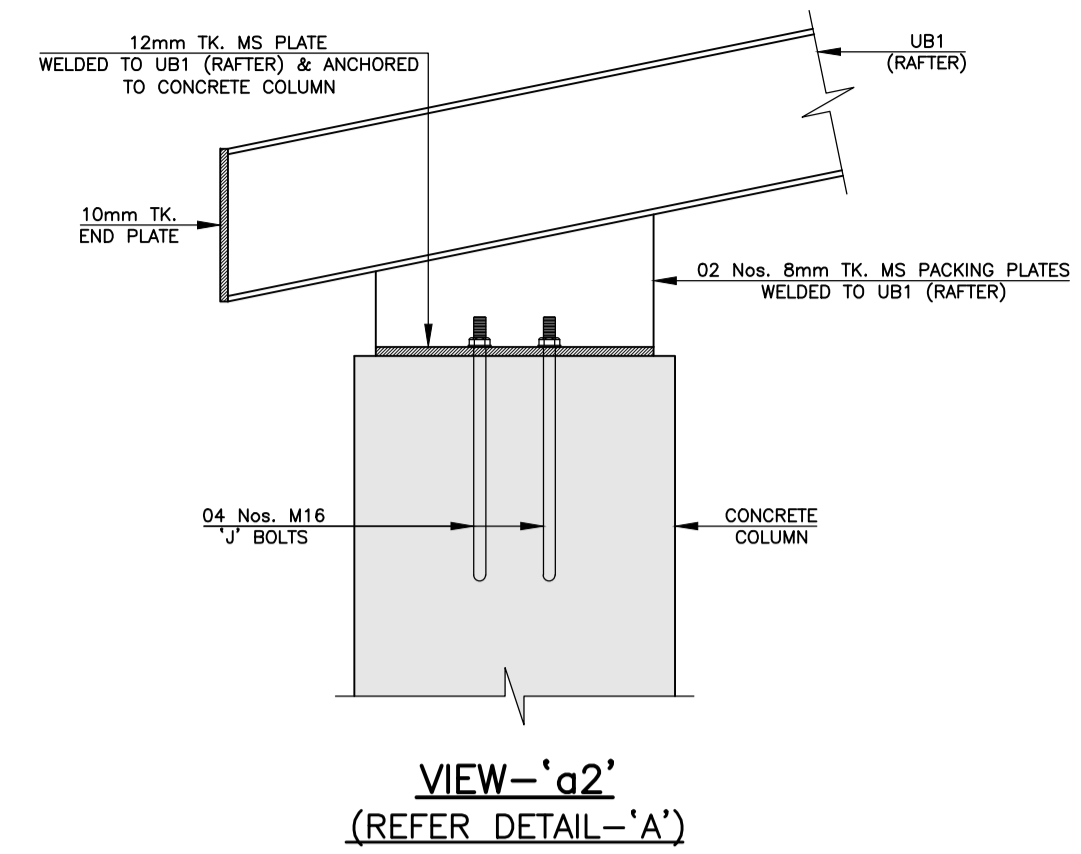
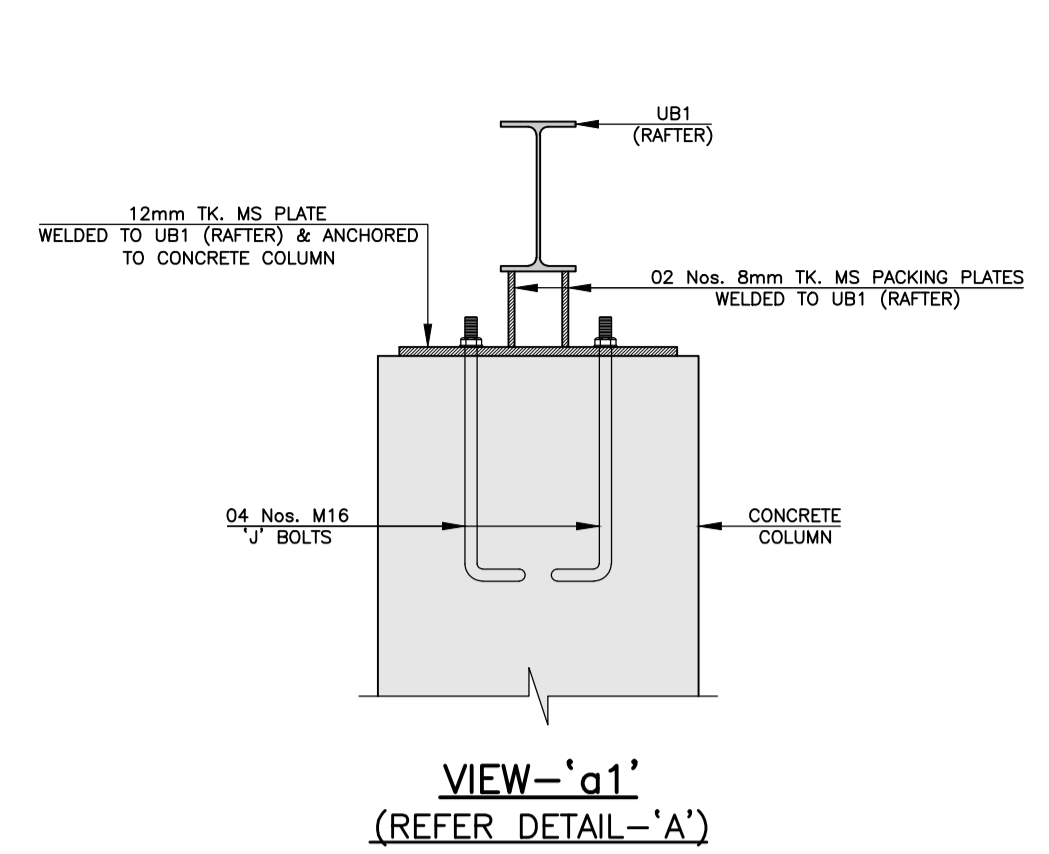
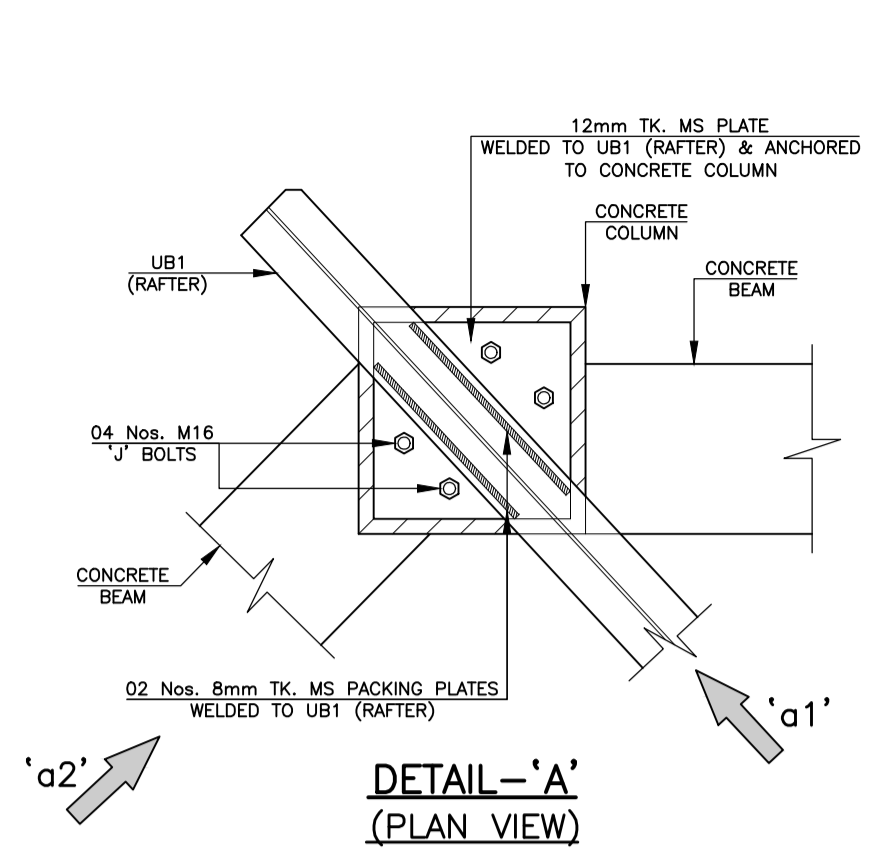
**Structural Engineer:**

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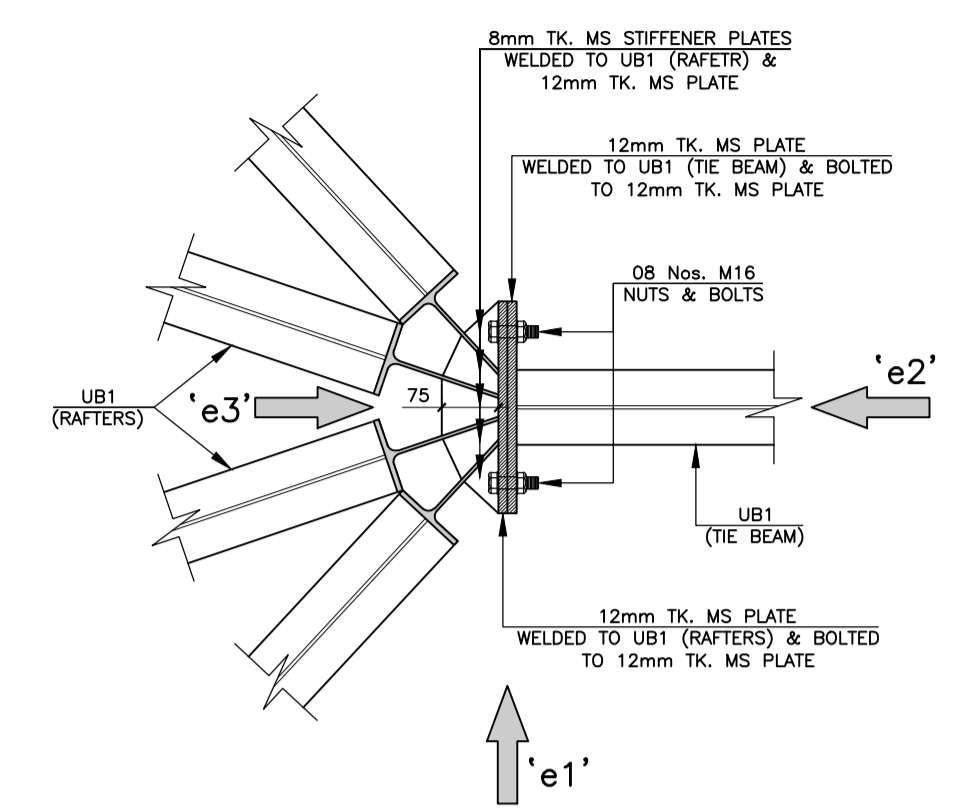
Check all dimensions on site prior to construction. Do not scale drawings. Report any discrepancies. If in doubt, ask. Do not keep superseded drawings on site.

**Drawing Title:**  
**BEAMS**

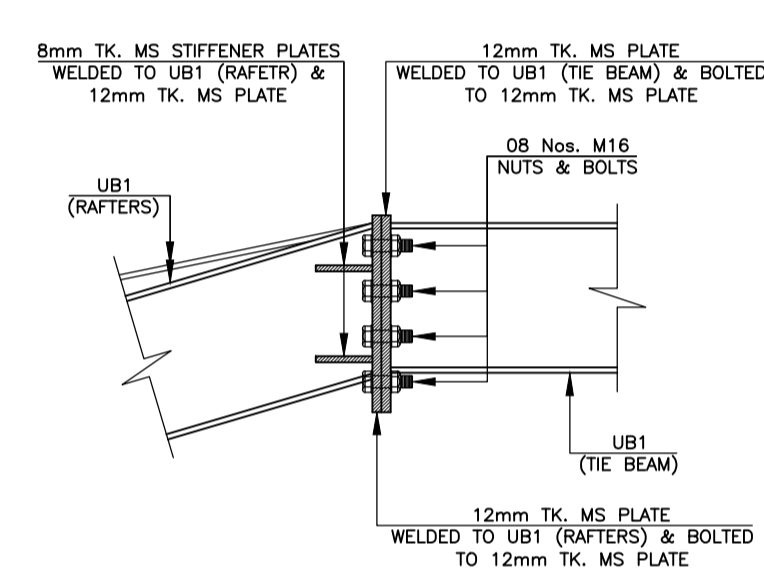
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SCALE: 1:20	CHECKED BY: JD
DATE: 17.05.2021	APPROVED BY:
PAPER SIZE: A1	
DRG.No: CLEF/2021/002/ST-12	Revision no: 00



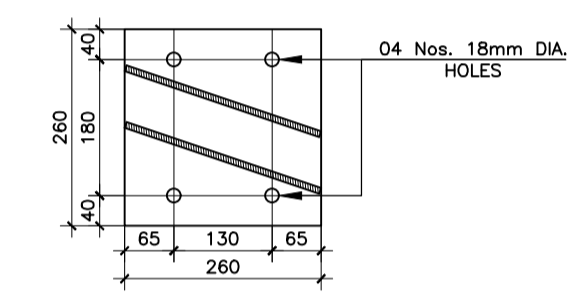
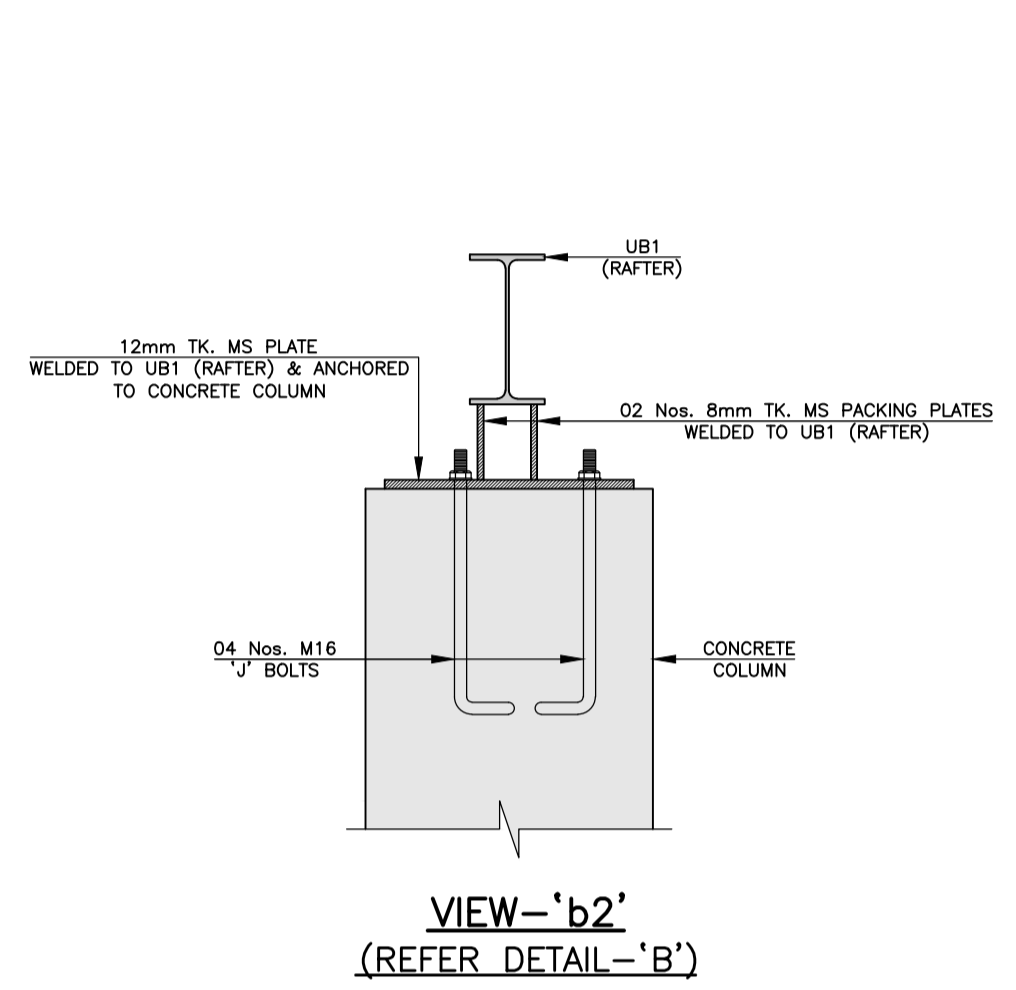
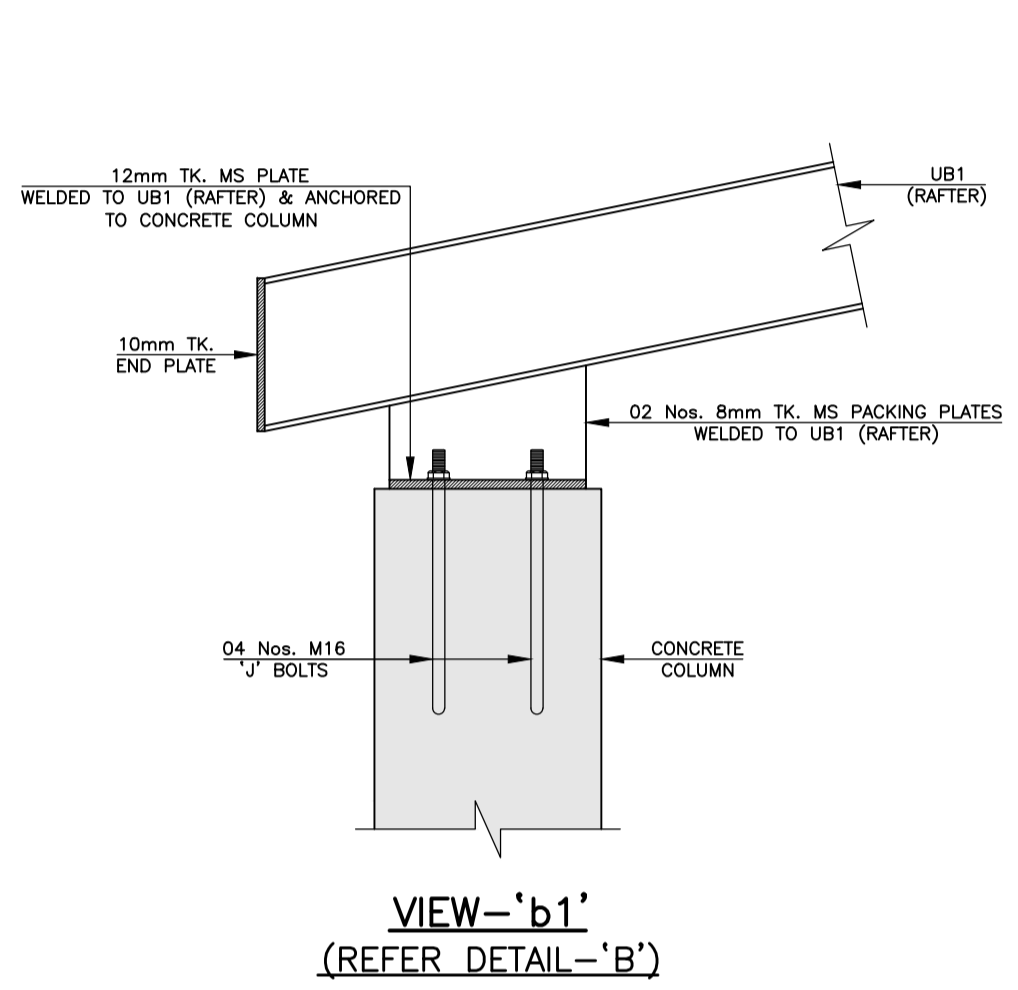
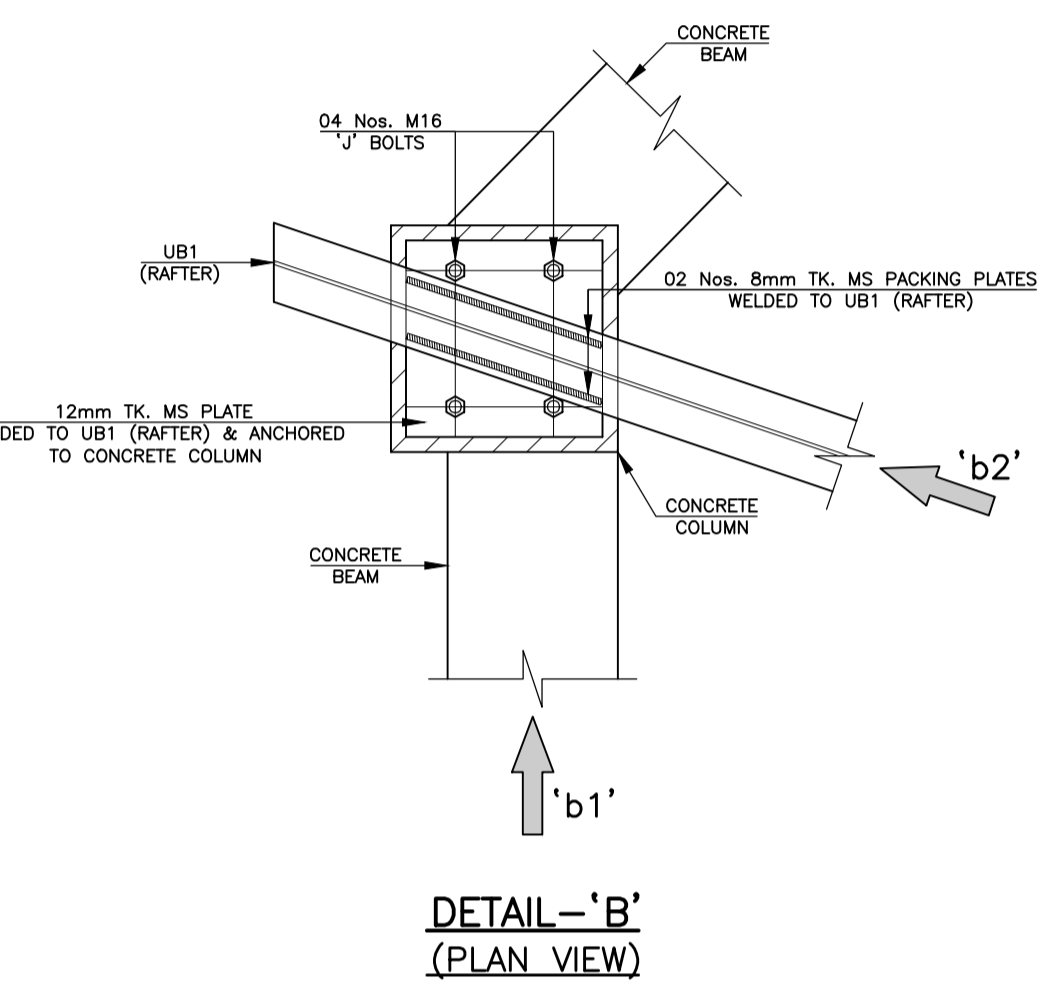
DETAIL OF 12mm TK. MS PLATE (REFER PLAN VIEW-A)



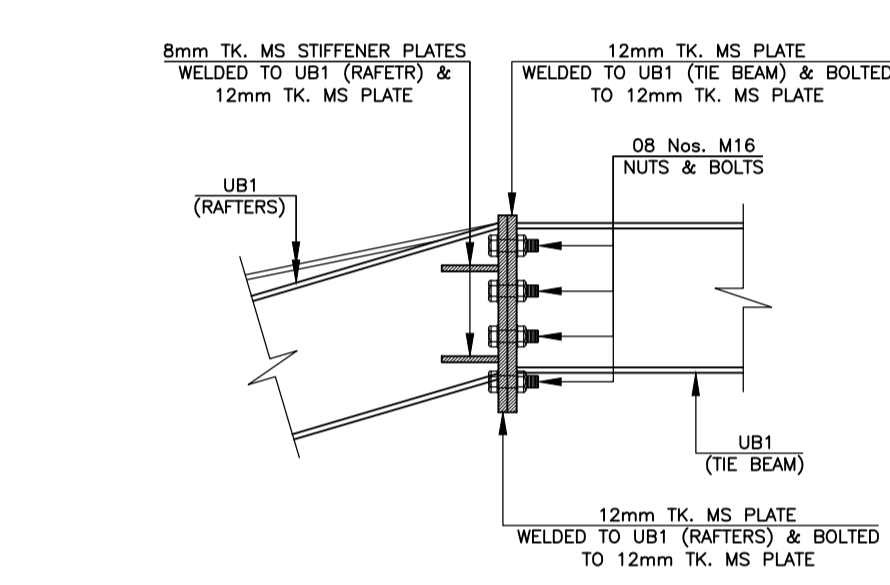
DETAIL-E (PLAN VIEW)



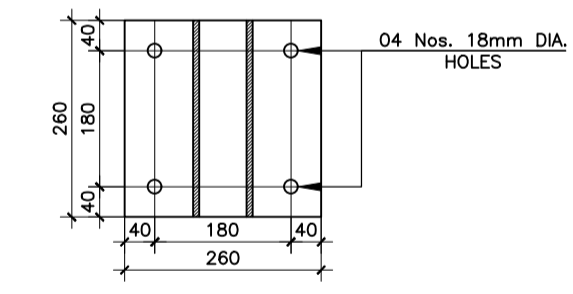
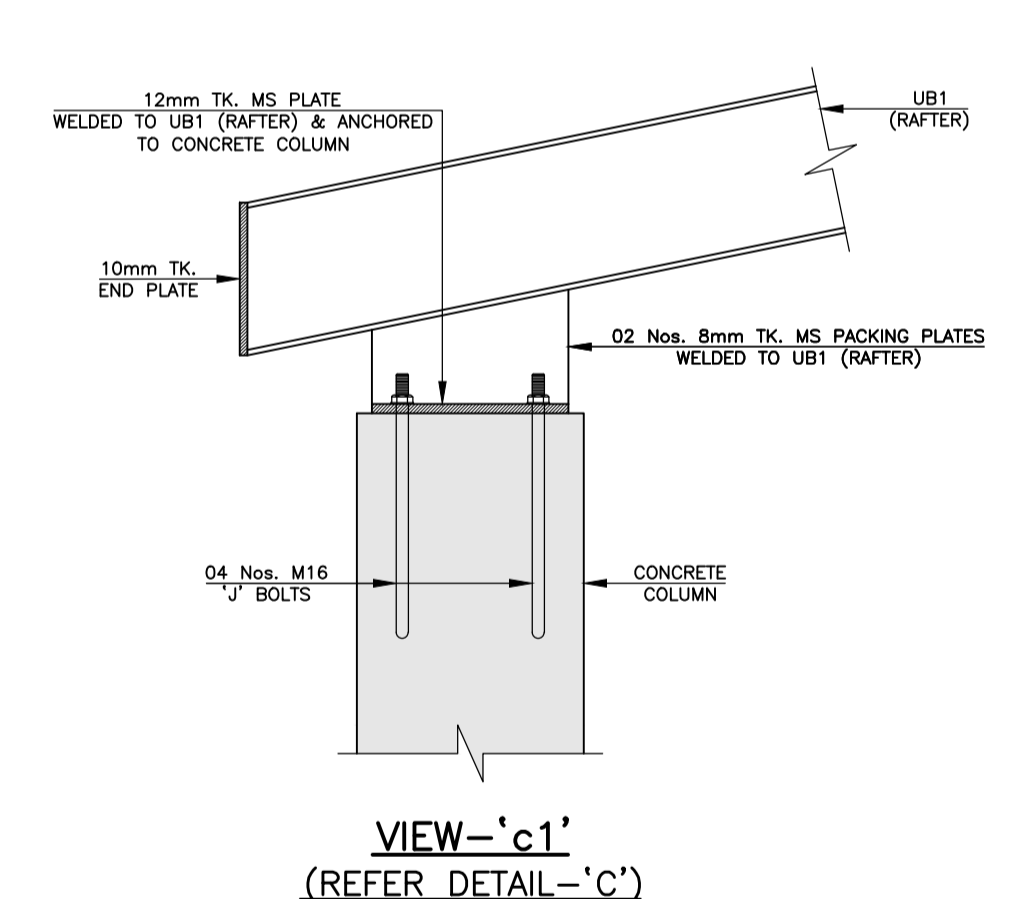
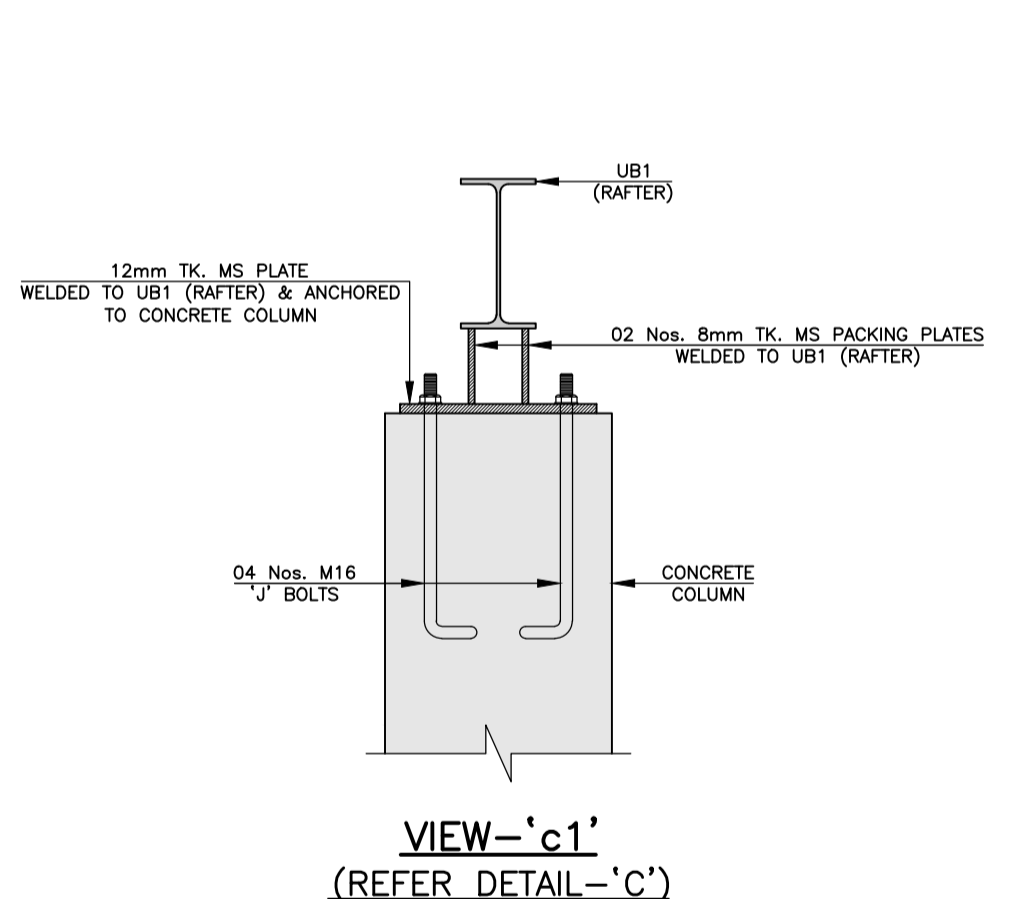
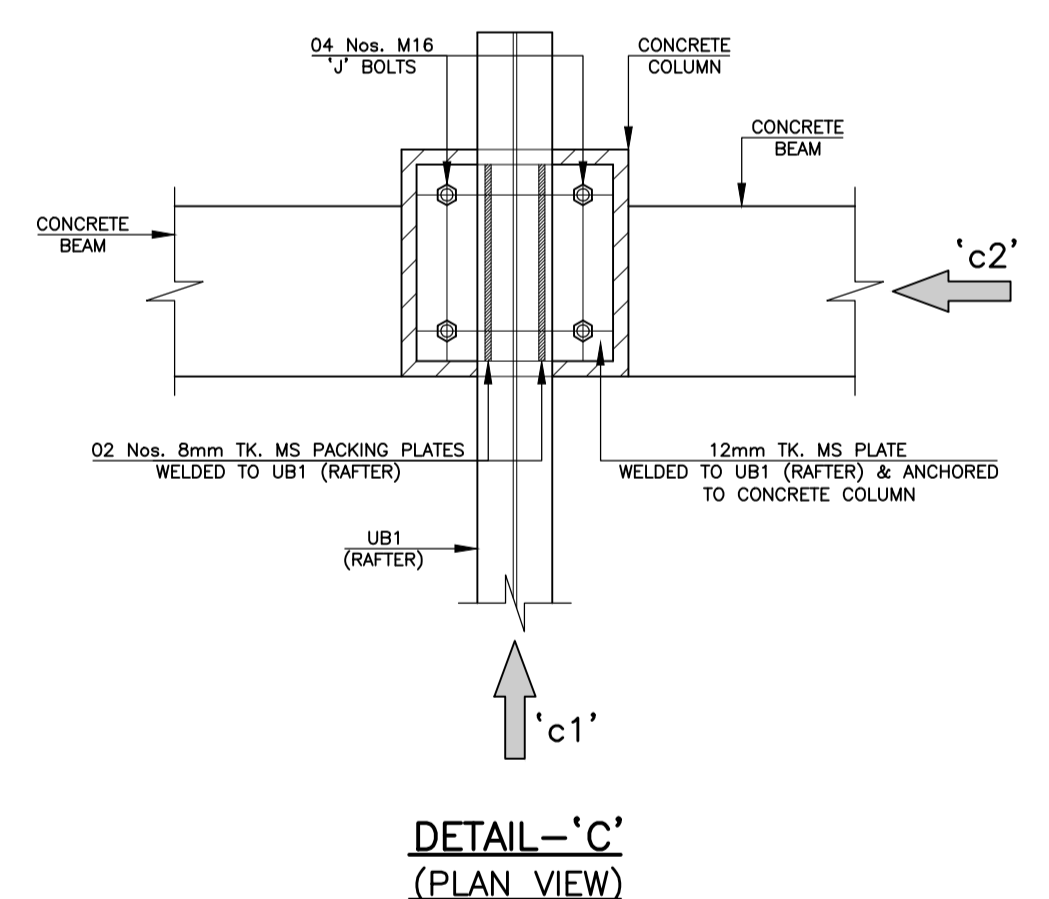
VIEW-e1 (REFER DETAIL-E)



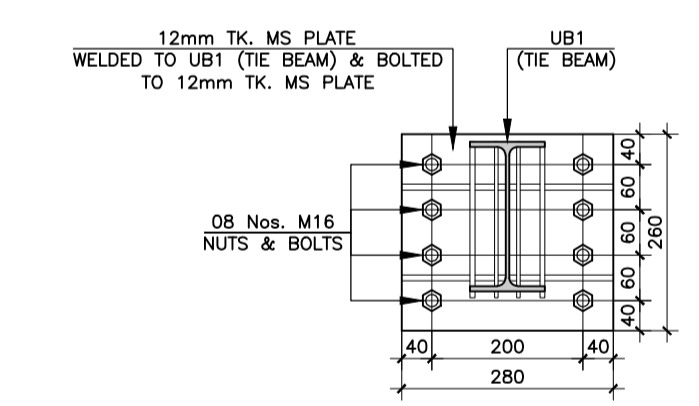
DETAIL OF 12mm TK. MS PLATE (REFER PLAN VIEW-B)



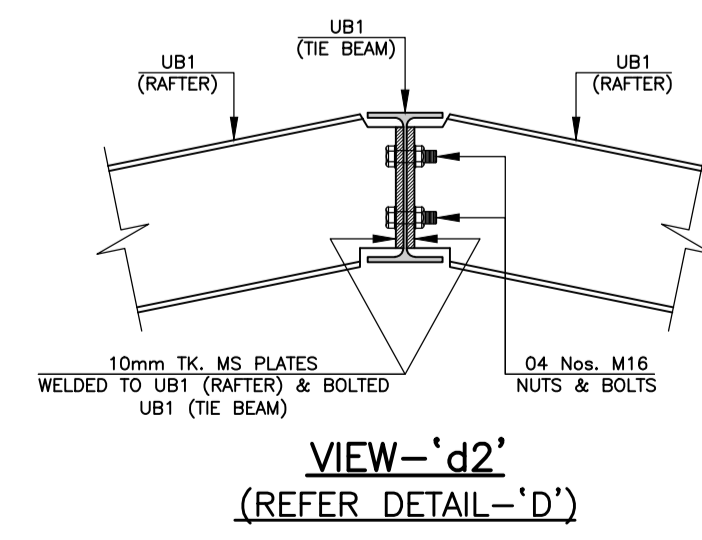
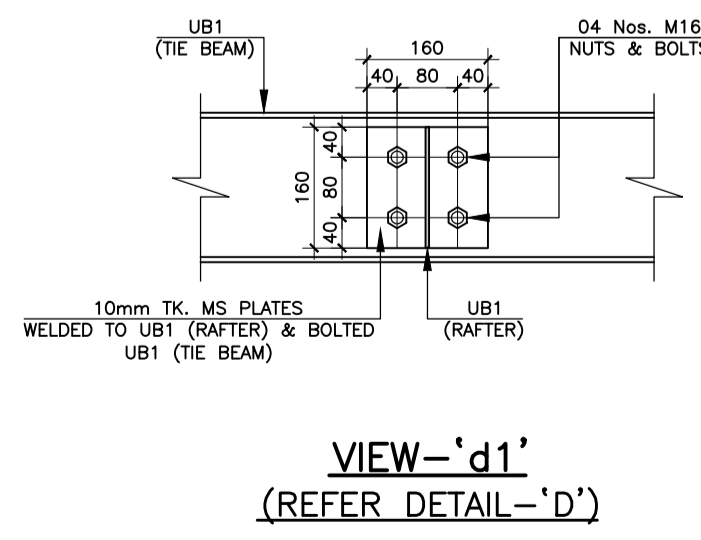
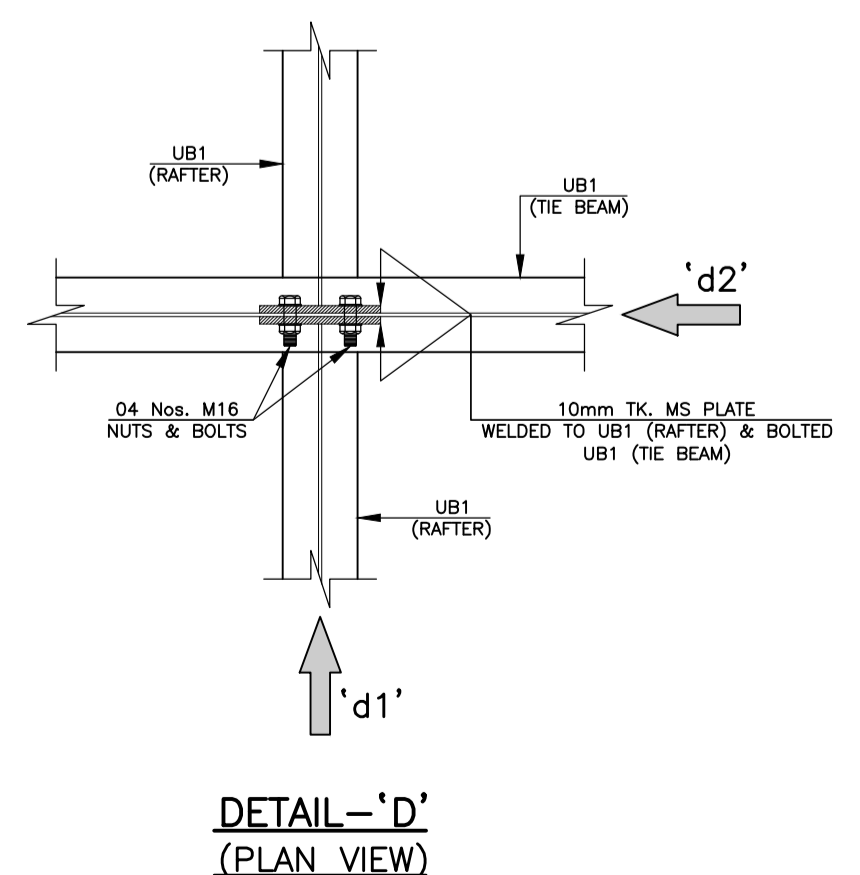
VIEW-e2 (REFER DETAIL-E)



DETAIL OF 12mm TK. MS PLATE (REFER PLAN VIEW-C)



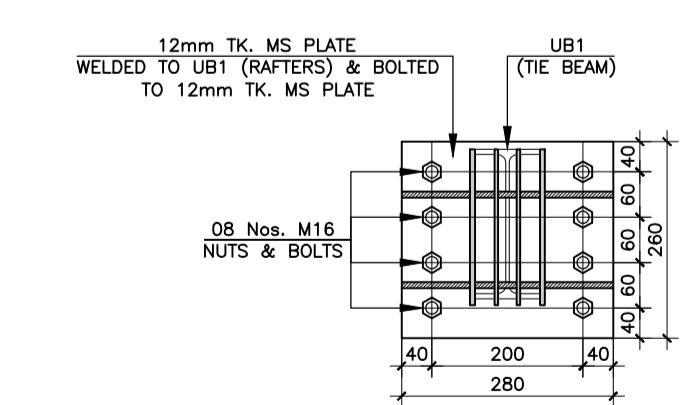
VIEW-e2 (REFER DETAIL-E)



VIEW-d1 (REFER DETAIL-D)

VIEW-d2 (REFER DETAIL-D)

DETAIL-D (PLAN VIEW)



VIEW-e3 (REFER DETAIL-E)

Structural Steel Notes:

- 1 ALL BOLT HOLES TO BE MACHINE DRILLED.
- 2 ALL FILLET WELDS ARE ACCORDING TO STRUCTURAL DRAWINGS AND ARE 8mm TK. CONTINUOUS FILLET WELDS.
- 3 ALL STEEL MEMBERS SHOULD BE PAINTED WITH 'FREEMASTIC G-316' EPOXY PAINT OR APPROVED EQUIVALENT. COLOUR TO ARCHITECT'S SPECIFICATIONS.
- 4 ALL STEEL MEMBERS TO BE GRADE 43 STEEL.
- 5 ALL BOLTS TO BE GRADE 8.8 TO BS 4190. DIMENSIONS ARE GIVEN CENTER TO CENTER UNLESS OTHERWISE SHOWN.
- 6 TECHNICAL DETAILS INCLUDING MILL CERTIFICATES OF BOLTS, NUTS, J-BOLTS, ANCHOR BOLTS ETC. TO BE FORWARDED TO STRUCTURAL CONSULTANT BY CONTRACTOR AT LEAST 2 WEEKS BEFORE ERECTION OF STRUCTURE.
- 7 CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF STEEL STRUCTURE FOR CONSULTANTS APPROVAL AT LEAST 2 WEEKS BEFORE ERECTION OF STRUCTURE.
- 8 CONTRACTOR IS REQUIRED TO PERFORM TESTS TO VERIFIED STRUCTURAL STEEL STRENGTH AT A RECOGNIZED INSTITUTION AS PER ENGINEER'S DIRECTIONS.

Project Title:

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Client:

**SOUTH EASTERN UNIVERSITY OF SRI LANKA**

Consultants:

**Clef**  
Engineering Consultancy  
Construction Project Management  
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Structural Engineer:

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Drawing Title:

**CONNECTIONS**

DESIGNED BY: AM

SCALE: 1:10

DATE: 17.05.2021

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DRAWN BY: TN

CHECKED BY: JD

APPROVED BY:

Revision no:

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