

CONSTRUCTION NOTES

NOTES ON CONCRETE MIXES & PLACING

- UNLESS OTHERWISE INDICATED IN THE PLANS OR NOTED ON THE SPECIFICATIONS, THE MINIMUM 28-DAY CYLINDER COMPRESSIVE STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:

| | | | |
|---|----------|----------|-----|
| 1.1 FOOTING | fc' 3000 | psi 20.7 | MPa |
| 1.2 COLUMNS / RC WALLS / PEDESTAL | fc' 3000 | psi 20.7 | MPa |
| 1.3 R.C. FLOOR BEAMS AND GIRDERS, SUSPENDED SLABS AND STAIRS | fc' 3000 | psi 20.7 | MPa |
| 1.4 PARAPETS AND CURTAIN WALLS, FILLER WALLS AND GUTTER | fc' 3000 | psi 20.7 | MPa |
| 1.5 SLAB ON FILL/GRADE, BEDDED SLABS, PARTITIONS, SIDEWALKS AND PAVEMENTS | fc' 3000 | psi 20.7 | MPa |
| 1.6 RETAINING WALLS, UNDERGROUND, WATER TANK, SEPTIC TANK, SUMP TANK | fc' 3000 | psi 20.7 | MPa |
- CONCRETE SHALL BE IN ITS FINAL POSITION WITHOUT FLOWING. PLACING SHALL BE DONE PREFERABLE WITH BUGGIES, BUCKETS OR WHEEL. NO CHUTES SHALL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES, WHEEL BASKETS OR BUCKETS IN WHICH CASE THEY WILL NOT EXCEED 6100 mm IN AGGREGATE LENGTH.
- NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS OTHERWISE IN WRITING BY THE DESIGNERS AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.
- PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR TYPE II, LOW ALKALI.
- AGGREGATE FOR HARDROCK CONCRETE - C-33. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
- FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL MAINTAIN A LOG OF STRUCTURAL SLAB ELEVATIONS BASED ON THE ARCHITECTURAL DRAWINGS PLUS THE ADDITION OF ANY CAMBERS INDICATED ON THE CONSTRUCTION DOCUMENTS. THIS LOG SHALL INDICATE SKEWED ELEVATIONS PRIOR TO THE CONCRETE POUR, AND TOP OF CONCRETE SLAB PRIOR TO REMOVAL OF FORMS.
- THE CONCRETE SLAB THICKNESS SHALL BE MAINTAINED UNLESS OTHERWISE SHOWN.
- DRY PACK OR NON-SHRINK GROUT UNDER BASEPLATES, SILL PLATES, ETC., SEE CONTRACT DOCUMENTS.
- CONCRETE MIXING OPERATION, ETC., SHALL CONFORM TO C-94.
- PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 304 AND CONTRACT DOCUMENTS. SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
- ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
- CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED ONE THIRD OF SLAB THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF CONDUITS OR PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED.
- PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 19MM CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.
- CURING COMPOUNDS USED ON CONCRETE TO RECEIVE A FINISH SHALL BE APPROVED BY THE FINISH APPLICATOR BEFORE USE.

NOTES ON REINFORCING STEEL

- UNLESS OTHERWISE SPECIFIED IN THE PLANS, THE MINIMUM YIELD STRENGTH OF REINFORCEMENT TO BE USED CORRESPONDING TO THE STRUCTURAL MEMBER SHALL BE AS ENUMERATED BELOW:

| GRADE | BAR DIAMETER |
|-----------------------|-----------------------------|
| GRADE 414 (fy=60 ksi) | 16, 20, 25, 28, 32, MM DIA. |
| GRADE 276 (fy=40 ksi) | 10, 12, MM DIA. |
| GRADE 230 (fy=33 ksi) | SMALLER THAN 10 MM DIA. |

- ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-318), AND THE MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION BY THE W.C.S.I. AND THE W.C.R.S.I., OR AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
- WELDING OF REINFORCEMENT SHALL BE WITH LOW HYDROGEN ELECTRODES IN CONFORMANCE WITH RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL ETC. AMERICAN WELDING SOCIETY, AWS-D14.
- ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 152.4MM, OR ONE FULL MESH PLUS 50.8mm, WHICHEVER IS GREATER.
- DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE AND SPACING AS THE VERTICAL REINFORCING, RESPECTIVELY, UNLESS NOTED OTHERWISE.
- ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.

NOTES ON MASONRY

- CONCRETE BLOCK SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO C90 GRADE N, NORMAL WEIGHT. USE UNITS OPEN ONE END, AND BOND BEAM UNITS AT HORIZONTAL REINFORCING.
- CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.
- MORTAR MIX SHALL CONFORM TO REQUIREMENTS FOR TYPE S AND PROJECT SPECIFICATIONS. MORTAR SHALL ATTAIN A COMPRESSIVE STRENGTH OF 12.4 MPA AT 28 DAYS. ADMIXTURE SHALL BE SIKA RED LABEL.
- GROUT SHALL CONFORM TO REQUIREMENTS FOR COARSE GROUT. GROUT SHALL ATTAIN A COMPRESSIVE STRENGTH OF 13.8 MPA AT 28 DAYS. ADMIXTURE SHALL BE SIKA GROUT AID OR EQUAL.
- ADMIXTURES SHALL BE ADDED TO MORTAR OR GROUT RESPECTIVELY PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE A MINIMUM OF ONE BAR DIAMETER (330 MM MINIMUM) GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.
- LOW-LIFT CONSTRUCTION; MAXIMUM GROUT POUR HEIGHT IS 1219 MM.
- HIGH-LIFT GROUTED CONSTRUCTION MAY BE USED IN CONFORMANCE WITH CHAPTER 24 OF THE GOVERNING CODE.
- ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, UNLESS NOTED OTHERWISE.
- CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.
- REFER TO ARCHITECTURAL DRAWING FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE.
- ASSUMED ULTIMATE COMPRESSIVE STRENGTH OF COMPLETED MASONRY WALL IS 10.34 MPA U.M.O.

NOTES ON STEEL

- ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATION FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS (1989 WITH LATEST REVISIONS).
- ALL STRUCTURAL STEEL FOR SHAPE, PIPES, ANGLES, AND RODS SHALL CONFORM TO ASTM A36 (LATEST REVISION).
- ALL BOLTED CONNECTIONS SHALL BE MADE USING HIGH STRENGTH BOLTS, NUTS AND WASHERS CONFORMING TO ASTM A325, TYPE "N" CONNECTIONS UNLESS APPROVED OTHERWISE. THE MINIMUM NUMBER OF BOLTS PER CONNECTION IS TWO.
- BOLTED CONNECTIONS FOR BEAMS/PURLINS SHALL BE DESIGNED TO SUPPORT HALF OF THE TOTAL UNIFORM LOAD CAPACITY AS GIVEN BY THE AISC UNIFORM LOAD CAPACITY AS GIVEN BY THE AISC MANUAL OF STEEL CONSTRUCTION (13TH EDITION).
- WELDED CONNECTIONS AT ENDS OF TENSIONS OR COMPRESSION MEMBERS SHALL BE DESIGNED TO DEVELOP THE FULL CAPACITY OF THE SECTION.
- COMPRESSION MEMBERS OR PLATES TRANSMITTING COMPRESSION FORCES TO BEARING PLATES SHALL BE MILLED FOR FULL BEARING.

- COMPRESSION MEMBERS OR PLATES TRANSMITTING COMPRESSION FORCES TO BEARING PLATES SHALL BE MILLED FOR FULL BEARING.
- WELDING PROCEDURES AND MATERIALS SHALL BE IN ACCORDANCE WITH AWS D1.1 (LATEST REVISIONS) "STRUCTURAL WELDING CODE". WELDING ELECTRODES SHALL BE E 70XX.
- WORK POINT DIMENSIONS SHALL BE LOCATED WITHIN ± 1/4 INCH OF LOCATION SHOWN IN DRAWINGS, ANY CHANGE IN STRUCTURAL GEOMETRY RESULTING IN A MEMBER WHOSE LENGTH CHANGES BY MORE THAN 5 PERCENT SHALL REQUIRE APPROVAL BY THE ENGINEER.
- ALL DIMENSIONS IN THE PLANS SHALL BE VERIFIED BY THE FABRICATOR IN THE FIELD IN COORDINATION WITH THE GENERAL CONTRACTOR.
- ALL CONNECTION DETAILS SHOWN ARE CONCEPTUAL DESIGN AND OF CONNECTION DETAILS IS THE RESPONSIBILITY OF THE FABRICATOR
- MATERIAL OR WORKMANSHIP NOT IN REASONABLE CONFORMANCE WITH PROVISIONS OF THIS SPECIFICATION MAY BE REJECTED AT ANY TIME DURING THE PROGRESS OF WORK.
- SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION WORKS. FABRICATION MUST NOT START UNLESS SHOP DRAWING HAVE BEEN APPROVED.
- ALL STRUCTURAL STEEL MEMBERS SHALL BE APPLIED WITH RED LEAD PRIMER OR ANY EQUIVALENT BRAND. (2 COATS)

GENERAL NOTES:

- Special tie (ACI Sec. 21.3.3.2) shall be a minimum of: $d/4$, 8 x bar dia., 24 x tie dia. or 12"
- Extent of special ties (ACI Sec. 21.4.4.4) above footing shall be a minimum of: $1/6 \times$ (clear column height), depth of column dimension or 18" for zone 2. A minimum of: 8 x bar dia., 24 x tie dia., $1/2$ minimum column dimension or 12" for frames in seismic zone 2. Column tie shall be continued in a joint where confinement is not provided. (ACI Sec. 21.3.3.2)
- Extent of column ties (ACI Sec. 21.4.4.5) within footings shall be a minimum of 12".
- Contractor shall check rebar arrangement at all members joints, including column-footing joints, to ensure adequate clearances for placement of rebar and casting of concrete. This is very critical particularly when orthogonal beams and grade beams are present. Adjust rebar sizes, spacing and concrete dimensions as needed to facilitate proper construction.
- ALL DETAILS SHALL CONFORM TO ACI 318-11, UBC 97 AND ACI 315.

| BAR SIZE (mm) | $f_c = 21 \text{ MPa}$ (3000 psi) | | $f_c = 28 \text{ MPa}$ (4000 psi) | |
|---------------|--------------------------------------|----------------|--------------------------------------|----------------|
| | TOP BARS (mm) | BOT. BARS (mm) | TOP BARS (mm) | BOT. BARS (mm) |
| 100 | 380 | 300 | 300 | 300 |
| 120 | 680 | 520 | 530 | 410 |
| 160 | 910 | 700 | 700 | 540 |
| 200 | 1140 | 870 | 880 | 680 |
| 250 | 1780 | 1370 | 1370 | 1060 |
| 280 | 1990 | 1530 | 1540 | 1180 |
| 320 | 2270 | 1750 | 1760 | 1350 |
| 360 | 2560 | 1970 | 1980 | 1520 |

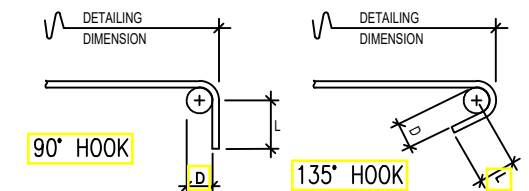
| BAR SIZE (mm) | $f_c = 21 \text{ MPa}$ (3000 psi) | $f_c = 28 \text{ MPa}$ (4000 psi) |
|---------------|--------------------------------------|--------------------------------------|
| 100 | 300 | 300 |
| 120 | 350 | 350 |
| 160 | 460 | 460 |
| 200 | 580 | 580 |
| 250 | 720 | 720 |
| 280 | 810 | 810 |
| 320 | 930 | 930 |
| 360 | 1040 | 1040 |

DEVELOPMENT OF BUNDLED BARS

- Development length of individual bars within a bundle, in tension or compression, shall be that for the individual bar, increased 20% for three-bar bundle, and 33% for four-bar bundle.
- Individual bar splices within a bundle shall not overlap.
- Entire bundles shall not be lap spliced.
- Bars spliced by noncontact lap splices in flexural members shall not be spaced transversely farther apart than one-fifth the required lap splice length nor 150mm.
- Splices shall be staggered at least 600mm.

ABBREVIATIONS:

| | |
|------|---------------------------------|
| TB | - TOP BARS |
| BB | - BOTTOM BARS |
| EW | - EACH WAY |
| EF | - EACH FACE |
| CJ | - CONSTRUCTION JOINT |
| EJ | - EXPANSION JOINT |
| WWF | - WELDED WIRE FABRIC |
| MH | - MANHOLE |
| JT | - JOINT |
| ELEV | - ELEVATION |
| TOC | - TOP OF CONCRETE |
| TOS | - TOP OF STEEL |
| CLJ | - CONTROL JOINT |
| PJF | - PREMOULDED JOINT FILLER |
| TYP | - TYPICAL |
| BW | - BOTHWAYS |
| BF | - BOTHFACE |
| CLR | - CLEAR |
| OC | - ON CENTER |
| CL | - CENTERLINE |
| TC | - TOP CHORD |
| BC | - BOTTOM CHORD |
| WM | - WEB MEMBER |
| IE | - INVERT ELEVATION |
| RCP | - REINFORCED CONCRETE PIPE |
| CB | - CATCH BASIN |
| HP | - HIGH POINT OF GRADE OR PAVING |
| FFL | - FINISH FLOOR LINE |
| NGL | - NATURAL GRADE LINE |
| BOF | - BOTTOM OF FOOTING |
| VB | - VERTICAL BARS |
| HB | - HORIZONTAL BARS |



| BAR DIAMETER (mm) | d (mm) | L (mm) | | |
|-------------------|--------|--------|---------|----------|
| | | TYPE I | TYPE II | TYPE III |
| 10 | 40 | 60 | 60 | 75 |
| 12 | 48 | 72 | 72 | 75 |
| 16 | 64 | 96 | 96 | 96 |

NOTE: TYPE I FOR GENERAL USE

| | | | | | | |
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| Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505 | CONSTRUCTION OF DORMITORY BUILDING I | <u>PLANNING TEAM</u> | <u>Meriam F. Fallar</u> FAD Chief | <u>Edward C. Albaracin</u> Campus Director | As Shown | S |
| | Location: Brgy. Rizal, Odiongan Romblon 5505 | Date Prepared: | Date: | Date: | | 1 11 |

MINIMUM CLEAR SPACING BETWEEN REBARS "C"

| BAR SIZE | SINGLE BAR | TWO BAR BUNDLE | THREE BAR BUNDLE |
|---------------------------|------------|----------------|------------------|
| 25mm# | 25mm | 36mm | 44mm |
| 32mm# | 32mm | 46mm | 55mm |
| 36mm# | 36mm | 50mm | 62mm |
| MINIMUM "C" SHALL BE 25mm | | | |

* CONCRETE COVER SHALL BE 75mm IF CONCRETE IS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH

REMOVAL OF FORMS & SHORINGS

| STRUCTURAL ELEMENTS | CLEAR SPAN BETWEEN SUPPORTS | MINIMUM TIME PERIOD (DAYS) |
|---|-----------------------------|----------------------------|
| WALLS, COLUMNS, BEAMS, GIRDER SIDES & SLAB ON GRADE | — | 1 |
| | UNDER 3.00 M. | 7 |
| | 3.00 M. to 6.00 M. | 14 |
| JOIST, BEAMS & GIRDER SOFFIT | UNDER 3.00 M. | 4 |
| | 3.00 M. to 6.00 M. | 7 |
| ONE - WAY FLOOR SLABS | UNDER 3.00 M. | 4 |
| | 3.00 M. to 6.00 M. | 7 |
| | OVER 6.00 M. | 10 |

CONCRETE TOLERANCES

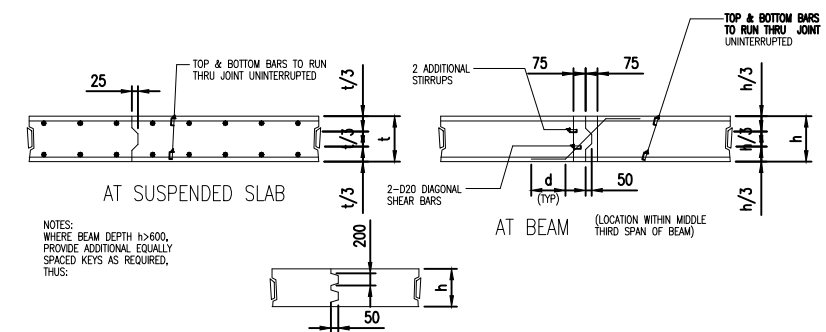
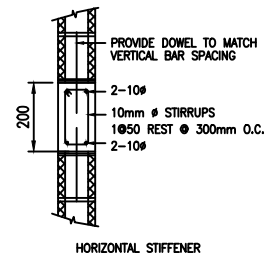
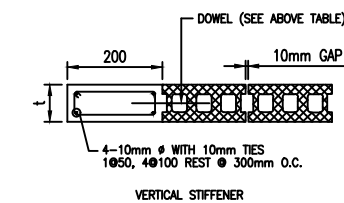
- | | |
|---|---------------------------|
| 1. CROSS SECTIONAL DIMENSIONS & LOCATION TO REINFORCEMENTS | MAXIMUM TOLERANCES |
| DIMENSION LESS THAN 200mm | = ± 6mm |
| 200mm to 600mm | = ± 9mm |
| 2. MEMBER LENGTH or HEIGHT OVER 600mm | = ± 12mm |
| 3. DEVIATION FROM STRAIGHT MAXIMUM LIMITATION | = ± 12mm per 3.00 M. |
| 4. LOCATION OF BAR CUT-OFFS* (SWEEP AND / OR PLUMBNESS) OR BENDS | = ± 24mm |
| | = ± 12mm per 3.00 M. |
| | = ± 50mm |

CAMBER REQUIREMENT

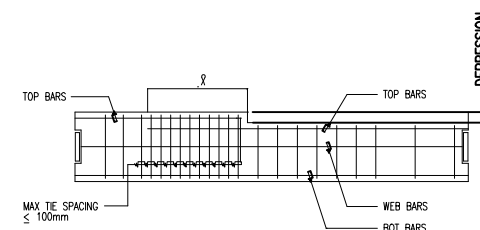
| ELEMENT | MINIMUM CAMBER |
|-----------------------|-----------------------------------|
| R.C. BEAMS | 6mm FOR EVERY 4.50M. SPAN |
| CANTILEVER R.C. BEAMS | 18mm FOR EVERY 3.00M. SPAN |
| R.C. SLABS | 3mm FOR EVERY 3.00M. SHORTER SPAN |

- ALL CONCRETE SHALL BE MOIST CURED FOR A PERIOD NOT LESS THAN SEVEN (7) CONSECUTIVE DAYS BY AN APPROVED METHOD OR COMBINATION APPLICABLE TO LOCAL CONDITIONS. THE CONTRACTOR SHALL HAVE ON HAND ALL EQUIPMENT NEEDED FOR ADEQUATE CURING AND PROTECTION OF CONCRETE AND SHALL BE READY TO START THE CURING PROCESS IMMEDIATELY FOLLOWING THE REMOVAL OF FORMS.
- THE SURFACE OF THE CONCRETE SHALL BE KEPT CONTINUOUSLY WET BY COVERING WITH WATER, BY CONTINUOUS SPRAYING, OR BY COVERING WITH BURLAP OR OTHER APPROVED MATERIALS THOROUGHLY SATURATED WITH WATER AND KEEPING THE COVERING WET BY SPRAYING OR INTERMITTENT HOSEING. WATER FOR CURING SHALL BE GENERALLY CLEAN & FREE FROM ANY ELEMENTS WHICH MIGHT CAUSE OBJECTIONABLE STAINING OR DISCOLORATION OF THE CONCRETE.
- IN ANY CASE, A WET SUSPENDED FLOOR SHOULD BE CARRIED BY AT LEAST TWO-DRY SUSPENDED FLOOR BELOW.

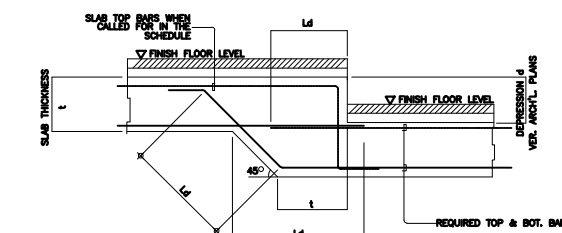
CHB STIFFENER DETAILS
 - VERTICAL STIFFENERS SHOULD BE PROVIDED @ 3000mm O.C. MAXIMUM.
 - HORIZONTAL STIFFENERS SHOULD BE PROVIDED @ 6000mm O.C. MAXIMUM.



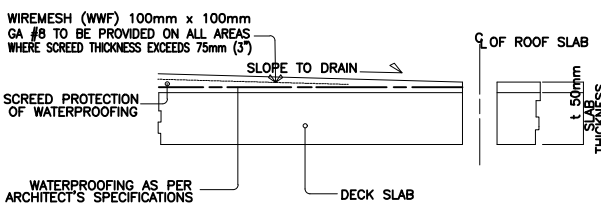
1 TYPICAL CONSTRUCTION JOINT DETAIL
 S2 SCALE NTS



2 TYPICAL BEAM DETAIL AT DEPRESSION
 S2 SCALE NTS



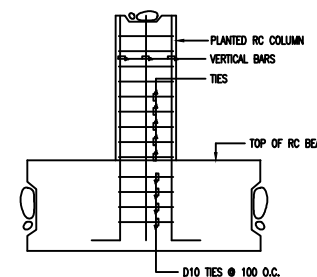
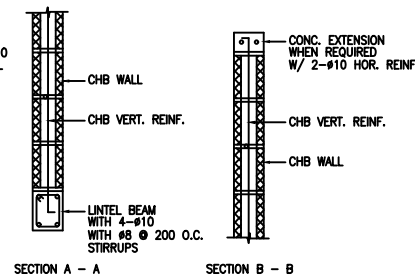
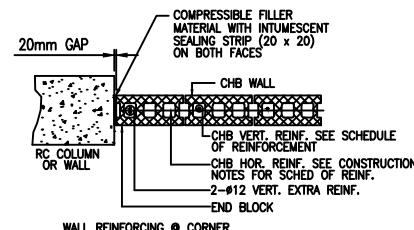
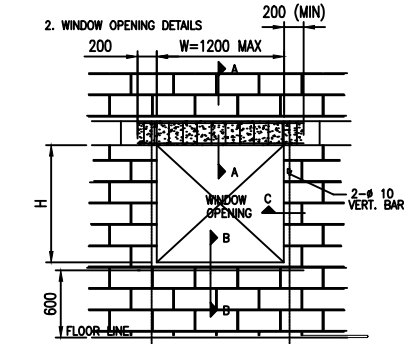
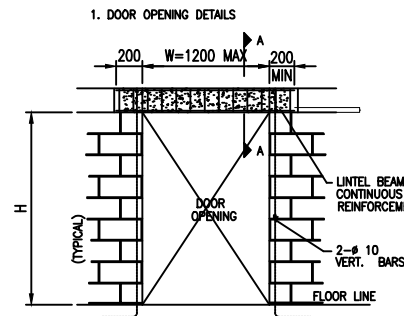
3 TYPICAL SLAB DEPRESSION DETAIL
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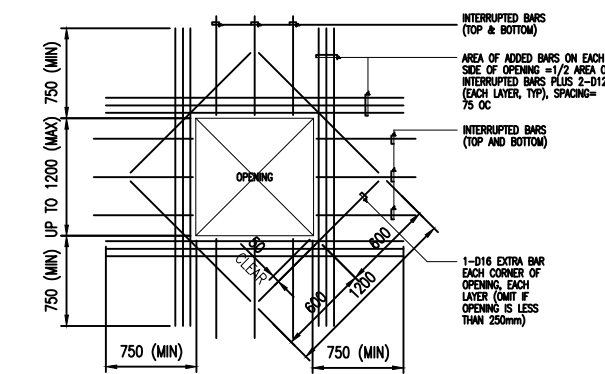
NOTES :

- ALTERNATIVE SCHEME OF WATERPROOFING MAY BE PRESENTED SUBJECT TO ARCHITECT'S & ENGINEER'S APPROVAL
- WATER STOPS SHALL BE PROVIDED ON AREAS SPECIFIED BY THE ARCHITECT'S / ENGINEERS
- ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED & ROUGHENED BEFORE PLACING FRESH CONCRETE

CHB WALL OPENING DETAILS



4 TYPICAL PLANTED RC COLUMN DETAIL
 S2 SCALE NTS



5 DETAIL @ SLAB OPENINGS
 S2 SCALE NTS

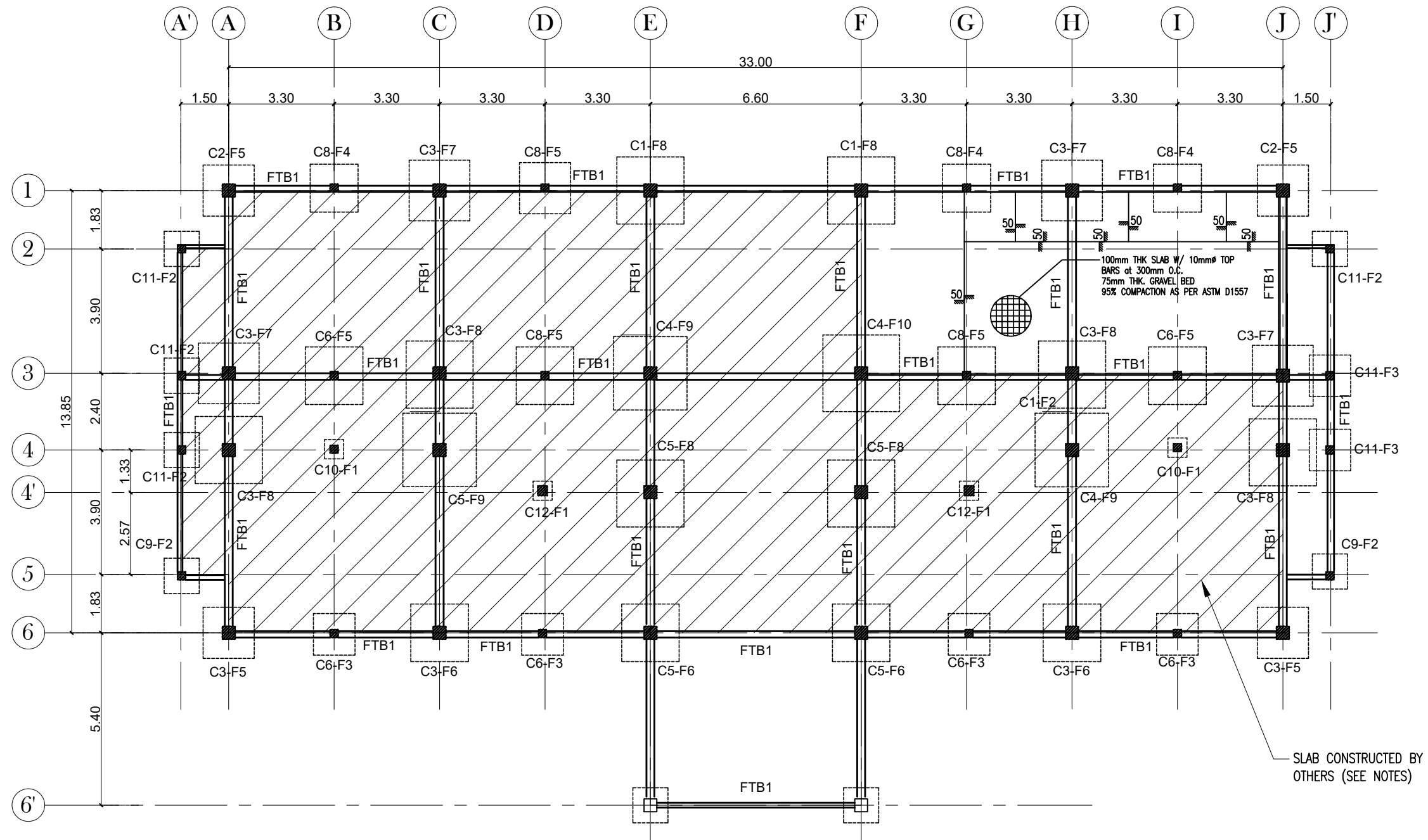
CONCRETE PROTECTION FOR REINFORCEMENT

CAST-IN-PLACE CONCRETE (NONPRESTRESSED)

The following minimum concrete cover shall be provided for reinforcement:

| | Minimum Cover (mm) |
|--|--------------------|
| A. Concrete cast against and permanently exposed to earth..... | 75 |
| B. Concrete exposed to earth or weather: | |
| No. 19 through No. 56 | 50 |
| No. 16 bar, W31 or D31 wire, and smaller | 40 |
| C. Concrete not exposed to weather or in contact with ground: | |
| Slabs, walls, joists: | |
| No. 44 and No. 56 bars | 40 |
| No. 36 bar and smaller | 20 |
| Beams, columns: | |
| Primary reinforcement, ties, stirrups, spirals | 40 |
| Shells, folded plate members: | |
| No. 19 bar and larger | 20 |
| No. 16 bar, W31 or D31 wire, and smaller | 12 |


| | | | | | | |
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| | CONSTRUCTION OF DORMITORY BUILDING I | PLANNING TEAM | Meriam F. Fallar FAD Chief | Edward C. Albaracin Campus Director | As Shown | S |
| | Location: Brgy. Rizal, Odiongan Romblon 5505 | Date Prepared: | Date: | Date: | | 2 |

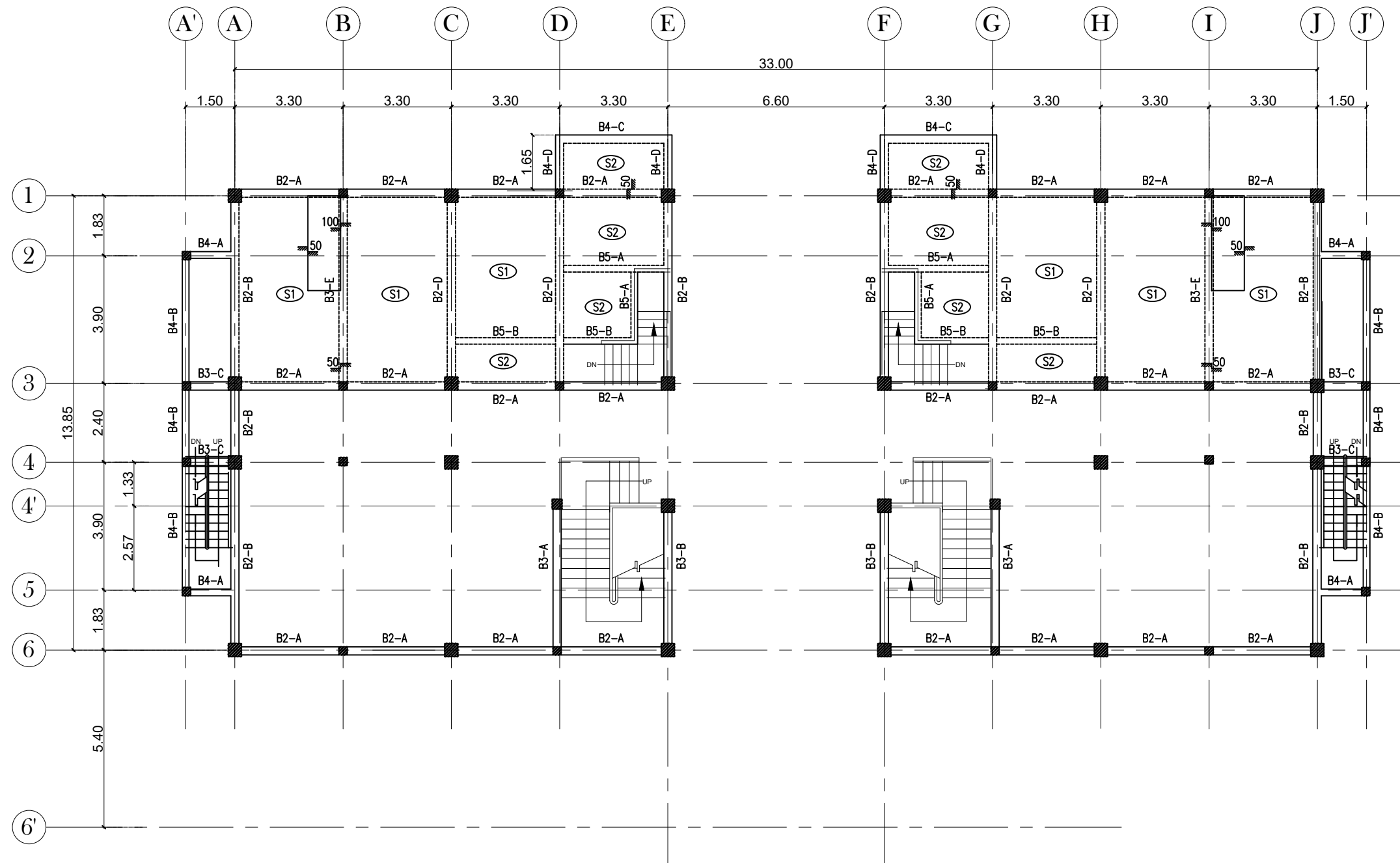


NOTES:

1. ALL FOUNDATION WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.
2. ALL FOOTING TIE BEAM AND GRADE BEAM WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.
3. ALL COLUMNS FROM FOUNDATION TO GROUND FLOOR WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.
4. SHADED AREA OF SLAB ON GRADE WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.

1
FOUNDATION PLAN
S3
SCALE
1:150MTS

| | | | | | | |
|---|---|----------------------|--------------------------------------|---|----------------|-----------|
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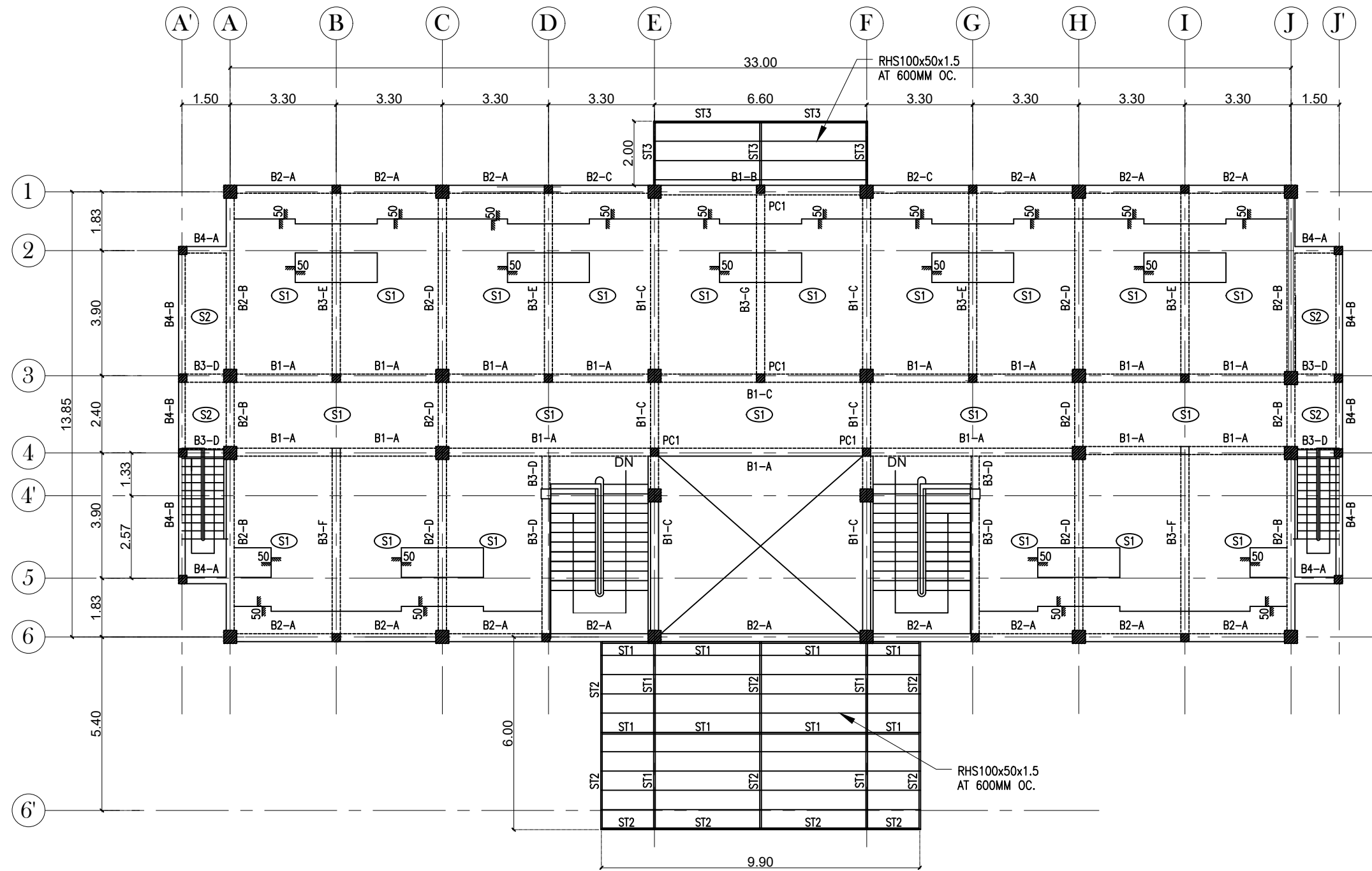
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S4

MEZZANINE FRAMING PLAN


SCALE

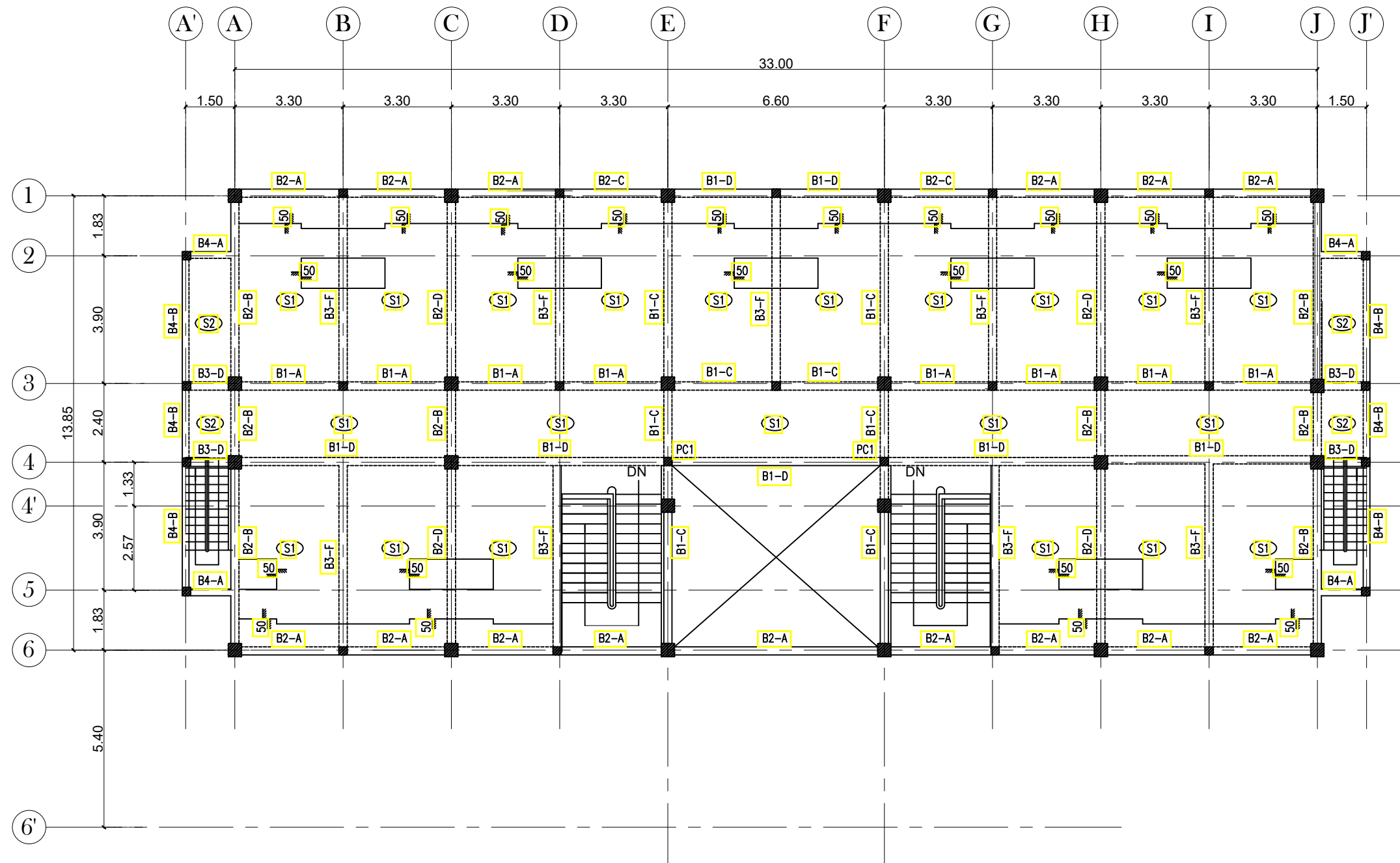
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|  Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505 | CONSTRUCTION OF DORMITORY BUILDING I | <u>PLANNING TEAM</u> | <u>Meriam F. Fallar</u> FAD Chief | <u>Edward C. Albaracin</u> Campus Director | As Shown | S |
| | Location: Brgy. Rizal, Odiongan Romblon 5505 | Date Prepared: | Date: | Date: | 4 | 11 |




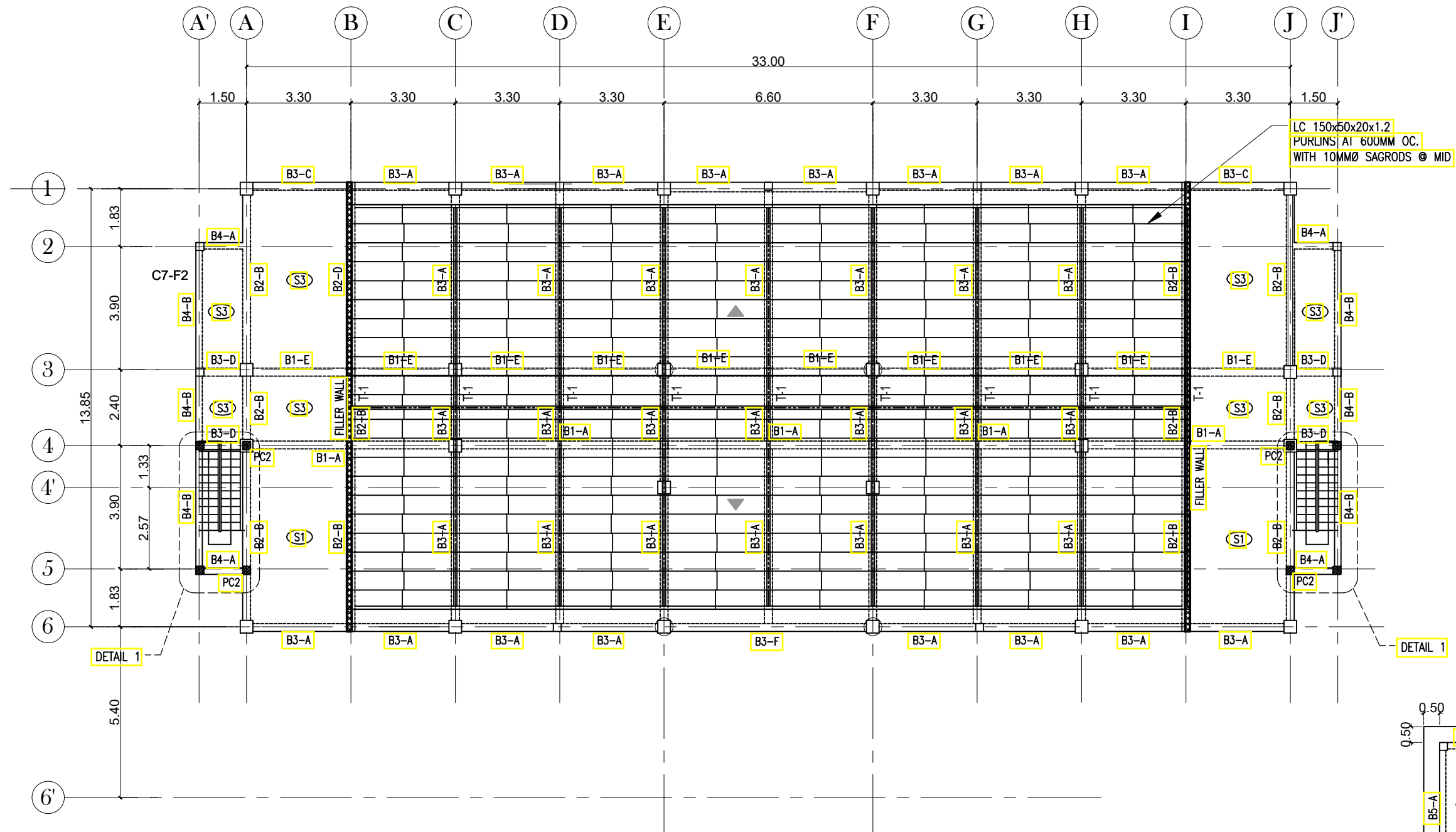
1
SECOND FRAMING PLAN
S5
 SCALE 1:150MTS

| | | | | | | |
|--|--|----------------------|--------------------------------------|---|----------------|-----------|
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1
SCALE
1:150MTS

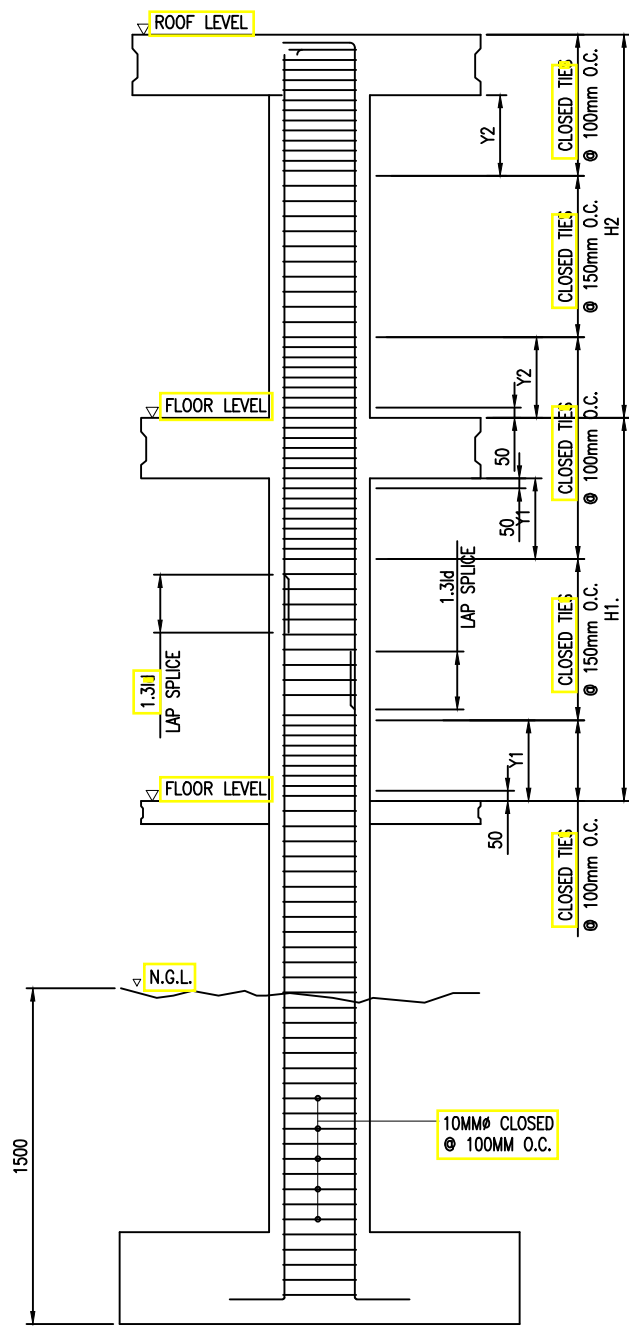
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1
SCALE
SCALE
1:150MTS

2
SCALE: 1:150MTS

| | | | | | | |
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| | Location: Brgy. Rizal, Odiongan Romblon 5505 | Date Prepared: | Date: | Date: | | 7 |



1
TYPICAL COLUMN ELEVATION

SCALE NTS

- NOTES:
- Y = MAX OF FF.
 - H/6
 - 450mm
 - MAX COLUMN DIMENSION
 - SPLICES ARE PERMITTED ONLY WITHIN THE CENTER HALF OF COLUMN HEIGHT (H)
 - STAGGER BAR SPLICES BY 600mm OR MORE

- PROVIDE TIES @ 100mm O.C. (MAX.) OVER THE FULL LAP SPLICE LENGTH
- SPECIAL TIES @ THE BEAM COL. JOINT TO CONFORM TO THE SAME CONFIGURATION OF TIES AS INDICATED IN THE SCHEDULE OF COLUMNS
- NO. OF SPLICES BARS AT ONE LEVEL SHALL NOT EXCEED ONE-THIRD (1/3) OF THE TOTAL NO. OF COLUMN VERTICAL BARS

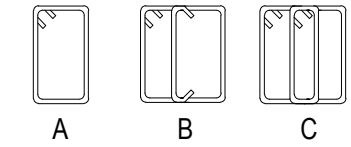
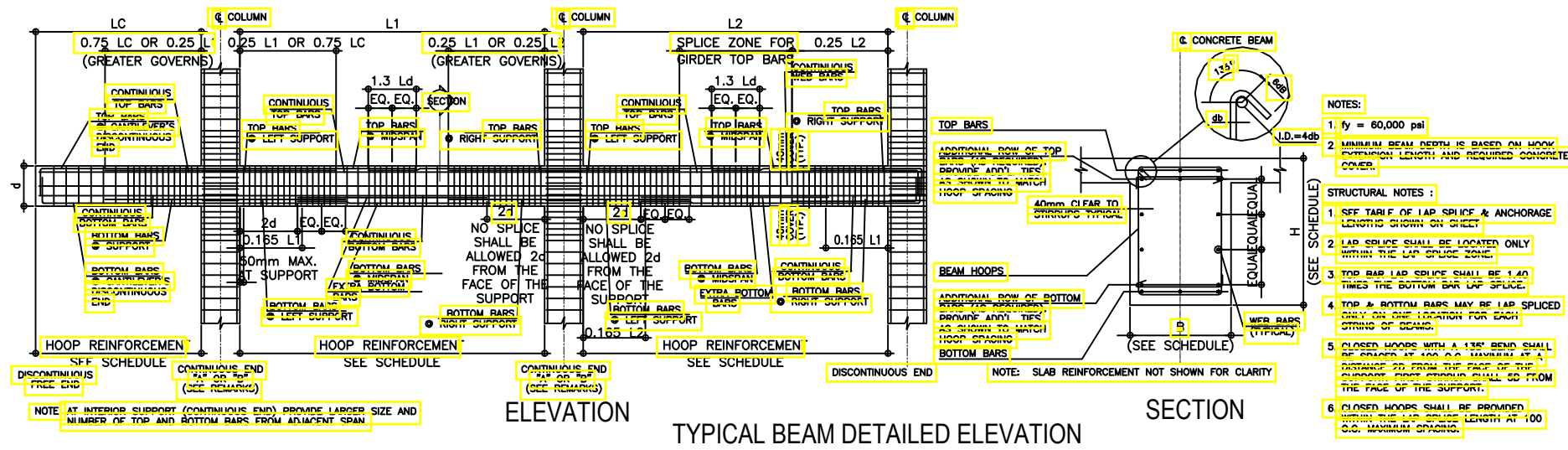
SCHEDULE OF COLUMN

| | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|--|
| 3RD FLOOR to ROOF | | | | | | | | | |
| | 400mmx400mm 24-16mm# VERTICAL BARS 5 SETS 10mm# CLOSED TIES | 400mmx400mm 20-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 16-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 12-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 8-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | 250mmx250mm 8-25mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | | 250mmx250mm 12-20mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 250mmx250mm 4-20mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES |
| 2ND FLOOR to 3RD FLOOR | | | | | | | | | |
| | 400mmx400mm 24-16mm# VERTICAL BARS 5 SETS 10mm# CLOSED TIES | 400mmx400mm 20-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 16-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 12-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 8-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | 250mmx250mm 8-25mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | | 250mmx250mm 12-20mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 250mmx250mm 4-20mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES |
| FOUNDATION to 2ND FLOOR | | | | | | | | | |
| | 400mmx400mm 24-16mm# VERTICAL BARS 5 SETS 10mm# CLOSED TIES | 400mmx400mm 20-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 16-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 12-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 400mmx400mm 8-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | 250mmx250mm 8-25mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | 400mmx400mm 12-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 300mmx300mm 12-20mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 250mmx250mm 4-20mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES |
| | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |

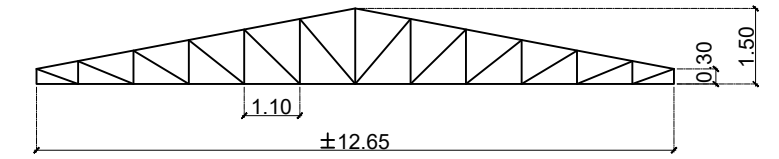
SCHEDULE OF COLUMN

| | | | | | |
|-------------------------|---|--|---|---|---|
| 3RD FLOOR to ROOF | | | | | |
| | | 250mmx250mm 4-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES | | 250mmx250mm 12-20mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 250mmx250mm 8-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES |
| 2ND FLOOR to 3RD FLOOR | | | | | |
| | | 250mmx250mm 4-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES | | 250mmx250mm 12-20mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | |
| FOUNDATION to 2ND FLOOR | | | | | |
| | 250mmx250mm 12-16mm# VERTICAL BARS 3 SETS 10mm# CLOSED TIES | 250mmx250mm 4-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES | 250mmx250mm 8-16mm# VERTICAL BARS 1 SETS 10mm# CLOSED TIES 2 SETS 10mm# SUPP. TIES | | |
| | C10 | C11 | C12 | PC1 | PC2 |

| | | | | | | |
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| | Location: Brgy. Rizal, Odiongan Romblon 5505 | Date Prepared: | Date: | Date: | | 8 11 |



TYPE OF STIRRUPS



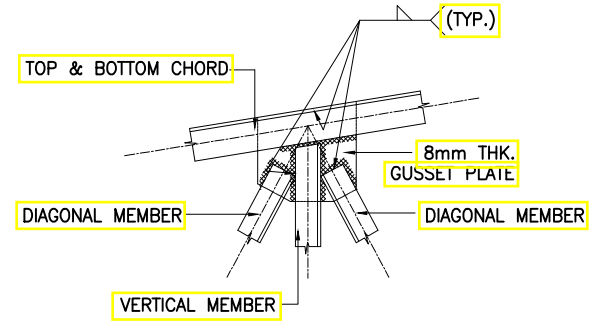
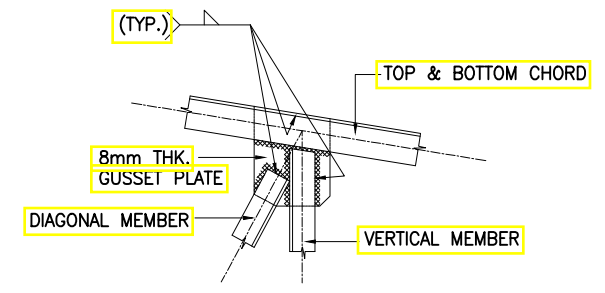
- NOTES:
1. $f_y = 60,000$ psi
 2. MINIMUM BEAM DEPTH IS BASED ON MAXIMUM SPAN LENGTH AND REQUIRED CONCRETE COVER.
- STRUCTURAL NOTES:
1. SEE TABLE OF LAP SPICE & ANCHORAGE LENGTHS SHOWN ON SHEET
 2. LAP SPICE SHALL BE LOCATED ONLY WITHIN THE LAP SPICE ZONE.
 3. TOP BAR LAP SPICE SHALL BE 1.40 TIMES THE BOTTOM BAR LAP SPICE.
 4. TOP & BOTTOM BARS MAY BE LAP SPICED ONLY ON ONE LOCATION FOR EACH STRING OF BEAMS.
 5. CLOSED HOOPS WITH A 135° BEND SHALL BE PROVIDED AT 100% MAXIMUM SPACING AT 20 FROM THE FACE OF THE SUPPORT. FIRST STIRRUP SHALL BE 50 FROM THE FACE OF THE SUPPORT.
 6. CLOSED HOOPS SHALL BE PROVIDED WITHIN THE LAP SPICE LENGTH AT 100% MAXIMUM SPACING.

SCHEDULE OF R. C. BEAMS

| BEAM MARK | B (mm) | H (mm) | REBAR (mm) | STEEL REINFORCEMENT | | | | | | WEB BARS (mmØ) | SIZE | STIRRUPS SPACING (START, 1 @ 50) | REMARKS |
|-----------|--------|--------|------------|---------------------|-------------|----------|-------------|---------------|-------------|----------------|------|----------------------------------|---------|
| | | | | LEFT SUPPORT | | MIDSPAN | | RIGHT SUPPORT | | | | | |
| | | | | TOP BARS | BOTTOM BARS | TOP BARS | BOTTOM BARS | TOP BARS | BOTTOM BARS | | | | |
| B1-A | 300 | 500 | 20Ø | 5 | 3 | 3 | 5 | 5 | 3 | - | 10Ø | 10 at 100, REST @ 200 | A |
| B1-B | 300 | 500 | 20Ø | 6 | 4 | 4 | 6 | 6 | 4 | - | 10Ø | 10 at 100, REST @ 150 | A |
| B1-C | 300 | 500 | 20Ø | 6 | 4 | 4 | 4 | 6 | 4 | - | 10Ø | 10 at 100, REST @ 200 | C |
| B1-D | 300 | 500 | 25Ø | 5 | 3 | 3 | 3 | 5 | 3 | - | 10Ø | 10 at 100, REST @ 200 | A |
| B1-E | 300 | 500 | 20Ø | 3 | 3 | 3 | 3 | 3 | 3 | - | 10Ø | 10 at 100, REST @ 200 | A |
| B2-A | 250 | 450 | 16Ø | 5 | 3 | 3 | 3 | 5 | 3 | - | 10Ø | 9 at 100, REST @ 200 | A |
| B2-B | 250 | 450 | 20Ø | 5 | 3 | 3 | 3 | 5 | 3 | - | 10Ø | 9 at 100, REST @ 200 | A |
| B2-C | 250 | 450 | 20Ø | 4 | 4 | 4 | 4 | 4 | 4 | - | 10Ø | 9 at 100, REST @ 200 | A |
| B2-D | 250 | 450 | 20Ø | 6 | 4 | 4 | 6 | 6 | 4 | - | 10Ø | 9 at 100, REST @ 200 | B |
| B3-A | 250 | 400 | 16Ø | 3 | 3 | 3 | 3 | 3 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B3-B | 250 | 400 | 16Ø | 5 | 3 | 3 | 5 | 5 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B3-C | 250 | 400 | 16Ø | 5 | 3 | 3 | 3 | 5 | 3 | - | 10Ø | 8 at 100, REST @ 200 | B |
| B3-D | 250 | 400 | 20Ø | 3 | 3 | 3 | 3 | 3 | 3 | - | 10Ø | 8 at 100, REST @ 200 | B |
| B3-E | 250 | 400 | 20Ø | 5 | 3 | 3 | 3 | 5 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B3-F | 250 | 400 | 20Ø | 5 | 3 | 3 | 5 | 5 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B3-G | 250 | 400 | 25Ø | 3 | 3 | 3 | 5 | 3 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B4-A | 200 | 400 | 16Ø | 3 | 3 | 3 | 3 | 3 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B4-B | 200 | 400 | 16Ø | 5 | 3 | 3 | 3 | 5 | 3 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B4-C | 200 | 400 | 16Ø | 2 | 2 | 2 | 2 | 2 | 2 | - | 10Ø | 8 at 100, REST @ 200 | A |
| B4-D | 200 | 400 | 20Ø | 3 | 3 | 3 | 3 | 3 | 3 | - | 10Ø | REST @ 100 | A |
| B5-A | 200 | 350 | 16Ø | 2 | 2 | 2 | 2 | 2 | 2 | - | 10Ø | 7 at 100, REST @ 200 | A |
| B5-B | 200 | 350 | 16Ø | 4 | 2 | 4 | 2 | 4 | 2 | - | 10Ø | 7 at 100, REST @ 200 | A |

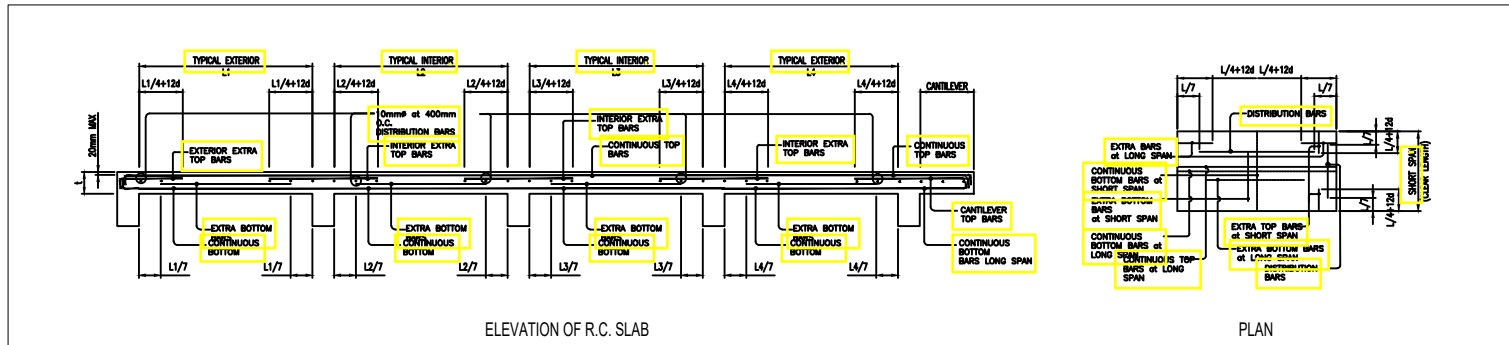
- T-1
- TOP CHORD: 2L- 50 x 50 x 6
- BOT. CHORD: 2L- 50 x 50 x 6
- WEB: 2L- 38 x 38 x 6

1 TRUSS DETAIL
SCALE N.T.S.



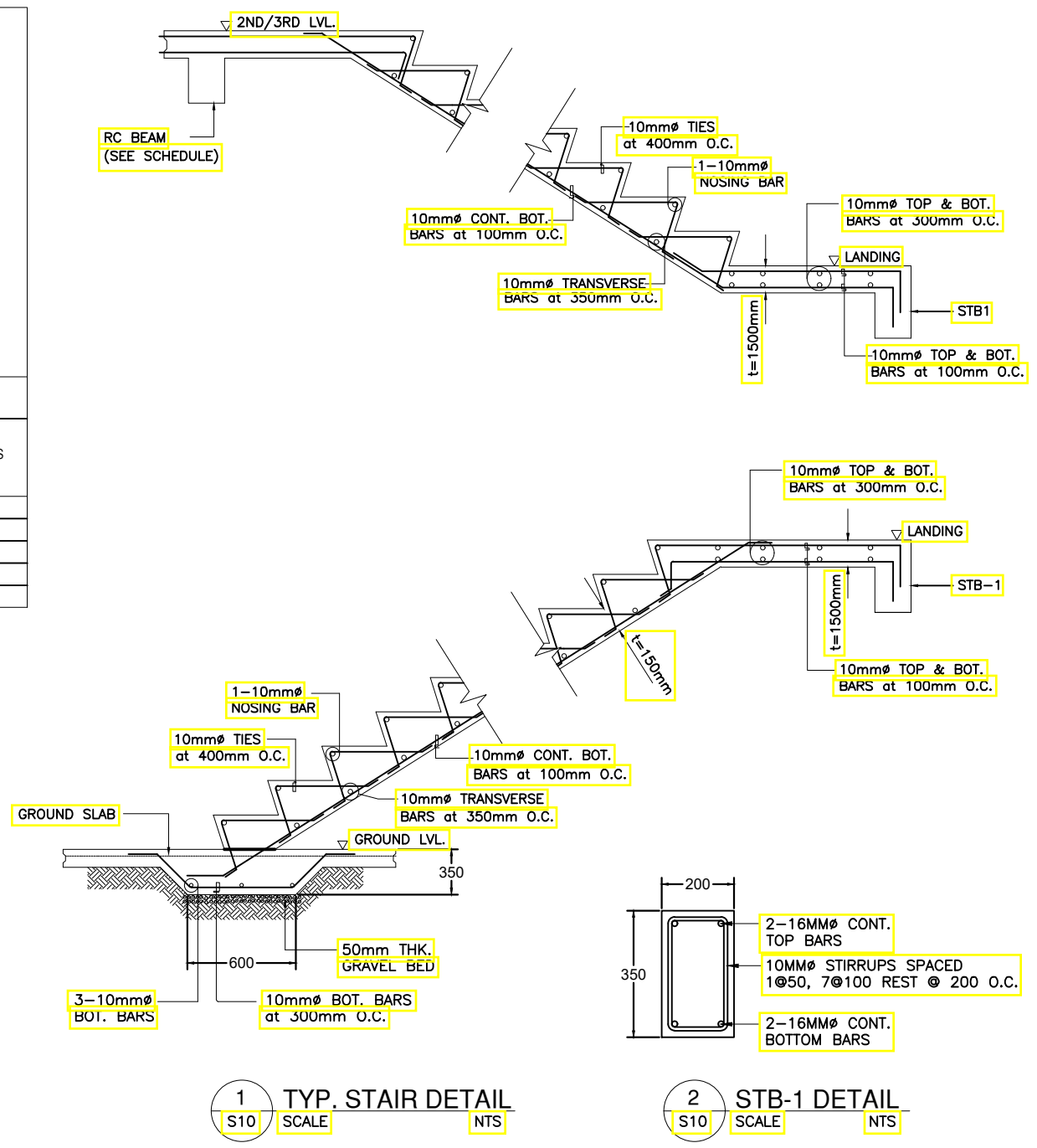
2 TYP. CONNECTION DETAIL
SCALE N.T.S.

| | | | | | | |
|--|---|--|--|--|----------------------------|--------------------------|
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SCHEDULE OF R.C. SLABS

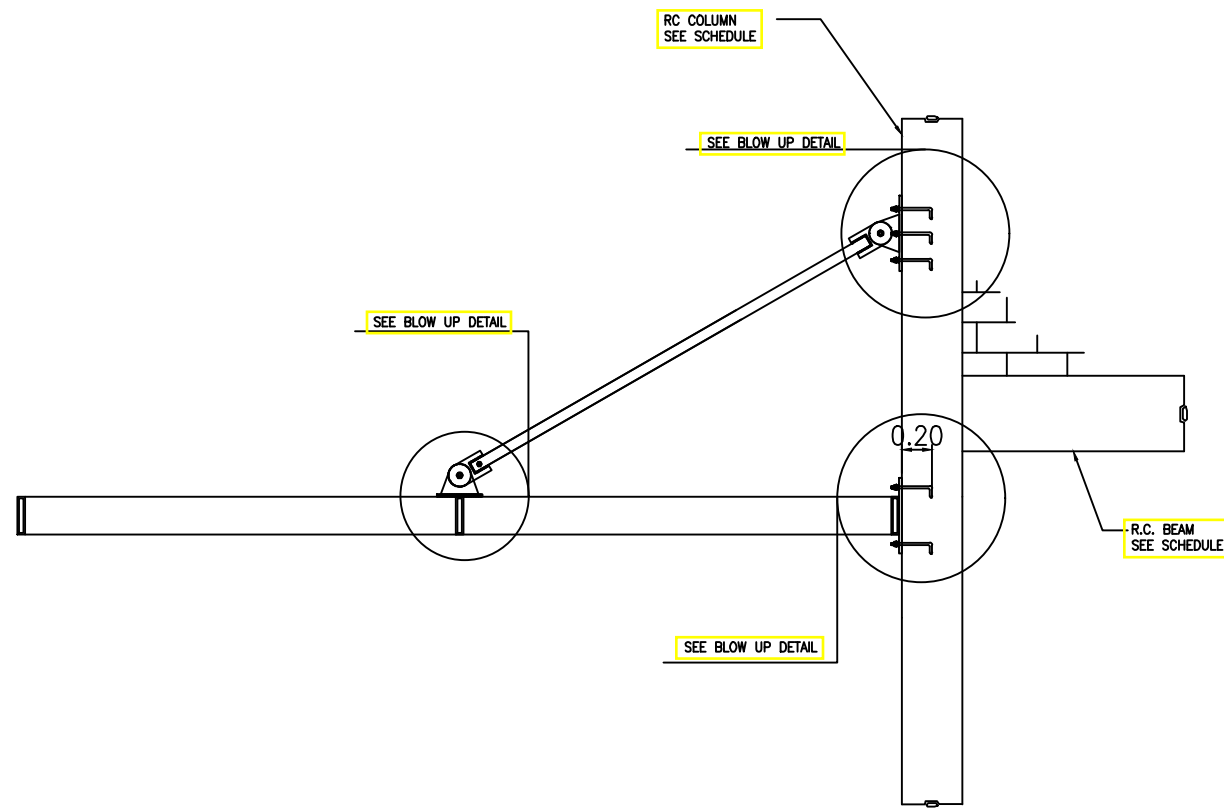
| SLAB MARK | t mm | SHORT SPAN | | | | | LONG SPAN | | | | | REMARKS |
|-----------|------|-------------|-----------------|------------|-----------------|-----------------|-------------|-----------------|------------|-----------------|-----------------|---------|
| | | BOTTOM BARS | | TOP BARS | | | BOTTOM BARS | | TOP BARS | | | |
| | | CONTINUOUS | EXTRA | CONTINUOUS | EXTRA INTERIOR | EXTRA EXTERIOR | CONTINUOUS | EXTRA | CONTINUOUS | EXTRA INTERIOR | EXTRA EXTERIOR | |
| S1 | 125 | 10# @ 300 | 1-10# PER CONT. | 10# @ 300 | 1-10# PER CONT. | 1-10# PER CONT. | 10# @ 300 | - | 10# @ 300 | 1-10# PER CONT. | 1-10# PER CONT. | 2 WAY |
| S2 | 125 | 10# @ 300 | - | 10# @ 300 | 1-10# PER CONT. | 1-10# PER CONT. | 10# @ 300 | - | 10# @ 300 | 1-10# PER CONT. | 1-10# PER CONT. | 2 WAY |
| S3 | 150 | 10# @ 200 | 1-10# PER CONT. | 10# @ 200 | 1-10# PER CONT. | 1-10# PER CONT. | 10# @ 200 | 1-10# PER CONT. | 10# @ 200 | 1-10# PER CONT. | 1-10# PER CONT. | 2 WAY |



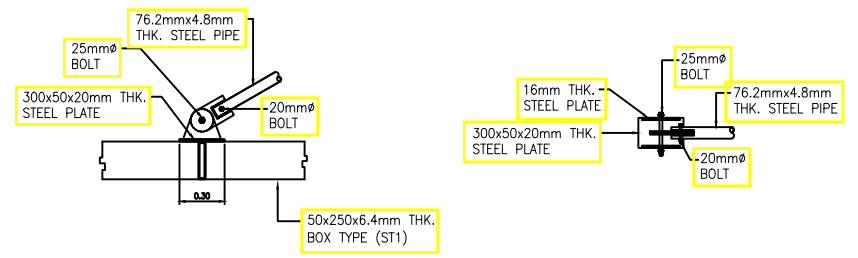
1 TYP. STAIR DETAIL
S10 SCALE NTS

2 STB-1 DETAIL
S10 SCALE NTS

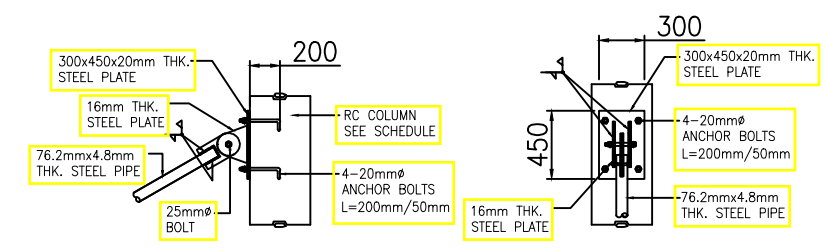
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| | | | | | | 10 |



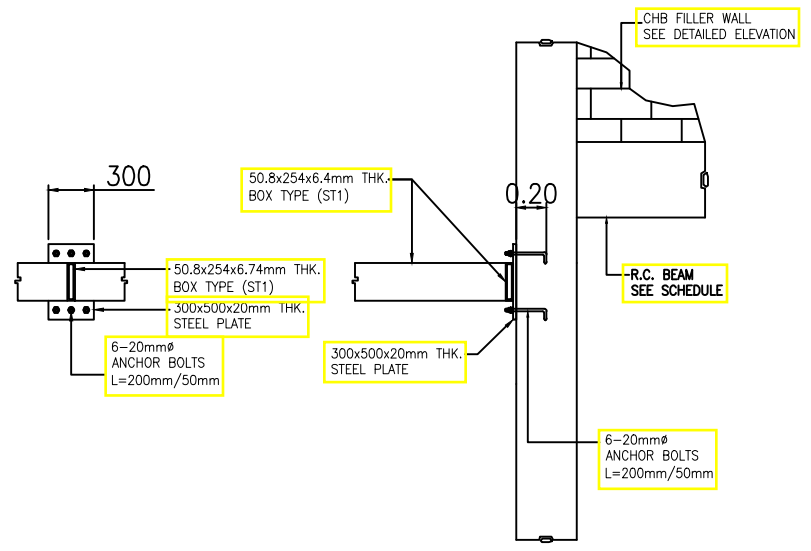
1 OVERHANG CANOPY DETAIL
S10 SCALE NTS



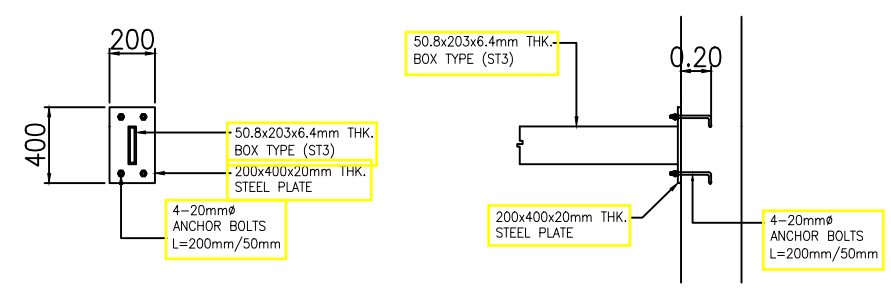
3 (BLOWUP) OVERHANG CANOPY DETAIL
S10 SCALE NTS



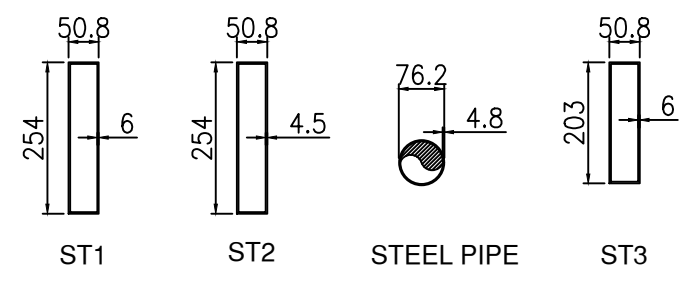
4 (BLOWUP) OVERHANG CANOPY DETAIL
S10 SCALE NTS



2 (BLOWUP) OVERHANG CANOPY DETAIL
S10 SCALE NTS



5 (REAR ENTRANCE) OVERHANG CANOPY DETAIL
S10 SCALE NTS



6 MEMBER DETAIL OVERHANG CANOPY DETAIL
S10 SCALE NTS

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