INDOOR & OUTDOOR COLOR

PERSPECTIVE

NOTE: HEIGHT OF THE BUILDING MAY VARY DEPENDING ON THE NATIONAL ROAD LEVEL (ELEV 0+00)

VICINITY MAP

CONTENTS

REPUBLIC OF THE PHILIPPINES

OFFICE OF THE BUILDING OFFICIAL

LINE AND GRADE

LAND USE AND ZONING

ARCHITECTURAL

STRUCTURAL

SANITARY

ELECTRICAL

MECHANICAL

PHILIPPINE CARABAO CENTER
NATIONAL GENE POOL & HEADQUARTERS
CLSU Cpd., Science City of Munoz, Nueva Ecija

PREPARED BY:
AR. ANA FRANCESCA C. DUCUSIN
ARCHITECT I, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER
PRC ID:
PTR NO:
ISSUED ON:
ISSUED AT:

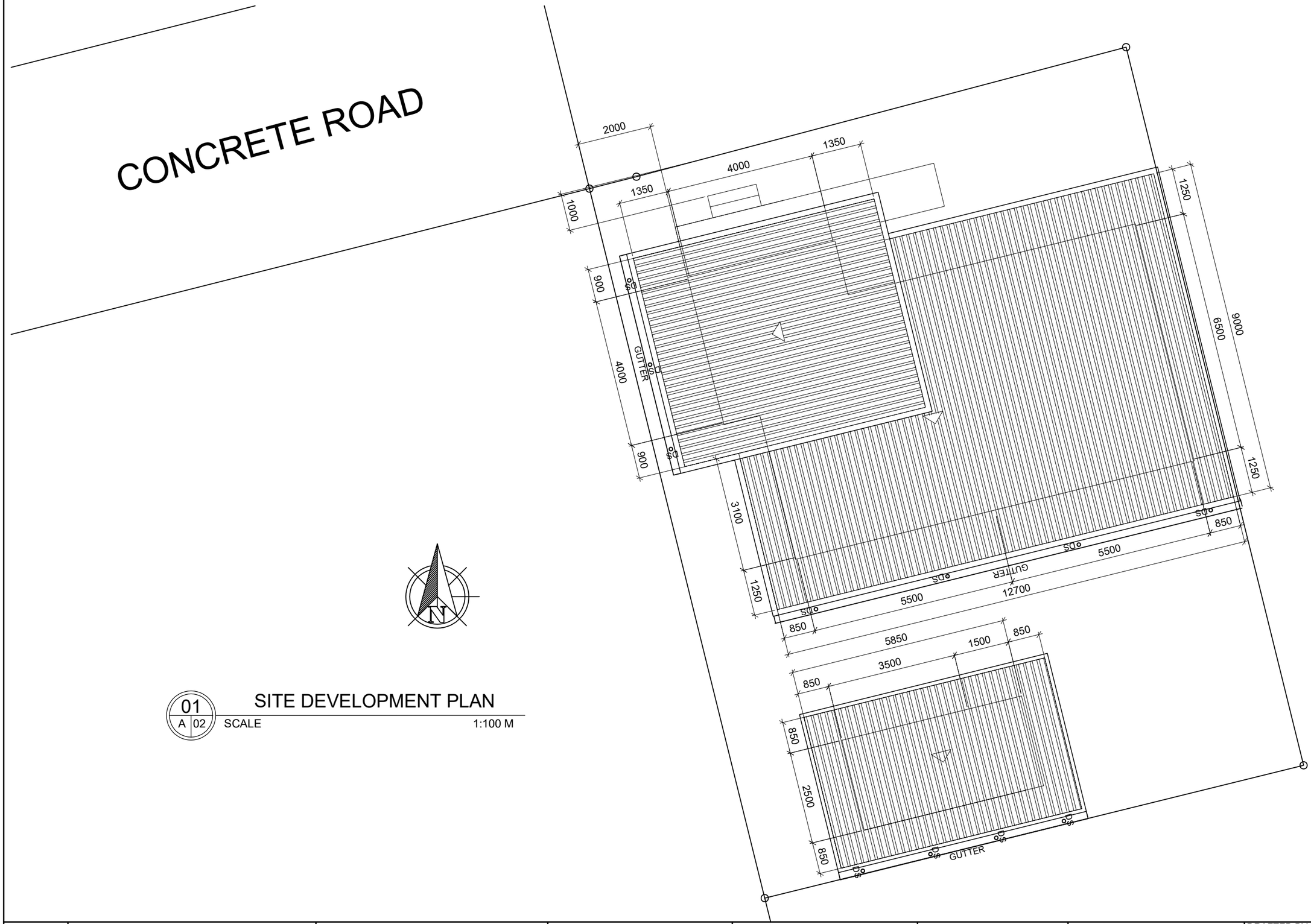
CHECKED AND REVIEWED BY:
ENGR. CRIS GUZON
HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER

RECOMMENDING APPROVAL:
DR. MYRTEL C. ALCAZAR
OIC - CENTER CHIEF
PHILIPPINE CARABAO CENTER - WVSU

PROJECT TITLE/LOCATION:
PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET
TIGBAUAN, ILOILO

APPROVED BY:
DR. LIZA G. BATTAD
EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER

DRAFTED BY: CFFSM
SHEET CONTENTS: AS SHOWN
REVISION:
SHEET No. A-01 01|22

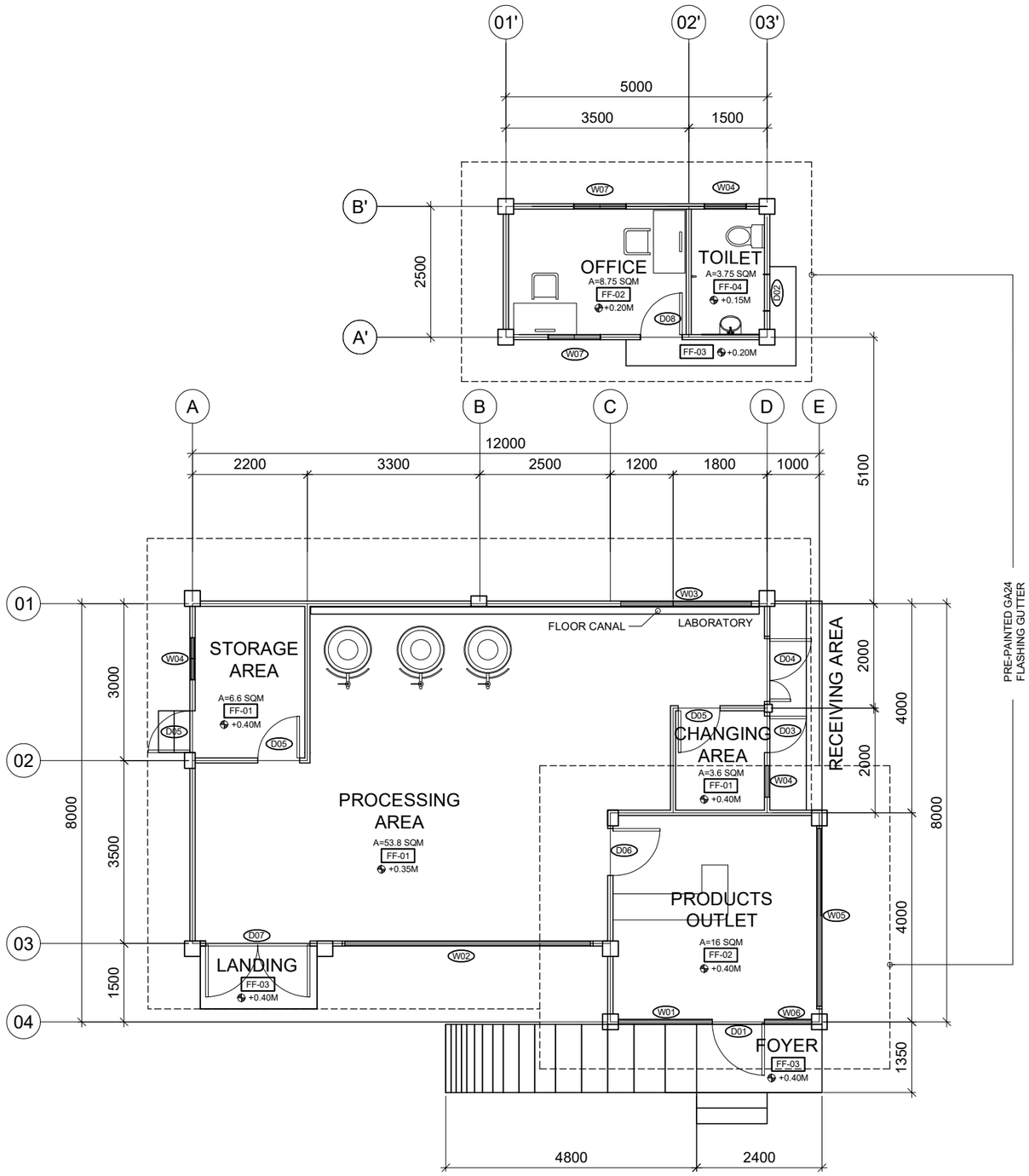


01
A 02

SITE DEVELOPMENT PLAN

SCALE 1:100 M

PHILIPPINE CARABAO CENTER NATIONAL GENE POOL & HEADQUARTERS CLSU Cpd., Science City of Munoz, Nueva Ecija	PREPARED BY: AR. ANA FRANCESCA C. DUCUSIN ARCHITECT I, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER PRC ID: PTR NO: ISSUED ON: ISSUED AT:	CHECKED AND REVIEWED BY: ENGR. CRIS GUZON HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER	RECOMMENDING APPROVAL: DR. MYRTEL C. ALCAZAR OIC - CENTER CHIEF PHILIPPINE CARABAO CENTER - WVSU	PROJECT TITLE/LOCATION: PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET TIGBAUAN, ILOILO	APPROVED BY: DR. LIZA G. BATTAD EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER	DRAFTED BY: CFFSM REVISION:	SHEET CONTENTS: AS SHOWN	SHEET No. A-02 02 22



01 / A 03 FLOOR PLAN

SCALE 1:100M

LEGENDS:

- FF-01 HEAVY DUTY POLYURETHANE PAINT(GRAY)
- FF-02 40X40CM POLISHED GRANITE FLOOR TILES
- FF-03 SMOOTH CEMENT FINISH
- FF-04 30X30CM FLOOR TILES WITH 30X30CM WALL TILES (1.5M HEIGHT FROM FFL)
- +0.00M FLOOR ELEVATION

PHILIPPINE CARABAO CENTER
NATIONAL GENE POOL & HEADQUARTERS

CLSU Cpd., Science City of Munoz, Nueva Ecija

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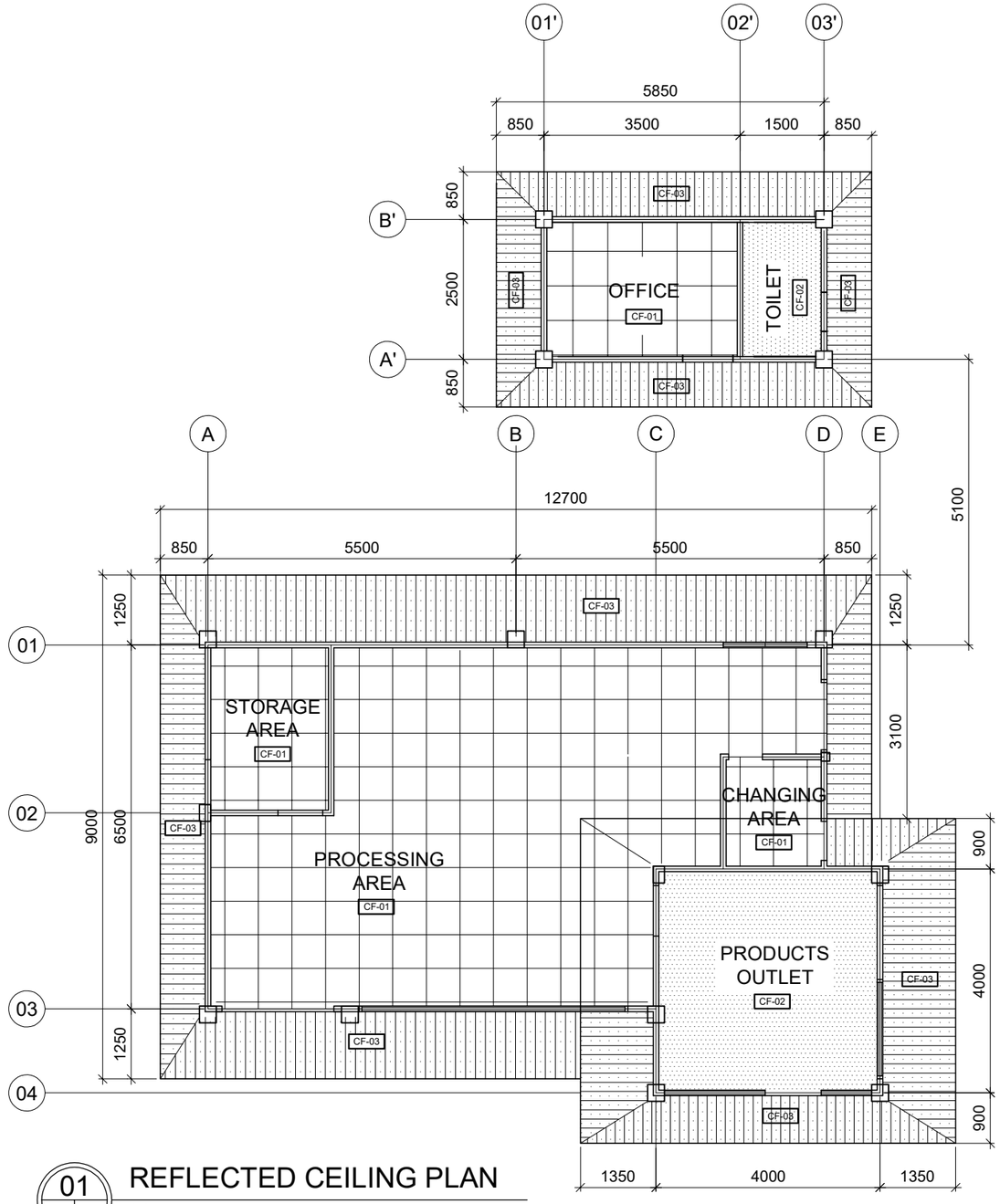

01 / A 04 REFLECTED CEILING PLAN

SCALE 1:100M

LEGENDS:

- CF-01 — 60X60CM MOISTURE-RESISTANT PVC LAMINATED GYPSUM CEILING ON METAL T-RUNNERS
- CF-02 — FIBER CEMENT BOARD ON METAL FURRING IN FLAT ACRYLIC PAINT FINISH
- CF-03 — METAL SPANDREL CEILING ON METAL FURRINGS

PHILIPPINE CARABAO CENTER
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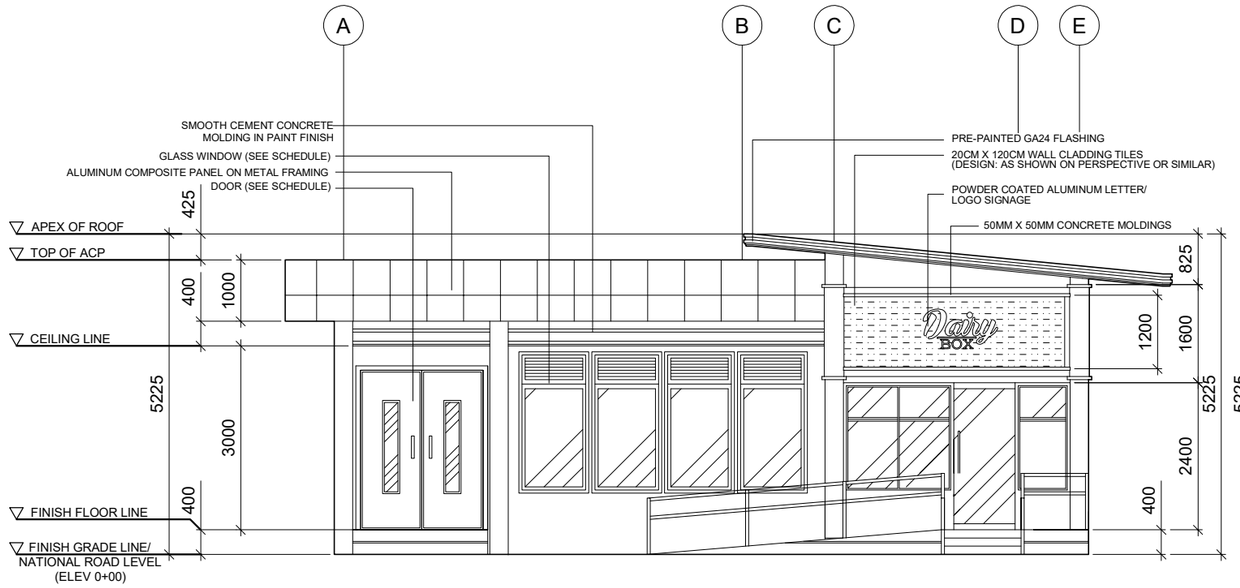
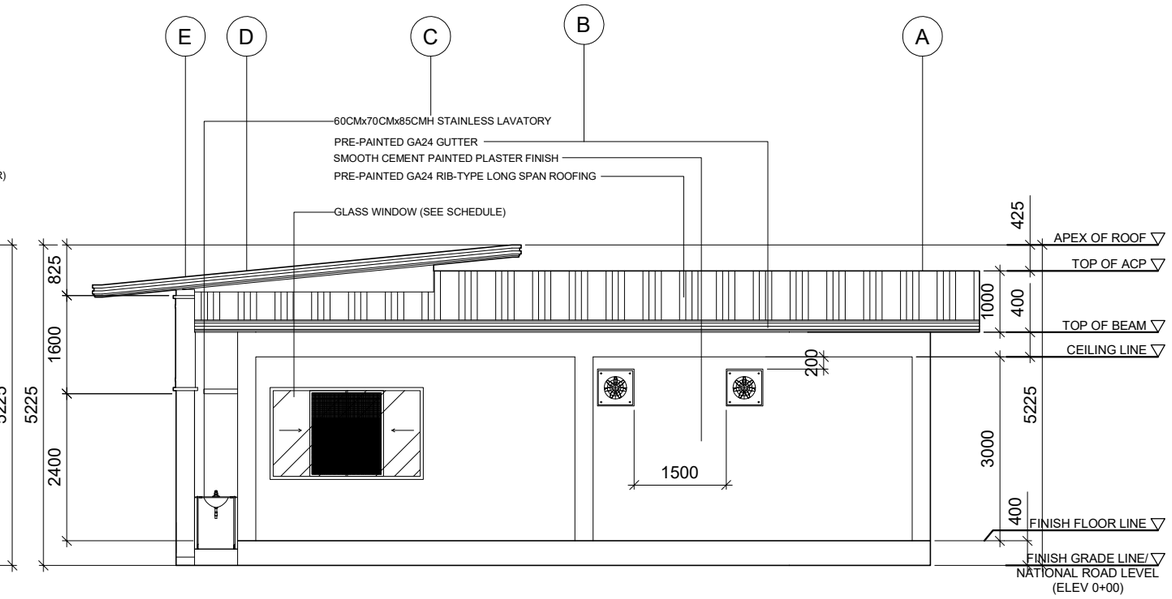


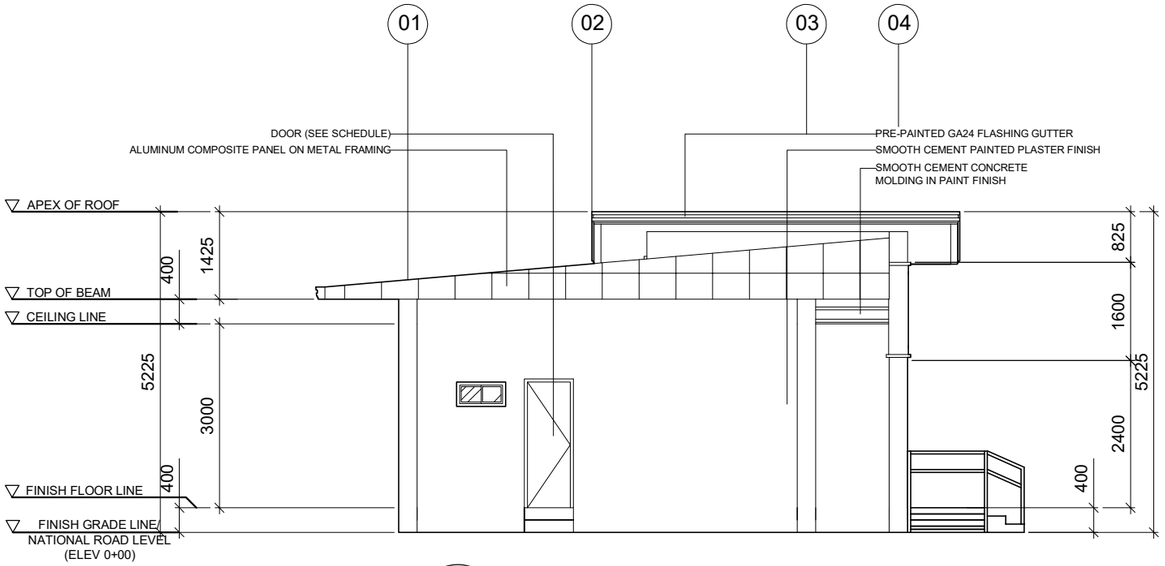
01 A 05 FRONT SIDE ELEVATION

SCALE 1:100M



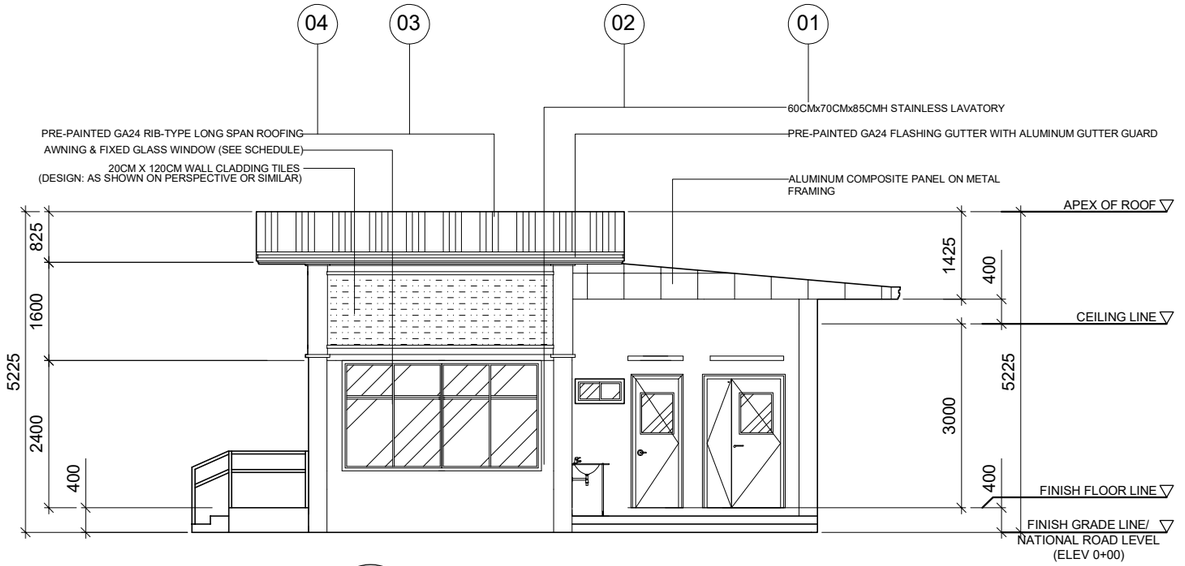
02 A 05 REAR SIDE ELEVATION

SCALE 1:100M



03 A 05 LEFT SIDE ELEVATION

SCALE 1:100M



04 A 05 RIGHT SIDE ELEVATION

SCALE 1:100M

DAIRY BOX ELEVATIONS

PHILIPPINE CARABAO CENTER
NATIONAL GENE POOL & HEADQUARTERS
CLSU Cpd., Science City of Munoz, Nueva Ecija

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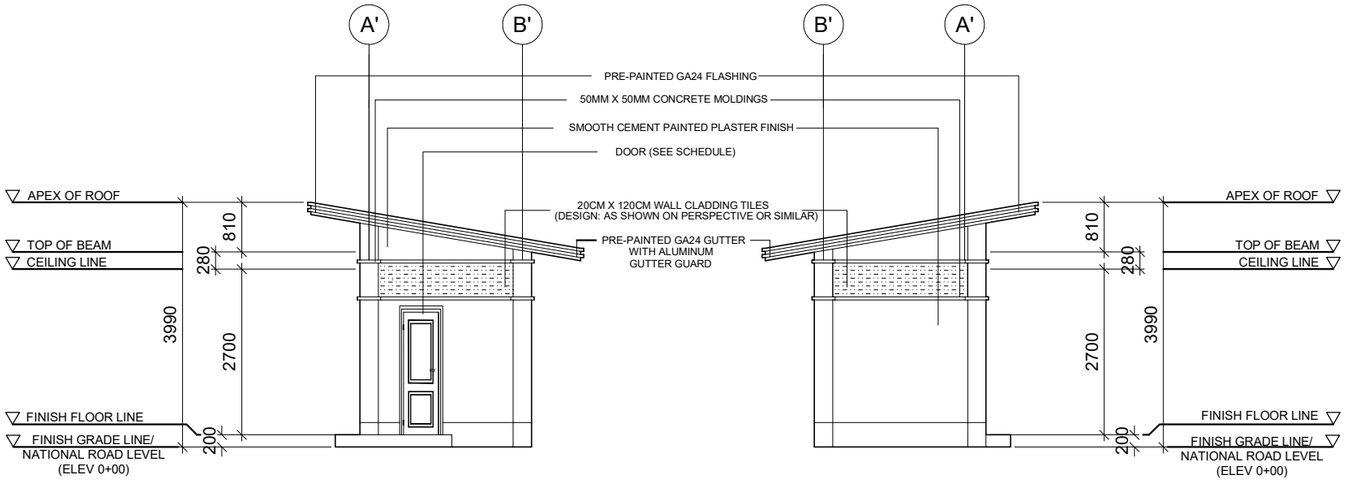
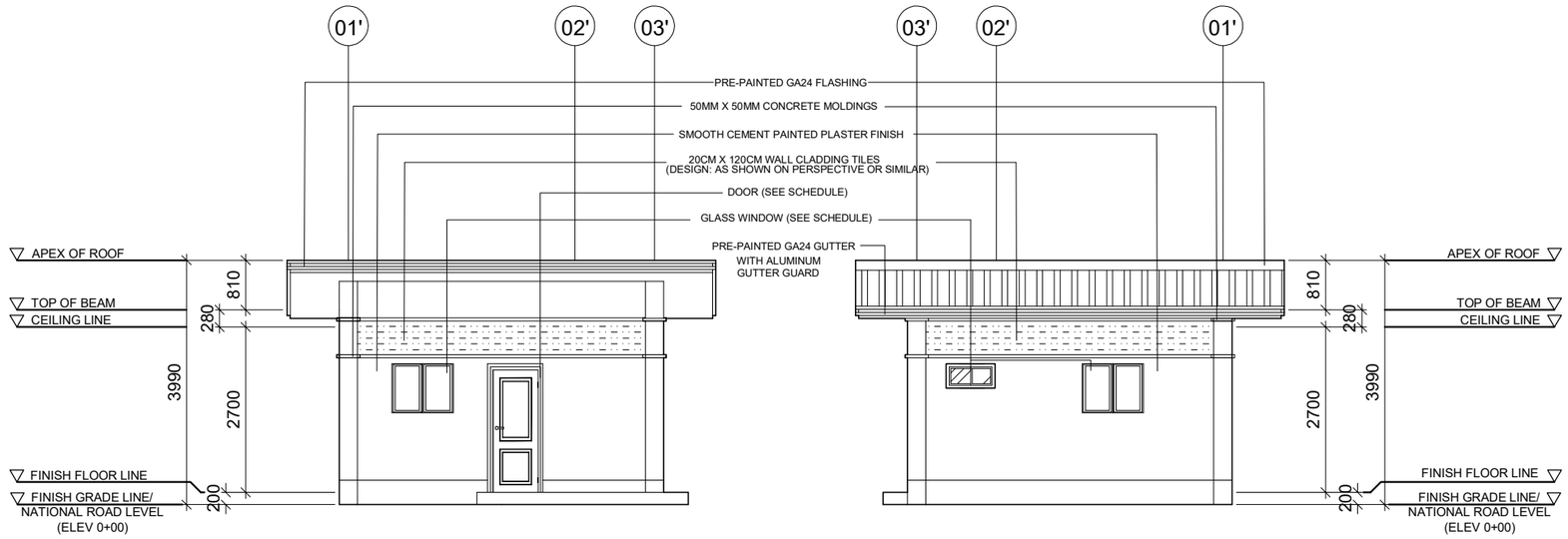


01 / A 06 — FRONT SIDE ELEVATION

SCALE 1:100M

02 / A 06 — REAR SIDE ELEVATION

SCALE 1:100M



03 / A 06 — LEFT SIDE ELEVATION

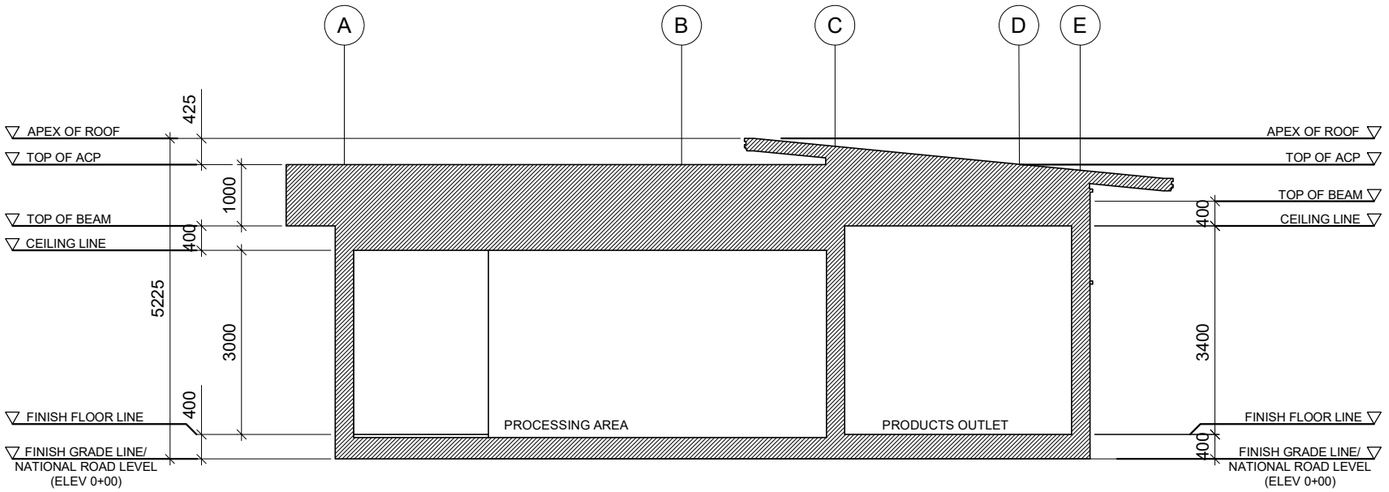
SCALE 1:100M

04 / A 06 — RIGHT SIDE ELEVATION

SCALE 1:100M

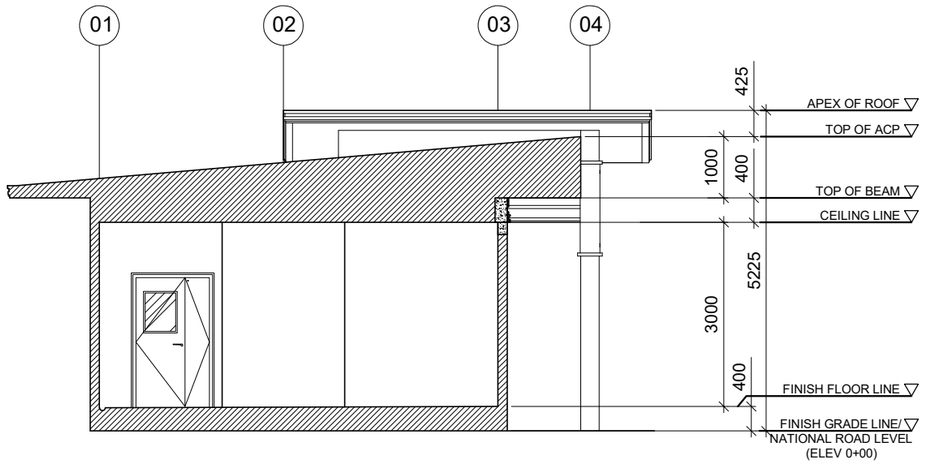
OFFICE WITH CR ELEVATIONS

PHILIPPINE CARABAO CENTER NATIONAL GENE POOL & HEADQUARTERS CLSU Cpd., Science City of Munoz, Nueva Ecija	PREPARED BY: AR. ANA FRANCESCA C. DUCUSIN ARCHITECT I, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER PRC ID: PTR NO: ISSUED ON: ISSUED AT:	CHECKED AND REVIEWED BY: ENGR. CRIS GUZON HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER	RECOMMENDING APPROVAL: DR. MYRTEL C. ALCAZAR OIC - CENTER CHIEF PHILIPPINE CARABAO CENTER - WVSU	PROJECT TITLE/LOCATION: PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET TIGBAUAN, ILOILO	APPROVED BY: DR. LIZA G. BATTAD EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER	DRAFTED BY: CFFSM REVISION:	SHEET CONTENTS: AS SHOWN SHEET No. A-06 06 22



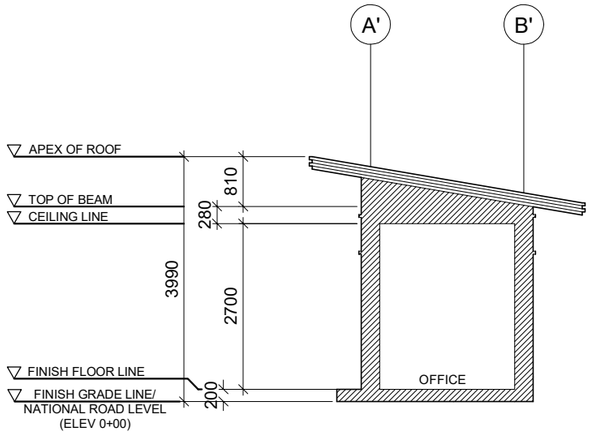
01 A 08 SECTION THRU 03

SCALE 1:100M



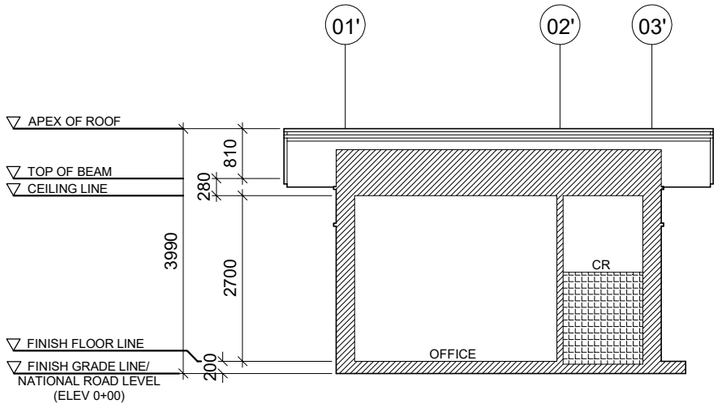
02 A 08 SECTION THRU B

SCALE 1:100M



03 A 07 SECTION THRU 03'

SCALE 1:100M



04 A 07 SECTION THRU A'

SCALE 1:100M

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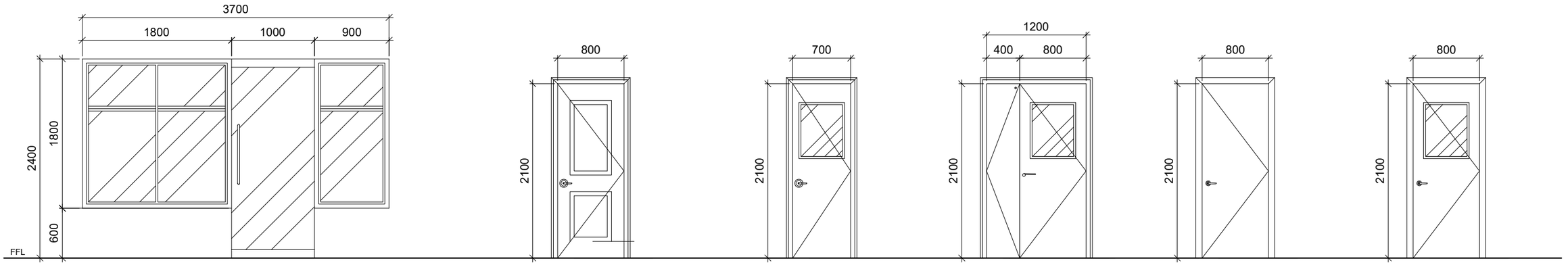
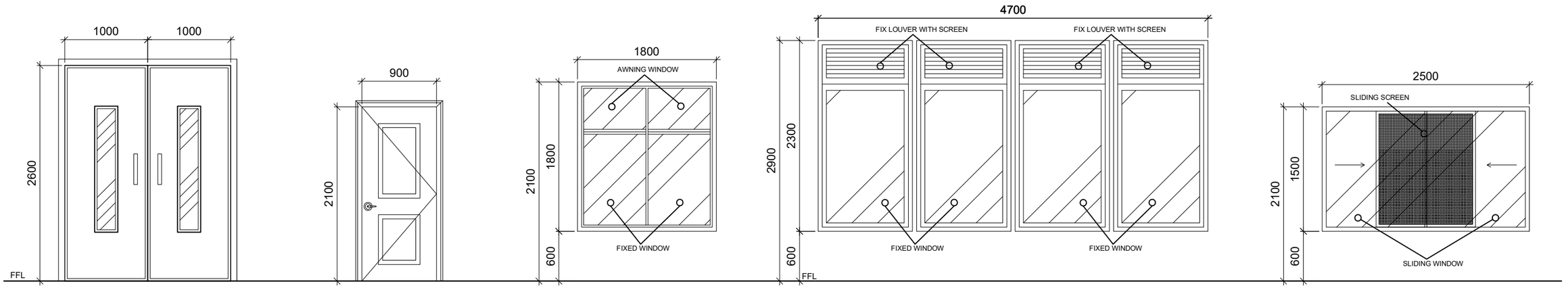


D01	1 SET	D02	1 SET	D03	1 SET	D04	1 SET (CONTROLLED DOOR)	D05	3 SETS	D06	1 SET
LOCATION:	STORE OUTLET ENTRANCE	LOCATION:	CR	LOCATION:	CHANGING ROOM	LOCATION:	MILK RECEIVING AREA	LOCATION:	STORAGE AREAS (PROCESSING)	LOCATION:	STORE OUTLET
DESCRIPTION:	ANALOK ALUMINUM TOP AND BOT FRAMED 12MM THK ORDINARY CLEAR GLASS SWING DOOR	DESCRIPTION:	WOOD PANEL DOOR IN SOLID WOOD JAMB	DESCRIPTION:	FIRE RATED HOLLOW CORE (HONEYCOMB) STEEL DOOR W/ CLEAR GLASS PEEK WINDOW IN STEEL JAMB	DESCRIPTION:	FIRE RATED HOLLOW CORE (HONEYCOMB) STEEL DOOR W/ CLEAR GLASS PEEK WINDOW IN STEEL JAMB	DESCRIPTION:	FIRE RATED HOLLOW CORE (HONEYCOMB) STEEL DOOR W/ INTUMESCENT STRIP IN STEEL JAMB	DESCRIPTION:	FIRE RATED HOLLOW CORE (HONEYCOMB) STEEL DOOR W/ PASS-IN SWING TYPE WINDOW
HARDWARE:	2 - HEAVY DUTY STAINLESS STEEL PIVOT HINGES, AUTO-CLOSING; STAINLESS STEEL PULL HANDLE; STAINLESS STEEL FOOT BOLT/ LOCKSET	HARDWARE:	3 - STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL LEVER TYPE LOCKSET AND STAINLESS STEEL DEADBOLT; STAINLESS STEEL SURFACE MOUNTED DOOR CLOSER	HARDWARE:	3 - STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL PRIVACY LOCKSET	HARDWARE:	4 - STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL LEVER-TYPE LOCKSET; STAINLESS STEEL SURFACE MOUNTED DOOR CLOSER; INTUMESCENT STRIP	HARDWARE:	4 - STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL LEVER-TYPE LOCKSET; STAINLESS STEEL SURFACE MOUNTED DOOR CLOSER	HARDWARE:	4 - STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL LEVER-TYPE LOCKSET; STAINLESS STEEL SURFACE MOUNTED DOOR CLOSER



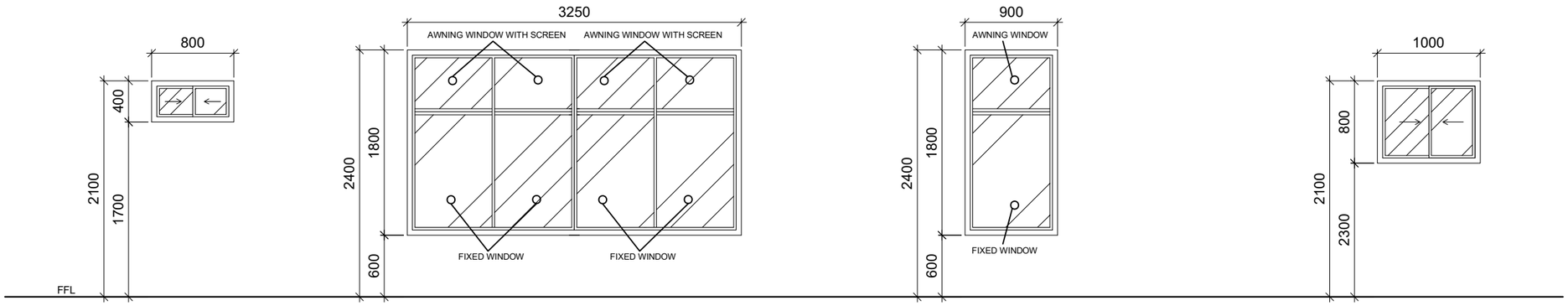
D07	1 SET	D08	1 SET	W01	1 SET	W02	1 SET	W03	1 SET
LOCATION:	PROCESSING AREA	LOCATION:	OFFICE	LOCATION:	STORE OUTLET	LOCATION:	PROCESSING AREA	LOCATION:	PROCESSING AREA
DESCRIPTION:	DOUBLE DOOR - FIRE RATED HALLOW CORE (HONEYCOMB) STEEL DOOR W/ CLEAR GLASS PEEK WINDOW IN STEEL JAMB	DESCRIPTION:	WOOD PANEL DOOR IN SOLID WOOD JAMB	DESCRIPTION:	ANALOK ALUMINUM FRAMED 8MM THK CLEAR AWNING WITH STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) SCREEN FIXED GLASS WINDOW	DESCRIPTION:	ANALOK ALUMINUM FRAMED FIX LOUVER & FIX STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) ON THE BACK SIDE OF LOUVER , BLADE THICKNESS 0.6MM-1.5MM ANALOK ALUMINUM FRAMED 8MM THK FIX GLASS WINDOW	DESCRIPTION:	ALUMINUM FRAMED 4.5MM THK CLEAR SLIDING GLASS WINDOW WITH ALUMINUM FRAMED SLIDING STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) SCREEN
HARDWARE:	STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL PULL HANDLE; STAINLESS STEEL FOOT BOLT/LOCKSET.	HARDWARE:	3 - STAINLESS STEEL BALL BEARING HINGES; STAINLESS STEEL LEVER TYPE LOCKSET AND STAINLESS STEEL DEADBOLT; STAINLESS STEEL SURFACE MOUNTED DOOR CLOSER	HARDWARE:	STANDARD ALUMINUM WINDOW LOCKSET	HARDWARE:		HARDWARE:	STANDARD ALUMINUM WINDOW LOCKSET

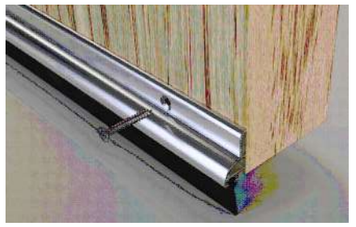
01 / A 08

SCHEDULE OF DOORS AND WINDOWS

SCALE 1:50M

PHILIPPINE CARABAO CENTER NATIONAL GENE POOL & HEADQUARTERS CLSU Cpd., Science City of Munoz, Nueva Ecija	PREPARED BY: AR. ANA FRANCESCA C. DUCUSIN ARCHITECT I, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER PRC ID: PTR NO: ISSUED ON: ISSUED AT:	CHECKED AND REVIEWED BY: ENGR. CRIS GUZON HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER	RECOMMENDING APPROVAL: DR. MYRTEL C. ALCAZAR OIC - CENTER CHIEF PHILIPPINE CARABAO CENTER - WVSU	PROJECT TITLE/LOCATION: PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET TIGBAUAN, ILOILO	APPROVED BY: DR. LIZA G. BATTAD EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER	DRAFTED BY: CFFSM REVISION:	SHEET CONTENTS: AS SHOWN SHEET No. A-08 (08 | 22)





NOTE:
ON THE PROCESSING AREA IT IS REQUIRED TO INSTALL ALUMINUM RUBBER BOTTOM DOOR SEAL ON EVERY DOOR.

W04	3 SET	W05	1 SET	W06	1 SET	W07	2 SET
LOCATION:	CHANGING ROOM, CR, STORAGE	LOCATION:	STORE OUTLET	LOCATION:	STORE OUTLET	LOCATION:	OFFICE AREA
DESCRIPTION:	ANALOK ALUMINUM FRAMED 4.5MM THK CLEAR SLIDING GLASS WINDOW WITH ALUMINUM FRAMED SLIDING STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) SCREEN	DESCRIPTION:	ANALOK ALUMINUM FRAMED 8MM THK CLEAR AWNING WITH STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) SCREEN AND FIXED GLASS WINDOW	DESCRIPTION:	ANALOK ALUMINUM FRAMED 8MM THK CLEAR AWNING WITH STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) SCREEN FIXED GLASS WINDOW	DESCRIPTION:	ANALOK ALUMINUM FRAMED 4.5MM THK CLEAR SLIDING GLASS WINDOW WITH ALUMINUM FRAMED SLIDING STAINLESS STEEL WIRE 20-MESH (20 HOLES IN 1 INCH) SCREEN
HARDWARE:	STANDARD ALUMINUM WINDOW LOCKSET	HARDWARE:	STANDARD ALUMINUM WINDOW LOCKSET	HARDWARE:	STANDARD ALUMINUM WINDOW LOCKSET	HARDWARE:	STANDARD ALUMINUM WINDOW LOCKSET

01 / A 09

SCHEDULE OF DOORS AND WINDOWS

SCALE 1:50M

FINISHING SCHEDULE

AREA/ROOM	FLOOR FINISH	CEILING FINISH	WALL FINISH		REMARKS
			INTERIOR WALL FINISH	EXTERIOR WALL FINISH	
PRODUCTS OUTLET	40X40CM POLISHED GRANITE FLOOR TILES	FIBER CEMENT BOARD ON METAL FURRING IN FLAT ACRYLIC PAINT FINISH (WHITE)	SUN & RAIN SR+418 LOVELY DAYS OR SIMILAR	SR+418 LOVELY DAYS OR SIMILAR, CHOCO BROWN SR-933 OR SIMILAR	
PROCESSING AREA	HEAVY DUTY POLYURETHANE PAINT (GRAY)	60CM x 60CM MOISTURE-RESISTANT ACOUSTIC CEILING ON METAL T-RUNNERS (WHITE)	PAINT FINISH, SEMI-GLOSS LATEX WHITE	SR+418 LOVELY DAYS OR SIMILAR, CHOCO BROWN SR-933 OR SIMILAR	150MM BASEBOARD HEAVY DUTY POLYURETHANE PAINT (GRAY)
CHANGING AREA	HEAVY DUTY POLYURETHANE PAINT (GRAY)	60CM x 60CM MOISTURE-RESISTANT ACOUSTIC CEILING ON METAL T-RUNNERS (WHITE)	PAINT FINISH, SEMI-GLOSS LATEX WHITE	SR+418 LOVELY DAYS OR SIMILAR, CHOCO BROWN SR-933 OR SIMILAR	150MM BASEBOARD HEAVY DUTY POLYURETHANE PAINT (GRAY)
STORAGE	HEAVY DUTY POLYURETHANE PAINT (GRAY)	60CM x 60CM MOISTURE-RESISTANT ACOUSTIC CEILING ON METAL T-RUNNERS (WHITE)	PAINT FINISH, SEMI-GLOSS LATEX WHITE	SR+418 LOVELY DAYS OR SIMILAR, CHOCO BROWN SR-933 OR SIMILAR	150MM BASEBOARD HEAVY DUTY POLYURETHANE PAINT (GRAY)
OFFICE	40X40CM POLISHED GRANITE FLOOR TILES	60CM x 60CM MOISTURE-RESISTANT ACOUSTIC CEILING ON METAL T-RUNNERS (WHITE)	PAINT FINISH, SEMI-GLOSS LATEX WHITE	SR+418 LOVELY DAYS OR SIMILAR, CHOCO BROWN SR-933 OR SIMILAR	150MM BASEBOARD HEAVY DUTY POLYURETHANE PAINT (GRAY)
COMFORT ROOM	30X30CM FLOOR TILES	FIBER CEMENT BOARD ON METAL FURRING IN FLAT ACRYLIC PAINT FINISH (WHITE)	30X30CM WALL TILES (1.5M HEIGHT FROM FFL), PAINT THE REMAINING WALL.	SR+418 LOVELY DAYS OR SIMILAR, CHOCO BROWN SR-933 OR SIMILAR	
OUTSIDE FLOOR & CEILING	SMOOTH CEMENT FINISH	METAL SPANDREL (WHITE)			

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NATIONAL GENE POOL & HEADQUARTERS
CLSU Cpd., Science City of Munoz, Nueva Ecija

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TIGBAUAN, ILOILO

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EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER

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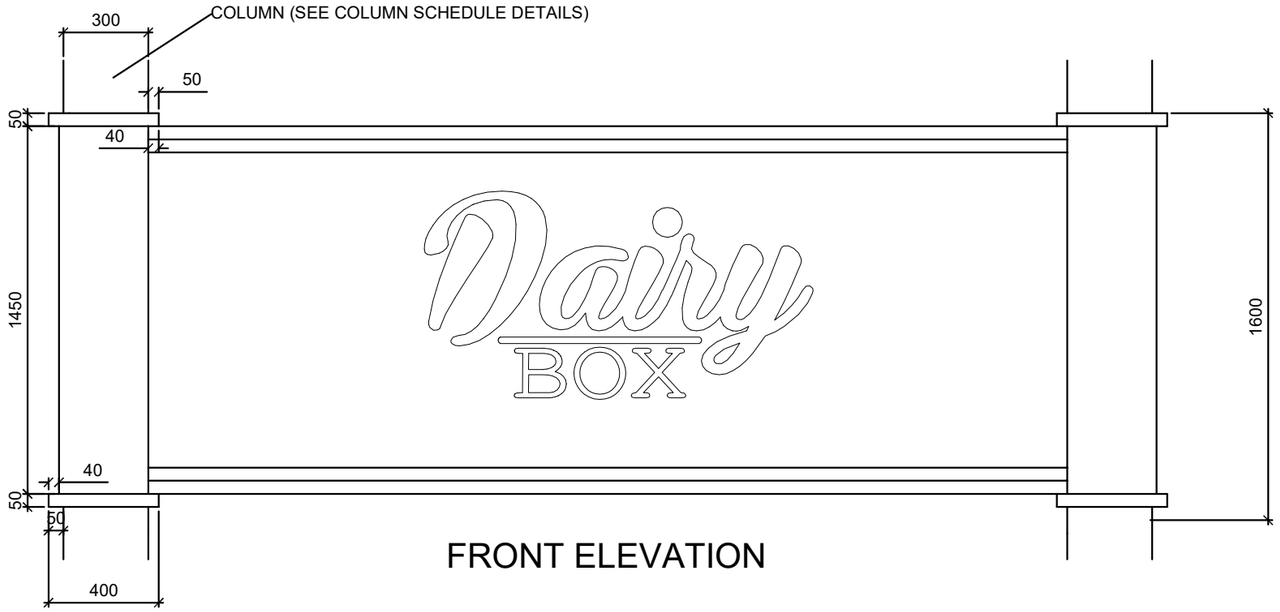
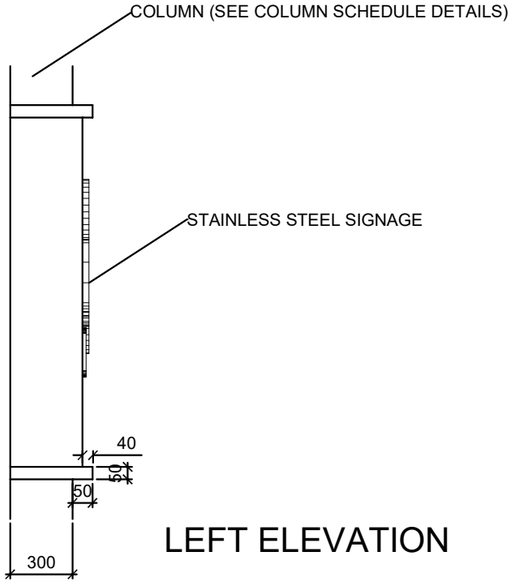
SHEET No. A-09
09 22



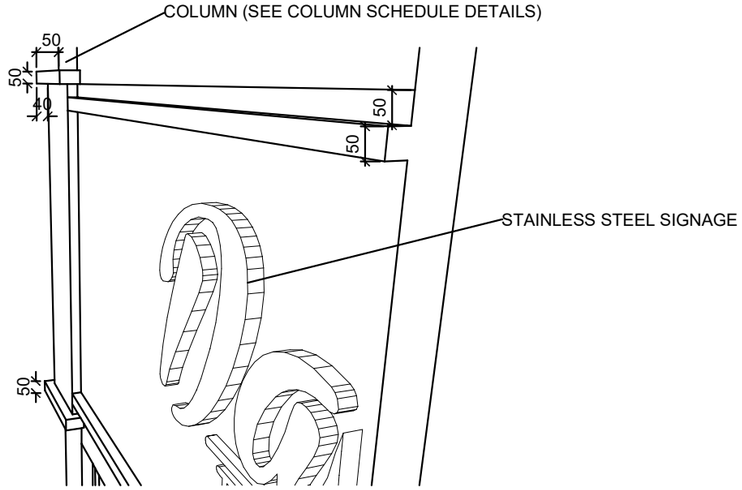
FRONT ELEVATION

02 / A 10 — SIGNAGE DETAILS

SCALE NTS



LEFT ELEVATION



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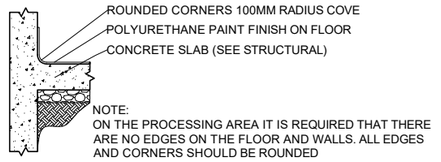

NOTE:
ON THE PROCESSING AREA IT IS REQUIRED THAT THERE ARE NO EDGES ON THE FLOOR AND WALLS. ALL EDGES AND CORNERS SHOULD BE ROUNDED

WALL EDGES

03 / A 10 — MISCELLANEOUS DETAILS

SCALE NTS

01 / A 10 — MOULDING DETAILS

SCALE NTS

PHILIPPINE CARABAO CENTER
NATIONAL GENE POOL & HEADQUARTERS
CLSU Cpd., Science City of Munoz, Nueva Ecija

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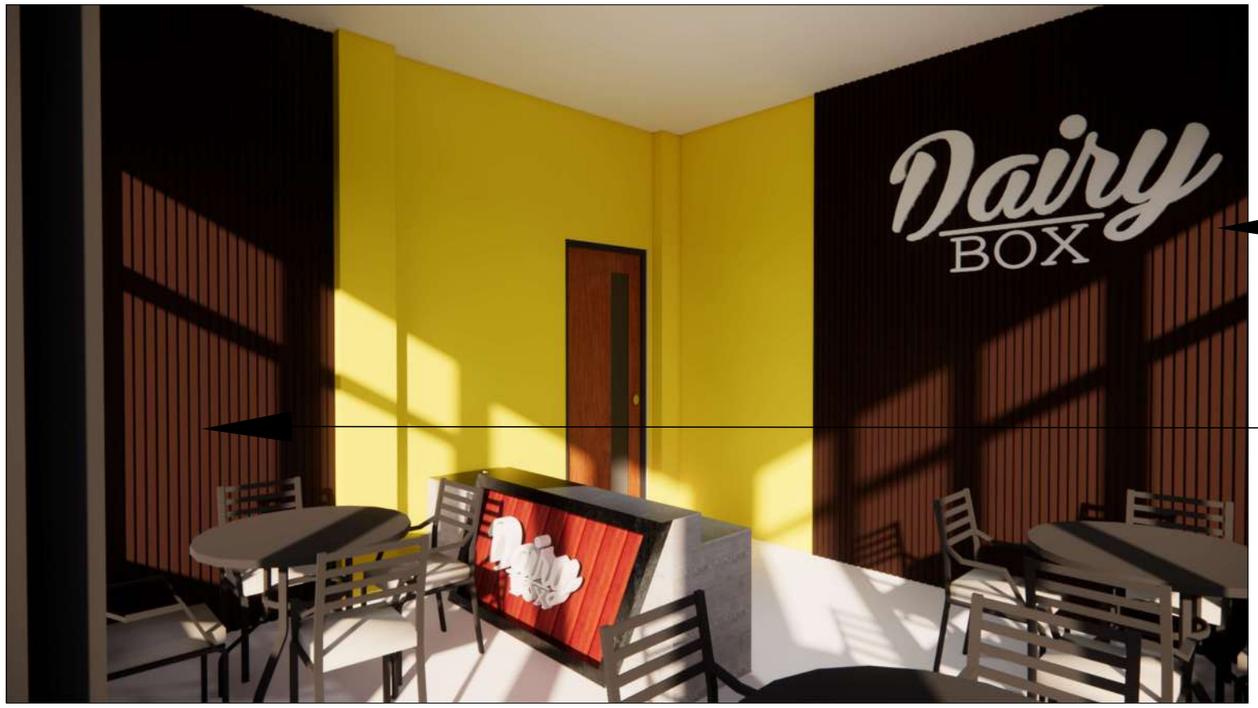
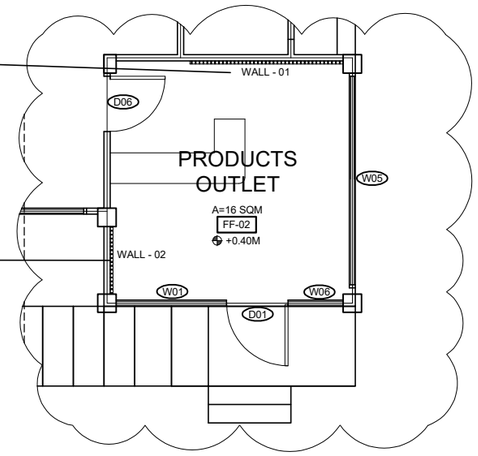
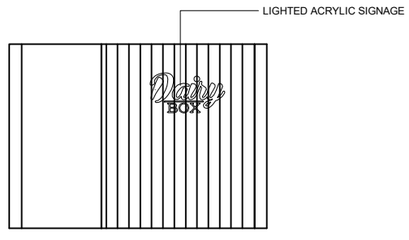
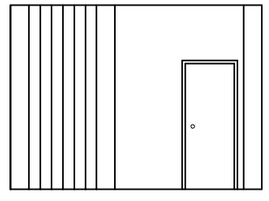
AR. ANA FRANCESCA C. DUCUSIN ARCHITECT I, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER PRC ID: PTR NO: ISSUED ON: ISSUED AT:	ENGR. CRIS GUZON HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER	DR. MYRTEL C. ALCAZAR OIC - CENTER CHIEF PHILIPPINE CARABAO CENTER - WVSU	PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET TIGBAUAN, ILOILO	DR. LIZA G. BATTAD EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER	CFFSM REVISION:	AS SHOWN	A-10 10 22





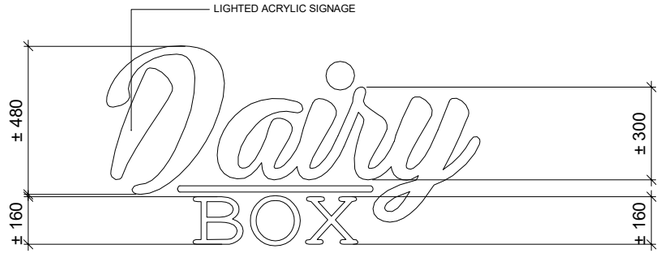


WALL - 01
14 PCS 185x20x2900MM WPC WALL CLADDING



WALL - 02
6 PCS 185x20x1200MM WPC WALL CLADDING

01 / A 11 — WALL DESIGN
SCALE 1:100M



02 / A 11 — SIGNAGE DETAIL
SCALE NTS

PHILIPPINE CARABAO CENTER
NATIONAL GENE POOL & HEADQUARTERS
CLSU Cpd., Science City of Munoz, Nueva Ecija

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STRUCTURAL NOTES

A. GENERAL

1. **CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.**
2. **SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEEL, MISCELLANEOUS IRON, PRE-CAST CONCRETE ETC. SHALL BE SUBMITTED FOR ENGINEER'S APPROVAL BEFORE FABRICATION.**
3. **CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE ALL WORK IS TO BEGIN, CHECK WITH MECHANICAL AND ELECTRICAL CONTRACTORS FOR CONDUITS, PIPE SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE.**
4. **IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORINGS AND BRACINGS OF THE STRUCTURE FOR ALL LOADS THAT MAYBE IMPOSED DURING CONSTRUCTION.**

B. CONCRETE & REINFORCEMENT

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE LATEST BULDING CODE OF AMERICAN CONCRETE INSTITUTE (ACI-318).
2. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS WITH CORRESPONDING MAXIMUM SIZE AGGREGATE AND SLUMPS AS FOLLOWS :

LOCATION	28 DAYS STRENGTH	MAX. SIZE AGGREGATE	MAX. SLUMP
LEDGE & SLAB ON GRADE	3000 PSI	1 IN. (25MM.)	4 IN. (100MM.)
FOUNDATION	3000 PSI	1 IN. (25MM.)	4 IN. (100MM.)
WALL FOOTING	3000 PSI	1 IN. (25MM.)	4 IN. (100MM.)
COLUMN	3000 PSI	1 IN. (25MM.)	4 IN. (100MM.)
BEAMS & SLABS	3000 PSI	1 IN. (25MM.)	4 IN. (100MM.)

3. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 FOR DIA. 16 AND LARGER BARS AND GRADE 40 FOR DIA. 12 AND SMALLER BARS.
4. IN GENERAL, THE LATEST EDITION OF ACI-315, MANUAL OF STANDARD PRACTICE DETAILING REINFORCED CONCRETE STRUCTURES SHALL BE ADHERED TO, UNLESS OTHERWISE SHOWN OR NOTED.
5. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:

   SUSPENDED SLABS ..... 3/4 IN. (19 MM.)

   SLAB ON GRADE ..... 1 1/2 IN. (38 MM.)

   WALLS ABOVE GRADE ..... 1 IN. (25 MM.)

   BEAM STIRRUPS AND COLUMN TIES ..... 1 1/2 IN. (38 MM.)

   WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS ..... 2 IN. (50 MM.)

   WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH ..... 3 IN. (75 MM.)

6. SPLICES SHALL BE SECURELY WIRED TOGETHER AND SHALL LAP OR EXTEND IN
7. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN (7) CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.
8. STRIPPING OF FORMS AND SHORES:

   FOUNDATION ..... 24 HRS.

   SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED ..... 28 DAYS

   WALLS ..... 18 HRS.

   BEAMS ..... 14 DAYS

C. FOOTINGS

1. UNLESS OTHERWISE INDICATED IN THE PLANS, THE ALLOWABLE SOIL PRESSURE SHALL BE AT LEAST 2000 PSF.
2. FOUNDATION SHALL REST ON NATURAL SOIL, UNLESS OTHERWISE NOTED BY THE ENGINEER, **NO PART OF THE FOUNDATION SHALL REST ON FILL. (PROVIDE 1m MINIMUM EMBEDMENT FROM NATURAL SOIL LEVEL AND BELOW).**
3. TO MAKE SURE OF THE DEPTH OF EXCAVATION, THE CONTRACTOR SHALL EXCAVATE FIRST AT LEAST FOUR (4) FOOTINGS LOCATED AT THE CORNERS OF THE PROPOSED BUILDING. THE DEPTH OF THE EXCAVATION SHALL BE CONFIRMED BY THE STRUCTURAL ENGINEER AS BASIS OF EXCAVATION FOR ALL OTHER FOOTINGS
4. THE STRUCTURAL ENGINEER SHALL BE INFORMED OF ANY DEVIATION OF THE SOIL LAYERING AS COMPARED TO THE FIRST FOUR (4) EXCAVATION
5. EXISTING UNDERGROUND PIPES, TUNNELS ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR EVALUATION
6. ANY EXCAVATION ADJACENT TO ANY EXISTING STRUCTURE SHALL BE PROVIDED WITH ADEQUATE SHEET PILING BY THE CONTRACTOR. THE SHEET PILES SHALL BE PROPERLY DESIGNED TO RESIST THE EARTH AND WATER PRESSURES AS WELL AS SURCHARGED LOADINGS ON THE FOOTINGS OF THE ADJACENT EXISTING STRUCTURES.
7. UNLESS OTHERWISE SPECIFIED BY THE STRUCTURAL ENGINEER, THE CHB WALL FOOTING SHALL BE AS SHOWN IN THE STRUCTURAL PLAN
8. R.C. SLABS ON FILL SHALL BE 0.15 M THICK WITH 12MM REINFORCING BARS AT 0.30M O.C. EACH WAY UNLESS OTHERWISE SPECIFIED IN THE PLANS
9. PARKING SIDEWALKS ETC., SHALL BE COMPACTED 90% COMPACTION IN LAYERS OF 0.30M UNLESS OTHERWISE SPECIFIED BY THE STRUCTURAL ENGINEER.

D. REINFORCED CONCRETE SLABS

1. UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS, CAMBER ALL R.C. SLABS 3mm FOR EVERY 3,300mm OF THE SHORTER SPAN
2. IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONGER SPAN AT THE CENTER AND OVER THE LONGER BARS NEAR THE SUPPORTS
3. LENGTHS OF BAR CUT-OFFS SHALL BE AS SHOWN IN THE STRUCTURAL PLANS
4. FOR FLAT SLABS, LONG SPAN BOTTOM BARS SHALL BE PLACED BELOW THE SHORT SPAN BARS AND TOP BARS, VICE VERSA
5. CONCRETE COVERING SHALL BE 20mm CLEAR FOR TOP AND BOTTOM BARS
6. UNLESS OTHERWISE SPECIFIED BY THE STRUCTURAL ENGINEER, BAR CHAIRS SHALL BE PROVIDED AT LEAST 600mm EACH WAY TO SUPPORT THE TOP AND BOTTOM BARS SEPARATELY.

E. CHB WALLS

1. UNLESS OTHERWISE SPECIFIED, THE VERTICAL AND HORIZONTAL REINFORCEMENTS FO CHB SHALL BE 12MM AT 0.40M O.C. FOR WALL THICKNESS, LAP SPLICES SHALL BE 0.30M LONG (MINIMUM)
2. LINTEL BEAMS TO BE USED SHALL BE (t x 0.20M) REINFORCED BY 4-12MM BARS WITH 10MM AT 0.30M. O.C. TIES WHERE "t" IS THE CHB WALL THICKNESS.
3. LINTEL BEAMS SHALL BE PROVIDED AT THE TOP OF CHB WALL OPENINGS. IT SHALL BE EXTENDED AT LEAST 0.20M BEYOND OPENINGS
4. FOR HIGH WALLS, LINTEL BEAMS SHALL BE PROVIDED AT 3.00m O.C.
5. FOR LONG WALLS, LINTEL BEAMS ACTING AS COLUMN SHALL BE PROVIDED AT 3.0m O.C.
6. WHERE CHB WALL ADJOINS R.C. COLUMN AND BEAMS PRIOR TO POURING TO MATCH CHB WALL REINFORCEMENT, THE DOWEL SHALL BE 12mm BARS AT 0.40m O.C.
7. WHERE THE TOP CHB WALL ADJOINS A BEAM, PROVIDE A 25mm TO FILLED WITH SOFT MATERIAL LIKE BACKER ROD AND SEALANT.
8. WHERE COLUMNS AND BEAMS ARE TO BE POURED WITHOUT CHB WALL DOWEL PROVIDE RAMPSETS AND 16 GA GALVANIZED STEEL STRAPS 0.40m O.C. NO CHIPPING OF CONCRETE COLUMNS AND BEAMS IS ALLOWED UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.

F. STRUCTURAL TOLERANCES

UNLESS OTHERWISE SPECIFIED BY THE STRUCTURAL ENGINEER THE FOLLOWING ARE ACCEPTABLE STRUCTURAL TOLERANCES FOR CAST-IN-PLACE CONCRETE CONTRUCTION. ALL DIMENSION WHICH ARE NOT WITHIN THE REQUIRED TOLERANCES SHALL BE CORRECTED PRIOR TO POURING OF CONCRETE.
TOLERANCES FOR PRE-CAST CONCRETE CONSTRUCTION SHALL $\frac{1}{2}$ OF THE VALUES GIVEN BELOW

1.A CROSS SECTIONAL DIMENSIONS AND LOCATION OF REINFORCEMENTS, PRE-STRESSING STEEL AND PRE-STRESSING STEEL DUCTS

DIMENSIONS LESS THAN 200mm	+/- 6mm
200mm TO 600mm	+/- 9mm
OVER 600mm	+/- 12mm

2.B. MEMBER LENGTH OR HEIGHT +/- 6mm PER 3.0m (MAXIMUM LIMITATION = 12mm)

3.C. DEVIATION FROM STRAIGHT LINE (SWEEP AND / OR PLUMBERS) +/- 6mm PER 3.0m

4.D. LOCATION OF BAR CUT-OFFS OR BENDS +/- 50mm

G. CONSTRUCTION JOINTS

1. CONSTRUCTION JOINTS SHALL BE LOCATED NEAR THE MIDDLE OF THE SPAN OF SLABS,, BEAMS OR GIRDERS
2. AT BEAM / GIRDER INTERSECTION, THE CONSTRUCTION JOINT ON THE GIRDER SHALL BE OFFSET AT A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM. DIAGONAL BARS SHALL BE PROVIDED TO RESIST 100% SHEAR OF THE CONSTRUCTION JOINT
3. CONSTRUCTION JOINTS IN COLUMN SHALL BE LOCATED A DISTANCE ABOVE THE FLOOR EQUAL TO MAXIMUM DIMENSION OR $\frac{1}{6}$ THE STORY HEIGHT
4. WHERE THE JOINT IS TO BE MADE, THE SURFACE OF THE CONCRETE SHALL BE THOROUGHLY WETTED AND COATED WITH NEAT CEMENT GROUT IMMEDIATELY BEFORE PLACING NEW CONCRETE
5. CONSTRUCTION JOINTS IN WALLS, SLABS AND OTHER STRUCTURES THAT ARE SUBJECTED TO WATER PRESSURE SHALL BE PROVIDED WITH WATER STOPS, KIND, TYPE AND SIZE OF WATER STOPS SHALL BE AS APPROVED BY THE ENGINEER

H. STANDARD HOOK

1. A STANDARD HOOK FOR REBARS IF REQUIRED SHALL BE EITHER OF THE FOLLOWING:
   1.1. A SEMICIRCULAR TUM PLUS AN EXTENSION OF AT LEAST 4 DIA. BUT NOT LESS THAN 62mm AT THE FREE END OF THE BAR
   1.2. A 90 DEG. TURN PLUS AN EXTENSION OF AT LEAST 12 DIA. AT THE FREE AND OF THE BAR
2. MINIMUM DIAMETER OF BEND MEASURED ON THE INSIDE OF THE BAR SHALL BE AS FOLLOW

10mm DIAMETER TO 25mm DIAMETER	6 DIA.
28mm DIAMETER TO 26mm DIAMETER	8 DIA.
NO. 14 TO NO. 18	10 DIA.

I. R.C. SLABS ON GROUND

UNLESS OTHERWISE SPECIFIED, THICKNESS AND REINFORCEMENT OF R.C. SLABS FOR DIFFERENT TYPES OF OCCUPANCY:

BAR SIZE	fc' = 20.7 MPa	fc' = 27.8 MPa
10	300	300
12	300	300
16	360	360
20	430	430
25	810	710
28	1,550	1,350
32	1,980	1,700
36	2,440	2,100

OCCUPANCY	ALLOWABLE LIVE LOAD	SLAB THICKNESS	REINFORCEMENT
DOMESTIC OR LIGHT COMMERCIAL	4.8 kPa	0.100 M	10mm DIAMETER @ 300mm B.W.
COMMERCIAL	7.2 kPa	0.123 M	10mm DIAMETER @ 300mm B.W.
INDUSTRIAL PLANTS, GAS STATIONS & GARAGES	24.0 kPa	0.150 M	12mm DIAMETER @ 300mm B.W.
INDUSTRIAL	48.0 kPa	0.200 M	12mm DIAMETER @ 300mm B.W. TOP & BOTTOM

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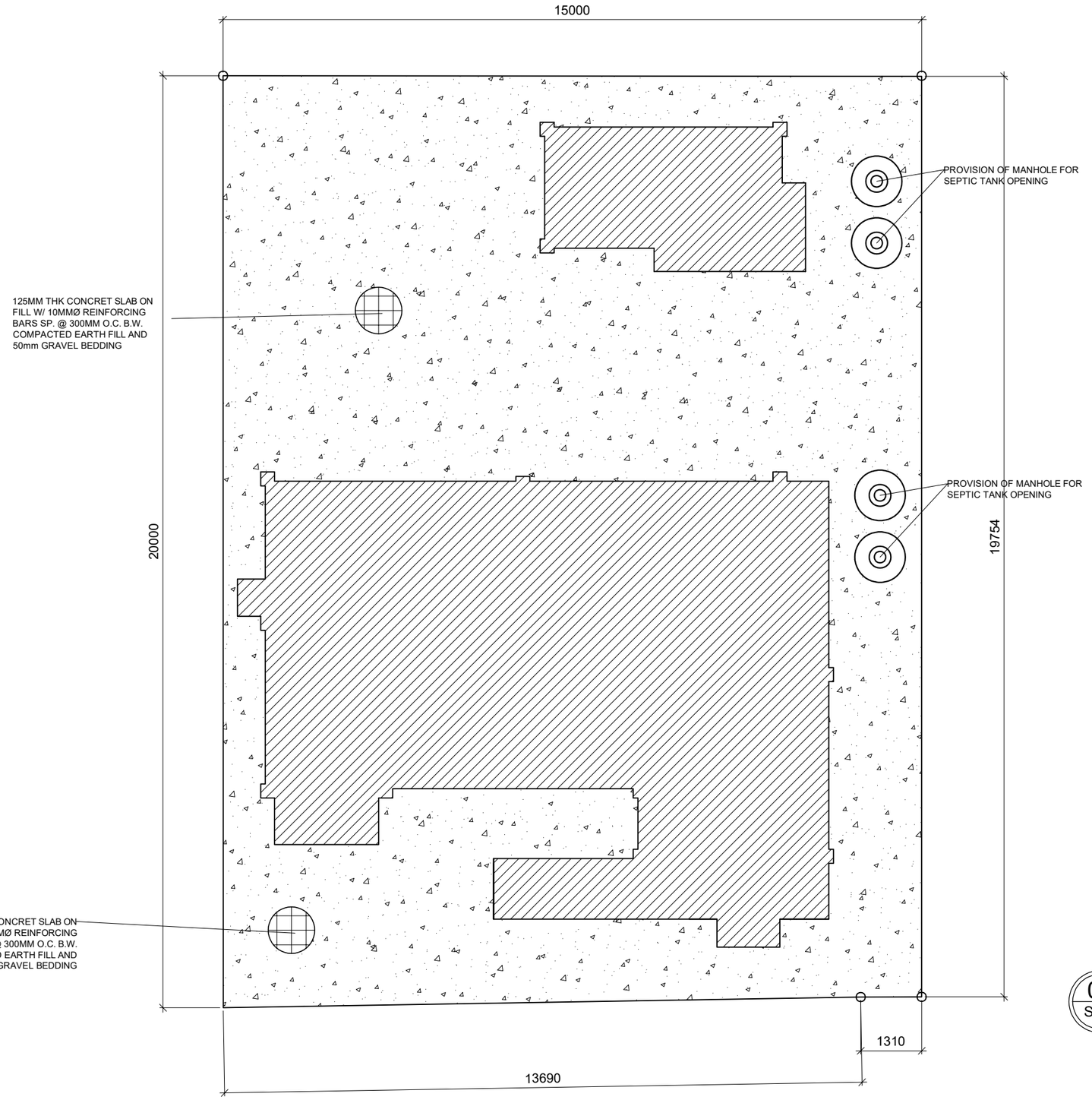

01 / S 02

SLAB PLAN

SCALE 1:100M

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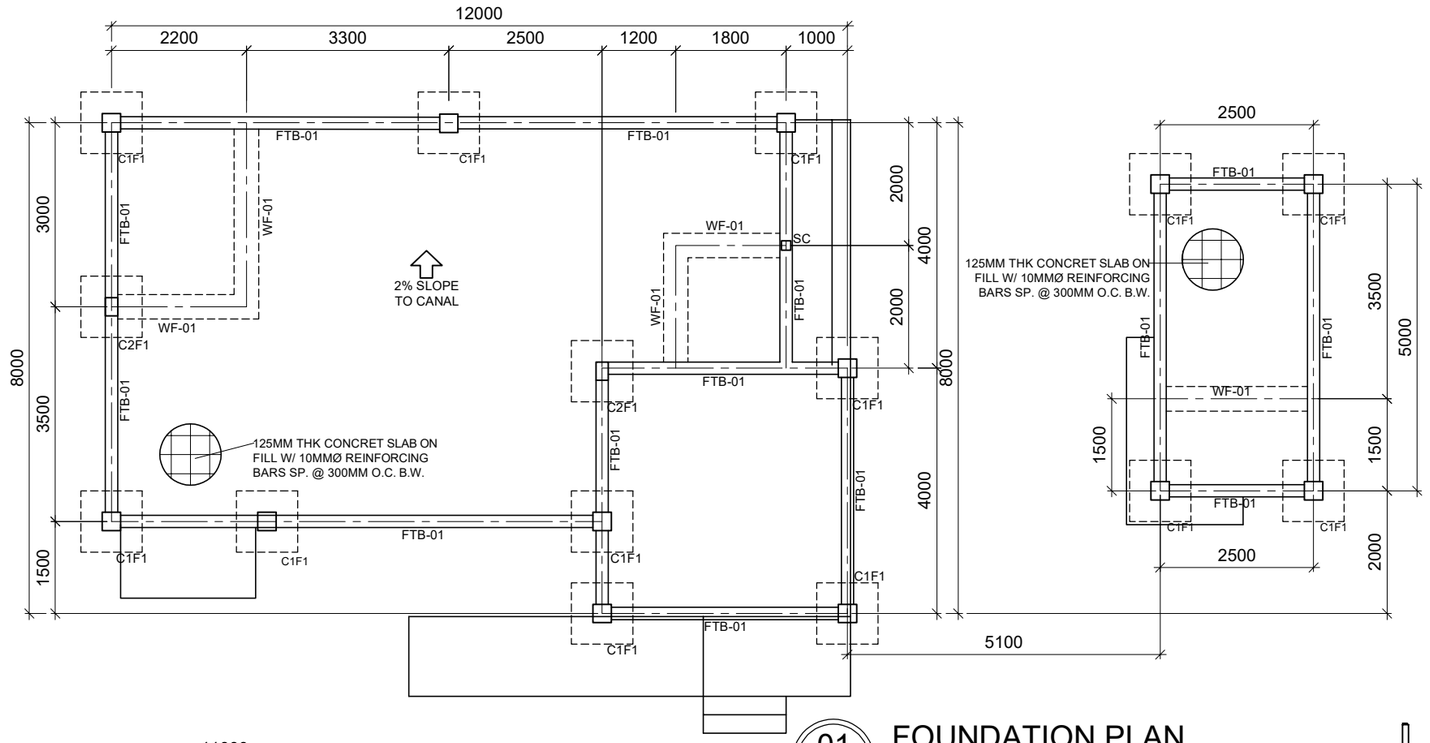
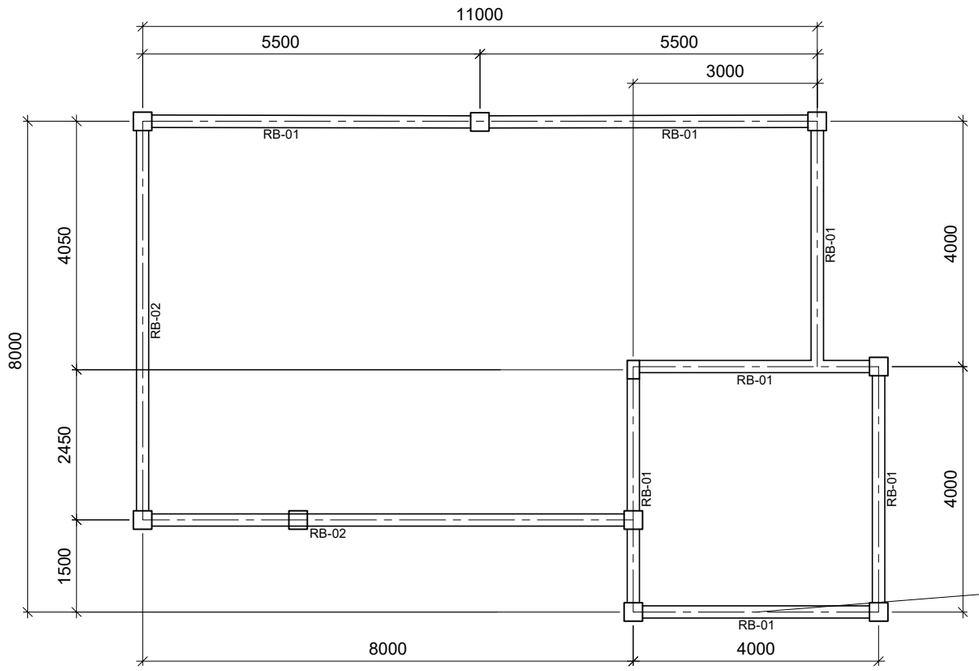
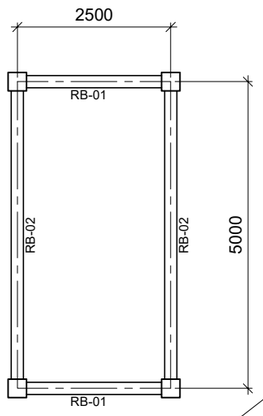


01 FOUNDATION PLAN

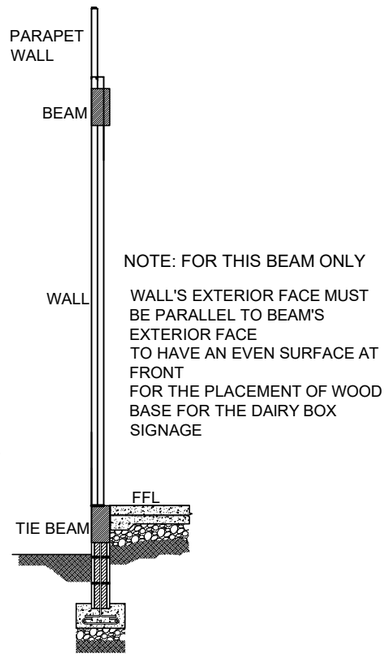
S 03 SCALE 1:100M





02 ROOF BEAM PLAN

S 03 SCALE 1:100M



NOTE: FOR THIS BEAM ONLY

WALL'S EXTERIOR FACE MUST
BE PARALLEL TO BEAM'S
EXTERIOR FACE
TO HAVE AN EVEN SURFACE AT
FRONT
FOR THE PLACEMENT OF WOOD
BASE FOR THE DAIRY BOX
SIGNAGE

SECTION

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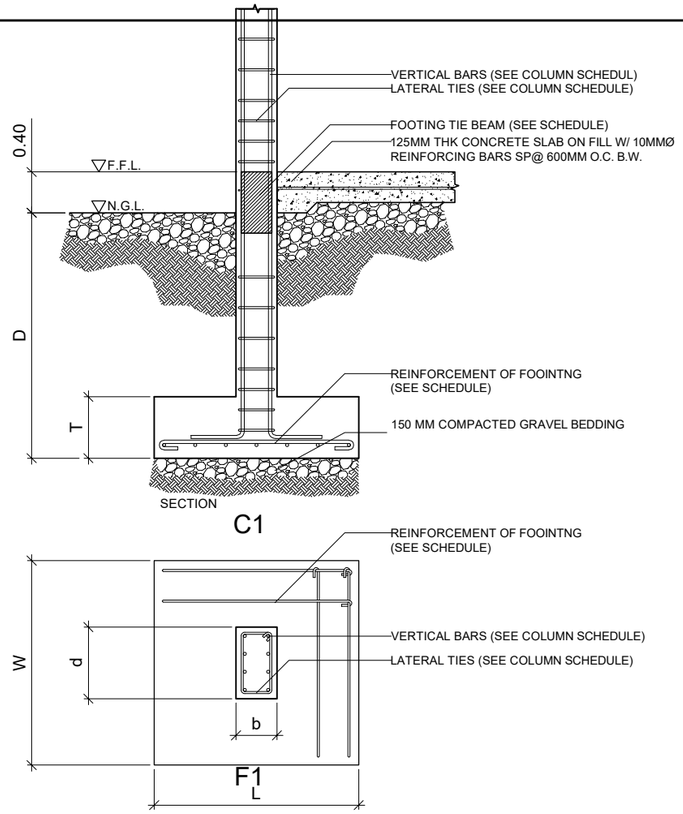
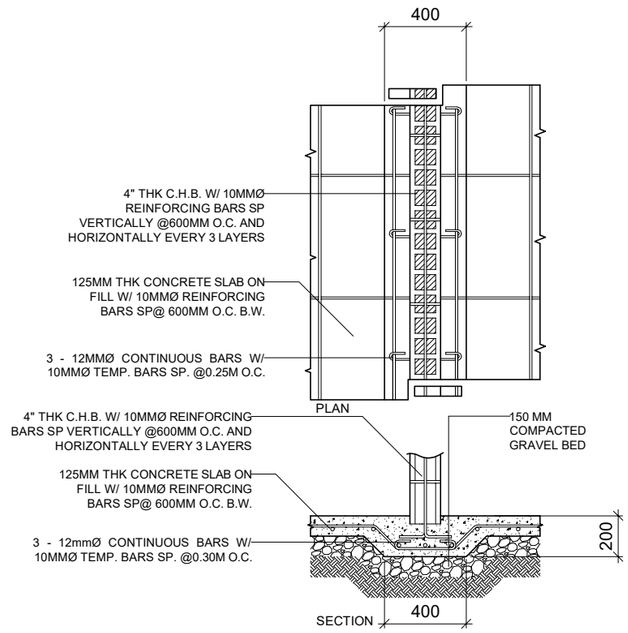


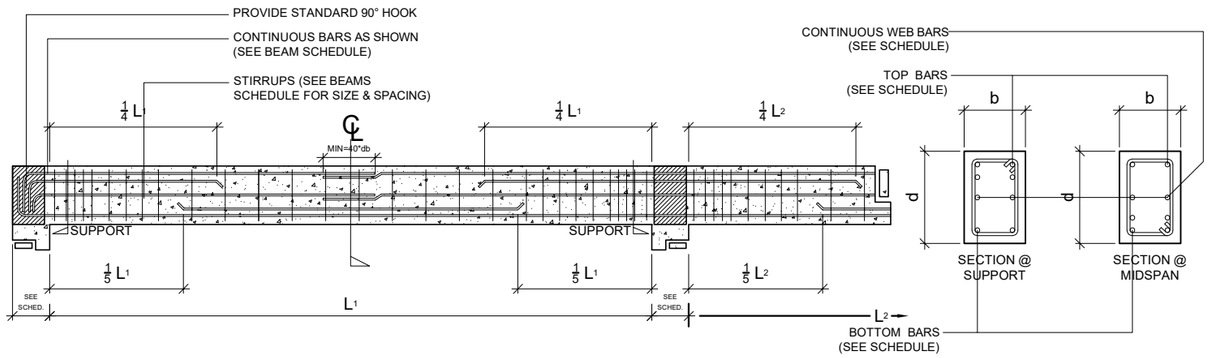


01 S 04 — TYP. COLUMN & FTG. DET.
SCALE NTS

02 S 04 — WALL FTG DETAILS
SCALE NTS

SCHEDULE OF COLUMNS				
COLUMN ID	b (MM)	d (MM)	VERTICAL	LAT. TIES
C1	300	300	8 - 16mmØ	10MMØ SP. 2@.05, 2@0.10, 2@.15 REST @ .20M. O.C.
C2	200	300	6 - 16mmØ	10MMØ SP. 2@.05, 2@0.10, 2@.15 REST @ .20M. O.C.
SC	150	150	4 - 16mmØ	10MMØ SP. 2@.05, 2@0.10, 2@.15 REST @ .20M. O.C.

SCHEDULE OF FOOTINGS					
FOOTING ID	L (MM)	W (MM)	T (MM)	D (MM)	TEMP. BARS
F1	1000	1000	300	1500	7 - 16mmØ BOTH WAYS



SCHEDULE OF BEAMS								
BEAM ID	b (MM)	d (MM)	@SUPPORT		@MIDSPAN		WEB BARS	STIRRUPS
			TOP BARS	BOT BARS	TOP BARS	BOT BARS		
FTB1	200	400	2 - 16mmØ	2 - 16mmØ	2 - 16mmØ	2 - 16mmØ	-	10MMØ SP. 4@.05, 2@0.10, 2@.15 REST @ .20M. O.C.
RB1	200	300	2- 16mmØ	2 - 16mmØ	2 - 16mmØ	2 - 16mmØ	-	10MMØ SP. 4@.05, 2@0.10, 2@.15 REST @ .20M. O.C.
RB2	200	300	2- 16mmØ	2 - 16mmØ	2 - 16mmØ	2 - 16mmØ	2 - 12MMØ	10MMØ SP. 4@.05, 2@0.10, 2@.15 REST @ .20M. O.C.

04 S 04 — TYP. BEAM DETAILS
SCALE NTS

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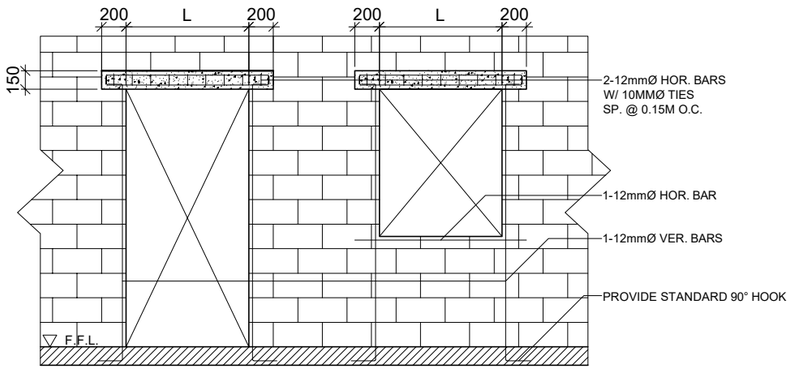
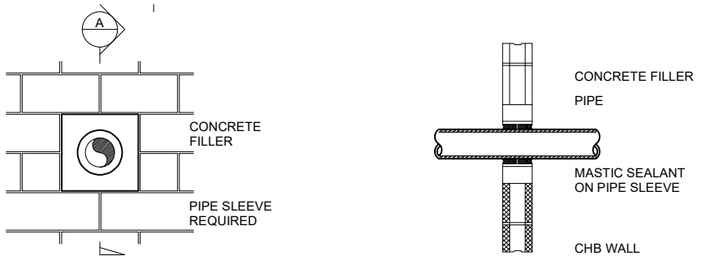
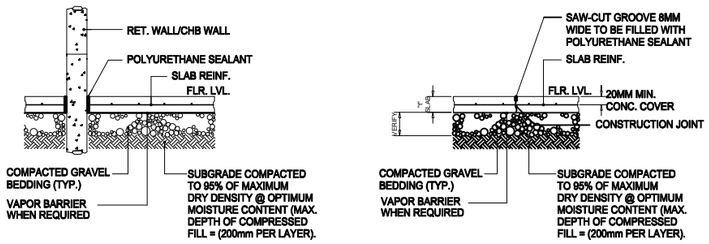


01 S 05 DOOR/WINDOW OPENING DETAILS

SCALE NTS

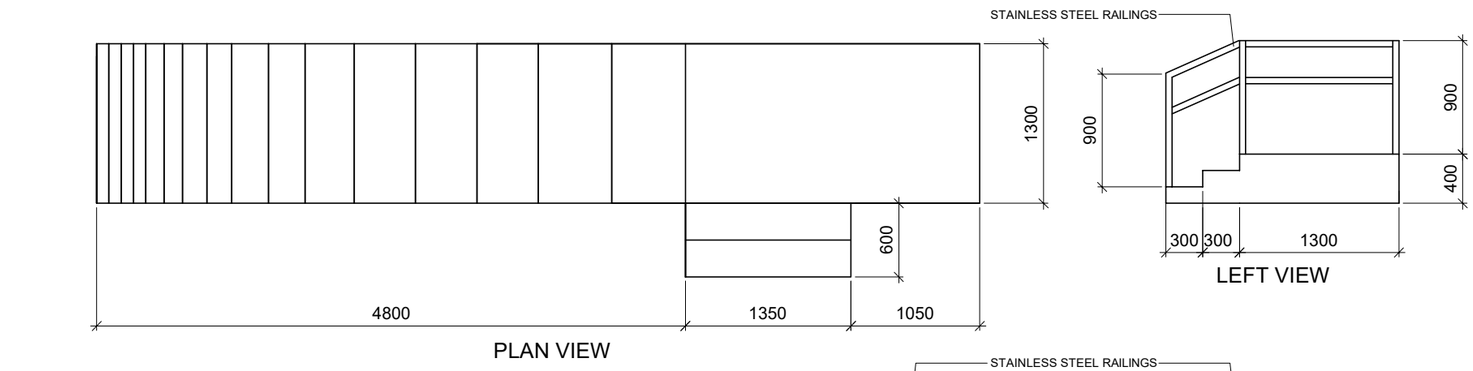


PIPE SLEEVE THRU WALL



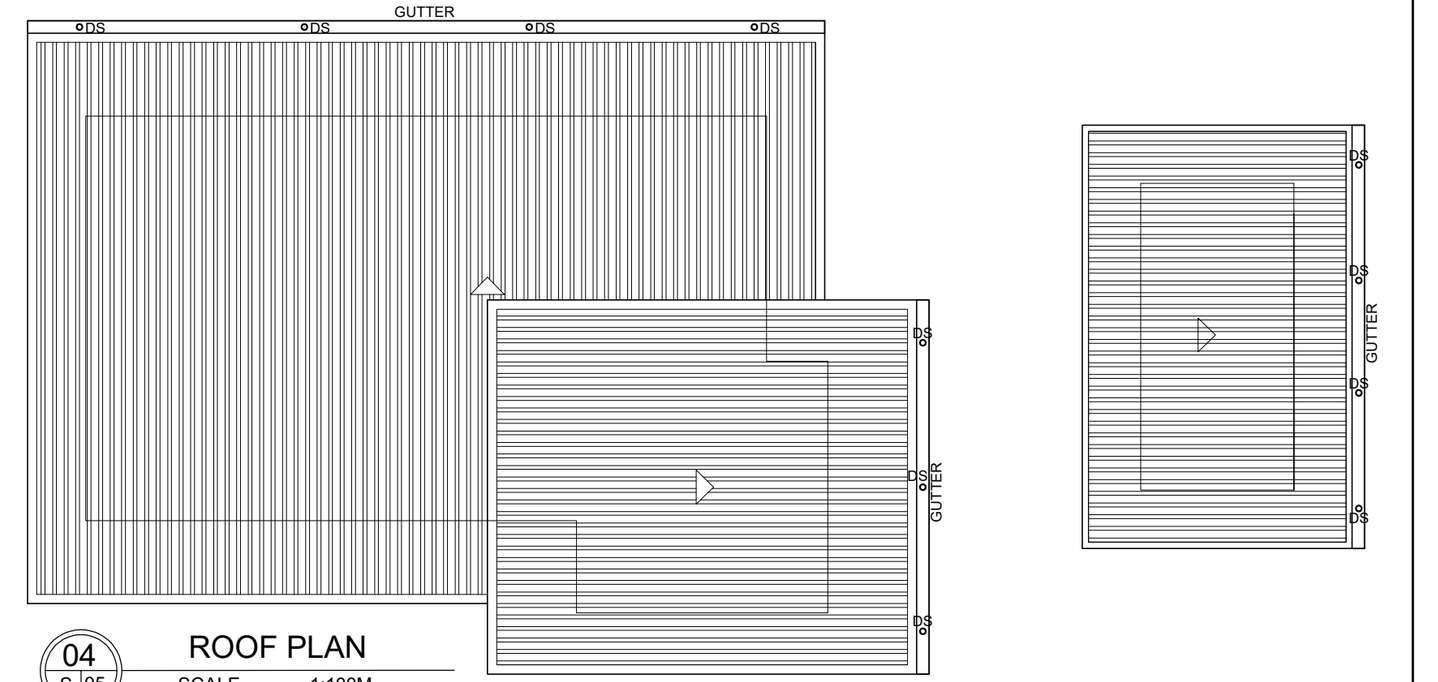
03 S 05 MISCELLANEOUS DETAILS

SCALE NTS



02 S 05 RAMP AND RAILINGS DETAILS

SCALE 1:100M



04 S 05 ROOF PLAN

SCALE 1:100M

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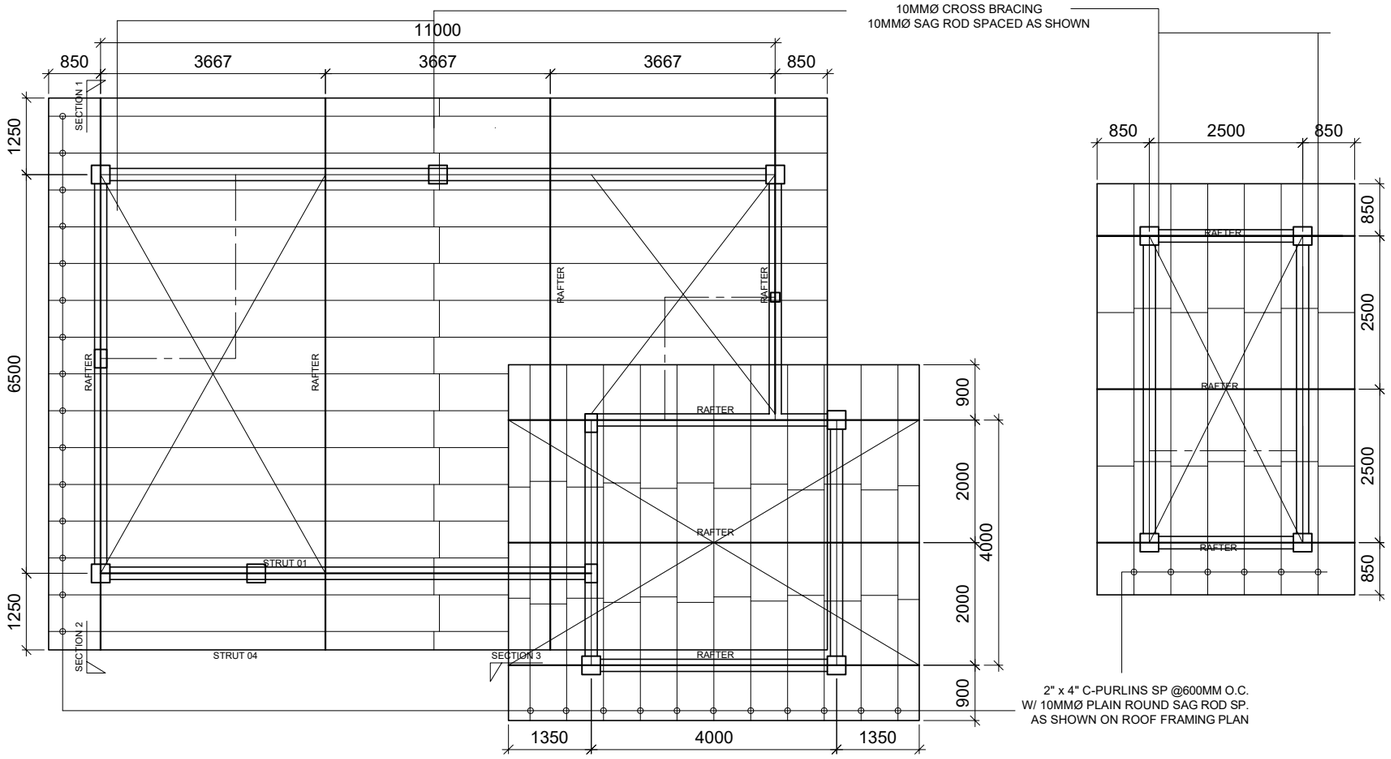
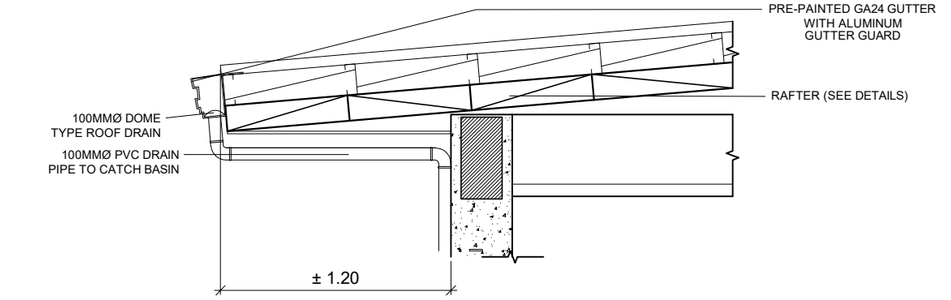
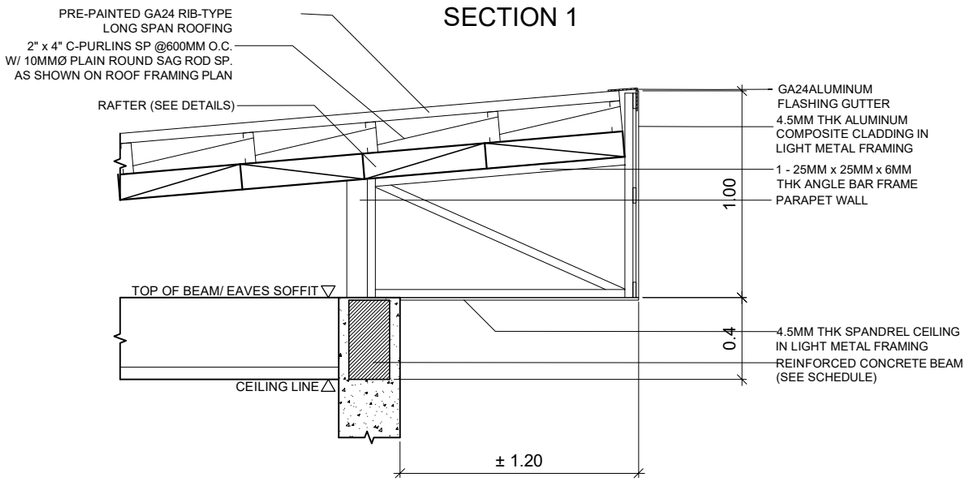


01 ROOF FRAMING PLAN

SCALE 1:100M



SECTION 1



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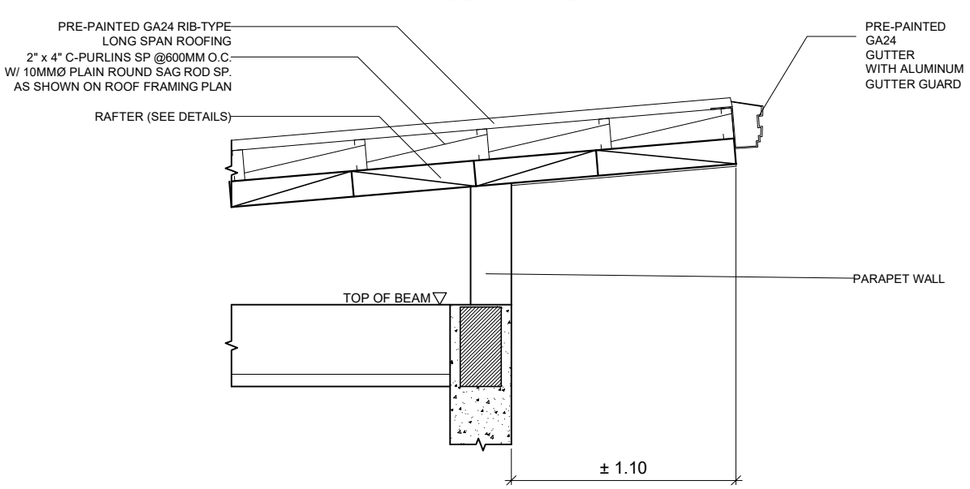

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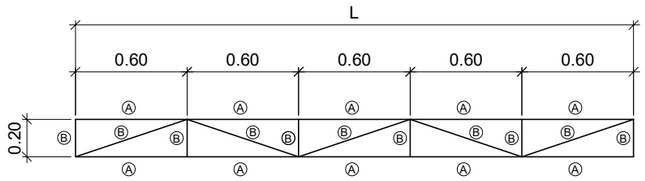
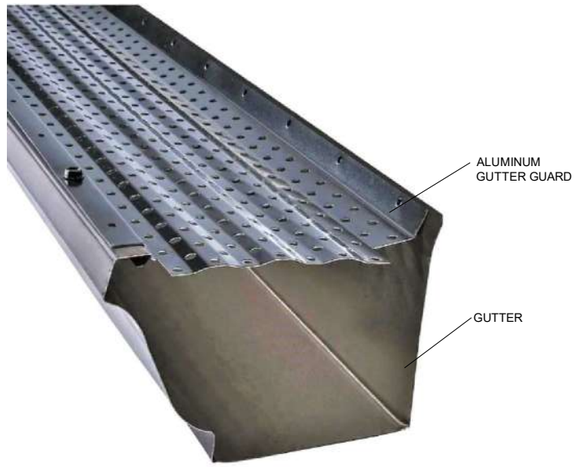


RAFTER DETAILS

Ⓐ 2 - ∠ 50MM x 50MM ANGLE BAR TOP AND BOTTOM CHORD

Ⓑ 1 - ∠ 50MM x 50MM ANGLE BAR WEB MEMBERS



ALUMINUM GUTTER GUARD

02 MISCELLANEOUS DETAILS

SCALE NTS

03 ROOF FRAMING DETAILS

SCALE NTS

PHILIPPINE CARABAO CENTER NATIONAL GENE POOL & HEADQUARTERS CLSU Cpd., Science City of Munoz, Nueva Ecija	PREPARED BY: ENGR. CHRISTOPHER FEBB F. SAN MIGUEL ENGINEER I, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER PRC ID: PTR NO: ISSUED ON: ISSUED AT:	CHECKED AND REVIEWED BY: ENGR. CRIS GUZON HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER	RECOMMENDING APPROVAL: DR. MYRTEL C. ALCAZAR OIC - CENTER CHIEF PHILIPPINE CARABAO CENTER - WVSU	PROJECT TITLE/LOCATION: PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET TIGBAUAN, ILOILO	APPROVED BY: DR. LIZA G. BATTAD EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER	DRAFTED BY: CFFSM REVISION:	SHEET CONTENTS: AS SHOWN SHEET No. S-06 17 22

PLUMBING NOTES

1. ALL MATERIALS, FIXTURES & EQUIPMENT TO BE USED IN THE PLUMBING INSTALLATION SHALL BE NEW, OF THE APPROVED TYPE & SIZE AS TO ITS INTENDED USAGE.

2. ALL INSTALLATION SHALL BE IN CONFORMANCE WITH THE PLUMBING CODE OF THE PHILIPPINES, ITS RULES & REGULATIONS.

3. DRAINAGE PIPING SHALL BE PROVIDED WITH APPROVED INLET FITTINGS FOR FIXTURE CONNECTIONS, CORRECTLY LOCATED ACCORDING TO THE SIZE & TYPE OF FIXTURE PROPOSED TO BE CONNECTED.

4. CHANGE IN DIRECTION OF DRAINAGE PIPING SHALL BE MADE WITH APPROPRIATE USE OF APPROVED FITTINGS & SHALL BE OF THE ANGLES REPRESENTED BY A 1/16 BEND, 1/8 BEND, 1/6 BEND OR OTHER APPROVED FITTINGS OR EQUIVALENT SWEEP.

5. PROVIDE CLEAN-OUT FOR EACH CHANGE IN DIRECTION IF THE TOTAL AGGREGATE CHANGE EXCEEDS 135 DEGREES.

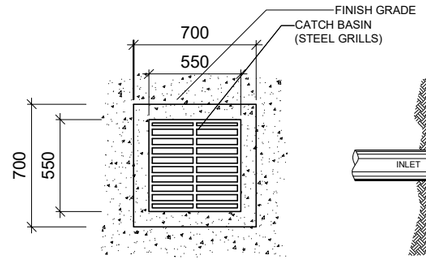
6. EACH CLEAN-OUT SHALL BE INSTALLED SO THAT IT OPENS IN A DIRECTION OPPOSITE TO THE FLOW OF SOIL OR WASTE OR AT RIGHT ANGLES THERETO. ADDITIONAL CLEANOUTS SHALL BE INSTALLED AT INTERVALS NOT TO EXCEED 100 FT (30.5 m.) IN STRAIGHT RUNS.

7. HORIZONTAL DRAINAGE PIPING SHALL RUN IN PRACTICAL ALIGNMENT & A UNIFORM SLOPE OF NOT LESS THAN 1/4 OF AN INCH PER FOOT (20.8 mm/mt.) OR 2% TOWARD THE POINT OF DISPOSAL.

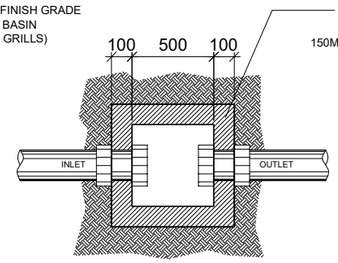
8. UNLESS PROHIBITED BY STRUCTURAL CONDITIONS, EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN 6" (152.4 mm ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE SERVED BEFORE) OFFSETTING HORIZONTALLY.

9. EACH VENT PIPE OR STACK SHALL EXTEND THROUGH ITS FLASHING & SHALL TERMINATE VERTICALLY NOT LESS THAN 6" (152.4 mm) ABOVE THE ROOF & ONE FOOT (0.30 m.) FROM ANY VERTICAL SURFACE.

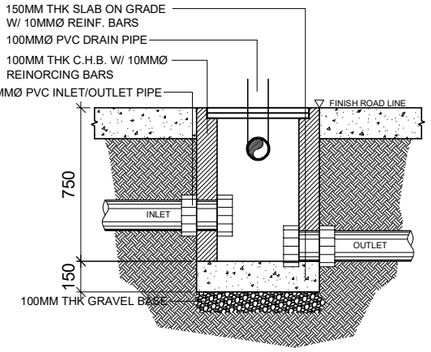
10. PIPING SHALL BE LAID ON A FIRM BED THROUGHOUT ITS ENTIRE LENGTH. IF ANY SUCH PIPING IS LAID IN MADE OR FILLED GROUND, IT SHALL BE LAID ON A BED OF APPROVED MATERIALS & SHALL BE ADEQUATELY SUPPORTED.



CB COVER PLAN



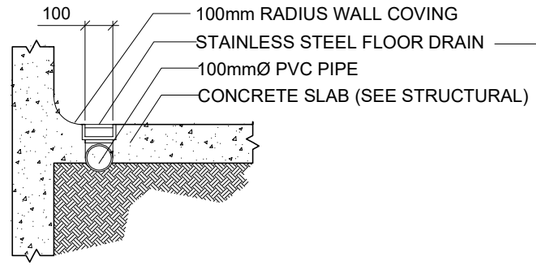
CB MANHOLE PLAN

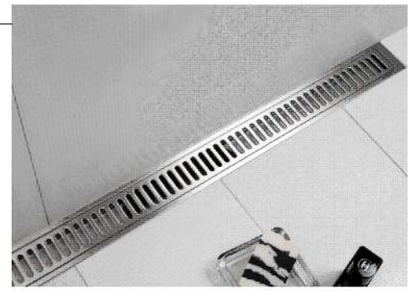


SECTION

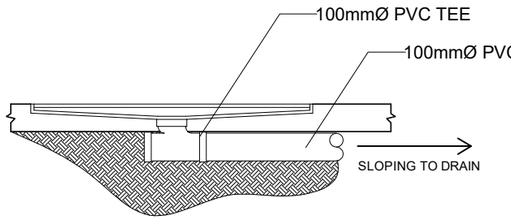
01 / P 01 — CATCH BASIN DETAILS

SCALE NTS





10cm x 100cm STAINLESS FLOOR DRAIN WITH ANTI ODOR STRAINER



02 / P 01 — FLOOR CANAL SECTION

SCALE NTS

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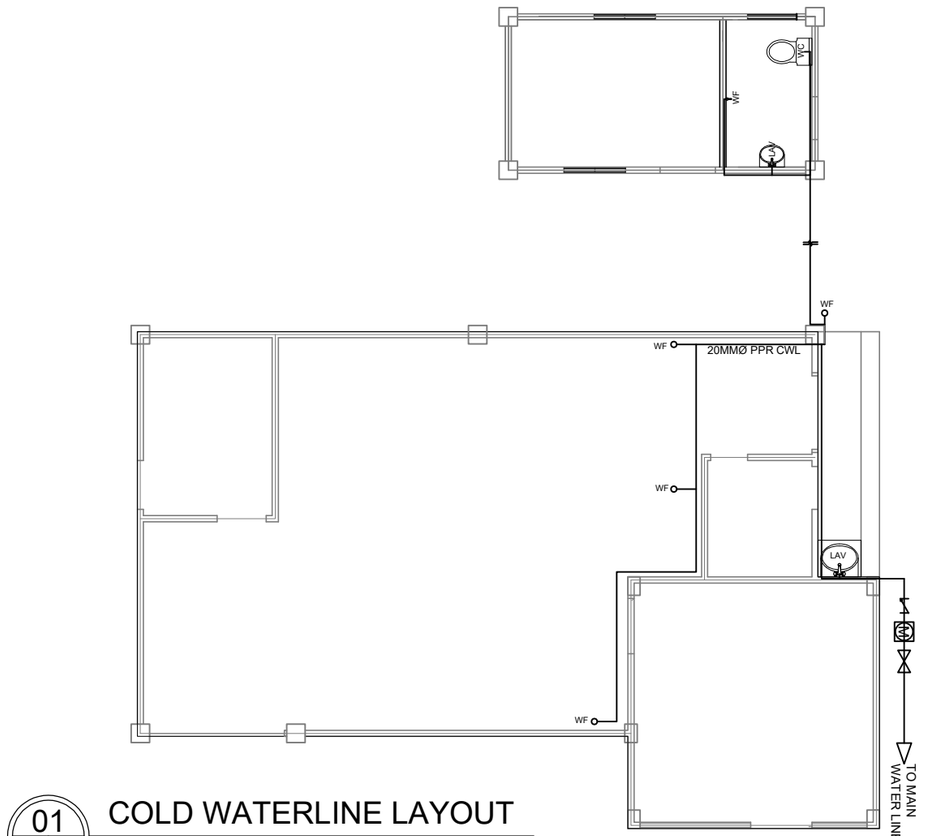
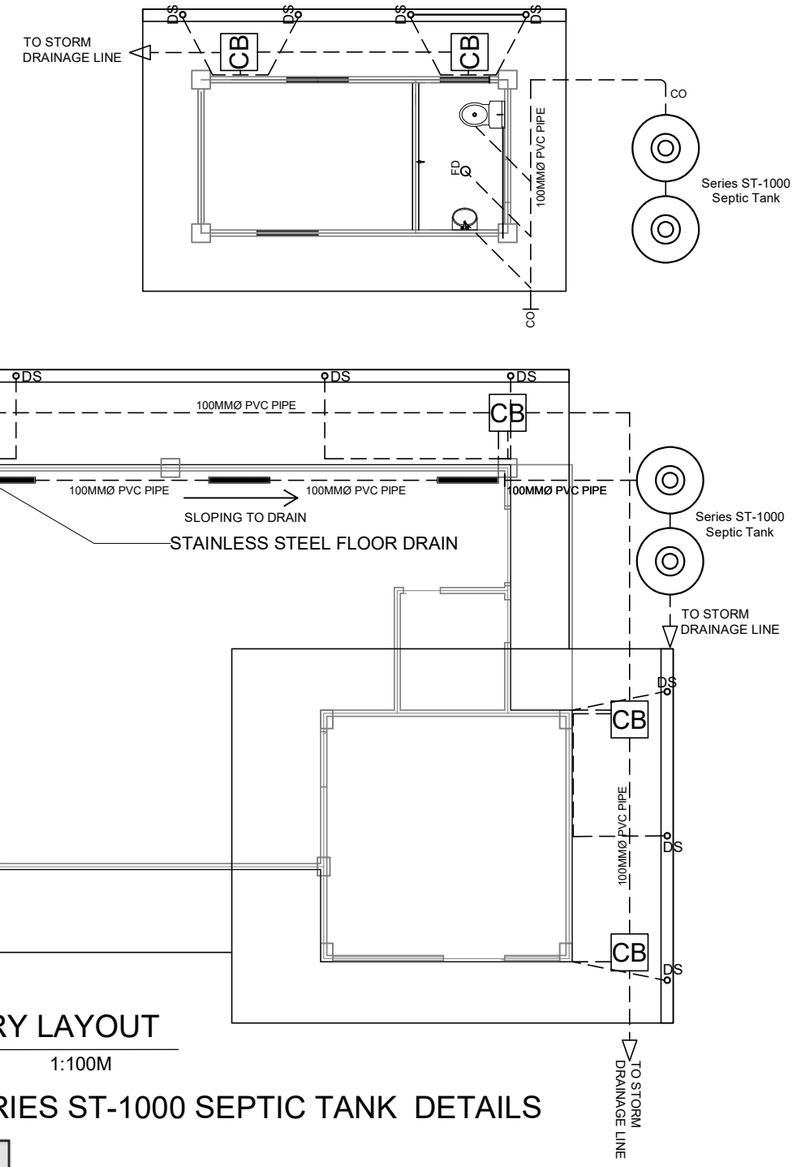


01 P 02 COLD WATERLINE LAYOUT

SCALE 1:100M



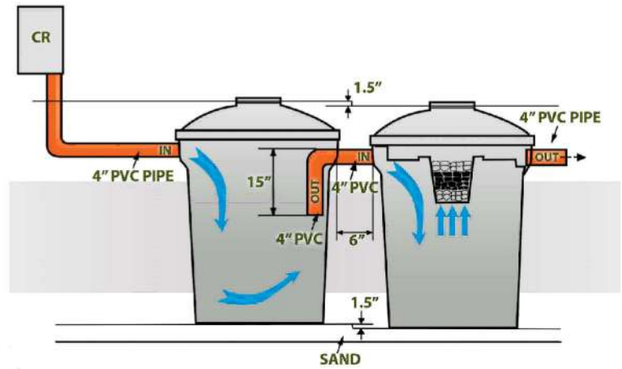
02 P 02 SANITARY LAYOUT

SCALE 1:100M

PLUMBING LEGENDS

——	COLD WATER LINE	FD	FLOOR DRAIN
——	SANITARY LINE	CO	CLEAN OUT
DS	DOWNSPOUT	CB	CATCH BASIN
LAV	LAVATORY	M	WATER METER(MAIN)
WF	WATER FAUCET		GATE VALVE
WC	WATER CLOSET		CHECK VALVE

SERIES ST-1000 SEPTIC TANK DETAILS



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ELECTRICAL NOTES

1. ALL ELECTRICAL WORKS HEREIN INCLUDED WERE EXECUTED IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE THE RULES AND REGULATIONS OF THE LOCALITY AND THE REQUIREMENTS OF THE POWER COMPANY.

2. ALL ELECTRICAL WORKS HEREIN WERE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL-TIME LICENSED ELECTRICAL ENGINEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR BY PCAB. WORKS WERE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.

3. TYPE OF SERVICE ENTRANCE WERE THREE-PHASE, THREE-WIRE PLUS GROUND 13.2KVOLTS, 60 HERTZ TO STEP DOWN TO 230V VIA PAD MOUNTED TRANSFORMERS.

4. ALL MATERIALS WERE CONFORM WITH THE INTERNATIONALLY ACCREDITED RECOGNIZED STANDARDS, IN EVERY CASE WHERE SUCH A STANDARD HAD BEEN ESTABLISHED FOR THE PARTICULAR TYPE OF MATERIAL IN QUESTION.

5. ALL FEEDER CONDUITS WERE INTERMEDIATE METALLIC CONDUIT (IMC) OF HIGH STRENGTH AND GALVANIZED WITH AN ADDITIONAL INTERIOR PROTECTIVE COATING WERE USED OR AS INDICATED ON THE PLAN. ALL EMBEDDED BRANCH CIRCUITS WERE PVC CONDUITS AND FOR EXPOSED INSTALLATION WERE EMT.

6. ELECTRICAL TRADE SIZE WERE USED, A MINIMUM OF 15mm Ø FOR CONDUITS AND IN NO CASE THERE WERE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS IN ANY ONE RUN.

7. ALL CONDUITS WERE PROTECTED AGAINST DAMAGES BY THE ENTRANCE OF WATER AND FOREIGN MATTER DURING CONSTRUCTION. ALL ENDS OF CONDUITS WERE PLUGGED TO EXCLUDE MOISTURE AND DUST IMMEDIATELY AFTER THE CONDUITS WAS PLACED.

8. ALL CONDUIT BENDS WERE FIELD MADE BY USING HYDRAULIC BENDERS. MINIMUM BENDING RADIUS WERE IN ACCORDANCE TO THE CODE REQUIREMENTS.

9. SINGLE CONDUCTOR INSULATED THHN / THWN THERMOPLASTIC 600 V WIRES WERE USED IN CONDUIT. MINIMUM SIZE OF WIRES WERE 2.0 mmØ THHN (#12AWG, SOLID) FOR ALL LIGHTING AND POWER SYSTEM.

10. ALL WIRES AND CABLES WERE COLOR CODED AND WERE UL LISTED AS FOLLOWS:
    PHASE A - BLACK GROUND - GREEN
    PHASE B - RED CONTROL WIRE #1 - BLUE
    PHASE C - YELLOW CONTROL WIRE #2 - WHITE

11. TWISTLOCK CONNECTORS WERE USED IN ALL SPLICING AND CONNECTIONS FROM 2.0 mm dia. UP TO 8.0 sq. mm. WIRES, CRIMPING-TYPE LUGS/CONNECTORS IN ALL OTHER SIZES WITH APPROVED DIES AND HYDRAULIC CRIMPERS, CONNECTORS WERE "ELPRESS".

12. WALL SWITCHES WERE RATED 15 AMPERES, 300 VOLTS TUMBLER TYPE AND CONVE-NIENCE OUTLETS WERE OF GROUNDING TYPE THREE-WIRE, 250 VOLTS OR AS INDICATED ON THE PLANS AND SPECIFICATIONS.

13. SIZING OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. LOCATION OF PULLBOXES WERE APPROVED BY THE ARCHITECT/ENGINEER AND WAS REFLECTED ON THE "AS-BUILT" PLAN. FABRICATOR OF PULLBOXES WERE THE SAME FABRICATOR FOR THE PANELBOARDS.

14. CONTRACTORS HAD SUBMITTED SHOP DRAWINGS OF ALL PANELBOARDS AND PULLBOXES TO THE ENGINEER PRIOR TO FABRICATION. ONLY ONE BRAND OF CIRCUIT BREAKER AND ONLY THE APPROVED PANEL FABRICATOR WERE UTILIZED IN THE ENTIRE PROJECT REQUIREMENT.

15. MOUNTING HEIGHTS OF DEVICES WERE AS APPROVED BY THE ARCHITECT AND/OR AS FOLLOWS :
    PANEL BOARD _ _ _ _ _ _ 1.82 M. above finished floor to top of panel
    WALL SWITCHES_ _ _ _ _ _ 1.37 M. above finished floor to center of device
    CONVENIENCE OUTLET_0.30 M. above finished floor to center of device or
    0.15 M. above working counter to center of device

16. THERE WERE ADEQUATE AND EFFECTIVE EQUIPMENT GROUNDING.

17. UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, THE FOLLOWING TESTS WERE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE OWNER'S REPRESENTATIVE :

    A. INSULATION RESISTANCE TEST
    B. GROUND RESISTANCE TEST
    C. OPERATIONAL TEST
    D. PHASE BALANCING TEST
    E. PHASE SEQUENCE TESTING
    F. HI-POT TESTING
    G. SYSTEM TEST
    H. ROUTINE TESTING

18. DOWN CONDUCTOR FOR THE LIGHTNING PREVENTION SYSTEM WERE STRANDED BARE COPPER, 100mm^2 FOR CONNECTION TO GROUNDING ELECTRODE USING EXOTHERMIC CONNECTIONS.

19. AIR TERMINAL/IONZER TO BE USED WERE LISTED PER UL 96A, NFPA-78.

20. A PHASE TO PHASE AND PHASE TO GROUND MINIMUM CLEARANCE OF 460mm AND 330mm RESPECTIVELY, WERE MAINTAINED INSIDE THE HIGH VOLTAGE CUBICLE..

21. THE MINIMUM VERTICAL AND HORIZONTAL CLEARANCE OF 34.5KV BARE CONDUCTORS FROM THE BUILDING SHALL BE 3.05 METERS.

22. THE GROUND RESISTANCE OF THE SUBSTATION WAS NOT MORE THAN 5 OHMS, IF GROUND RESISTANCE EXCEEDS 5 OHMS, ADDITIONAL GROUND RODS WERE PROVIDED.

23. THE CONTROLS OF THE MAIN SECONDARY BREAKERS, GENERATOR BREAKERS, THE BREAKERS AND INTERLOCKS WERE TESTED BY MERALCO TO ASSURE THAT THERE IS NO PARALLEL OPERATION WITH OR FEEDBACK INTO THE MERALCO DISTRIBUTION SYSTEM.

24. DANGER SIGNS ON THE POWER ROOM WERE PROVIDED BY THE CUSTOMER.

LEGENDS AND SYMBOLS

LP	LP – LIGHTING PANELBOARD PP – POWER PANELBOARD RP – RECEPTACLE PANEL DP – DISTRIBUTION PANEL MDP – MAIN DISTRIBUTION PANEL
	POWER LINES
	CIRCUIT RUN FOR LIGHTING
	LIGHTING SWITCH HOMERUN
	CIRCUIT RUN UNDERFLOOR OR UNDERGROUND
	CIRCUIT HOMERUN DESIGNATION, UPPER HALF DENOTES POWER SOURCE OF THE CIRCUIT WHILE LOWER HALF DESIGNATES CIRCUIT NO.
RU	CONDUIT RISER UP
RD	CONDUIT RISER DOWN
	LIQUIDTIGHT FLEXIBLE CONDUIT
PB	PULLBOX, SIZE AS REQUIRED
	DUPLEX CONVENIENCE OUTLET , 3–WIRE GROUNDING TYPE, 230VAC 15 AMPERES, FLOOR MOUNTED
	DUPLEX CONVENIENCE OUTLET , 3–WIRE GROUNDING TYPE, 230VAC 15 AMPERES
WP	DITTO , BUT WITH WEATHERPROOF COVER
GFCI	DITTO , BUT WITH GROUND FAULT CIRCUIT INTERRUPTER
WP GFCI	DITTO , BUT WITH WEATHER PROOF COVER AND GROUND FAULT CIRCUIT INTERRUPTER COMBINATION
S1a	SINGLE–GANG SWITCH, 15 A , 230VAC
S2ab	TWO–GANG SWITCH , 15A 230VAC
S3abc	TREE–GANG SWITCH , 15A , 230VAC
S3Wa	ONE–GANG THREE WAY SWITCH 15 A , 230VAC
	6" DIAMETER PINLIGHT WITH ALUMINUM REFLECTOR AND GLASS COVER 1 X 13 WATTS LED BULB
	36WATTS, RECESSED LED PANEL LIGHT , 60CM X 60CM
EF	INDUSTRIAL GRADE WALL EXHAUST FAN WITH SHUTTER 16" DIAMETER BLADE
	12X12" CEILING EXHAUST FAN
	SERVICE ENTRANCE, 13.2KV, 3ø, 4 WIRES, 60HZ
	LIGHTING PROTECTION SYSTEM, AIR TERMINAL
LA	LIGHTNING ARRESTER, 15KV
	FUSE CUT–OUT, 15KV
	GROUND SYSTEM W/ 20mmø x 3000mmL GROUND ROD
EMH	ELECTRICAL MANHOLE

PHILIPPINE CARABAO CENTER
NATIONAL GENE POOL & HEADQUARTERS
CLSU Cpd., Science City of Munoz, Nueva Ecija

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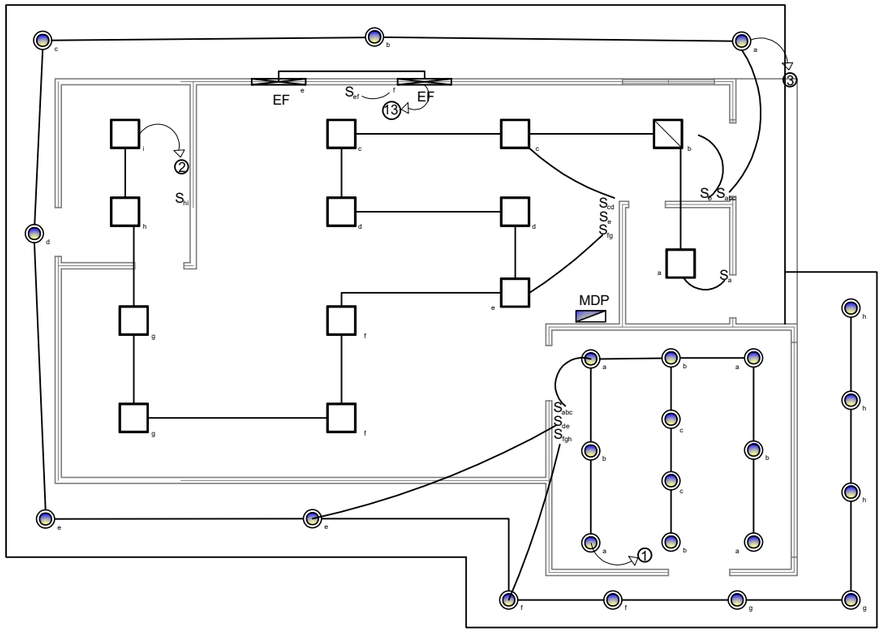
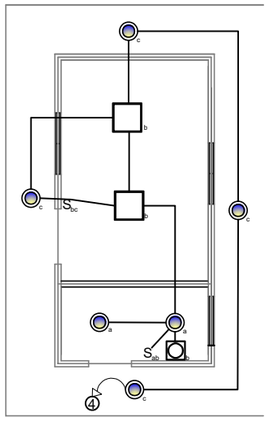




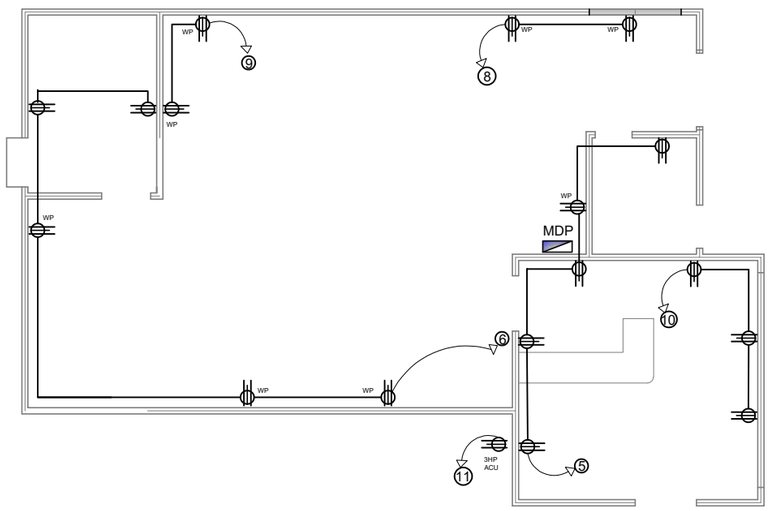
01 / E 02

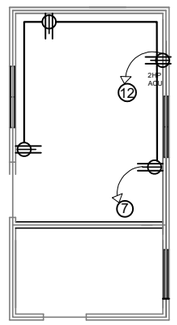
LIGHTING LAYOUT

SCALE 1:100M

SAMPLE IMAGES FOR
ELECTRICAL FIXTURES
VERIFY TO OWNER /
DESIGNATED OFFICE FOR THE
CHANGE OR ALTERNATIVES
BASED ON MARKET
AVAILABILITY

INDUSTRIAL GRADE WALL
EXHAUST FAN WITH SHUTTER,
16" DIAMETER BLADE





02 / E 02

POWER LINE LAYOUT

SCALE 1:100M

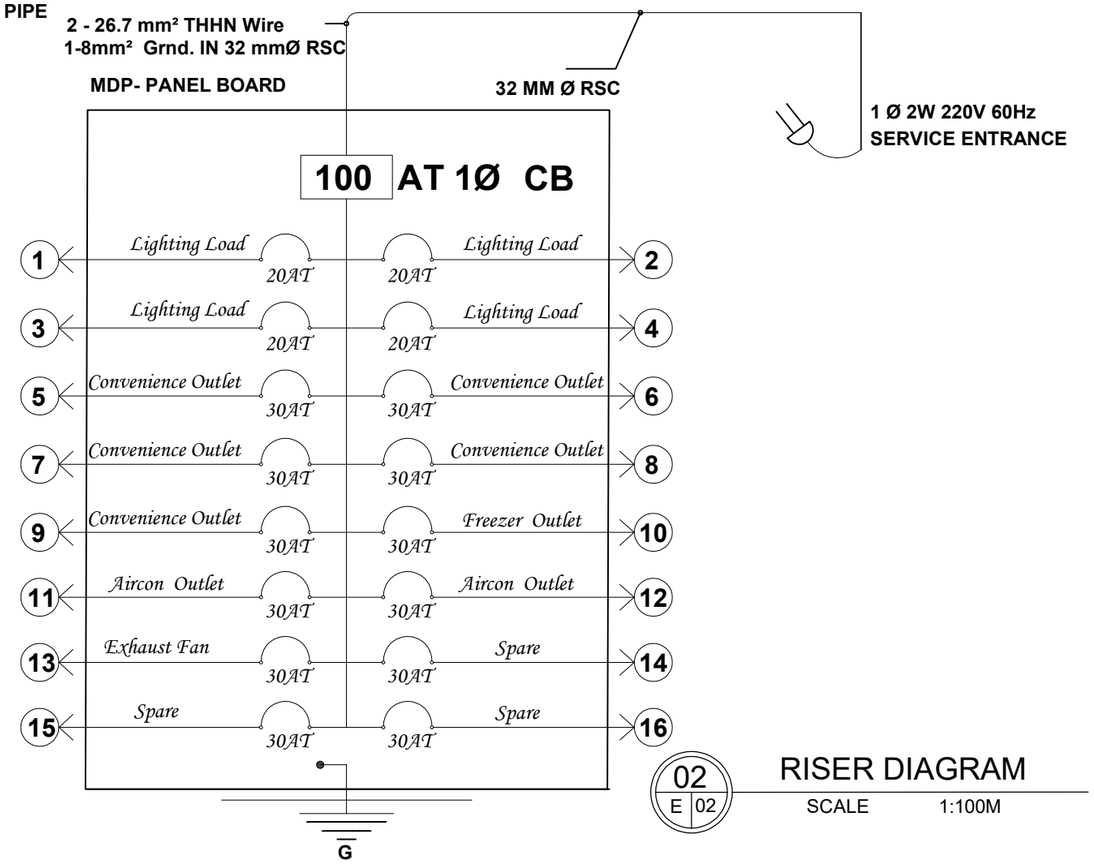
36WATTS, RECESSED LED PANEL LIGHT
60CM X 60CM

PHILIPPINE CARABAO CENTER NATIONAL GENE POOL & HEADQUARTERS CLSU Cpd., Science City of Munoz, Nueva Ecija	PREPARED BY: PRC ID: PTR NO: ISSUED ON: ISSUED AT:	CHECKED AND REVIEWED BY: ENGR. CRIS GUZON HEAD, LIVESTOCK ENGINEERING SECTION, PHILIPPINE CARABAO CENTER	RECOMMENDING APPROVAL: DR. MYRTEL C. ALCAZAR OIC - CENTER CHIEF PHILIPPINE CARABAO CENTER - WVSU	PROJECT TITLE/LOCATION: PROPOSED DAIRY PROCESSING FACILITY AND PRODUCTS OUTLET TIGBAUAN, ILOILO	APPROVED BY: DR. LIZA G. BATTAD EXECUTIVE DIRECTOR, PHILIPPINE CARABAO CENTER	DRAFTED BY: CFFSM REVISION:	SHEET CONTENTS: AS SHOWN SHEET No. E-02 21|22

LOAD SCHEDULE

PANEL	CKT NO.	LIGHTING OUTLET 10W	28W	36W	13W	EF	SW S3G	S2G	S1G	CO 180	OTHERS	QTY	WATTS	VOLT	AMPS	AMPERE AB	C.B. RATING AT	AF	POLE	KAIC	SIZE OF WIRE (THHN)	SIZE OF CONDUIT (RSC/EMT.PVC)
PANEL - MDP	1				10		1						130	220	0.590909	0.6	20	100	2	10	2-2.0mm², 1-2.0mm² GRD.	20mmØ PVC
	2			13				3	3				468	220	2.127273	2.13	20	100	2	10	2-2.0mm², 1-2.0mm² GRD.	20mmØ PVC
	3				13		2	1					182	220	0.827273	0.83	20	100	2	10	2-2.0mm², 1-2.0mm² GRD.	20mmØ PVC
	4			2	6			2			CEILING EXHAUST FAN (40W)	1	190	220	0.863636	0.87	20	100	2	10	2-2.0mm², 1-2.0mm² GRD.	20mmØ PVC
	5										POWER OUTLET	5	900	220	4.090909	4.1	30	100	2	10	2-3.5mm², 1-2.0mm² GRD.	20mmØ PVC
	6										POWER OUTLET	5	900	220	4.090909	4.1	30	100	2	10	2-3.5mm², 1-2.0mm² GRD.	20mmØ PVC
	7										POWER OUTLET	3	540	220	2.454545	2.46	30	100	2	10	2-3.5mm², 1-2.0mm² GRD.	20mmØ PVC
	8										POWER OUTLET	2	360	219	1.643836	5.46	30	100	2	10	2-3.5mm², 1-2.0mm² GRD.	20mmØ PVC
	9										POWER OUTLET	2	360	220	1.636364	1.64	30	100	2	10	2-3.5mm², 1-2.0mm² GRD.	20mmØ PVC
	10										FREEZER (400W)	3	1200	220	5.454545	5.46	30	100	2	10	2-5.5mm², 1-3.5mm² GRD.	20mmØ PVC
	11										2HP AC	1	1492	220	6.781818	6.79	30	100	2	10	2-5.5mm², 1-3.5mm² GRD.	20mmØ PVC
	12										1HP AC	1	746	220	3.390909	3.4	30	100	2	10	2-5.5mm², 1-3.5mm² GRD.	20mmØ PVC
	13							1			EXHAUST FAN (750W)	2	1500	220	6.818182	6.82	30	100	2	10	2-3.5mm², 1-3.5mm² GRD.	20mmØ PVC
	14										SPARE	1	1500	220	6.818182	6.82	30	100	2	10	2-5.5mm², 1-3.5mm² GRD.	20mmØ PVC
	15										SPARE	1	1500	220	6.818182	6.82	30	100	2	10	2-5.5mm², 1-3.5mm² GRD.	20mmØ PVC
	16										SPARE	1	1500	220	6.818182	6.82	30	100	2	10	2-5.5mm², 1-3.5mm² GRD.	20mmØ PVC
TOTAL				15	29		3	7	3				13468			65.12						

IFL = 13,468/(220) x 1.20 = 78.14 AMPS @ 100% D.F. (BASED ON LOAD CALCULATION)
MCB = 100AT/100AF, 2P, 230V, 10KAIC
USE = 2-26.7mm² THHN WIRE & 1-8mm² GRD THHN WIRE IN 32mm Ø RSC PIPE



02 / E 02

RISER DIAGRAM

SCALE 1:100M

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