



1. These drawings as an instrument of service are the property of the Licoland and must be returned when no longer required or used by the contractor.
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NOTES:

REVISIONS		
REV. NO.	DETAILS	DATE



DESIGN DEVELOPMENT SECTION
 PROJECT MANAGEMENT / CONSTRUCTION / DESIGN
 500 Shaw Blvd., Mandaluyong City, Philippines
 Tel: (02) 470 - 4712, 470 - 8593
 Website: <https://www.facebook.com/500ShawCentrum>

ARCHITECT:

PTR No. : DATE :
 PLACE : TIN :
 PRC REG.: IAPOA : -
 OWNER :

HARMONY HOMES INC.

OWNER'S APPROVAL

PROJECT:

PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED

LOCATION: PHASE 1 BLK 3 LOT 2, HARMONY
HOMES 3, SAN PEDRO LAGUNA

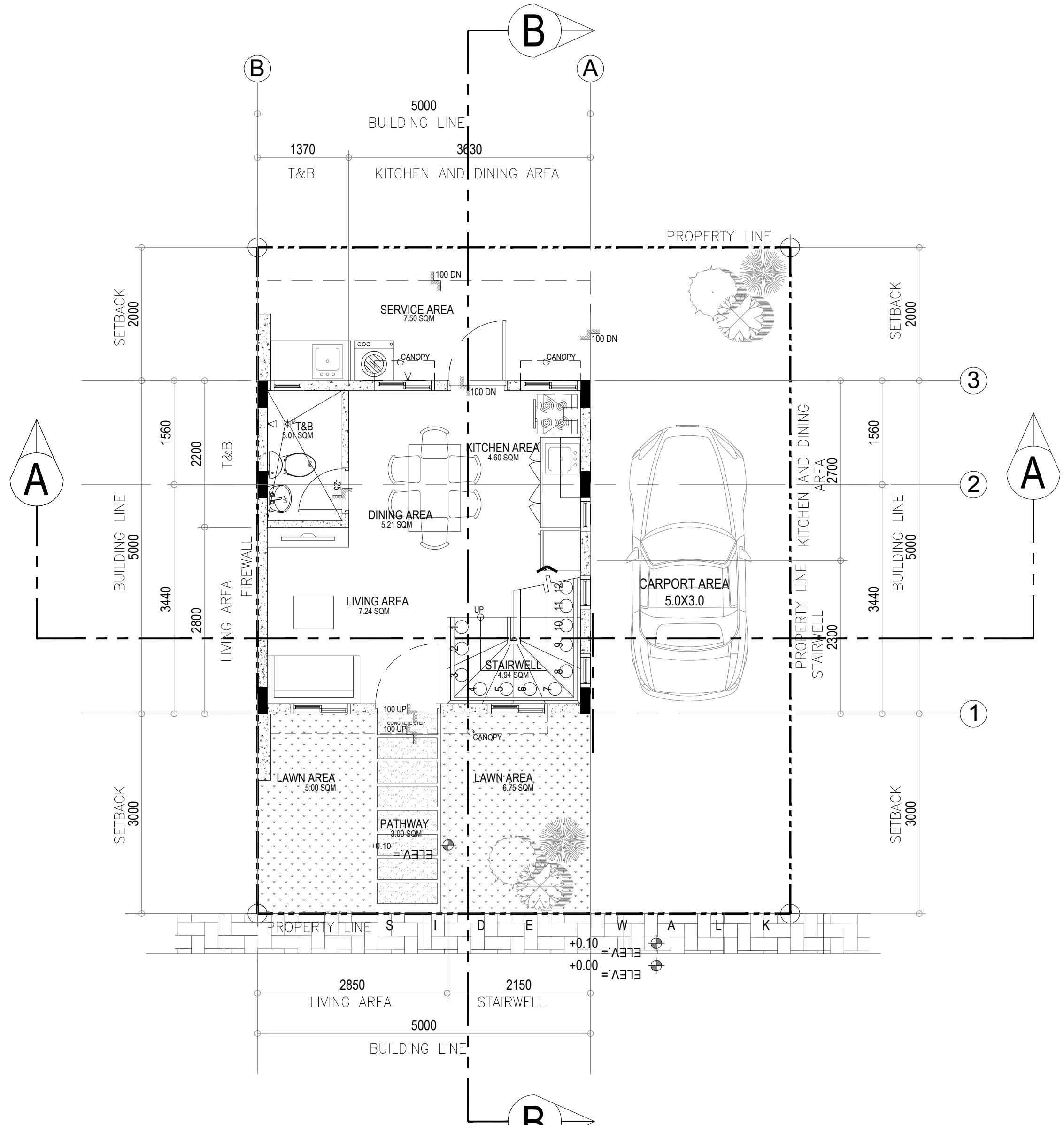
SHEET CONTENTS:

GROUND FLOOR PLAN
SECOND FLOOR PLAN

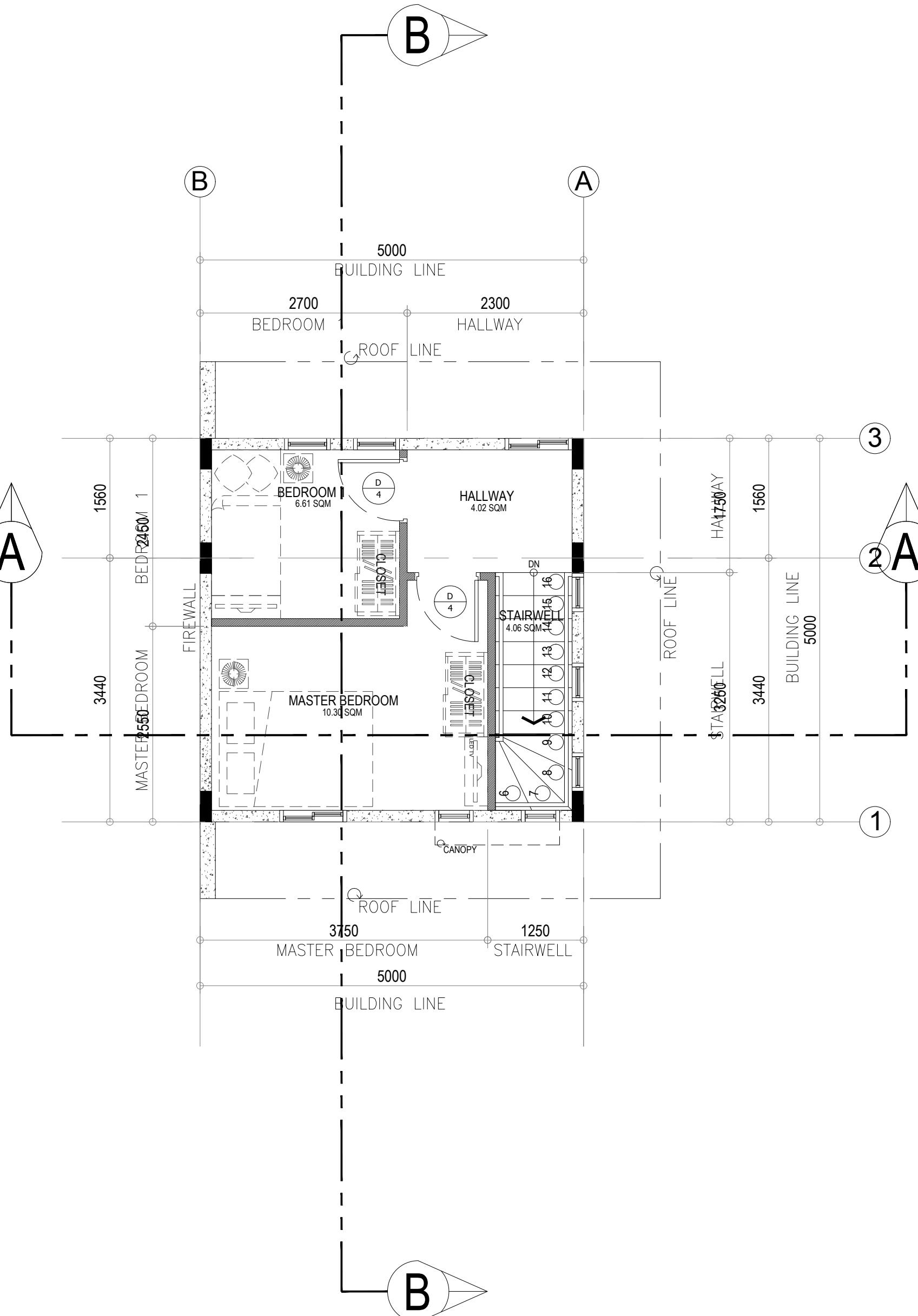
SCALE : AS SHOWN	JOB NO. :
DESIGNED :	DATE
DRAWN :	DATE
APPROVED : -	DATE :
SHEET NO.	TOTAL No. OF SHEETS

A01 2/13

ISSUED FOR:
APPLICATION FOR BLDG. PERMIT
DATE ISSUED:



1 GROUND FLOOR PLAN
A-01 SCALE 1:100MTS



2 SECOND FLOOR PLAN
A-01 SCALE 1:100MTS

ARCHITECTURAL SYMBOLS

(9)	STAIR NUMBERING	CF-1	CEILING FINISH CODE
(W)	WINDOW CODE	WF-1	WALL FINISH CODE
(D)	DOOR CODE	ED	ELEVATION CODE
(ELEV-HOD)	ELEVATION CODE	(A)	GRID CODE
(FF-1)	FLOOR FINISH CODE	(B)	SECTION CODE

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OWNER :	

HARMONY
HOMES INC.

OWNER'S APPROVAL

PROJECT:
PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

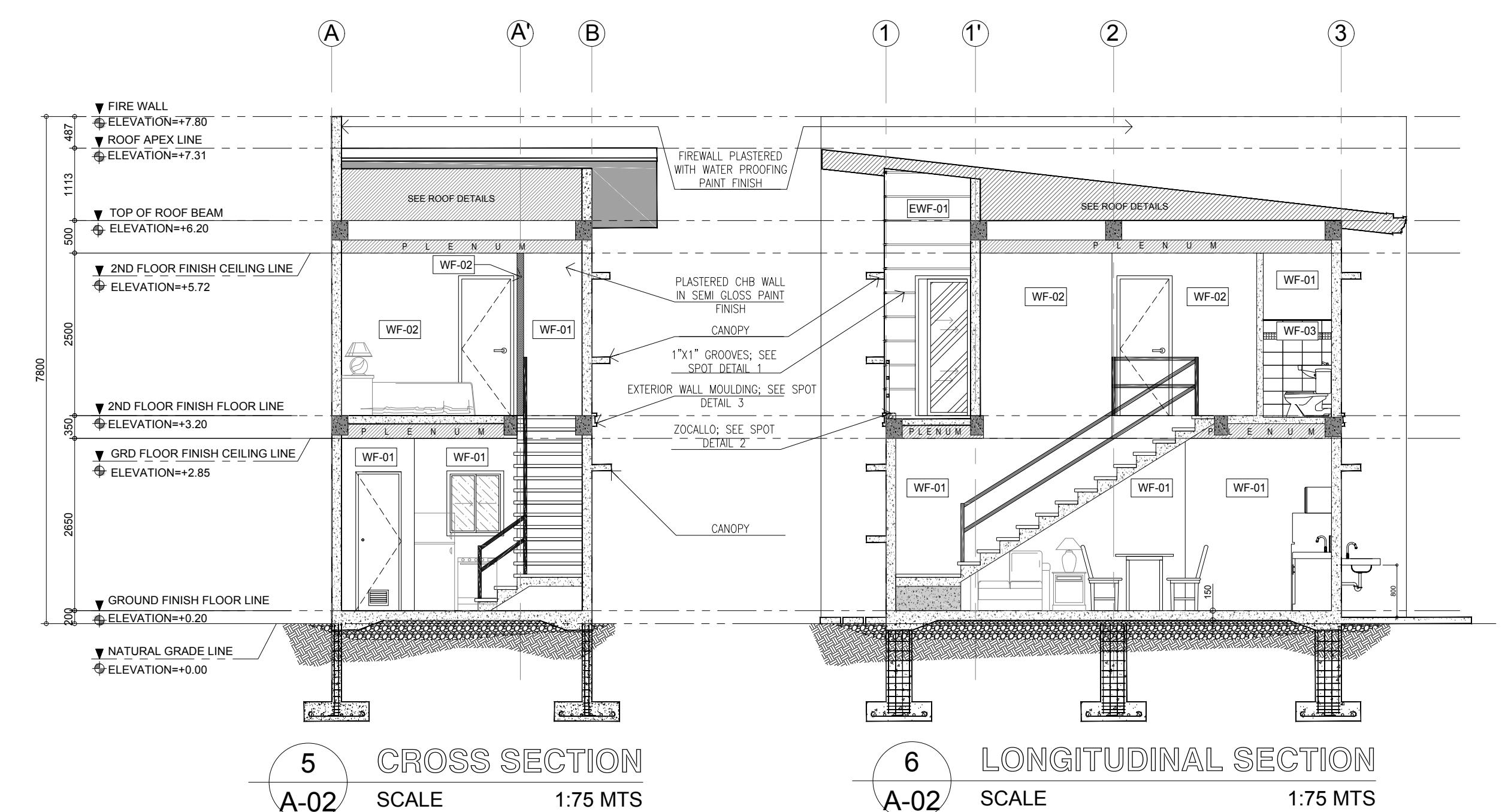
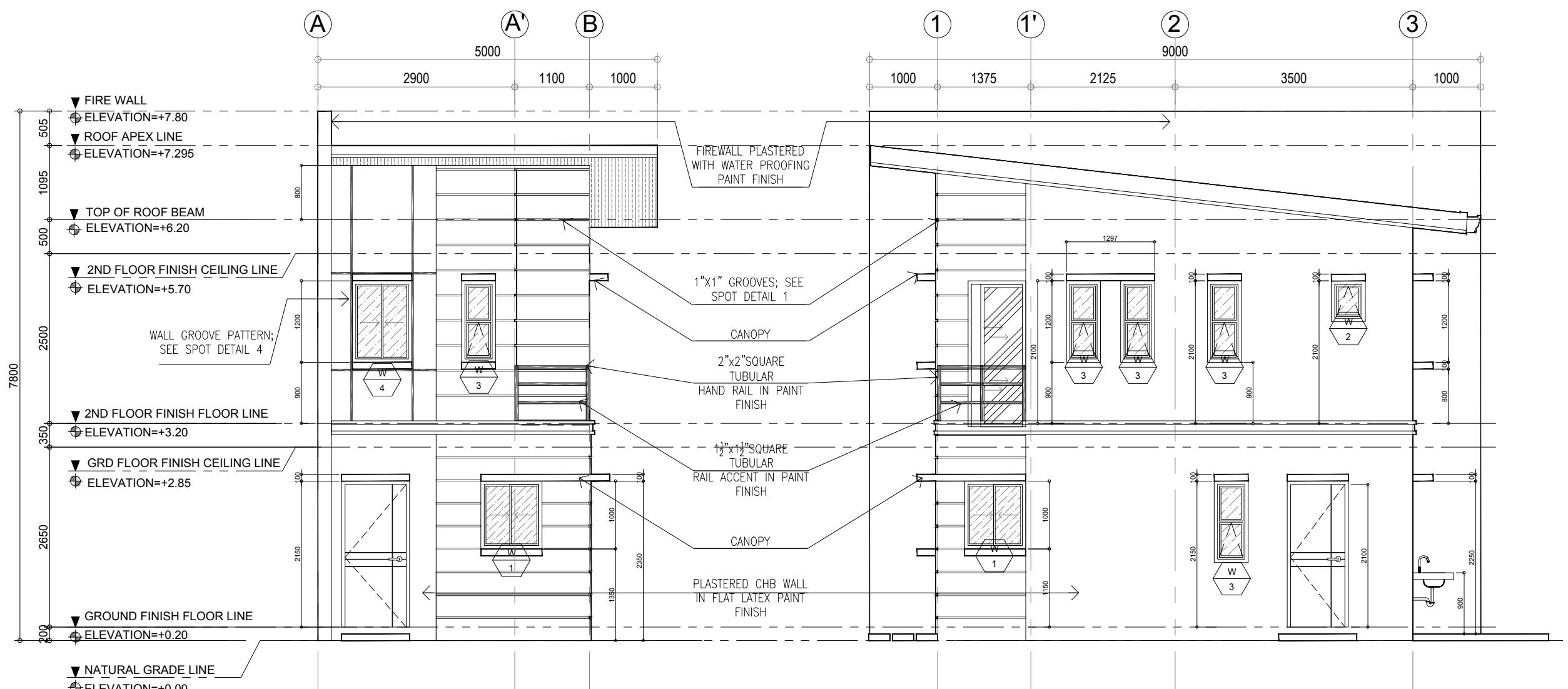
SHEET CONTENTS:

FRONT ELEVATION
RIGHT SIDE ELEVATION
LEFT SIDE ELEVATION
REAR ELEVATION
CROSS SECTION
LONGITUDINAL SECTION
DETAILS

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DRAWN : MCSEV	DATE : 01/22/18
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A02 3/13

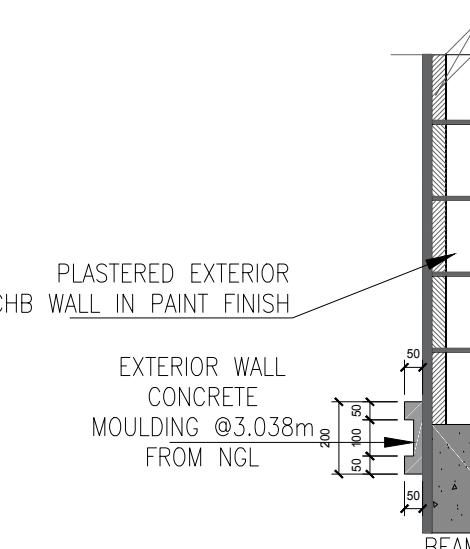
ISSUED FOR:
MODEL UNIT FOR CONSTRUCTION
DATE ISSUED : 01/22/18



7 A-02 SCALE NTS
SPOT DETAIL 1
WALL GROOVE DETAIL



8 A-02 SCALE NTS
SPOT DETAIL 2
RAILING @BALCONY



9 A-02 SCALE NTS
SPOT DETAIL 3
WALL MOULDING DETAIL



10 A-02 SCALE NTS
SPOT DETAIL 4
WALL GROOVE PATTERN

WALL FINISHES	
WF-01	CHB WALL ON SEMI GLOSS LATEX PAINT OR APPROVED EQUAL
WF-01	PLASTERED CHB WALL ON FLAT LATEX PAINT FINISH
WF-02	DRYWALL ON 1" THICK GRC GROUTED GLOSS LATEX PAINT FINISH
WF-02	FIREWALL PLASTERED WITH WATERPROOFING PAINT FINISH
WF-03	7 LAYERS 300X200MM CERAMIC TILE GLOSSY FINISH W/ 300X100MM MOSAIC TILES /APPROVED EQUAL

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HARMONY
HOMES INC.

OWNER'S APPROVAL

PROJECT:
PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

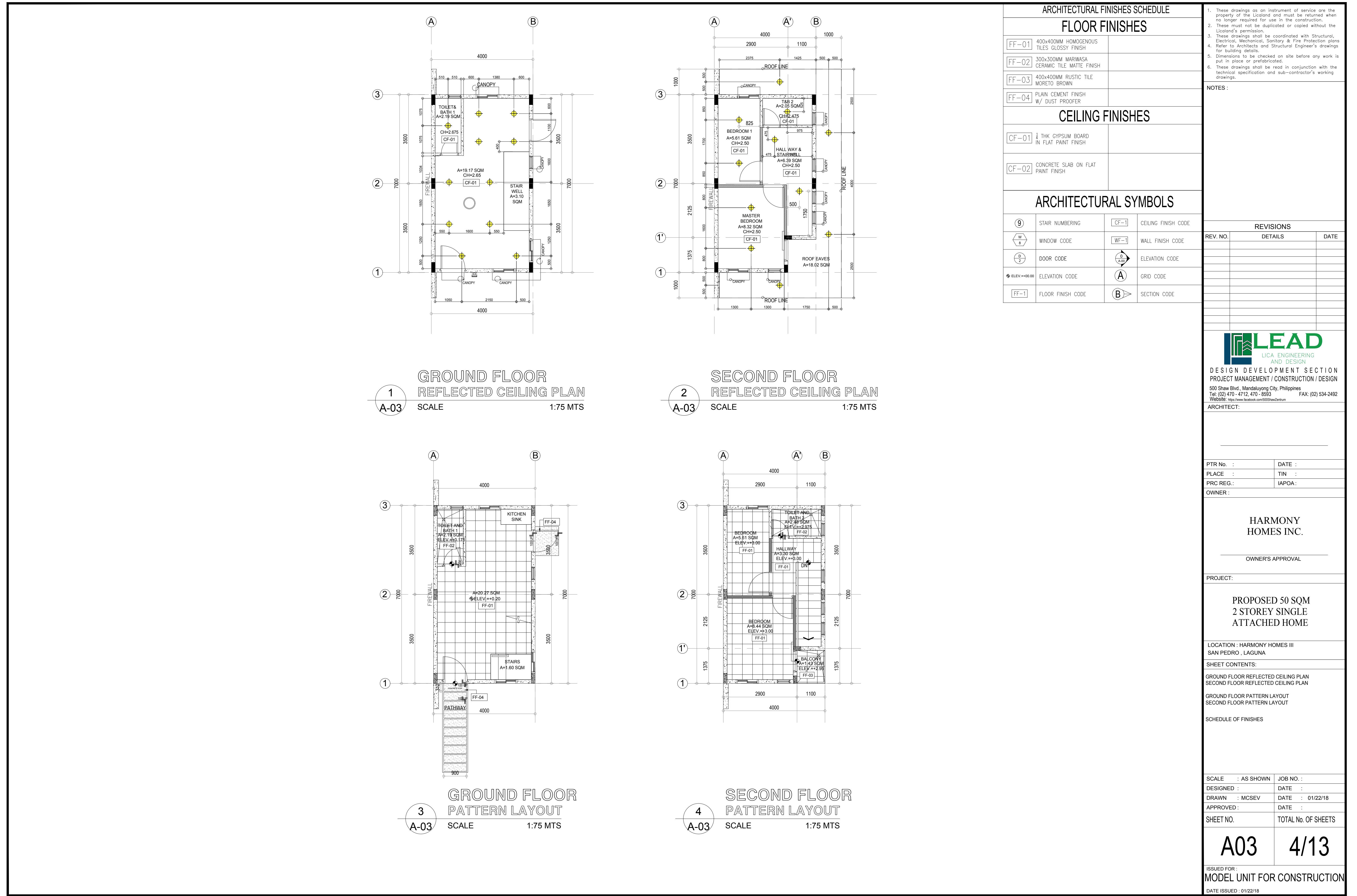
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LEFT SIDE ELEVATION
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LONGITUDINAL SECTION
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A02 3/13

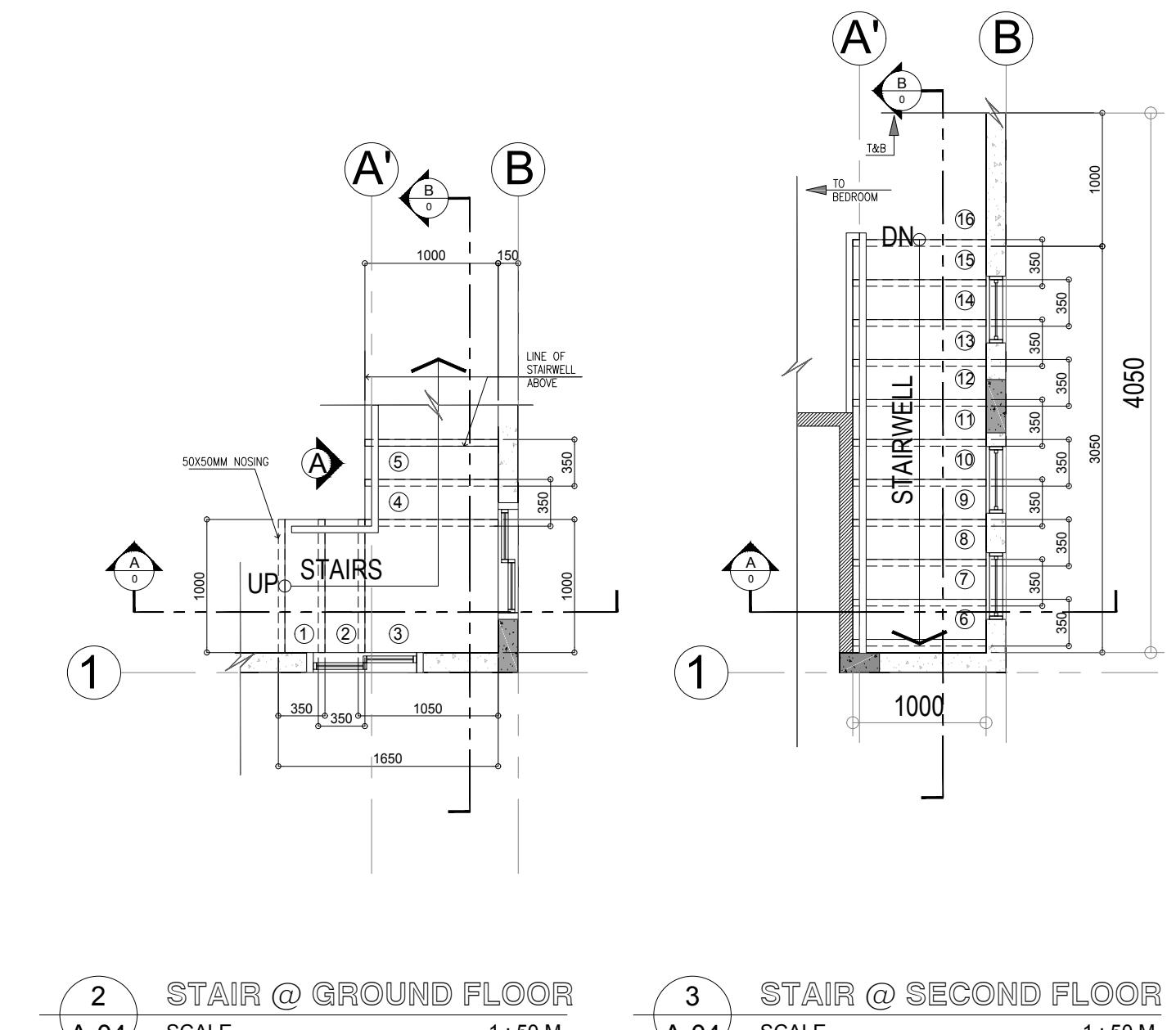
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SCHEDULE OF DOORS AND WINDOWS

NOTE : VERIFY DESIGN, ACTUAL DIMENSIONS AND NUMBER OF SETS @ JOBSITE.

FINISH FLOOR LINE					
WINDOW MARK					
LOCATION & NO. OF SETS	GF: KITCHEN, LIVING AREA 3-SET	GF: TOILET AND BATH 1 2F: TOILET AND BATH 2 2-SETS	GF: DINING AREA 2F: STAIRWELL, MASTER BR 5-SET	2F: MASTER'S BR, BEDROOM 1 2-SET	
WINDOW TYPE	SLIDING GLASS WINDOW W/ SCREEN 0.875 m. x 1.0 m.	AWNING W/ FIXED GLASS 0.50 x 0.60 m.	AWNING W/ FIXED GLASS 0.50 x 1.20 m.	SLIDING GLASS WINDOW W/ SCREEN 0.875 m. x 1.2 m.	
FINISH	2"x4" ANODIZED ALUMINUM FRAMING	2"x3" ANODIZED ALUMINUM FRAMING	2"x3" ANODIZED ALUMINUM FRAMING	2"x3" ANODIZED ALUMINUM FRAMING	
FINISH FLOOR LINE					
DOOR MARK					
FINISH	QUICK DRY ENAMEL	QUICK DRY ENAMEL	PVC	QUICK DRY ENAMEL	ANODIZED ALUMINUM
HARDWARE SCHEDULE	LOCKSET LEVEL HANDLE LOCKSET	LOCKSET TUBULAR CYLINDER LOCKSET	LOCKSET TUBULAR CYLINDER LOCKSET	LOCKSET TUBULAR CYLINDER LOCKSET	
HINGES	LOOSE PIN HINGE	LOOSE PIN HINGE	LOOSE PIN HINGE	LOOSE PIN HINGE	
LOCATION & NO. OF SETS	GF: LIVING AREA 1-SET	GF: KITCHEN 1-SET	GF: TOILET AND BATH 1 2F: TOILET AND BATH 2 2-SETS	2F: MASTER'S BR, BEDROOM 1 2-SET	2F: BALCONY 1-SET
DOOR TYPE	0.90x2.10m PANEL DOOR W/ 2"x5" DOOR JAMB	0.80x2.10m PANEL DOOR TYPE W/ 2"x4" DOOR JAMB	0.60x2.10m PVC DOOR TYPE W/ 2"x4" DOOR JAMB	0.75x2.10m PLAIN FLUSH DOOR W/ 2"x4" DOOR JAMB	FIXED, AND SLIDING GLASS PANEL 1.60 m. x 2.10 m.



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LEAD
LICA ENGINEERING
AND DESIGN

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PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

SHEET CONTENTS:
DOORS AND WINDOWS SCHEDULE
STAIR DETAILS

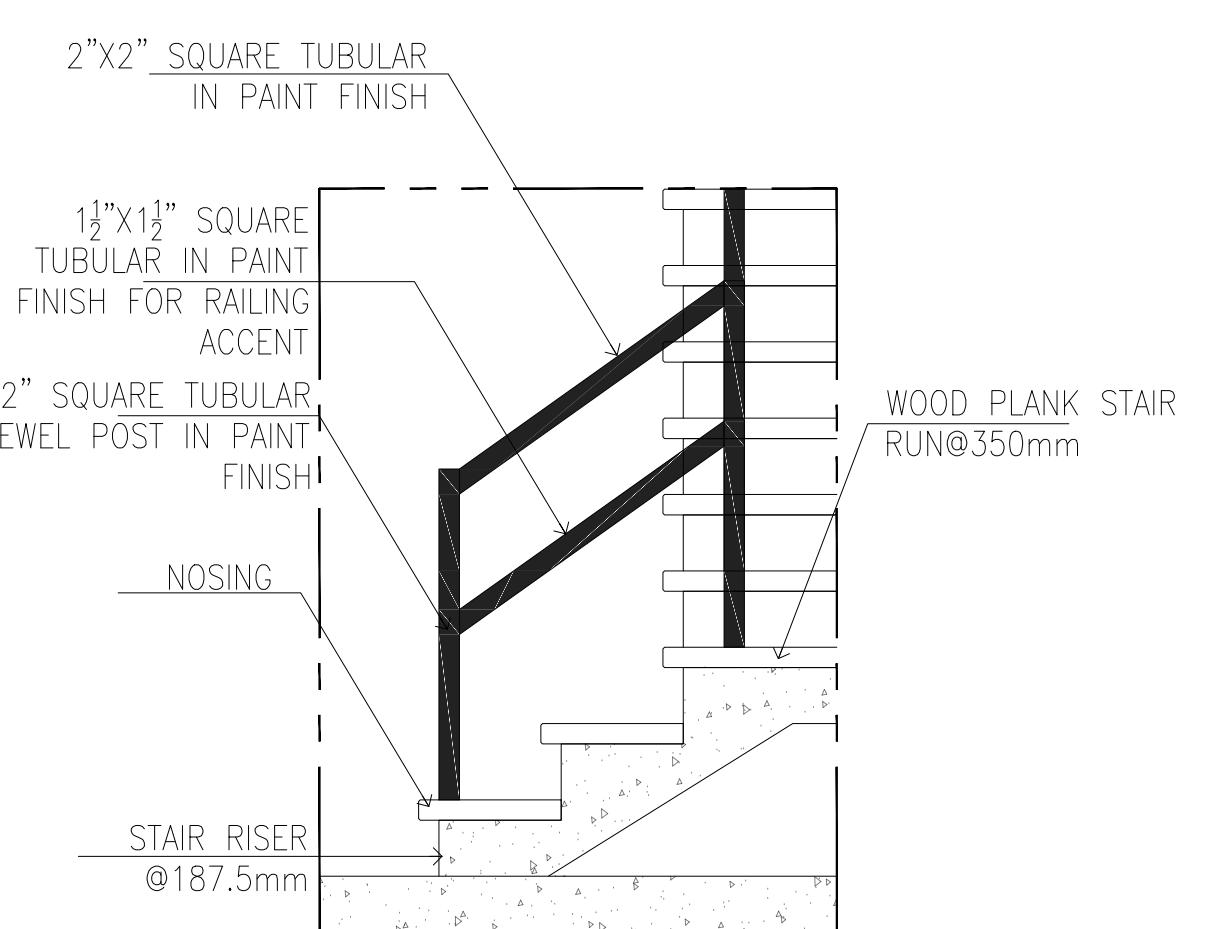
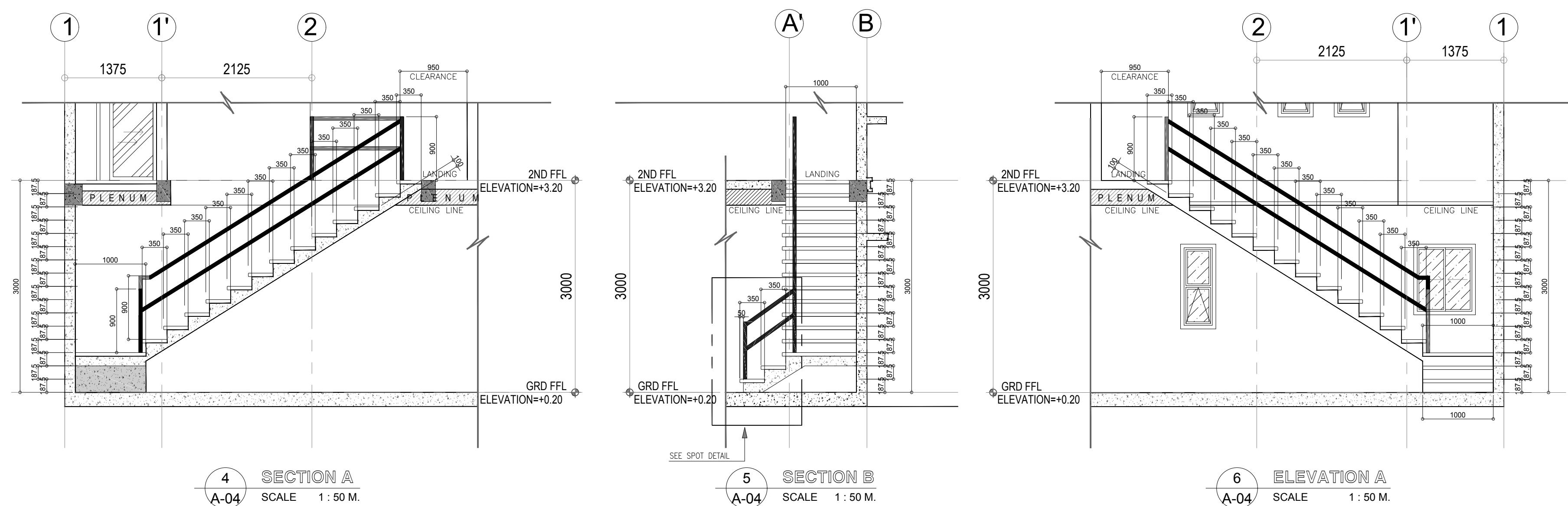
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APPROVED : DATE :
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A04 5/13

ISSUED FOR:
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DATE ISSUED : 01/22/18

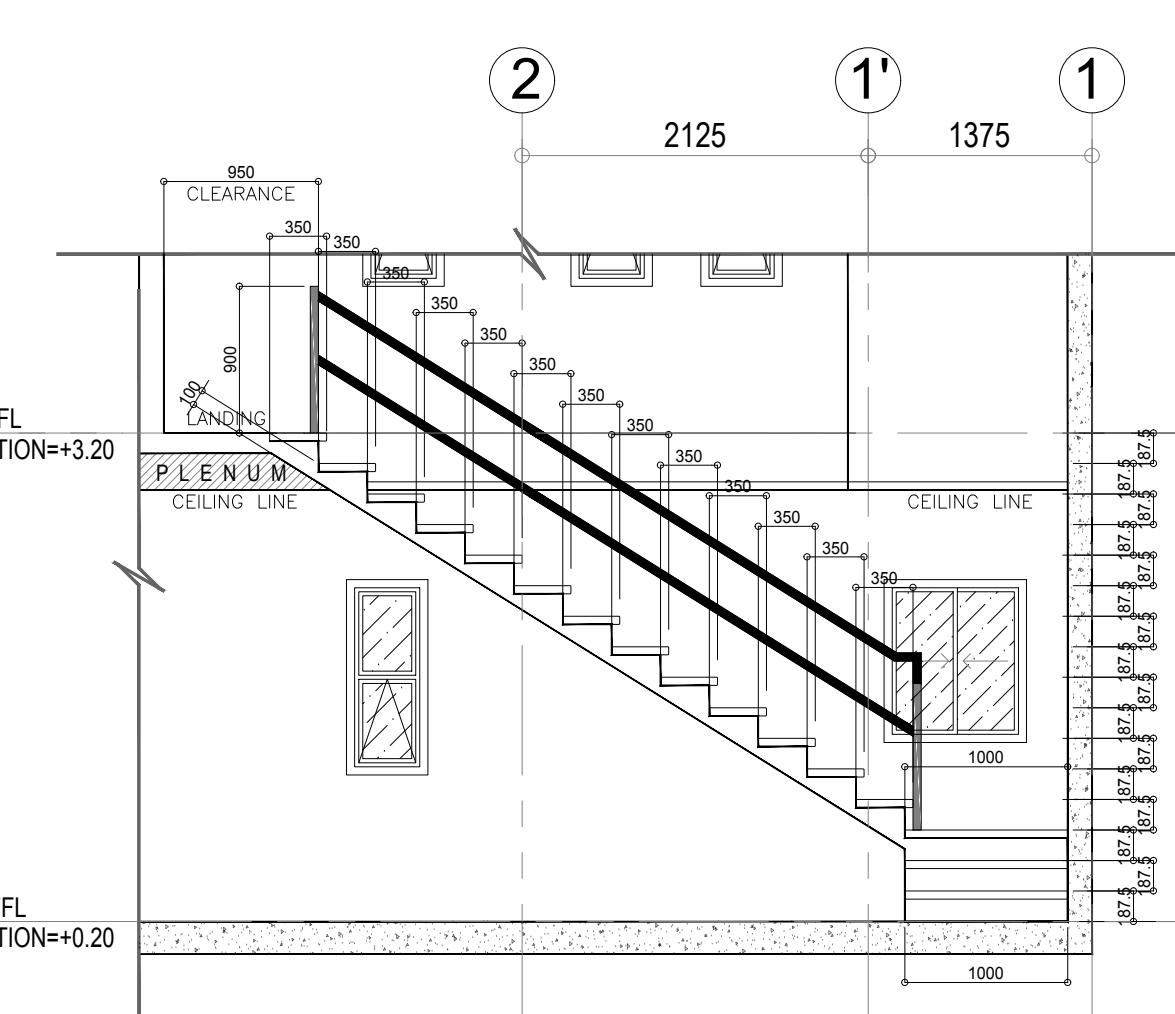
1 A-04 DOORS AND WINDOWS SCHEDULE

SCALE 1:50 MTS

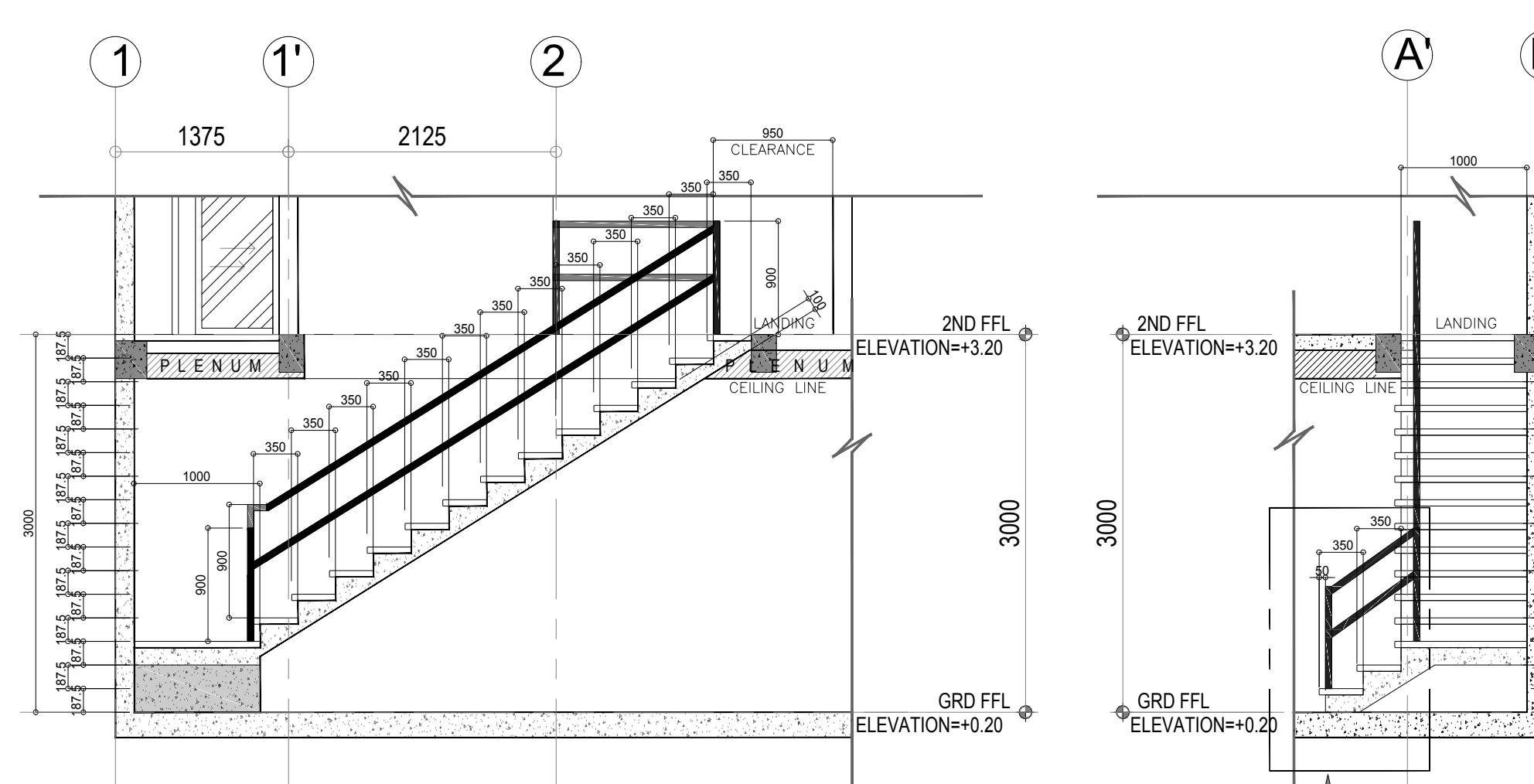


7 A-04 SPOT DETAIL SCALE 1:50 M.

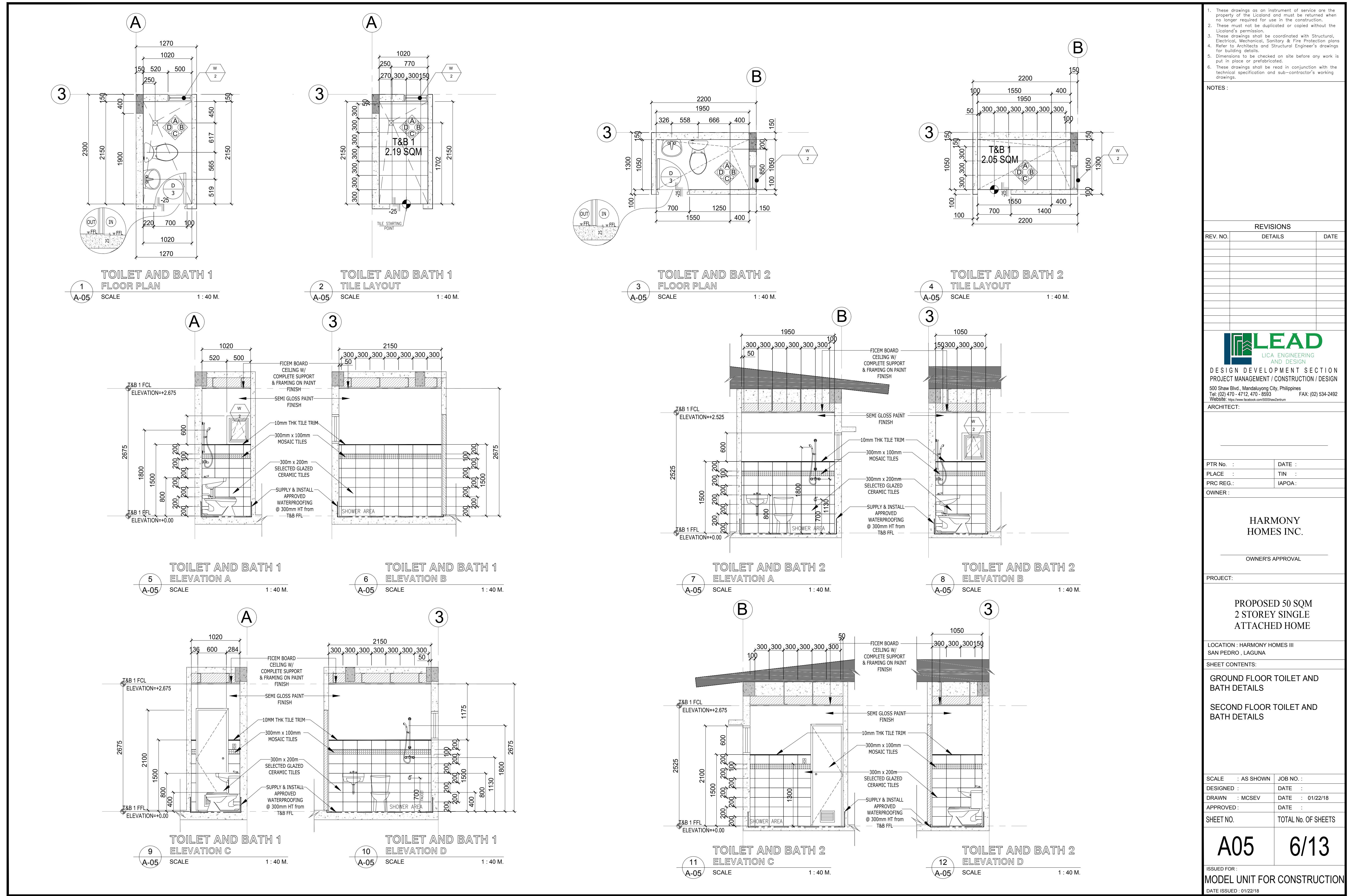
6 A-04 ELEVATION A SCALE 1:50 M.



5 A-04 SECTION B SCALE 1:50 M.

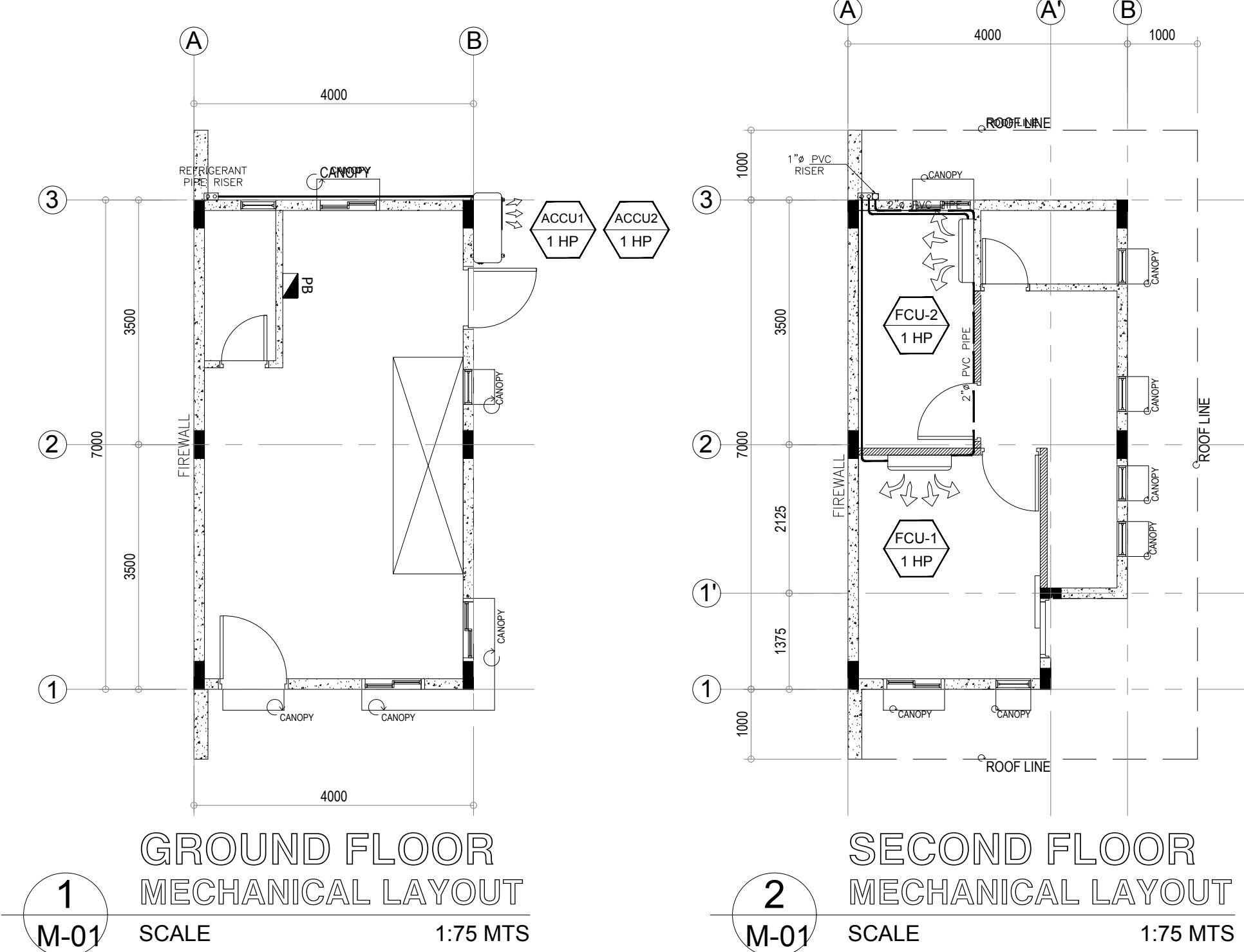
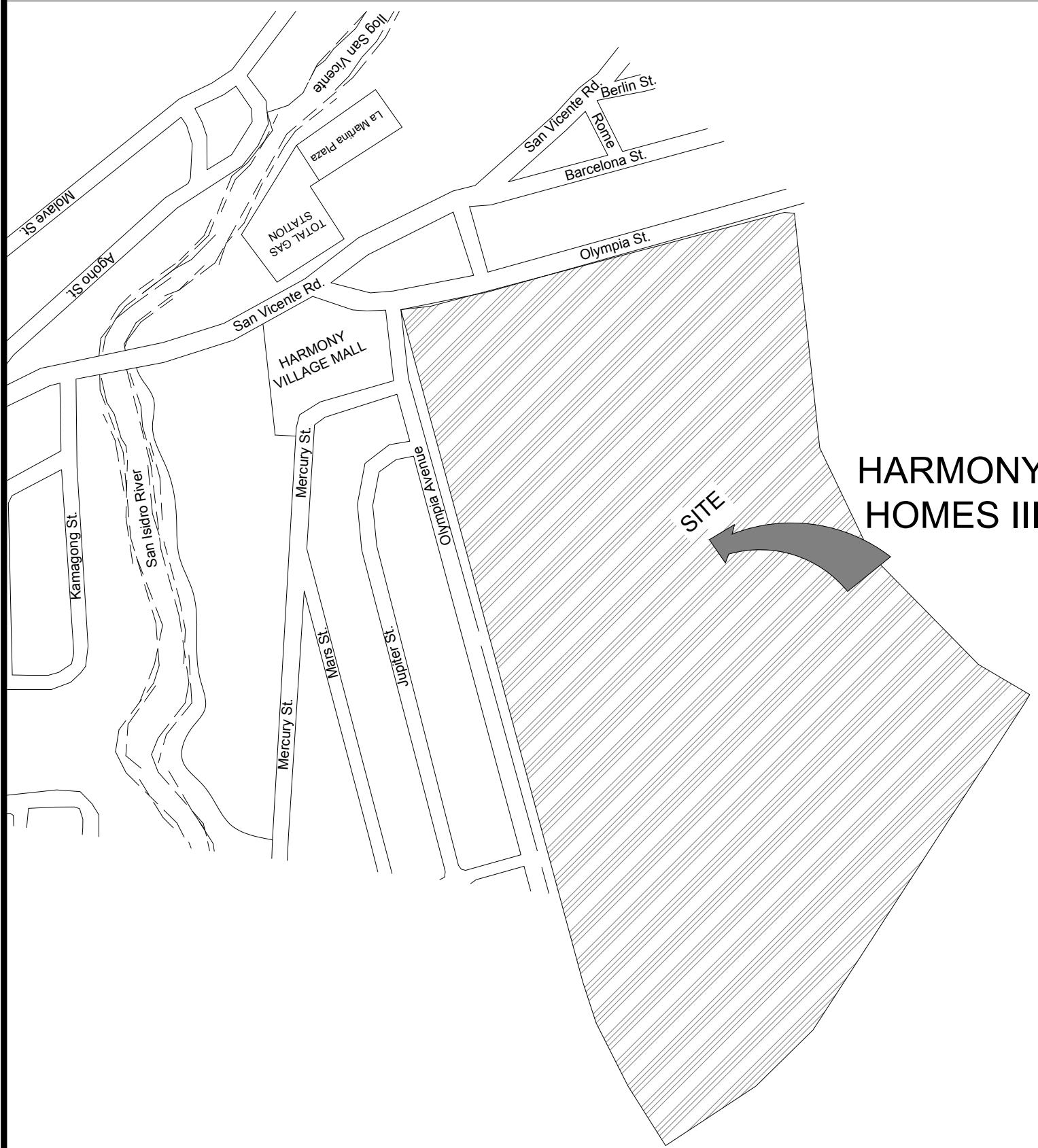


4 A-04 SECTION A SCALE 1:50 M.



GENERAL NOTES:

- ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE PHILIPPINE BUILDING CODE REGULATIONS.
- THE TOTAL SCOPE OF WORK SHALL INCLUDE ALL WORKS DESCRIBED IN THE PLAN AND IN GENERAL PROVISIONS OF THE INSTRUCTIONS TO BIDDERS FOR MECHANICAL WORKS.
- AIR CONDITIONED SPACE IS DESIGNED AT $24^\circ\text{C} \pm 1^\circ$ WITH $60\% \pm 5\%$ RH.
- ALL PACKAGED AIR COOLED AIR-CONDITIONING WHICH CONTAIN BUILT-IN COMPRESSORS, EVAPORATOR CONDENSER, ELECTRIC MOTOR, PANEL BOARD SHALL INCLUDE ALL SAFETY DEVICES, CONTROLS AND ACCESSORIES FOR THE SYSTEM.
- ALL DIMENSION ARE IN MILLIMETER UNLESS OTHERWISE NOTED.
- INSTALL ALL PIPES CLOSE TO BEAM. PROVIDE CLEARANCE BETWEEN PIPES AND CEILING, UNLESS OTHERWISE NOTED.
- PROVIDE ACCESS PANEL AT SUSPENDED CEILINGS FOR INSPECTION AND MAINTENANCE OF CEILING MOUNTED AND CEILING CONCEALED AC UNITS.
- PIPE ALL EQUIPMENT DRAINS TO THE NEAREST EXISTING STONE DRAINAGE PIPES OR CATCH BASINS.
- ALL REFRIGERANT PIPES AND DRAIN PIPES AND FITTINGS SHALL BE INSULATED WITH CLOSE CELL RUBBER INSULATION, 25 MM THICK, CLAD WITH POLYETHYLENE PLASTIC.
- ALL DUCT WORKS SHALL BE MADE OF G.I. SHEET METAL AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARD FOR LOW PRESSURE SYSTEM (UP TO 250 Pa).
- ALL DUCT WORKS INSIDE THE BUILDING SHALL BE INSULATED WITH POLYETHYLENE FOAM OF 25 MM THICK WITH ONE SIDE OF ALUMINUM VAPOR BARRIER.
- ALL PIPE WORKS THROUGH WALLS, FLOORS, AND ROOF, SHALL BE SUPPORTED WITH PIPE SLEEVE.
- ALL MECHANICAL WORKS SHALL BE COORDINATED WITH OTHER TRADES.
- ALL WORKS SHALL CONFORM TO CURRENT STANDARDS SUCH AS SMACNA, ASHRAE, AND THE NATIONAL PLUMBING CODES.
- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LAWS & ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES.
- CONTROL AND LOADSIDE ELECTRICAL FIELD WIRING SHALL BE DONE FOR A/C AND VENTILATION EQUIPMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL THE TESTING AND COMMISSIONING OF THE WHOLE AC SYSTEM AND SHALL BE WITNESSED/CERTIFIED BY LICA ENGINEERS.



LEGEND

FCU	
SPLIT TYPE FCU	
ACCU	
REFRIGERANT PIPE	
DRAIN PIPE 2"Ø PIPE	
ACCU TAGGING	
FCU TAGGING	

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HOMES INC.

OWNER'S APPROVAL

PROJECT:
PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

SHEET CONTENTS:

LEGENDS
GROUND FLOOR MECHANICAL LAYOUT
SECOND FLOOR MECHANICAL LAYOUT
GENERAL NOTES
MECHANICAL LOAD SCHEDULE
VICINITY MAP
PIPE HANGER DETAIL
PIPE THRU WALL DETAIL

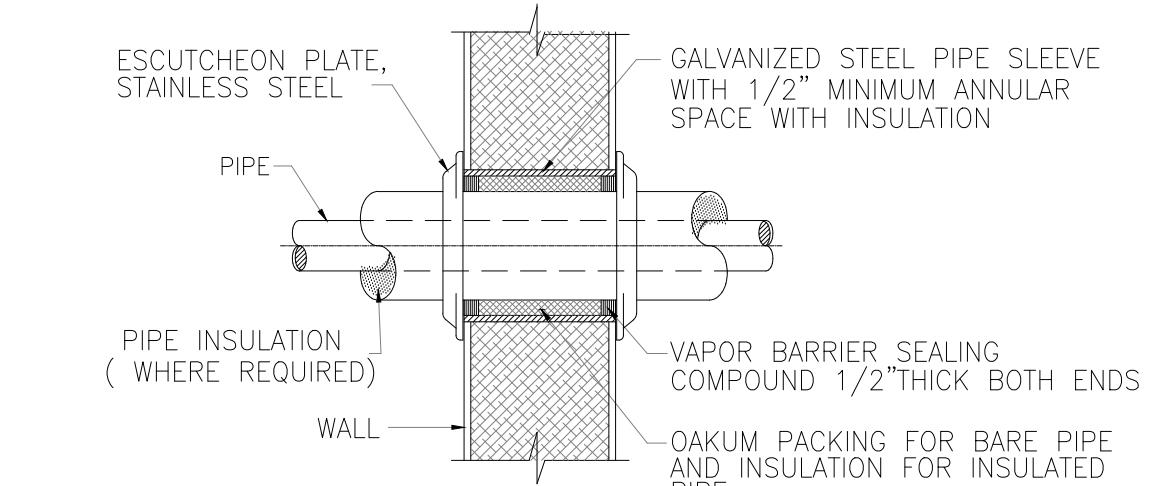
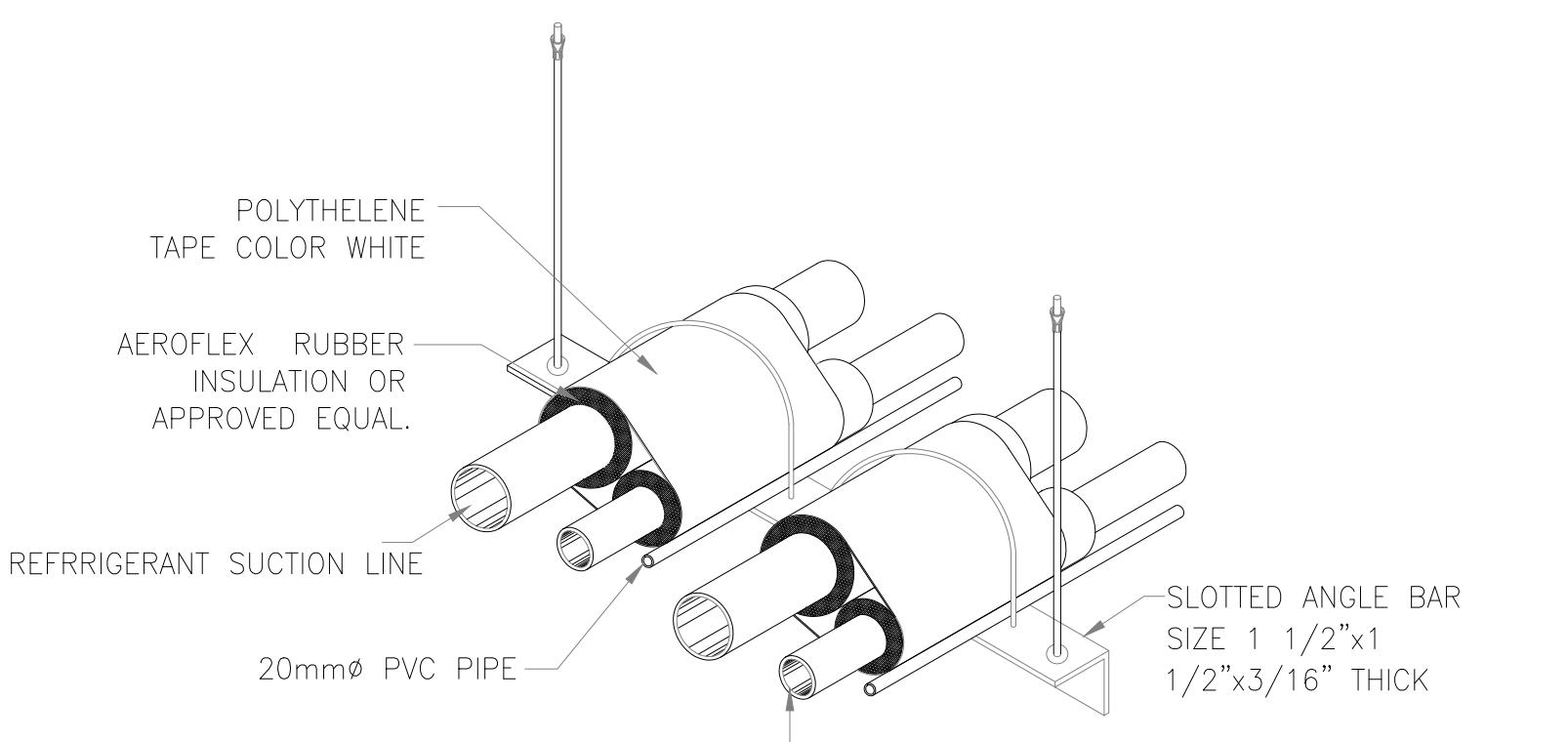
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M01 7/13

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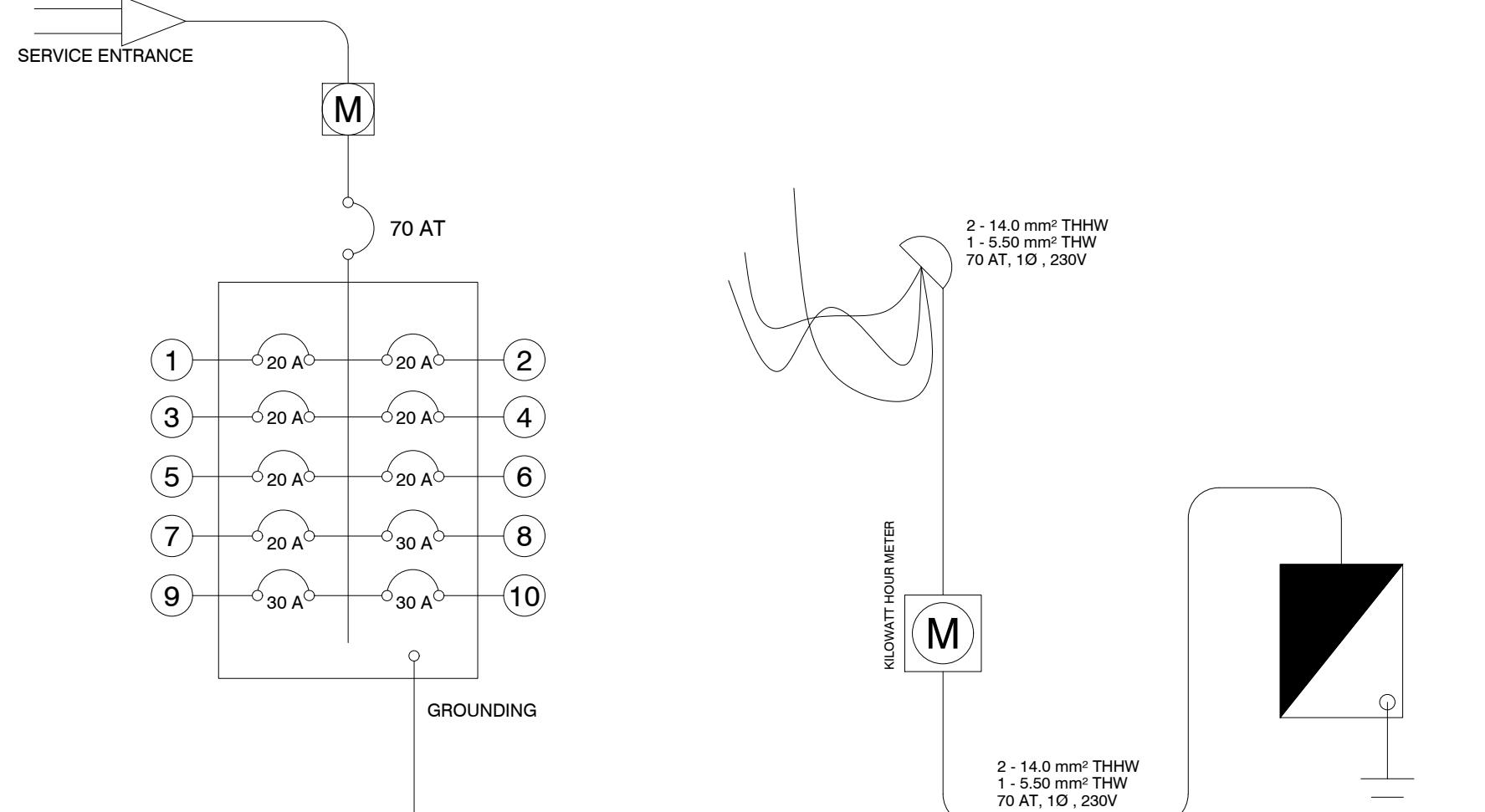
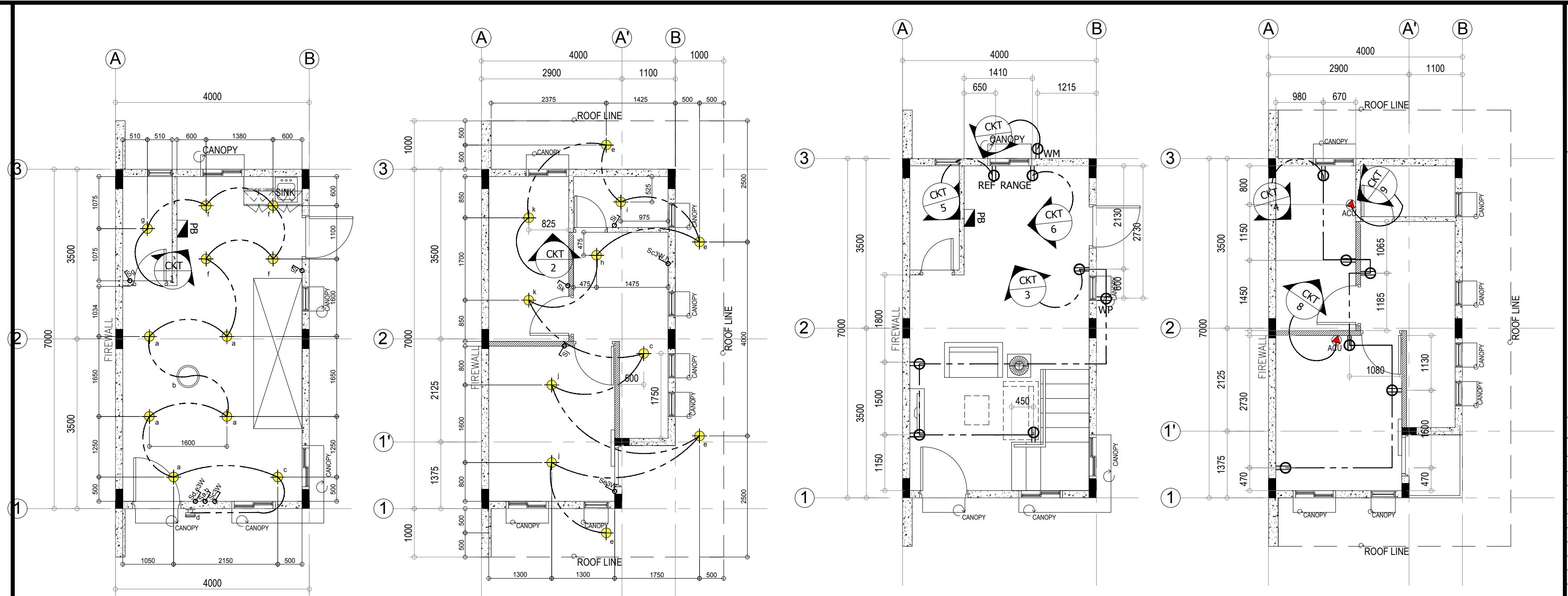
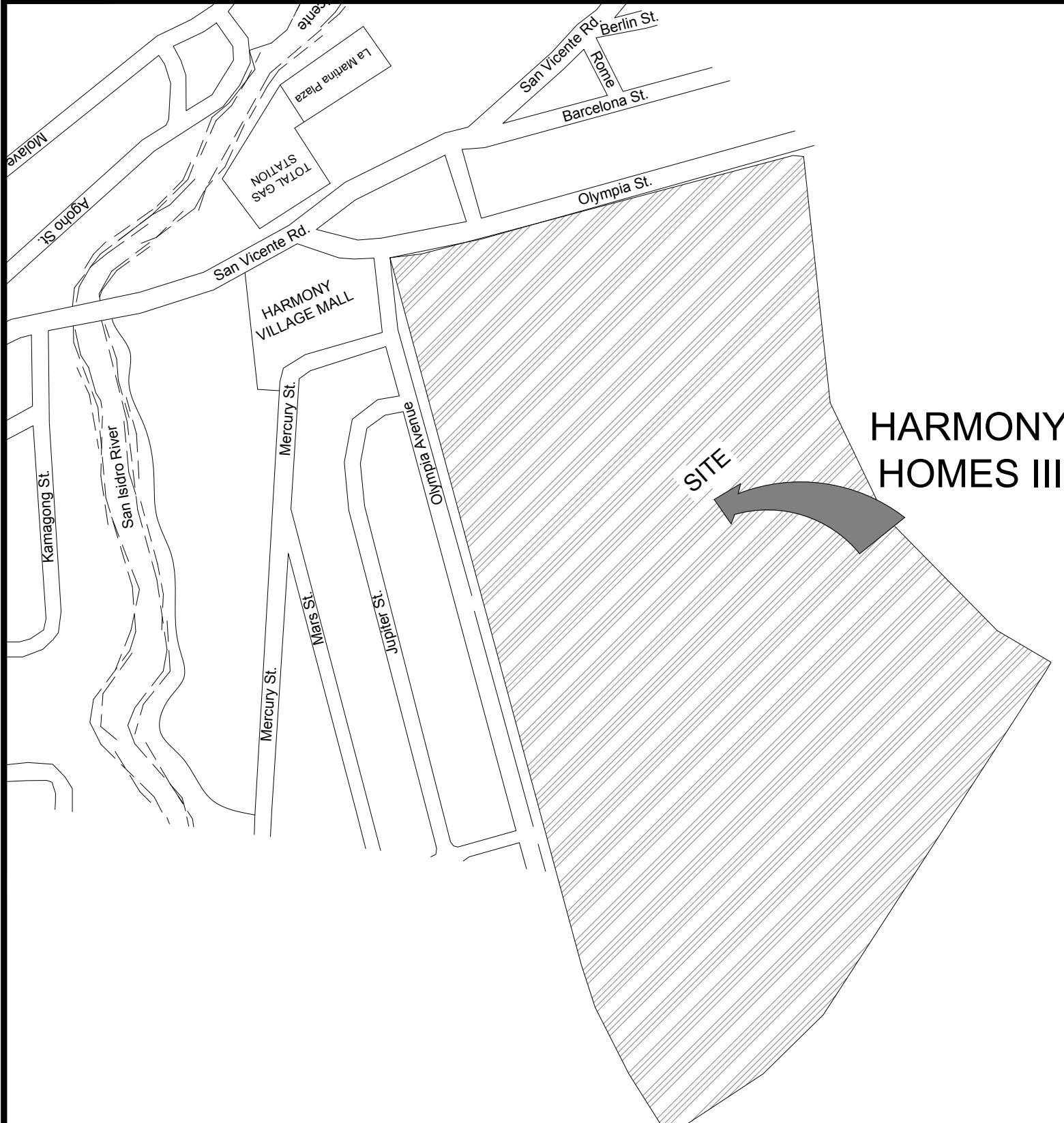
MECHANICAL LOAD SCHEDULE								
AIRCON NUMBER	ITEM	AIRCON SIZE	AIRCON TYPE	GRAND TOTAL HEAT (W/TR)	HERTZ	LOCATION	PHASE	VOLTAGE
ACU-1	1	1HP	(WM)	746/0.21	60	BED ROOM	1	220
ACU-2	1	1HP	(WM)	746/0.22	60	BEDROOM	1	220

3 M-01 MECHANICAL LOAD SCHEDULE
SCALE NTS



GENERAL NOTES & SPECIFICATIONS

- THE SCOPE OF ELECTRICAL WORKS HEREIN SHALL BE LIMITED ONLY TO THE PLAN, SPECIFICATION AND SPECIAL DRAWING APPROVED AND RELEASED FOR CONSTRUCTION BY OWNER AND GOVERNMENT AGENCIES. ANY DEVIATION OR REVISION SHALL BE CONSULTED TO THE PROFESSIONAL ELECTRICAL ENGINEER AND DESIGNER PRIOR IMPLEMENTATION.
 - ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, RULES AND REGULATIONS OF THE LOCALITY AND PERTINENT REQUIREMENTS OF THE LOCAL POWER UTILITY COMPANY
 - ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED BY EXPERIENCED PERSONNEL UNDER THE DIRECT SUPERVISION OF A DULY LICENSED PROFESSIONAL ELECTRICAL ENGINEER, REGISTERED ELECTRICAL ENGINEER AND MASTER ELECTRICIAN.
 - THE TYPE OF POWER SERVICE TO BE USED SHALL BE 230 V, 2 WIRE, 2 PHASE W/GROUND, 60 Hz.
 - ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND CONFORM WITH PHILIPPINE STANDARDS. U.S. UNDERWRITERS LABORATORIES INC. AND OF APPROVED TYPE FOR THE LOCATION AND PROPOSED.
 - MINIMUM SIZE OF CONDUCTOR TO BE USED SHALL BE 3.5 mm. Sq. INSULATED TYPE THHN OR THW THERMOPLASTIC, 600 VOLTS, COPPER WIRES FOR CIRCUIT RUNS AND 2.0 mm. Sq. THHN OR THW FOR SWITCH LEGS, UNLESS OTHERWISE SPECIFIED, PHILIPS DODGE, DURAFLX OR COLUMBIA SHALL BE USED.
 - ELECTRICAL CONDUIT TRADE SIZE SHALL BE USED A MINIMUM OF 20mm. dia. FOR dPVC AND 15 mm dia. RIGID STEEL (R.S.) CONDUITS, IN NO CASE SHALL THERE BE MORE THAN FOUR (4) QUARTER BEND IN ANY ONE RUN, UNLESS OTHERWISE SPECIFIED, MATSUSHITA FOR EMT. AND NICHIBU FOR R.S.C. PIPES,
 - UNLESS OTHERWISE SPECIFIED, ALL WIRING DEVICES TO BE USED SHALL BE NATIONAL, TOSHIBA, KOTEN OR TICINO BRANDS, COLOR OF PLATE COVER SHALL BE VERIFIED THE ENGINEER / DESIGNER.
 - METAL PULL BOXES OR JUNCTION BOXES SHALL BE PROVIDED WHEREVER REQUIRED ALTHOUGH SUCH BOXES ARE NOT USUALLY INDICATED ON PLANS, ALL BOXES TO USED SHALL BE OF DEEP TYPE AND Ga. 18 G.I. METAL SHEET (MIN.)
 - NO BRANCH CIRCUIT IN WIRING POWER AND LIGHTING SHALL HAVE LOAD MORE THAN 80% OF ITS RATING.
 - MOUNTING HEIGHT OF DEVICES SHALL BE APPROVED BY ENGINEER INCHARGE OR AS FOLLOWS:
- | | |
|-------------------|--|
| PANEL BOARD | 1.82 M. AFF (ABOVE FIN. FLR. LN. TO TOP PANEL) |
| WALL SWITCH | 1.40 M. AFF (TO CENTER OF DEVICE) |
| RANGE OUTLET | 0.60 M. AFF |
| RECEPTACLE OUTLET | 0.30 M. AFF
(- DO -)
(- DO -) |
- THE INSTALLER / CONTRACTOR SHALL VERIFY AND ORIENT PROPER LOCATION OF SERVICE FOR CONNECTION TO THE POWER SUPPLY.



CIRCUIT NO.	LOAD DESCRIPTION	OUTLET		WATTS	VOLTS	AMPERE PER CIRCUIT	CIRCUIT BREAKER			SIZE OF WIRE	SIZE OF CONDUIT
		C.O.	L.O.				A.T.	A.F.	POLE		
1				1300	230	5.65	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
2				1100	230	4.78	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
3		5		1800	230	7.82	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
4		6		2160	230	9.39	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
5	REFRIGERATOR	1		1500	230	6.52	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
6	RANGE	1		1000	230	4.35	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
7	WASHING MACHINE	1		1000	230	4.35	20	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
8	ACU	1		1840	230	8	30	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
9	ACU	1		1840	230	8	30	50	2	2.35mm ² THHN+1.20mm THHN	20mm Ø PVC
10	SPARE					230	30	50	2		
TOTAL:				14,460		58.86	70	100	2	2.140mm ² THHN+1.55mm ² THHN	25mm Ø PVC

USE:
IT = .85 [56.86+(8 x .25)]
= 51.731 A
2 - 14.0 mm² THHN
1 - 5.5 mm² THHN
70 AT, 1Ø, 230V

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PROFESSIONAL ELECTRICAL ENGINEER:

PTR No. : DATE :
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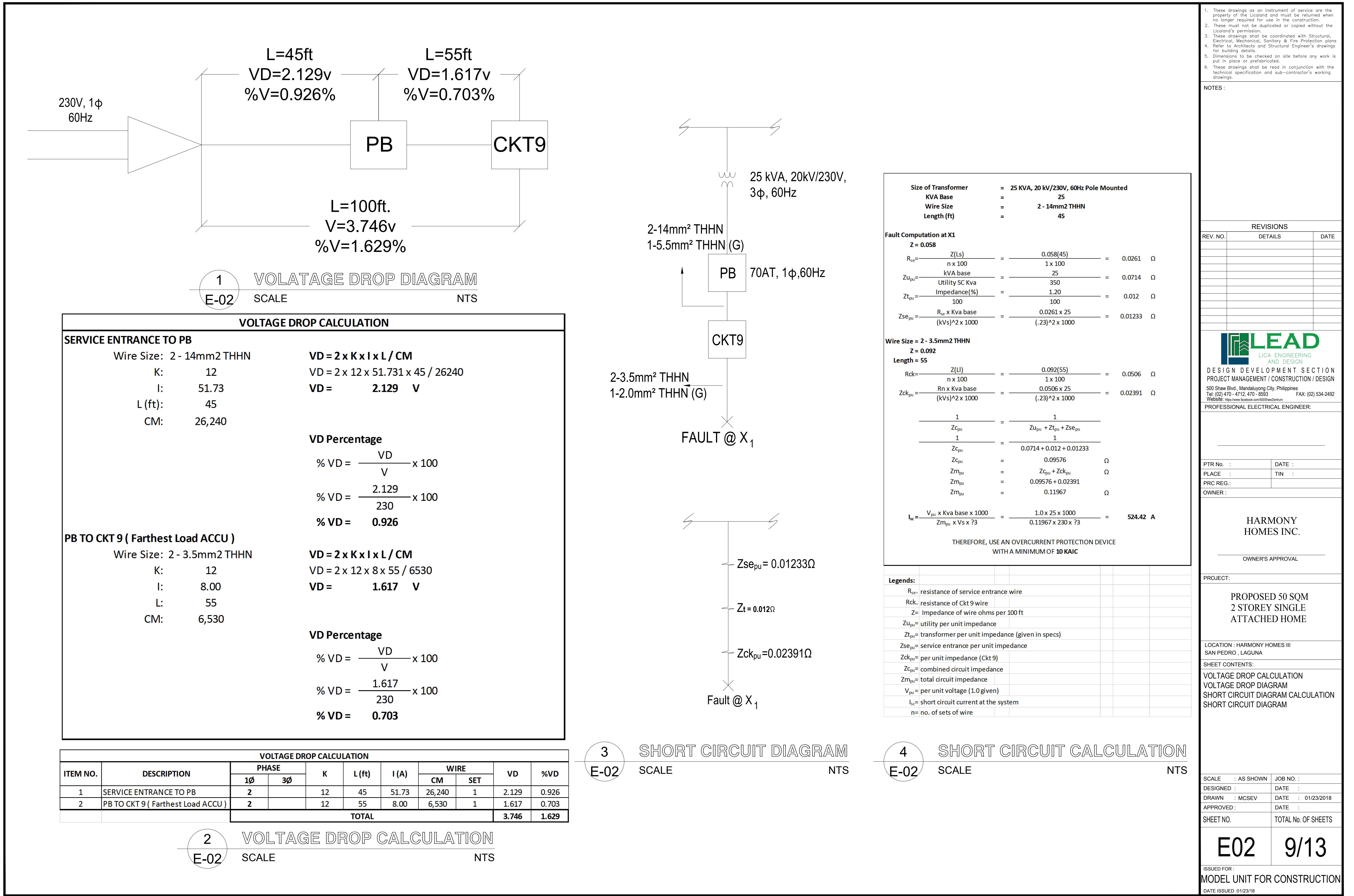
PROJECT:
PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

SHEET CONTENTS:
GROUND FLOOR POWER LAYOUT
SECOND FLOOR POWER LAYOUT
GROUND FLOOR LIGHTING LAYOUT
SECOND FLOOR LIGHTING LAYOUT
GENERAL NOTES
SCHEDULE OF LOADS
RISER DIAGRAM
SINGLE LINE DIAGRAM
LEGENDS
VICINITY MAP

SCALE : AS SHOWN JOB NO. :
DESIGNED : DATE :
DRAWN : MCSEV DATE : 01/23/18
APPROVED : DATE :
SHEET NO. TOTAL No. OF SHEETS

E01 8/13
ISSUED FOR :
MODEL UNIT FOR CONSTRUCTION
DATE ISSUED: 01/23/18



GENERAL NOTES :

ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISIONS OF THE NATIONAL PLUMBING CODES OF THE PHILIPPINES AND THE RULES & REGULATIONS OF THE CITY OF MANILA.
COORDINATES THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND HEREIN.

ALL PIPES SHALL BE BRAND NEW & INSTALLED AS INDICATED ON PLANS, ANY RELOCATION REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT OR ENGINEER.

THE PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTG. PIPES & STRUCTURES AS VERIFIED BY THE CONTRACTOR.

ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 1% UNLESS OTHERWISE SPECIFIED.

ALL INDIVIDUAL BRANCHES SHALL BE VENTED UNLESS OTHERWISE NOTED.

ALL WATER SUPPLY PER FIXTURES SHALL BE PROVIDED W/ AIR CHAMBER MADE OF CAPPED VERTICAL EXTENSION, 1 SIZE BIGGER THAN THE GIVEN SUPPLY LINE.

ALL PIPES SIZES ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

WORKMANSHIP : THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST AND MOST THOROUGH MANNER TO TRADE AND TO THE SATISFACTION OF THE ARCHITECT AND THE ENGINEER.

MATERIAL SPECIFICATIONS :

SEWER LINES :
1.0 PVC PIPES S-1000, "MOLDEX, NELTEX" BRAND.
FITTINGS SHALL BE SOLVENT CEMENT
JOINT TO ASTM D2564.

2.0 VENT LINES :
PVC PIPES S-1000, "MOLDEX , NELTEX " BRAND.

3.0 DOWNSPOUT / STORM DRAIN LINES :
PVC PIPES S-1000, MOLDEX , NELTEX "BRAND.

4.0 COLD WATER LINES :
GALVANIZED IRON PIPE SCHEDULE 40 CONFORMING TO
ASTM A-120 "AP0", "SUPREME" BRAND OR APPROVED
EQUAL. FITTINGS SHALL BE MALLEABLE IRON, CLASS 250,
SCREWED CONNECTION FOR SIZES 15 MM. TO 65 MM Ø.

5.0 HOT WATER LINES :
SHALL BE CROSS-LINKED POLYETHYLENE XLPE WITH
ALUMINUM REINFORCED COMPOSITE PRESSURE PIPES
STANDARD CONFORMING TO ASTM F1281-93. FITTINGS

6.0 SHALL BE COMPRESSION TYPE (PUSH ON TYPE) BRASS
COATED STEEL, SIMILAR TO "UNITEC", "UNIPIPE"
OR APPROVED EQUAL.

7.0 GATE / CHECK VALVES :

8.0 BY "KITZ," "NIBCO" BRAND OR APPROVED EQUAL.

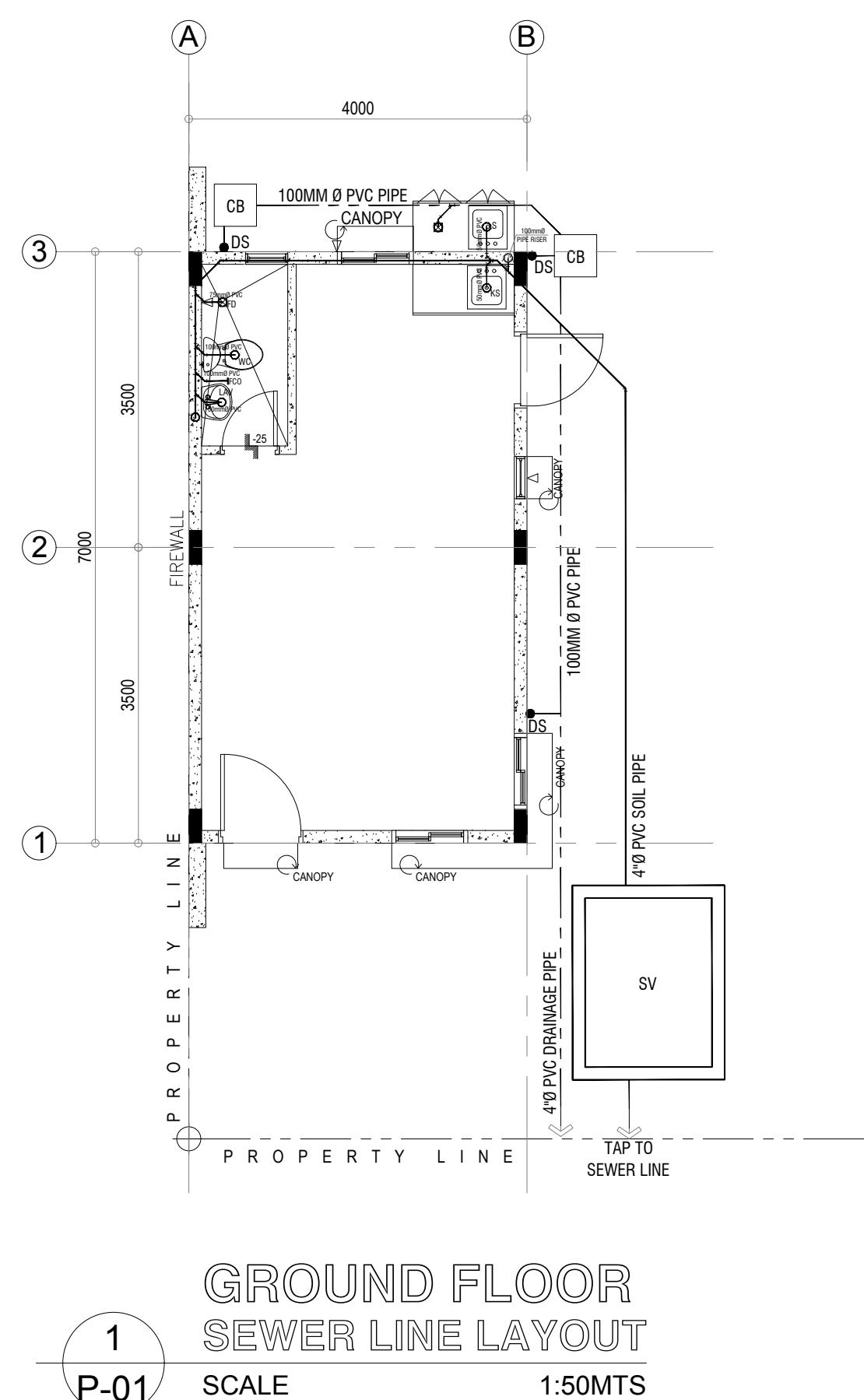
9.0 WATER METER :
BY "ASAHI," "ARAD" BRAND OR MWSS APPROVED EQUAL.

CONDENSATE DRAINS :
uPVC BLUE PIPES, "MOLDEX, NELTEX" BRAND OR APPROVED EQUAL.

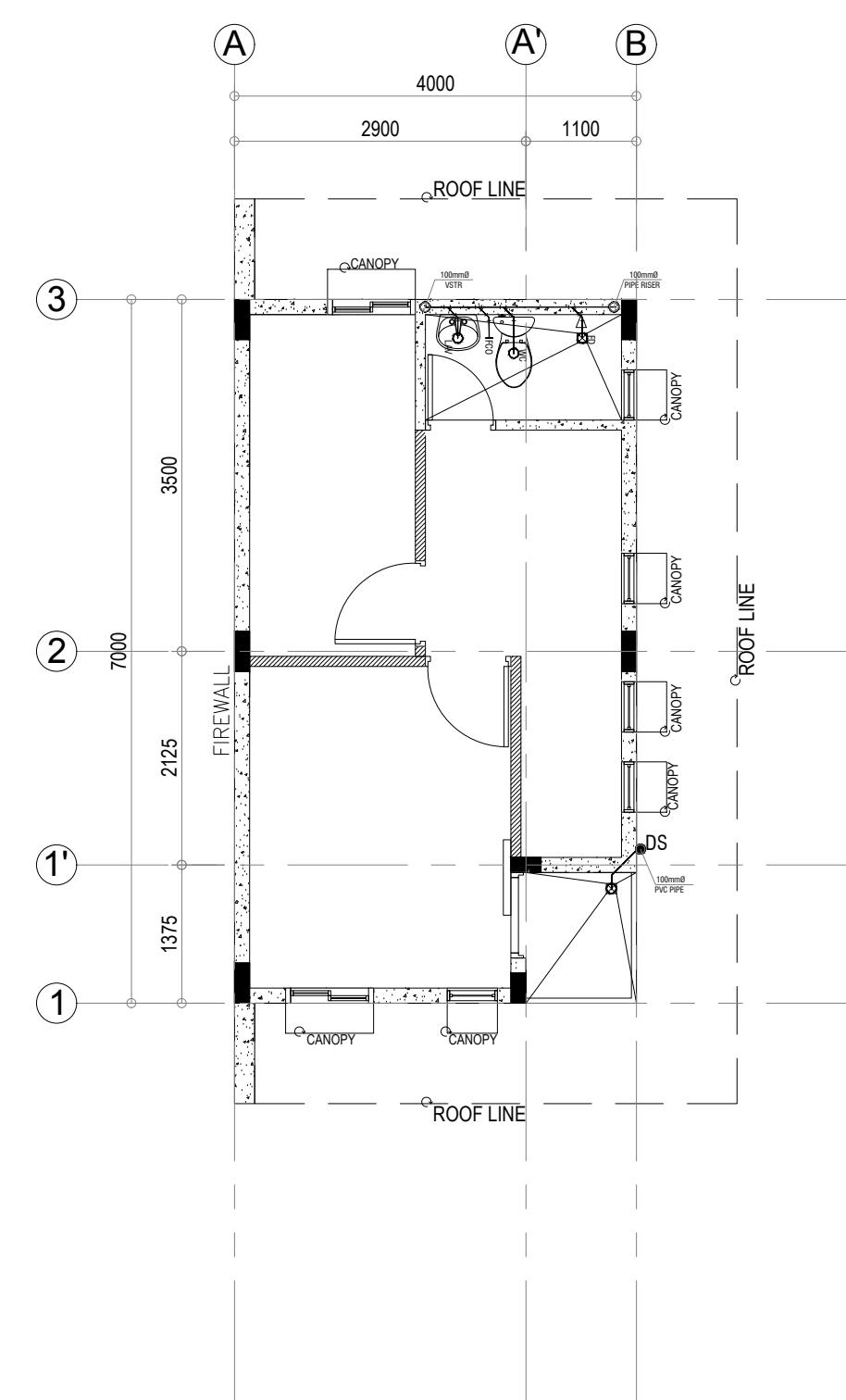
DRAINS : "EUROBRASS" BRAND OR APPROVED EQUAL
FD - ED JFD 101

PLUMBING LEGEND:

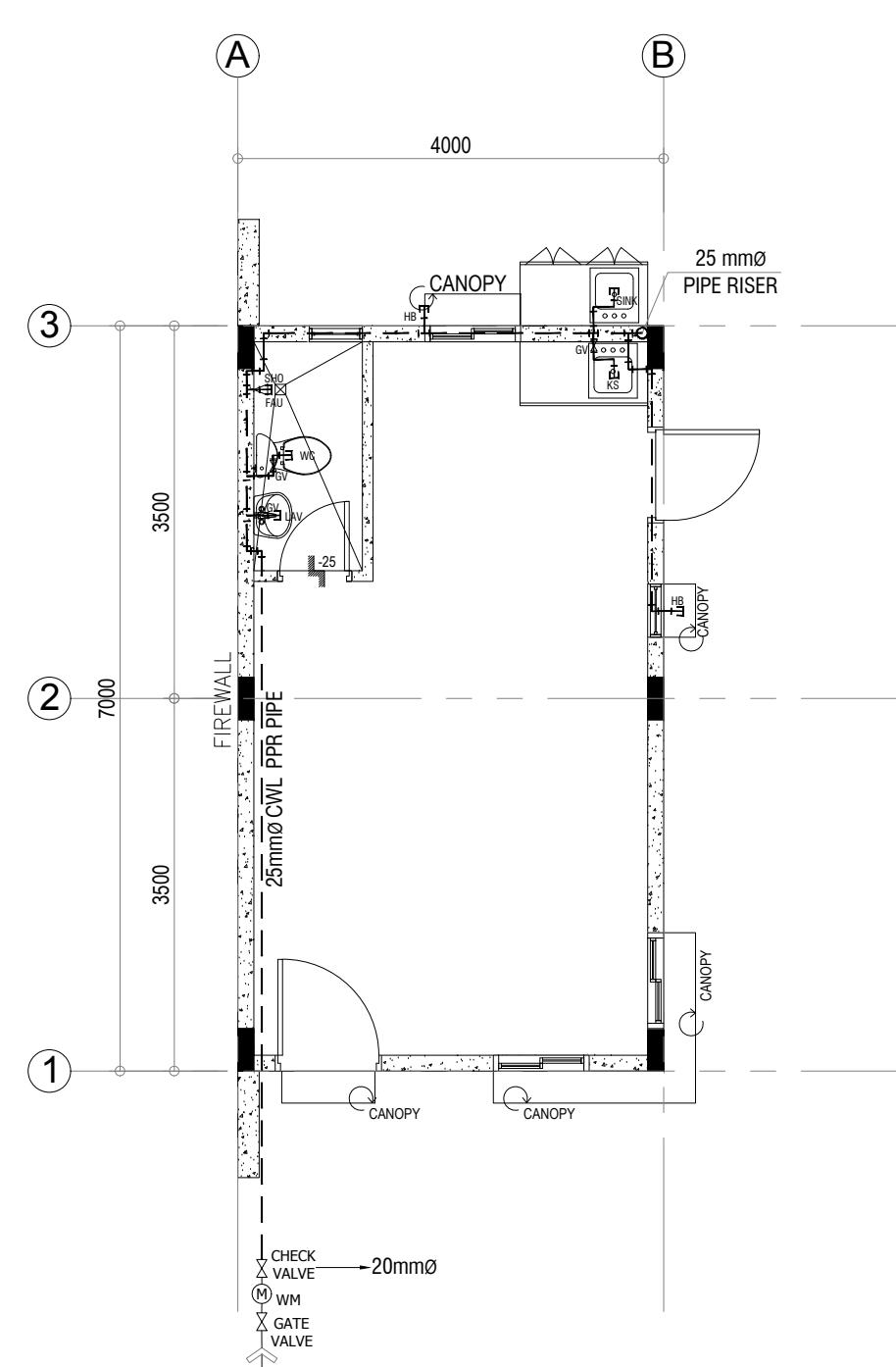
CO	Clean Out
FCO	Floor Cleanout
CCO	Ceiling Cleanout
DS	Downspout
S	Sink
F	Faucet
LAV	Lavatory
MH	Manhole
SHO	Shower Outlet
SHV	Shower Valve
VSTR	Vent Stack Thru Roof
WC	Water Closet
CWL	Clean Water Line
PVC	Polymerized Vinyl Chloride
PPR	Polypropylene Random
KS	Kitchen Sink
SV	Septic Vault
HB	Hose Bibb
GV	Gate Valve



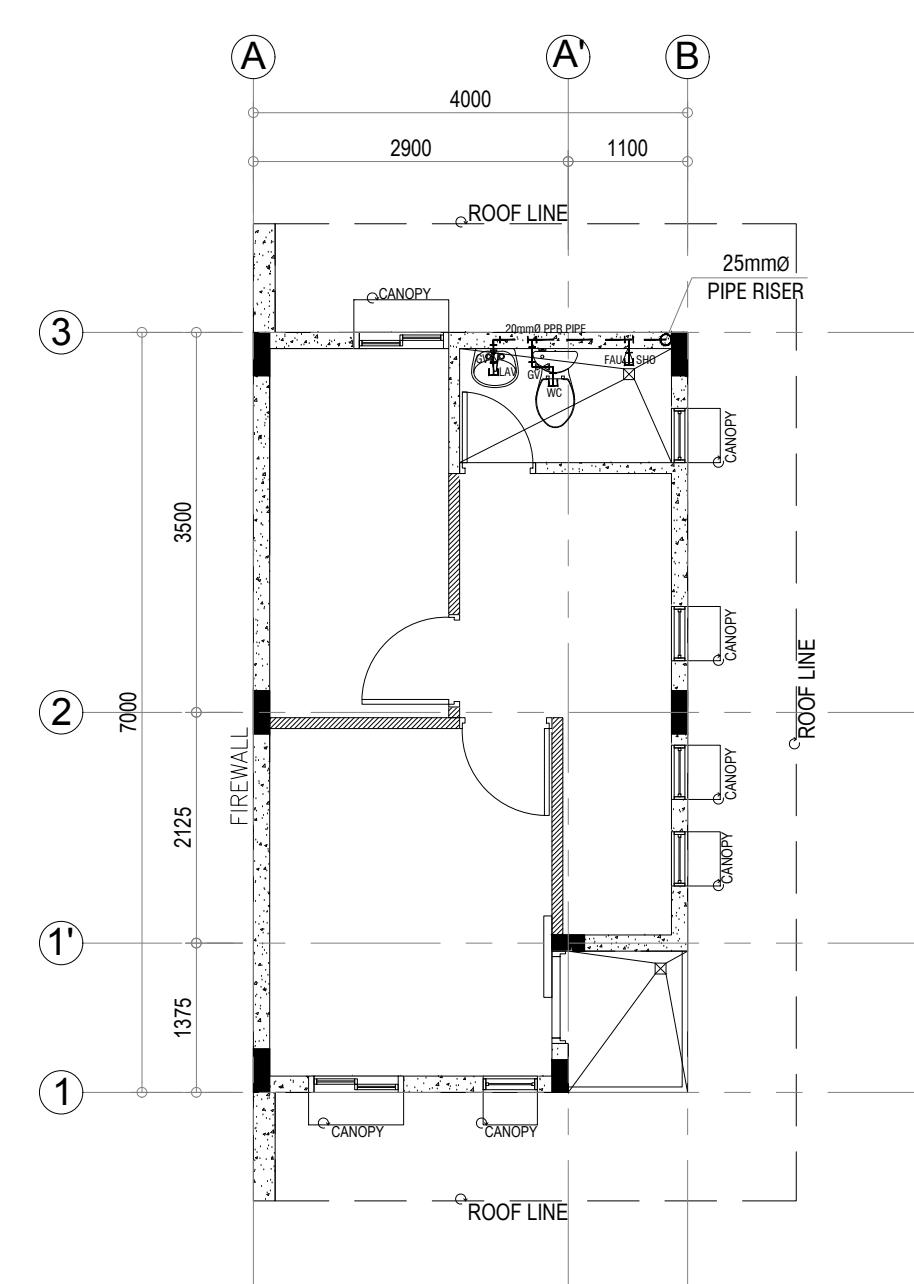
1 P-01 GROUND FLOOR
SEWER LINE LAYOUT
SCALE 1:50MTS



2 P-01 SECOND FLOOR
SEWER LINE LAYOUT
SCALE 1:50MTS



3 P-01 GROUND FLOOR
WATER LINE LAYOUT
SCALE 1:50MTS



4 P-01 SECOND FLOOR
WATER LINE LAYOUT
SCALE 1:50MTS

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- Subject to Architects and Structural Engineer's drawings for build details.
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- These drawings shall be read in conjunction with the technical specification and sub-contractor's working drawings.

NOTES:

REVISIONS		
REV. NO.	DETAILS	DATE



DESIGN DEVELOPMENT SECTION
PROJECT MANAGEMENT / CONSTRUCTION / DESIGN
501 Shaw Blvd, Mandaluyong City, Philippines
Tel: (02) 470-4712-4713-4859
Website: <http://www.facebook.com/501shawzentum>
FAX: (02) 534-2492

MASTER PLUMBER:

PTR No. :	DATE :
PLACE :	TIN :
PRC REG.:	
OWNER:	

HARMONY
HOMES INC.

OWNER'S APPROVAL

PROJECT:

PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

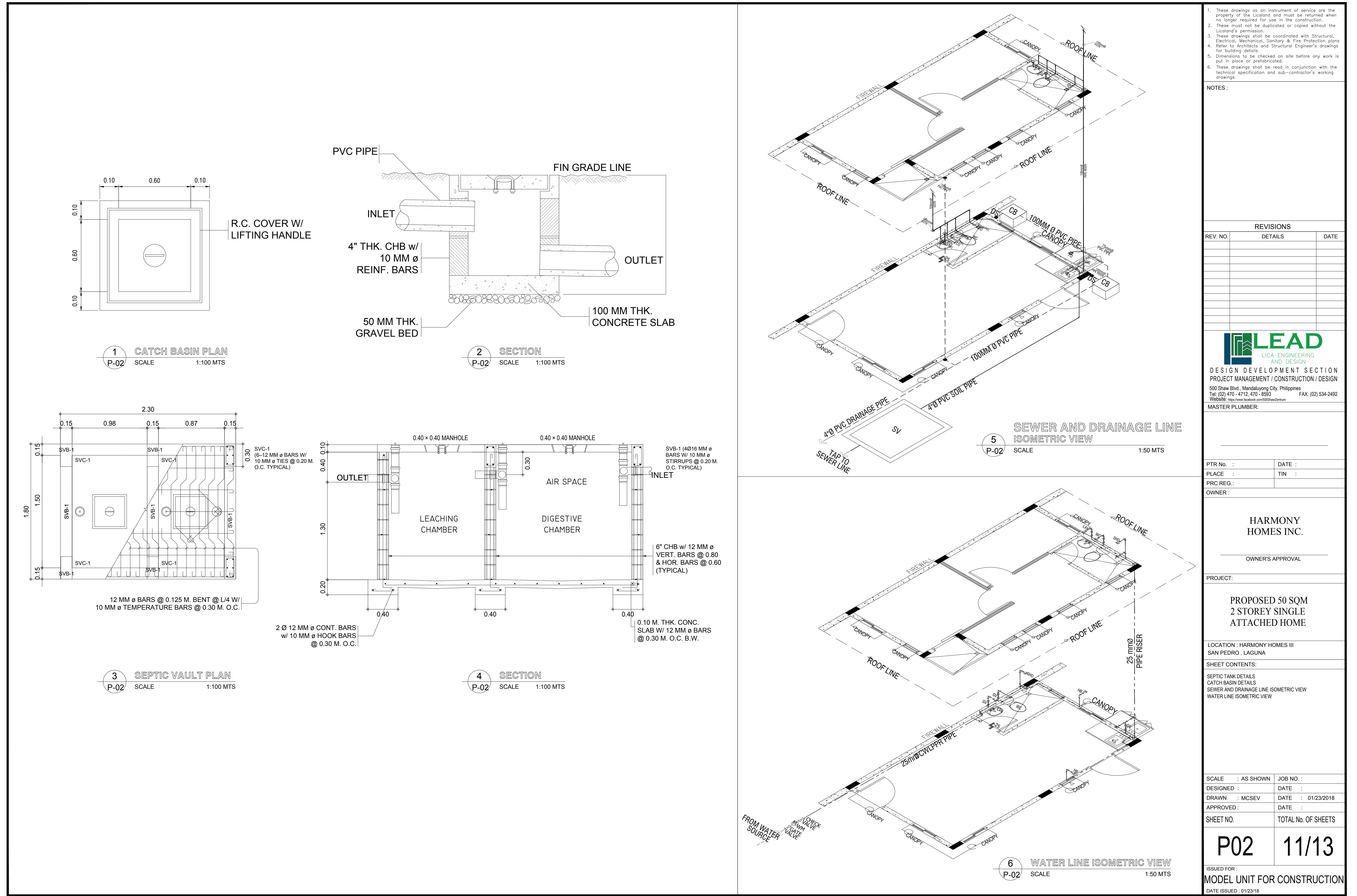
LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

SHEET CONTENTS:
GENERAL NOTES
PLUMBING LEGEND
GROUND FLOOR WATER LINE LAYOUT
SECOND FLOOR WATER LINE LAYOUT
GROUND FLOOR SEWER LINE LAYOUT
SECOND FLOOR SEWER LINE LAYOUT

SCALE : AS SHOWN	JOB NO. :
DESIGNED :	DATE :
DRAWN : MCSEV	DATE : 01/23/2018
APPROVED:	DATE :
SHEET NO.	TOTAL No. OF SHEETS

P01 10/13

ISSUED FOR :
MODEL UNIT FOR CONSTRUCTION
DATE ISSUED : 01/23/18



STRUCTURAL NOTES

A. GENERAL :

- ALL STRUCTURAL PLANS, SPECIFICATIONS, AND SHOP DRAWINGS, SHALL MEET ALL REQUIREMENTS SET BY THE NATIONAL BUILDING CODE, NATIONAL STRUCTURAL CODE OF THE PHILS., AND THE LOCAL CODE OF THE CITY / MUNICIPALITY / DISTRICT OF THE SITE.
- CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED, MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEELS, MISC. IRON, PRE-CAST CONCRETE, ETC., SHALL BE SUBMITTED FOR THE ENGINEER / DESIGNER'S APPROVAL BEFORE FABRICATION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING & BRACINGS OF THE STRUCTURE FOR ALL LOADS THAT MAYBE IMPOSED DURING CONSTRUCTION.

B. CONCRETE :

- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE LATEST BUILDING CODE OF AMERICAN CONCRETE INSTITUTE (ACI-318).
- ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS (MAX. PERIOD):

LOCATION 28 DAYS STRENGTH MIXING PROPORTION

FOOTINGS 4.000 PSI CLASS A / 1 : 1.5 : 3
CONC. COLUMNS 4.000 PSI 1 : 2.5 : 2.5
BEAMS 3.000 PSI 1 : 3 : 3
SUSP. SLABS 3.000 PSI
SLAB-ON-GRADE 3.000 PSI
WALL FOOTING
STAIRS, & OTHERS
NOT SPECIFIED 3.000 PSI

3. 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.

C. REINFORCEMENT:

- ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 40 FOR DIAMETER 12 AND SMALLER BARS AND GRADE 60 FOR DIAMETER 16 AND LARGER BARS.
- ALL ANCHOR BOLTS, DOWELS, AND OTHER INSERTS, SHALL BE PROPERLY POSITIONED AND SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
- ALL INTERSECTING BARS SHALL BE SECURED USING A NO.16 TIE WIRE.

D. MASONRY:

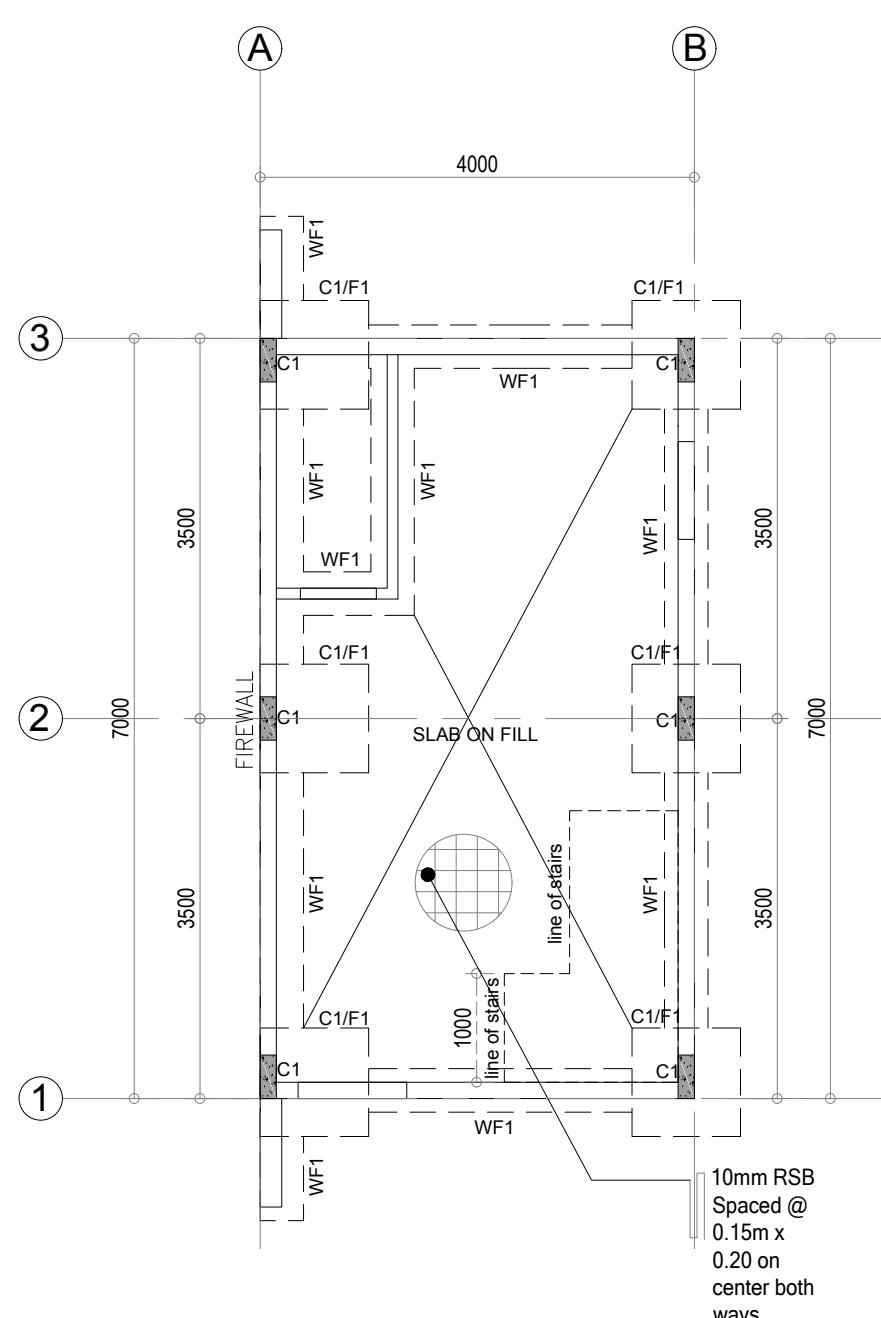
- ALL CONC. HOLLOW BLOCK (CHB) SHALL USE NON-LOAD BEARING CHB.
- ALL PLASTER AND MORTAR MIXTURE SHALL USE CLASS B / 1 : 3
- PROVIDE STIFFENER COLUMN FOR EVERY 3.0M DISTANCE. PROVIDE LINTEL BEAM FOR EVERY 3.0M HEIGHT.

E. STRUCTURAL STEEL:

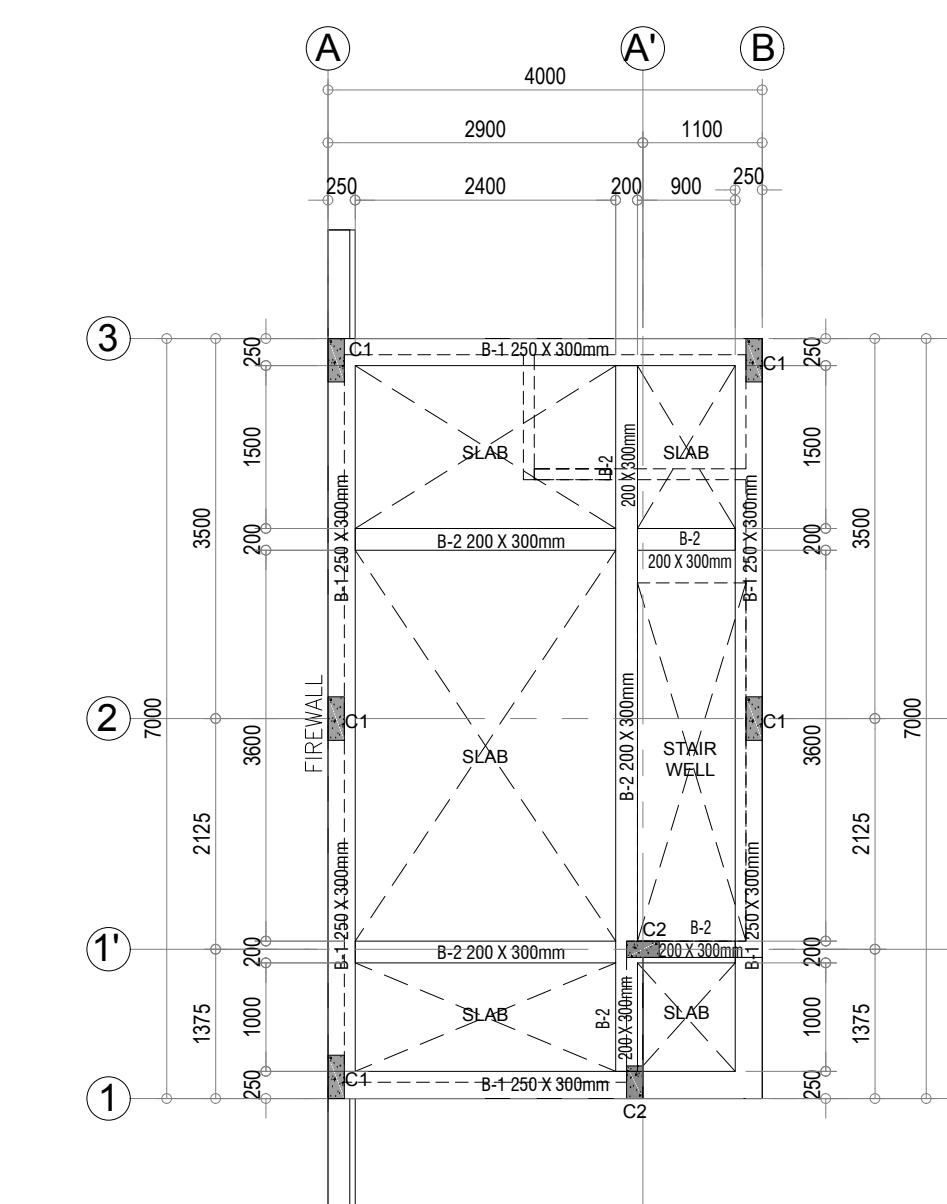
- ALL STRUCTURAL STEEL MEMBERS SHALL CONFORM TO ASTM A36 (Fy = 248 MPa)
- ALL CONNECTIONS SHALL BE FILLET WELD OR OTHERWISE SPECIFIED USING E60 WELDING ROD.
- MIN. LENGTH OF FILLET WELD MAY NOT BE LESS THAN 4 TIMES THE NOMINAL LED SIZE OF THE WELD. MAXIMUM SIZE OF FILLET WELD = 6MM. FOR THICKER MATERIALS IT SHOULD NOT BE GREATER THAN THE MATERIAL LESS 2MM. END RETURN SHOULD NOT BE LESS THAN TWICE THE NOMINAL SIZE OF WELD.

F. FOUNDATION:

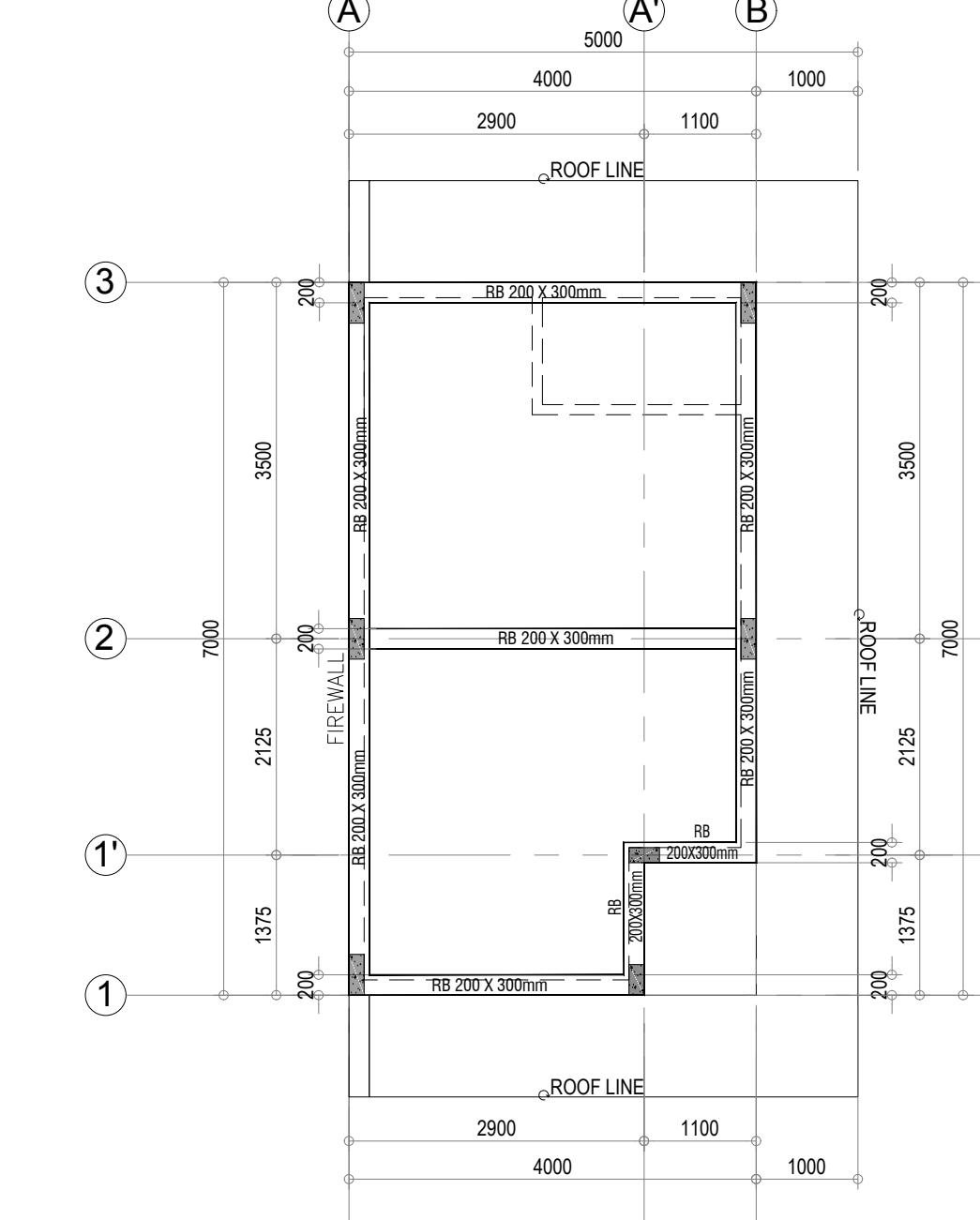
- THE ALLOWABLE FOUNDATION PRESSURE USED WAS BASED ON AN ASSUMED VALUE OF 150 KN/SQM BASED ON CHAPTER 7 TABLE NO.7-B OF THE NSCP.
- THE LATENT BEARING USED WAS BASED ON AN ASSUMED VALUE OF 30 KN/SQM/MM OF DEPTH BASED ON CHAPTER 7 TABLE NO. 7-B OF THE NSCP.
- THE LATENT SLIDING USED WAS BASED ON AN ASSUMED VALUE OF 0.25 BASED ON CHAPTER 7 TABLE NO. 7-B OF THE NSCP.



1 FOUNDATION PLAN
S-01 SCALE 1:75MTS



2 SECOND FLOOR
FRAMING PLAN
S-01 SCALE 1:75 MT S



3 ROOF BEAM
FRAMING PLAN
S-01 SCALE 1:75 MT S

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NOTES :

REV. NO.	DETAILS	DATE

LEAD
LICA ENGINEERING
AND DESIGN
DESIGN DEVELOPMENT SECTION
PROJECT MANAGEMENT / CONSTRUCTION / DESIGN
501 Shaw Blvd, Mandaluyong City, Philippines
Tel: (02) 470 - 4712 - 0559 FAX: (02) 534-2492
Website: <http://www.leadbook.com/500 ShawCentrum>
CIVIL ENGINEER:

PTR No. :	DATE :
PLACE :	TIN :
PRC REG.:	
OWNER :	

HARMONY
HOMES INC.

OWNER'S APPROVAL

PROJECT:
PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

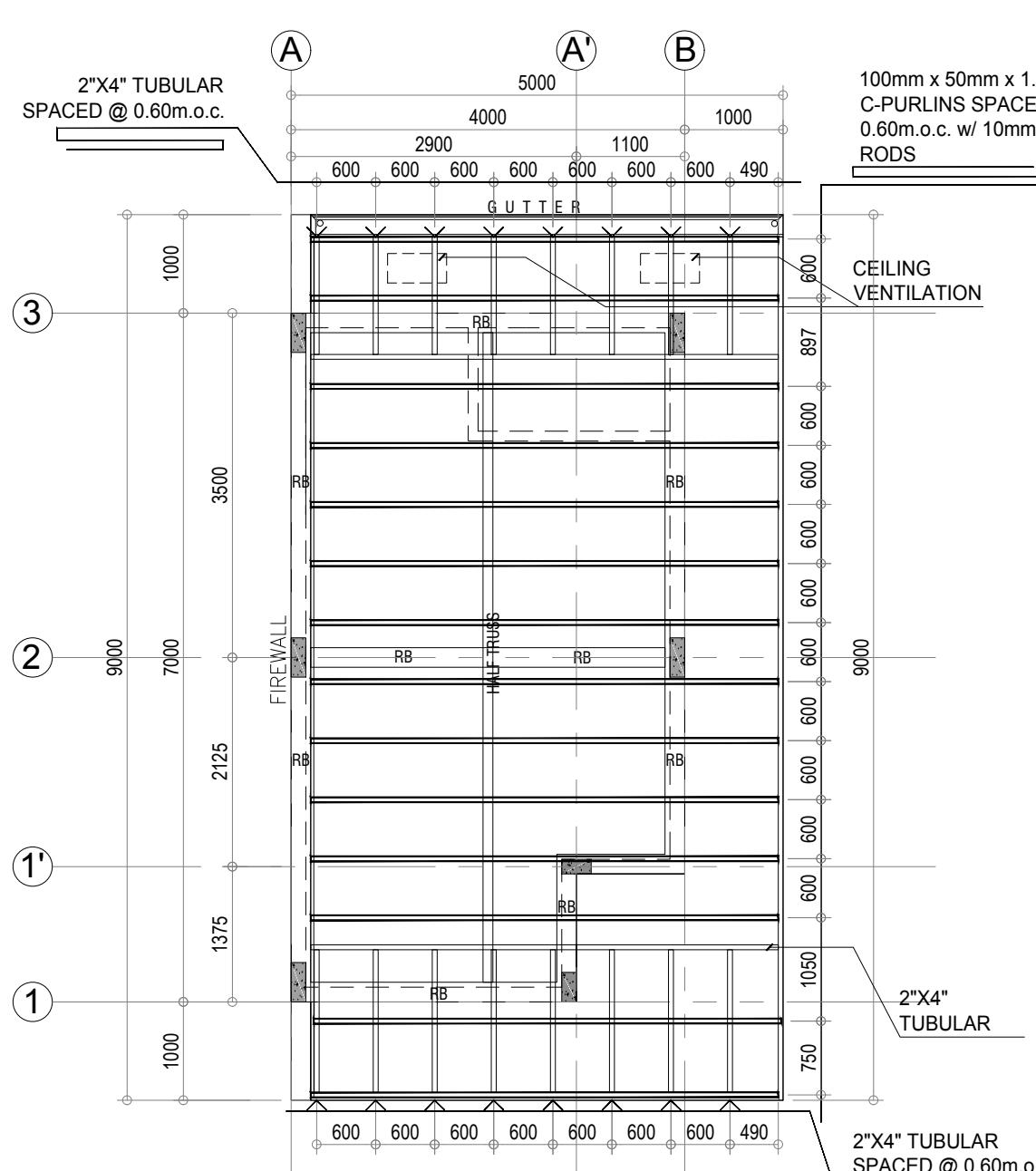
SHEET CONTENTS:

GENERAL NOTES
FOUNDATION PLAN
SECOND FLOOR FRAMING PLAN
ROOF BEAM FRAMING PLAN
WALL FRAMING PLAN
WALL FOOTING DETAIL
COLUMN FOOTING DETAIL
STAIR ON GRADE DETAIL

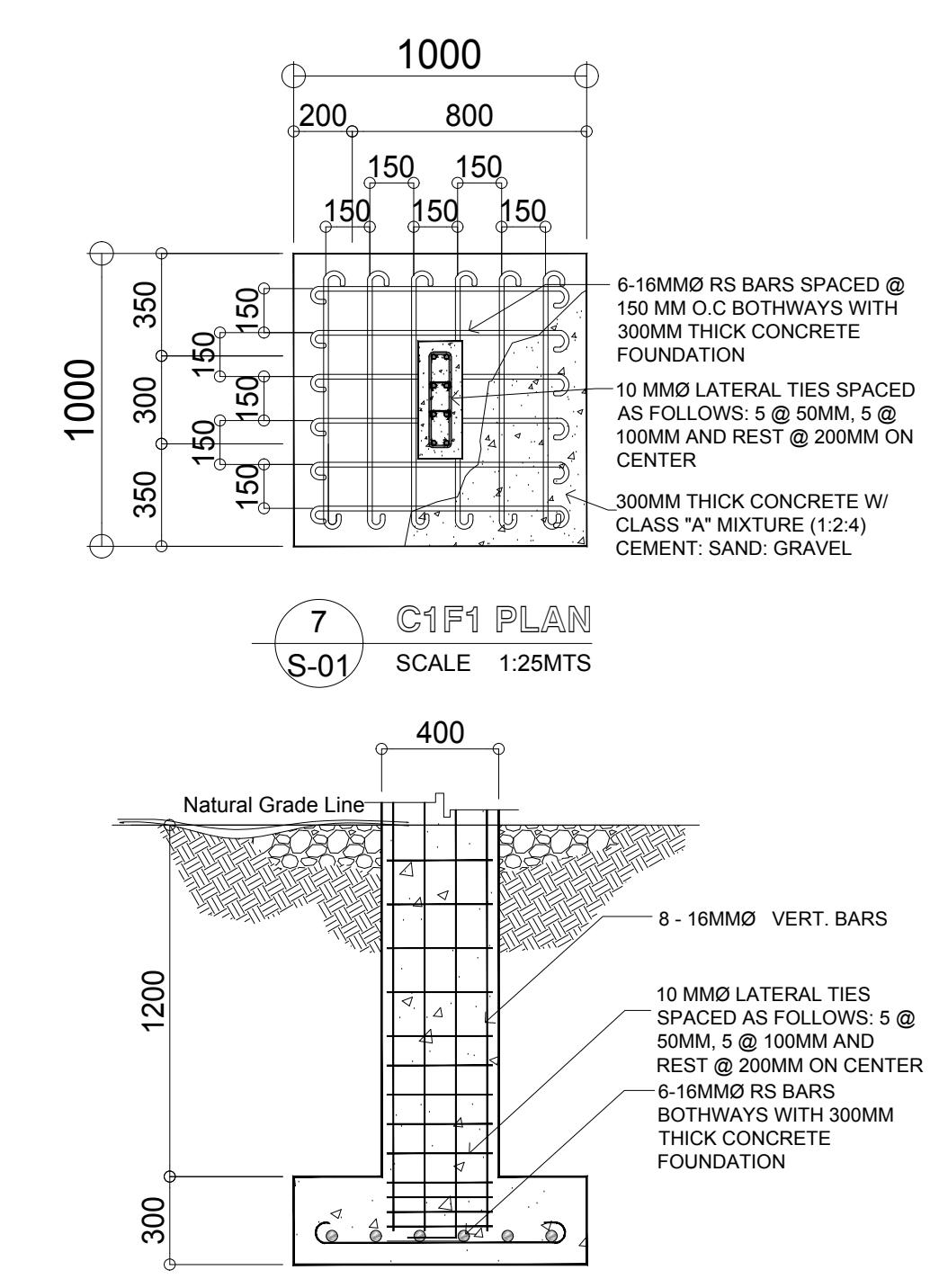
SCALE : AS SHOWN	JOB NO. :
DESIGNED :	DATE :
DRAWN : MCSEV	DATE : 01/23/2018
APPROVED :	DATE :
SHEET NO.	TOTAL No. OF SHEETS

S01 12/13

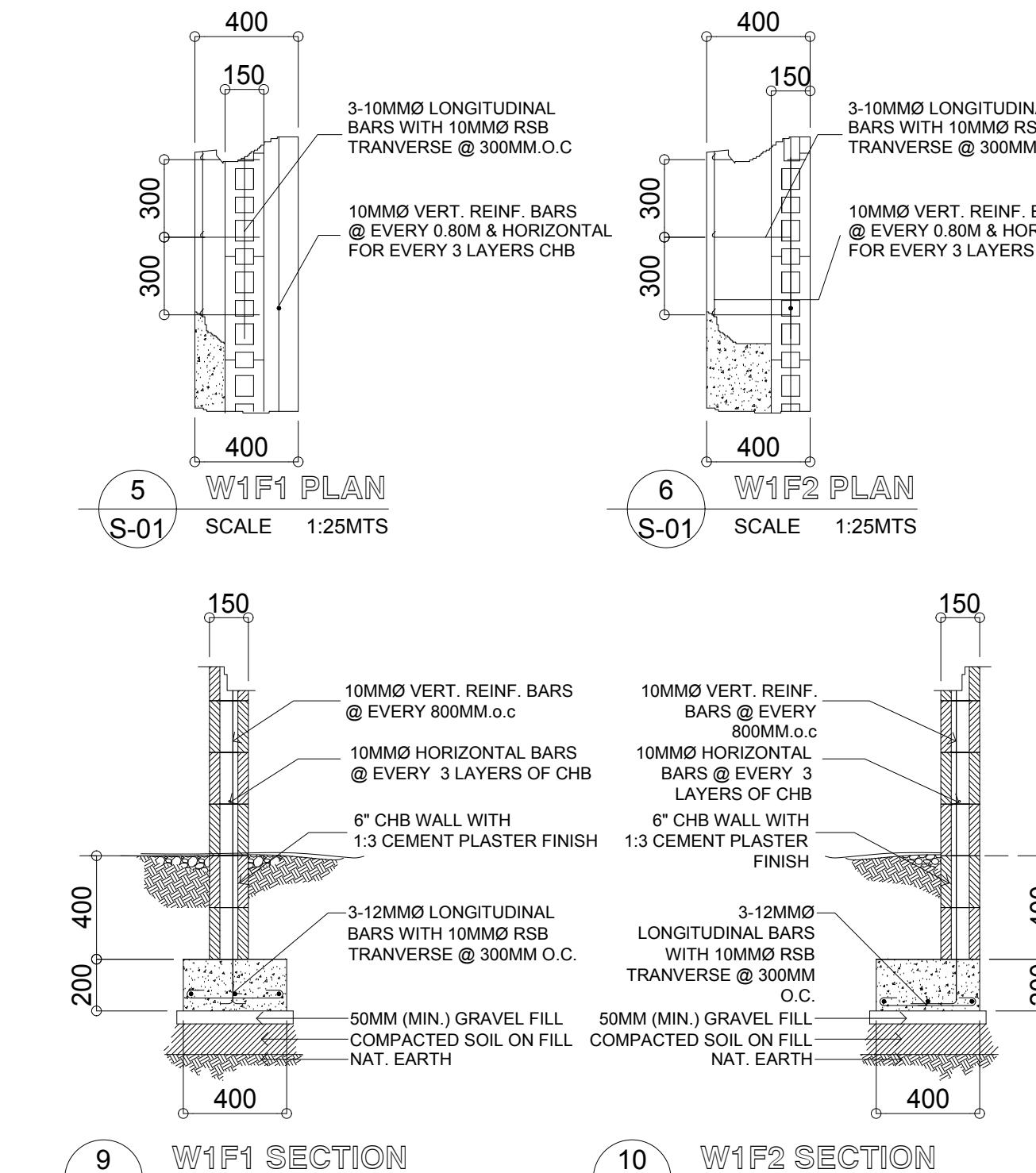
ISSUED FOR :
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DATE ISSUED: 01/23/18



4 ROOF
FRAMING PLAN
S-01 SCALE 1:75 MTS

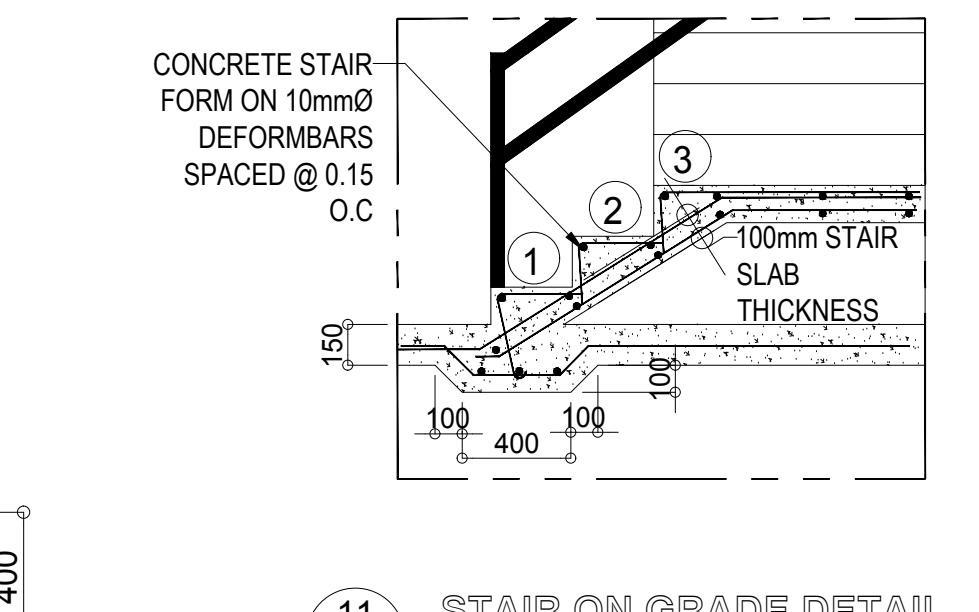


7 C1F1 SECTION
S-01 SCALE 1:25MTS



9 W1F1 SECTION
S-01 SCALE 1:25MTS

10 W1F2 SECTION
S-01 SCALE 1:25MTS



11 STAIR ON GRADE DETAIL
S-01 SCALE NTS

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NOTES:

REVISIONS
REV. NO. DETAILS DATE



DESIGN DEVELOPMENT SECTION
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Website: <http://www.facebook.com/500shawzentrum>

CIVIL ENGINEER:

PTR No. : DATE :
PLACE : TIN :
PRC REG.:
OWNER:

HARMONY
HOMES INC.

OWNER'S APPROVAL

PROJECT:

PROPOSED 50 SQM
2 STOREY SINGLE
ATTACHED HOME

LOCATION : HARMONY HOMES III
SAN PEDRO, LAGUNA

SHEET CONTENTS:

SCHEDULE OF COLUMN
SCHEDULE OF FOOTING
SCHEDULE OF BEAM
TYPICAL BEAM DETAIL
SLAB DETAIL
TRUSS DETAIL
GUTTER SPOT DETAIL

SCALE : AS SHOWN | JOB NO. :
DESIGNED : DATE :
DRAWN : MCSEV | DATE : 01/23/2018
APPROVED : DATE :
SHEET NO. TOTAL No. OF SHEETS

S02 | 13/13

ISSUED FOR:
MODEL UNIT FOR CONSTRUCTION
DATE ISSUED : 01/23/18

DETAILS OF COLUMNS

MARK	CI	C2
FOUNDATION TO ROOF LEVEL		
DIMENSION	150MM x 400MM	150MM x 300MM
VERTICAL BARS	8 - 16 MMØ	4 - 12 MMØ
TIES	10 MMØ	10 MMØ
SPACING	5 @ 50MM, 5 @ 100MM REST @ 200MM O. C.	5 @ 50MM, 5 @ 100MM REST @ 200MM O. C.

SCHEDULE OF COLUMN

1 S-02 SCALE NTS

SCHEDULE OF FOOTINGS

MARK	DIMENSION		THICKNESS	REINFORCEMENT	
	W	L	T	PARALLEL TO "W"	PARALLEL TO "L"
C1/F1	1.00	1.00	0.30	6 - 16 MMØ	6 - 16 MMØ

SCHEDULE OF FOOTING

2 S-02 SCALE NTS

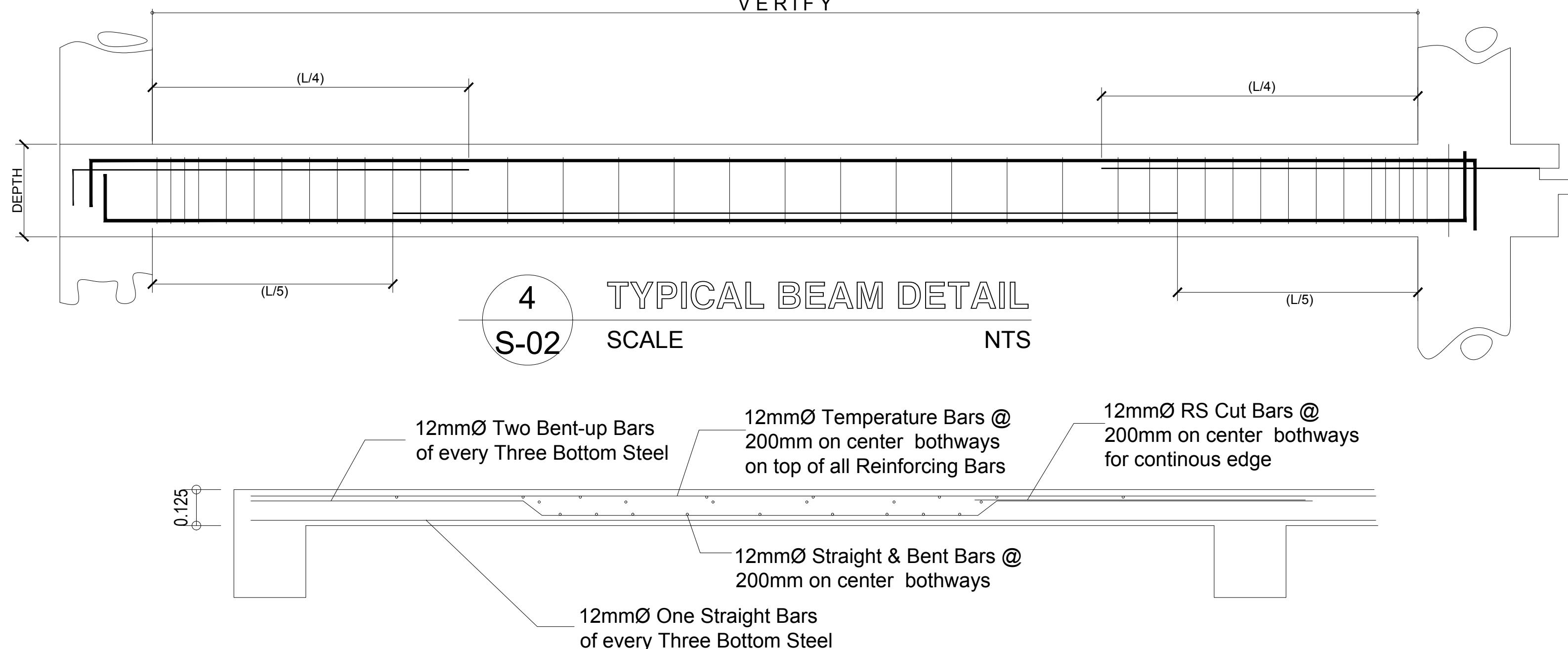
SCHEDULE OF BEAM

BEAM MARK	BEAM SIZE	REINFORCEMENTS				STIRRUPS 10mmØ			
		SUPPORT		MIDSPAN					
		TOP MM	BOT. MM	TOP MM	BOT. MM				
B-1	.25X.30	3-16	3-16	3-16	3-16	5@50, 5@100 REST @ 200			
B-2	.20x.30	3-16	2-16	2-16	3-16	3@50, 6@100 REST @ 200			
RB	.20X.30	3-12	2-16	2-16	3-16	3@50, 4@100 6@150 REST @ 200			

SCHEDULE OF BEAM

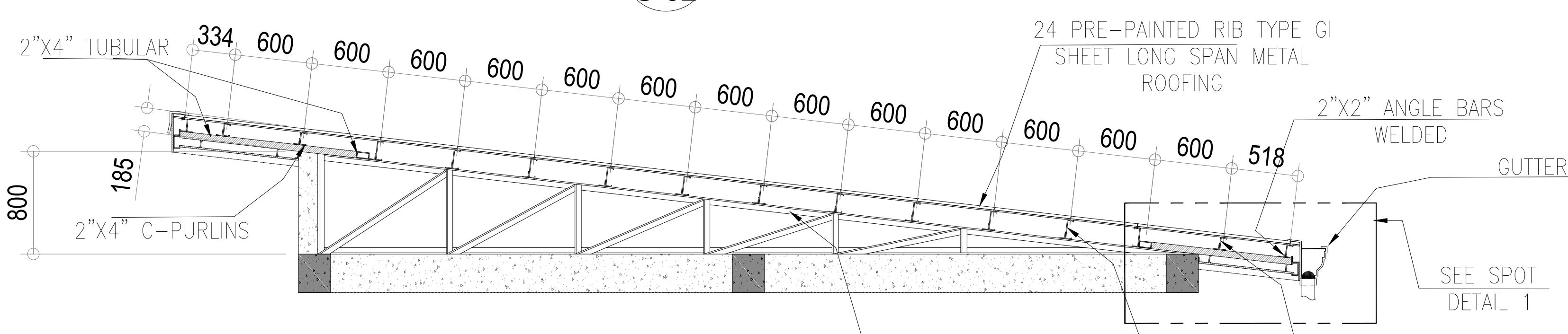
3 S-02 SCALE NTS

VERIFY



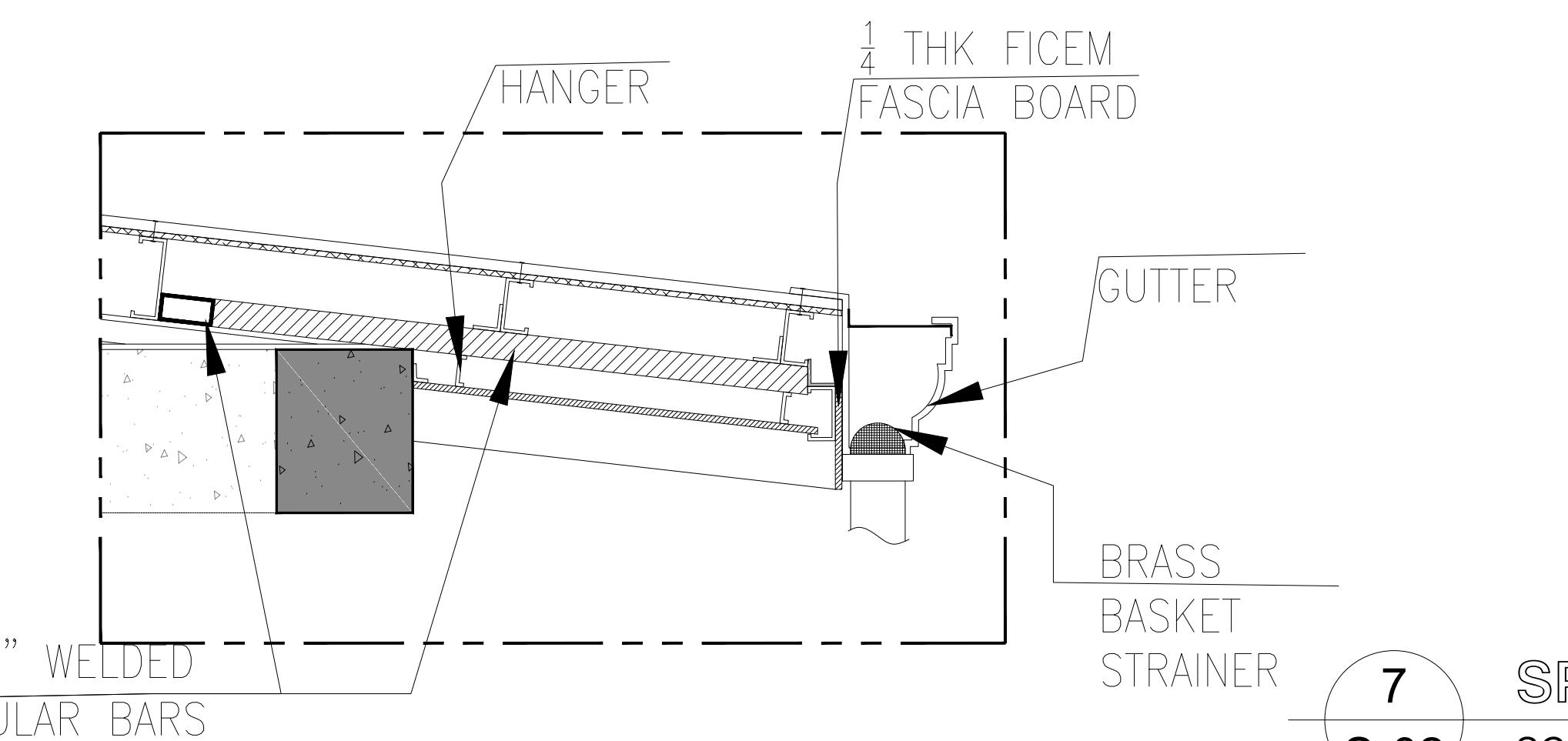
SLAB DETAIL

5 S-02 SCALE NTS



TRUSS DETAIL

6 S-02 SCALE 1:30MTS



SPOT DETAIL 1

7 S-02 SCALE NTS