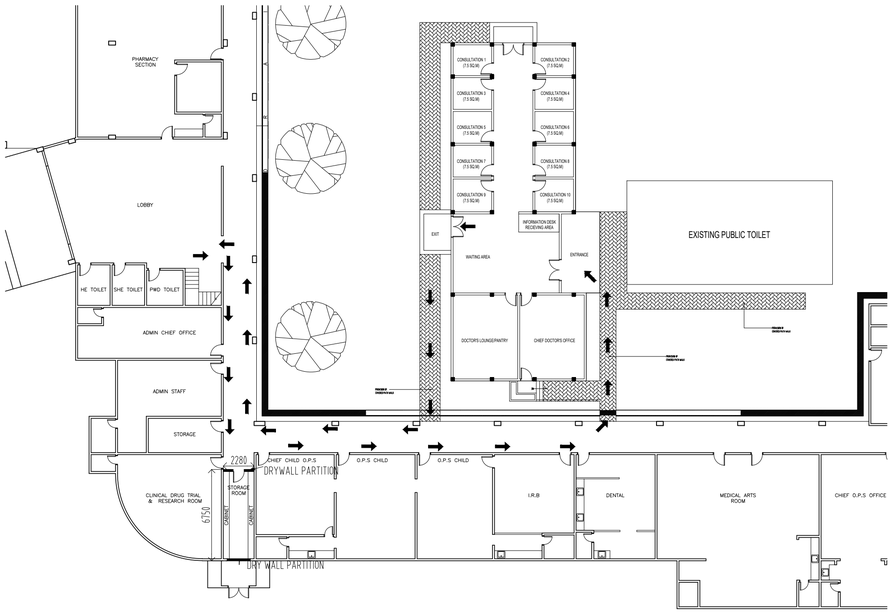
P E R S P E C T I V E



A 101 **OPS EXTENSION BUILDING**
SITE DEVELOPMENT PLAN
1:250M

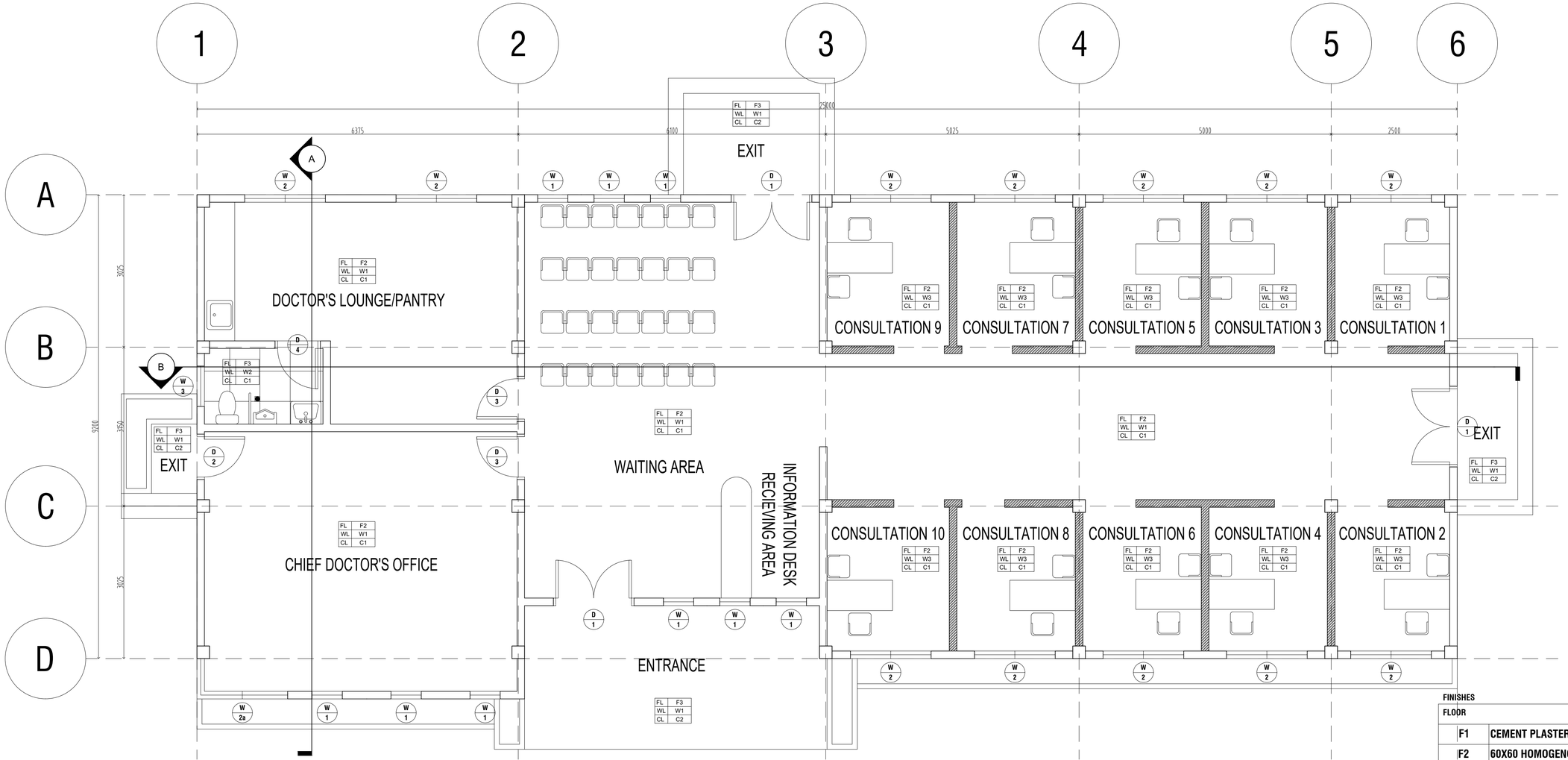
TABLE OF CONTENTS

REPUBLIC OF THE PHILIPPINES
Department Of Health

National Center for Mental Health

Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City

PROJECT TITLE/LOCATION:	PREPARED BY:	REVIEWED:	RECOMMENDING APPROVAL:	SHEET CONTENT:	SHEET NO.
CONSTRUCTION OF PAVILION 2 OUT-PATIENT SECTION EXTENSION	EVELYN T. PURINO, CE, MMHoA Engineer III, Chief, Planning & Development Section	DIONICIO A. TOLENTINO, MPA Chief Finance Service, HFEP Coordinator	NOEL V. REYES, MD, FPPA, MMHoA Medical Center Chief II	PERSPECTIVE TABLE OF CONTENTS	1 / 11 A / 1 / 4



FINISHES

FLOOR	
F1	CEMENT PLASTER
F2	60X60 HOMOGENOUS FLOOR TILES
F3	60x60 NON SKID FLOOR TILES
WALL	
W1	CEMENT PLASTER IN PAINT FINISH
W2	60x60 WALL TILES
W3	CUBICLE PARTITION
CEILING	
C1	FIBER CEMENT BOARD IN PAINT FINISH
C2	6MM POLY CARBONATE ROOFING

A / 201

OPS-EXTENSION BUILDING (246.00 SQ.M)

PROPOSED GROUND FLOOR PLAN

1:50M

REPUBLIC OF THE PHILIPPINES
Department Of Health

National Center for Mental Health

Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City

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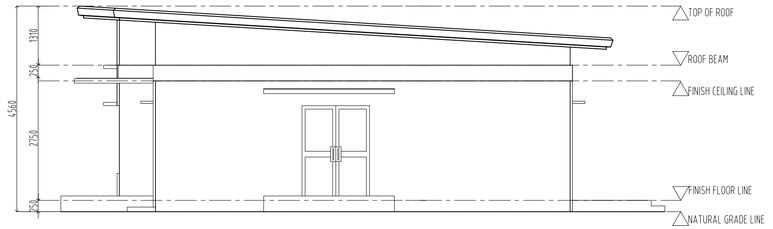
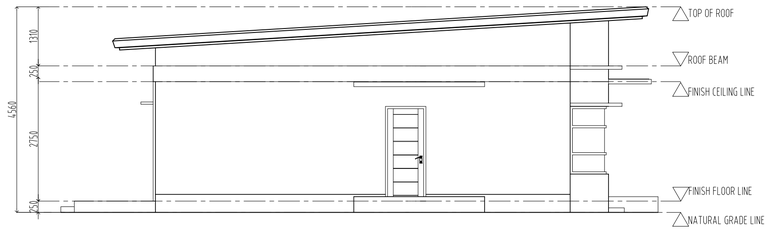
A 301 TB DOTS BUILDING
FRONT ELEVATION
1:75M

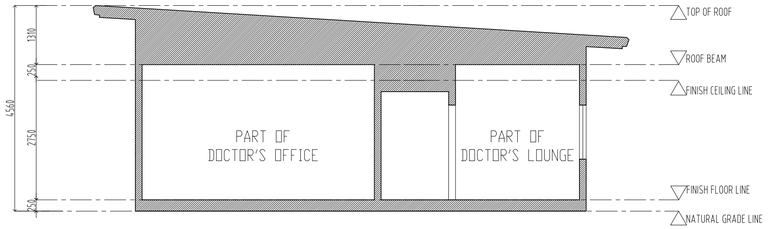


A 302 TB DOTS BUILDING
LEFT SIDE ELEVATION
1:75M

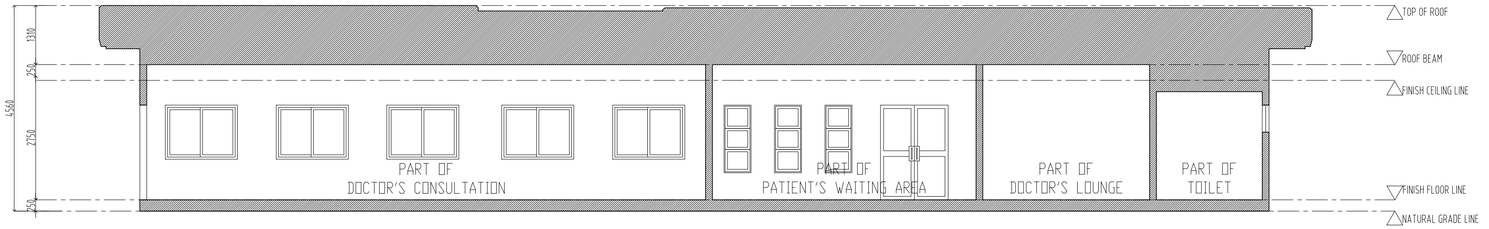
A 303 TB DOTS BUILDING
REAR ELEVATION
1:75M



A 304 TB DOTS BUILDING
RIGHT SIDE ELEVATION
1:75M



A 305 TB DOTS BUILDING
SECTION THRU A
1:75M



A 306 TB DOTS BUILDING
SECTION THRU B
1:75M

REPUBLIC OF THE PHILIPPINES
Department Of Health

National Center for Mental Health

Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City

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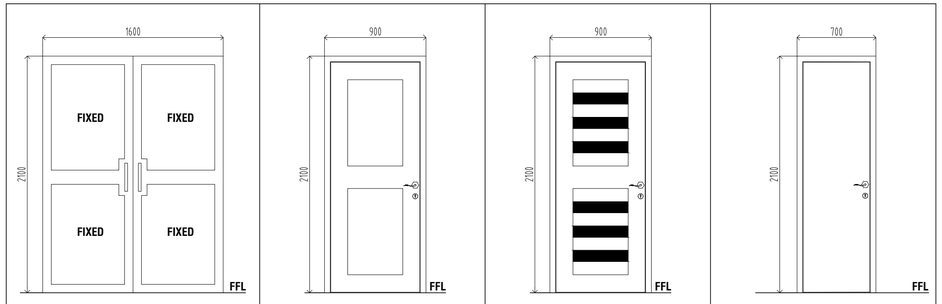
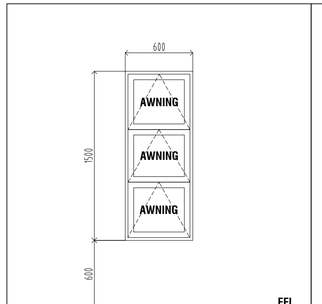


LOCATION	D 1	MAIN ENTRANCE
TYPE		GLASS DOOR
REQUIRED		1 SETS
SPECIFICATION	DOOR JAMB	2 X 4 ALUMINUM JAMB
	DOOR FRAME	¼" THICK CLEAR GLASS
	DOOR LOCK	LOCK SET
DESCRIPTION		SERIES 38 ALUMINUM GLASS FRAME WITH ¼" CLEAR GLASS (SEE DESIGN DETAIL) PROVIDE ALUMINUM GLASS DOOR HINGES

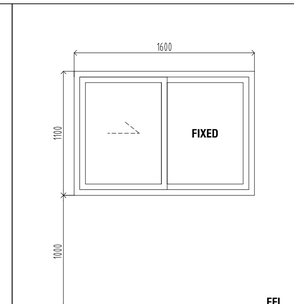
LOCATION	D 2	DOCTORS OFFICE EXIT DOOR
TYPE		FLUSH DOOR
REQUIRED		1 SET
SPECIFICATION	DOOR JAMB	2 X 6 JAMB
	DOOR FRAME	1 ¾ THICK SOLID WOOD
	DOOR LOCK	LOCK SET
DESCRIPTION		SOLID WOOD FLUSH DOOR IN STAIN VARNISH FINISH WITH ½" THICK SMOKE GLASS (SEE DESIGN DETAIL) PROVIDE 3.5 x 3.5 BALL BEARING STAINLESS STEEL HINGES

LOCATION	D 3	DOCTORS OFFICE DOOR,DOCTORS LOUNGE/PANTRY
TYPE		FLUSH DOOR
REQUIRED		2 SETS
SPECIFICATION	DOOR JAMB	2 X 6 JAMB
	DOOR FRAME	1 ¾ THICK SOLID WOOD
	DOOR LOCK	LOCK SET
DESCRIPTION		SOLID WOOD FLUSH DOOR IN STAIN VARNISH FINISH WITH½" THICK SMOKE GLASS (SEE DESIGN DETAIL) PROVIDE 3.5 x 3.5 BALL BEARING STAINLESS STEEL HINGES

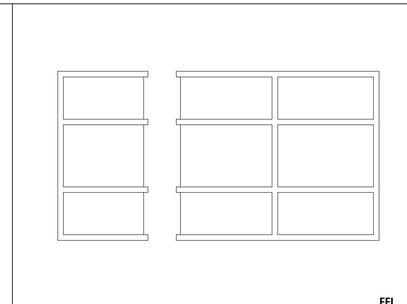
LOCATION	D 4	TOILET
TYPE		FLUSH DOOR
REQUIRED		1 SET
SPECIFICATION	DOOR JAMB	2 X 6 JAMB
	DOOR FRAME	1 ¾ THICK SOLID WOOD
	DOOR LOCK	LOCK SET
DESCRIPTION		SOLID WOOD FLUSH DOOR IN STAIN VARNISH FINISH (SEE DESIGN DETAIL) PROVIDE 3.5 x 3.5 BALL BEARING STAINLESS STEEL HINGES



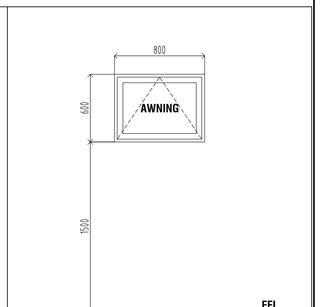
LOCATION	W 1	LOBBY
TYPE		AWNING WINDOW
REQUIRED		6 SETS
SPECIFICATION	WINDOW FRAME	SERIES 38 ALUMINUM FRAME
DESCRIPTION		SERIES 38 ALUMINUM FRAME WITH 6MM THICK BRONZE GLASS



LOCATION	W 2	OFFICES
TYPE		SLIDING WINDOW
REQUIRED		15 SETS
SPECIFICATION	WINDOW FRAME	SERIES 38 ALUMINUM FRAME
DESCRIPTION		SERIES 38 ALUMINUM FRAME WITH 6MM THICK BRONZE GLASS

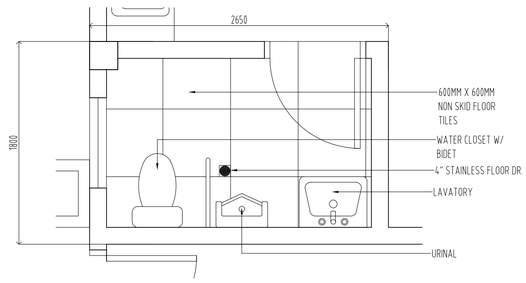


LOCATION	W 2a	DOCTORS OFFICES
TYPE		CORNER WINDOW
REQUIRED		1 SET
SPECIFICATION	WINDOW FRAME	SERIES 38 ALUMINUM FRAME
DESCRIPTION		SERIES 38 ALUMINUM FRAME WITH 6MM THICK BRONZE GLASS

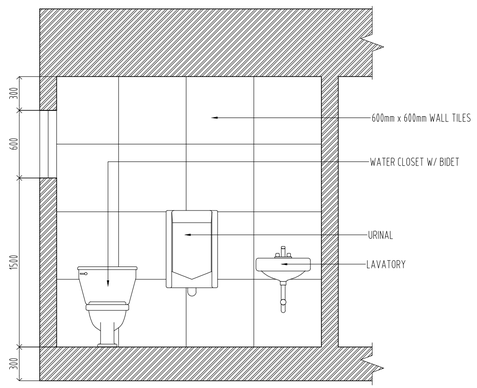


LOCATION	W 3	TOILET & BATH
TYPE		AWNING WINDOW
REQUIRED		1 SET
SPECIFICATION	WINDOW FRAME	SERIES 38 ALUMINUM FRAME
DESCRIPTION		SERIES 38 ALUMINUM FRAME WITH 6MM THICK BRONZE GLASS

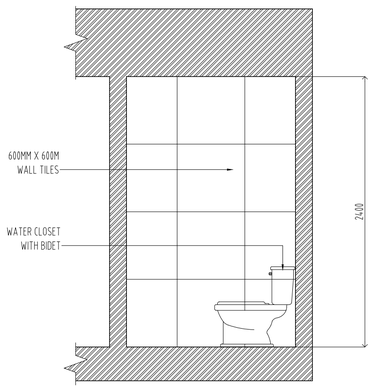
TB DOTS BUILDING
A 401 SCHEDULE OF DOOR AND WINDOWS
1:30M



OPS EXTENSION BUILDING
A 402 DOCTOR'S LOUNGE TOILET DETAILS
1:30M

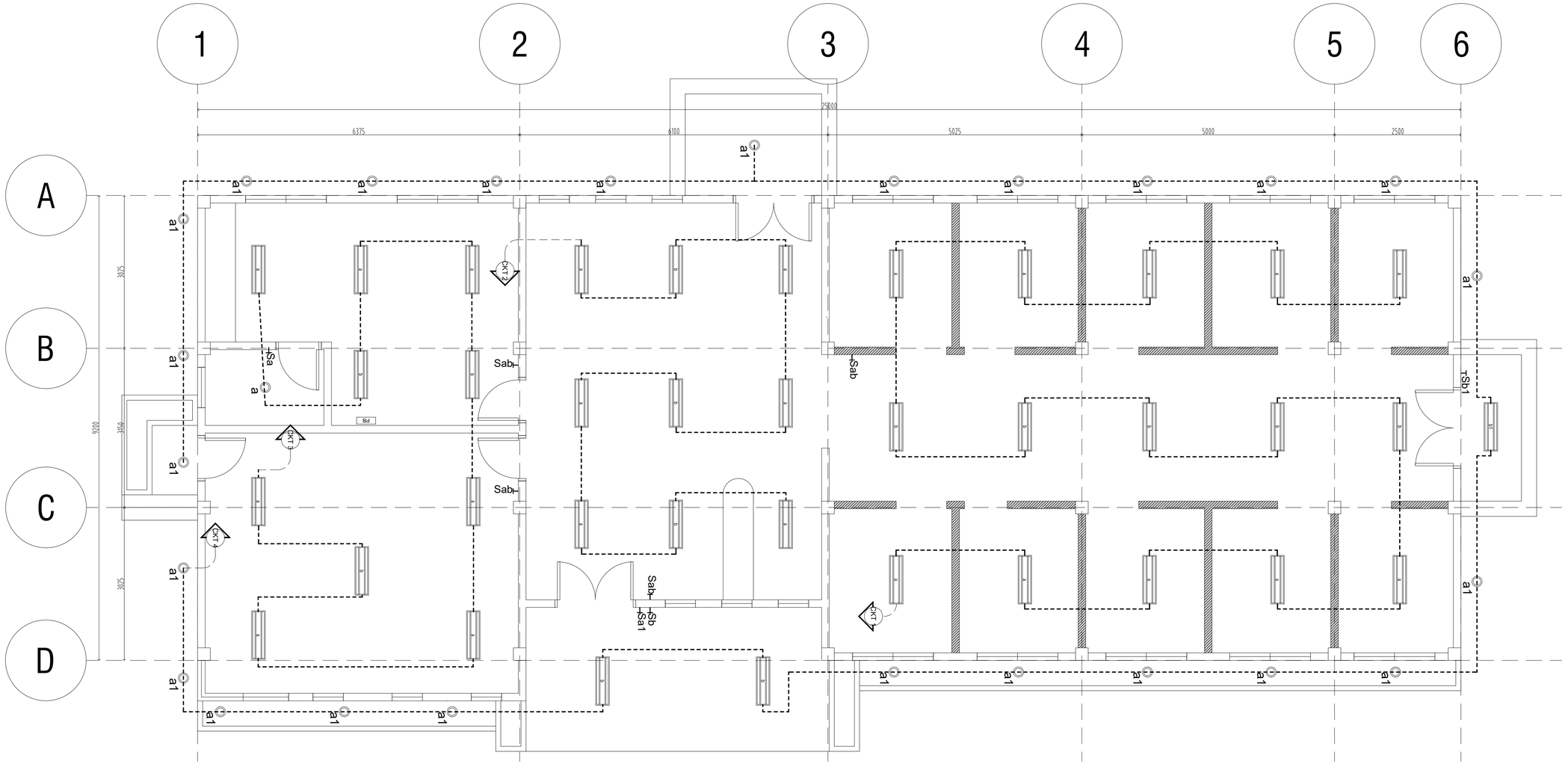


OPS EXTENSION BUILDING
A 403 SECTION THRU A
1:30M



OPS EXTENSION BUILDING
A 404 SECTION THRU B
1:30M

REPUBLIC OF THE PHILIPPINES Department Of Health National Center for Mental Health Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City	PROJECT TITLE/LOCATION:	PREPARED BY:	REVIEWED:	RECOMMENDING APPROVAL:	SHEET CONTENT:	SHEET NO.
	CONSTRUCTION OF PAVILION 2 OUT-PATIENT SECTION EXTENSION	EVELYN T. PURINO, CE, MMHoA Engineer III, Chief, Planning & Development Section	DIONICIO A. TOLENTINO, MPA Chief Finance Service, HFEP Coordinator	NOEL V. REYES, MD, FPPA, MMHoA Medical Center Chief II	SCHEDULE OF DOOR & WINDOWS DETAILS OF TOILET	4 / 11 A / 4 4



E
101

OPS-EXTENSION BUILDING (246.00 SQ.M)

PROPOSED GROUNDFLOOR LIGHTING LAY OUT

1:50M

REPUBLIC OF THE PHILIPPINES Department Of Health National Center for Mental Health Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City	PROJECT TITLE/LOCATION:	PREPARED BY:	REVIEWED:	RECOMMENDING APPROVAL:	SHEET CONTENT:	SHEET NO.
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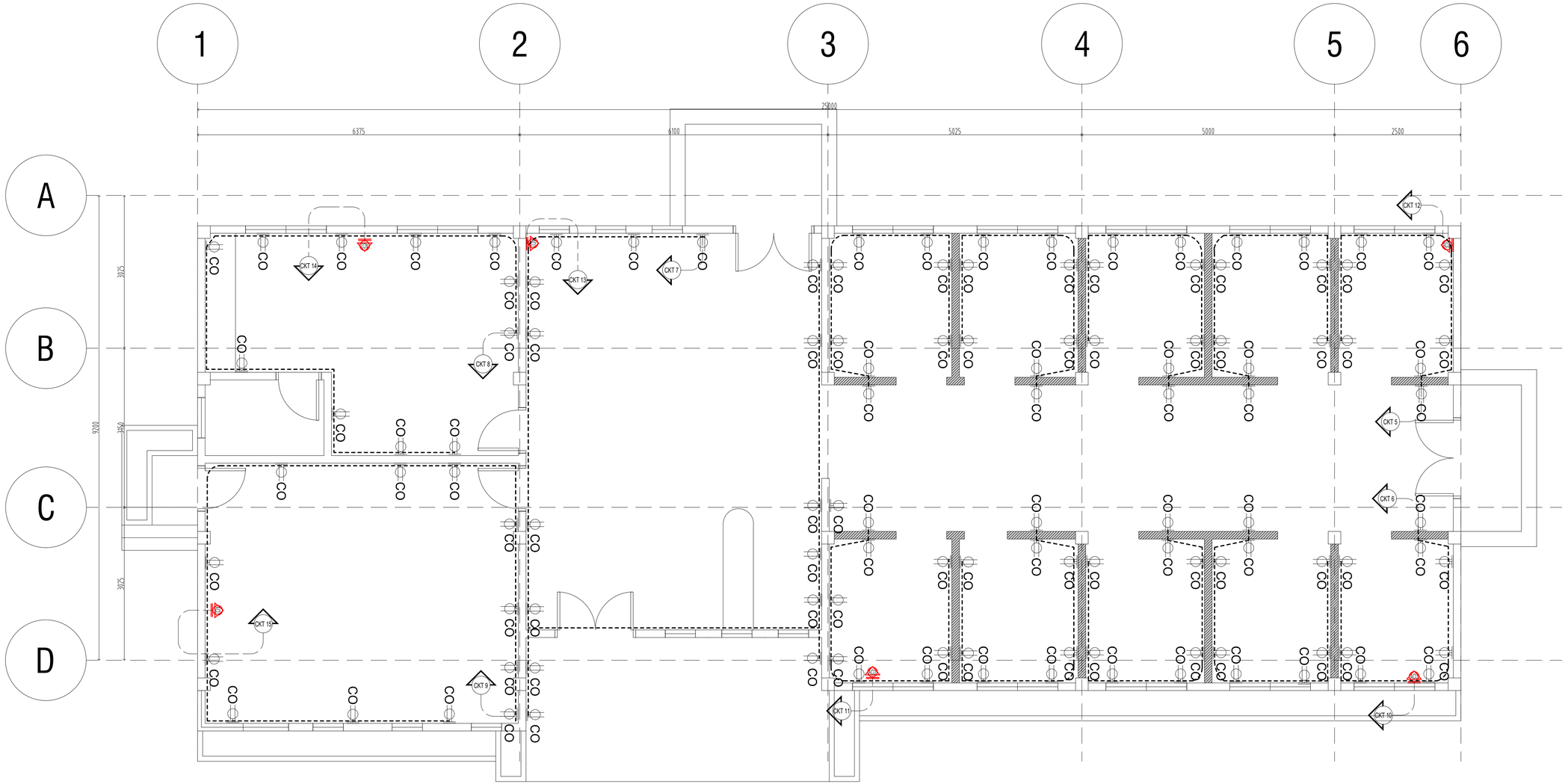


E
201

OPS-EXTENSION BUILDING (246.00 SQ.M)

PROPOSED GROUNDFLOOR POWERLINE LAY OUT

1:50M

REPUBLIC OF THE PHILIPPINES Department Of Health National Center for Mental Health Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City	PROJECT TITLE/LOCATION: CONSTRUCTION OF PAVILION 2 OUT-PATIENT SECTION EXTENSION	PREPARED BY: EVELYN T. PURINO, CE, MMHoA Engineer III, Chief, Planning & Development Section	REVIEWED: DIONICIO A. TOLENTINO, MPA Chief Finance Service, HFEP Coordinator	RECOMMENDING APPROVAL: NOEL V. REYES, MD, FPPA, MMHoA Medical Center Chief II	SHEET CONTENT: PROPOSED GROUNDFLOOR POWERLINE LAY OUT	SHEET NO. 8 11 E 2 3

LOAD TABULATION AND COMPUTATION

	LOAD	QTY	WATTS	VOLTAGE	AMPERES	CIRCUIT BREAKER		WIRE SIZE	CONDUIT
						AT	AF		
1	LIGHTING OUTLET	15	20	230	1.4	15	50	3.5mm² THHN	20 mm² Ø PVC PIPE
2	LIGHTING OUTLET	9	20	230	0.8	15	50	3.5mm² THHN	20 mm² Ø PVC PIPE
3	LIGHTING OUTLET	12	20	230	1	15	50	3.5mm² THHN	20 mm² Ø PVC PIPE
4	LIGHTING OUTLET	28	20	230	2.4	15	50	3.5mm² THHN	20 mm² Ø PVC PIPE
5	CONVENIENCE OUTLET	38	180	230	29	40	50	3.5mm² THHN	20 mm² Ø PVC PIPE
6	CONVENIENCE OUTLET	40	180	230	31	40	50	3.5mm² THHN	20 mm² Ø PVC PIPE
7	CONVENIENCE OUTLET	21	180	230	16	30	50	3.5mm² THHN	20 mm² Ø PVC PIPE
8	CONVENIENCE OUTLET	12	180	230	9	30	50	3.5mm² THHN	20 mm² Ø PVC PIPE
9	CONVENIENCE OUTLET	11	180	230	8.6	30	50	3.5mm² THHN	20 mm² Ø PVC PIPE
10	AIRCONDITION UNIT	1	3 TONNER	230	48	80	100	22mm² THHN	38 mm² Ø PVC PIPE
11	AIRCONDITION UNIT	1	3 TONNER	230	48	80	100	22mm² THHN	38 mm² Ø PVC PIPE
12	AIRCONDITION UNIT	1	3 TONNER	230	48	80	100	22mm² THHN	38 mm² Ø PVC PIPE
13	AIRCONDITION UNIT	1	3 TONNER	230	48	80	100	22mm² THHN	38 mm² Ø PVC PIPE
14	AIRCONDITION UNIT	1	2.5 HP	230	48	80	100	22mm² THHN	38 mm² Ø PVC PIPE
15	AIRCONDITION UNIT	1	2.5 HP	230	48	80	100	22mm² THHN	38 mm² Ø PVC PIPE
16	SPARE								
17	SPARE								
18	SPARE								
				TOTAL:	387.2 AMP				

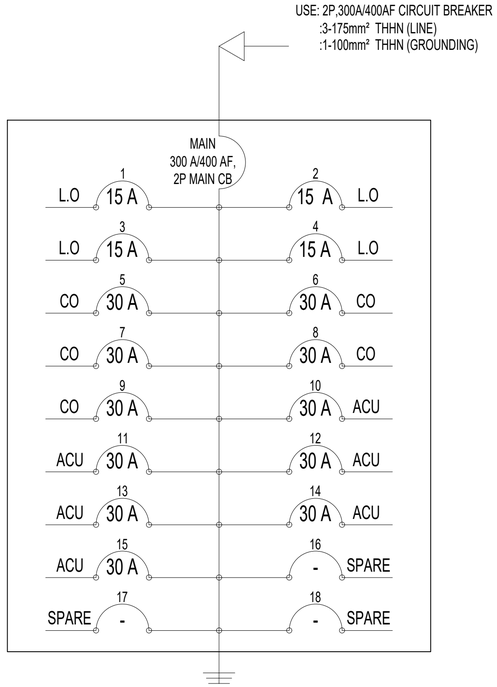
MAIN
TOTAL LOAD = 89.06 KW
TOTAL LOAD AMPERE = 223.55A

CIRCUIT BREAKER= 300 AT / 400 AF 3 POLE

WIRE SIZE
USE: 3-175mm² THHN/THWN
RED, YELLOW, BLUE PORLINE
1-100mm² THHN/THWN
GREEN FOR GROUND

E 301

OPS - EXTENSION BUILDING
LOAD TABULATION & COMPUTATION
N.T.S



E 302

GROUNDFLOOR PANEL BOARD
SINGLE LINE DIAGRAM
N.T.S

REPUBLIC OF THE PHILIPPINES
Department Of Health
National Center for Mental Health
Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City

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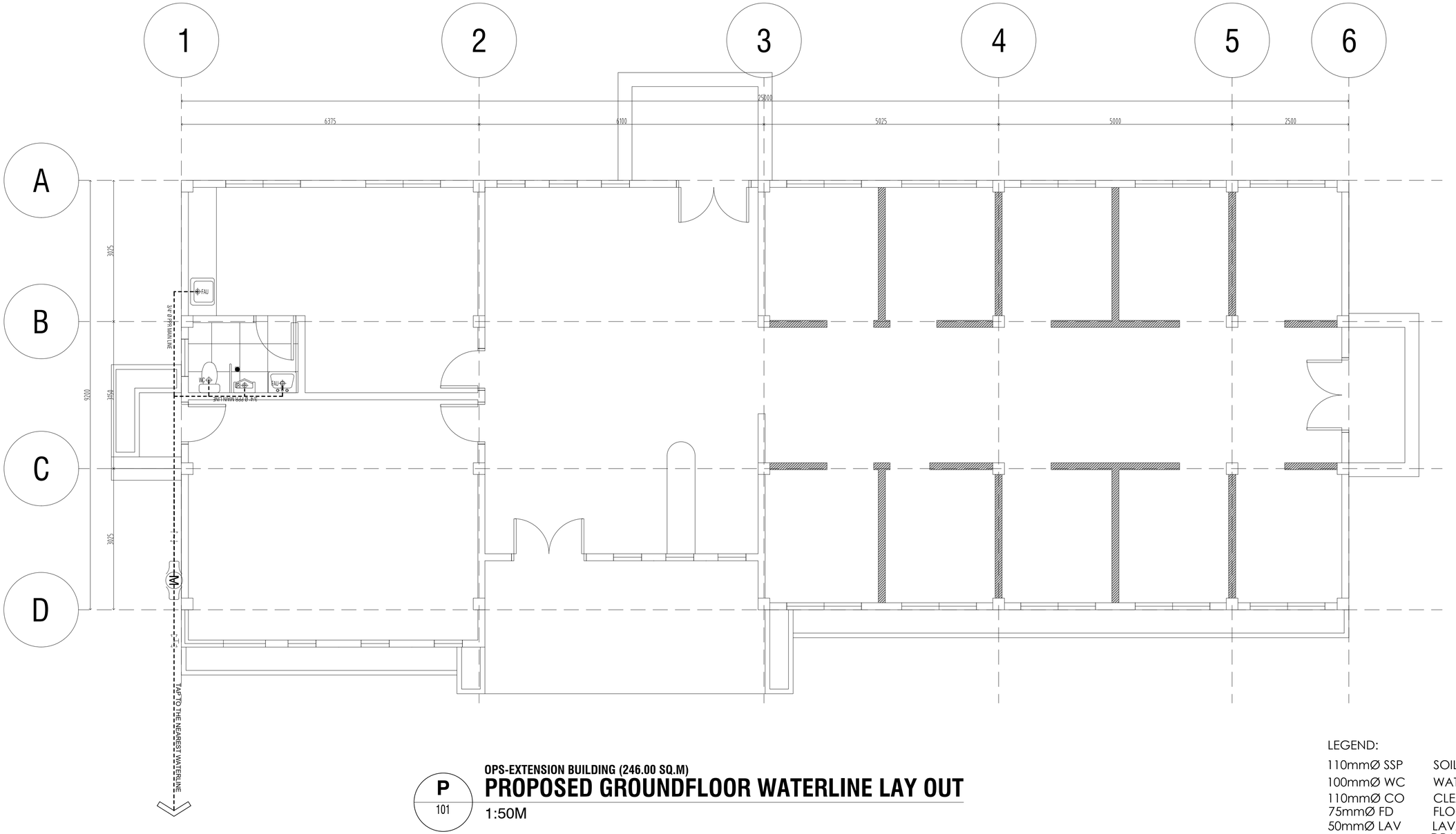

P
101

OPS-EXTENSION BUILDING (246.00 SQ.M)

PROPOSED GROUNDFLOOR WATERLINE LAY OUT

1:50M

LEGEND:

110mmØ SSP	SOIL STACK PIPE
100mmØ WC	WATER CLOSET
110mmØ CO	CLEAN OUT
75mmØ FD	FLOOR DRAIN
50mmØ LAV	LAVATORY
	DRAINAGE MAIN LINE
	SEWER MAIN LINE
	WATER MAIN LINE

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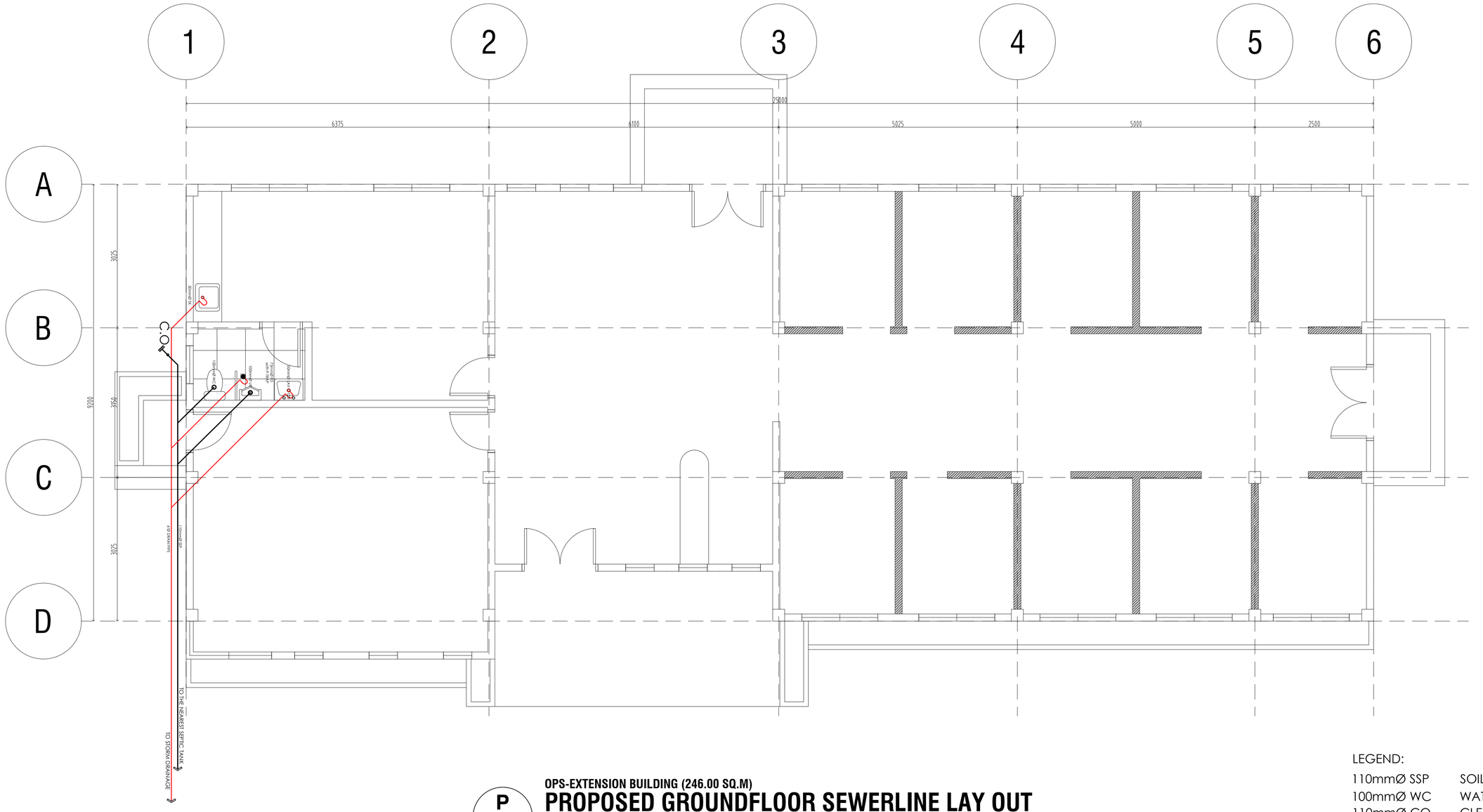

P
201

OPS-EXTENSION BUILDING (246.00 SQ.M)

PROPOSED GROUNDFLOOR SEWERLINE LAY OUT

1:50M

LEGEND:

110mmØ SSP	SOIL STACK PIPE
100mmØ WC	WATER CLOSET
110mmØ CO	CLEAN OUT
75mmØ FD	FLOOR DRAIN
50mmØ LAV	LAVATORY
———	DRAINAGE MAIN LINE
———	SEWER MAIN LINE
- - - - - -	WATER MAIN LINE

REPUBLIC OF THE PHILIPPINES
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G E N E R A L S T R U C T U R A L N O T E S

GENERAL

1.1 GENERAL NOTES AND TYPICAL STRUCTURAL DETAILS SHALL APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED

1.2 FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGH OUT FOR SIMILAR CONDITIONS. MODIFY TYPICAL DETAILS AS REQUIRED TO MEET SPECIAL CONDITIONS

1.3 THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SHALL NOTIFY THE NCMH PLANNING OFFICERS (ENGINEERS/ARCHITECTS) OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING TO THE WORK

1.4 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING FOR THE STRUCTURE FOR ALL LOADS THAT MAY BE IMPOSED DURING CONSTRUCTION.

1.5 ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST APPLICABLE STANDARD OR SPECIFICATIONS. ALL WORKS SHALL CONFORM WITH THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADE.

1.6 ALL CONSTRUCTION AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION, EXAMINATION AND TESTING BY THE ENGINEER/ARCHITECT,THE ENGINEER/ARCHITECT SHALL HAVE THE RIGHT TO REJECT DEFECTIVE MATERIALS.

1.7 UNLESS SPECIFICALLY DETAILED ELSEWHERE, THE CONTRACTOR SHALL FOLLOW TYPICAL DETAILS AS SHOWN IN THESE DRAWINGS.

1.8 THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COORDINATION OF WORK AMONG VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO ENSURE THE INSTALLATION OF ALL WORKS WITHIN AVAILABLE SPACE.

1.9 DO NOT SCALE DRAWINGS AND CALLED OUT DIMENSIONS, STANDARD CODE REQUIREMENTS SHALL GOVERN OVER UNSCALED DRAWINGS.

1.10 SPECIAL NOTES AND DIMENSIONS INDICATED ON THE STRUCTURAL DRAWING SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS, ARCHITECTURAL DRAWINGS SHALL BE USED TO DEFINE DETAIL CONFIGURATION, ELEVATIONS, OPENING JOINTS, SLOPES, ETC.

1.11 MODIFICATION OF SECTION AND SIZES OF STRUCTURAL MEMBERS SHALL NOT BE ALLOWED UNLESS OTHERWISE APPROVED BY THE NCMH PLANNING ENGINEERS.

1.12 CONTRACTOR TO PROVIDE DYE PENETRANT/ULTRASONIC TESTING RESULT TO CLIENT, THESE TESTINGS SHALL BE CONDUCTED BY ACCREDITED AGENCY.

1.13 IN CASE OF STRUCTURAL MEMBERS SPECIFIED ARE NOT AVAILABLE, SUBMIT TO CLIENT ENGINEER AVAILABLE LIST OF MEMBERS FOR APPROVAL BEFORE PURCHASING

DESIGN CRITERIA

1. LOADS

1.1 DEAD LOADS

UNIT WEIGHT OF CONCRETE	24KN/m^3
UNIT WEIGHT OF SOIL	18KN/m^3
ROOFING (GI SHEET AND PURLINS)	0.37kPa
100mm CHB WALL	3.17kPa
150mm CHB WALL	3.30kPa
FLOOR FINISH	1.53kPa
PARTITION LOAD	1.00kPa
CEILING	0.25kPa
INSULATION	0.08kPa
WATERPROOFING	0.26kPa
ELECTRICAL/MECHANICAL/PLUMBING	0.35kPa

1.2 LIVE LOADS

ROOF	1.00kPa
OFFICE & RESTROOM	2.40kPa
EXIT FACILITIES	4.80kPa
EVACUATION, BASIC FLOOR AREA	4.80kPa

1.3 WIND LOAD

1.4 SEISMIC LOADS

SEISMIC ZONE FACTOR, Z	0.40
NUMERICAL COEFFICIENT, Rwx & Rwz	8.50
IMPORTANCE FACTOR, I	1.50
SITE COEFFICIENT, S(Sd)	4.00
Na	1.128
Nv	1.456
FUNDAMENTAL PERIOD OF VIBRATION, T	C(hn)$^{3/4}$
Ct	0.0731
HEIGHT IN METERS, h	hn

2. DESIGN CODE AND REFERENCE

THE FOLLOWING REFERENCES SHALL GOVERN THE DESIGN FABRICATION & CONSTRUCTION OF THE PROJECT

AMERICAN CONCRETE INSTITUTE ACI 318-95 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (NSCP, 2015)

ASSOCIATION OF STRUCTURAL ENGINEERS OF THE PHILIPPINES (ASEP) STEEL HANDBOOK

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) P-320/P-361

UBC 1997, STRUCTURAL ENGINEERING DESIGN PROVISION
STRUCTURAL DESIGN DATA AND SPECIFICATIONS A.B. CARILLO, 6th EDITION.

MATERIALS

1. CONCRETE

UNLESS INDICATED OTHERWISE ON PLANS, THE CONCRETE CLASS AND STRENGTH SHALL BE AS FOLLOWS:

STRUCTUAL ELEMENTS	CLASS	28-DAY CYLINDER STRENGTH MPa(psi)	MAX SLUMP MM(in)
SLAB, STAIR, CURBS AND SLAB ON GRADE	"A"	20.7 (3000PSI)	75 (3")
CAST-IN-PLACE GIRDERS, BEAMS, FOOTINGS AND COLUMN	"AA"	27.6 (4000PSI)	100 (4")
OTHER STRUCTURAL ELEMENTS	"A"	20.7 (3000PSI)	100 (4")
FOR NON STRUCTURAL MEMBERS		17.2 (2500PSI)	100 (4")
LEAN CONCRETE	-	10.0 (1450 PSI)	75 (3")

ITEMS	AGGREGATE SIZE
FOOTINGS	25MM (1")
SLAB, BEAMS, COLUMNS, OTHERS.	19MM ($\frac{3}{4}$")
CURBS AND MASS CONCRETE/SLAB ON GRADE	25MM (1")

1.1 INFORM NCMH PLANNING OFFICERS OF OTHER MISCELLANEOUS CONCRETE STRUCTURAL ELEMENTS NOT SHOWN ABOVE TO DETERMINE THEIR RESPECTIVE COMPRESSIVE STRENGTH.

2. REINFORCING STEEL

a. REINFORCING STEEL SHALL CONFORM TO LATEST EDITIONS OF ASTM A615 GRADE 60. DEFORMED, FOR 16MM DIA.BARS AND LARGER WITH MINIMUM YIELD STRENGTH fy = 414MPa (60000PSI) AND ASTM A615 GRADE 40, DEFORMED, FOR 12MM DIA. BARS AND SMALLER WITH MINIMUM YIELD STRENGTH FY = 276MPa (40000 PSI)

b. ALL REINFORCING BARS SHALL BE DEFORMED BARS UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS.

c. ALL REINFORCING BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIALS LIKELY TO IMPAIR BOND.

d. ALL REINFORCING BARS SHALL ACCURATELY AND SECURELY PLACED BEFORE POURING OF CONCRETE OR APPLYING OF MORTAR OR GROUT

3. STRUCTURAL STEEL BOLTS/WELDS

MATERIAL	SPECIFICATIONS
STEEL PLATES AND ROLLED SHAPES	ASTM A36
BOLTS	ASTM A325
WELDS	AWS D1.1 - 183, E70XX SERIES

CONSTRUCTION

1. SETTING OUT

THE SETTING OUT AND ELEVATIONS OF THE DIFFERENT COMPONENTS OF THE STRUCTURE SHALL BE APPROVED BY THE NCMH PLANNING OFFICERS PRIOR TO THE START OF ANY CONSTRUCTION WORK.

2. REINFORCED CONCRETE

a. CONCRETE MIX AND PLACING

a.a. DESIGN OF CONCRETE MIX SHALL MEET THE DESIGN CONCRETE STRENGTH GIVEN UNDER ITEM 1 OF MATERIALS

a.b. CONCRETE SHALL DEPOSITED, VIBRATED AND CURED IN ACCORDANCE WITH THE SPECIFICATIONS

a.c. FOR CONCRETE DEPOSITED AGAINST THE GROUND, LEAN CONCRETE WITH A MINIMUM THICKNESS OF 50mm SHALL BE LAID FIRST BEFORE INSTALLING THE REINFORCEMENT. THE LEAN CONCRETE SHALL NOT BE CONSIDERED IN MEASURING THE STRUCTURAL DEPTH OF CONCRETE SECTION.

a.d. THE CONTRACTOR SHALL SUBMIT TO THE NCMH PLANNING OFFICERS FOR APPROVAL THE POURING SEQUENCES FOR ALL CONCRETING WORKS.

a.e. THE CONTRACTOR SHALL NOTIFY THE NCMH PLANNING OFFICERS 48 HOURS PRIOR TO THE POURING OF ANY STRUCTURAL CONCRETE, SO AN INSPECTION CAN BE MADE ON ALL FORMS AND REINFORCING.

a.f. PREPARE AND SUBMIT CONCRETE MIX DESIGN INCLUDING AGGREGATES GRADATION, WATER AND CEMENT CONTENTS AND CYLINDER STRENGTH TEST RESULT FOR REVIEW. CONCRETE MIX DESIGN SHALL BE TESTED AT 7, 14 AND 28 DAYS CURING PERIOD. THE TEST SHALL FOLLOW THE REQUIREMENTS OF ASTM.

a.g. USE OF ADMIXTURES IS PERMITTED TO PRODUCE PROPER SLUMP AND WORKABILITY BUT SUBJECT TO THE NCMH PLANNING OFFICER'S APPROVAL ADDITION OF WATER TO CONCRETE AT JOB SITE IS NOT ALLOWED.

a.h FOR CONCRETE SLAB, ALL REINFORECEMENTS SHALL BE 0.02m CLEAR MINIMUM FROM TOP AND BOTTOM OF SLAB, TEMPERATURE BARS SHALL BE GENERALLY PLACED NEAR THE FACE IN TENSION AND SHALL NOT BE LESS THAN 0.0018ℓt.

a.i. FOR TWO OR MORE LAYERS OF REINFORCING BARS USE SEPARATORS SPACED @ 0.90m O.C. AND IN NO CASE SHALL BE LESS THAN 2 SEPARATORS, CLEAR DISTANCE BETWEEN LAYERS SHOULD NOT BE LESS THAN 25mm OR BAR DIAMETER.

FOR CAMBER:

COMPONENT	MINIMUM CAMBER
RC BEAMS	6mm FOR EVERY 4.50m. SPAN
CANTILEVER RC BEAMS	18mm FOR EVERY 3.00m SPAN
RC SLABS	3mm FOR EVERY 3.00M SHORTER SPAN

a.j. COLUMN TIES SHALL BE PROTECTED BY A COVERING OF CONCRETE CAST MONOLITHICALLY WITH 0.05m THICK AND NOT LESS THAN $\frac{1}{2}$ TIMES THE MAXIMUM SIZE OF COURSE AGGREGATES.

a.k. LOCATION OF ALL CONSTRUCTION OR COLD JOINTS MUST BE APPROVED BY THE NCMH PLANNING OFFICERS.

a.l. PIPES OR DUCTS EXCEEDING ONE THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES BUT SHALL BE IN ACCORDANCE WITH THE RECOMMENDED ACI PRACTICE.

a.m. ALL INSERTS, ANCHOR BOLTS, ETC. TO BE EMBEDDED IN THE CONCRETE SHALL BE HOT DIP GALVANIZED UNLESS NOTED OTHERWISE.

a.n. IN GENERAL, THE LATEST EDITION OF THE MANUAL OF THE STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES, ACI 315-99 SHALL BE ADHERED TO UNLESS SHOWN OTHERWISE.

b. BAR BENDING, SPLICING AND PLACING

b.a. THE CONTRACTOR SHALL SUBMIT TO THE NCMH PLANNING OFFICERS FOR APPROVAL ALL SHOP DRAWINGS INDICATING THE BENDING, CUTTING, SPLICING AND INSTALLATION OF ALL REINFORCING BARS.

b.b. BARS SHALL NOT BE BENT COLD, BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS PERMITTED BY THE NCMH PLANNING OFFICERS.

b.c. BAR SPLICING NOT INDICATED ON DRAWINGS SHALL BE SUBJECTED TO THE APPROVAL OF NCMH PLANNING OFFICERS.

b.d. WELDED SPLICES, IF APPROVED BY THE NCMH PLANNING OFFICERS, SHALL DEVELOPED IN TENSION AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BARS.

b.e. LAPPED SPLICES SHALL BE STAGGERED WHERE POSSIBLE.

b.f. IN GENERAL, BAR SPLICES SHALL BE MADE AT POINTS OF MINIMUM STRESS, SPLICES SHALL BE SECURELY WIRED TOGETHER STAGGER SPLICES AT LEAST 600mm WHENEVER POSSIBLE IN BEAMS AND SLAB, SPLICE TOP BARS AT MIDSPAN AND BOTTOM BARS NEAR SUPPORT. SPLICE REINFORCEMENT SHALL BE MADE ONLY AS REQUIRED OR PERMITTED ON DESIGN DRAWINGS OR AS ALLOWED BY THE ACI CODE OR AS AUTHORIZED BY THE NCMH PLANNING OFFICERS.

b.g. BARS NOTED AS CONTINUOUS SHALL HAVE MINIMUM SPLICE LENGTH OF 42 BAR DIAMETER BUT NOT LESS THAN 60mm UNLESS OTHERWISE NOTED.

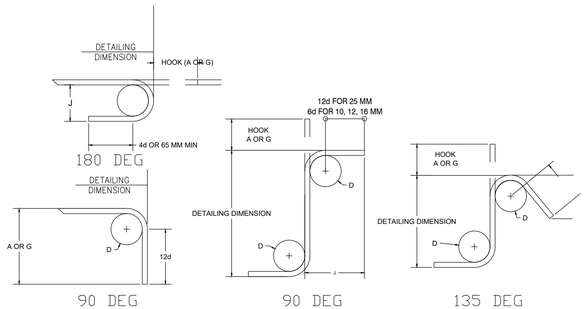
b.h. REINFORCEMENTS SHALL BE SPLICED ONLY AS INDICATED ON THE DRAWINGS.

b.i. ANY WELDING TO BE PERFORMED MUST HAVE PRIOR WRITTEN APPROVAL OF THE NCMH PLANNING OFFICERS.

b.j. WELDING AND REINFORCING STEEL IS NOT PERMITTED UNLESS OTHERWISE SHOWN ON THE DRAWING. W ELDING OF REINFORCING STEEL SHALL CONFORM TO AWS DI.4-79 *AWS STRUCTURAL WELDING CODE* OF THE AMERICAN WELDING SOCIETY. REINFORCING STEEL WHICH IS WELDED SHALL CONFORM TO ASTM A 706. REINFORCING STEEL NOT CONFORMING TO ASTM A 706 MAY BE USED IF MATERIALPROPERTIES OF THE REINFORCING STEEL CONFORM TO AWS D1.4-79.

b.k. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS ARE TO BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED.

b.l. TYPICAL HOOPS & SUPPLEMENTARY DETAILS



STANDARD HOOKS STIRRUPS AND TIE-HOOKS

STANDARD HOOKS					STIRRUP AND TIE-HOOKS				
BAR SIZE	D (MM)	180 DEG		90 DEG	BAR SIZE	D (MM)	90 DEG	135 DEG	
		A OR G	J	A OR G			A OR G	A OR G	H
10Ø	60	125	60	150	10Ø	40	105	105	65
12Ø	80	150	105	200	12Ø	50	115	115	80
16Ø	95	175	130	250					
20Ø	125	225	175	350					
25Ø	155	275	205	425					
32Ø	275	425	335	550					

DEVELOPMENT LENGTH, (Ld), IN TENSION FOR RC BEAMS AND GIRDERS (PRISMATIC OR NON-PRISMATIC)						
BAR SIZE (mm)	fc'=21MPa (3000psi)		fc'=28MPa (4000ps)		fc'=34.5MPa(5000psi)	
	TOP BARS (mm)	BOT BARS (mm)	TOP BARS (mm)	BOT BARS (mm)	TOP BARS (mm)	BOT BARS (mm)
16Ø	730	560	630	480	560	430
20Ø	1090	840	940	730	840	650
25Ø	1820	1400	1570	1210	1410	1080
28Ø	2340	1800	1980	1520	1765	1360
32Ø	2990	2300	2600	1985	2300	1780
36Ø	3770	2900	3280	2520	2930	2250

TENSION SPLICE CLASSIFICATION:
CLASS A = 1.00Ld
CLASS B = 1.33Ld

LENGTH OF LAP COMPRESSION SPLICES (mm)			
BAR SIZE (mm)	fc'=21MPa (3000psi)	fc'=28MPa (4000psi)	fc'=34.5MPa (5000psi)
16Ø	420	390	360
20Ø	540	510	450
25Ø	720	600	540
28Ø	810	720	690
32Ø	900	780	720
36Ø	990	900	810

3. STRUCTURAL STEEL

A. ALL STRUCTURAL MILL SECTIONS AND BUILT-UP PLATE SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AISC LATEST "SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

B. STEEL PLATES, SHAPES, BARS AND METAL FABRICATORS ARE ASTM A-36 UNLESS NOTED OTHERWISE.

C. UNFINISHED BOLTS SHALL CONFORM TO ASTM A-307 GRADE A. HIGH STRENGTH BOLL SHALL CONFORM TO ASTM A325 OR ASTM A490 AS NOTED. USE 16mm DIAMTER FOR A325 BOLTS FOR ALL BEAM TO BEAM, BEAM TO GIRDER/COLUMN, GIRDER TO COLUMN BOLTED CONNECTION. USE TWO BOLTS MIN, UNLESS NOTED OTHERWISE.

D. ALL HIGH STRENGTH BOLTS A325 OR A 490 SHALL BE SLIP CRITICAL (A325-SC OR A490-SC CLASS A) UNLESS NOTED OTHERWISE. THE INSTALLATION OF HIGH STRENGTH BOLTS SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR STRUCTURAL JOINT USING ASTM A325 OR A490 BOLTS WHERE NON SLIP CRITICAL BOLTS ARE SPECIFIED. THESE BOLTS SHALL ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION.

E. BOLT HOLE IN STEEL SHALL BE 1.60mm LARGER IN DIAMETER THAT DIAMETER OF BOLT USED FOR SLIP CRITICAL CONNECTIONS CONSTRUCTION OR SHORT SLOTTED HOLES FOR NON SLIP CRITICAL CONNECTION AS NOTED UNLESS OTHERWISE SPECIFIED.

F. ELECTRODES FOR WELDING: ASTM 233 E-70XX SERIES; COMPLY WITH AWS D1.1 CODE REQUIREMENTS.

G. FLAME CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH THE LATEST "STANDARD CODE FOR WELDING IN BUILDING OF THE AMERICAN WELDING SOCIETY".

H. ALL BUTT WELDS SHALL BE FULL PENETRATION AND SHALL BE PROPERLY BACK-CHIPPED OR GOUGED. BACK UP PLATES SHALL BE PROVIDED AS REQUIRED.

I. GRIND ALL EXPOSED WELDS SMOOTH, EXCEPT FILLET WELDS.

J. WELDS LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. FILLET WELD SIZES ARE THE WIDTH OF THE HORIZONTAL OR VERTICAL LEG. WHERE LENGTH OF WELD IS NOT SHOWN IT SHALL BE FULL LENGTH OF JOINT. WELDING ELECTRODES TO BE E70XX UNLESS NOTED OTHERWISE.

K. ALL LEVEL WELDS ARE FULL PENETRATION, UNLESS NOTED OTHERWISE. SIZE ALL FILLET WELDS PER AWS WHERE NOT SHOWN WITH WELD SIZE, PROVIDE MINIMUM WELD SIZE TO DEVELOP TENSION OR SHEAR CAPACITY OF SMALLER MEMBER OF THE PIECES BEING CONNECTED (4.76mm MIN.)

L. THE CONTRACTOR SHALL PROVIDE MINIMUM 10mm CONCRETE COVER AROUND ALL STEEL MEMBERS/ COMPONENTS (WF, TS, PLATES, BOLTS, ETC.) ADJACENT TO SOIL.

M. WELDED CONNECTIONS BETWEEN MEMBERS OF MOMENT FRAMES SHALL BE TESTED BY NON DESTRUCTIVE METHOD.

N. APPLY TT-P-645 SHOP PAINT FOR ALL FABRICATIONS.

O. SHOP PAINTING FOR STRUCTURAL STEEL SHALL BE RUST INHIBITIVE PRIMER WITH MINIMUM D.F.T. 2.0 MILS.

P. TOUCH-UP PAINTING: APPLY PAINT TO EXPOSED AREASIN MANNER SATISFACTORY TO THE ENGINEER WITH SAME MATERIAL AS SHOP PAINT.

Q. COMPLY WITH AISC CODE AND SPECIFICATIONS FOR BEARING, ADEQUACY OF TEMPORARY CONNECTIONS AND ALIGNMENT.

R. CONTRACTOR SHALL FURNISH COMPLETE ERECTION DRAWINGS FOR THE PROPER IDENTIFICATION AND ASSEMBLY OF ALL BUILDING COMPONENTS. THESE DRAWINGS WILL SHOW ANCHOR BOLTS SETTING, PRIMARY SECONDARY AND ROOF FRAMING AND NECESSARY INSTALLATION DETAILS. SUBMIT SHOP DRAWINGS FOR APPROVAL BEFORE FABRICATION.

S. THE STEEL SUBCONTRACTORS SHALL COMPLY WITH THE LATEST AISC CODE OF STANDARD PRACTICE.

T. THE STEEL SUBCONTRACTORS SHALL DETERMINE THE ERECTION SEQUENCE FOR ALL STEELWORKS, THE STEEL SUBCONTRACTORS SHALL ALSO COORDINATE WITH OTHER TRADES AND SITE CONDITIONS IN DETERMINING THE PROPER STEEL ERECTION SEQUENCE SO AS NOT TO DAMAGE WORK PERFORMED BY OTHER TRADES AND/ OR PREVIOUSLY ERECTED STEEL MEMBERS.

U. WORK POINTS.MEMBER LENGTH AND/OR ERECTION SEQUENCE SHALL BE ADJUSTED BY THE STEEL SUBCONTRACTOR TO MINIMIZE THE EFFECT OF THE TEMPERATURE CHANGES AND DIFFERENTIAL TEMPERATURE EFFECTS. TEMPERATURE EFFECTS SUCH AS EXPOSED TO STRONG SUN ON ONE SIDE OF THE BUILDING. MEETING AISC ACCEPTABLE MILL STANDARD AND ERECTION TOLERANCES.

V. ALL STRUCTURAL STEEL SHALL CONFROM TO ASTM A-36 FY=248MPa (36,000 PSI)

W. FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER AND THE OWNER PRIOR TO FABRICATION.

4. FOOTINGS

A. FOOTING SHALL REST ON 50mm THK. GRAVEL BASE COURSE COMPACTED TO 95% MAXIMUM DENSITY.

B. THE ASSUMED SOIL BEARING CAPCITY IS 100KPA 1.5m FROM NATURAL GRADE LINE TO BOTTOM OF FOOTING.

C. BACKFILL SHALL BE PLACED IN 150mm LAYERS AND EACH LAYER SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY. SHALL BE FREE FROM DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL & NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL W/ A MAXIMUM DIMENSION GREATER THAN 300mm BE BURIED OR PLACED IN FILLS.

D. ALL EXCAVATIONS AND BACKFILLING AND COMPACTIONS SHALL BE INSPECTED AND APPROVED BY NCMH PLANNING OFFICERS.

E. THE CONTRACTOR SHALL VERIFY THE ACTUAL SOIL CONDITIONS BEFORE CONSTRUCTION OF AFTER FOOTING EXCAVATION IS DONE TO CHECK THE GEOTECHNICAL REPORTS RECOMMENDED BEARING CAPACITY, IF ANY.

F. NO FOOTING SHALL REST ON FILL.

G. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE WALLS HAVE ATTAINED FULL DESIGN STRENGTH. THE CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTAINING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING.

H. CONTRACTOR SHALL PROVIDE DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE.

OPS PHASE II
S 101 GENERAL STRUCTURAL NOTES
N.T.S.

REPUBLIC OF THE PHILIPPINES
Department Of Health
National Center for Mental Health
Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City

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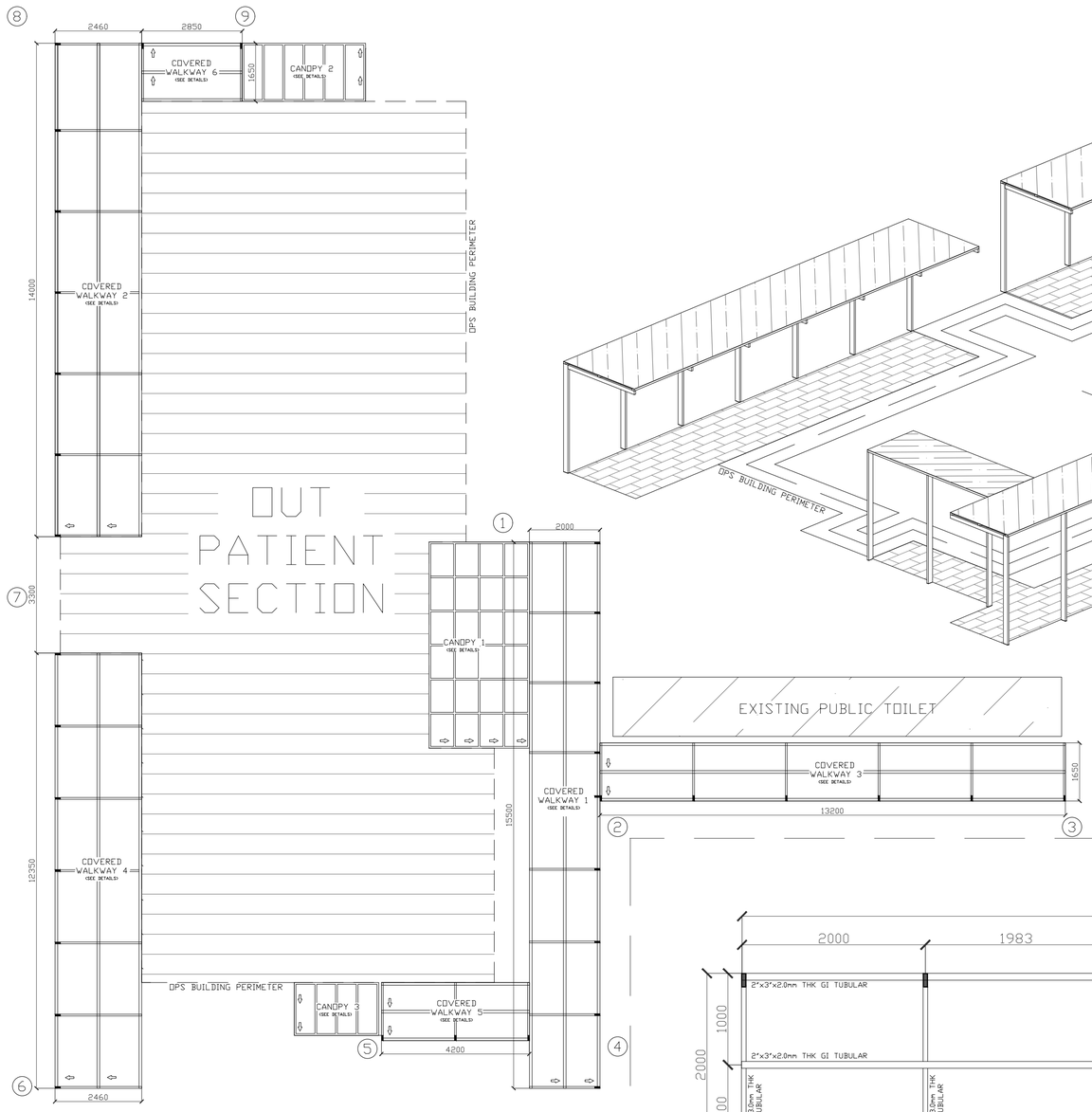
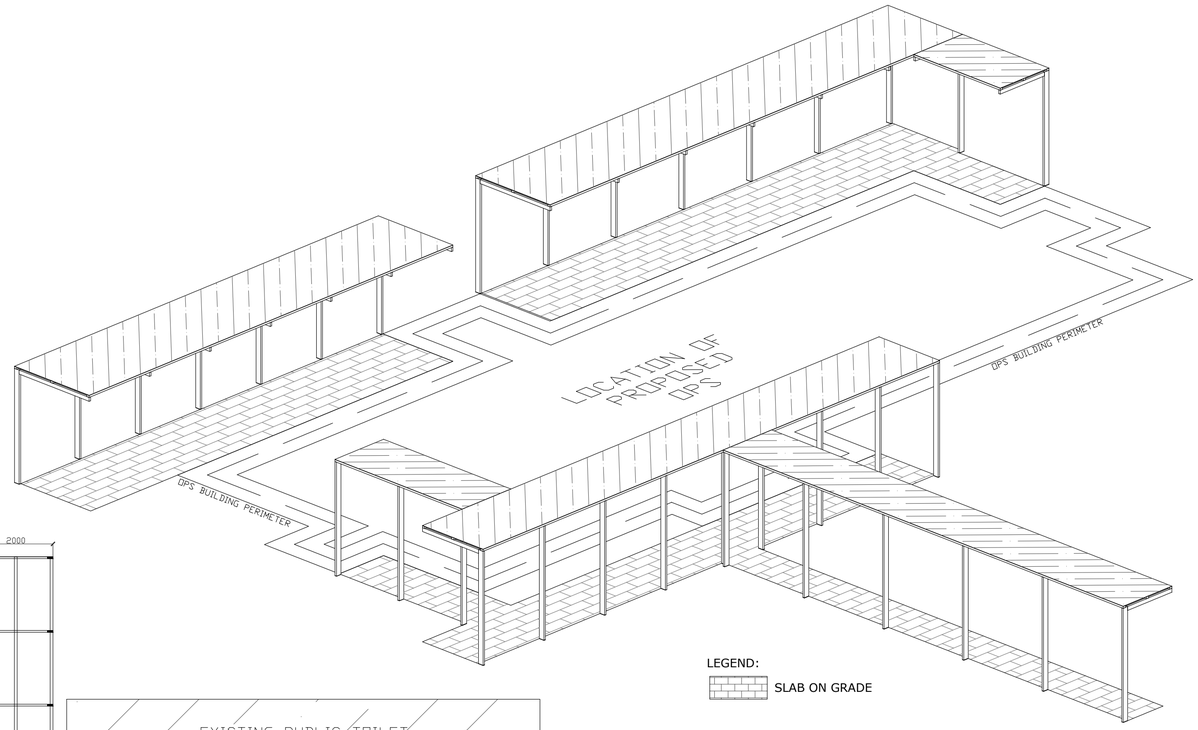
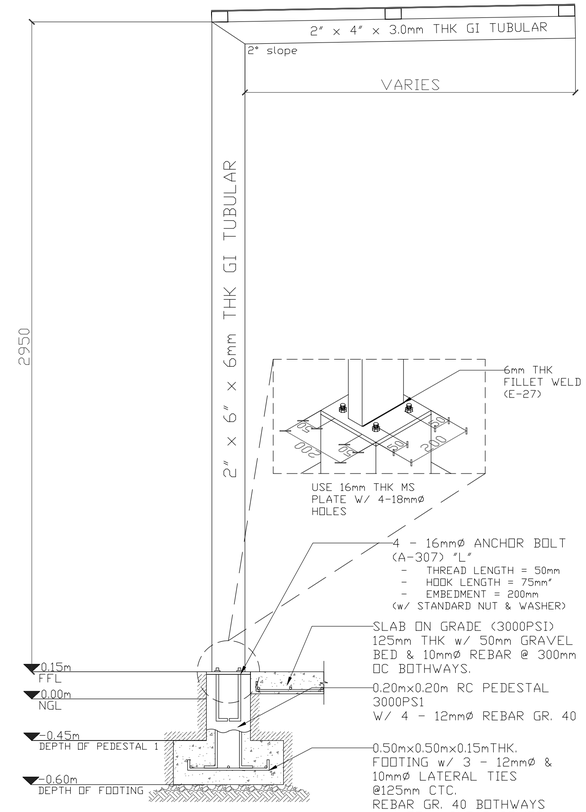
COMPLETION OF PAVILION 2 OUT - PATIENT SECTION EXTENSION	EVELYN T. PURINO,CE, MMHoA SAO, Chief, Planning and Development Section	DIONICIO A. TOLENTINO, MPA Chief Finance Service, HFEP Coordinator	NOEL V. REYES, MD, FPPA, MMHoA Medical Center Chief II	GENERAL STRUCTURAL NOTES	S 2 4 / 1 3



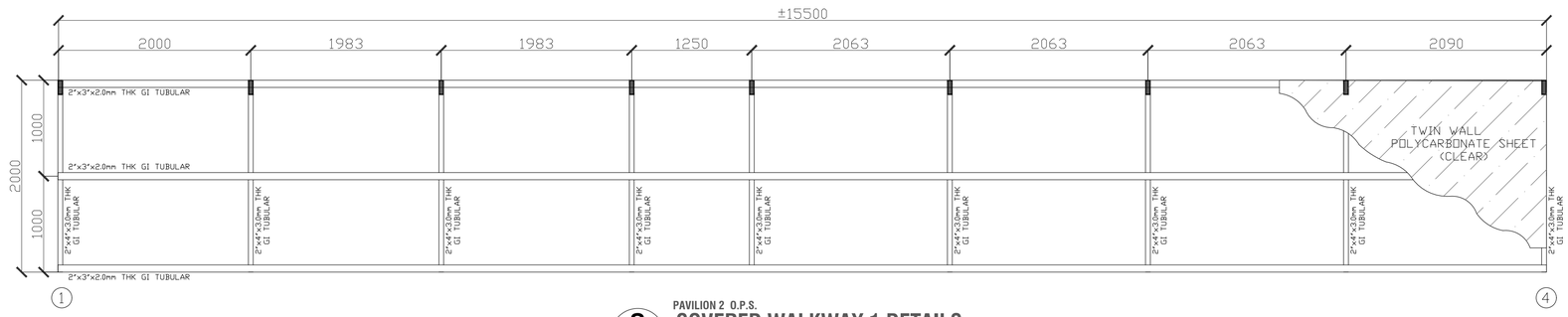
PAVILION 2 O.P.S.
S 201 COVERED WALKWAY PLAN VIEW
1 / 100 MTS.



PAVILION 2 O.P.S.
S 202 COVERED WALKWAY ISOMETRIC VIEW
1 / 25 MTS.



PAVILION 2 O.P.S.
S 203 COVERED WALKWAY FOUNDATION DETAILS
N.T.S.



PAVILION 2 O.P.S.
S 204 COVERED WALKWAY 1 DETAILS
1 / 35 MTS.

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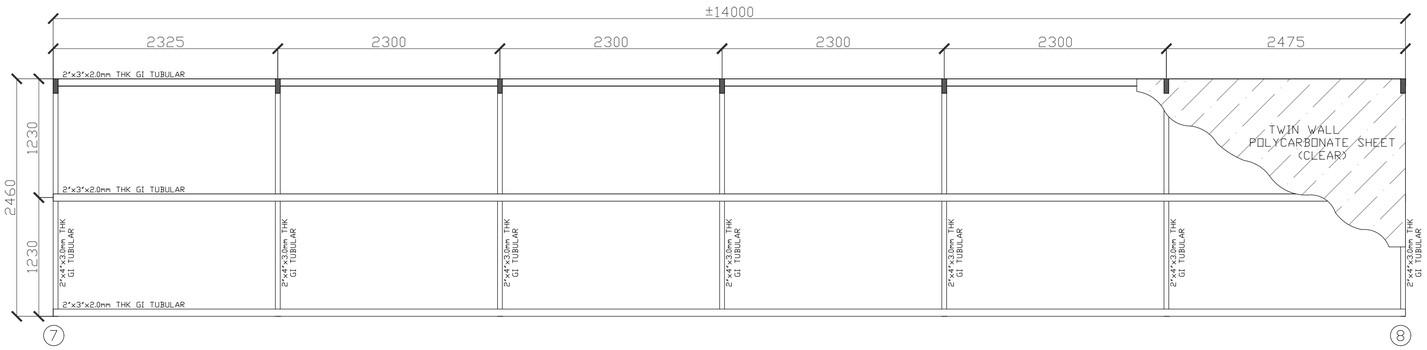
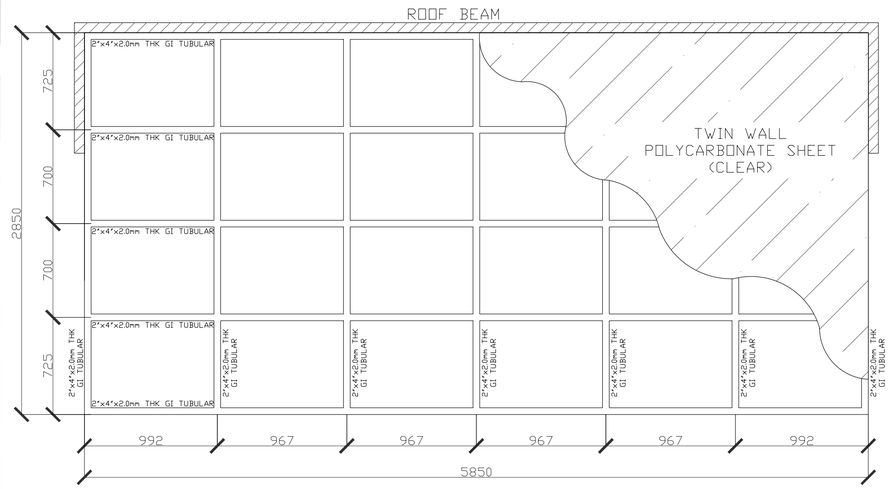
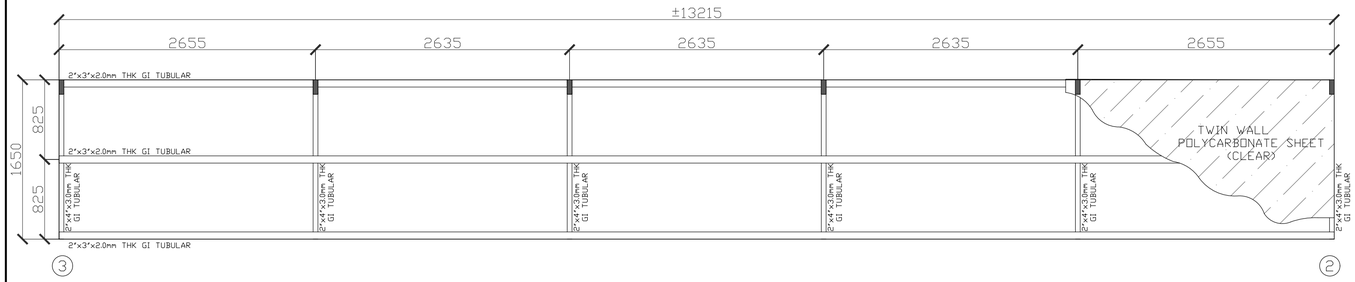
COMPLETION OF PAVILION 2 OUT - PATIENT SECTION EXTENSION	EVELYN T. PURINO,CE, MMHoA	DIONICIO A. TOLENTINO, MPA	NOEL V. REYES, MD, FPPA, MMHoA	COVERED WALKWAY PLAN VIEW	S 2 3 4
	SAO, Chief, Planning and Development Section	Chief Finance Service, HFEP Coordinator	Medical Center Chief II	COVERED WALKWAY ISOMETRIC VIEW	
				COVERED WALKWAY FOUNDATION DETAILS	
				COVERED WALKWAY 1 DETAILS	



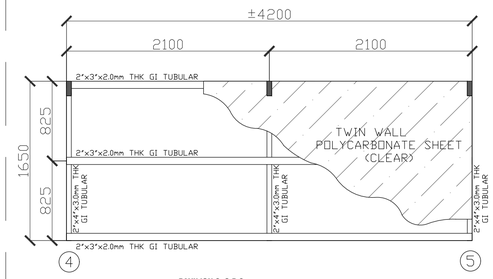
PAVILION 2 O.P.S.
S 301 COVERED WALKWAY 2 DETAILS
1/30 MTS



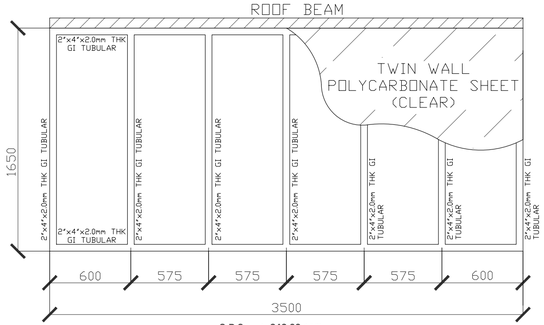
O.P.S. ± 246.00 sqm
S 306 CANOPY 1 DETAILS
1 / 25 MTS.



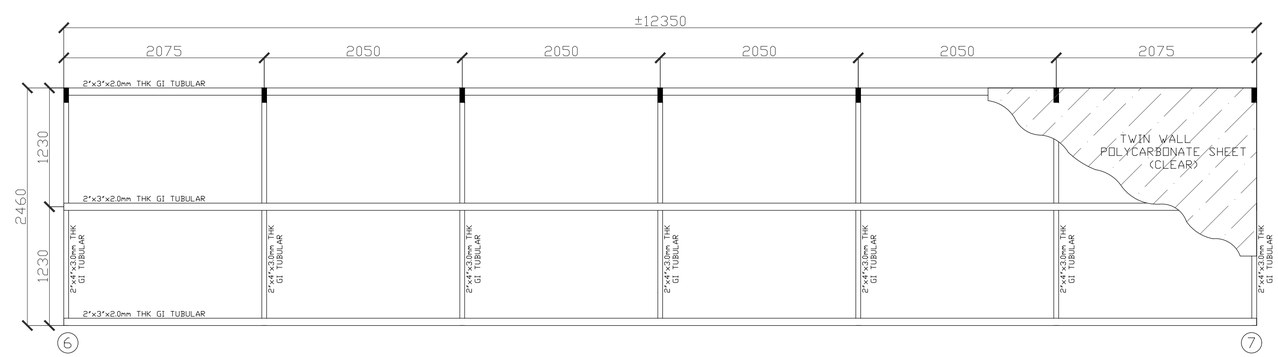
PAVILION 2 O.P.S.
S 302 COVERED WALKWAY 3 DETAILS
1/35 MTS



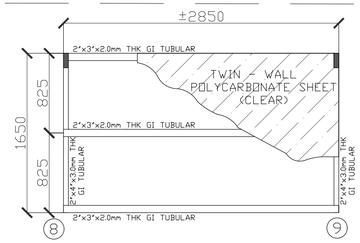
PAVILION 2 O.P.S.
S 304 COVERED WALKWAY 5 DETAILS
1/35 MTS



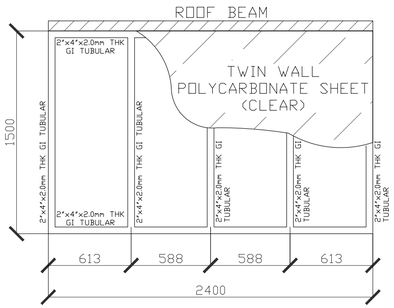
O.P.S. ± 246.00 sqm
S 307 CANOPY 2 DETAILS
1 / 25 MTS.



PAVILION 2 O.P.S.
S 303 COVERED WALKWAY 4 DETAILS
1/30MTS



PAVILION 2 O.P.S.
S 305 COVERED WALKWAY 6 DETAILS
1/35 MTS



O.P.S. ± 246.00 sqm
S 308 CANOPY 3 DETAILS
1 / 25 MTS.

NOTES:

1. VERIFY ACTUAL SITE CONDITION AND DIMENSIONS BEFORE FABRICATION WORKS AND SEEK APPROVAL FROM **NCMH PLANNING OFFICERS** BEFORE COMMENCING THE WORKS, IT SHALL BE THE THE RESPONSIBILITY OF THE FABRICATOR TO CHECK ALL THE DIMENSION AND QUANTITIES PRIOR TO EXECUTION OF ALL FABRICATED WORKS.
2. ANY CHANGES IN DESIGN PLANS, MATERIALS AND CONNECTIONS SHOULD BE CONSULTED WITH THE **NCMH PLANNING OFFICERS** PRIOR TO PURCHASING AND FABRICATION WORKS.
3. ALL DISCREPANCIES SHALL BE REFERRED TO THE **NCMH PLANNING OFFICERS** FOR THE DECISION BEFORE PROCEEDING THE WORKS.

REPUBLIC OF THE PHILIPPINES
Department Of Health

National Center for Mental Health

Nueve de Pebrero Street, Baranggay Mauway, Mandaluyong City

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COMPLETION OF PAVILION 2 OUT - PATIENT SECTION EXTENSION	EVELYN T. PURINO,CE, MMHoA	DIONICIO A. TOLENTINO, MPA	NOEL V. REYES, MD, FPPA, MMHoA	COVERED WALKWAY 2, 3, 4, 5 & 6	S 3 3
	SAO, Chief, Planning and Development Section	Chief Finance Service, HFEP Coordinator	Medical Center Chief II	DETAILS	
				CANOPY 1, 2 & 3 DETAILS	