

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGION XI
DAVAO DEL NORTE
2ND DISTRICT ENGINEERING OFFICE
TAGUM CITY

CY 2025 BIP PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
**CONSTRUCTION OF MULTI-PURPOSE BUILDING IN
BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE**

PROJECT NAME

PANABO CITY, DAVAO DEL NORTE
LOCATION

REVIEWED:


JEZABEL E. TULING
CHIEF, PLANNING & DESIGN SECTION
DATE:

RECOMMENDED:


GARRY E. VERANO
OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:


ARTURO P. LONGYAPON
DISTRICT ENGINEER
DATE:



1 PERSPECTIVE
A1 DNTS

REPUBLIC OF THE PHILIPPINES
OFFICE OF THE
BUILDING OFFICIAL

PANABO CITY
DISTRICT/CITY / MUNICIPALITY

LAND USE & ZONING
LINE AND GRADE
ARCHITECTURAL
CIVIL / STRUCTURAL
SANITARY
PLUMBING
ELECTRICAL
ELECTRONICS
MECHANICAL
GEODETIC



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGION XI

DAVAO DEL NORTE
2ND DISTRICT ENGINEERING OFFICE
TAGUM CITY

PROJECT & LOCATION:
**CONSTRUCTION OF
MULTI-PURPOSE BUILDING
IN BARANGAY JP LAUREL,
PANABO, DAVAO DEL NORTE**

SHEET CONTENTS:

PERSPECTIVE

DRAFTED:
WARREN S. PIÑEZ
ENGINEER II

PREPARED:
BENILDA S. PACQUIAO
ENGINEER II

REVIEWED:
HERWIN EVAN J. HABABAG
ENGINEER II
DATE:

SUBMITTED:
JEZABEL E. TULING, MPA
CHIEF, PLANNING & DESIGN SECTION
DATE:

RECOMMENDED:
GARRY E. VERANO
OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
ARTURO P. LONGAYAPON
DISTRICT ENGINEER
DATE:

SET NO:	SHEET NO.:
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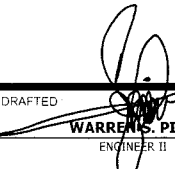
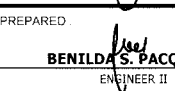
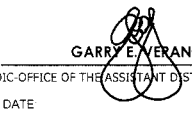
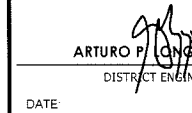
SUMMARY OF QUANTITIES

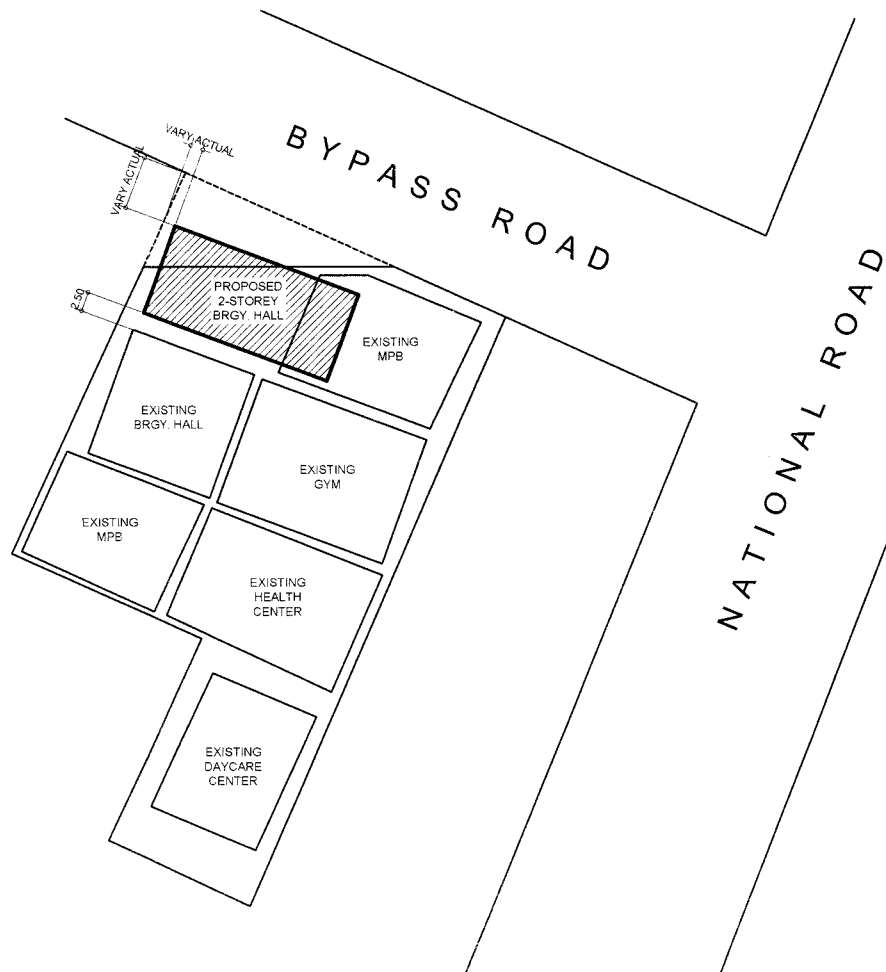
ITEM NO.	DESCRIPTION	QTY.	UNIT
PART II OTHER GENERAL REQUIREMENTS			
B.3 (1)	Permits and Clearances	1.00	ls
B.5 (1)	Project Billboard / Signboard	2.00	ea
B.7 (1)	Occupational Safety and Health	1.00	ls
B.9 (1)	Mobilization / Demobilization	1.00	ls
TOTAL OF PART II			
(Project ID)			
(Project Component ID - Description)			
PART III CIVIL, ELECTRICAL AND PLUMBING/SANITARY WORKS			
PART A EARTHWORKS			
803 (1)a	Structure Excavation (Common Soil)	379.70	cu.m
804 (1)a	Embankment from Roadway/Structure Excavation (Common Soil)	225.70	cu.m
804 (7)	Gravel Fill	52.29	cu.m
Sub-Total A			
PART B PLAIN AND REINFORCED CONCRETE WORKS			
900 (1)b	Structural Concrete, 3000PSI, Class A, 14 Days	22.44	cu.m
900 (1)d	Structural Concrete, 4000PSI, Class A, 28 Days	44.82	cu.m
900 (1)i	Structural Concrete, Class A, 28 Days	64.02	cu.m
902 (1)a1	Reinforcing Steel (Deformed, Grade 40)	10,383.99	kg
902 (1)a2	Reinforcing Steel (Deformed, Grade 60)	9,019.26	kg
903 (2)	Formworks and Falseworks	1,124.14	m ²
Sub-Total B			
PART C FINISHING, SANITARY AND OTHER CIVIL WORKS			
C.1 Masonry Works			
1046 (2)a1	100mm CHB Non Load Bearing (Including Reinforcing Steel)	170.01	m ²
1046 (2)a2	150mm CHB Non Load Bearing (Including Reinforcing Steel)	129.0	m ²
Sub-Total C.1			
C.2 Finishing Works			
1027 (1)	Cement Plaster Finish	987.13	m ²
1018 (1)	Glazed Tiles and Trims	25.44	m ²
1018 (2)	Unglazed Tiles	9.73	m ²
1003 (1)a1	Ceiling (4.5mm Fiber Cement Board on Metal Frame)	105.09	m ²
1003 (1)c	Ceiling (Pre-painted Metal Panel on Metal Frame)	24.66	m ²
Sub-Total C.2			
C.3 Carpentry and Joinery			
1003(17)	Carpentry and Joinery Works	1.00	ls
Sub-Total C.3			
C.4 Painting Works			
1032(1)a	Painting Works (Masonry/Concrete)	446.00	m ²
1032 (1)b	Painting Works (Wood)	32.00	m ²
1032 (1)c	Painting Works (Steel)	81.00	m ²
Sub-Total C.4			

ITEM NO.	DESCRIPTION	QTY.	UNIT
C.5 Fabricated Materials and Hardware			
1010 (1)	Frames (Jambs, Sills, Head, Transoms and Mullions)	10.00	sets
1010 (2)b	Doors (Wood Panel)	15.70	m ²
1012 (3)a6	Tempered Glass Door (12mm)	19.50	m ²
1007 (1)a	Aluminum Framed Glass Door (Sliding Type)	2.00	m ²
1008 (1)a	Aluminum Glass Windows (Sliding Type)	1.20	m ²
1008 (1)c	Aluminum Glass Windows (Awning Type)	44.70	m ²
1008 (1)d	Aluminum Glass Windows (Fixed Type)	126.00	m ²
1004 (2)	Finishing Hardware	1.00	ls
1051 (1)a	Railing	1.00	ls
Sub-Total C.5			
C.6 Roof Framing and Roofing Works			
1047 (7)	Structural Steel	1.00	ls
1047 (8)a	Structural Steel, Trusses	1,270.44	kg
1047 (8)b	Structural Steel, Purlins	612.59	kg
1047 (5)c	Metal Structure Accessories, Cross Bracing	33.26	kg
1047 (5)d	Metal Structure Accessories, Sagrods	22.18	kg
1047 (5)e	Metal Structure Accessories, Steel Plates	489.50	kg
1013 (2)b	Fabricated Metal Roofing Accessory (Flashing): Gauge 26 (0.551 mm)	48.80	h.m
1013 (2)c	Fabricated Metal Roofing Accessory (Gutter): Gauge 24 (0.701 mm)	22.09	h.m
1014 (1)b2	Pre-painted Metal Sheets (Rib, Long Span, above 0.427mm thk)	293.00	m ²
Sub-Total C.6			
C.7 Sanitary Works			
1001 (11)	Septic Vault/Tank (Concrete CHB)	1.00	ls
1001 (8)	Sewer Line Works	1.00	ls
1001 (9)	Storm Drainage and Downspout	1.00	ls
1002 (4)	Plumbing Fixtures	1.29	ls
1002 (24)	Cold Water Lines	1.29	ls
1001 (5)b	Catch Basin (CHB)	5.00	ea
Sub-Total C.7			
TOTAL OF PART C			
PART D ELECTRICAL WORKS			
1100 (10)	Conduits, Boxes & Fittings (Conduit Works/Conduit Rough-in)	1.00	ls
1101 (33)	Wires and Wiring Devices	1.00	ls
1102 (1)	Panelboard with Main & Branch Breakers	1.00	ls
1103 (1)	Lighting Fixtures	1.00	ls
Sub-Total Part D			

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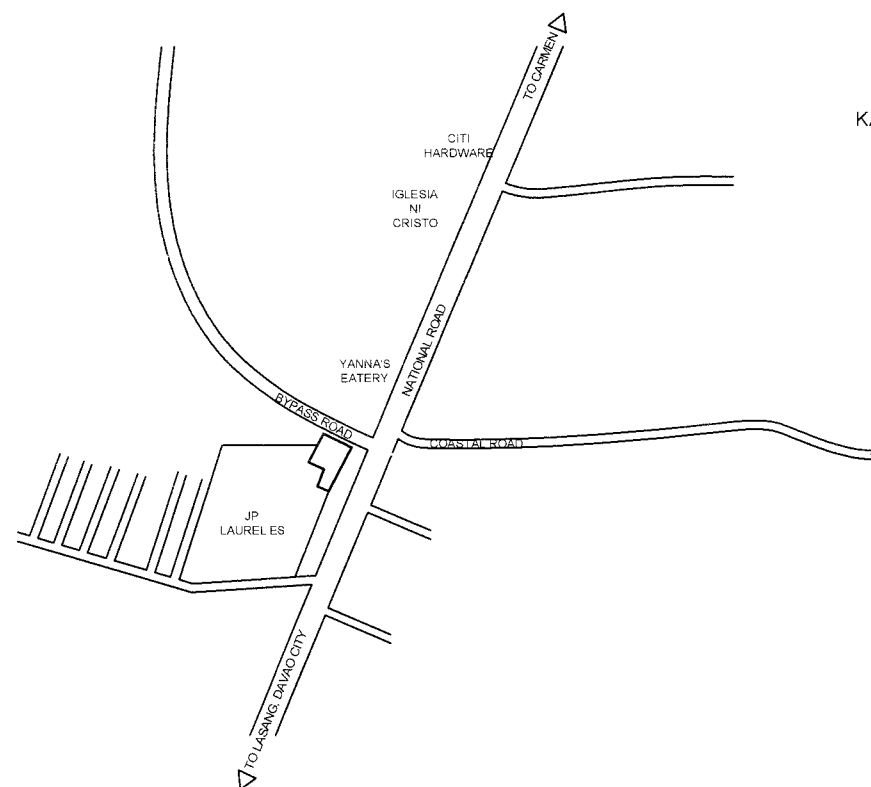
 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION XI DAVAO DEL NORTE 2ND DISTRICT ENGINEERING OFFICE TAGUM CITY	PROJECT & LOCATION: CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE	SHEET CONTENTS: SUMMARY OF QUANTITIES TABLE OF CONTENTS	DRAFTED  WARREN S. PINEZ ENGINEER II PREPARED  BENILDA S. PACQUIAO ENGINEER II	REVIEWED  HERWIN EVAN J. HABABAO ENGINEER II DATE: _____	SUBMITTED  JEZABEL E. TUONG, MPA CHIEF, PLANNING & DESIGN SECTION DATE: _____	RECOMMENDED  GARRY E. VERANO OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER DATE: _____	APPROVED  ARTURO P. ONGAYAPON DISTRICT ENGINEER DATE: _____	SET NO: A	SHEET NO.: 4	
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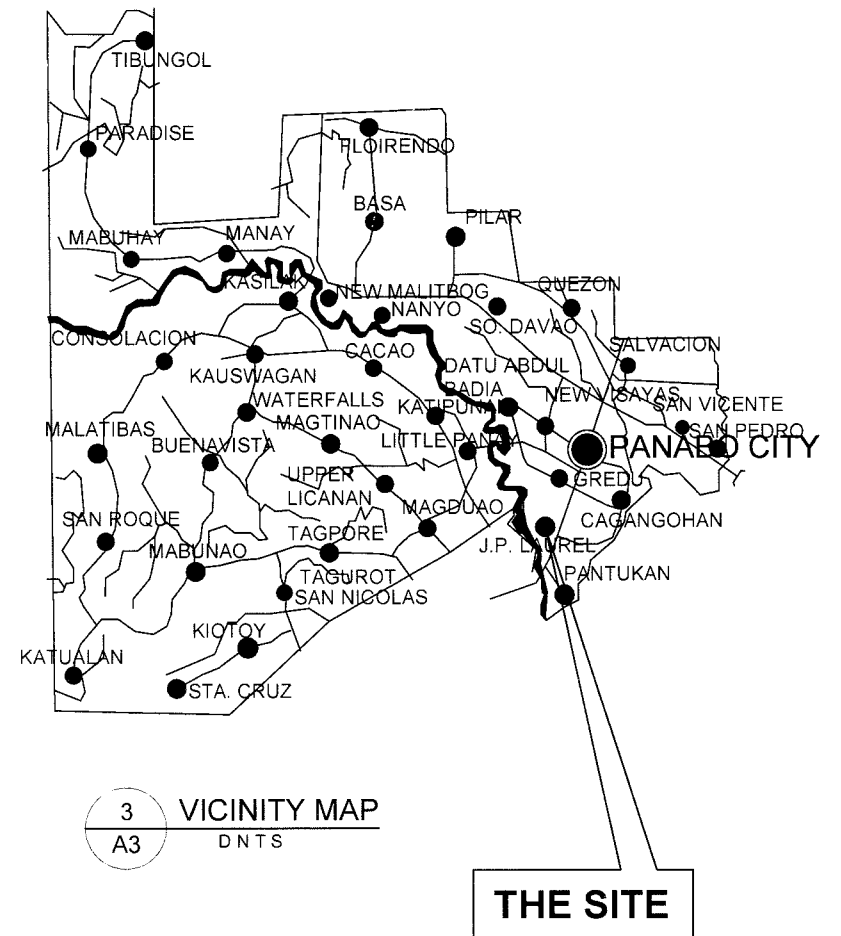
1 SITE DEVELOPMENT PLAN
A3 (AS PER SITE VALIDATION) NTS

4 LEGEND
A3 DNTS

BM BENCHMARK (EXISTING BRGY. HALL, ELEV. 0.30)
SITE AREA: 3,000 SQ. M.
BUILDING AREA: 308.55 SQ. M.



2 LOCATION PLAN
A3 DNTS



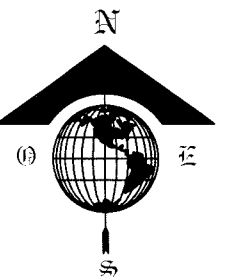
3 VICINITY MAP
A3 DNTS

THE SITE

This is to certify that the detailed engineering surveys and designs have been conducted according to the prescribed agency standards and specifications in conformance with the provisions of Annex "A" of the Revised Implementing Rules and Regulations of RA 9184, and that the detailed engineering outputs are adequate for the procurement at hand.

WARREN S. PIÑEZ

Head, Survey and Investigation Unit



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION XI DAVAO DEL NORTE 2ND DISTRICT ENGINEERING OFFICE TAGUM CITY	PROJECT & LOCATION: CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE	SHEET CONTENTS: LOCATION PLAN VICINITY MAP SITE DEVELOPMENT PLAN (AS PER SITE VALIDATION) LEGEND	DRAFTED WARREN S. PIÑEZ ENGINEER II PREPARED BENILDA S. PACQUIAO ENGINEER II	REVIEWED HERWIN EVAN J. HABABAS ENGINEER II DATE: _____	SUBMITTED JEZABEL E. TULING, MPA CHIEF, PLANNING & DESIGN SECTION DATE: _____	RECOMMENDED GARRY E. VERANO OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER DATE: _____	APPROVED ARTURO P. ONGAYAPON DISTRICT ENGINEER DATE: _____	SET NO. A SHEET NO.: 4
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GENERAL NOTES:

1.0 STANDARD & REFERENCES

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

1.1 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (N.S.C.P.) VOL. 7TH. EDITION, 2015

2.0 DESIGN CRITERIA

2.1 LOADINGS

A. DEAD LOAD

CONCRETE - 23.56 Kn/m³
STEEL - 76.93 Kn/m³

B. LIVE LOAD

ROOF - 1.00 Kn/m²

C. WIND LOAD (NSCP 2010)

BASIC WIND VELOCITY, V = 290 KPH

P=QH [9GCpf] (DESIGN WIND PRESSURE)

where: qh = VELOCITY PRESSURE, Kpa

GCpf = EXTERNAL PRESSURE COEFFICIENT

GCpi = INTERNAL PRESSURE COEFFICIENT

D. SEISMIC LOAD (NSCP 2010)

V=CVL (W) (DESIGN BASE SHEAR)

RT
Vmax = 2.50 cal (W) Vmin = 0.11 CalW
Vmin = 0.80 ZNVI W (ZONE 4)
R

WHERE: W = TOTAL DEAD LOAD

T = NATURAL PERIOD = Ct (hn)^{1/2}

WHERE: C = NUMERICAL COEFFICIENT

h = BUILDING HEIGHT

I = IMPORTANCE FACTOR = 8.50

SEISMIC COEFFICIENT Cv = 0.44 Nv

Ca = 0.64N

NEAR SOURCE FACTOR (10 Km) Nv = 1.2

Na = 1.0

Z = SEISMIC ZONE = 0.40 (ZONE 4)

S = SOIL TYPE = D

2.1 DESIGN STRESSES

A. CONCRETE

COMPRESSIVE STRENGTH (@ 28 DAYS) fc' = 27 MPa (4,000 psi)
fc' = 21 MPa (3,000 psi)

B. REINFORCING BARS

a. FOR BARS 16 MM Ø & GREATER fy = 420 MPA (60,000 PSI)
b. FOR BARS LESS THAN 16 mm Ø fy = 275 MPA (40,000 PSI)

C. STRUCTURAL STEEL, ASTM-A36

3.0 FOUNDATION

3.1 FOUNDATIONS ARE DESIGNED USING AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF .80 KPA AT DEPTHS INDICATED IN THE DRAWINGS.

3.1.1 IN CASE THE ACTUAL LOCATION OF THE STRUCTURE IS LESS THAN THE ASSUMED DISTANCE FROM THE SEISMIC SOURCE OF 40km; NOTIFY THE DIRECTOR, BUREAU OF DESIGN FOR PROPER REVISION OF THE DESIGN. REFER TO THE SEISMIC SOURCE MAP PROVIDED IN THE NATIONAL STRUCTURAL CODE OF THE PHILIPPINES OR PHIVOLCS SEISMIC SOURCE MAP.

3.1.2 SOIL TEST SHALL BE CONDUCTED PRIOR TO START OF CONSTRUCTION.

3.1.3 IN CASE THE ACTUAL SOIL BEARING CAPACITY IS FOUND LESS THAN THE ASSUMED, 96 kPa; NOTIFY THE DIRECTOR, BUREAU OF DESIGN FOR PROPER REVISION OF FOUNDATION.

3.1.4 NO FOOTING SHALL REST ON FILL.

3.1.5 BOTTOM OF FOOTING SHALL BE AT LEAST 1.00m. BELOW NATURAL GRADE LINE.

3.1.6 SOIL BEARING CAPACITY SHALL BE INCREASED BY 33% WHEN IN COMBINATION WITH SEISMIC OR WIND LOAD.

3.2 ALL COLUMN FOOTINGS & TIE BEAMS SHALL REST ON 100mm THK. WELL COMPACTED GRAVEL BASE COURSE.

3.3 BACK FILL SHALL BE PLACED IN LAYER AND EACH LAYER SHALL BE 200mm THK. AND SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY.

3.4 WHERE LOOSE/SOFT MATERIAL IS ENCOUNTERED AT DEPTH OF EMBEDMENT INDICATED, EXCAVATE TO FIRM LAYER AND REPLACE LOOSE/MATERIALS UNDERNEATH THE FOOTING WITHIN THE FOOTING AREA PLUS 1/2 DEPTH OF SOFT MATERIAL ON ALL SIDES WITH SELECT GRANULAR BACKFILL. COMPACT SELECT GRANULAR BACKFILL TO 95% OF MAXIMUM DRY DENSITY.

4.0 MATERIALS

4.1 CONCRETE

4.1.1 CONCRETE COVER OVER REINFORCING BARS SHALL BE AS FOLLOWS:
A. FOOTINGS, FOOTING-TIE BEAMS (CAST AGAINST EARTH) 75mm
B. BEAMS AND COLUMNS (TO STIRRUPS AND TIES) 40mm
C. WALLS, SIDE OF FOOTING-TIE BEAMS (CAST AGAINST FORMS) 40mm
D. SUSPENDED SLAB 20mm

4.1.2 BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, ETC. RELATING TO THE WORK.

4.2 REINFORCING BARS

4.2.1 ALL REINFORCING BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIALS THAT WILL IMPAIR BOND.

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

4.2.3 LAPPED SPLICES SHALL BE STAGGERED WHERE POSSIBLE.

4.2.4 UNLESS OTHERWISE INDICATED, SPLICING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH AGI-318M, EXCEPT THAT THE MINIMUM LAP SPlice SHALL BE 40 BAR DIAMETER BUT NOT LESS THAN 600mm.

4.2.5 UNLESS SHOWN OTHERWISE ON PLANS, SPLICES SHALL BE AS FOLLOWS:

A. INTERMEDIATE BEAMS: TOP BARS SHALL BE SPLICED AT MID-SPAN, AND BOTTOM BARS AT THE SUPPORT.

B. BEAMS FRAMING TO COLUMNS: TOP BARS SHALL BE SPLICED AT MID-SPAN AND BOTTOM BARS SHALL NOT BE SPLICED W/IN THE COLUMN OR W/IN A DISTANCE OF TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN. THE SPLICED LENGTH SHALL NOT BE LESS THAN 1.4 TIMES THE DEVELOPMENT LENGTH (Ld) IN 4.2.8 BELOW BUT NOT LESS THAN 600mm.

C. COLUMNS: LAP SPLICES SHALL BE MADE WITHIN THE CENTER HALF OF HEIGHT AND THE SPlice SHALL NOT BE LESS THAN 30 BAR DIAMETER, WELDING OR THE USE OF APPROVED MECHANICAL DEVICES MAY BE PERMITTED PROVIDED NOT MORE THAN ALTERNATE BARS ARE WELDED OR SPLICED AT ANY LEVEL AND THE MINIMUM VERTICAL DISTANCE BETWEEN TWO ADJACENT BAR SPLICES SHALL BE 600mm.

D. CHB WALLS: VERTICAL BARS SHALL BE SPLICED AT THE TOP OF WALL FOOTINGS OR FOOTING-TIE BEAMS AND AT THE BOTTOM OF REINFORCED CONCRETE LINTEL BEAMS OR BEAMS.

4.2.6 UNLESS OTHERWISE INDICATED: ALL BEAMS TERMINATING AT A COLUMN SHALL HAVE TOP AND BOTTOM BARS EXTENDING TO THE FAR FACE OF THE COLUMN, TERMINATING IN A STANDARD 90 HOOK LENGTH OF ANCHORAGE SHALL NOT BE LESS THAN 600mm.

4.2.7 SHOP DRAWING FOR REINFORCEMENT SHALL BE SUBMITTED FOR APPROVAL OF THE ENGINEER PRIOR TO FABRICATION & INSTALLATION.

4.2.8 DEVELOPMENT LENGTH (Ld) OF REINFORCING BARS SHALL BE AS FOLLOWS:

SIZE OF REBARS	DEVELOPMENT LENGTH
10 mm	170 mm
12 mm	220 mm
16 mm	270 mm
20 mm	380 mm
25 mm	600 mm

4.3 STRUCTURAL STEEL

4.3.1 ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND SHALL HAVE A MINIMUM YIELD STRESS, Fy = 248 MPa (36,000 psi)

4.3.2 ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE.

4.3.3 ALL BOLTS SHALL CONFORM TO ASTM A-307 UNLESS OTHERWISE INDICATED.

4.3.4 SHOP AND FIELD WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 AND PERFORMED BY QUALIFIED WELDERS.

4.3.5 UNLESS OTHERWISE INDICATED, WELDING ELECTRODES SHALL BE E60.

4.3.6 NO STEEL SHALL BE FABRICATED OR ERECTED UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER.

4.3.7 WELDS/(CONFORM WITH AMERICAN WELDING STANDARDS) USING E 60xx ELECTRODES. fy = 93.77 MPa.

4.3.8 ANCHOR BOLTS (CONFORM WITH ASTM A-307) ft = 96.60 MPa. fv = 69 MPa.

4.4 CONCRETE HOLLOW BLOCKS (CHB):

4.4.1 UNLESS OTHERWISE INDICATED, CHB USED IN THIS WORK SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH f'm = 3.45 MPa (500 psi)

4.4.2 ALL CHB CELLS SHALL BE FILLED SOLIDLY WITH GROUT.

5.0 CONSTRUCTION JOINT

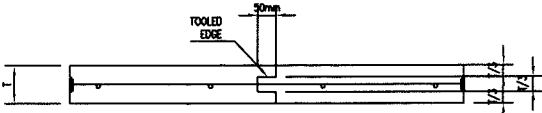
5.1 CONSTRUCTION JOINT NOT INDICATED ON THE PLANS SHALL BE MADE SO AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER EXCEPT SLAB ON GRADE.

5.2 UNLESS SHOWN OTHERWISE, SLAB ON GRADE SHALL HAVE CONTROL JOINTS SPACED AT 6000mm MAXIMUM CENTER TO CENTER.

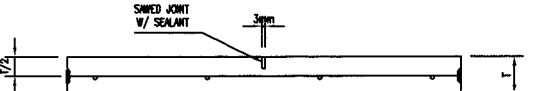
5.3 BEAMS CONSTRUCTION JOINT SHALL BE LOCATED W/ IN THE MIDDLE THIRD OF THE SPAN. IT SHALL BE PROVIDED WITH 3 EXTRA STIRRUPS Ø 75mm O.C. ON EACH SIDE OF THE JOINT.

REFERENCES:

1. Labor Code of the Philippines and its Implementing Rules and Regulations DOLE DO No. 13, s. 1998, Occupational Safety and Health Standards and its Procedural Guidelines
- For monitoring, enforcement and implementation of construction safety and health
- DO 58, s. 2005
2. DPWH Design Guidelines. Criteria and Standards (DGCS), 2015 Edition
- For the design of highways, bridges, buildings and flood control projects covering the minimum requirements, specifications and procedures
- DO 179, s. 2015



CONSTRUCTION JOINT

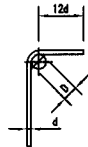


WEAKENED PLANE JOINT

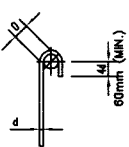
NOTE: CONTROL JOINT CAN BE EITHER CONSTRUCTION JOINT OR WEAKENED PLANE JOINT.

3 CONTROL JOINTS FOR SLAB ON FILL

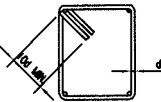
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90° HOOK



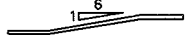
180° HOOK



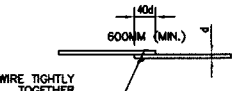
TIE HOOK

BAR SIZE	D	
	90° HOOK	180° HOOK
10mm Ø THRU 25mm Ø	6d	4d
28mm Ø THRU 36mm Ø	8d	4d

NOTE: 1. ALL BENDS SHOWN IN DETAILS/SCHEDULES SHALL BE STANDARD HOOK OTHERWISE NOTED.
2. 180° HOOKS MAY BE SUBSTITUTED FOR 90° HOOKS.



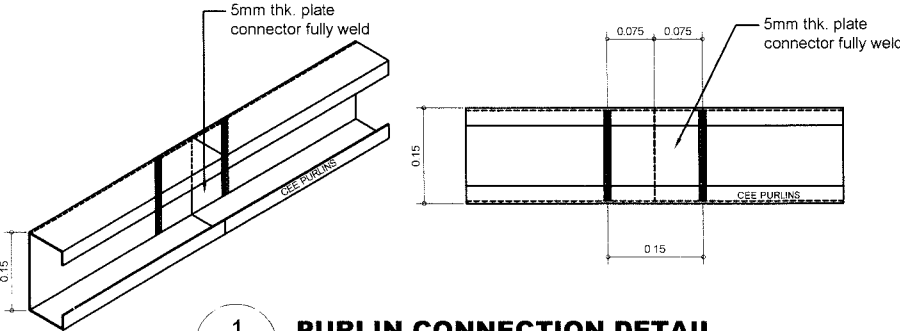
OFFSET



LAP SPLICE

2 TYP. REINFORCEMENT DETAIL

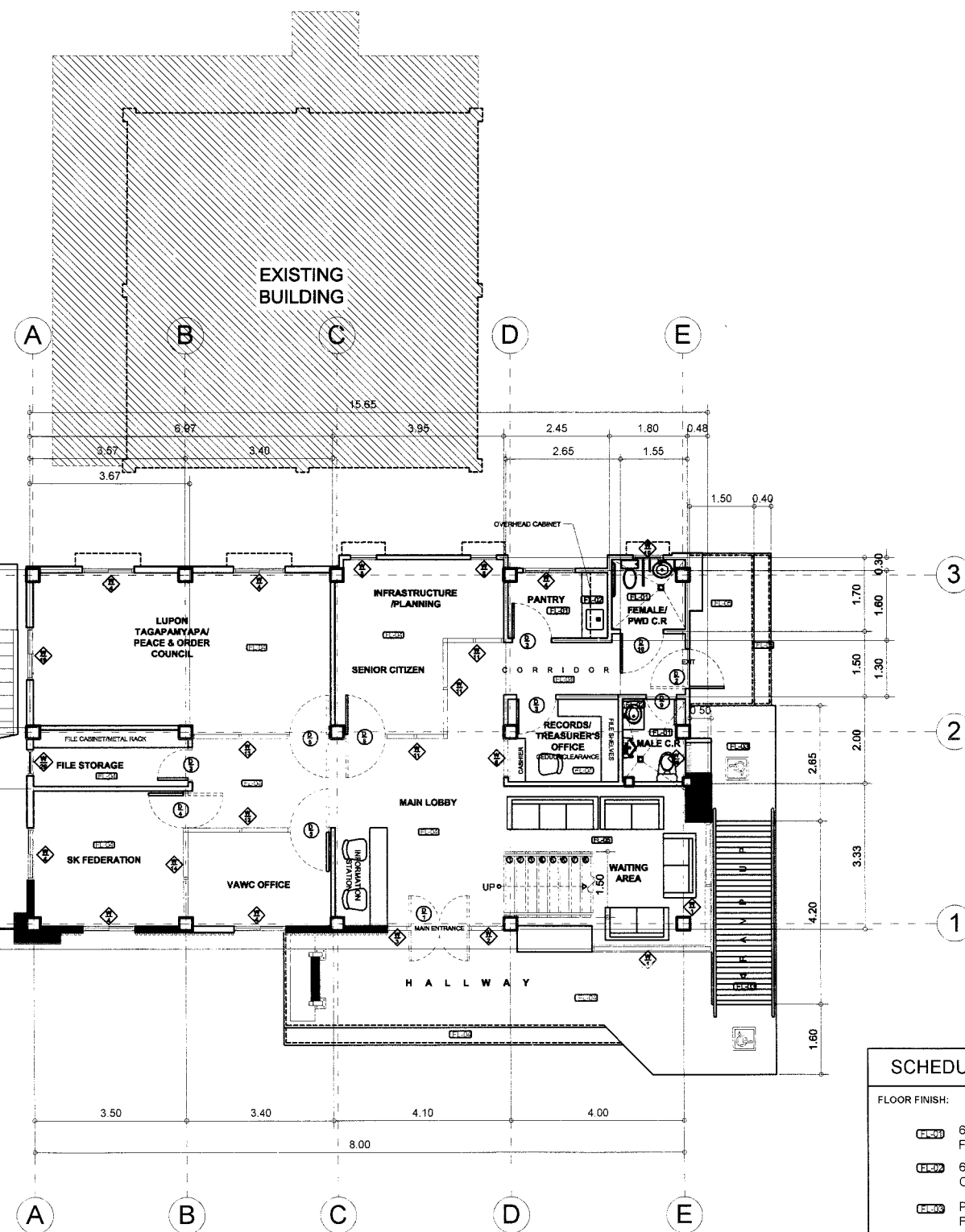
NTS



1 PURLIN CONNECTION DETAIL

NTS

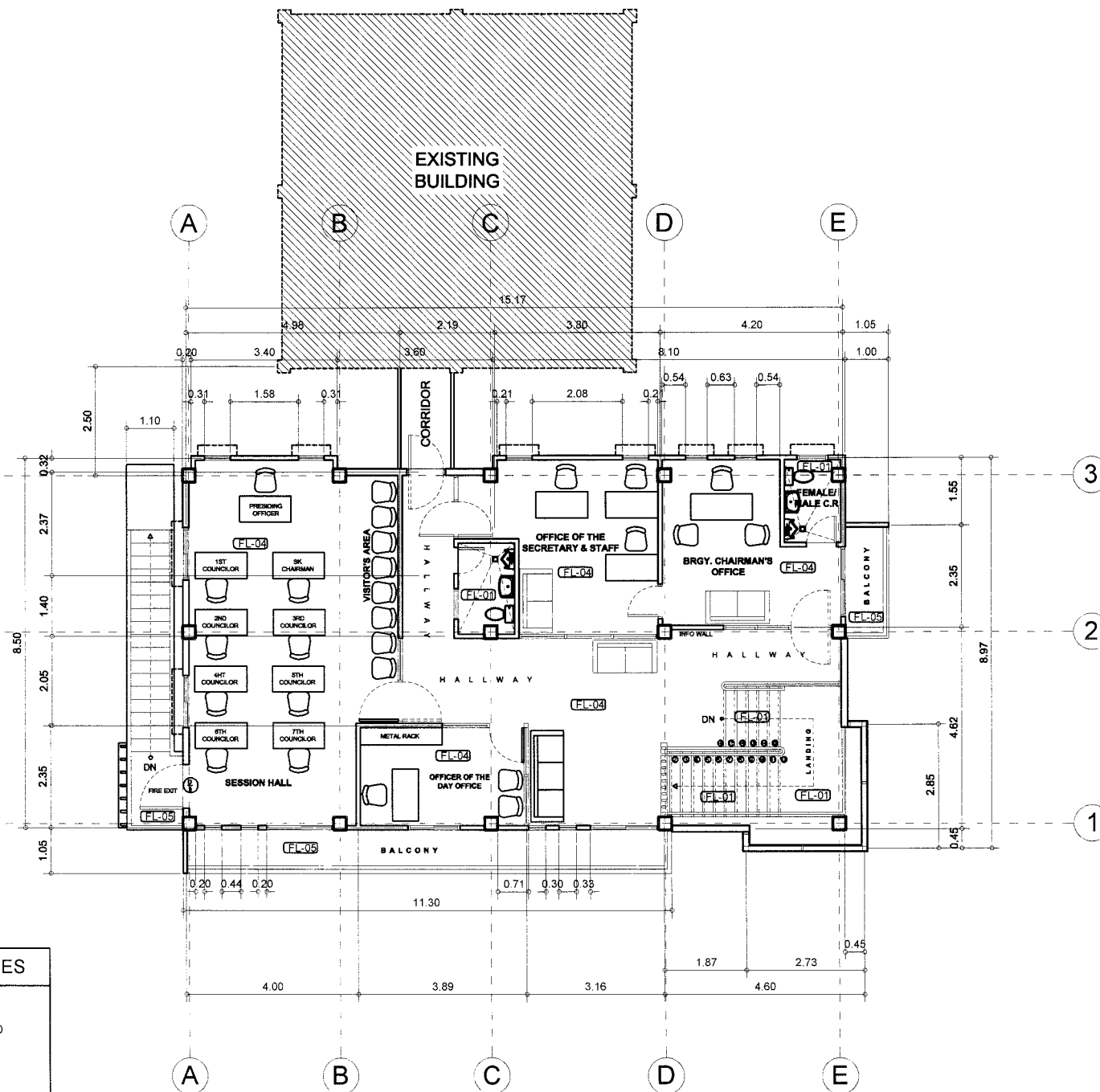
 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION XI DAVAO DEL NORTE 2ND DISTRICT ENGINEERING OFFICE TAGUM CITY	PROJECT & LOCATION: CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE	SHEET CONTENTS: GENERAL NOTES	DRAFTED: WARREN S. PINEZ ENGINEER II	REVIEWED: HERWIN EVAN J. HABABAG ENGINEER II	SUBMITTED: JEZABEL E. TUONG, MPA CHIEF, PLANNING & DESIGN SECTION	RECOMMENDED: GARRY E. VERANO OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER	APPROVED: ARTURO P. LONGYAPONG DISTRICT ENGINEER	SET NO: A	SHEET NO. : 4	
				PREPARED: BENILDA S. PACQUIAO ENGINEER II	DATE:	DATE:	DATE:	DATE:	4	17



1 GROUND FLOOR PLAN
A5 SCALE 1:80 MTS

SCHEDULE OF FINISHES

FLOOR FINISH:	
600X600MM NON-SKID FLOOR TILES	
600X600MM GLAZED COUNTER TILES	
PLAIN CEMENT GROOVED FLOOR FINISH	
600X600MM GLAZED FLOOR TILES	
600X600MM NON-SKID OUTDOOR FLOOR TILES	



2 SECOND FLOOR PLAN
A5 SCALE 1:80 MTS



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGION XI

DAVAO DEL NORTE
2ND DISTRICT ENGINEERING OFFICE
TAGUM CITY

PROJECT & LOCATION

**CONSTRUCTION OF
MULTI-PURPOSE BUILDING
IN BARANGAY JP LAUREL,
PANABO, DAVAO DEL NORTE**

SHEET CONTENTS:

GROUND FLOOR PLAN
SECOND FLOOR PLAN
SCHEDULE OF FINISHES

DRAFTED

WARREN S. PINEZ
ENGINEER II

PREPARED:

BENILDA S. PACQUIAO
ENGINEER II

REVIEWED:

HERWIN EVAN J. HABABAO
ENGINEER II

DATE:

SUBMITTED:

JEZABELE TUJUNG, MPA
CHIEF, PLANNING & DESIGN SECTION

DATE:

RECOMMENDED:

GARRY E. VERANO
OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

ARTURO P. LONGYAPON
DISTRICT ENGINEER

DATE:

SET NO.

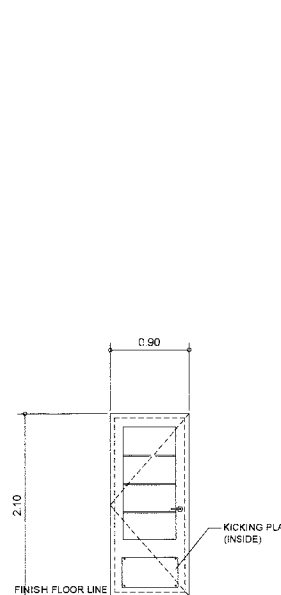
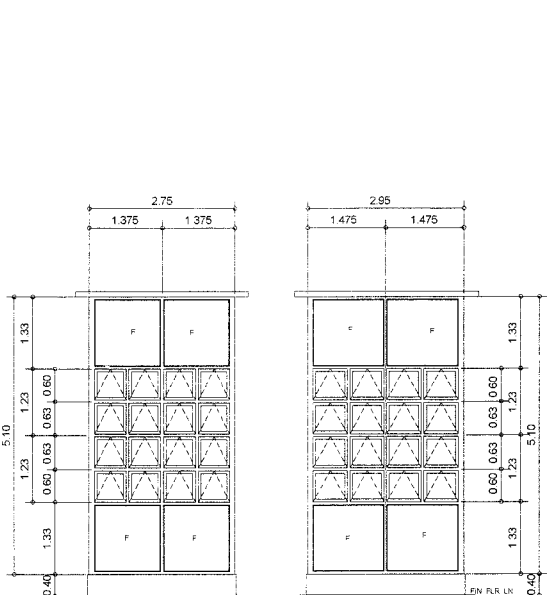
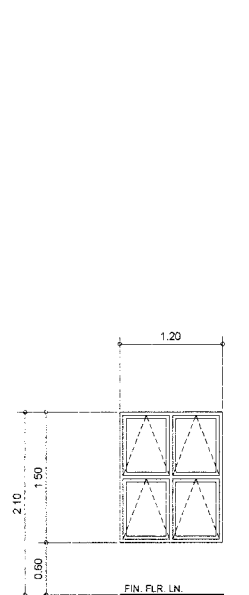
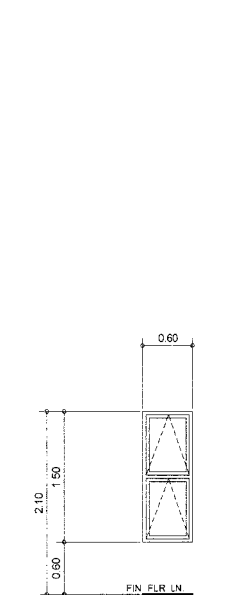
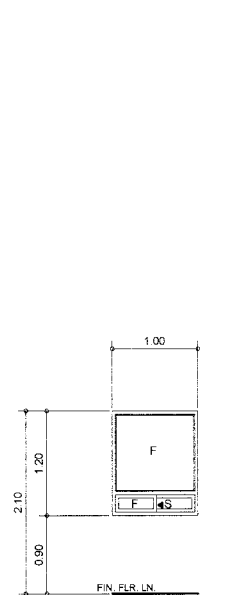
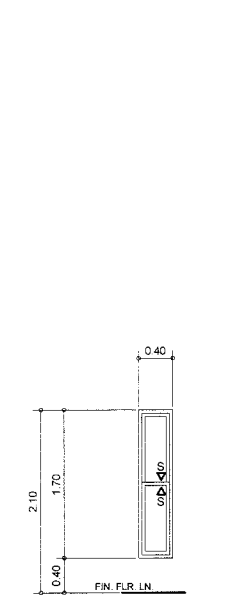
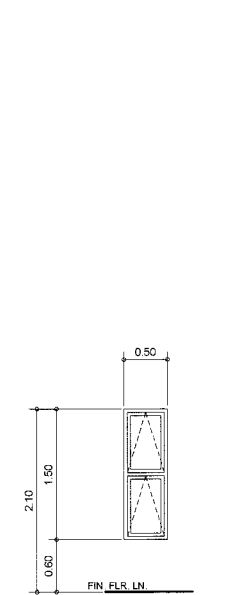
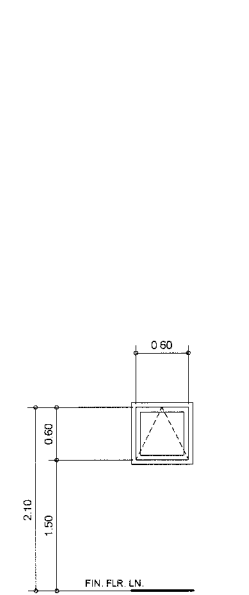
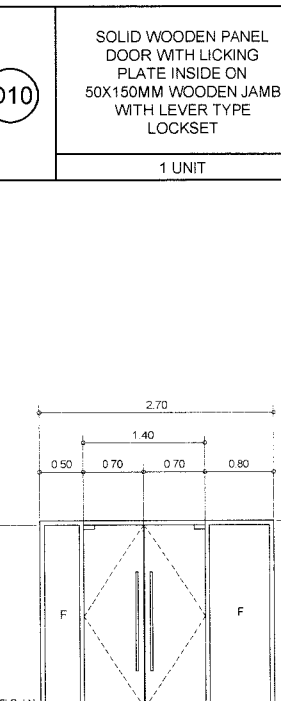
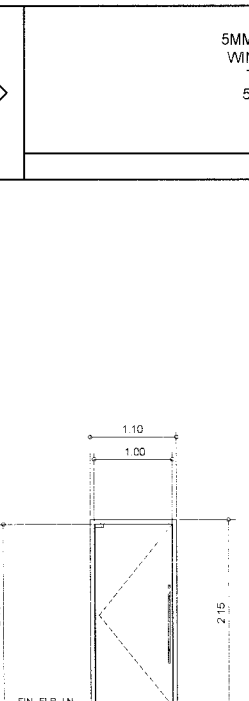
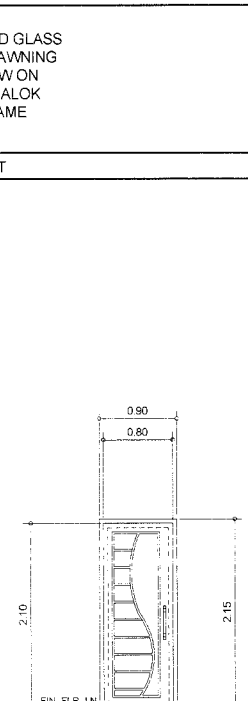
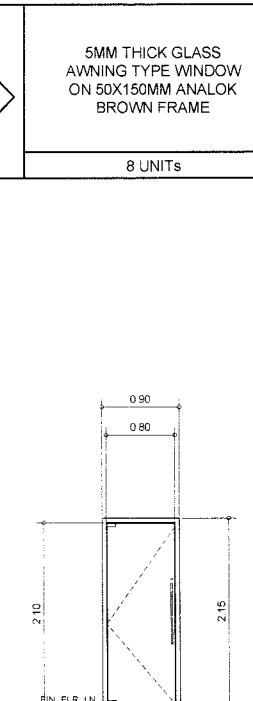
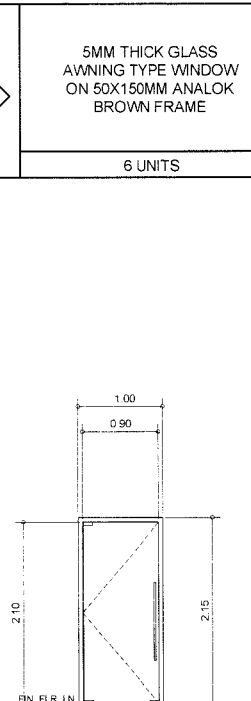
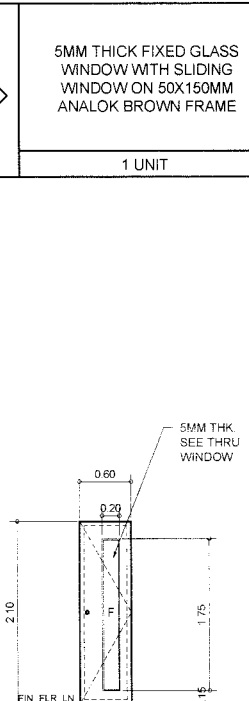
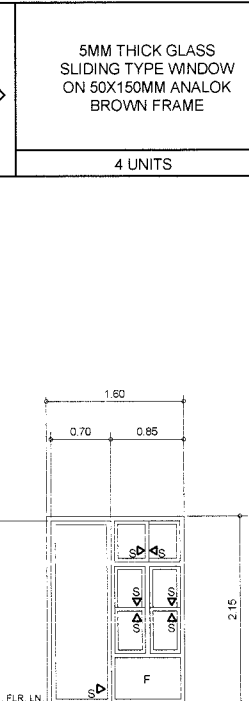
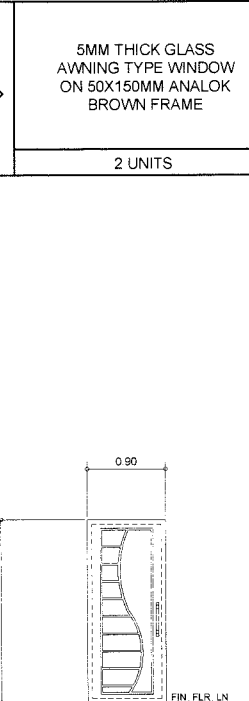
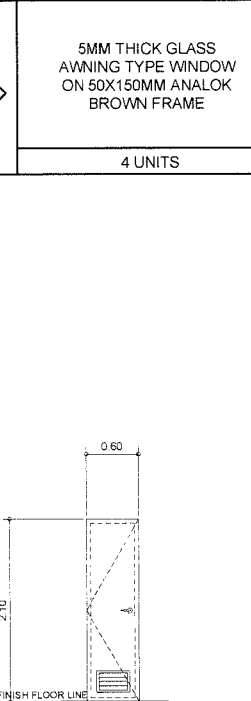
A

4

SHEET NO.:

4

48

																	
D10 SOLID WOODEN PANEL DOOR WITH KICKING PLATE INSIDE ON 50X150MM WOODEN JAMB WITH LEVER TYPE LOCKSET 1 UNIT		W1 5MM THICK FIXED GLASS WINDOW WITH AWNING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT		W4 5MM THICK GLASS AWNING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 8 UNITS		W5 5MM THICK GLASS AWNING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 6 UNITS		W6 5MM THICK FIXED GLASS WINDOW WITH SLIDING WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT		W8 5MM THICK GLASS SLIDING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 4 UNITS		W9 5MM THICK GLASS AWNING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 2 UNITS		W10 5MM THICK GLASS AWNING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 4 UNITS			
																	
D1 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT		D2 12MM THICK TEMPERED GLASS DOOR ON 50X150MM ANALOK BROWN FRAME 1 UNIT		D3 SOLID WOODEN PANEL DOOR ON 50X150MM WOODEN JAMB WITH LEVER TYPE LOCKSET 4 UNITS		D4 12MM THICK GLASS DOOR ON ANALOK BROWN FRAME 3 UNITS		D5 12MM THICK GLASS DOOR ON ANALOK BROWN FRAME 5 UNITS		D6 5MM THK. FIXED CLEAR GLASS SEE THRU SOLID WOODEN PANEL SLIDING DOOR ON 50X150MM WOODEN JAMB WITH 5MM THK. FIXED GLASS 1 UNIT		D7 12MM THICK SLIDING GLASS DOOR WITH 5MM THICK FIXED WINDOW & AWNING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 3 UNITS		D8 SOLID WOODEN PANEL DOOR ON 50X150MM WOODEN JAMB WITH LEVER TYPE LOCKSET 1 UNIT		D9 SOLID WOODEN PANEL DOOR WITH LOUVER ON 50X150MM WOODEN JAMB WITH LEVER TYPE LOCKSET 3 UNITS	

1

SCHEDULE OF DOORS AND WINDOWS

A6

SCALE 1:50 MTS

 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION XI DAVAO DEL NORTE 2ND DISTRICT ENGINEERING OFFICE TAGUM CITY	PROJECT & LOCATION CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE	SHEET CONTENTS: SCHEDULE OF DOORS & WINDOWS	DRAFTED  WARREN S. PINEZ ENGINEER II	REVIEWED:  HERWIN EVAN J. HABABAO ENGINEER II DATE: _____	SUBMITTED:  JEZABEL E. TULING, MPA CHIEF, PLANNING & DESIGN SECTION DATE: _____	RECOMMENDED:  GARRY E. VERANO OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER DATE: _____	APPROVED:  ARTURO P. LONGYAPON DISTRICT ENGINEER DATE: _____	SET NO.: A	SHEET NO.: 4	

SCALE 1:50 MTS	SCALE 1:50 MTS	SCALE 1:50 MTS	SCALE 1:80 MTS	SCALE 1:50 MTS
W15 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W16 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W17 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W18 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W19 5MM THICK GLASS SLIDING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 3 UNITS
SCALE 1:80 MTS	SCALE 1:50 MTS	SCALE 1:50 MTS	SCALE 1:50 MTS	SCALE 1:50 MTS
W11 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W12 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W13 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W14 12MM THICK TEMPERED GLASS DOOR WITH 5MM THICK FIXED WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT	W20 5MM THICK GLASS SLIDING TYPE WINDOW ON 50X150MM ANALOK BROWN FRAME 1 UNIT

Republic of the Philippines

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

REGION XI

DAVAO DEL NORTE

2ND DISTRICT ENGINEERING OFFICE

TAGUM CITY

PROJECT & LOCATION:

CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE

SHEET CONTENTS:

SCHEDULE OF DOORS AND WINDOWS

DRAFTED

WARREN S. PINEZ

ENGINEER II

PREPARED

BENILDA S. PACQUIAO

ENGINEER II

REVIEWED

HERWIN EVAN J. HABABAO

ENGINEER II

DATE

SUBMITTED

JEZABEL E. TUONG, MPA

CHIEF, PLANNING & DESIGN SECTION

DATE

RECOMMENDED

GARRY E. VERANO

OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER

DATE

APPROVED

ARTURO P. LONGYAPON

DISTRICT ENGINEER

DATE

SET NO:

A

SHEET NO.:

4

4

17

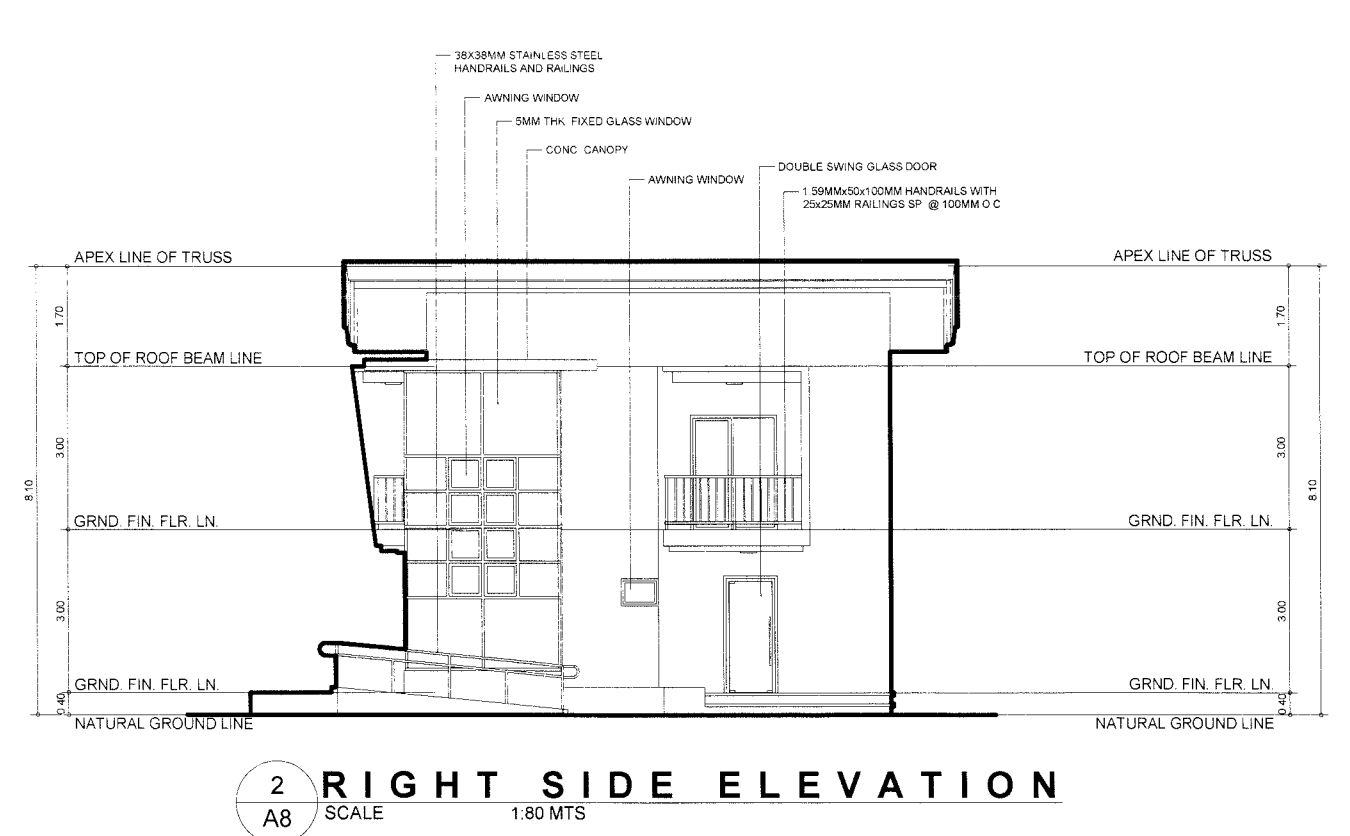
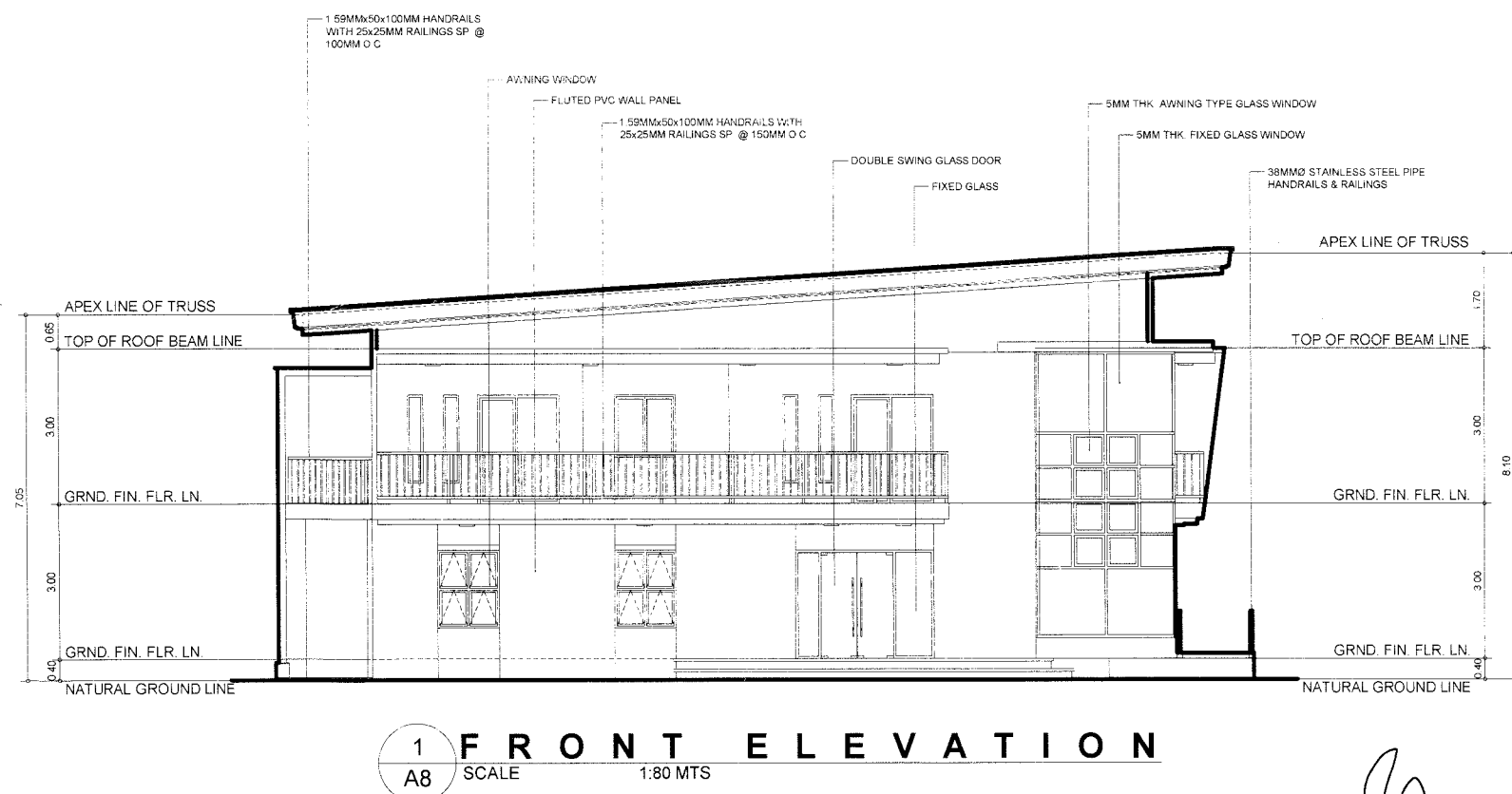
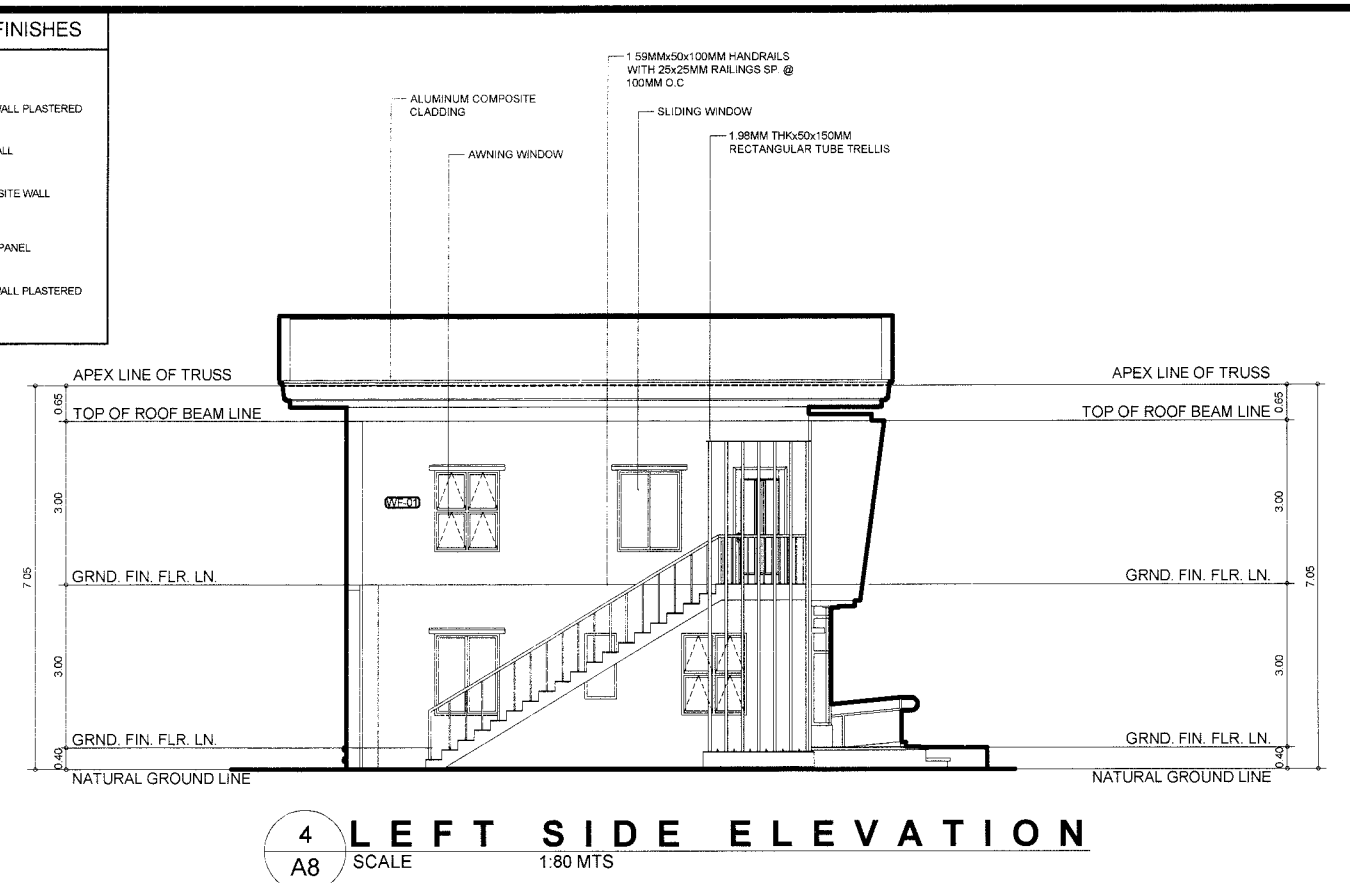
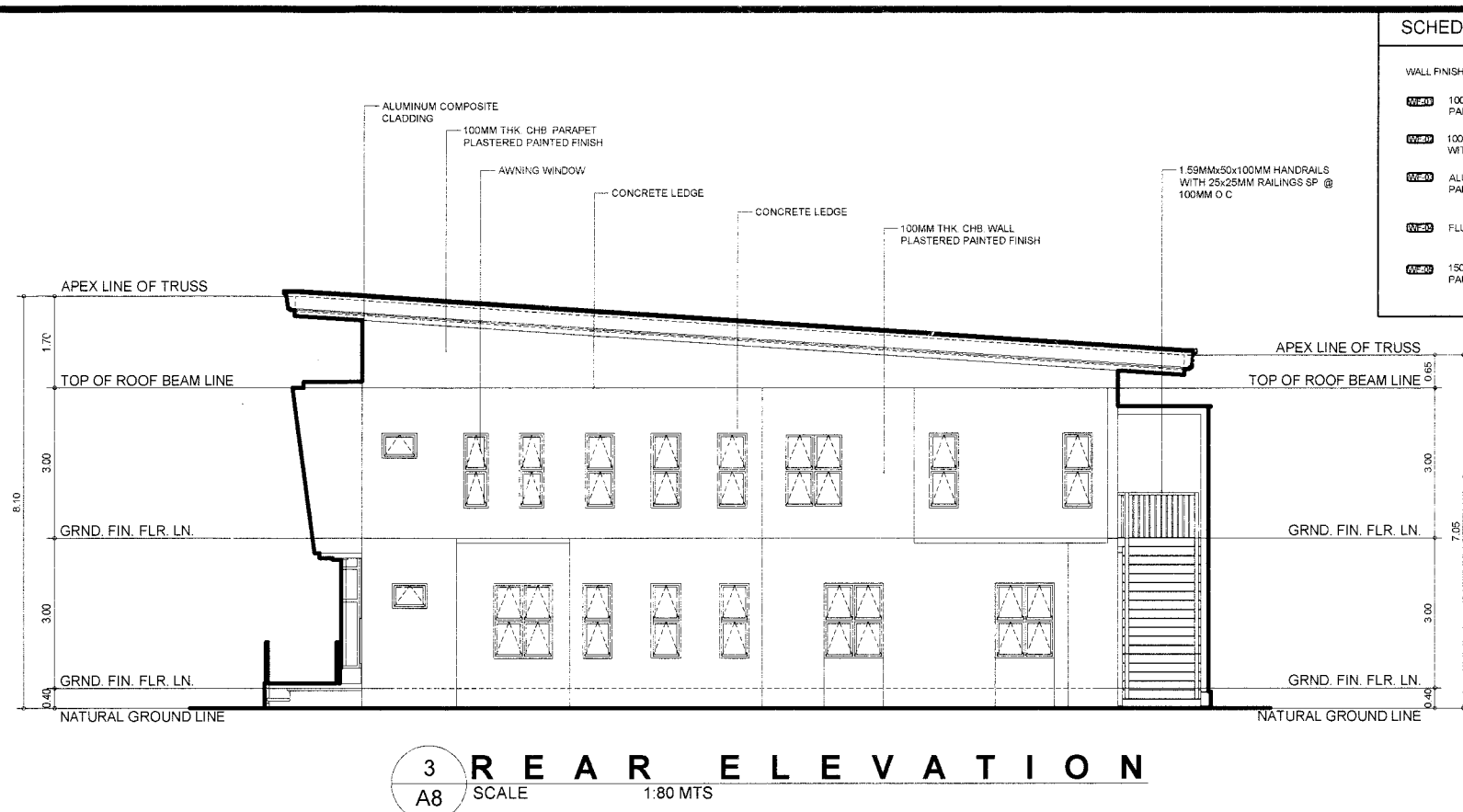
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1

A7

SCHEDULE OF DOORS AND WINDOWS

SCALE 1:50/80 MTS



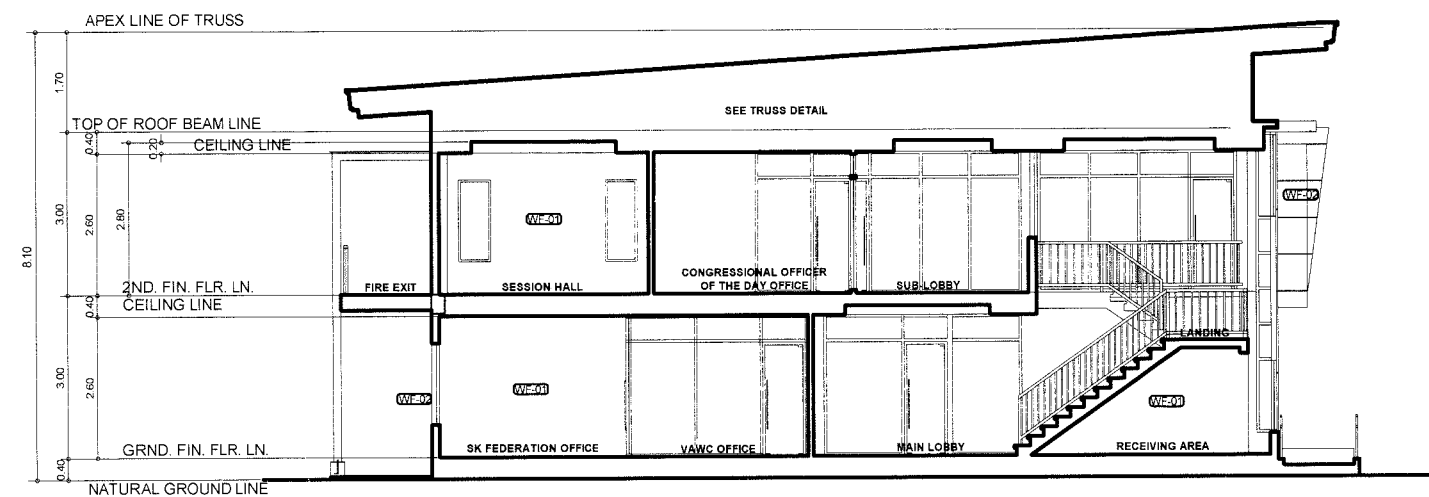
SCHEDULE OF FINISHES

WALL FINISH

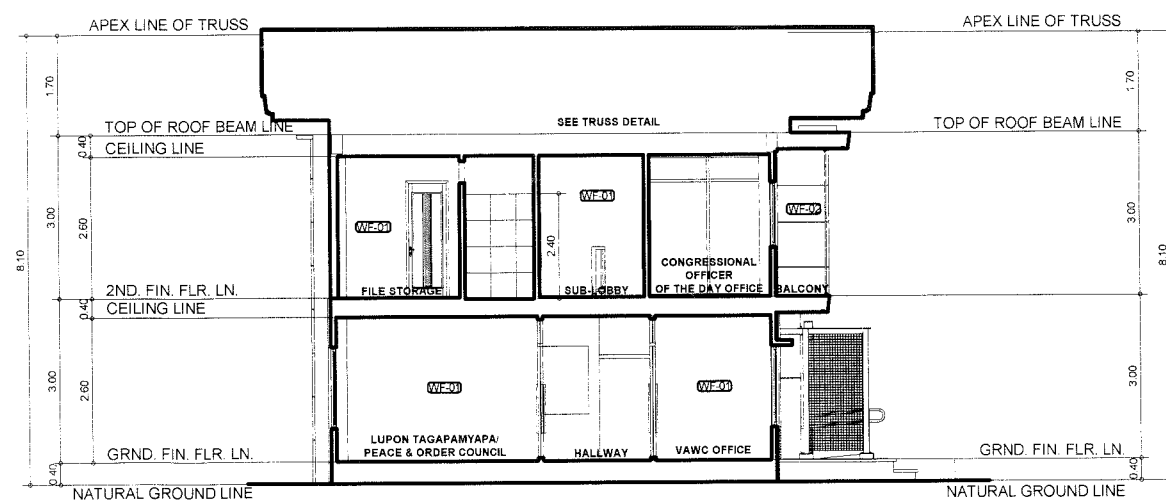
Wf=20	100MM THK. CHB. WALL PLASTERED PAINTED FINISH
Wf=20	100MM THK. CHB WALL WITH GROOVED
Wf=30	ALUMINUM COMPOSITE WALL PANEL
Wf=30	FLUTED PVC WALL PANEL
Wf=30	150MM THK. CHB. WALL PLASTERED PAINTED FINISH

WALL FINISH:

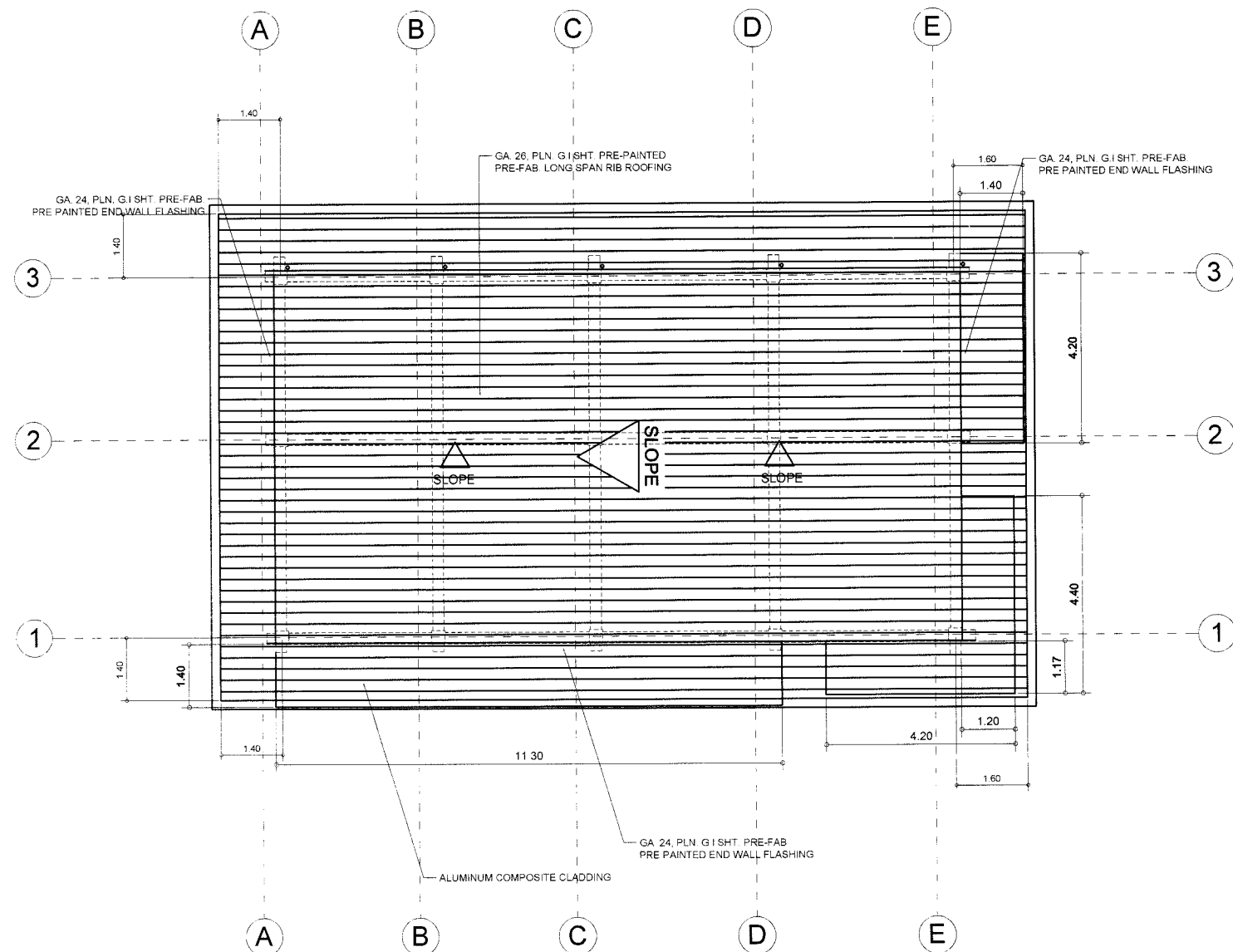
WF-01	100MM THK. CHB. WALL PLASTERED PAINTED FINISH
WF-02	ALUMINUM COMPOSITE WALL PANEL



1 LONGITUDINAL SECTION
A9 SCALE 1:80 MTS



2 CROSS SECTION
A9 SCALE 1:80 MTS



3 R O O F P L A N
A9 SCALE 1:80 MTS



DAVAO DEL NORTE
2ND DISTRICT ENGINEERING OFFICE
 TAGUM CITY

CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE

CROSS SECTION
LONGITUDINAL SECTION
ROOF PLAN

BENILDA S. PACQUIAO
ENGINEER II

DATE _____

DAT

DAT

DATE _____

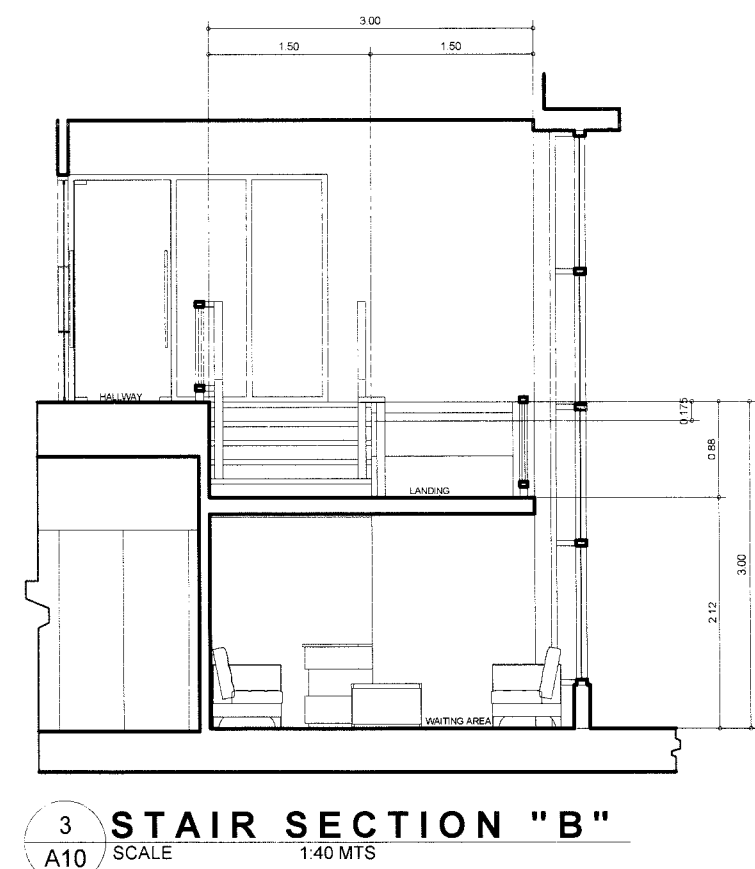
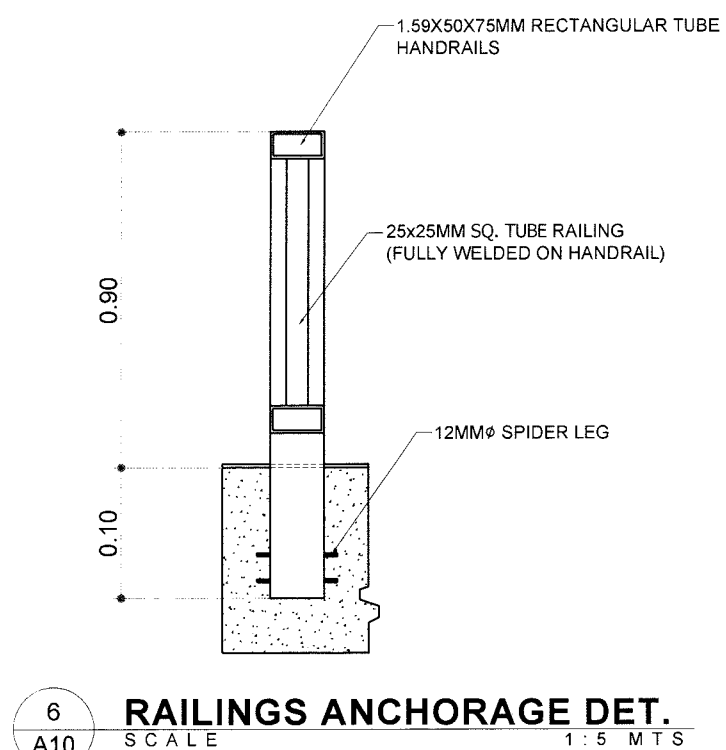
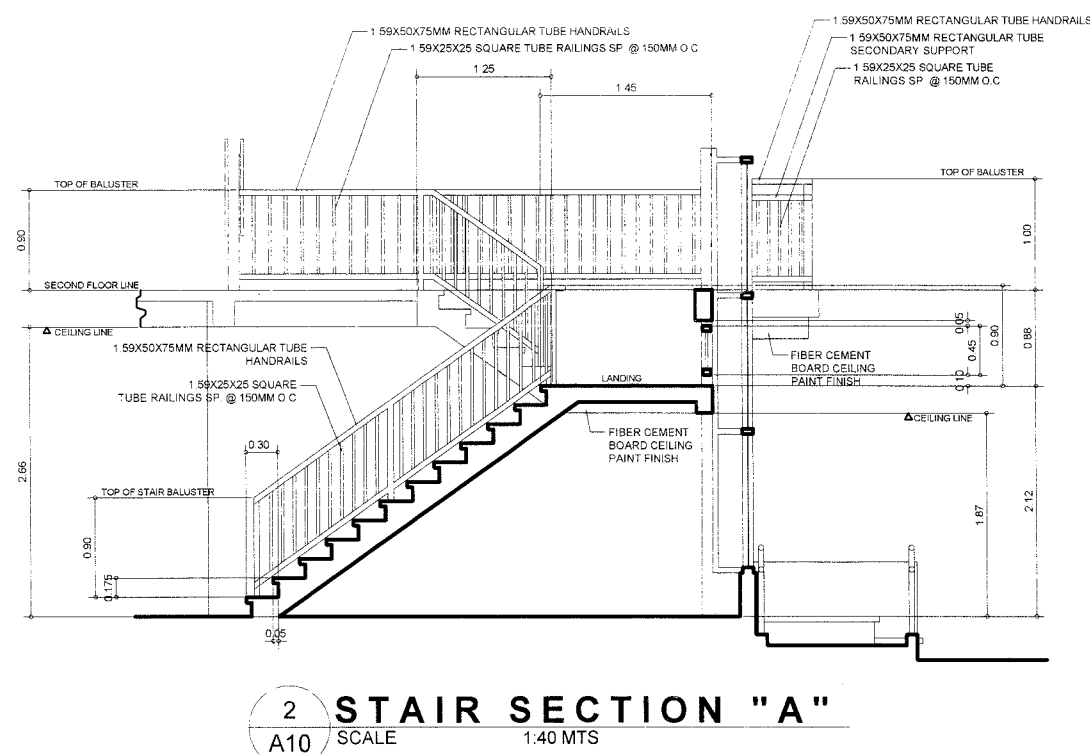
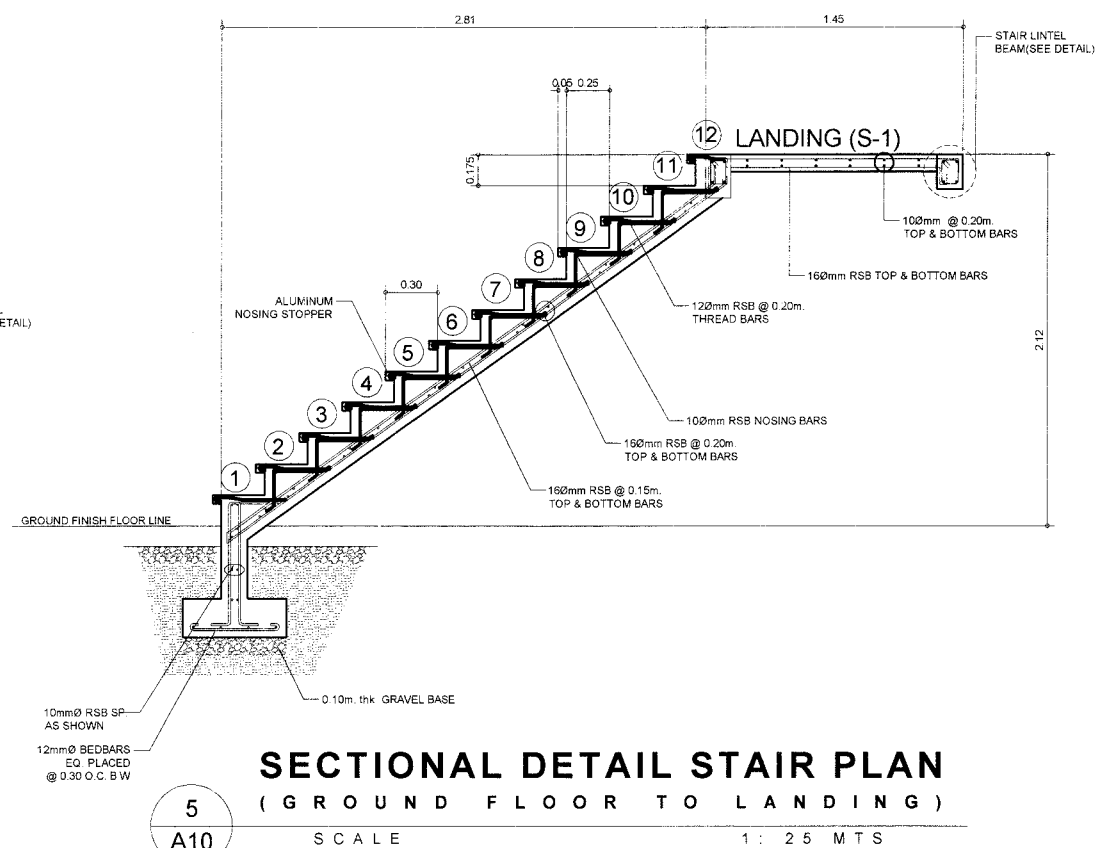
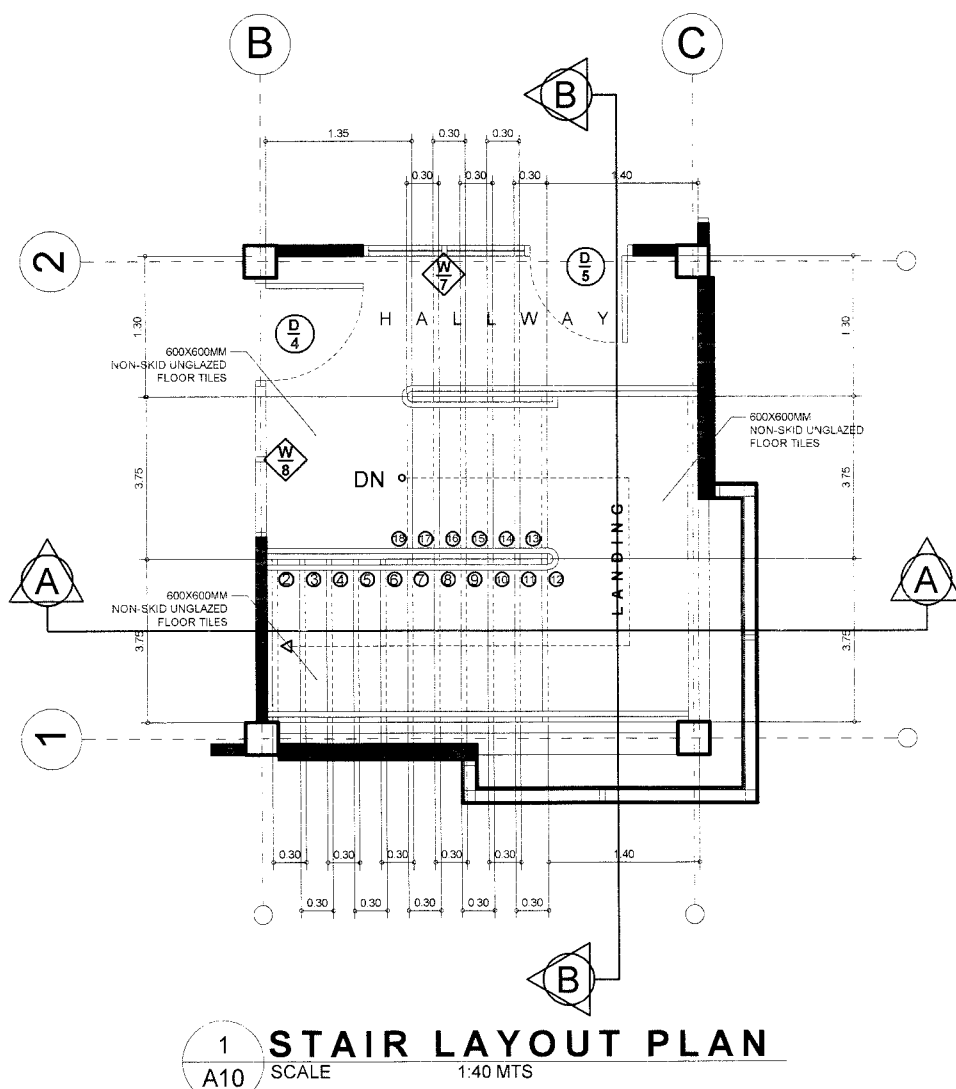
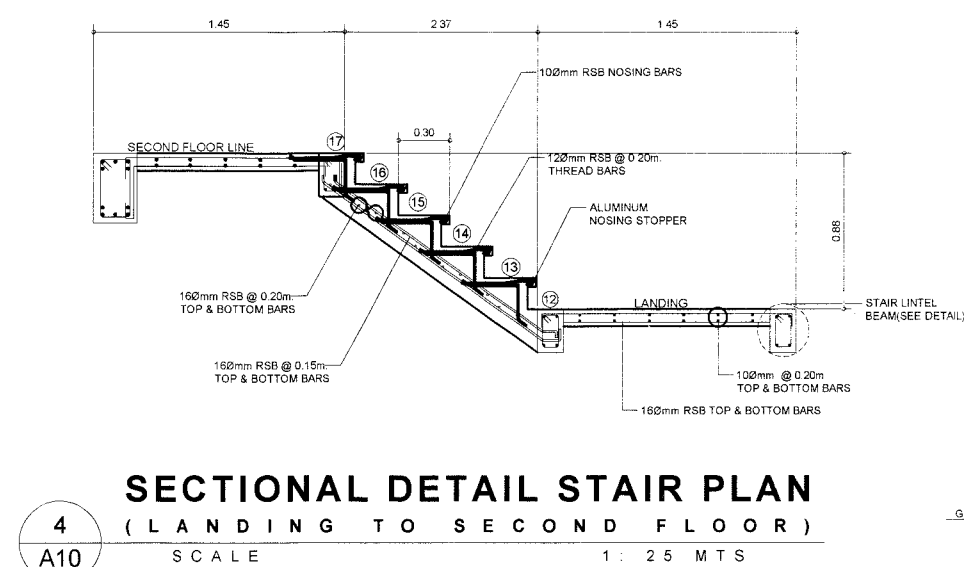
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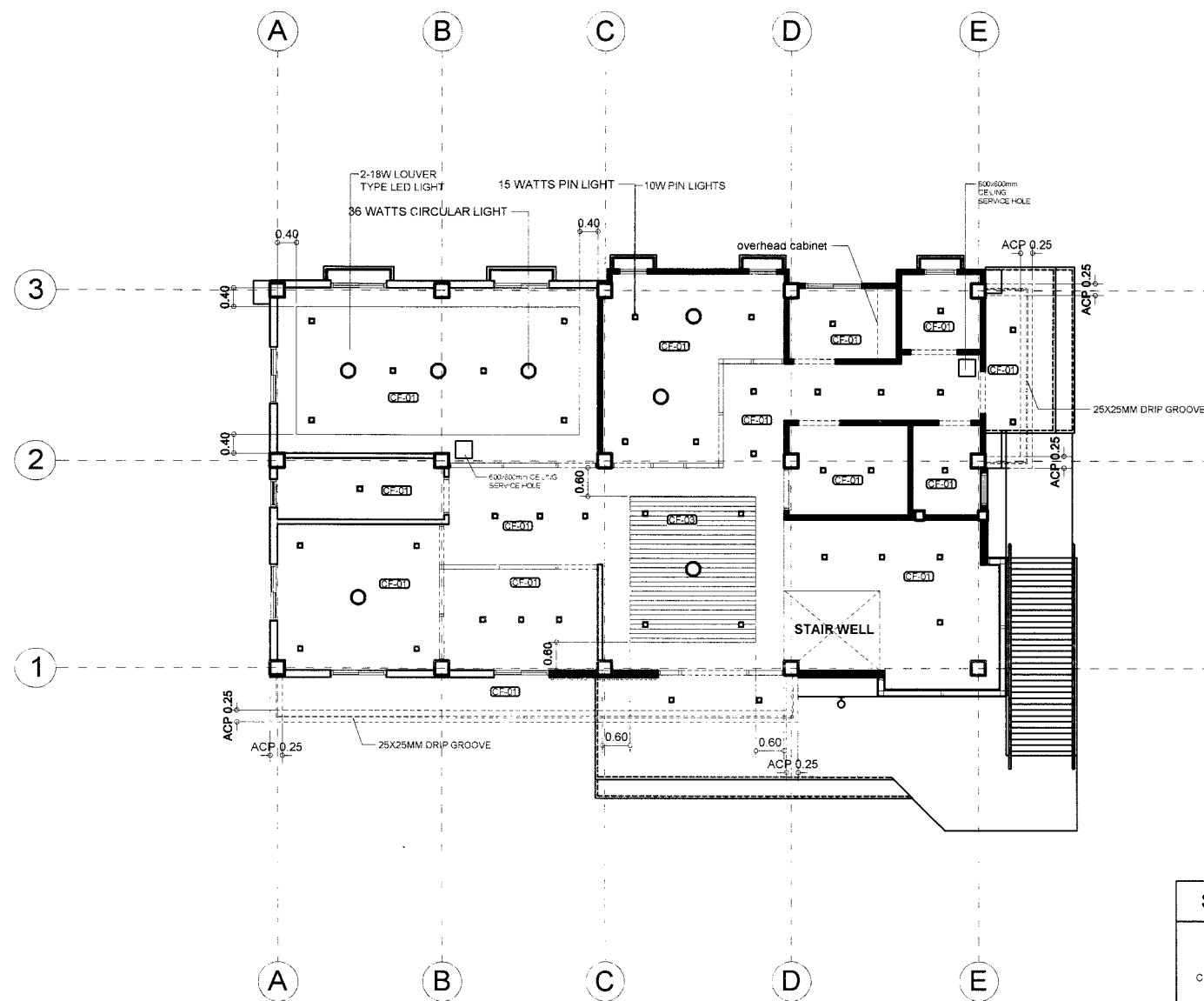
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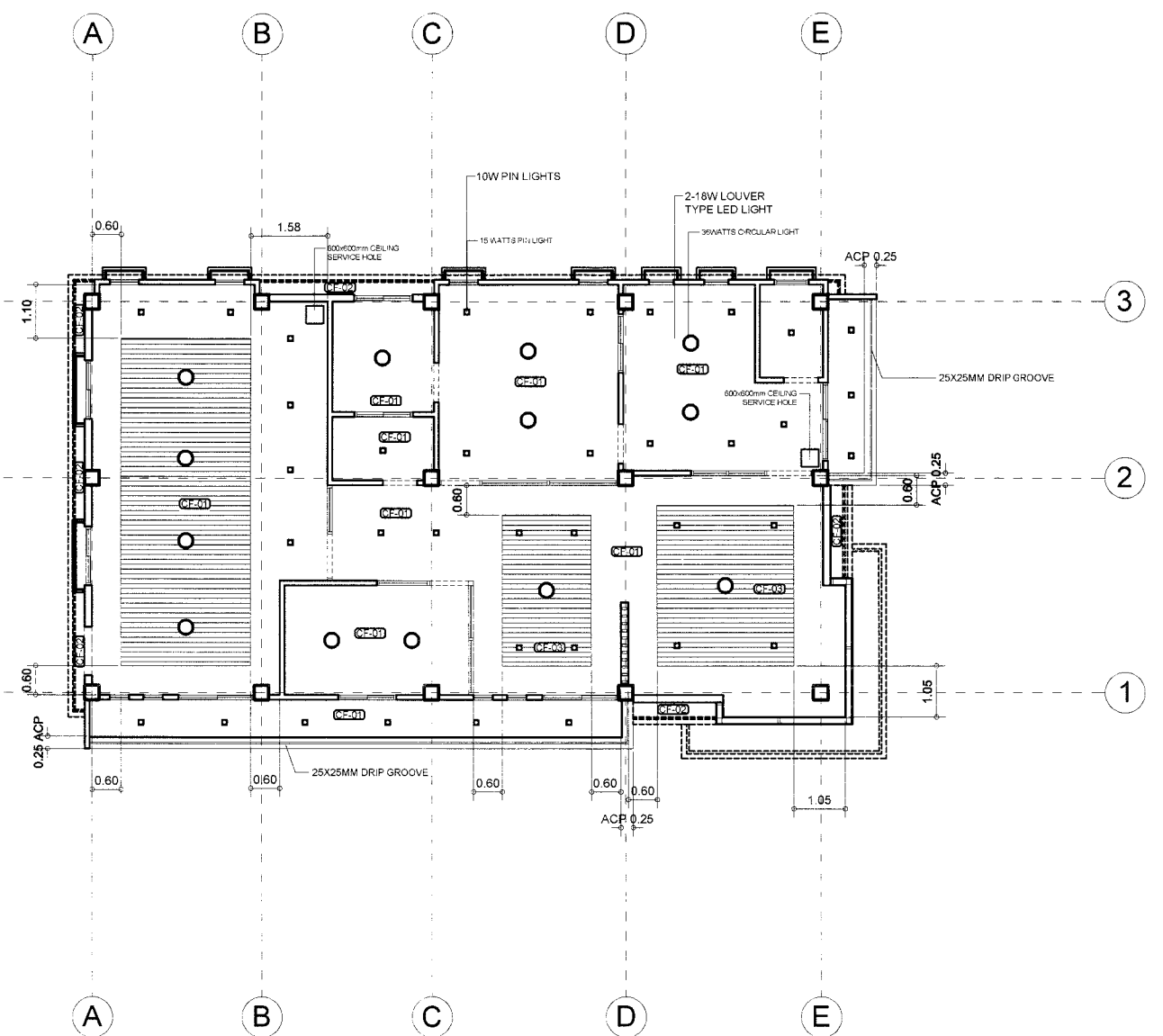
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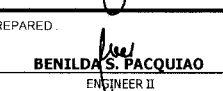
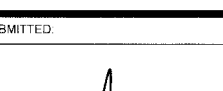
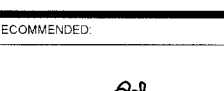
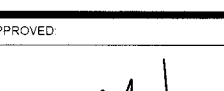


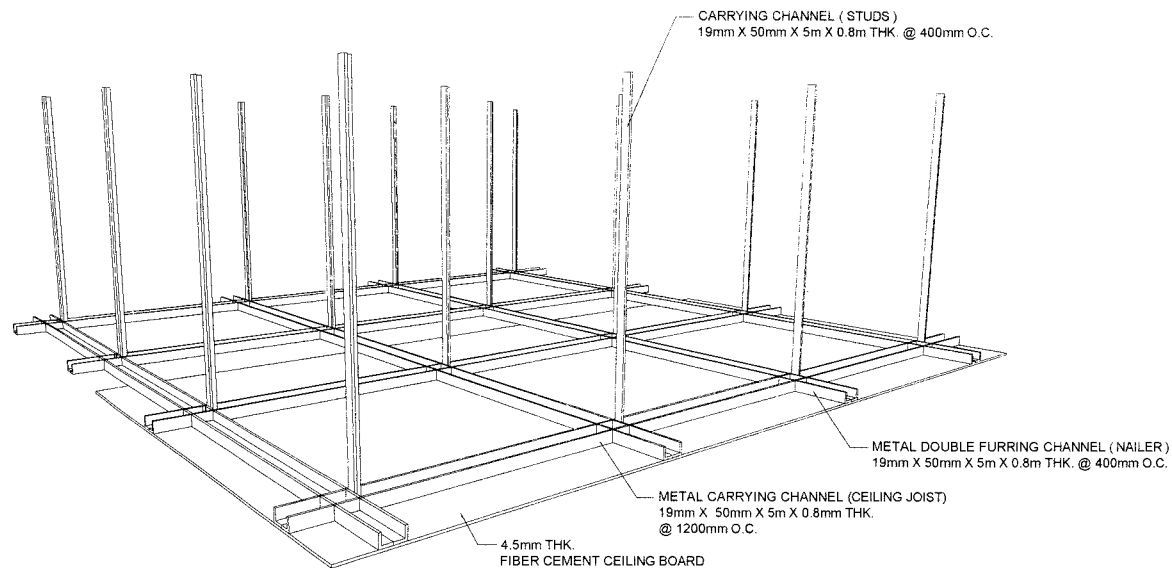
1
A12
GRND. FLR. REFLECTED CEILING PLAN
SCALE 1:60 MTS

SCHEDULE OF FINISHES	
CEILING FINISH	
CE-01	4.5mm THK. FIBER CEMENT CEILING BOARD ON METAL CARRYING CHANNEL (CEILING JOIST) 19mm X 50mm X 5m X 0.8mm THK AT 1200mm O.C. WITH METAL DOUBLE FURRING CHANNEL (NAILER) 19mm X 50mm X 5m X 0.8mm THK @ 400mm O.C. PAINTED FINISH INSIDE CEILING
CE-02	RIB SPANDREL IN PRE-PAINTED FINISH WITH VENT HOLES OUTSIDE CEILING
CE-03	PVC CEILING

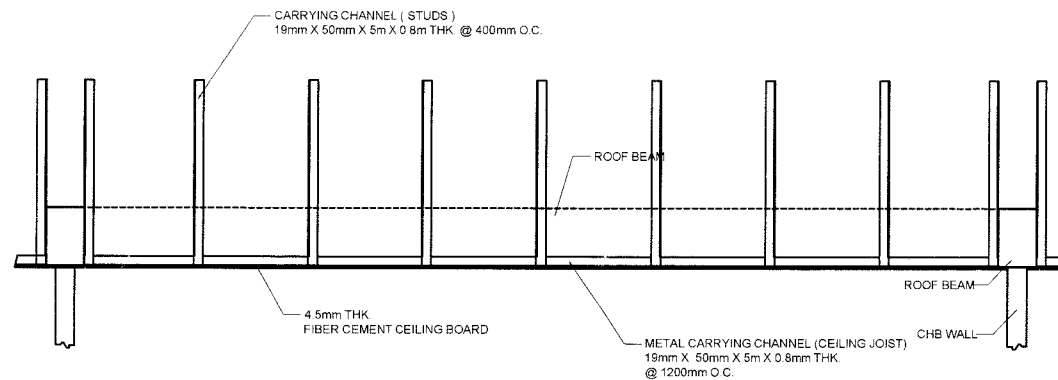


2
A12
2ND. FLR. REFLECTED CEILING PLAN
SCALE 1:60 MTS

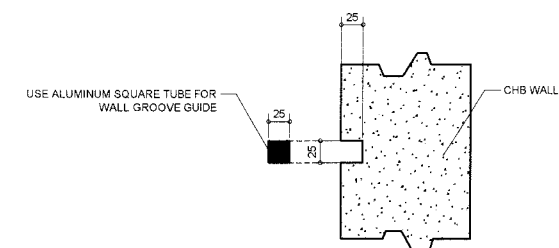
 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION XI DAVAO DEL NORTE 2ND DISTRICT ENGINEERING OFFICE TAGUM CITY	PROJECT & LOCATION: CONSTRUCTION OF MULTI-PURPOSE BUILDING IN BARANGAY JP LAUREL, PANABO, DAVAO DEL NORTE	SHEET CONTENTS: GRND. FLR. REFLECTED CEILING PLAN 2ND. FLR. REFLECTED CEILING PLAN	DRAFTED  WARREN S. PINEZ ENGINEER II PREPARED  BENILDA S. PACQUIAO ENGINEER II	REVIEWED  HERWIN EVAN J. HABABAG ENGINEER II DATE: _____	SUBMITTED:  JEZABEL E. TULUNG, MPA CHIEF, PLANNING & DESIGN SECTION DATE: _____	RECOMMENDED:  GARRY E. VERANO OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER DATE: _____	APPROVED  ARTURO P. LONG YAPON DISTRICT ENGINEER DATE: _____	SET NO: A	SHEET NO.: 4
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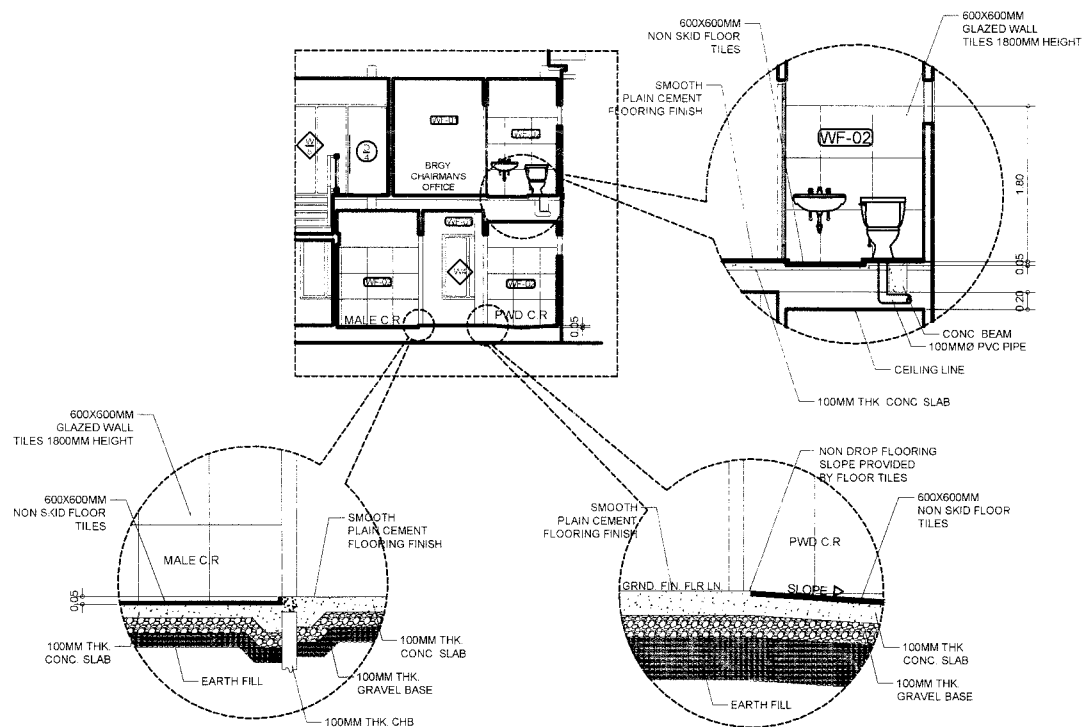
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A13
CEILING PERSPECTIVE
NOT TO SCALE



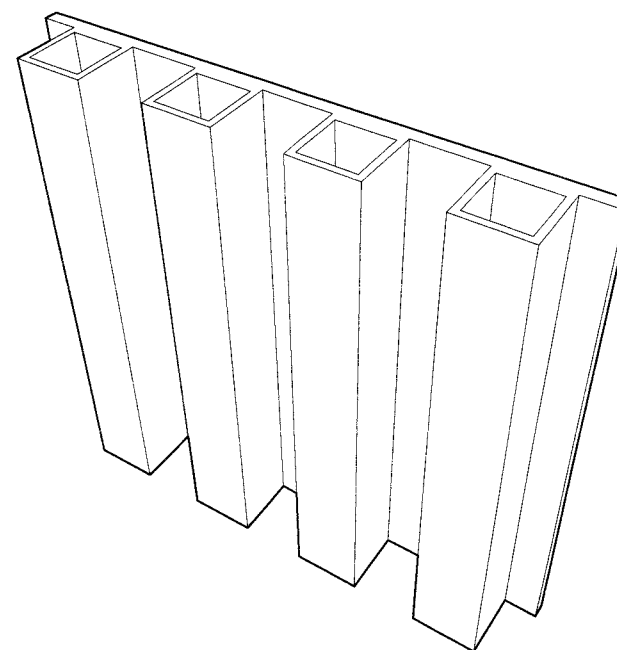
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A13
CEILING SECTION
D N T S



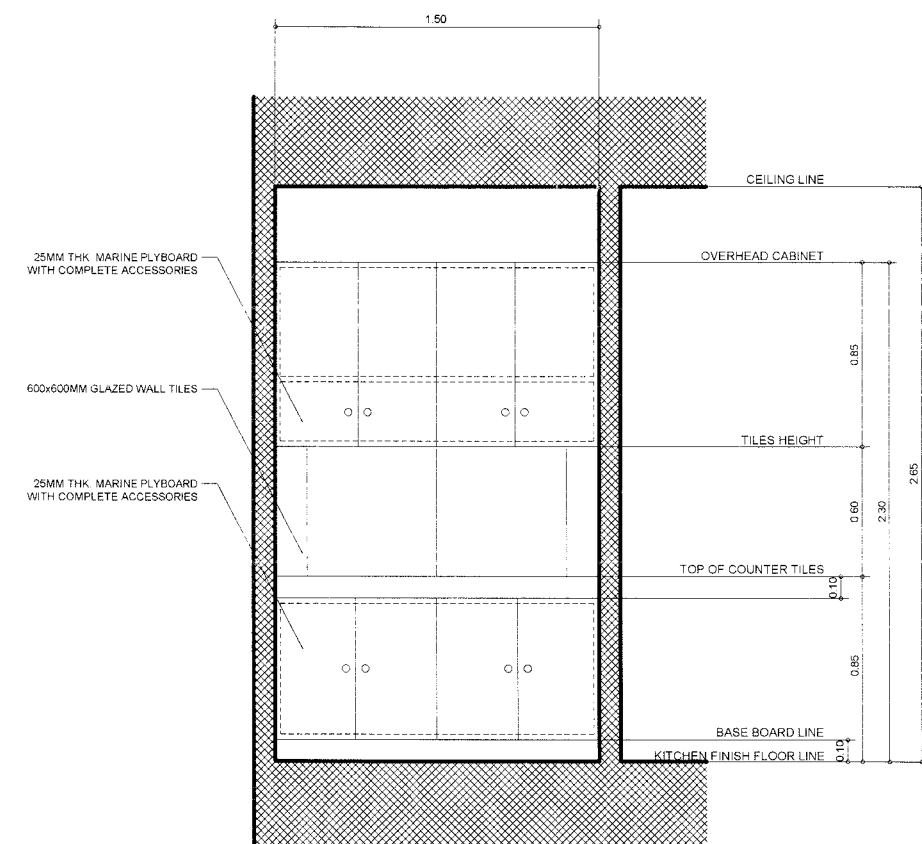
6
A13
WALL GROOVE PATTERN DET.
SCALE 1:5 MTS.



1
A13
BLOW-UP DETAIL
SCALE 1:60 MTS.



2
A13
FLUTED PVC WALL PANEL
NOT TO SCALE



3
A13
KITCHEN CABINET DET.
(FOR FUTURE INSTALLATION)
SCALE 1:20 MTS.



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGION XI

DAVAO DEL NORTE
2ND DISTRICT ENGINEERING OFFICE
TAGUM CITY

PROJECT & LOCATION:
**CONSTRUCTION OF
MULTI-PURPOSE BUILDING
IN BARANGAY JP LAUREL,
PANABO, DAVAO DEL NORTE**

SHEET CONTENTS:

CEILING PERSPECTIVE
KITCHEN CABINET DET.
CEILING SECTION
BLOW-UP DETAIL
FLUTED PVC WALL PANEL

DRAFTED
WARREN S. PIÑEZ
ENGINEER II

PREPARED
BENILDA S. PACQUIAO
ENGINEER II

REVIEWED

HERWIN EVAN J. HABABAG
ENGINEER II
DATE

SUBMITTED

JEZABEL E. TUJUNG, MPA
CHIEF, PLANNING & DESIGN SECTION
DATE

RECOMMENDED

GARRY E. VERANO
OIC-OFFICE OF THE ASSISTANT DISTRICT ENGINEER
DATE

APPROVED:

ARTURO P. LONGYAPON
DISTRICT ENGINEER
DATE

SET NO:
A
SHEET NO.:
4
48