



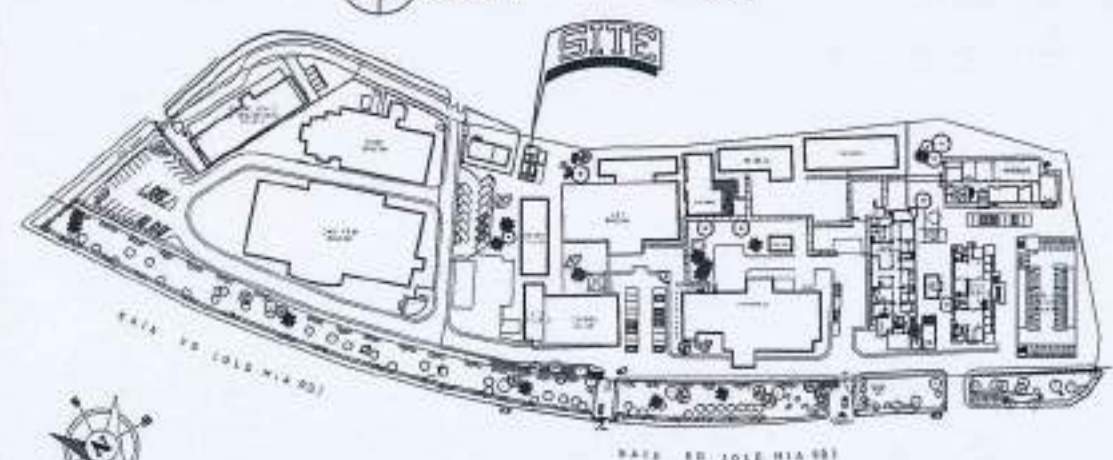
1 FRONT PERSPECTIVE
SCALE: NTS



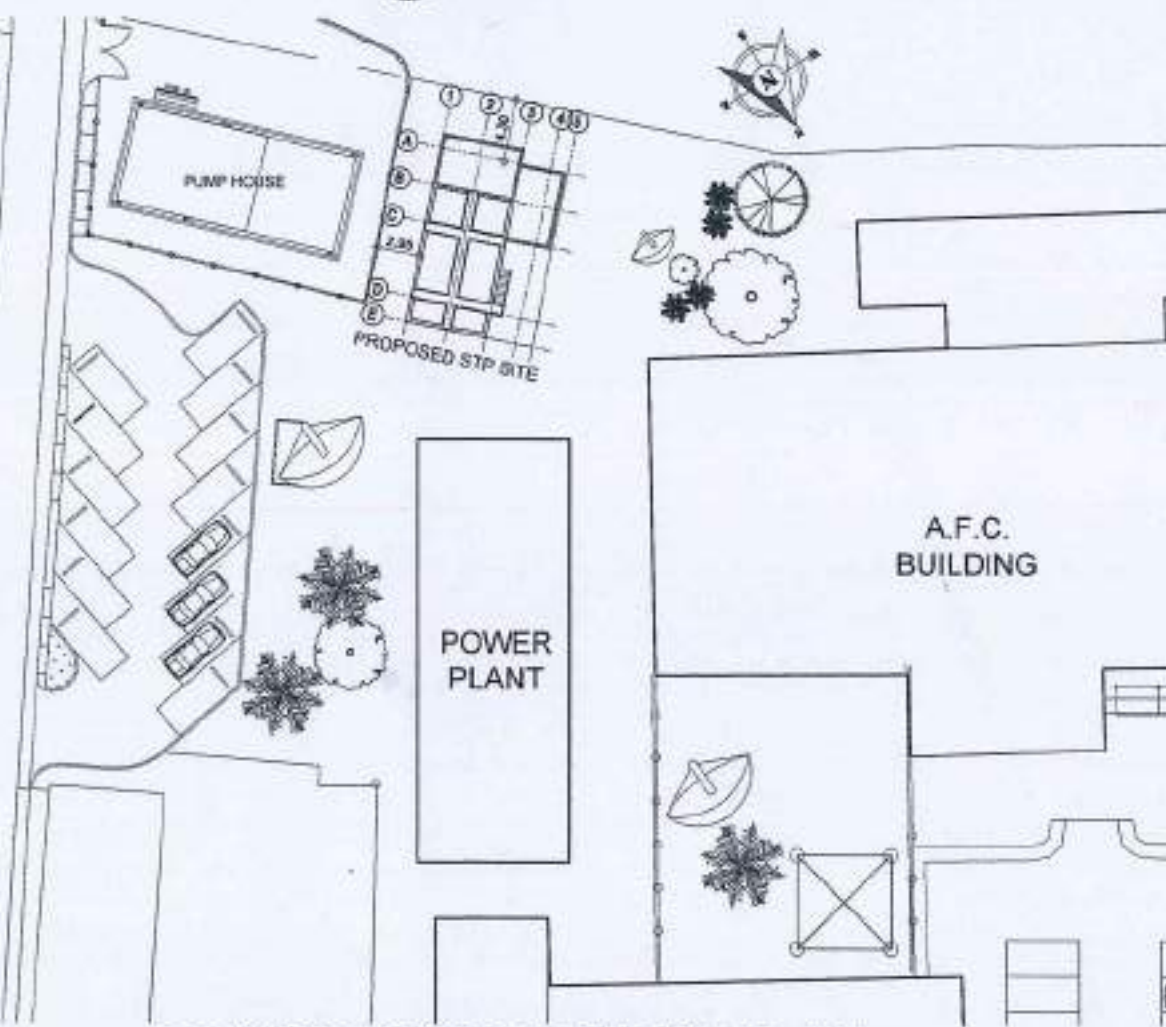
2 REAR PERSPECTIVE
SCALE: NTS



3 VICINITY MAP
SCALE: NTS



4 LOCATION KEY PLAN
SCALE: NTS



5 SITE DEVELOPMENT PLAN
SCALE: 1 : 300 M

LAND USE & ZONING	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS DIVISION OF TRANSPORTATION AND COMMUNICATIONS OFFICE OF THE BUILDING OFFICIALS DISTRICT CITY / MUNICIPALITY	CAA REPUBLIC OF THE PHILIPPINES CIVIL AVIATION AUTHORITY OF THE PHILIPPINES APPROPRIATE DEVELOPMENT AND MANAGEMENT SERVICE HEAD OFFICE, PASAY CITY
	THIS DRAWING AND DESIGN IS EXCLUSIVE PROPERTY OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SHALL NOT BE REPRODUCED, COPIED, LOANED, MODIFIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAA.	AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
LINE & GRADE	DESIGN STAFF: INITIAL / DATE DESIGN STAFF: <i>[Signature]</i> DRAWN BY: <i>[Signature]</i> CHECKED BY: <i>[Signature]</i>	INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION
	ARCHITECTURAL	REVIEWED BY: <i>[Signature]</i> RAUL R. CRUCENA Division Chief III, IDCO-AED
CIVIL / STRUCTURAL	SUBMITTED BY: <i>[Signature]</i> ARNEL F. BORLADO Department Manager II, AED-ADMS	RECOMMENDS APPROVAL: <i>[Signature]</i> LT COLMAR ESTERINO A. DIONELA PAF (RET) Assistant Director General II, ADMS
	ELECTRICAL	APPROVED BY: <i>[Signature]</i> CAPTAN L. ANTONIO L. TAMAYO Director General
MECHANICAL	NOTES/REVISIONS:	PROJECT: DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK
SANITARY	LOCATION: CAAP HEAD OFFICE NAIA ROAD, PASAY CITY	SHEET CONTENTS: PERSPECTIVE, VICINITY MAP, LOCATION KEY PLAN & SITE DEVELOPMENT PLAN
ELECTRONICS	DRAWING SCALE: AS SHOWN	SHEET NO: A-1
GEODETIC ENGINEER	SCALE: AS SHOWN	AS SHOWN

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GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE JOBSITE AND SHALL BE RESPONSIBLE FOR THE VERIFICATIONS OF ALL GRADES, CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION.
2. ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
3. THE CONTRACTOR SHALL COORDINATE AND VERIFY WITH THE PLUMBING, ELECTRICAL CONTRACTORS THE SIZE AND LOCATION OF ALL PIPING, SLEEVES, SPECIAL BOLTING.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PUBLIC AND PRIVATE WORK AREA AND SHALL EXERCISE DUE CAUTION TO AVOID SUCH DAMAGE TO PROPERTIES.
5. VERIFY ACTUAL SITE CONDITION PRIOR TO START OF CONSTRUCTION; REFER TO DETAILED PLANS TO DOUBLE CHECK ON SITE MAJOR DEVIATIONS (IF ANY) ON THE ACTUAL LOCATIONS AND HEADROOM CLEARANCES OF ALL UTILITY PROVISIONS.
6. CONTRACTOR SHALL VERIFY/FOLLOW ALL NATIONAL & LOCAL BUILDING CODES, REQUIREMENTS AND RESTRICTIONS.
7. VERIFY AND FOLLOW PROVISIONS AS PRESCRIBED ON THE ISSUED O.B.O. GUIDELINES RELATIVE TO REQUIREMENT AND RESTRICTIONS.
8. VERIFY AND RE-CHECK ACTUAL EXTENT OF LOT LINE; NO PROJECTIONS BEYOND LOT LINE ARE ALLOWED.
9. PLANS SHALL ALWAYS BE PRESENT ON SITE FOR CONSTRUCTION MONITORING AND AS A BASIS FOR CONSTRUCTION.
10. ONLY NEW, FIRST CLASS MATERIALS, EQUIPMENT, FIXTURES, INCLUDING TRADE FIXTURES AND FURNISHINGS SHALL BE USED IN THE PREMISES.
11. ALL MATERIALS FOR INTERIOR FINISH (WALL SYSTEM, CEILING SYSTEM, FURNITURE FLOORING INCLUSIVE OF ADHESIVE, COATINGS, SEALERS, GROUT, ETC.) SHALL BE USING LOW-VOC COMPONENTS; ALL MATERIALS SHALL BE NON-COMBUSTIBLE AND NON-ASBESTOS TYPE OF MATERIALS. (IF APPLICABLE)
12. ALL WOOD FINISHES/MATERIALS SHOULD BE KILN DRIED, MILL QUALITY FINISH. (IF APPLICABLE)
13. CEILING CONSTRUCTION SHOULD BE NON-COMBUSTIBLE. NO WOOD SHALL BE USED ABOVE THE CEILING. (IF APPLICABLE)
14. ALL CEILING FRAMING, HANGERS AND SUPPORT SHOULD BE METAL OR RODS WHICH IS PAINTED WITH EPOXY PRIMER IF MATERIALS DID NOT RECEIVE ANY FACTORY COATING. WOOD AND G.I. WIRES ARE NOT ALLOWED AS CEILING HANGERS AND FRAMING. (IF APPLICABLE)
15. ALL LIGHTING MATERIALS MUST BE NON-COMBUSTIBLE. ALL BALLAST & TRANSFORMERS OF LIGHTING FIXTURES SHALL BE PROVIDED WITH METAL PLATFORM/BACKING MATERIALS; USE OF LED IS ADVISABLE.
16. ALL GLASS MUST BE CLEAR TEMPERED GLASS AND CERTIFICATION MUST BE SUBMITTED BY THE CONTRACTOR.
17. ALL PLANS WITH COMMENTS OF O.B.O. MUST ALWAYS BE PRESENT ON SITE PRIOR TO CONSTRUCTION MONITORING AND AS A BASIS OF CONSTRUCTION.



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
STANDARD OPERATING AND MAINTENANCE SERVICE
HALL ROAD, 1200 PASEY CITY

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AERODROME DEVELOPMENT
AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT
AND DESIGN DIVISION

DESIGN STAFF	INITIAL / DATE
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DESIGN STAFF		
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DATE OF	7/7/80	
EXPIRATION		

REVIEWED BY

RAUL R. CRUCENA
Division Chief, IL IDIQ-450

SLIGHTLY DRC

1



ARNEL F. BORLADO
Department Manager III AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A. DIOMEDEA (RET)
Assistant Director General II, ADMAS

APPROVED BY:

21

Ch.

Director General

water resources

PROJECT

PORTABLE SEWERAGE

TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE

NETWORK & SEPTIC TANK

LOCATION:

CAAP HEAD OFFICE

RAJA ROAD, PASAY CITY

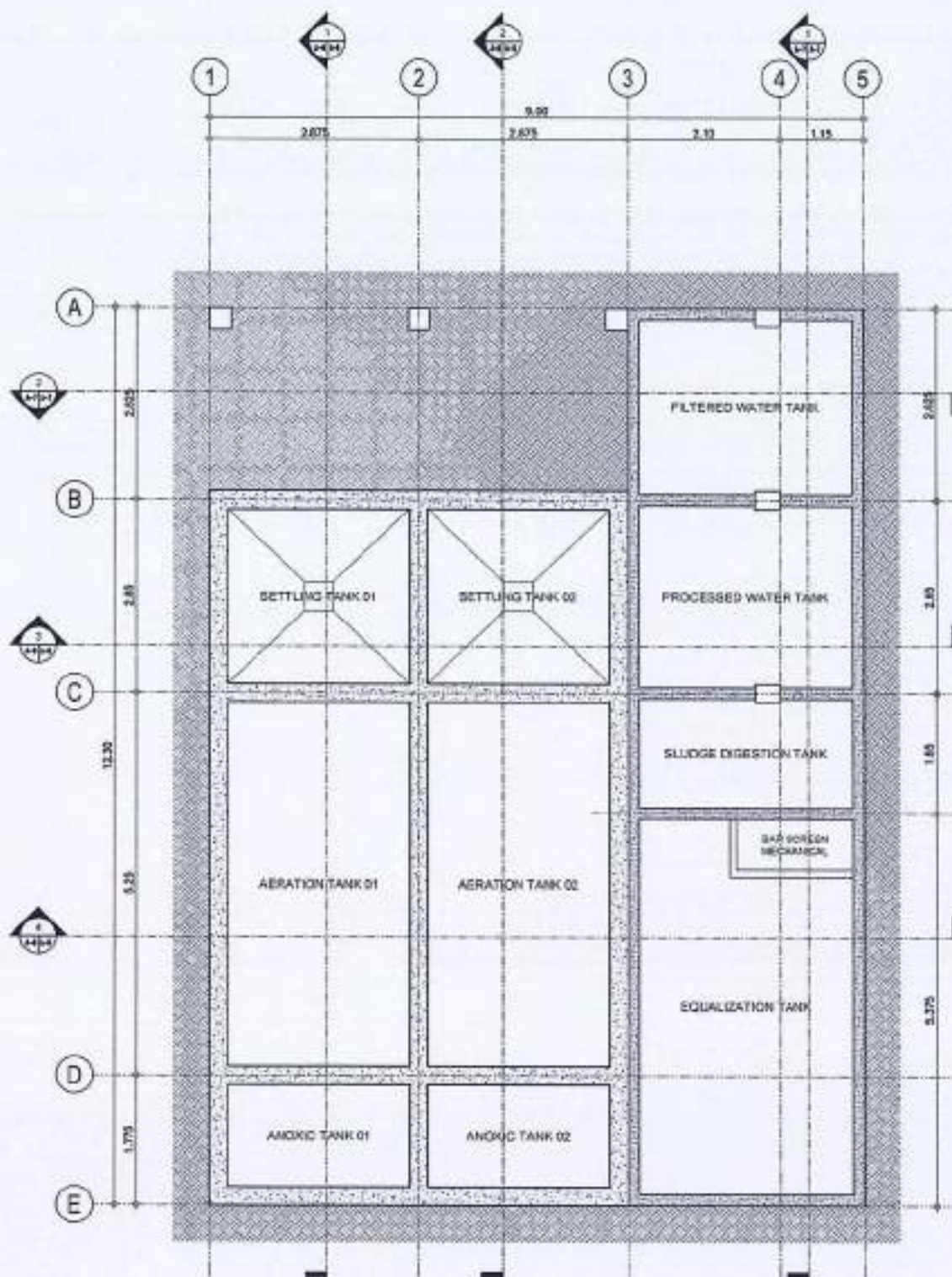
● TABLE OF CONTENTS

• GENERAL NOTES

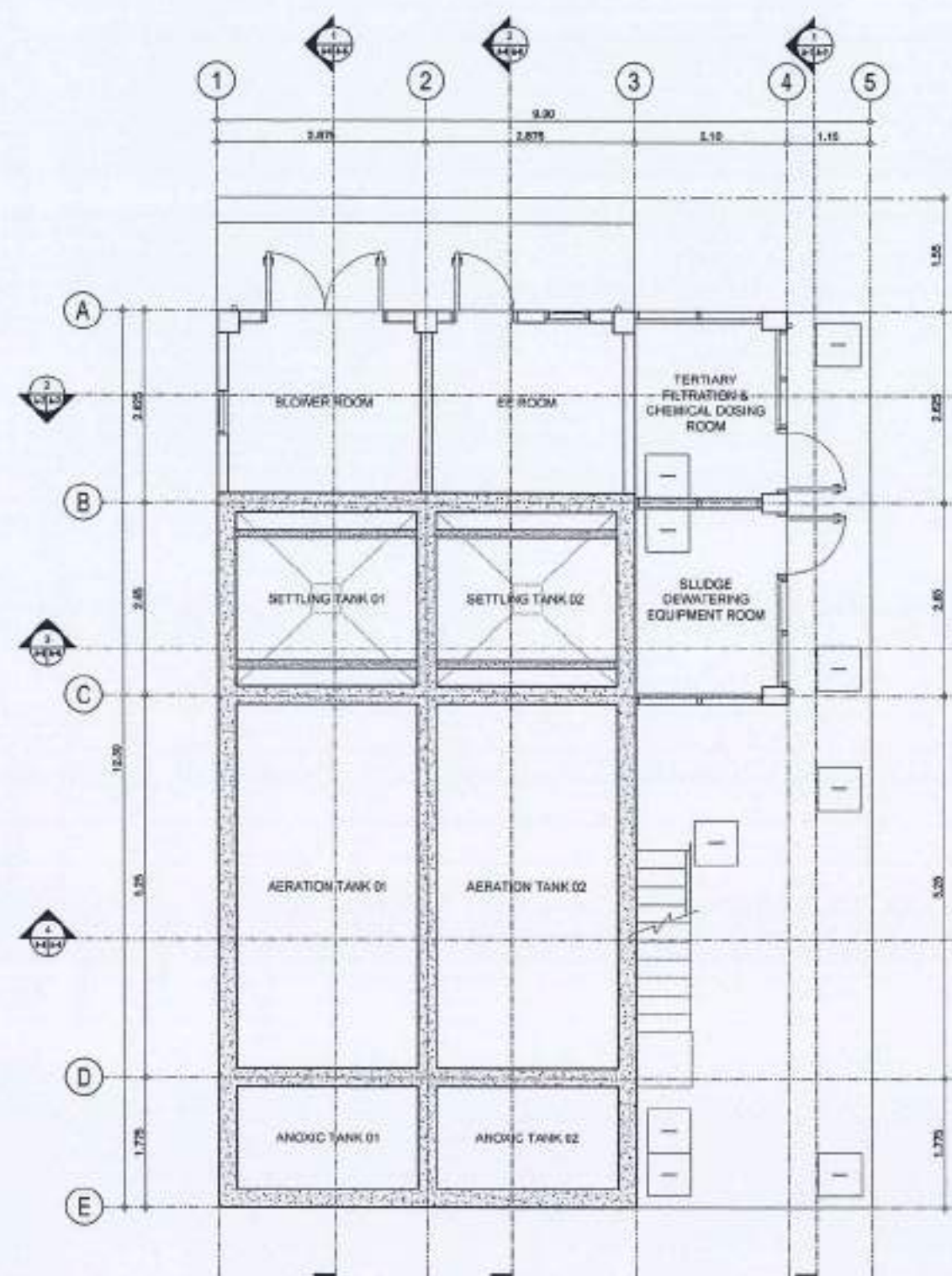
DRIVING SCALE	SAFETY SCORE
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A-2

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1 UNDERGROUND FLOOR PLAN
SCALE: 1:50 M



2 GROUND FLOOR PLAN
SCALE: 1:50 M



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AIRPORT DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN SWR:	INITIAL / DATE
DESIGN SWR:	
DRAWN BY:	
CHECKED BY:	

REVIEWED BY:

[Signature]
RAUL R. CRUCENA
Division Chief III, AED/ADMS

SUBMITTED BY:

[Signature]
ARNEL F. BORLADO
Department Manager III, AED/ADMS

RECOMMENDING APPROVAL:

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LEONARDO A. DIOBELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

[Signature]
CAPTAIN MAURICIO L. TAMAYO
Director General

NOTES/REVISIONS:

NO.	DESCRIPTION

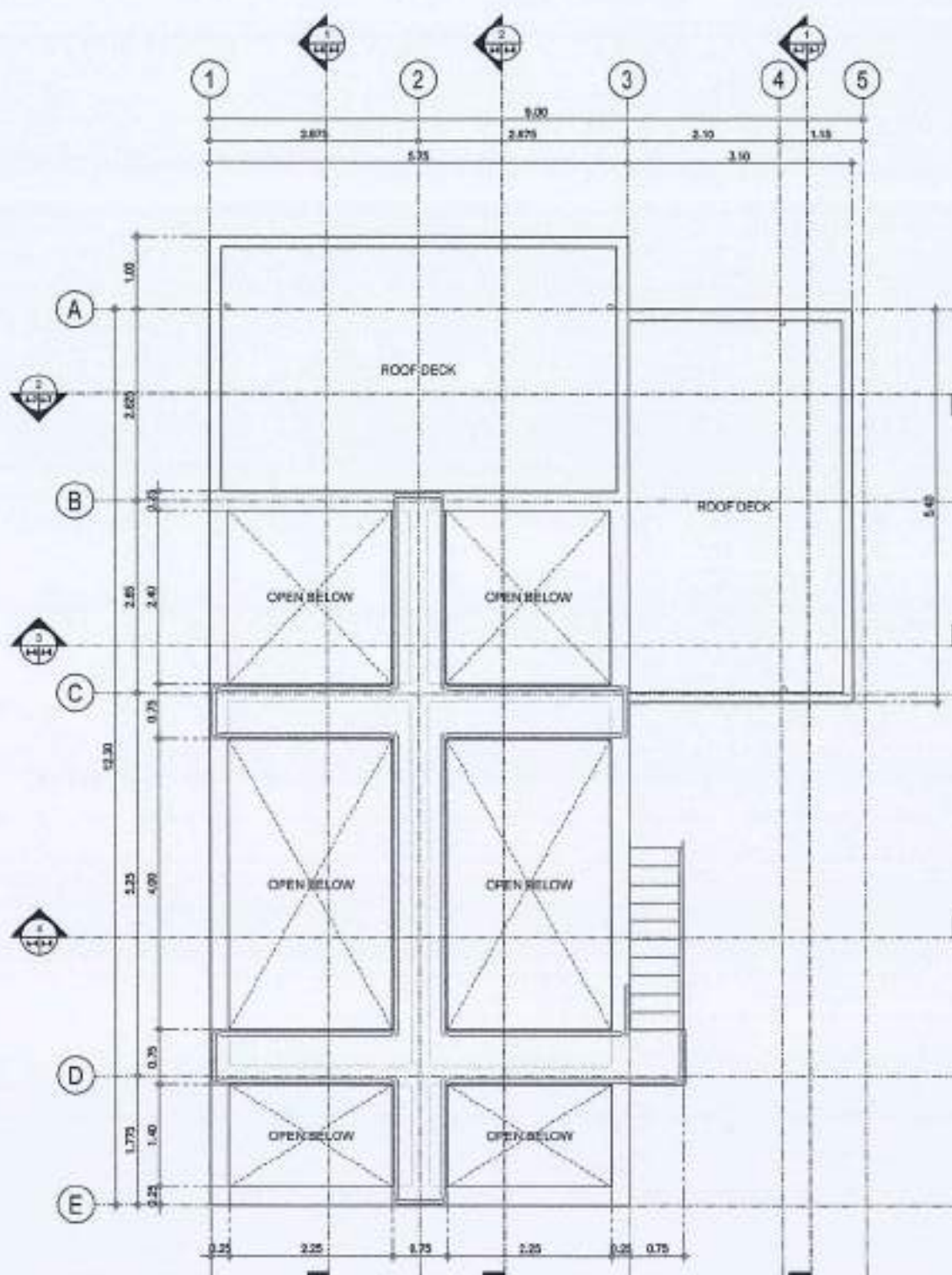
PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:

- UNDERGROUND FLOOR PLAN
- GROUND FLOOR PLAN

DRAWING SCALE:	SHEET NO.
1:50 M	A-3



1 ROOF DECK PLAN
SCALE: 1:50 M



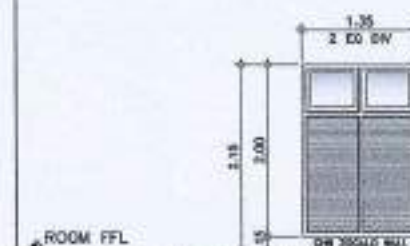
	2-LEAF SINGLE SWING STEEL LOUVERED DOOR IN EPOXY PAINT FINISH
DIMENSIONS:	1600MM x 2100MM (EXCLUDING DOOR JAMB)
HARDWARE:	4-BALL BEARING BUTT HINGES PER LEAF, LEVER TYPE LOCKSET, DOOR STOPPER, HEAVY DUTY DOOR CLOSER (ALL HARDWARE SHALL BE SUS 304 S.S. & U. LISTED)
LOCATION:	BLOWER ROOM
NO. OF SETS:	1 SET/S
J	3 MM X 50MM X 150MM TUBULAR STEEL FRAME
M	1.5 MM X 50MM X 100MM TUBULAR STEEL FRAME



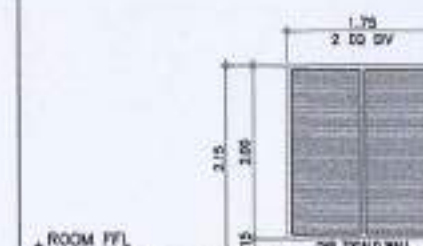
	SINGLE SWING STEEL LOUVERED DOOR IN EPOXY PAINT FINISH
DIMENSIONS:	800MM x 2100MM (EXCLUDING DOOR JAMB)
HARDWARE:	4-BALL BEARING BUTT HINGES, LEVER TYPE LOCKSET, DOOR STOPPER, HEAVY DUTY DOOR CLOSER (ALL HARDWARE SHALL BE SUS 304 S.S. & U. LISTED)
LOCATION:	EE ROOM, FILTRATION & DOSING ROOM, EQUIPMENT ROOM
NO. OF SETS:	3 SET/S
J	3 MM X 50MM X 150MM TUBULAR STEEL FRAME
M	1.5 MM X 50MM X 100MM TUBULAR STEEL FRAME



	6MM THK TEMPERED CLEAR GLASS AWNING WINDOW ON POWDER COATED ALUMINUM FRAME WITH POWDER COATED ALUMINUM STORM LOUVERS WITH INSECT SCREEN (COLOR OF GLASS & FRAME: VERIFY ARCHITECT)
DIMENSIONS:	1500MM x 2000MM
HARDWARE:	LEVER TYPE LOCK
LOCATION:	EQUIPMENT ROOM
NO. OF SETS:	1 SET/S
J	50MM X 100MM POWDER COATED ALUMINUM FRAME
M	50MM X 100MM POWDER COATED ALUMINUM FRAME



W 2	8MM THK TEMPERED CLEAR GLASS AWNING WINDOW ON POWDER COATED ALUMINUM FRAME WITH POWDER COATED ALUMINUM STORM LOUVERS WITH INSECT SCREEN (COLOR OF GLASS & FRAME: VERIFY ARCHITECT)
DIMENSIONS:	1500MM x 2000MM
HARDWARE:	LEVER TYPE LOCK
LOCATION:	FILTRATION & DOSING ROOM
NO. OF SETS:	1 SET/S
J	50MM X 100MM POWDER COATED ALUMINUM FRAME
M	50MM X 100MM POWDER COATED ALUMINUM FRAME



	POWDER COATED ALUMINUM STORM LOUVERS WITH INSECT SCREEN (COLOR OF FRAME: VERIFY ARCHITECT)
DIMENSIONS:	1750MM x 2000MM
HARDWARE:	
LOCATION:	FILTRATION & DOSING ROOM, EQUIPMENT ROOM
NO. OF SETS:	3 SET/S
J	50MM X 100MM POWDER COATED ALUMINUM FRAME
M	50MM X 100MM POWDER COATED ALUMINUM FRAME



	6MM THK TEMPERED CLEAR GLASS AWNING WINDOW ON POWDER COATED ALUMINUM FRAME WITH INSECT SCREEN (COLOR OF GLASS & FRAME: VERIFY ARCHITECT)
DIMENSIONS:	800MM x 200MM
HARDWARE:	LEVER TYPE LOCK
LOCATION:	BLOWER ROOM & EE ROOM
NO. OF SETS:	2 SET/S
J	50MM X 100MM POWDER COATED ALUMINUM FRAME
M	

2 SCHEDULE OF DOORS & WINDOWS
SCALE: 1:50 M

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL DATE
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Assistant Director General II, ADM

APPROVED BY:
[Signature]
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Director General

NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• ROOF DECK PLAN
• SCHEDULE OF DOORS & WINDOWS

DRAWING SCALE: 1:50 M
SHEET NO.: A-4



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CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

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DESIGN STAFF:	
DRAWN BY:	9/10
CHECKED BY:	

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Assistant Director General II, ADMS

APPROVED BY:

CAPTAN MAURICIO ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF
PORTABLE SEWERAGE
TREATMENT PLANT (STP) &
INTERCONNECTION OF PIPE
NETWORK & SEPTIC TANK

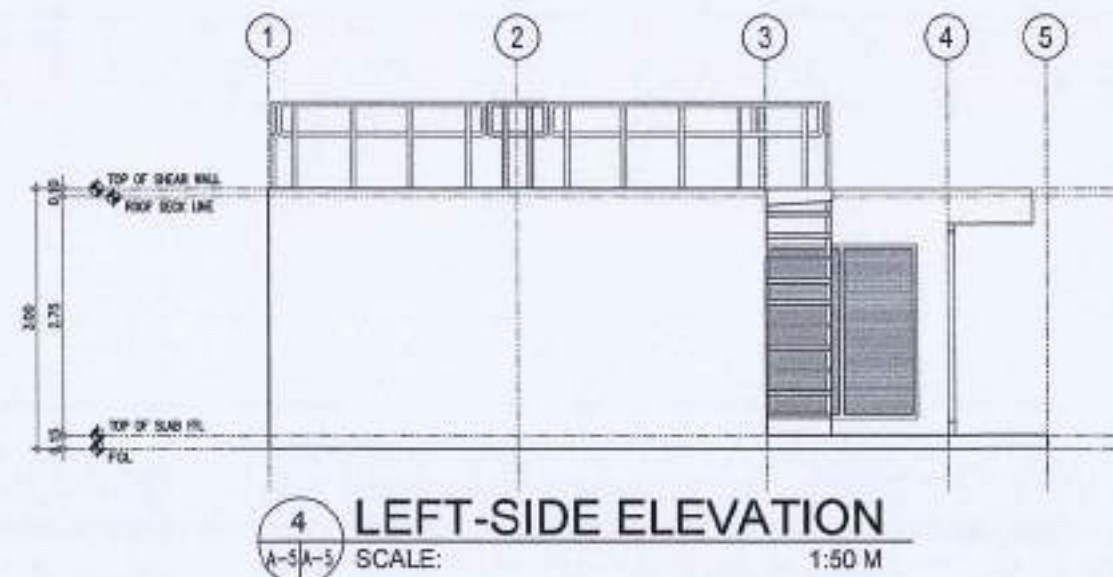
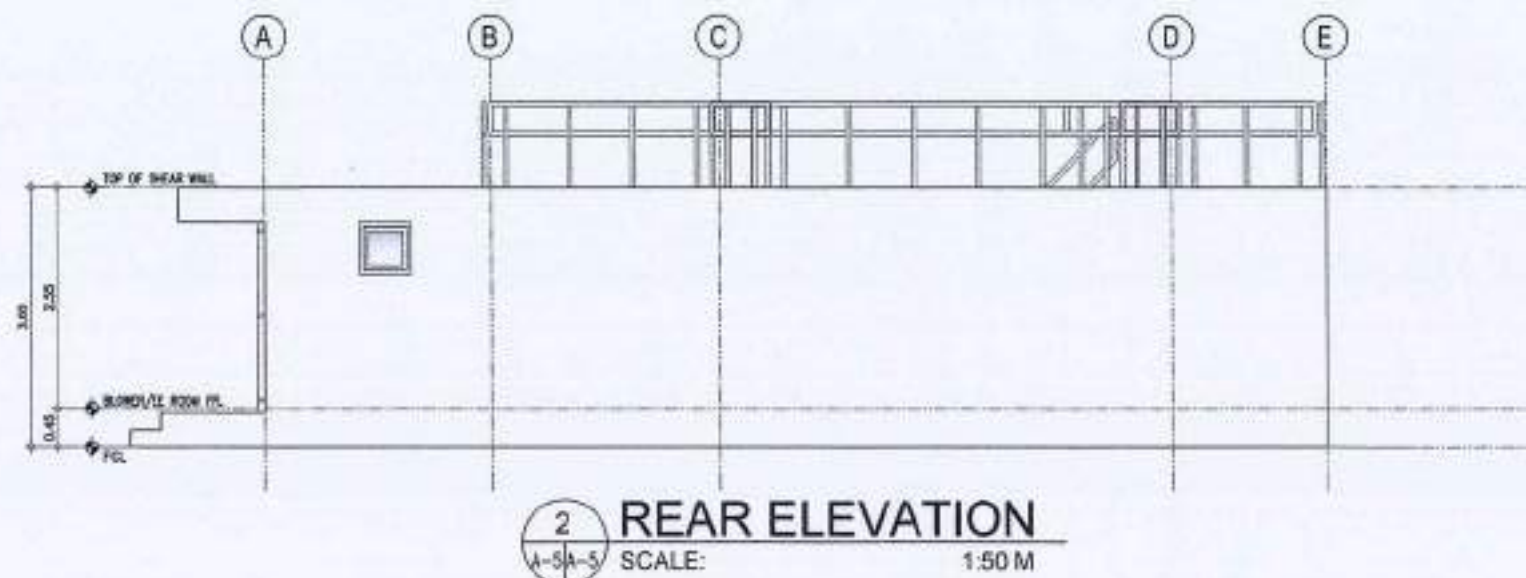
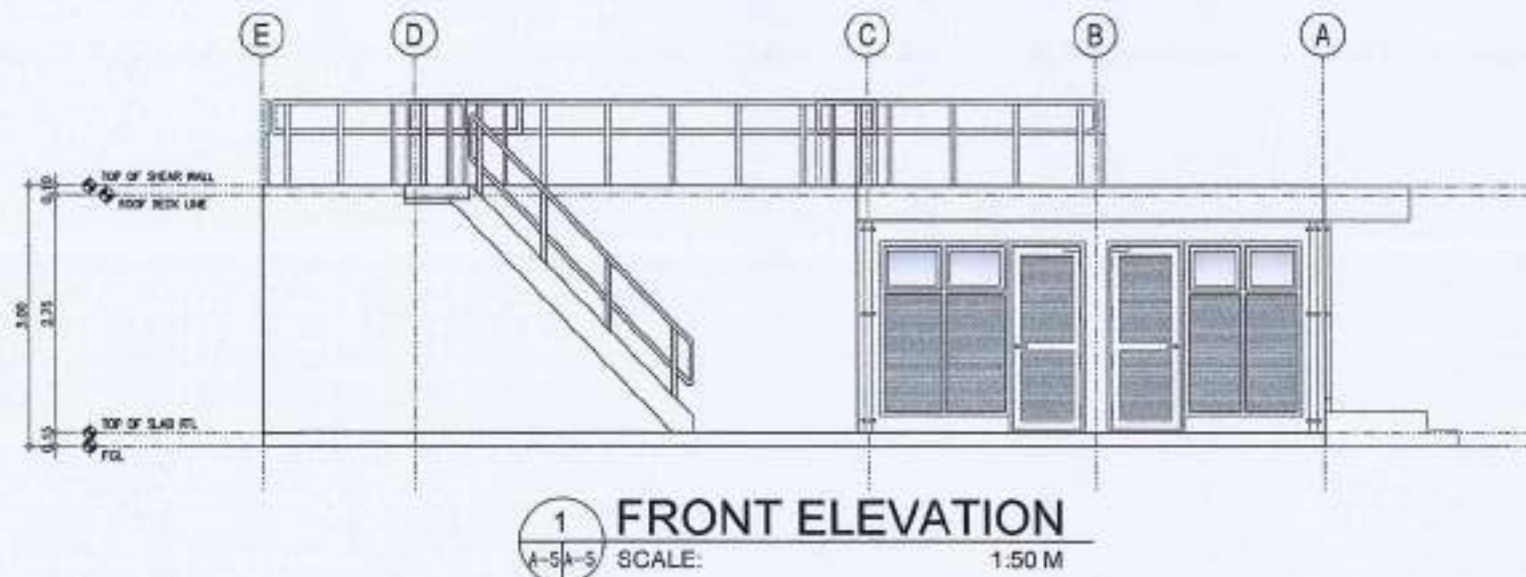
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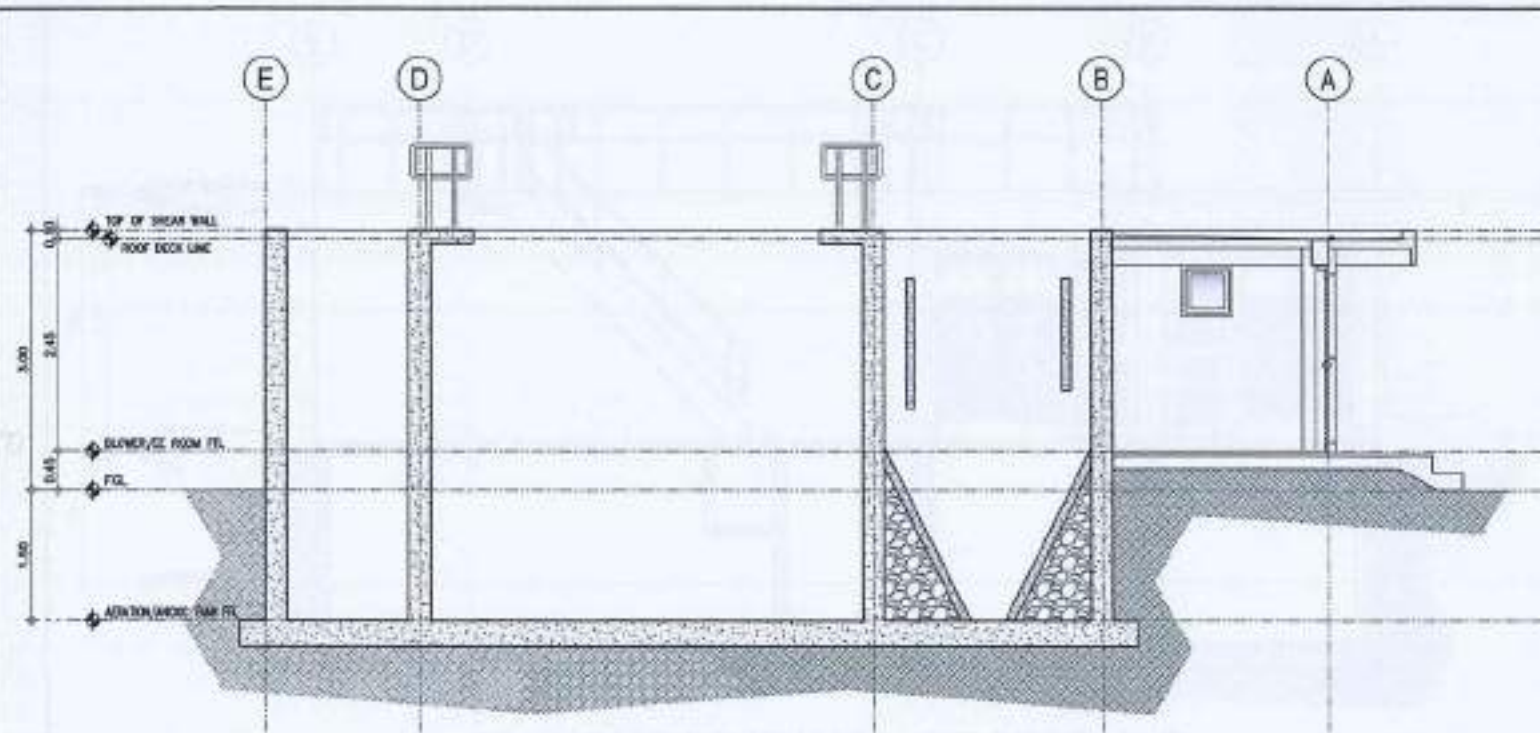
CAAP HEAD OFFICE
NAJA ROAD, PASAY CITY

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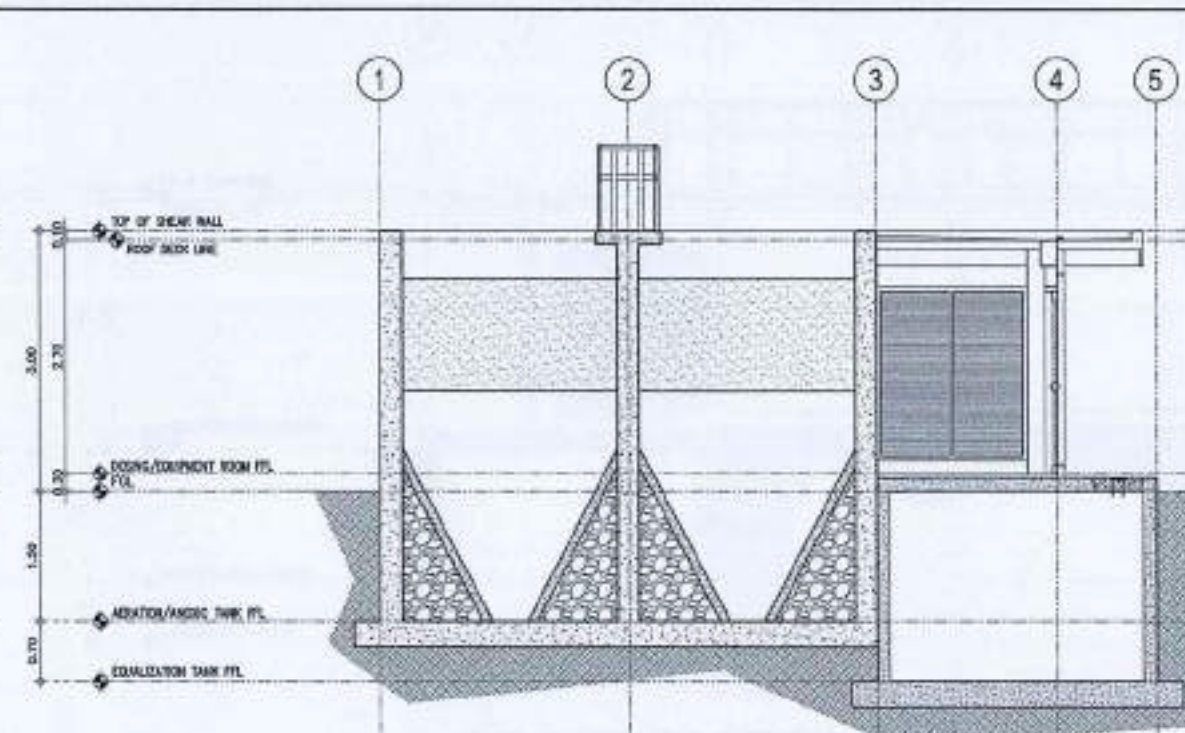
- FRONT ELEVATION
- REAR ELEVATION
- RIGHT-SIDE ELEVATION
- LEFT-SIDE ELEVATION

DRAWING SCALE:	SHEET NO.:
1:50 M	A-5

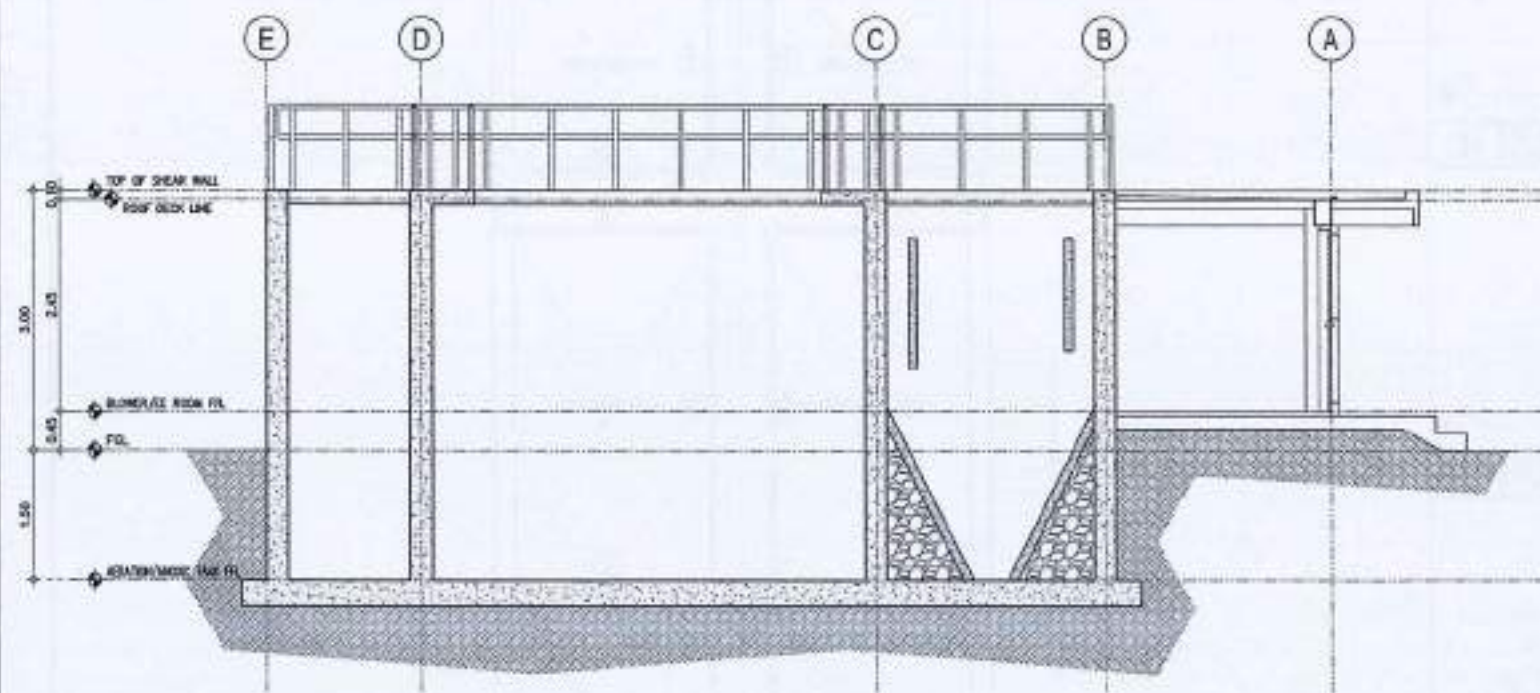




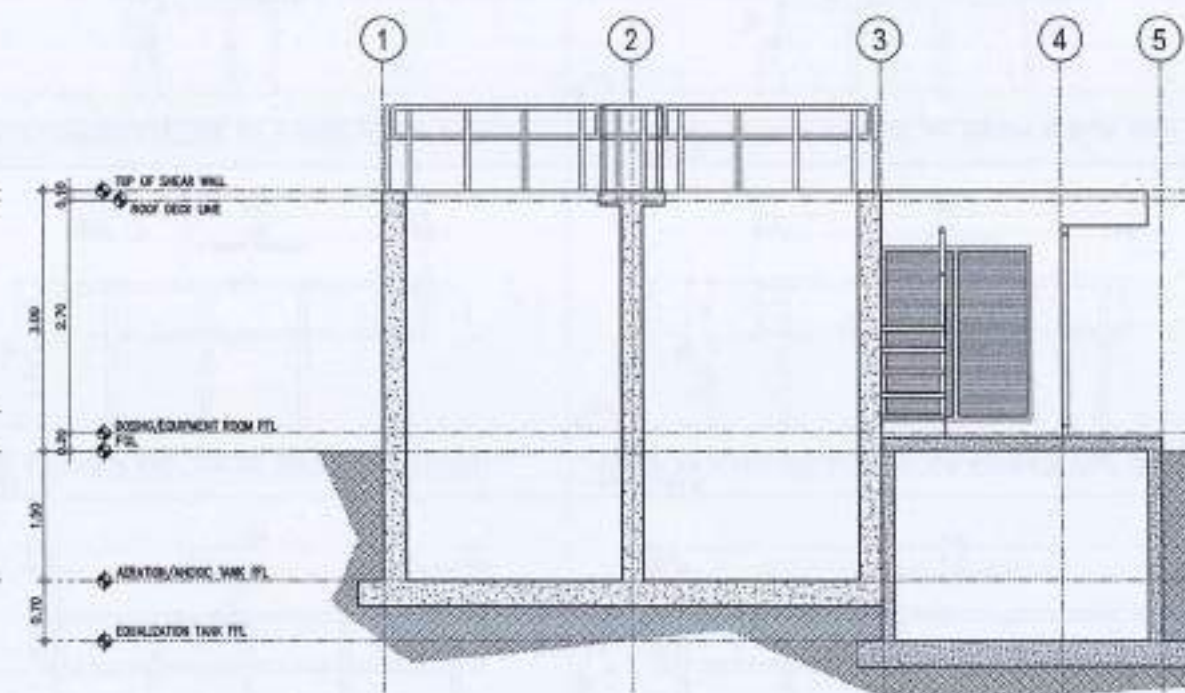
1 LONGITUDINAL SECTION A
A-6/A-6 SCALE: 1:50 M



3 CROSS SECTION A
A-6/A-6 SCALE: 1:50 M



2 LONGITUDINAL SECTION B
A-6/A-6 SCALE: 1:50 M



4 CROSS SECTION B
A-6/A-6 SCALE: 1:50 M



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

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DESIGN STAFF: [Signature]
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CHECKED BY: [Signature]

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APPROVED BY:

[Signature]
CAPTAIN ROBERTO L. TAWAYO
Division Chief

NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:

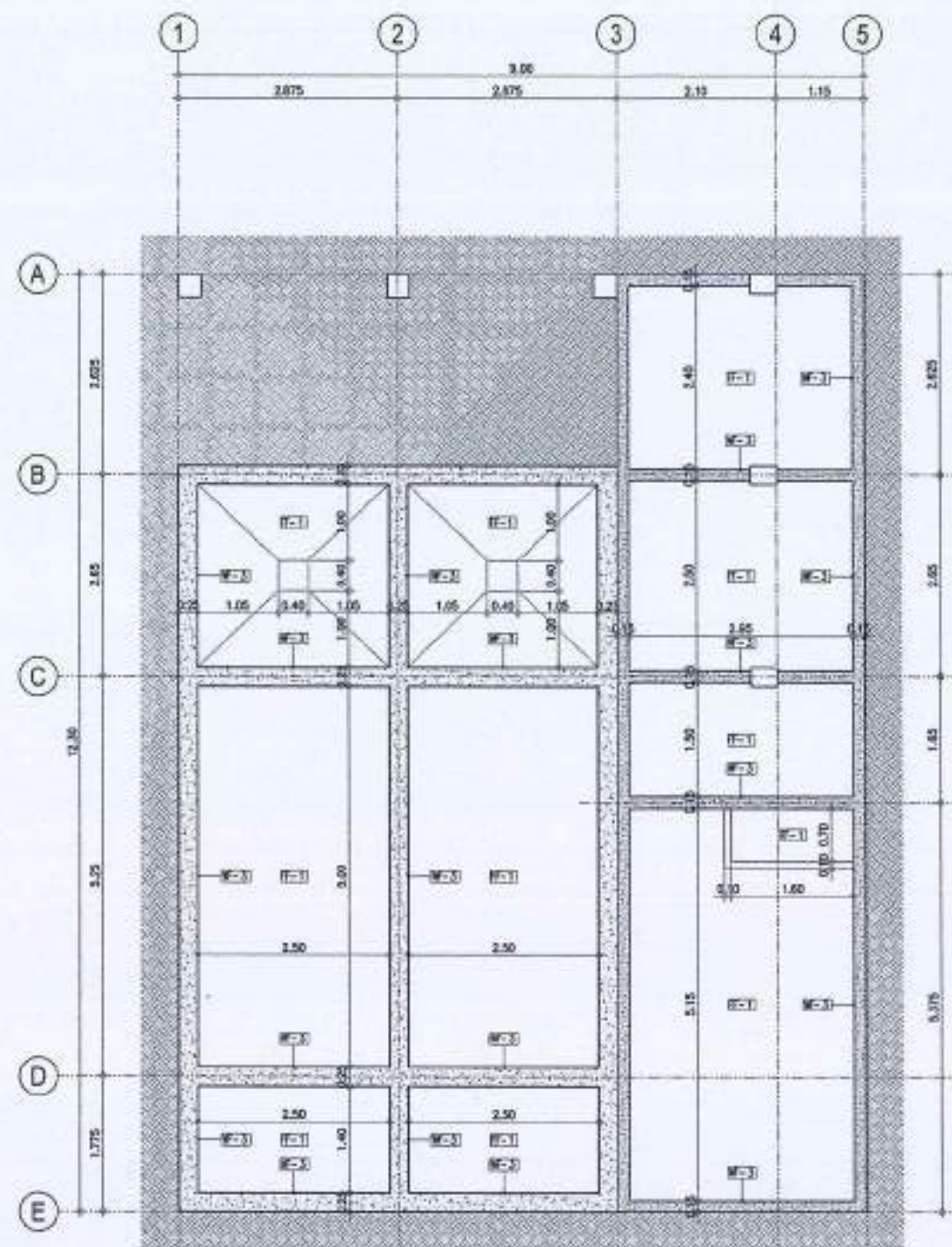
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

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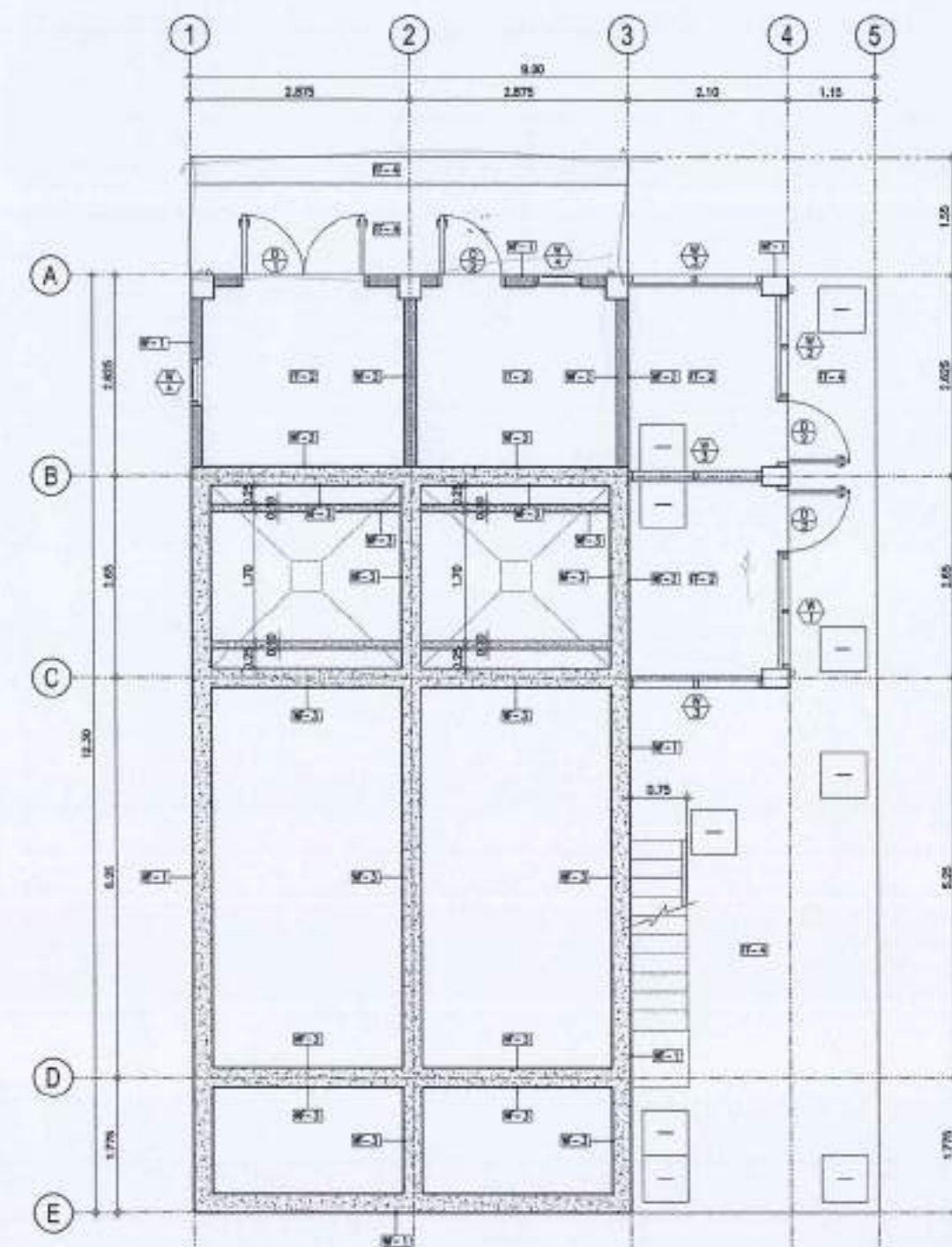
• LONGITUDINAL SECTION A
• LONGITUDINAL SECTION B
• CROSS SECTION A
• CROSS SECTION B

DRAWING SCALE: SHEET NO:

1:50 M A-6



1
A-B A-3
UNDERGROUND FLOOR
DETAILED PLAN
SCALE: 1:50 M



2
A-B A-8
GROUND FLOOR
DETAILED PLAN
SCALE: 1:50 M

LEGEND

FLOOR FINISH		WALL FINISH		TAGGINGS	
FF-1	PLAIN CEMENT SMOOTH TROWELED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING	W-1	SMOOTH PLASTERED IN ELASTOMERIC PAINT FINISH	W-	WALL FINISH
FF-2	PLAIN CEMENT SMOOTH TROWELED IN 3-COATS EPOXY PAINT FINISH	W-2	SMOOTH PLASTERED IN LATEX PAINT FINISH	C-	CEILING FINISH
FF-3	PLAIN CEMENT SMOOTH TROWELED FINISH	W-3	SMOOTH PLASTERED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING	4" CHB WALL	4" CHB WALL WITH 2-SIDE 25 MM THK. PLASTERING
FF-4	PLAIN CEMENT BROOM FINISH			POURED REINFORCED CONCRETE	POURED REINFORCED CONCRETE
FF-5	2" THK. CONCRETE TOPPING WITH 100MM x 100MM STEEL MESH	CEILING FINISH		WATER-PROOF FLUORESCENT LUMINAIRE WITH 2x36W LED TUBE	WATER-PROOF FLUORESCENT LUMINAIRE WITH 2x36W LED TUBE
		C-1	SMOOTH SURFACED EXPOSED CONCRETE SLAB SOFFIT IN WHITE ACRYLIC LATEX BASE PAINT FLAT FINISH		
		C-2	EXPOSED CONCRETE SLAB SOFFIT		



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE
DESIGN STAFF: 7/10
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CHECKED BY:

REVIEWED BY:

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Department Manager II, AED-ADM

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Assistant Director General II, ADM

APPROVED BY:

CAPTAIN MARLUCE ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF
PORTABLE SEWERAGE
TREATMENT PLANT (STP) &
INTERCONNECTION OF PIPE
NETWORK & SEPTIC TANK

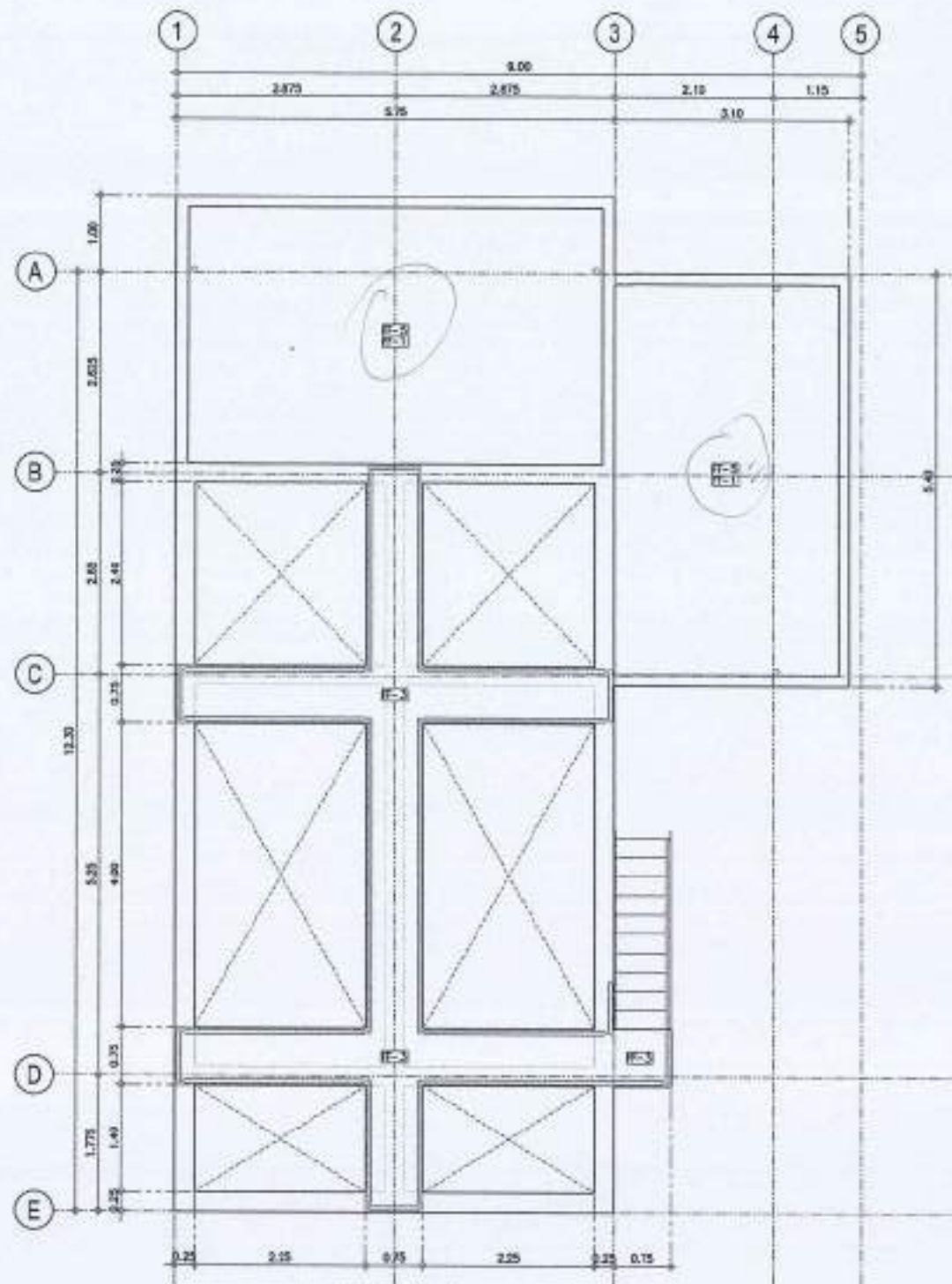
LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

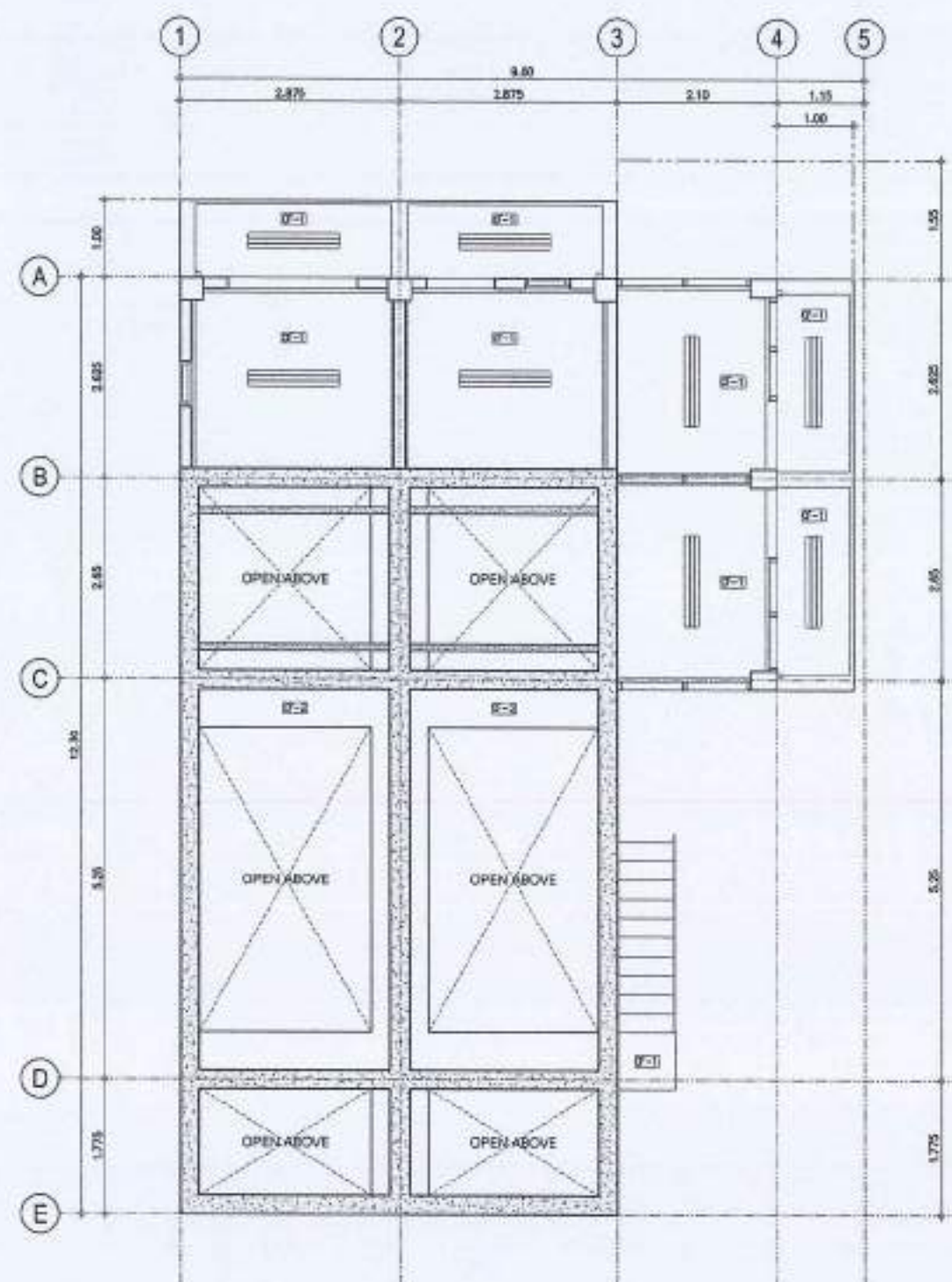
SHEET CONTENTS:

• ROOF DECK DETAILED PLAN
• REFLECTED CEILING PLAN

DRAWING SCALE: 1:50 M
SHEETING: A-9



1 ROOF DECK
DETAILED PLAN
SCALE: 1:50 M



2 REFLECTED CEILING PLAN
SCALE: 1:50 M

LEGEND

FLOOR FINISH

FF-1	PLAIN CEMENT SMOOTH TROWELED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING
FF-2	PLAIN CEMENT SMOOTH TROWELED IN 3-COATS EPOXY PAINT FINISH
FF-3	PLAIN CEMENT SMOOTH TROWELED FINISH
FF-4	PLAIN CEMENT BROOM FINISH
FF-5	2" THK. CONCRETE TOPPING WITH 100MM x 100MM STEEL MESH

WALL FINISH

WF-1	SMOOTH PLASTERED IN ELASTOMERIC PAINT FINISH
WF-2	SMOOTH PLASTERED IN LATEX PAINT FINISH
WF-3	SMOOTH PLASTERED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING

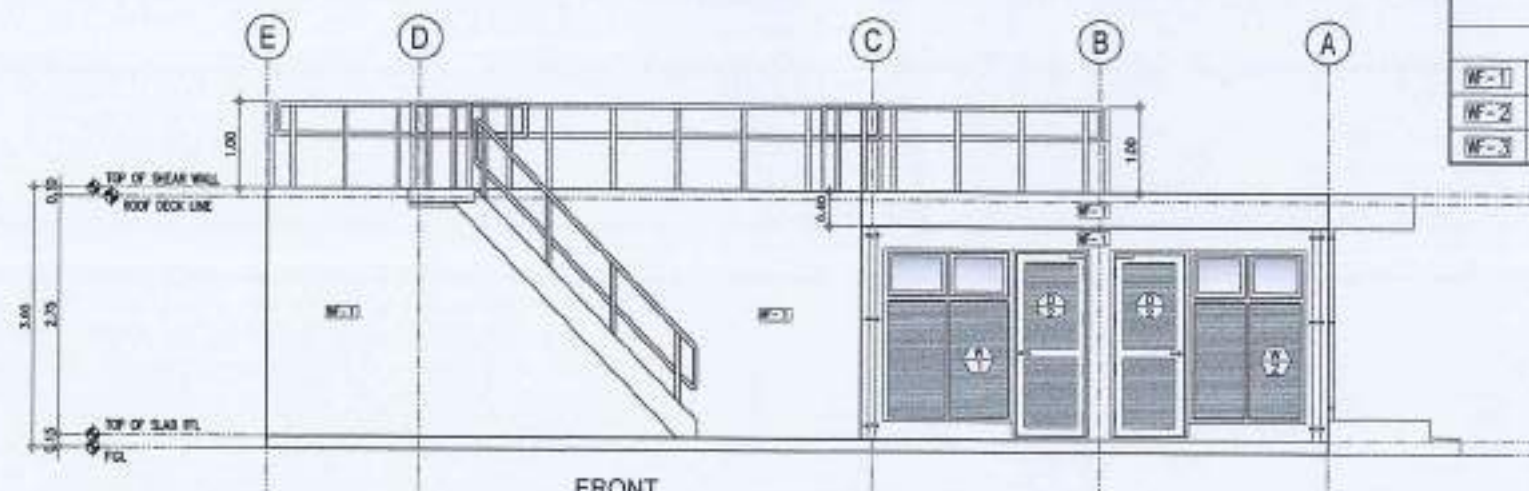
CEILING FINISH

CF-1	SMOOTH SURFACED EXPOSED CONCRETE SLAB SOFFT IN WHITE ACRYLIC LATEX BASE PAINT FLAT FINISH
CF-2	EXPOSED CONCRETE SLAB SOFFT

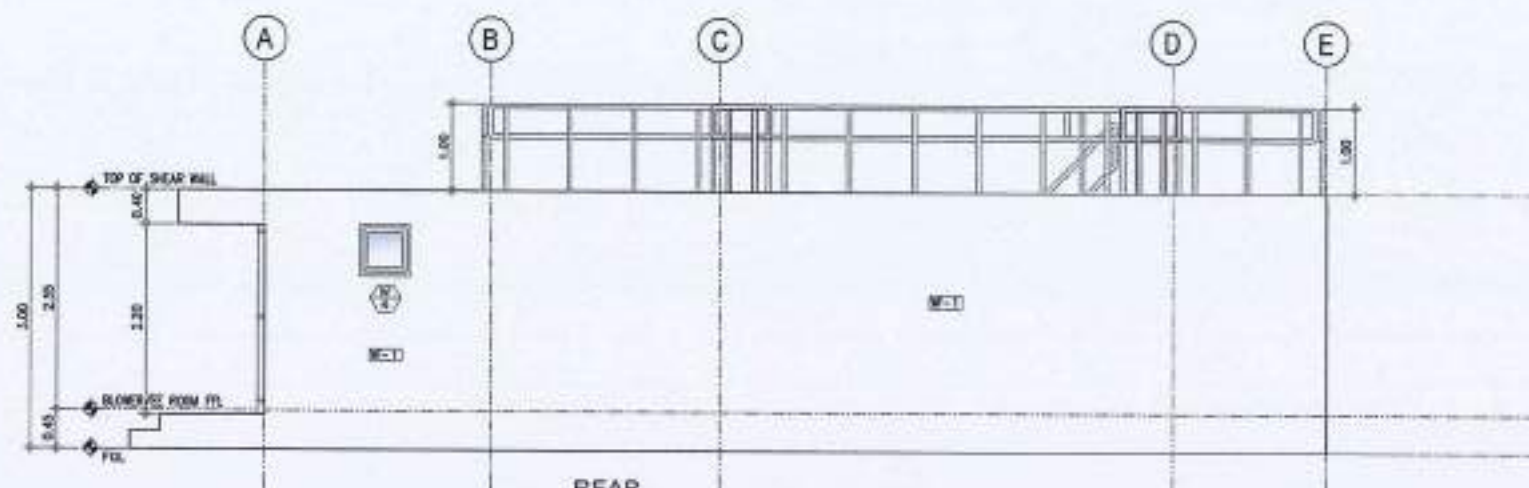
TAGGINGS

WF-1	WALL FINISH
CF-1	CEILING FINISH
4" CHB WALL WITH 3-SIDE 25 MM THK. PLASTERING	
POURED REINFORCED CONCRETE	
WATER-PROOF FLUORESCENT LUMINAIRE WITH 300W LED TUBE	

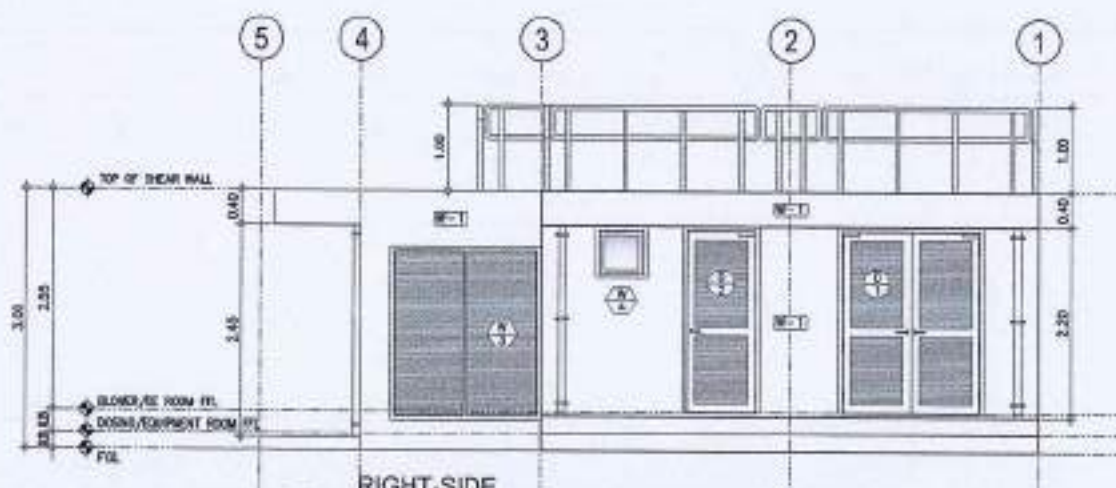




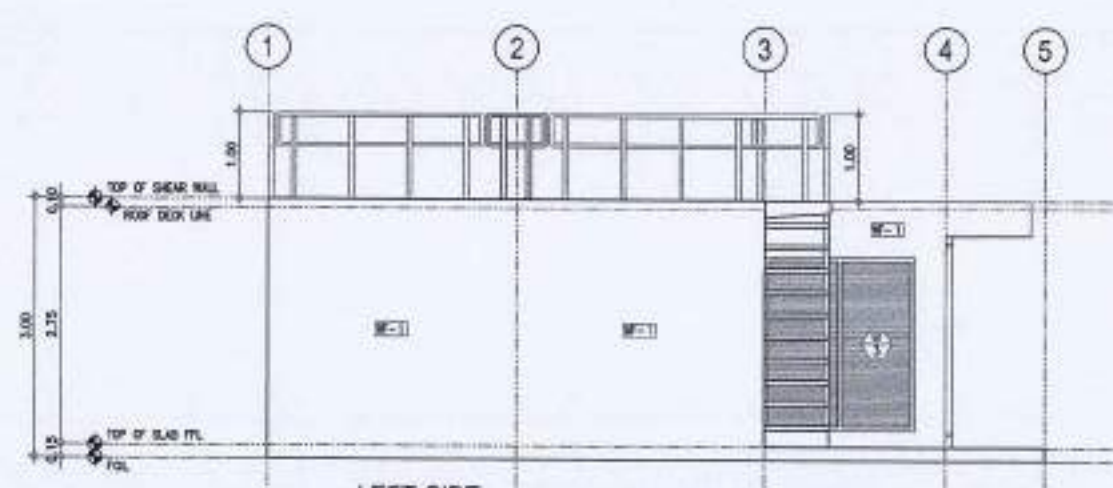
1
A-5(A-10) FRONT
DETAILED ELEVATION
SCALE: 1:50 M



2
A-5(A-10) REAR
DETAILED ELEVATION
SCALE: 1:50 M



3
A-5(A-10) RIGHT-SIDE
DETAILED ELEVATION
SCALE: 1:50 M



4
A-5(A-10) LEFT-SIDE
DETAILED ELEVATION
SCALE: 1:50 M



LEGEND

WALL FINISH

WF-1	SMOOTH PLASTERED IN ELASTOMERIC PAINT FINISH
WF-2	SMOOTH PLASTERED IN LATEX PAINT FINISH
WF-3	SMOOTH PLASTERED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
ADMINISTRATIVE DEVELOPMENT AND MANAGEMENT SERVICE
Bldg. 5000, 1000 Manila City

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AERODROME DEVELOPMENT
AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT
AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGN STAFF:	
DRAWN BY:	7/10
CHECKED BY:	

REVIEWED BY:

RAUL R. ORCENA
Division Chief, IDDO-JED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager ILAED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A. DIONELA PAF (RET)
Assistant Director General ILAED-ADMS

APPROVED BY:

CAPTAIN MANUEL A. DIONELA L. TAMAYO
Director General

NOTES/REVISIONS:

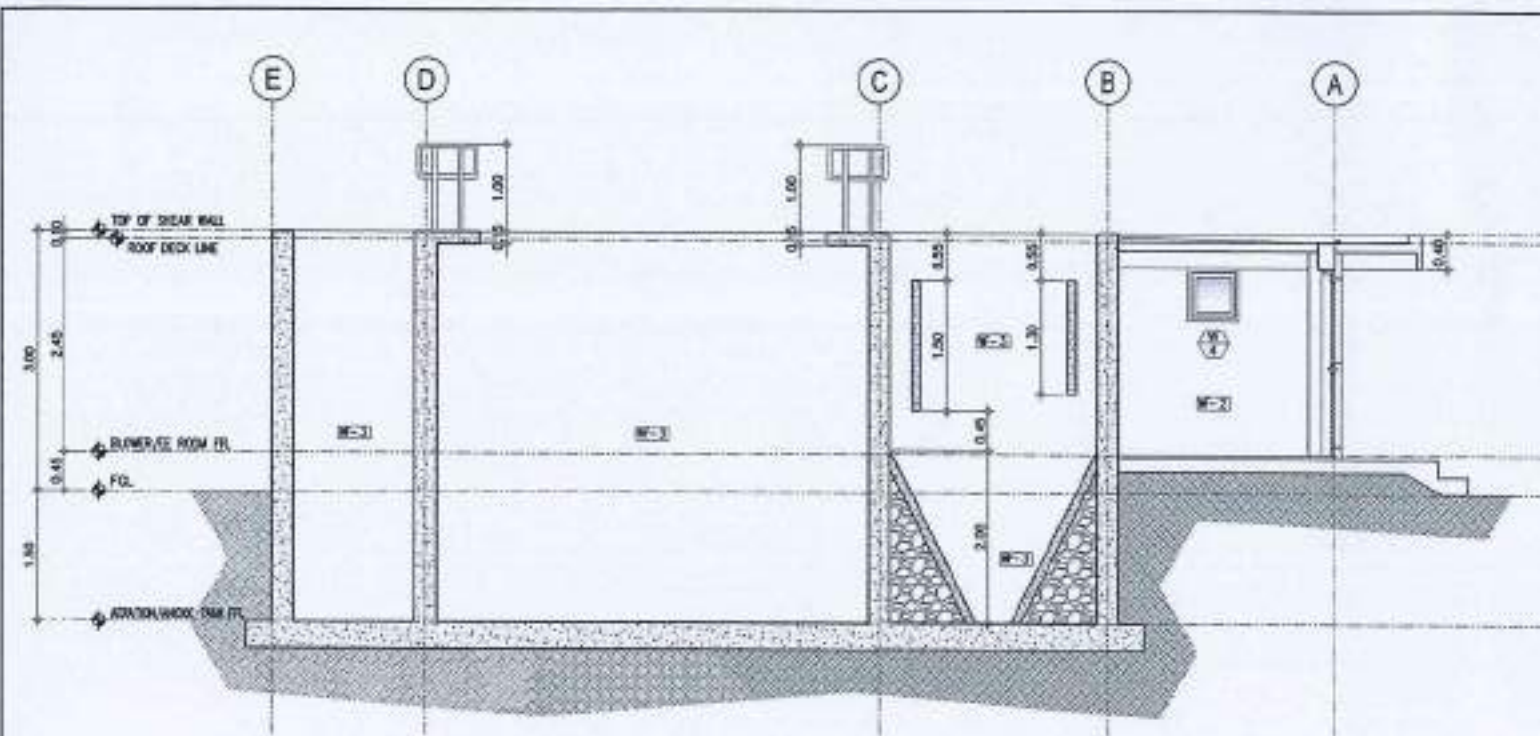
PROJECT:
DESIGN & CONSTRUCTION OF
PORTABLE SEWERAGE
TREATMENT PLANT (STP) &
INTERCONNECTION OF PIPE
NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

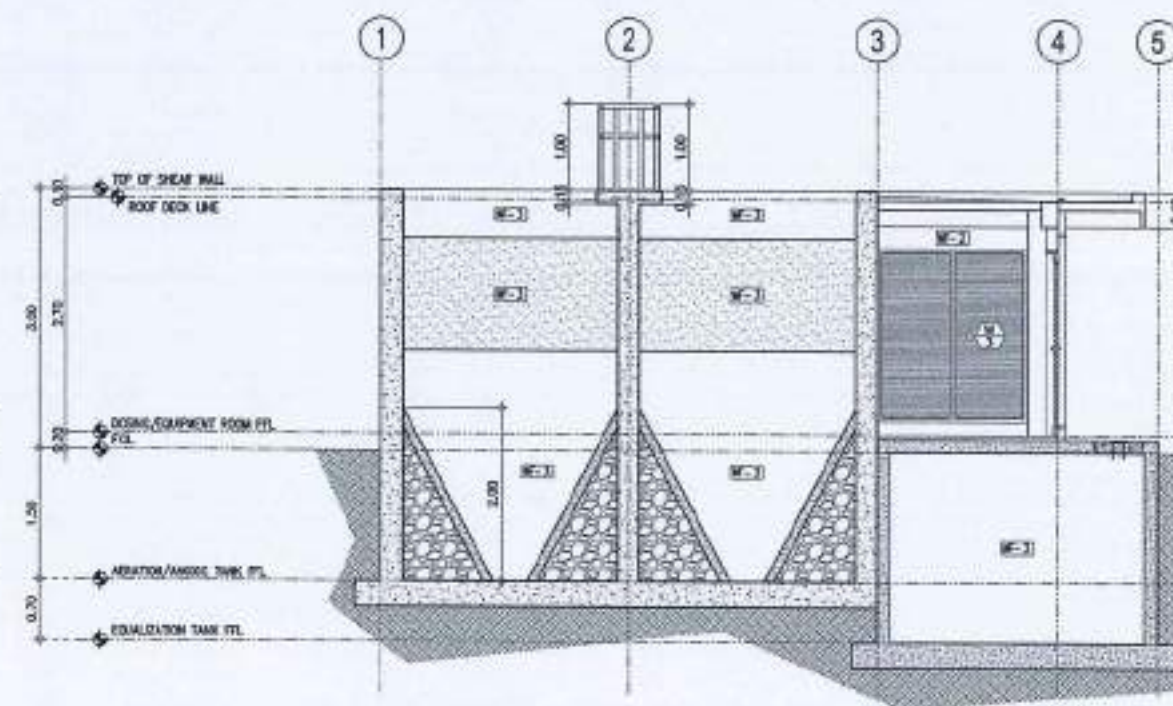
SHEET CONTENTS:

- FRONT DETAILED ELEVATION
- REAR DETAILED ELEVATION
- RIGHT-SIDE DETAILED ELEVATION
- LEFT-SIDE DETAILED ELEVATION

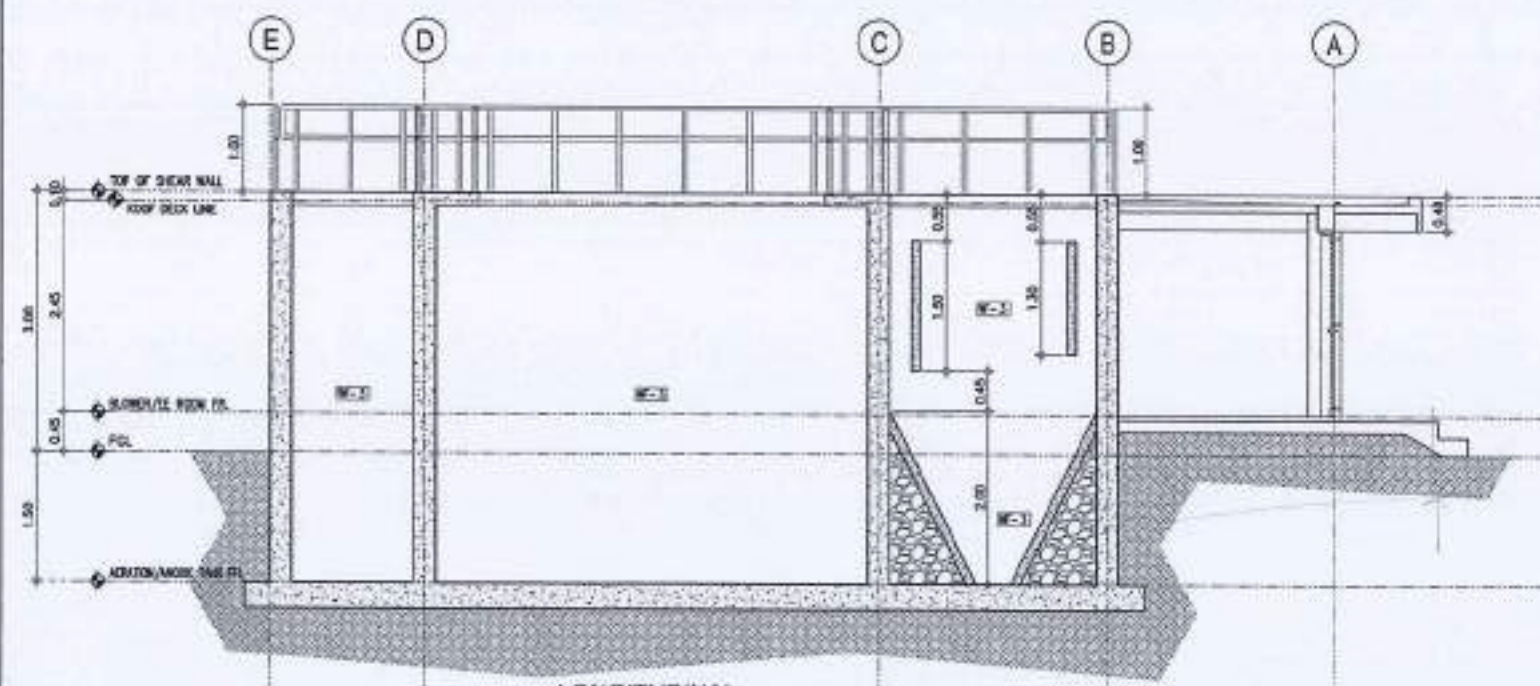
DRAWING SCALE:	SHEET NO.:
1:50 M	A-10



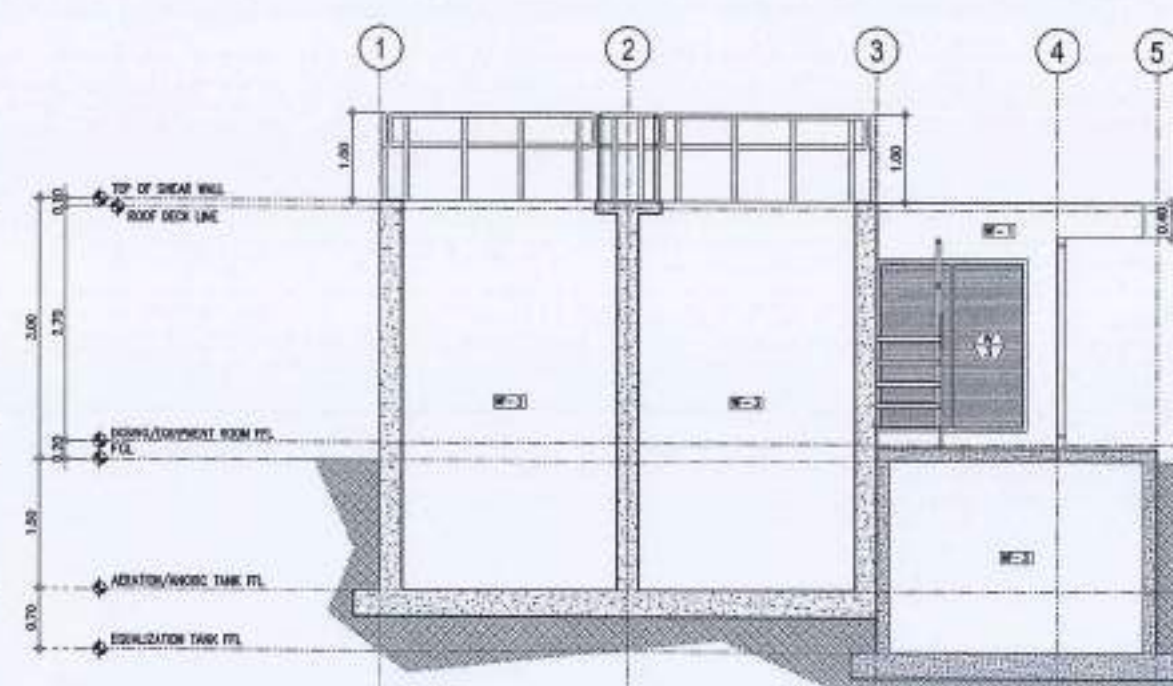
1
A-6(A-11)
LONGITUDINAL
DETAILED SECTION A
SCALE: 1:50 M



3
A-6(A-11)
CROSS
DETAILED SECTION A
SCALE: 1:50 M



2
A-6(A-11)
LONGITUDINAL
DETAILED SECTION B
SCALE: 1:50 M



4
A-6(A-11)
CROSS
DETAILED SECTION B
SCALE: 1:50 M

LEGEND

WALL FINISH

W-1	SMOOTH PLASTERED IN ELASTOMERIC PAINT FINISH
W-2	SMOOTH PLASTERED IN LATEX PAINT FINISH
W-3	SMOOTH PLASTERED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING



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CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGN STAFF:	
DESIGN STAFF:	
CHECKED BY:	

REVIEWED BY:

RAIMON F. CRUZENA
Division Chief, I, AED-ADMS

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager II, AED-ADMS

RECOMMENDED APPROVAL:

LT COL. VALENTINO A. DIONELAPAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL ANTONIO L. TAWAYO
Director General

NOTES/REVISIONS:

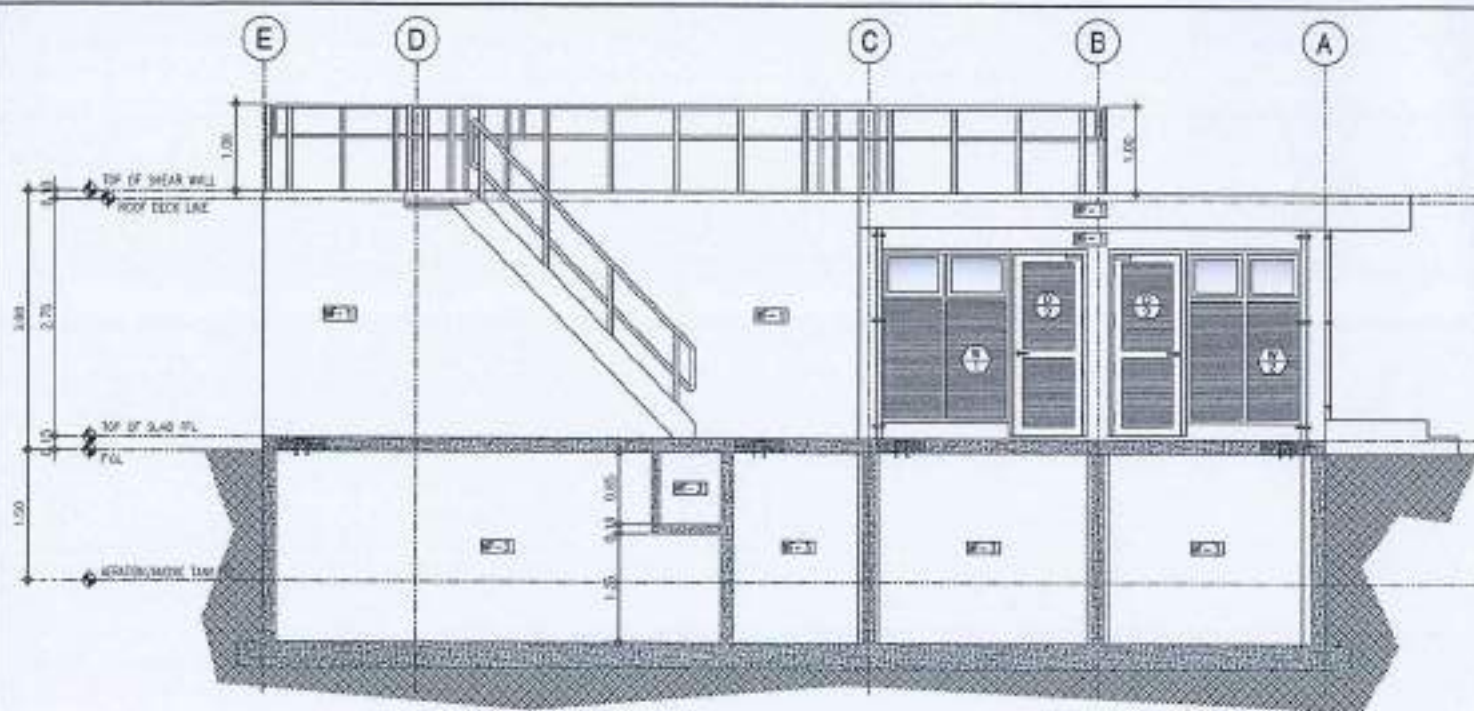
PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

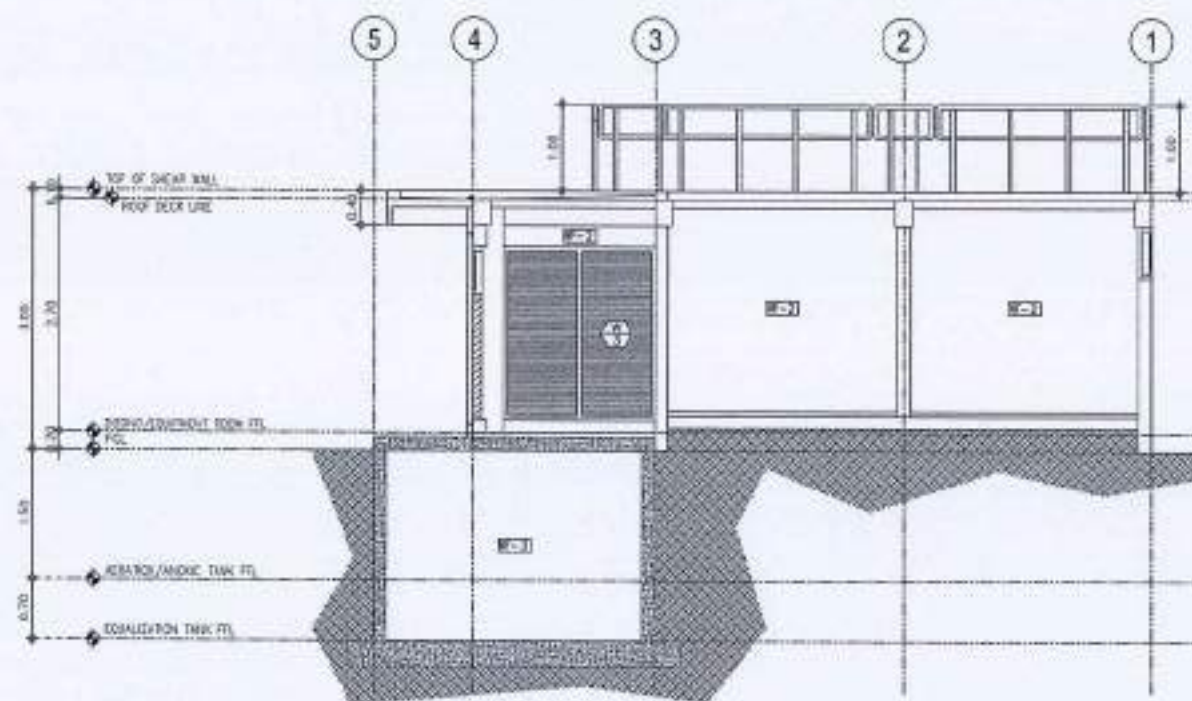
SHEET CONTENTS:

- LONG. DETAILED SECTION A
- LONG. DETAILED SECTION B
- CROSS DETAILED SECTION A
- CROSS DETAILED SECTION B

DRAWING SCALE:	SHEET NO:
1:50 N	A-11

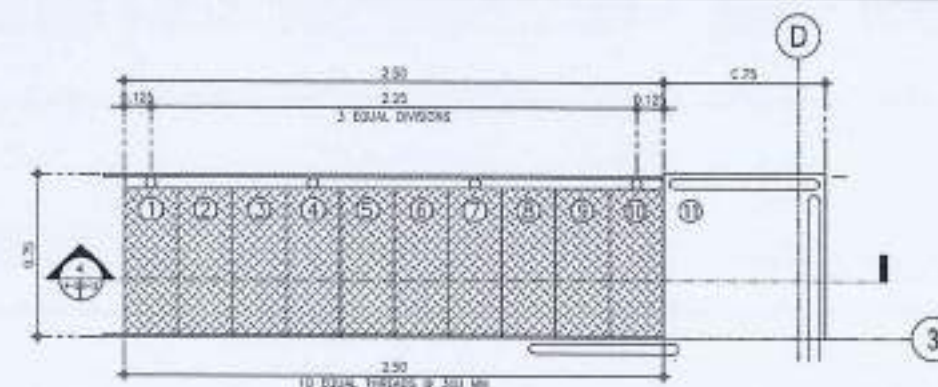


1 LONGITUDINAL
DETAILED SECTION C
SCALE: 1:50 M
A-7/A-12

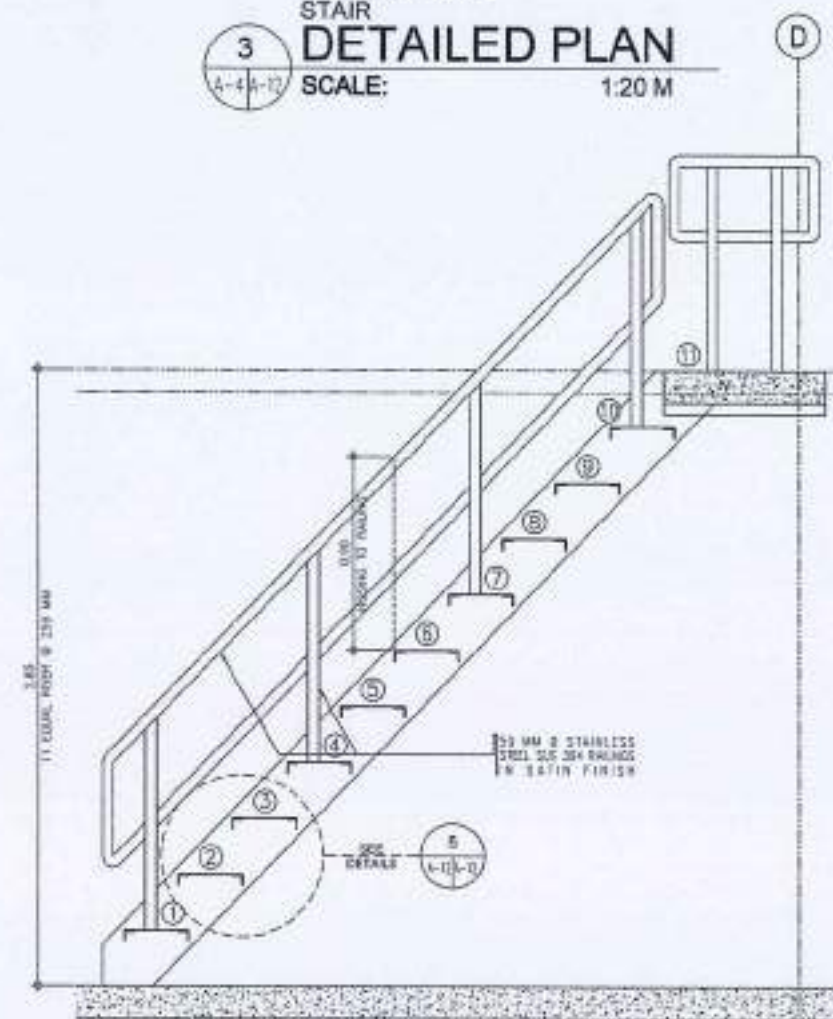


2 CROSS
DETAILED SECTION C
SCALE: 1:50 M
A-7/A-12

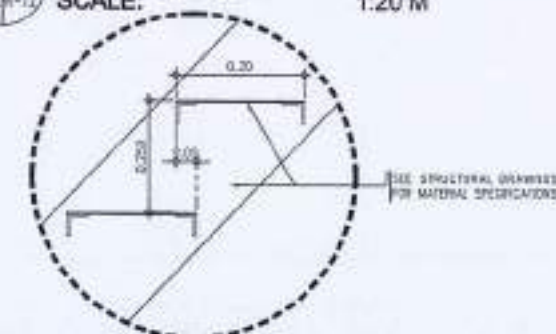
LEGEND	
WALL FINISH	
W-1	SMOOTH PLASTERED IN ELASTOMERIC PAINT FINISH
W-2	SMOOTH PLASTERED IN LATEX PAINT FINISH
W-3	SMOOTH PLASTERED WITH 1 MM THICK SPRAY APPLIED POLYUREA WATERPROOFING



3 STAIR
DETAILED PLAN
SCALE: 1:20 M
A-4/A-12



4 STAIR
DETAILED PLAN
SCALE: 1:20 M
A-12/A-12



5 STAIR STEPS
SPOT DETAIL
SCALE: 1:10 M
A-12/A-12



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STATUS	INITIAL DATE
DESIGN STATUS	
DRAWN BY	gms
CHECKED BY	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL

LT COL VALENTINO A. DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NANIA ROAD, PASAY CITY

SHEET CONTENTS:

- LONG. DETAILED SECTION C
- CROSS DETAILED SECTION C
- STAIR DETAILS

DRAWING SCALE	SHEET NO.
1:50 M	A-12



SECTION

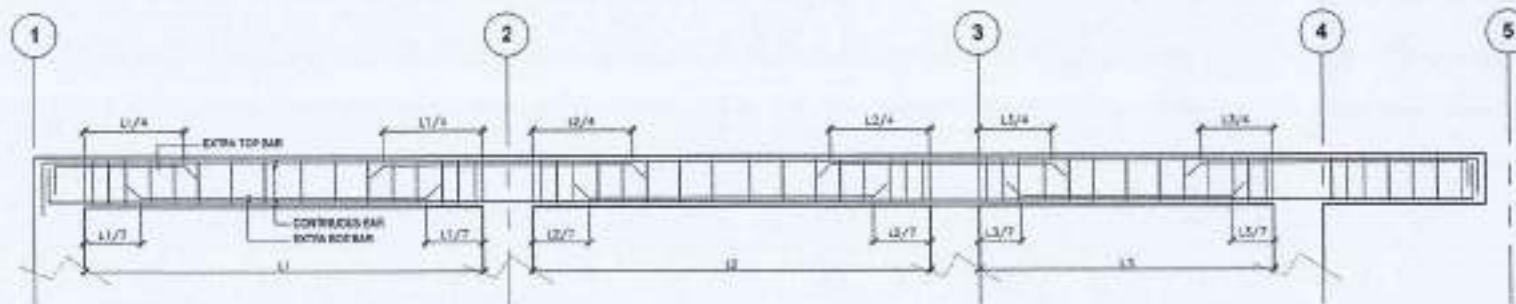


DET. OF C2F2

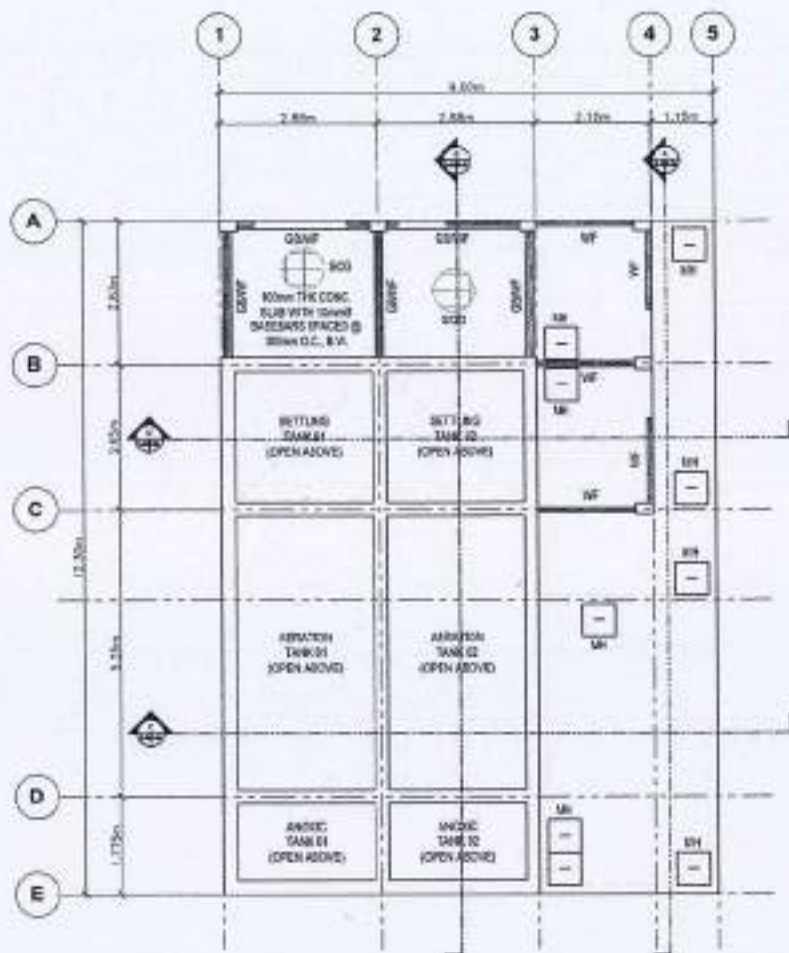


DET. OF C1F1

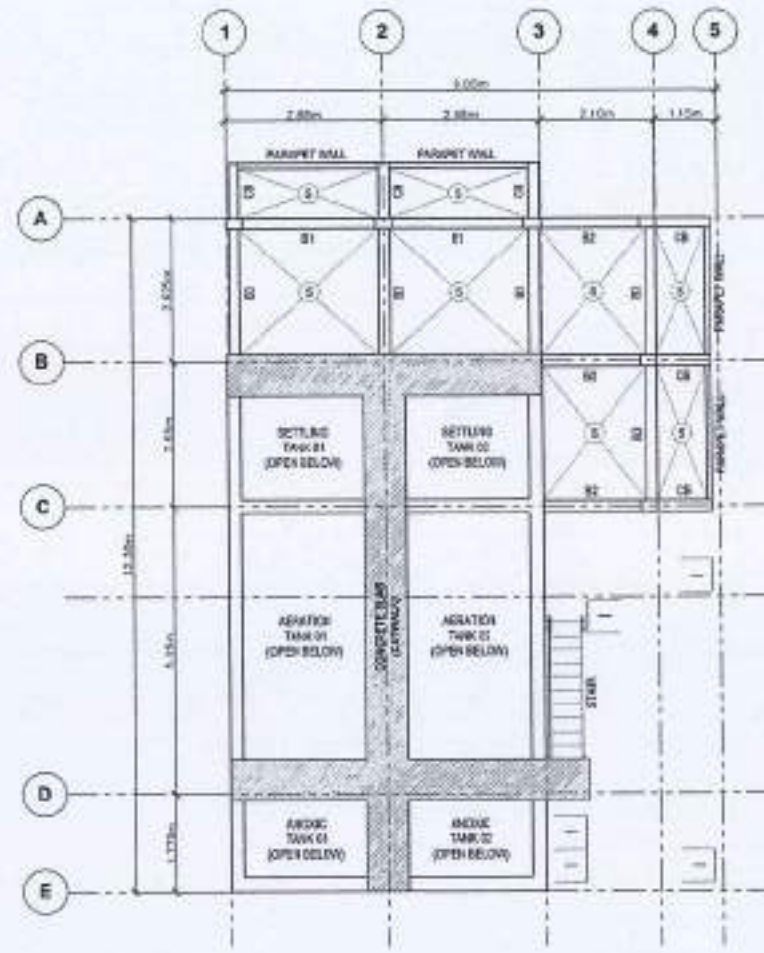
AS SHOWN	342
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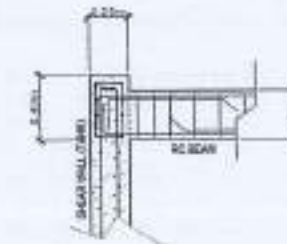
07
SCALE
TYPICAL DETAIL OF RC BEAM
1:25M/S



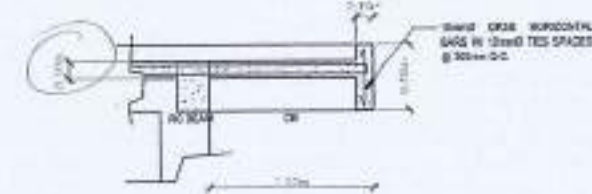
06
SCALE
GROUND LEVEL FRAMING PLAN
1:25M/S



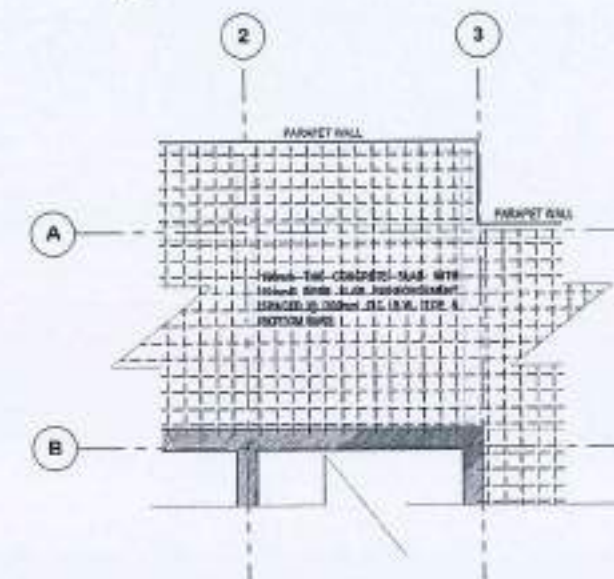
06
SCALE
ROOF SLAB FRAMING PLAN
1:25M/S



10
SCALE
DETAIL CONNECTION SHEAR WALL TO RC BEAM
1:25M/S



09
SCALE
DETAIL OF PARAPET WALL
1:25M/S



08
SCALE
ROOF DECK SLAB REINFORCEMENT
1:50M/S

SCHEDULE OF BEAMS

MARK	DIMENSION	BEAM SECTION	STRUTS	LENGTH	REMARKS
B-1	200mmx300mm	1-1	1-1	1.00m	200mmx300mm
B-2	200mmx300mm	1-1	1-1	1.00m	200mmx300mm
B-3	200mmx300mm	1-1	1-1	1.00m	200mmx300mm
CB	200mmx300mm	1-1	1-1	1.00m	200mmx300mm



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AIRPORT DEVELOPMENT AND MANAGEMENT SERVICE
PASAY, METRO MANILA

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AIRPORT DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL DATE
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
REVIEWED BY: [Signature]

RAUL R. CRUCENA
Division Chief II, IDDD-AD

APPROVED BY: [Signature]
ARNEL F. BORLADO
Department Manager II, AED-ADDD

RECOMMEND APPROVAL: [Signature]
L. V. VENTURA A. GONZALEZ (P.E.)
Assistant Division Chief II, IDDD-AD

APPROVED BY: [Signature]
CAPTAIN MARCO ANTONIO L. TAMAYO
Director General

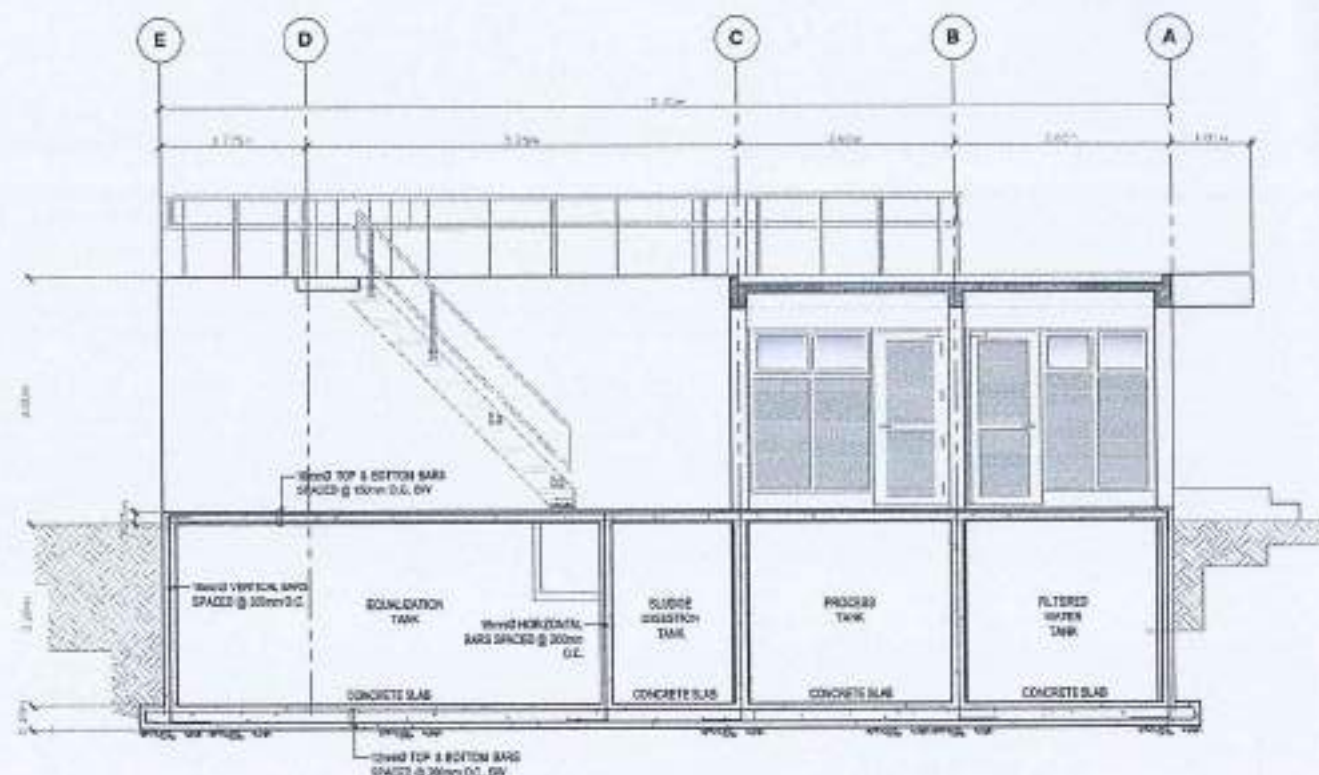
NOTES/REVISIONS:

PROJECT: DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

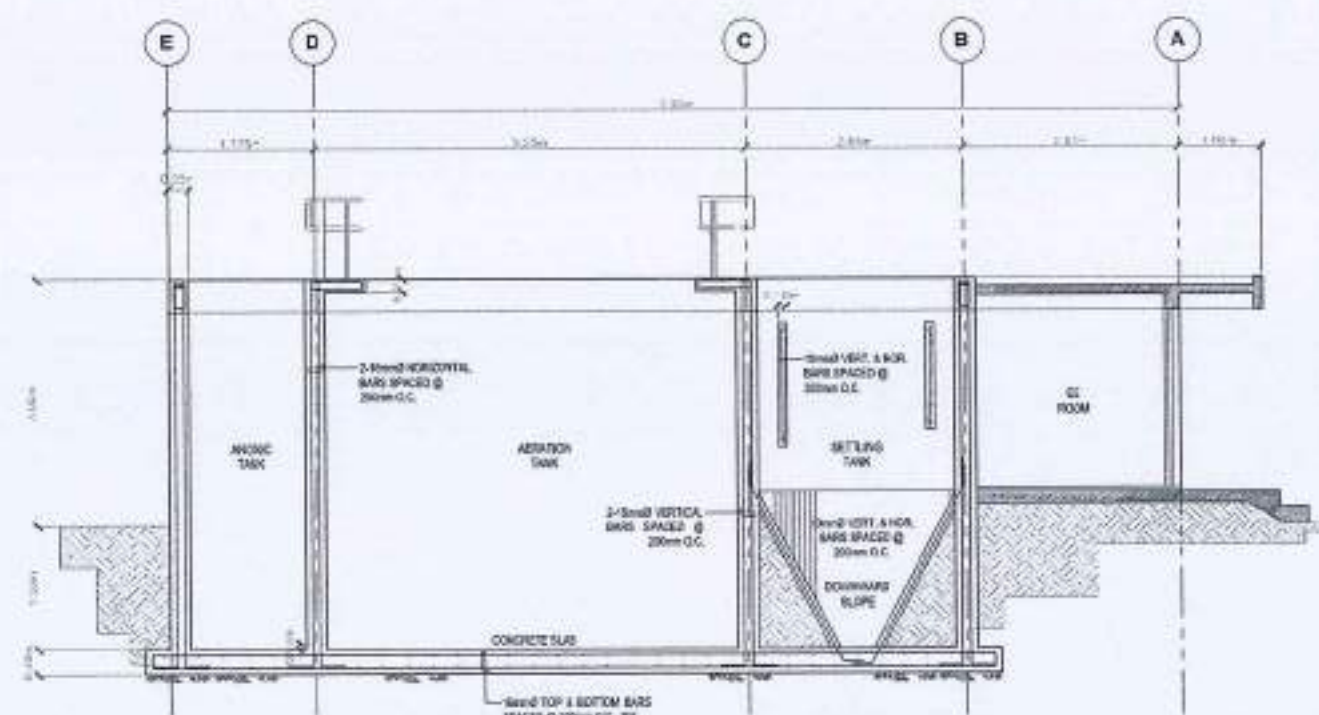
LOCATION: CAA HEAD OFFICE, NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• GROUND LEVEL FRAMING PLAN
• ROOF SLAB FRAMING PLAN
• SLAB REINFORCEMENT
• SCHEDULE OF BEAMS
• DETAIL OF PARAPET WALL

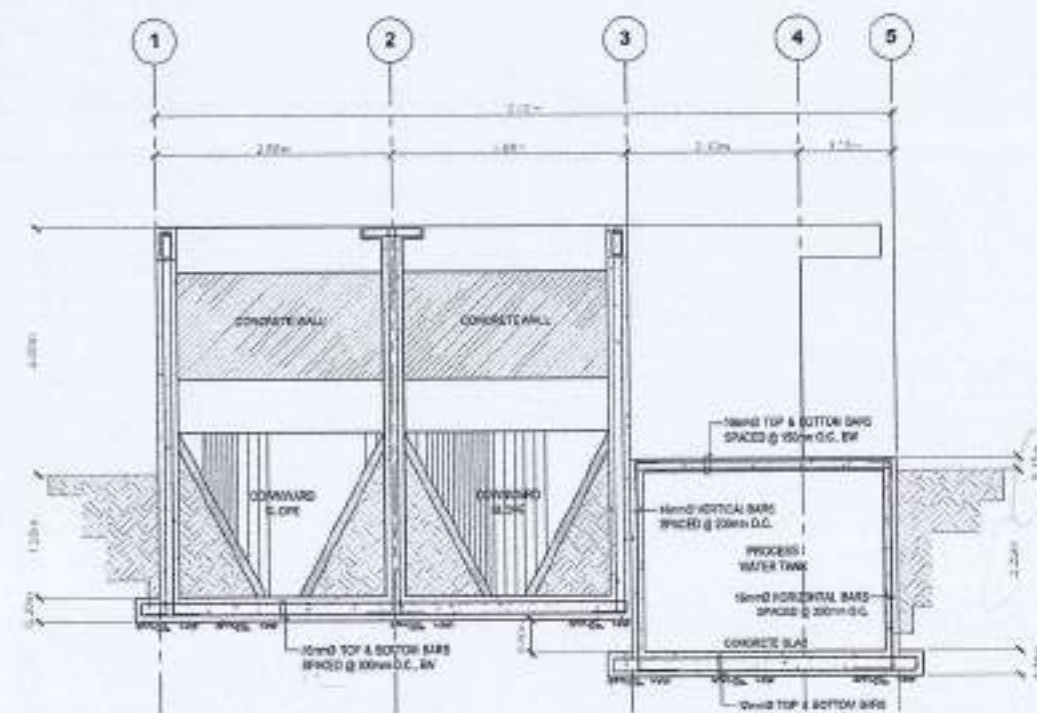
DRAWING SCALE: AS SHOWN
SHEET NO.: S-03



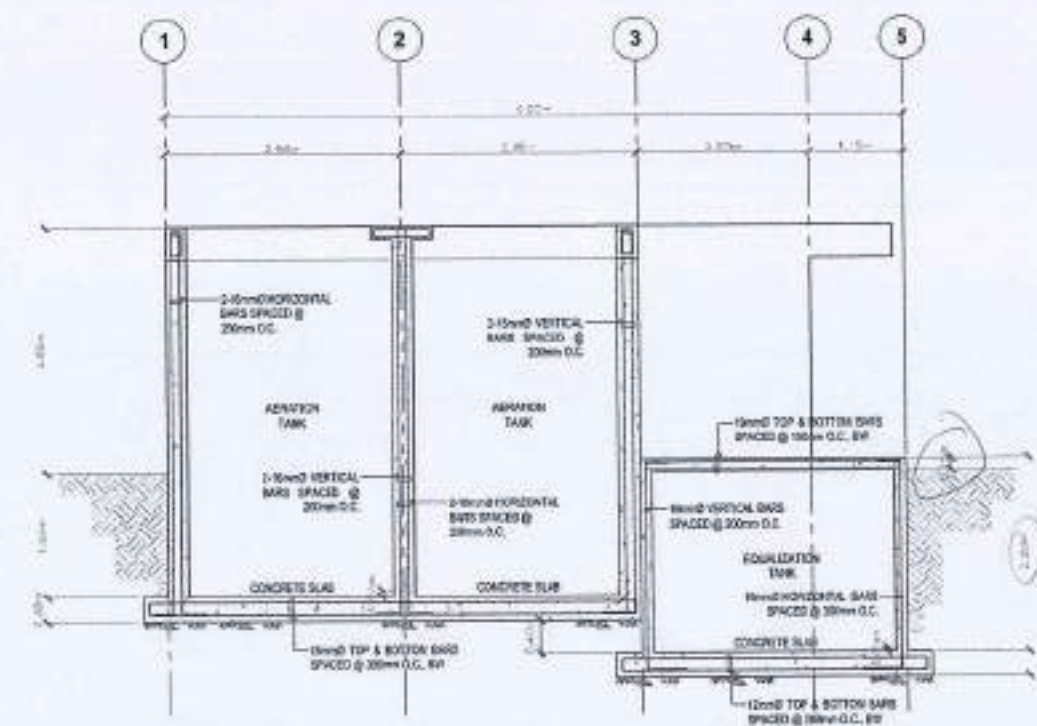
STRUCTURAL FRAMEWORK
LONGITUDINAL SECTION "A"
10 SCALE



STRUCTURAL FRAMEWORK
LONGITUDINAL SECTION "B"
09 SCALE



STRUCTURAL FRAMEWORK
TRANSVERSE SECTION "D"
12 SCALE



STRUCTURAL FRAMEWORK
TRANSVERSE SECTION "C"
11 SCALE



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CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
INFRASTRUCTURE DEVELOPMENT AND REGIONAL SERVICE
DIVISION

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND REGIONAL SERVICE DIVISION

DESIGN STAFF: DESIGNER: *[Signature]*
CHECKER: *[Signature]*
REVIEWED BY: *[Signature]*

SUBMITTED BY: *[Signature]*
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Division Chief, AED-VRM

APPROVED BY: *[Signature]*
ARNEL F. BORLADO
Department Manager, AED-VRM

RECOMMENDED APPROVAL: *[Signature]*
LUCAS VALERIANO & DONALD A. PAF (PFI)
Assistant Director General, AED-VRM

APPROVED BY: *[Signature]*
CAPTAIN MARCO ANTONIO T. TAMBOR
Director General

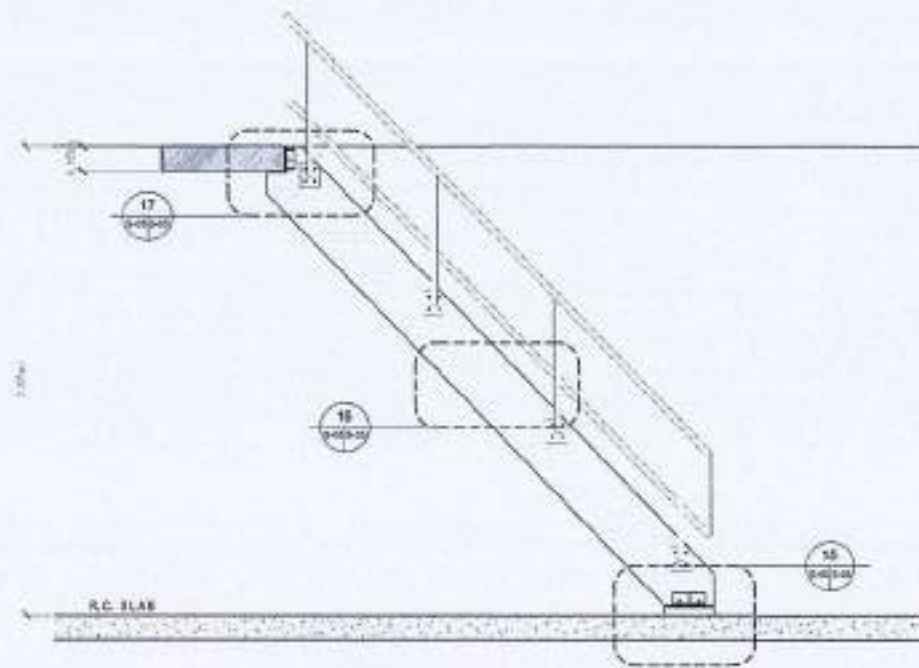
NOTES/REVISIONS:

PROJECT: DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

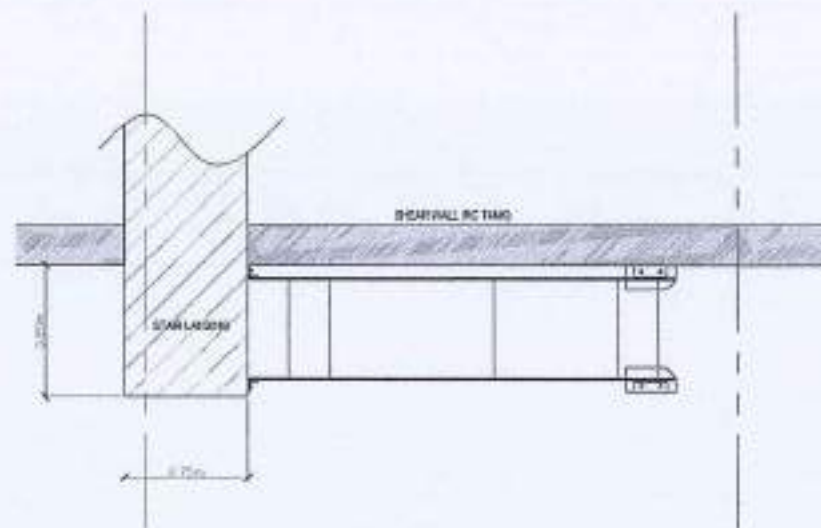
LOCATION: CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• LONGITUDINAL SECTION "A"
• LONGITUDINAL SECTION "B"
• TRANSVERSE SECTION "C"
• TRANSVERSE SECTION "D"

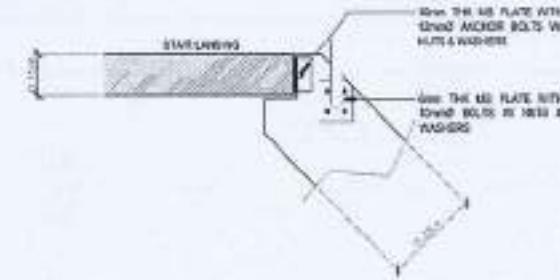
DRAWING SCALE: AS SHOWN
SHEET NO.: S-04



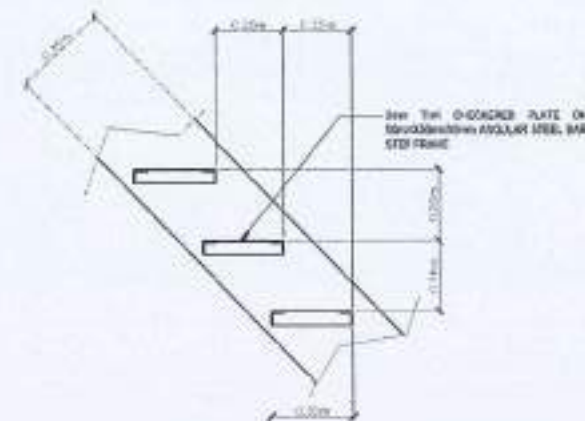
14 STAIR SECTION
1:2000 SCALE



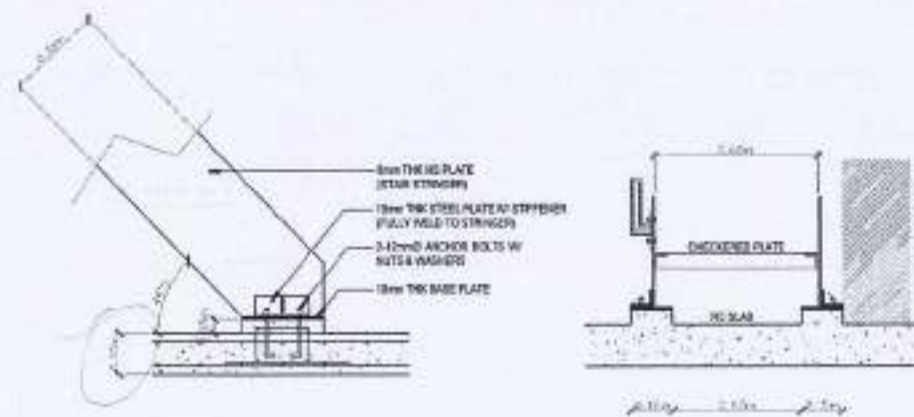
13 STAIR PLAN
1:2000 SCALE



17 DET. CONNECTION 03
1:2000 SCALE



16 DET. CONNECTION 02
1:2000 SCALE



15 DET. CONNECTION 01
1:2000 SCALE



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
BAGUIO, BAGUIO CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	

REVIEWED BY:

[Signature]
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Division Chief II, ICD-ARD

SUBMITTED BY:
[Signature]
ARIEL F. BORLADO
Department Manager II, AED-ADM

RECOMMENDED APPROVAL:

[Signature]
LT COL YVES L. DIONELA PABEST
Assistant Director General II, AED-ADM

APPROVED BY:

[Signature]
CAPTAN MAURICE L. TAMAYO
Division Chief II, ICD-ARD

NOTES/REVISIONS:

NO.	DESCRIPTION

PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NMA ROAD, PASAY CITY

SHEET COMMENTS:
• STAIR PLAN
• STAIR SECTION
• DETAIL CONNECTION 01
• DETAIL CONNECTION 02
• DETAIL CONNECTION 03

DRAWING SCALE:	SHEET NO.:
AS SHOWN	S-05

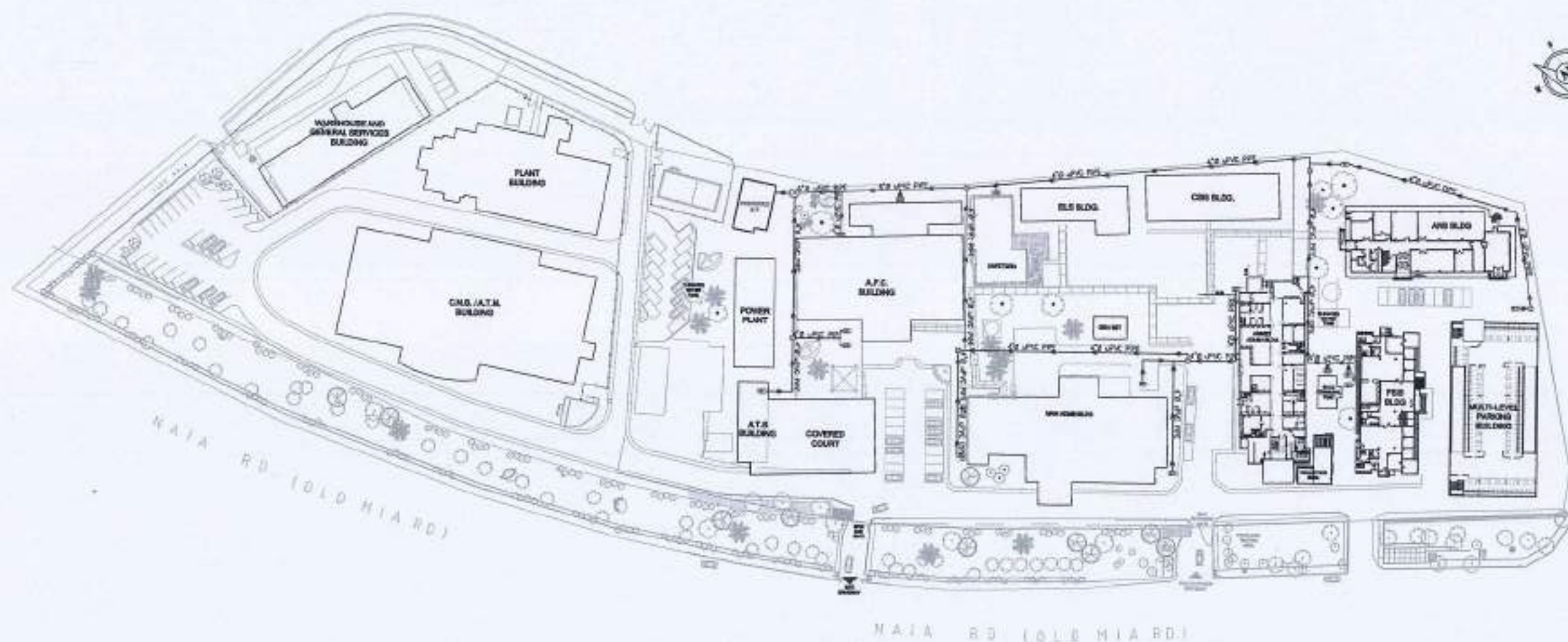
GENERAL NOTES:

- IT IS NOT INTENDED THAT THE DRAWINGS SHALL SHOW EVERY PIPE FITTING, VALVE AND APPURTENANCE. ALL SUCH ITEMS WHETHER SPECIFICALLY MENTIONED OR NOT, OR INDICATED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED IF NECESSARY TO COMPLETE THE SYSTEM TO THE SATISFACTION OF THE OWNER.
- ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETERS EXCEPT OTHERWISE SHOWN. INDICATED METRIC EQUIVALENT USED ON THESE PLANS FOR PIPE SIZES:

1/2" = 15mm	1 1/2" = 40mm	3" = 75mm	8" = 200mm
3/4" = 20mm	2" = 50mm	4" = 100mm	10" = 250mm
1 1/4" = 32mm	2 1/2" = 65mm	6" = 150mm	12" = 300mm
- ALL WORKS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS AND OTHER RELEVANT GOVERNMENT AGENCIES.
- ALL INSTALLATIONS SHALL BE COORDINATED WITH OTHER TRADES. ANY REVISION IN THE PIPING LAYOUT REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE ENGINEER.
- HORIZONTAL SANITARY SEWER PIPING SHALL BE RUN IN PRACTICAL ALIGNMENT AT A MINIMUM SLOPE OF 1% FOR PIPES 100mm & LARGER & 2% FOR 75mm & SMALLER.
- ALL VENT PIPES SHALL BE FREE FROM DROPS OR SAGS AND SHALL BE SLOPED OR GRADED AS TO DRIP BACK BY GRAVITY TO THE DRAINAGE PIPE IT SERVES.
- ALL PIPE SIZES INDICATED ON PLANS WERE SIZED ACCORDING TO THEIR INSIDE DIAMETER.
- THESE DRAWINGS DO NOT INCLUDE ALL NECESSARY SAFETY REQUIREMENTS. CONTRACTOR TO COMPLY TO SAFETY REQUIREMENTS SET FORTH BY THE LOCAL AUTHORITIES HAVING JURISDICTION.

LEGEND AND SYMBOLS:

	MAIN LIFTING TANK
	CLUSTER LIFTING TANK
	EXISTING SEPTIC TANK
	DIRECTION OF WASTEWATER FLOW



INTERCONNECTION PIPING LAYOUT

SCALE

1:750 M



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CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN DATE: INITIAL / DATE:

DESIGN STAFF:

DRAWN BY:

CHECKED BY:

REVIEWED BY:

RAUL B. CRUZENA
Division Chief II, IADC-AD

SUBMITTED BY:

ARNEL B. BORLADO
Department Manager II, IADC-ADMS

RECOMMEND APPROVAL:

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Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL A. TAMARO
Director General

NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF
PORTABLE SEWERAGE
TREATMENT PLANT (STP) &
INTERCONNECTION OF PIPE
NETWORK & SEPTIC TANK

LOCATION:

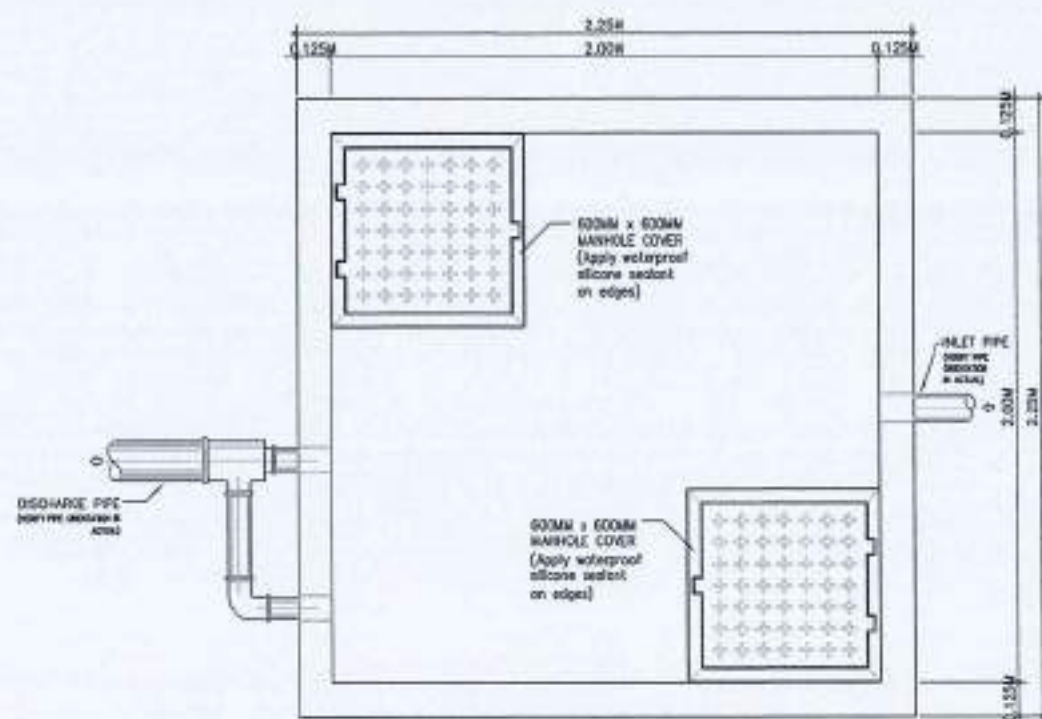
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:

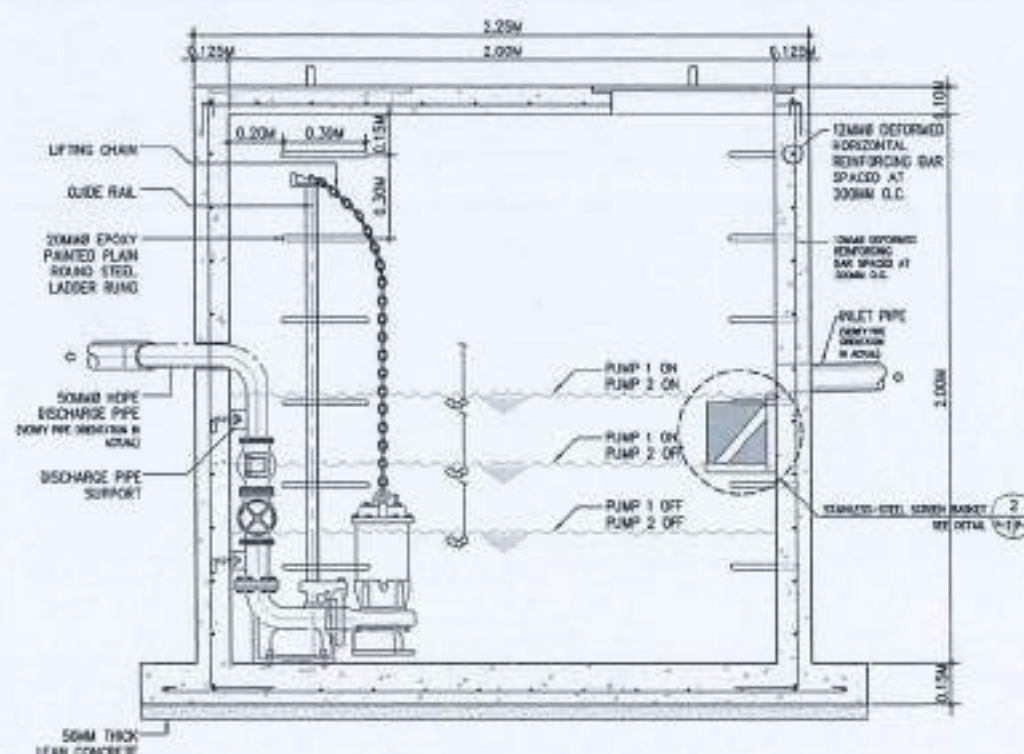
• GENERAL NOTES
• LEGEND AND SYMBOLS
• INTERCONNECTION PIPING LAYOUT

DRAWING SCALE: SHEET NO.:

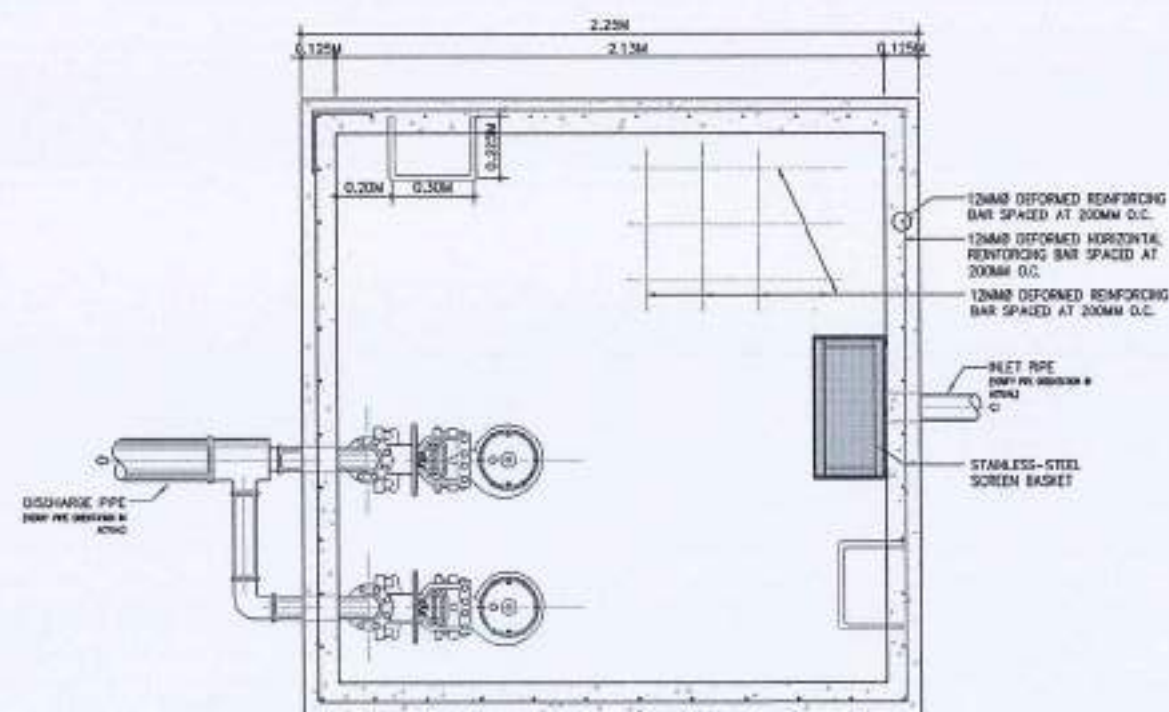
P-1



1A PLAN
P-2P-2 SCALE: 1:15 M



1C SECTION
P-2P-2 SCALE: 1:15 M



1B PLAN
P-2P-2 SCALE: 1:15 M

EQUIPMENT SCHEDULE

MARK	QUANTITY	CAPACITY PH	ELECTRICAL DATA		REMARKS
			V	PH	
SP 1	2	2	220	3	WATER LEVEL CONTROLLED PUMP WITH GUIDERAIL AND OTHER ACCESSORIES.

1 MAIN LIFTING TANK DETAILS
P-2P-2 SCALE: 1:15 M



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CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
SUBSIDIARY OF THE DEPARTMENT OF TRANSPORTATION
NAIA ROAD, PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	FINAL DATE:
DESIGN STAFF:	
DESIGN ST:	
CHECKED BY:	

REVIEWED BY:

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Division Chief III, IDDD-AD

SUBMITTED BY:
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Department Manager II, AED-ADMS

RECOMMEND APPROVAL:
LT COL. VALENTINO A. DIGNELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL R. TAMIYO
Director General

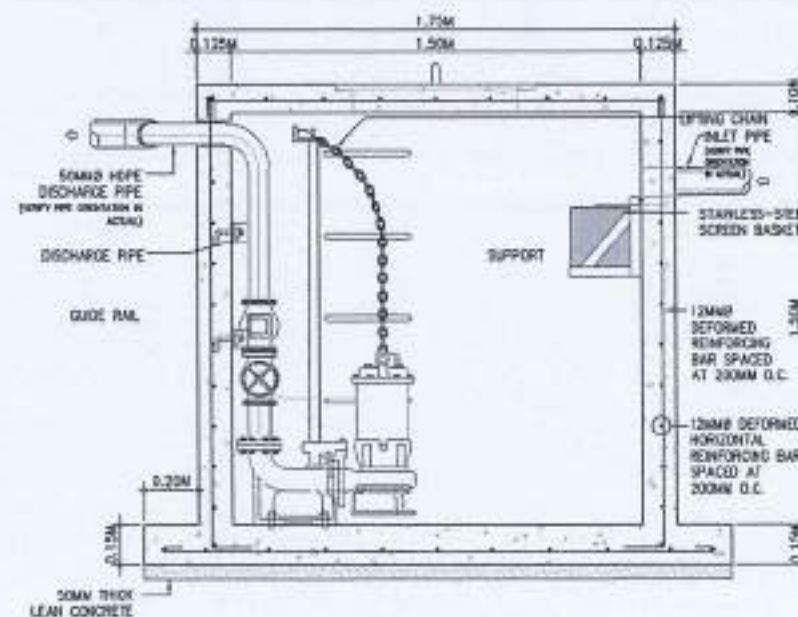
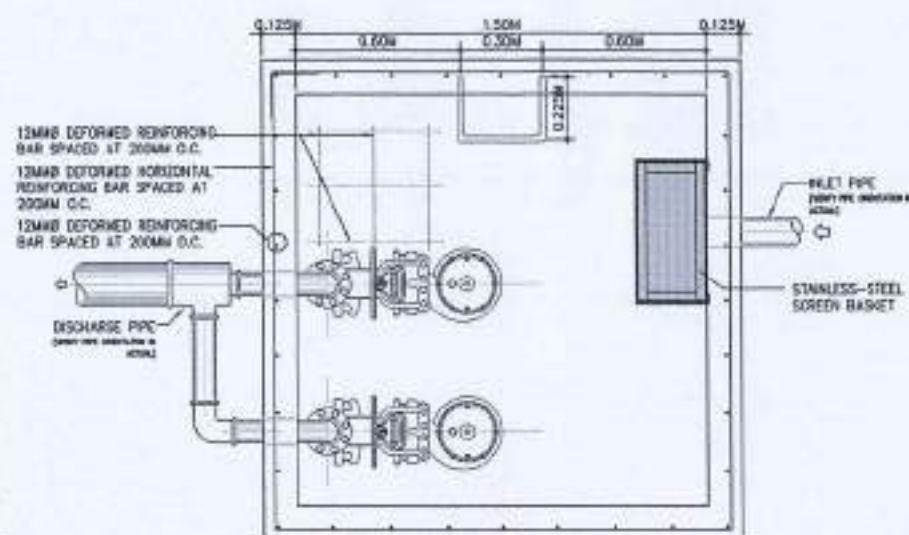
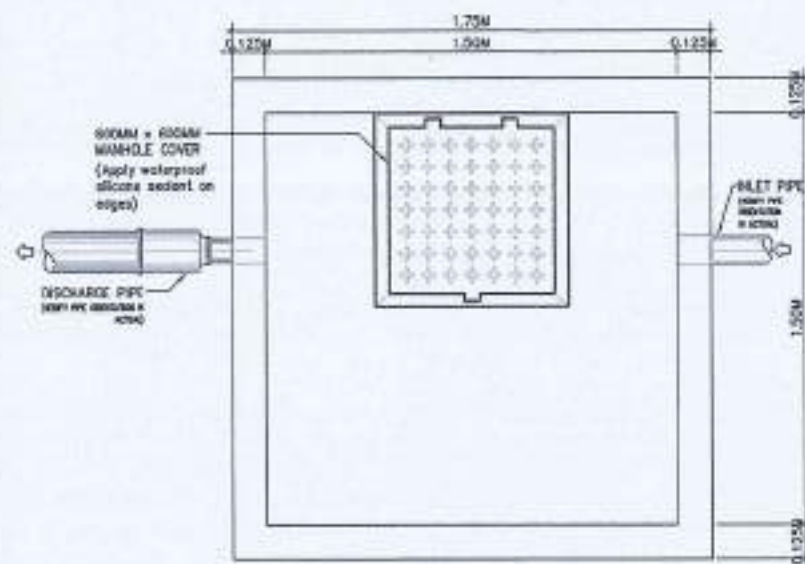
NOTES/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• MAIN LIFTING TANK DETAILS

DRAWING SCALE: SHEET NO:
P2

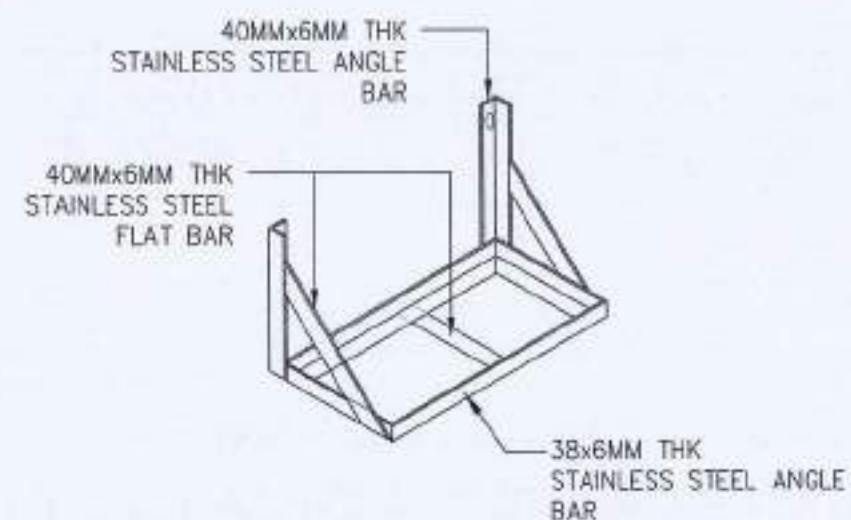
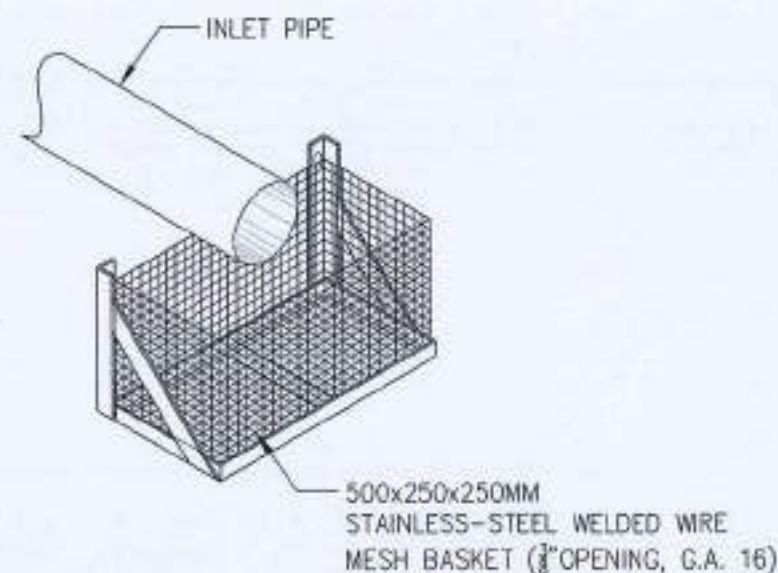


EQUIPMENT SCHEDULE

MARK	QUANTITY	CAPACITY PH	ELECTRICAL DATA		REMARKS
			V	PH	
SP 2	14	1	220	3	WATER LEVEL CONTROLLED PUMP WITH GUIDERAIL AND OTHER ACCESSORIES.

1 CLUSTER LIFTING TANK DETAILS SCALE: 1:15 M

2 SCREEN BASKET SPOT DETAILS SCALE: NTS



CAA
REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN DATE: INITIAL / DATE
DESIGN STAFF: [Signature]
DRAWN BY: [Signature]
CHECKED BY: [Signature]

REVIEWED BY: [Signature]
RAUL F. CRUCENA
Division Chief II, IDDD-ADM

SUBMITTED BY: [Signature]
ARNEL F. BORLADO
Department Manager II, AD-ADM

RECOMMENDED APPROVAL: [Signature]
LT COL. MARTINO A. DIONELA PAF (RET)
Assistant Director General II, ADM

APPROVED BY: [Signature]
CAPTAIN MARQUELINO L. TAMAYO
Director General

NOTES/REVISIONS:

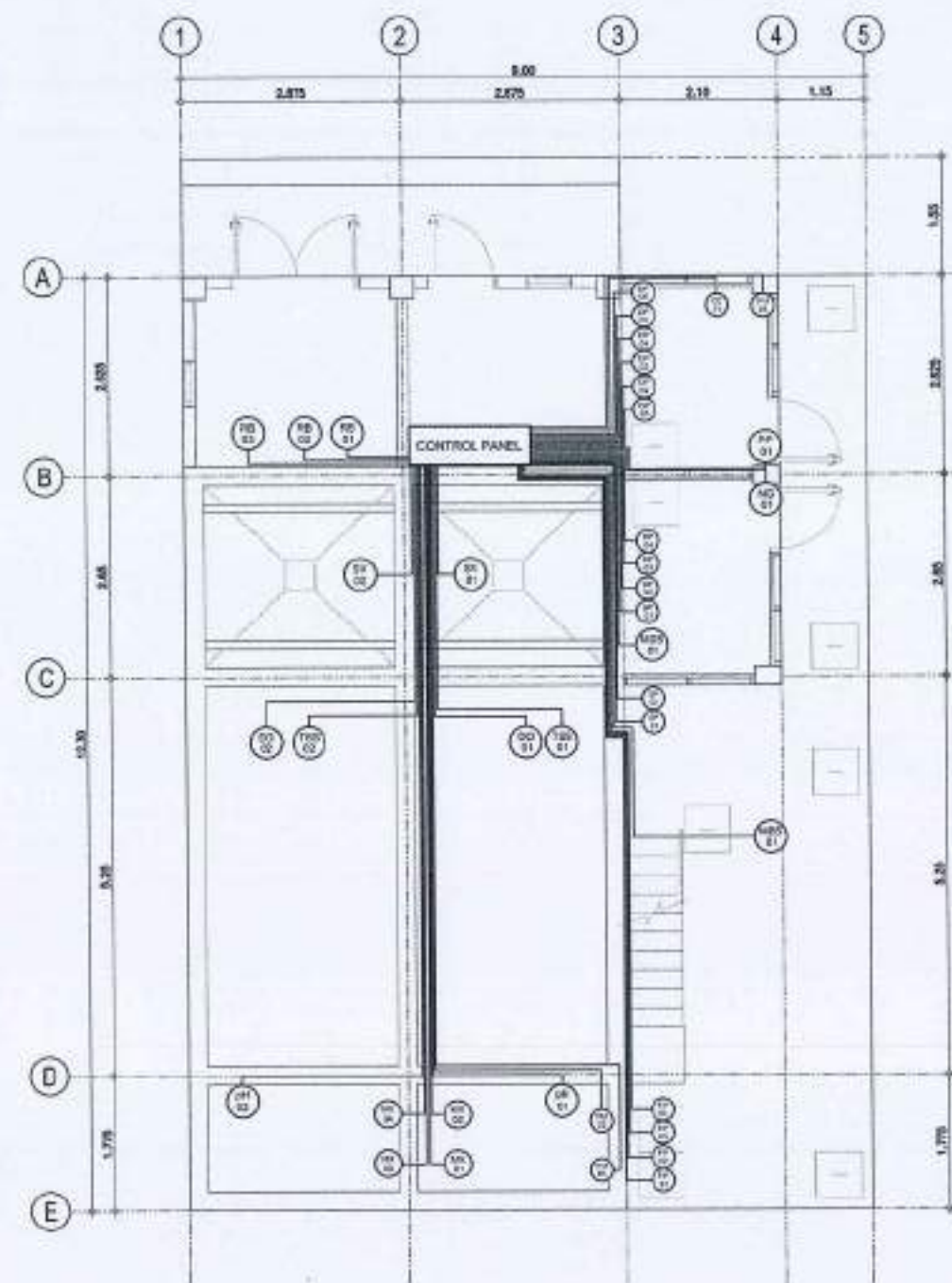
PROJECT:
DESIGN & CONSTRUCTION OF
PORTABLE SEWERAGE
TREATMENT PLANT (STP) &
INTERCONNECTION OF PIPE
NETWORK & SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

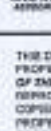
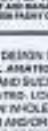
SHEET CONTENTS:
• CLUSTER LIFTING TANK DETAILS
• SCREEN BASKET SPOT DETAILS

DRAWING CODE: SHEET NO:
P3

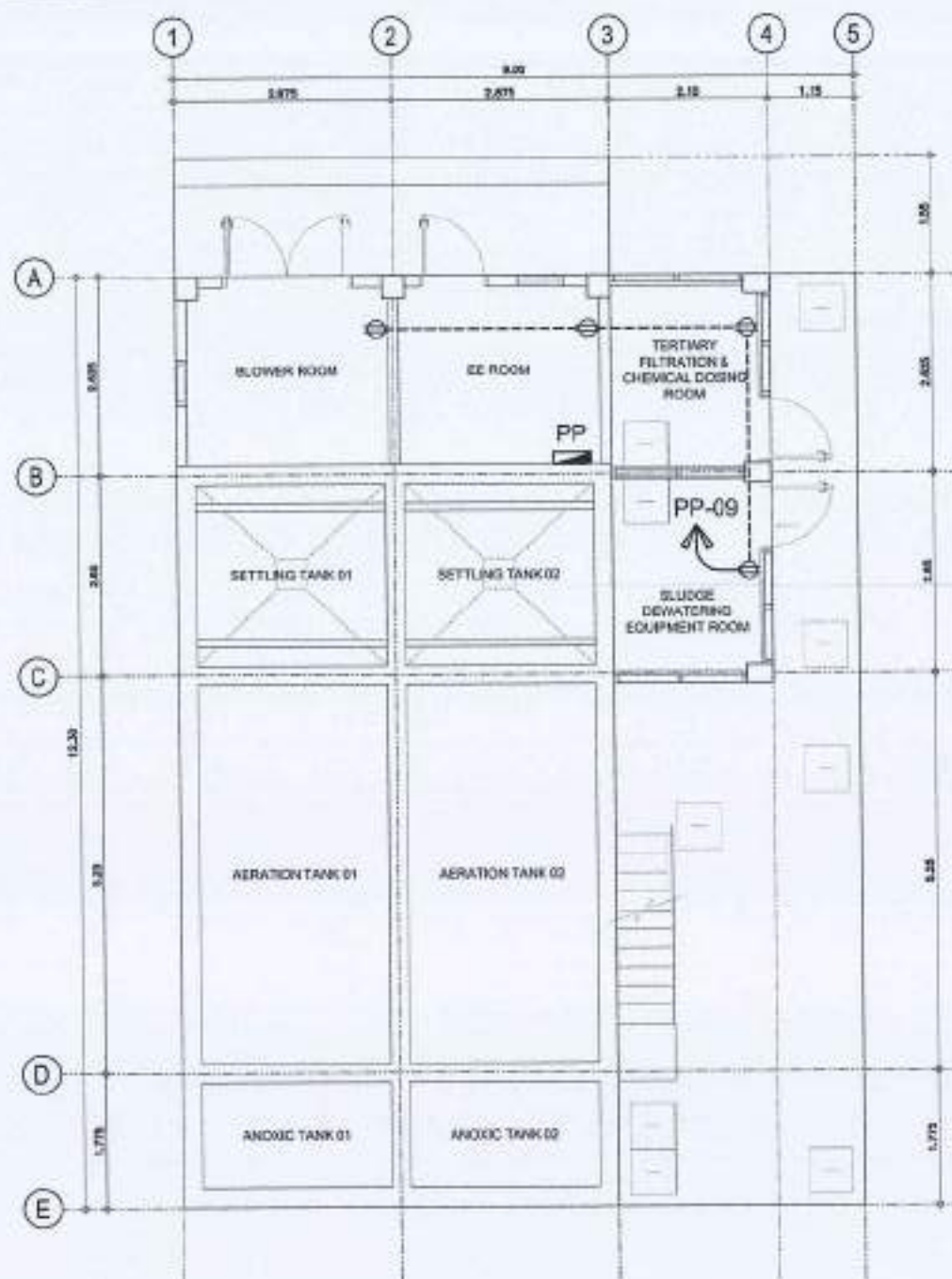
1. ALL ELECTRICAL WORKS AND INSTALLATIONS SHALL COMPLY WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE WITH THE RULES AND REGULATIONS OF THE NATIONAL AND LOCAL AUTHORITIES CONCERNED IN THE ENFORCEMENT OF ELECTRICAL LAWS AND REGULATIONS OF THE UTILITY COMPANIES CONCERNED.
2. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER..
3. GENERAL USED RECEPTACLE SHALL BE RATED 16 AMPERES, 2 POLE, 250 VOLTS, UNIVERSAL TYPE WITH GROUND WITH PARALLEL SLOTS, SPECIAL PURPOSE OUTLET SHALL BE OF THE TYPE AND RATING INSULATED FOR RATING SUITED FOR THE EQUIPMENT SERVED.
4. ALL ELECTRICAL EQUIPMENT SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE REQUIREMENT OF THE PHILIPPINE ELECTRICAL CODE.
5. ELECTRICAL PIPES, WIRES AND CABLES TO BE USED SHALL BE UNDERWRITERS LABORATORY (UL) LISTED TO ENSURE THAT THE PRODUCT MEETS NATIONALLY RECOGNIZED STANDARDS FOR SUSTAINABILITY AND SAFETY.
6. MANHOLES, HAND HOLES, JUNCTION BOXES, PULL BOXES, AND WIRE GUTTER GAUGE NO. 16 (MINIMUM) SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER REQUIRED AND NECESSARY AND SHALL BE INSTALLED AT CONVENIENT SPACE AND LOCATION TO FACILITATE WIRE PULLING EVEN IF THESE ITEMS ARE NOT SHOWN IN THE PLAN.
7. ROUTING OF FEEDERS AND BRANCH CIRCUITS SHALL BE DONE IN THE FIELD WITH THE APPROVAL OF THE SUPERVISING REPRESENTATIVE OF CAAP.
12. PROVIDE SUFFICIENT MICA TUBE AND FLEXIBLE METAL CONDUIT FROM JUNCTION BOX TO TO LIGHTING FIXTURE.
13. PANEL BOARD SHALL BE EQUIPPED WITH GROUND KIT TERMINALS WITH NUMBER OF TERMINALS EQUAL TO THE NUMBER OF BRANCH CIRCUITS.
14. LOAD DATA IS BASED ON INFORMATION GIVEN TO THE ENGINEER AT THE TIME OF DESIGN. VERIFY ALL EQUIPMENT NAMEPLATE RATING BEFORE ORDERING.
18. SECURING OF NECESSARY ELECTRICAL PERMITS, CEI, AND OTHER NECESSARY REQUIREMENTS SHALL BE PART OF THE GENERAL CONTRACTOR INCLUDING COORDINATION/APPLICATION WITH THE UTILITY COMPANY FOR POWER INTERRUPTION.
19. ALL WORKS SHALL BE EXECUTED IN A WORKMANSHIP MANNER AND SHALL PRESENT A NEAT AND ORDERLY ACCEPTANCE. ALL WIRING SHALL BE CONCEALED AS MUCH AS POSSIBLE.



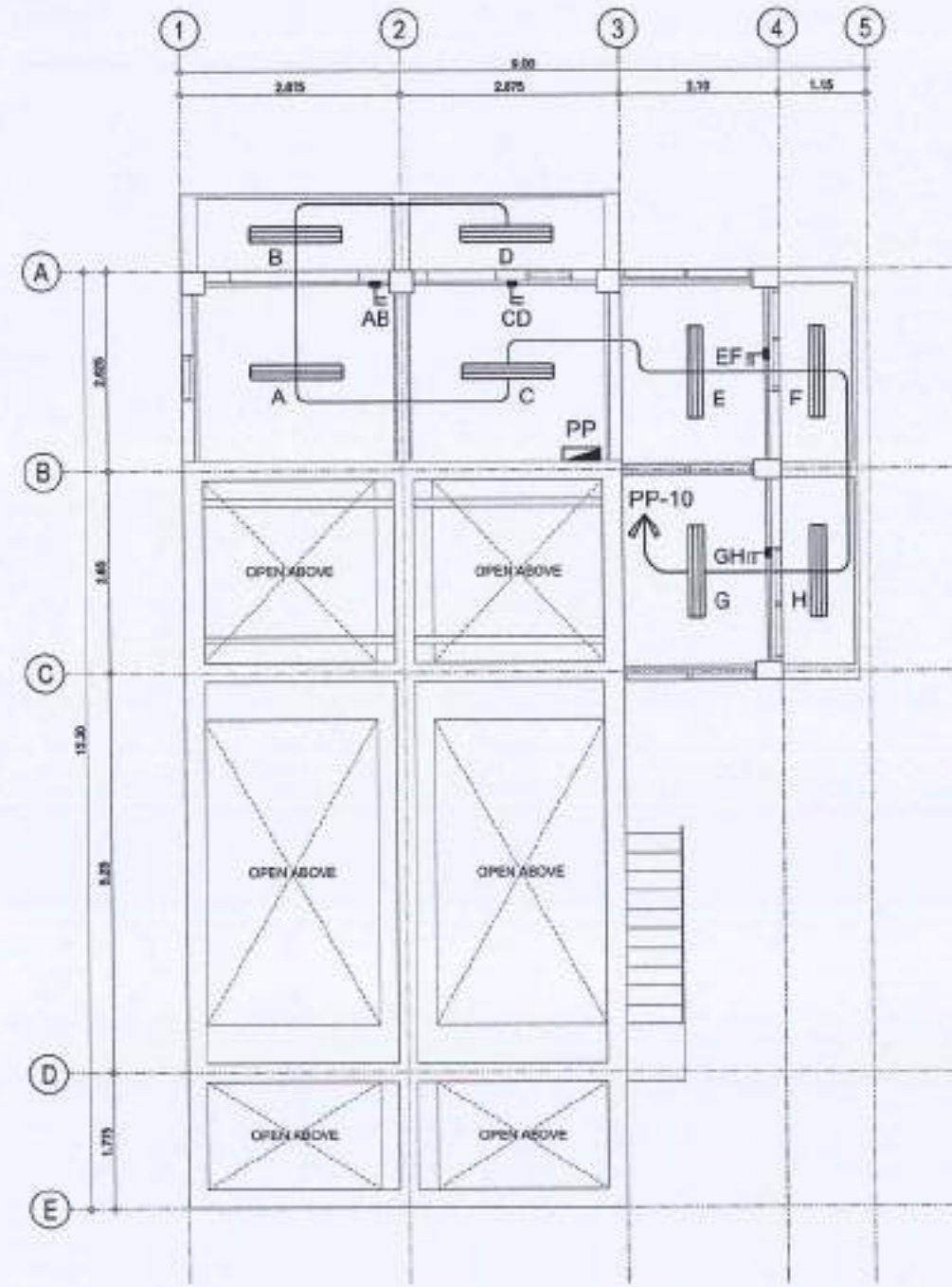
1 POWER LAYOUT PLAN
E-1 E-1 SCALE: 1:50 M

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE	
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION	
DESIGN (STAFF):	ACTUAL DATE:
EXCLUDED BY:	
DRAWN BY:	<i>[Signature]</i>
CHECKED BY:	
REVIEWED BY:	
 RAUL R. MENDOZA Division Chief, I, ADD-AD	
SUBMITTED BY:	
 APOLLO F. BORLADO Department Manager, I, ADD-ADM	
RECOMMEND APPROVAL:	
 ASSISTANT DIRECTOR GENERAL I, ADDM	
APPROVED BY:	
 CAPTAIN RICARDO L. TRINIDAD (Designated)	
NOTES/REVISE-DWG:	
PROJECT:	
DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION PIPE NETWORK & SEPTIC TANK	
LOCATION:	
CAAP HEAD OFFICE NAGA ROAD, PASAY CITY	
SHEET CONTENTS:	
• GENERAL NOTES AND SPECIFICATIONS • POWER LAYOUT PLAN	
DRAWING SCALE:	SHEET NO.
1:500 H	E-1

LEGEND	
SYMBOL	DESCRIPTION
	WEATHER PROOF FLUORESCENT LUMINAIRE WITH 3x16 LED TUBE
	DUPLEX UNIVERSAL CONVENIENCE OUTLET WITH GROUND, 15AMP
	TWO-GANG SWITCH, 15AMP, WIDE SERIES
	PANEL BOARD



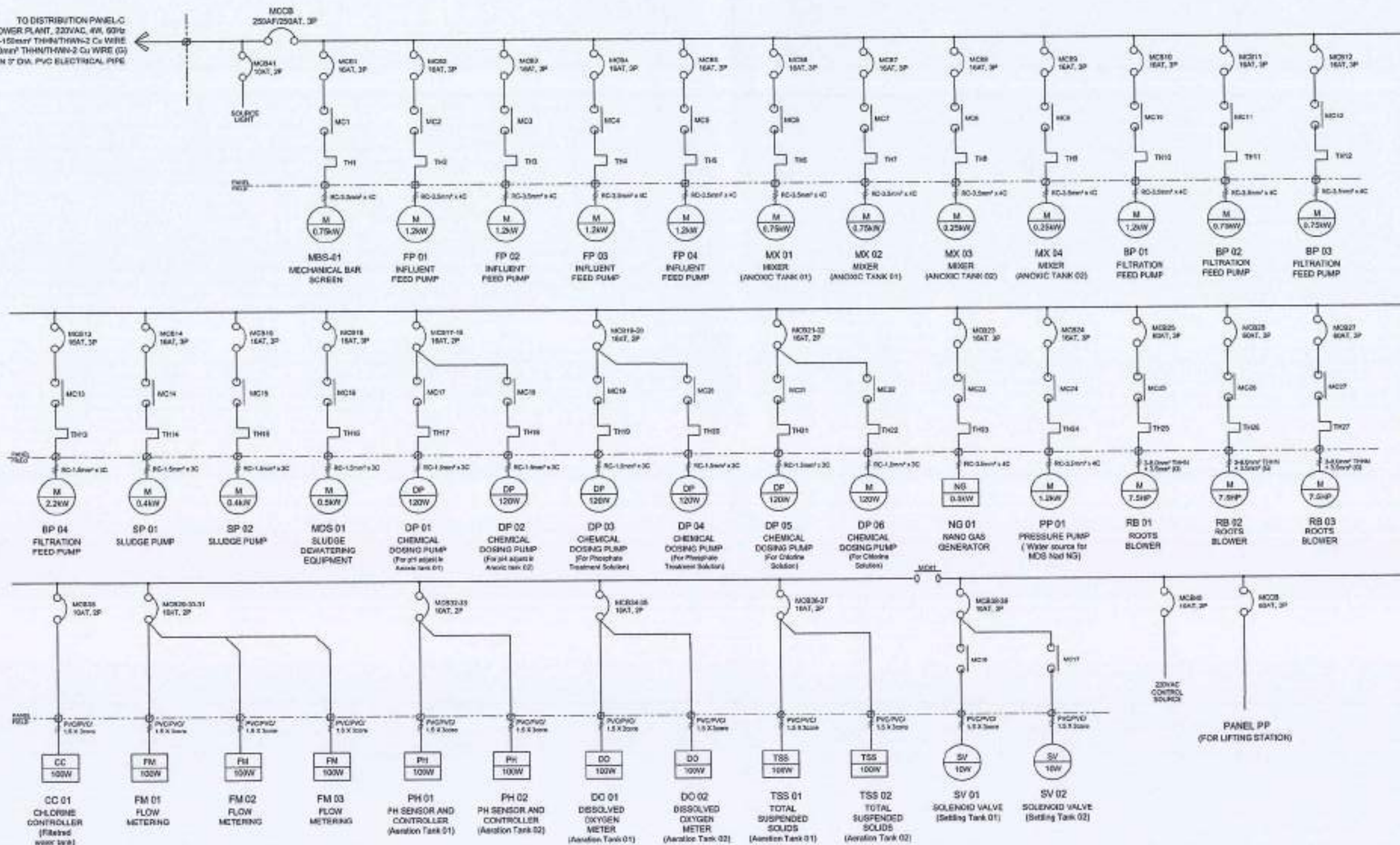
1 POWER LAYOUT PLAN
E-2/E-2 SCALE: 1:50 M



2 LIGHTING LAYOUT PLAN
E-2/E-2 SCALE: 1:50 M

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE	
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION	
DESIGN STAFF:	DESIGN DATE:
DESIGNED BY:	
SPONSORED BY:	
APPROVED BY:	
REVIEWED BY: RAUL R. BRUCENA Division Chief, EDD-20	
SUBMITTED BY: ARNEL T. BORLADO Document Management, AED-ADMS	
RECOMMEND APPROVAL: LT COL. J. B. A. DIZON (RET) Assistant Director Technical, AED	
APPROVED BY: CAPTAIN MANUEL S. TOLentino Director	
NOTES/REVISIONS: _____ _____ _____	
PROVIDE: DESIGN & CONSTRUCTION OF PORTABLE SEWERAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK	
LOCATION: CAAP HEAD OFFICE NAGA ROAD, PASAY CITY	
SHEET CONTENTS: • POWER LAYOUT PLAN • LIGHTING LAYOUT PLAN	
DRAWING SCALE:	SHEET NO.:
1:50 M	E-2

TO DISTRIBUTION PANEL C
AT POWER PLANT, 220VAC, 4W, 60Hz
3-150mm² THHN/THWN-2 Cu WIRE
+ 1-30mm² THHN/THWN-2 Cu WIRE (G)
IN 3" DIA. PVC ELECTRICAL PIPE



1 SINGLE LINE DIAGRAM
E-3 E-3 SCALE: NTS



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CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
JANUARY 2017
BANGAL, CAGAYAN CITY

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CAAP.

AERODROME DEVELOPMENT
AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN
DIVISION

DESIGN STAFF: INITIAL, DATE

DESIGNER: [Signature]

CHECKED BY: [Signature]

REVIEWED BY: [Signature]

APPROVED BY: [Signature]

APPROVED BY: [Signature]

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LOAD SCHEDULE COMPUTATION (MOTOR CONTROL CENTER)										USE 250AF / 250AT, 3 POLE INDUSTRIAL TYPE MOULDED CASE CIRCUIT BREAKER									
OCT. NO	TAG	DESCRIPTION	SPECIFICATIONS			CURRENT LOAD				MINIATURE CIRCUIT BREAKER				WIRE SPECIFICATION	COND.				
			V	PH	Hr	RS	ST	RT	RST	AT	POLE	KAIC	MCB						
1	MBS 01	MECHANICAL BAR SCREEN	220	3	60				3.6	16	3	30	MCB1	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
2	FP 01	INFLUENT FEED PUMP -1	220	3	60				6	20	3	30	MCB2	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
3	FP 02	INFLUENT FEED PUMP -2	220	3	60				6	20	3	30	MCB3	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
4	FP 03	INFLUENT FEED PUMP -3	220	3	60				6	20	3	30	MCB4	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
5	FP 04	INFLUENT FEED PUMP -4	220	3	60				6	20	3	30	MCB5	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
6	MX 01	MIXER (Anoxic Tank 01)	220	3	60				6.8	20	3	30	MCB6	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
7	MX 02	MIXER (Anoxic Tank 02)	220	3	60				6.8	20	3	30	MCB7	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
8	MX 03	MIXER (Anoxic Tank 01)	220	3	60				6.8	20	3	30	MCB8	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
9	MX 04	MIXER (Anoxic Tank 02)	220	3	60				6.8	20	3	30	MCB9	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
10	BP 01	FILTRATION FEED PUMP -1	220	3	60				9.6	20	3	30	MCB10	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
11	BP 02	FILTRATION FEED PUMP -2	220	3	60				9.6	20	3	30	MCB11	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
12	BP 03	FILTRATION FEED PUMP -3	220	3	60				9.6	20	3	30	MCB12	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
13	BP 04	FILTRATION FEED PUMP -4	220	3	60				9.6	20	3	30	MCB13	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
14	SP 01	SLUDGE PUMP -1	220	3	60				2	16	3	30	MCB14	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
15	SP 02	SLUDGE PUMP -2	220	3	60				2	16	3	30	MCB15	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
16	MDS 01	SLUDGE DEWATERING EQUIPMENT	220	3	60				2.8	16	3	30	MCB1-2	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
17	DP 01	CHEMICAL DOSING PUMP -1	220	1	60	0.5				16	2	30	MCB 17-18	2-2.0mm² THHN/THWN-2 Cu. WIRE, + 1-2.0mm² (G)	20				
18	DP 02	CHEMICAL DOSING PUMP -2	220	1	60	0.5				16	2	30	MCB 19-20	2-2.0mm² THHN/THWN-2 Cu. WIRE, + 1-2.0mm² (G)	20				
19	DP 03	CHEMICAL DOSING PUMP -3	220	1	60			0.5		16	2	30	MCB 21-22	2-2.0mm² THHN/THWN-2 Cu. WIRE, + 1-2.0mm² (G)	20				
20	DP 04	CHEMICAL DOSING PUMP -4	220	1	60			0.5		16	2	30	MCB 23-24	2-2.0mm² THHN/THWN-2 Cu. WIRE, + 1-2.0mm² (G)	20				
21	DP 05	CHEMICAL DOSING PUMP -5	220	1	60			0.5		16	2	30	MCB 25-26	2-2.0mm² THHN/THWN-2 Cu. WIRE, + 1-2.0mm² (G)	20				
22	DP 06	CHEMICAL DOSING PUMP -6	220	1	60			0.5		16	2	30	MCB 27-28	2-2.0mm² THHN/THWN-2 Cu. WIRE, + 1-2.0mm² (G)	20				
23	NG 01	NANO GAS GENERATOR	220	1	60				2.27	16	3	30	MCB23	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
24	PP 01	PRESSURE PUMP	220	3	60				6.8	20	3	30	MCB24	3-3.5mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	20				
25	RB 01	ROOTS BLOWER -1	220	3	90				22	60	3	100	MCB25	3-8.0mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	25				
26	RB 02	ROOTS BLOWER -2	220	3	90				22	60	3	100	MCB26	3-8.0mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	25				
27	RB 03	ROOTS BLOWER -3	220	3	90				22	60	3	100	MCB27	3-8.0mm² THHN/THWN-2 Cu. WIRE, + 1-3.5mm² (G)	25				
28	CO01	CHLORINE CONTROLLER	220	1	60	0.45				10	2	30	MCB 29	2-SET OF PVC/PVC/3core x 1.5mm²	25				
29-30-31	FM -1/2/3	FLOW METERING	220	1	60	1.35				10	2	30	MCB 30-31	2-SET OF PVC/PVC/3core x 1.5mm²	25				
32-33	PH-1/2	PH SENSOR AND CONTROLLER	220	1	60				0.9	10	2	30	MCB 32-33	2-SET OF PVC/PVC/3core x 1.5mm²	25				
34-35	DO-1/2	DISSOLVED OXYGEN METER	220	1	60				0.9	10	2	30	MCB 34-35	2-SET OF PVC/PVC/3core x 1.5mm²	25				
36-37	TSS -1/2	TOTAL SUSPENDED SOLIDS METER	220	1	60			0.9		10	2	30	MCB 36-37	2-SET OF PVC/PVC/3core x 1.5mm²	25				
38-39	SV -1/2	SOLENOID VALVE	220	1	60			0.1		10	2	30	MCB 38-39	2-SET OF PVC/PVC/3core x 1.5mm²	25				
40	-	CONTROL CIRCUIT	220	1	90	1.8				10	2	10	MCB40	2-0.75mm² TF Cu. WIRE	25				
41	-	FAN & LIGHTING	220	1	60	0.59				10	2	2	MCB41	2-0.75mm² TF Cu. WIRE	25				
42	PP	PANEL PP FOR LIFTING STATIONS	220	1	60		3.27	1.82	36.20	60	3	30	MCCB	3-14mm² THHN/THWN-2 Cu. WIRE, + 1-8.0mm² (G)	25				
TOTAL LOADS						5.19	5.27	4.62	211.27										

FULL-LOAD CURRENT COMPUTATION AT 220VAC SUPPLY AT 90% DEMAND FACTOR

$$I_{30} = 90\%[211.27 + 5.27\sqrt{3}] = 198.36 \text{ A}$$

$$I_f = 198.36 + 0.25(22) = 203.86 \text{ A}$$

$$I_{CB} = 198.36 + 1.50(22) = 231.36 \text{ A}$$

FOR FEEDER CIRCUIT BREAKER :

USE 250AT, 3-POLE INDUSTRIAL TYPE MOULDED CASE CIRCUIT BREAKER,

FOR FEEDER LINE :

USE 3-150mm² THHN/THWN-2 Cu WIRE + 1-30mm² THHN/THWN-2 Cu WIRE (G)
IN 3" DIA. PVC ELECTRICAL PIPE / CABLE TRAY

NOTE:

- WHERE PHYSICAL SIZE OF FEEDER EXCEEDS CIRCUIT BREAKERS TERMINALS, THE CONTRACTOR TO PROVIDE EXTENSIONS LUGS FOR THE CIRCUIT BREAKERS.



SCHEDULE OF LOADS

SCALE:

NTS



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
404 ROAD, PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE

DESIGNED BY: [Signature]

DRAWN BY: [Signature]

CHECKED BY: [Signature]

REVIEWED BY: [Signature]

APPROVED BY: [Signature]

APPROVED BY: [Signature]

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LOAD SCHEDULE COMPUTATION (PANEL PP)										USE 60AT / 100AF, 3 POLE INDUSTRIAL TYPE MOULDED CASE CIRCUIT BREAKER						
CKT. NO	TAG	DESCRIPTION	SPECIFICATIONS			CURRENT LOAD				MINIATURE CIRCUIT BREAKER				WIRE SPECIFICATION	COND.	
			V	PH	Hz	RS	ST	RT	RST	AT	POLE	KAIC	MOULDED TNG			
1	MLS	CONTROL PANEL (MAIN LIFTING STATION)	220	3	60				6.8	30	3	30		3-5.5mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
2	LS 01	CONTROL PANEL (LIFTING STATION 1)	220	3	60				4.2	30	3	30		3-5.5mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
3	LS 02	CONTROL PANEL (LIFTING STATION 2)	220	3	60				4.2	30	3	30		3-5.5mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
4	LS 03	CONTROL PANEL (LIFTING STATION 3)	220	3	60				4.2	30	3	30		3-5.5mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
5	LS 04	CONTROL PANEL (LIFTING STATION 4)	220	3	60				4.2	30	3	30		3-8.0mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
6	LS 05	CONTROL PANEL (LIFTING STATION 5)	220	3	60				4.2	30	3	30		3-8.0mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
7	LS 06	CONTROL PANEL (LIFTING STATION 6)	220	3	60				4.2	30	3	30		3-8.0mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
8	LS 07	CONTROL PANEL (LIFTING STATION 7)	220	3	60				4.2	30	3	30		3-8.0mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	25 PVC	
9		CONVENIENCE OUTLET	220	3	60		3.27			20	2	30		2-3.5mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	20 IMC	
10		LIGHTING OUTLET	220	3	60			1.82		20	2	30		2-3.5mm ² THHN/THWN-2 Cu. WIRE, + 1-3.5mm ² (G)	20 IMC	
11		SPARE														
12		SPARE														
TOTAL LOADS							3.27	1.82	36.20							

FULL-LOAD CURRENT COMPUTATION AT 220VAC SUPPLY AT 90% DEMAND FACTOR

$$I_{3\phi} = 36.20 + 3.27\sqrt{3} = 41.86 \text{ A}$$

$$I_f = 41.86 + 0.25(6.8) = 43.56 \text{ A}$$

$$I_{CB} = 41.86 + 1.50(6.8) = 52.06 \text{ A}$$

FOR FEEDER CIRCUIT BREAKER :

USE 60AT, 3-POLE INDUSTRIAL TYPE MOULDED CASE CIRCUIT BREAKER,

FOR FEEDER LINE :

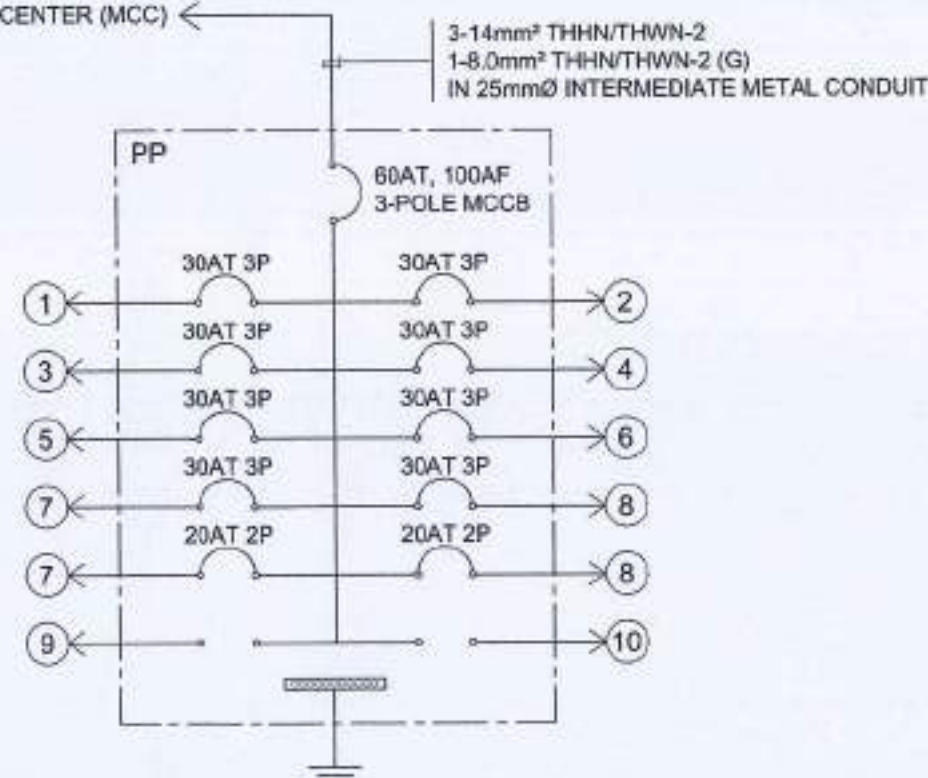
USE 3-14mm² THHN/THWN-2 Cu WIRE + 1-8.0mm² THHN/THWN-2 Cu WIRE (G)
IN 25mmØ (1") INTERMEDIATE METAL CONDUIT

1 SCHEDULE OF LOADS

SCALE:

NTS

TO MOTOR CONTROL CENTER (MCC) ←



1 PANEL DETAILS

SCALE:

NTS

NOTE:

- WHERE PHYSICAL SIZE OF FEEDER EXCEEDS CIRCUIT BREAKERS TERMINALS, THE CONTRACTOR TO PROVIDE EXTENSIONS LUGS FOR THE CIRCUIT BREAKERS.



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: WTA/DATE:

DESIGNED BY:

CHECKED BY:

REVIEWED BY:

APPROVED BY:

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Division Chief, R. 1000-AD

SUBMITTED BY:

ARNEL P. BORLADO

Department Manager, R. 1000-AD

RECOMMENDED APPROVAL:

LT DAN WENYU A. DIONELA, P. (R. 1000-AD)

Assistant Director General, R. 1000-AD

APPROVED BY:

CAPTAIN BERNARD ANTONIO T. TAYAO

Division Chief, R. 1000-AD

NOTES/REVISIONS:

PROJECT:

DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK & SEPTIC TANK

LOCATION:

CAAP HEAD OFFICE

NASA ROAD, PASAY CITY

SHIRT CONTENTS:

• SCHEDULE OF LOADS AND COMPUTATION

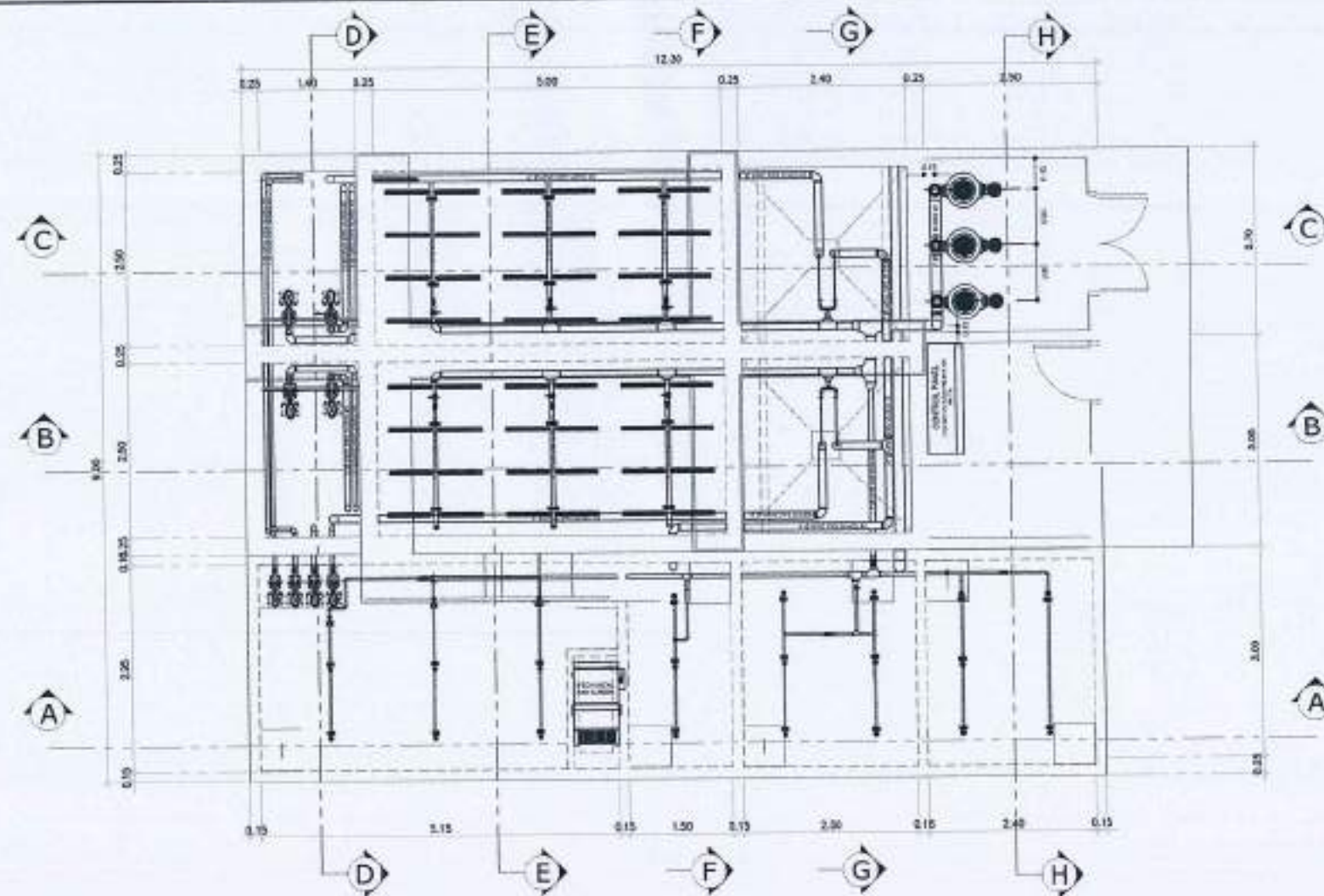
• PANEL DETAILS

DRAWING SCALE:

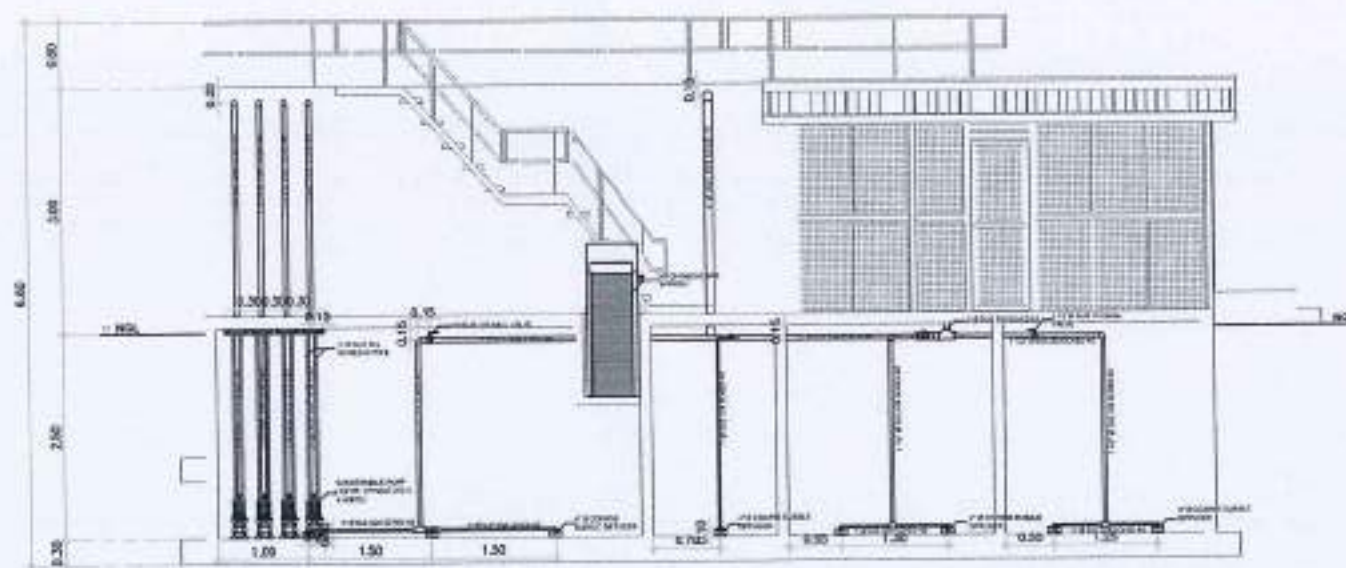
1:50 M

SHIRT NO:

E-5



1 MECHANICAL LAYOUT (TOP VIEW)
SCALE: 1:50M



2 SECTION THRU A-A
SCALE: 1:50M



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNER:	
DRAWN BY:	
CHECKED BY:	

REVIEWED BY:

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PAUL R. CRUCENA
Division Chief, ADD-ADM

SUBMITTED BY:

[Signature]
JANIL F. BORLADO
Department Manager, ADD-ADM

RECOMMENDING APPROVAL:

[Signature]
LT COL MARISTO J. NICOLA MC (RET)
ADD-ADM

APPROVED BY:

[Signature]
CAPTAIN MONTENILLO TAMAYO
Acting Director General

NOTES/REVISIONS:

NO.	DESCRIPTION

PROJECT:

DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) OF INTERCONNECTION OF PIPE NETWORK AND SEPTIC TANK

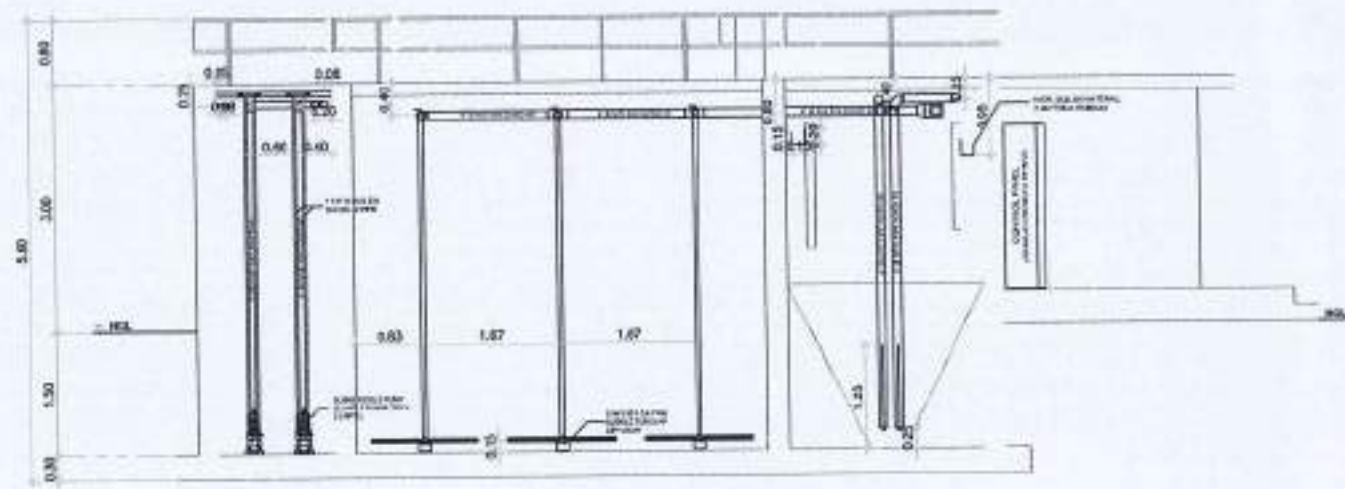
LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

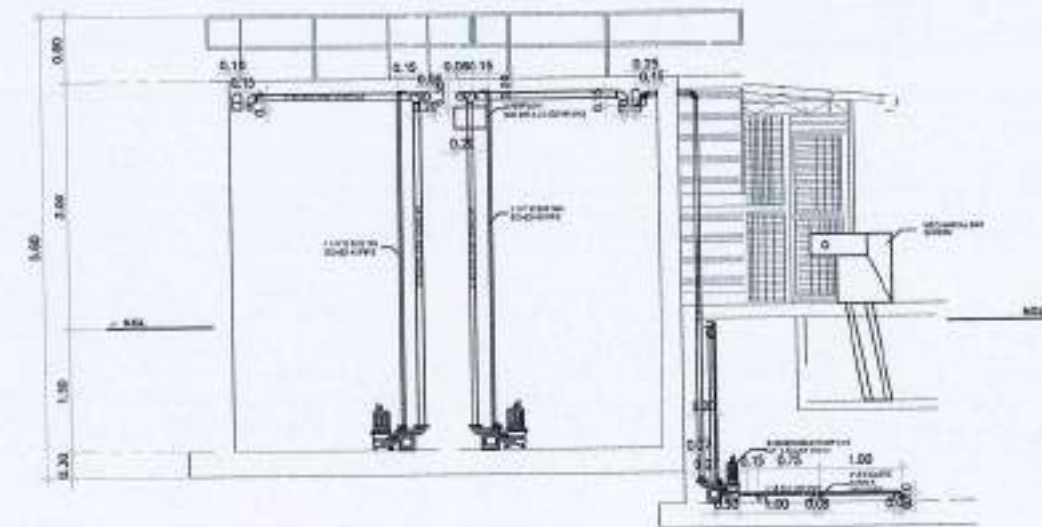
SHEET CONTENTS:

• MECHANICAL LAYOUT (TOP VIEW)
• SECTION A-A

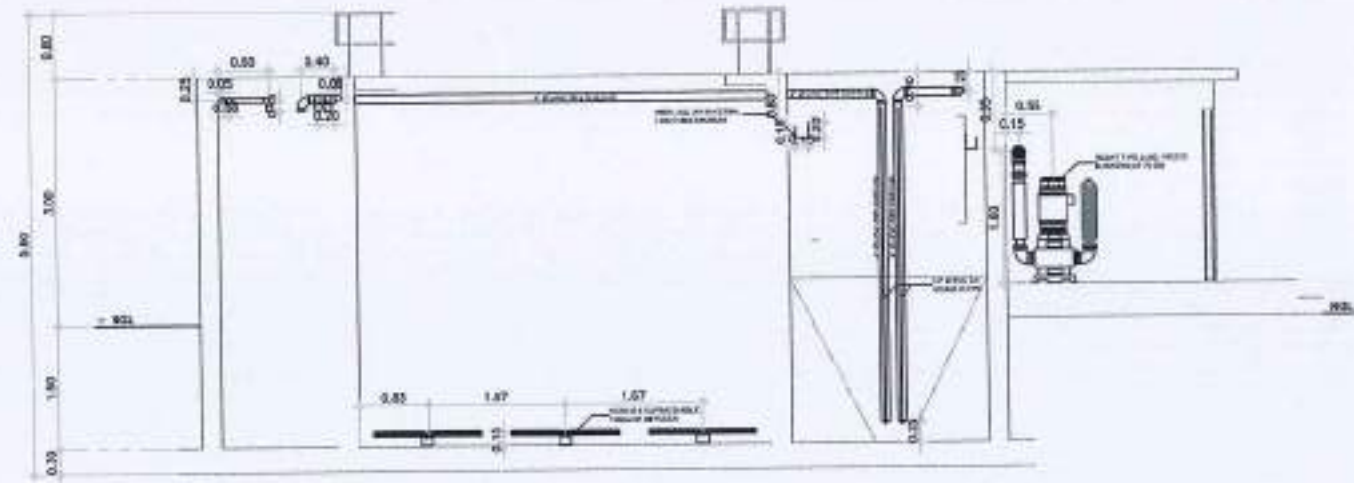
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1:50	M-1



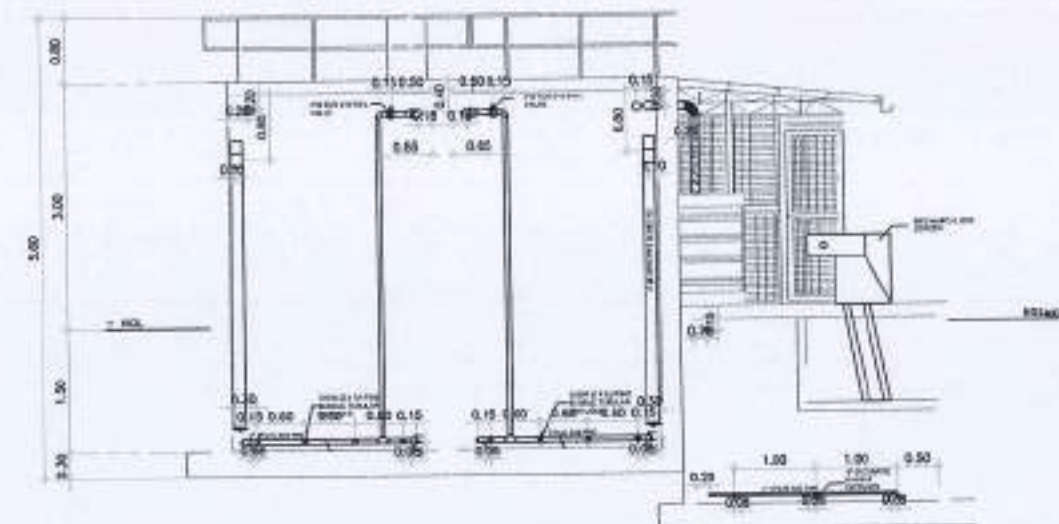
1 SECTION THRU B-B
SCALE: 1:50M



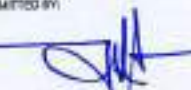
3 SECTION THRU D-D
SCALE: 1:50M

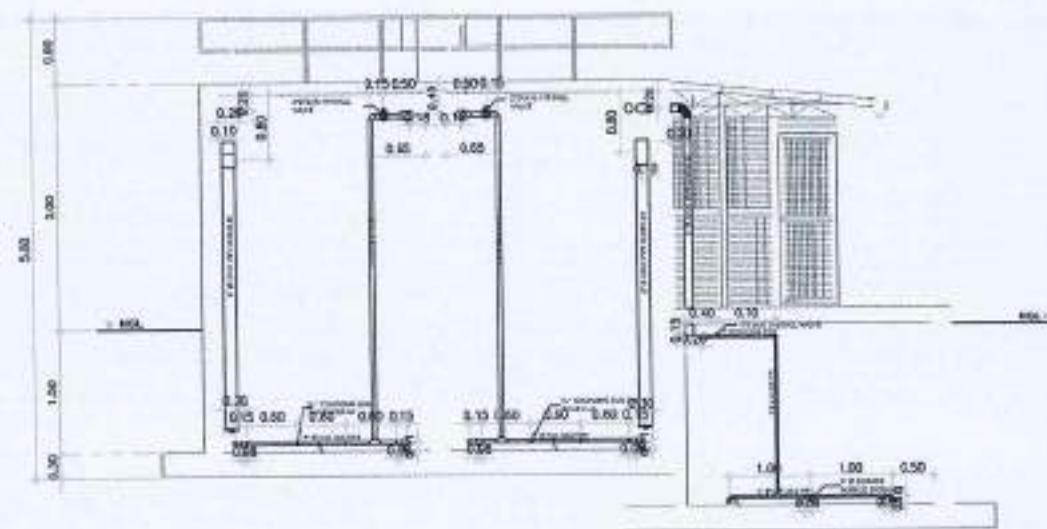


2 SECTION THRU C-C
SCALE: 1:50M

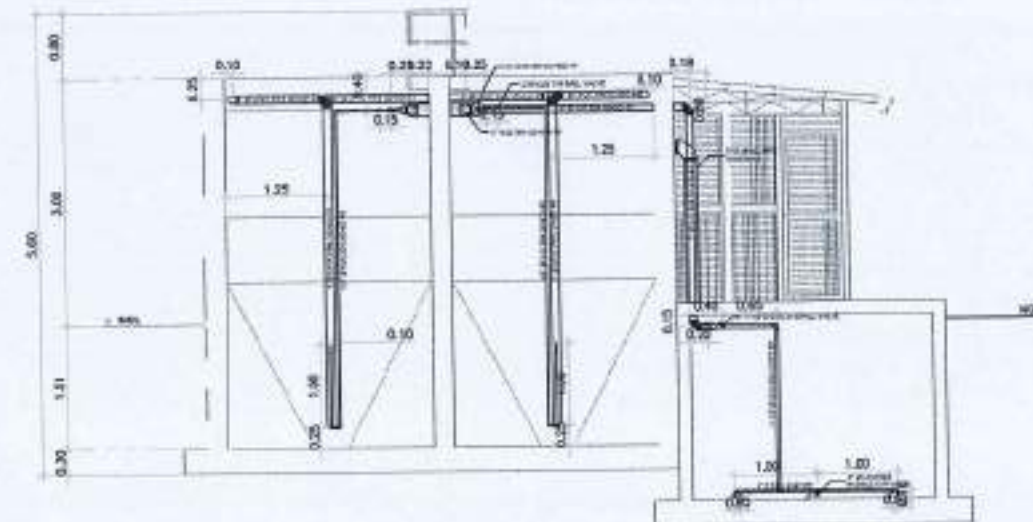


4 SECTION THRU E-E
SCALE: 1:50M

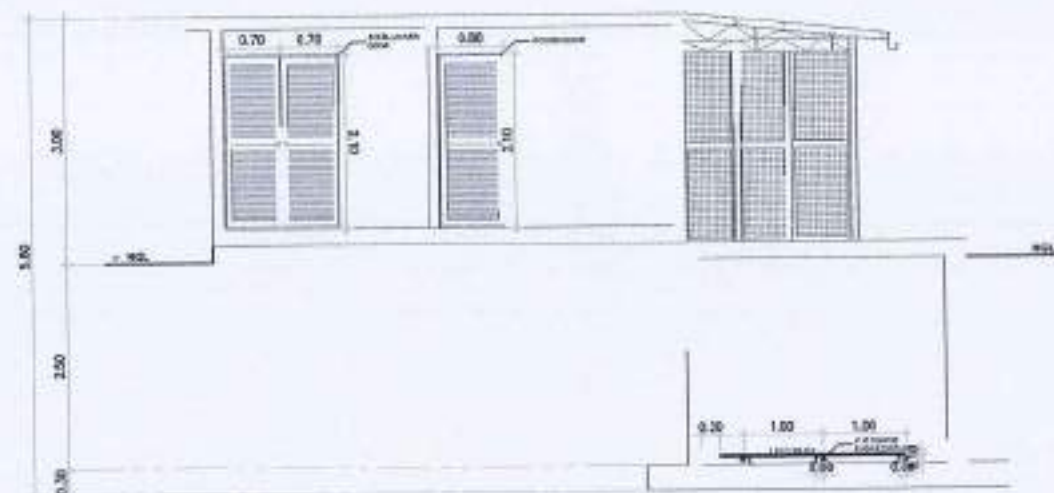
 	
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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION	
DESIGN STAFF:	DATE:
DESIGNED BY:	
CHECKED BY:	
REVIEWED BY:  Raul R. Cruz Division Chief, EDD-ADM	
SUBMITTED BY:  Arnel F. Borlado Department Manager, EDD-ADM	
RECOMMENDED APPROVAL:  Leocadio A. Bionel (RET.) ADM S. ADM	
APPROVED BY:  CAPTAIN MAIKEL L. TAN Acting Director General	
WORKS/REVISIONS: _____ _____ _____	
PROJECT: DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK AND SEPTIC TANK	
LOCATION: CAAP HEAD OFFICE NAA ROAD, PASAY CITY	
SHEET CONTENTS: • SECTION B-B • SECTION C-C • SECTION D-D • SECTION E-E	
DRAWING SCALE:	SHEET NO.:
1:50	M-2



1 SECTION THRU F-F
SCALE 1:50M



2 SECTION THRU G-G
SCALE 1:50M



3 SECTION THRU H-H
SCALE 1:50M



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL/DATE
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DRAWN BY:	
CHECKED BY:	

REVIEWED BY:

[Signature]
RAUL S. CRUCIANA
Deputy Director for ADG-ADM

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[Signature]
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Department Manager for ADG-ADM

RECOMMEND APPROVAL:

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L. G. VILLARDO A. DICOLA RAF (RET)
ADG-ADM

APPROVED BY:

[Signature]
CAPTAIN MARINO B. DELA CRUZ
Acting Director General

NOTES/REVISIONS:

NO.	DESCRIPTION

PROJECT:

DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK AND SEPTIC TANK

LOCATION:

CAAP HEAD OFFICE
BASA ROAD, PASAY CITY

SHEET CONTENTS:

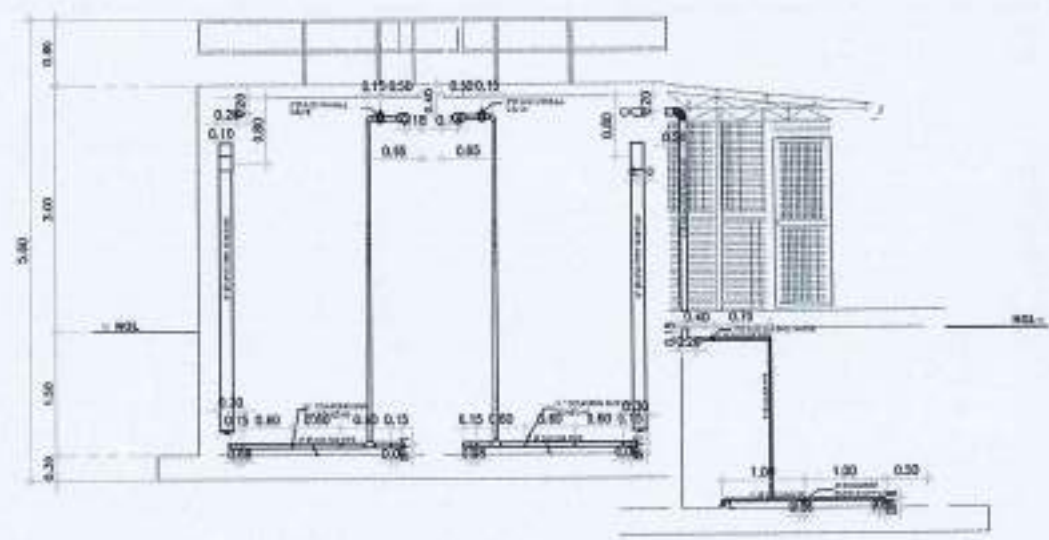
- SECTION F-F
- SECTION G-G
- SECTION H-H

DRAWING SCALE:

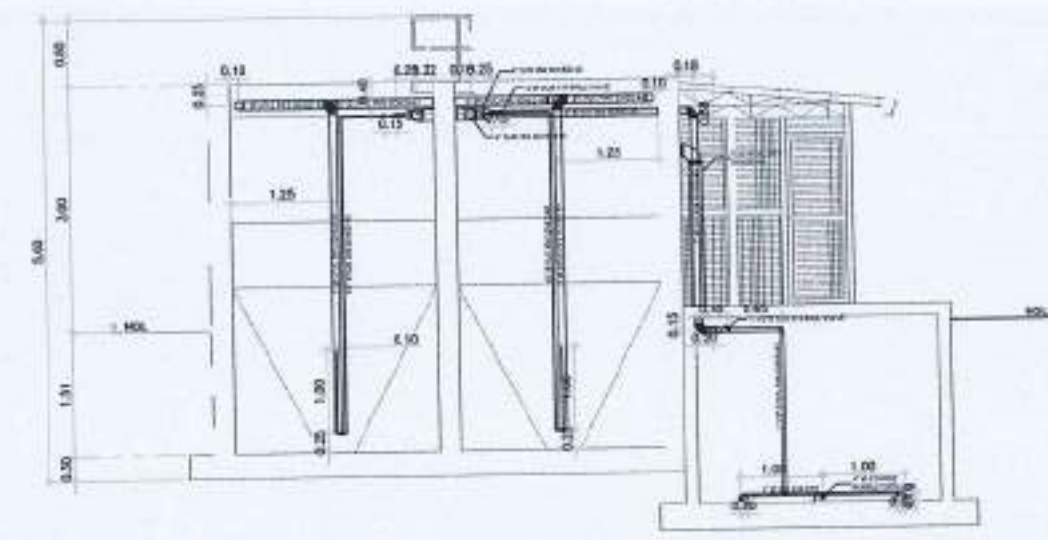
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SHEET NO:

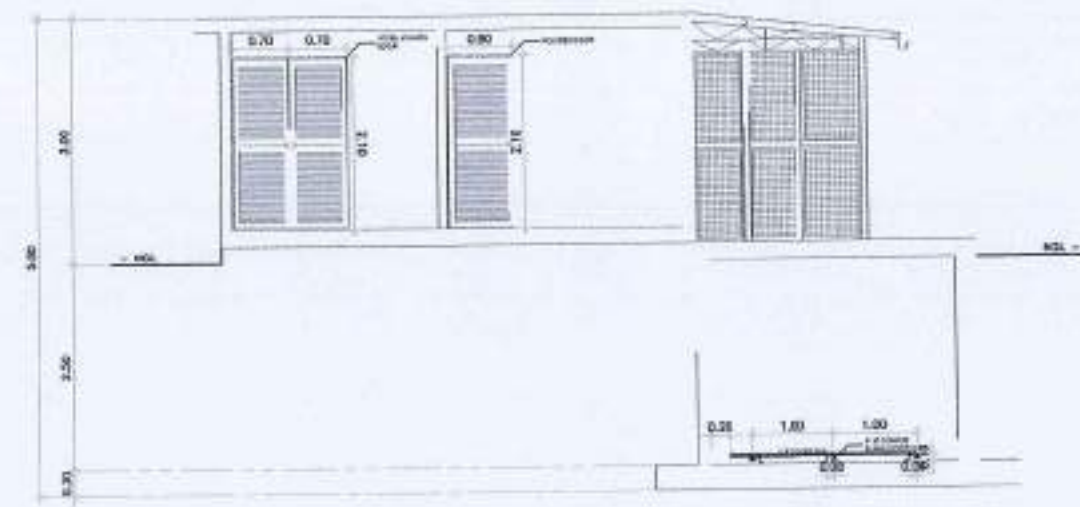
M-3



1 SECTION THRU F-F
SCALE: 1:500



2 SECTION THRU G-G
SCALE: 1:500



3 SECTION THRU H-H
SCALE: 1:500



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL	DATE
DESIGNED BY:		
DRAWN BY:		
CHECKED BY:		

REVISIONS BY:

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RAUL R. CRUCERA
Chief Engineer, AED-MSD

SUBMITTED BY:

[Signature]
ARNEL F. BORLADO
Department Manager, AED-MSD

RECOMMENDED APPROVAL:

[Signature]
STELLA VICENTINO A. BERNILA DAF, (DET)
AED-MSD

APPROVED BY:

[Signature]
CAPTAIN MARCO ANTONIO L. TAYAG
Acting Director General

INTERREVISIONS:

PROJECT:

DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK AND SEPTIC TANK

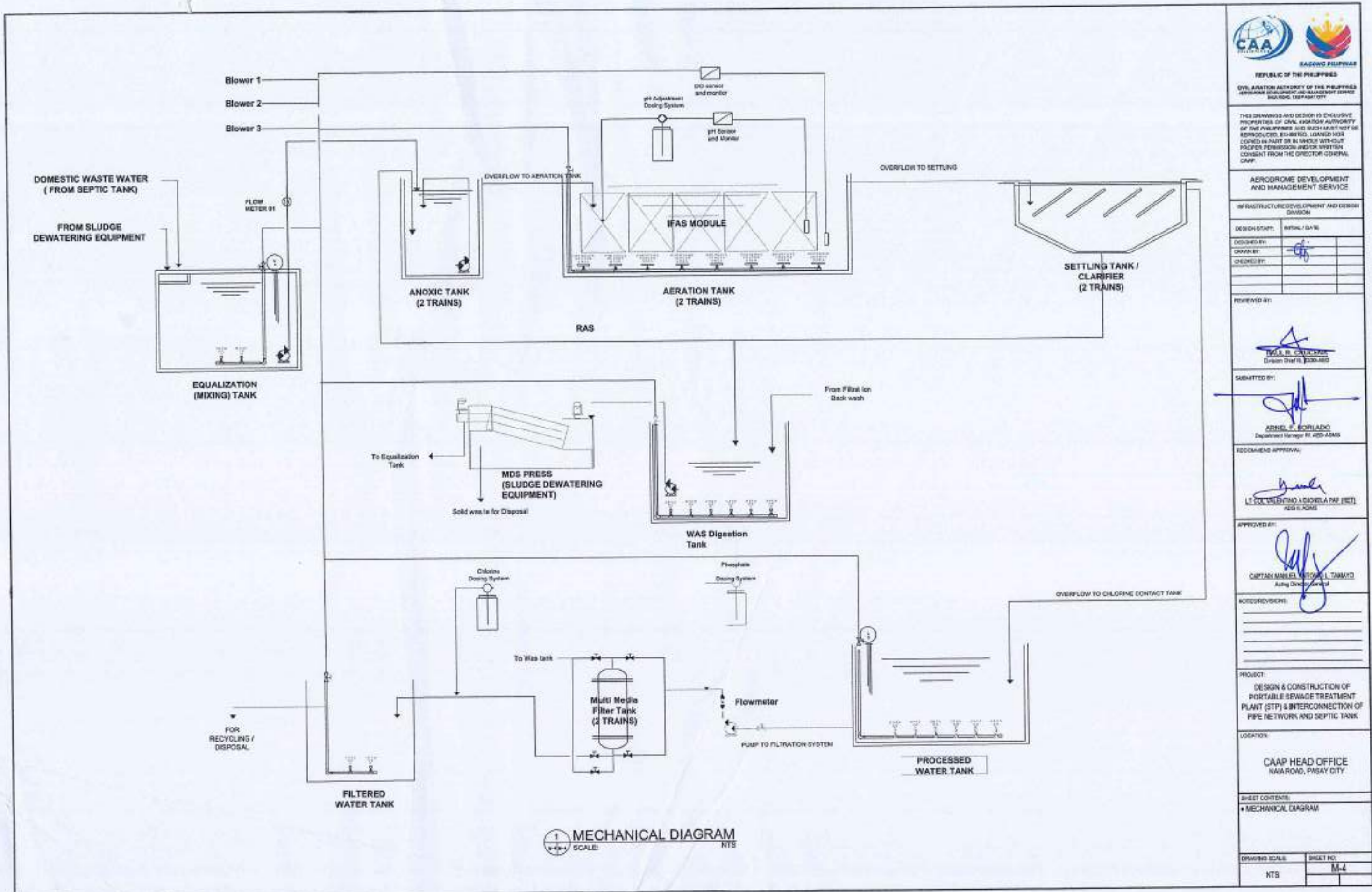
LOCATION:

CAAP HEAD OFFICE
NAA ROAD, PASAY CITY

SHEET COMMENTS:

- SECTION F-F
- SECTION G-G
- SECTION H-H

DRAWING SCALE:	SHEET NO:
1:50	M-3



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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	DATE:
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CHECKED BY:	

REVIEWED BY:

[Signature]
MR. B. CALA-AN
Division Chief II, ADD-ADD

SUBMITTED BY:
[Signature]
ARNOLD S. BORLADO
Department Manager II, ADD-ADD

RECOMMEND APPROVAL:
[Signature]
LT COL. GUENTHER A. GARCIA, PAF (RET.)
ADD-ADD

APPROVED BY:
[Signature]
CAPTAIN MANUEL M. TAYAO
Acting Director General

NOTED/REVISIONS:

PROJECT:
DESIGN & CONSTRUCTION OF PORTABLE SEWAGE TREATMENT PLANT (STP) & INTERCONNECTION OF PIPE NETWORK AND SEPTIC TANK

LOCATION:
CAAP HEAD OFFICE
NAIAROAD, PASAY CITY

SHEET CONTENTS:
MECHANICAL DIAGRAM

DRAWING SCALE:	SHEET NO:
NTS	M-4