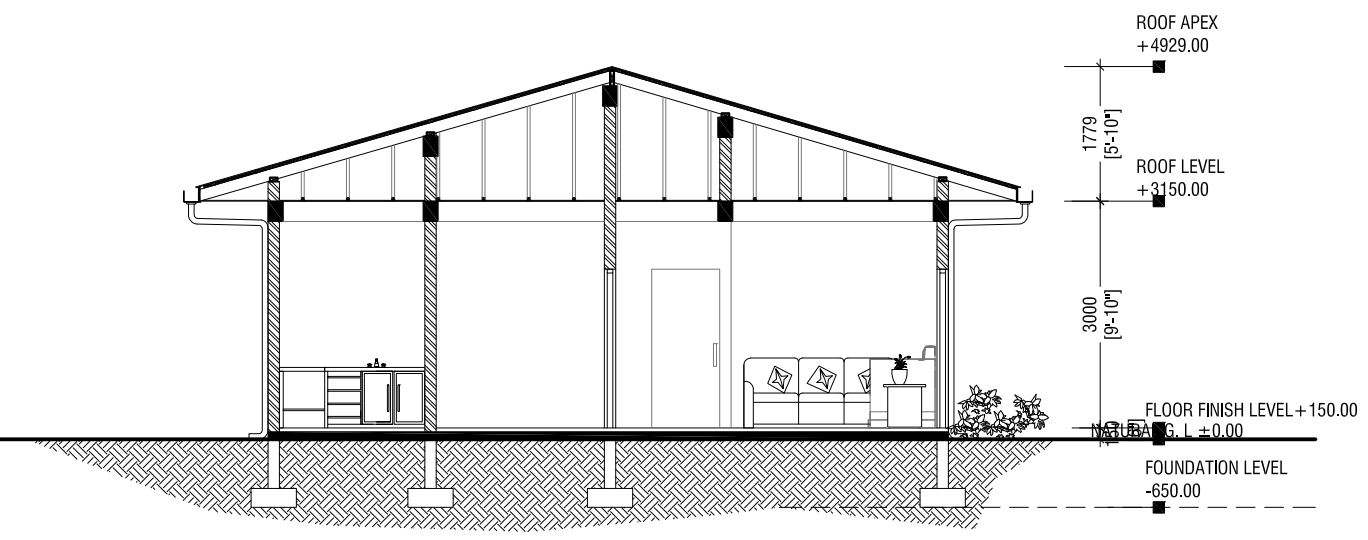
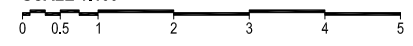


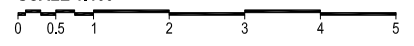
ELEVATION E1

SCALE 1:100



SECTION S1 - S1

SCALE 1:100



CONSULTANCY SERVICES FOR SURVEY & DESIGN
 OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY
 PROJECT NUMBER: -
 DATE: MARCH, 2017
 ENGINEER: -/ Mohamed Saif Saeed
 CHECKED BY: -/ Ihsan Wahheed
 DRAWN BY: -/ Mariyam Irasha Shareef

Rev no	Date



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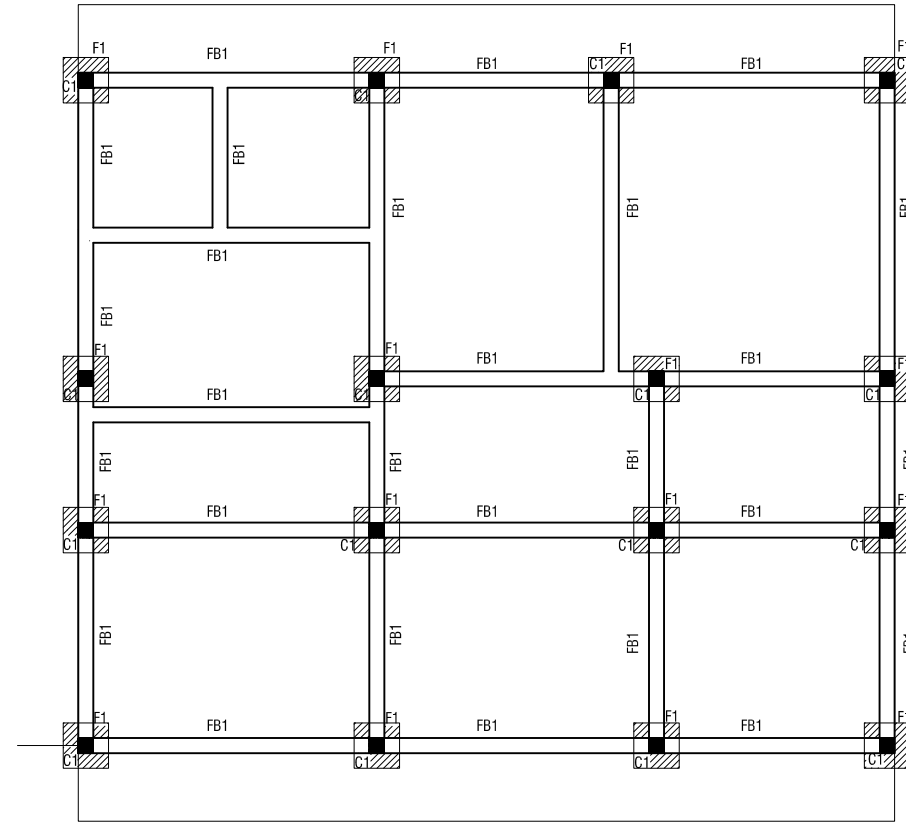
t: +9603315049 f: +9603310776
 e: info@ryan.com.mv
 w: www.ryan.com.mv
 3rd floor, H. Azam, Alireenemaguu, Male'

Title: Admin Building Elevation
 E1 & Section S1
 Page: A -17/28

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FOUNDATION PLAN

SCALE 1:100



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 w: www.ryan.com.mv
 3rd floor, H. Azam, Alweeremaggu, Male'

Title: Admin Building
 Foundation Plan
 Page: A -18/28

**CONSULTANCY SERVICES FOR SURVEY & DESIGN
 OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES**
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER:

DATE: MARCH 2017

ENGINEER :- Mohamed Saif Saeed

CHECKED BY :- Ihsan Wahheed

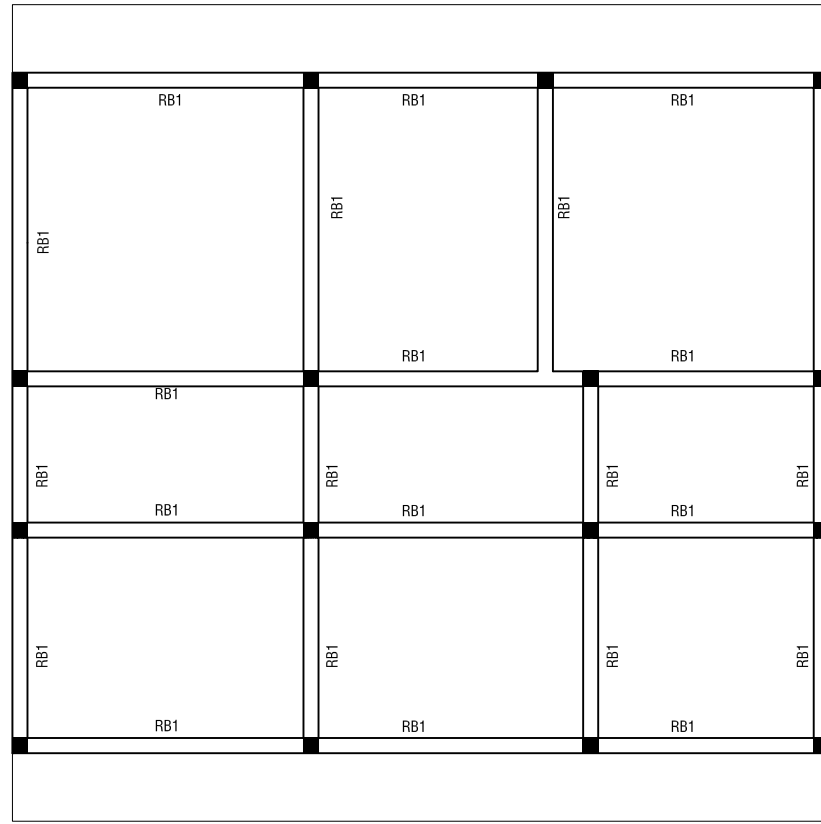
DRAWN BY :- Mariyam Irasha Shareef

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1
2

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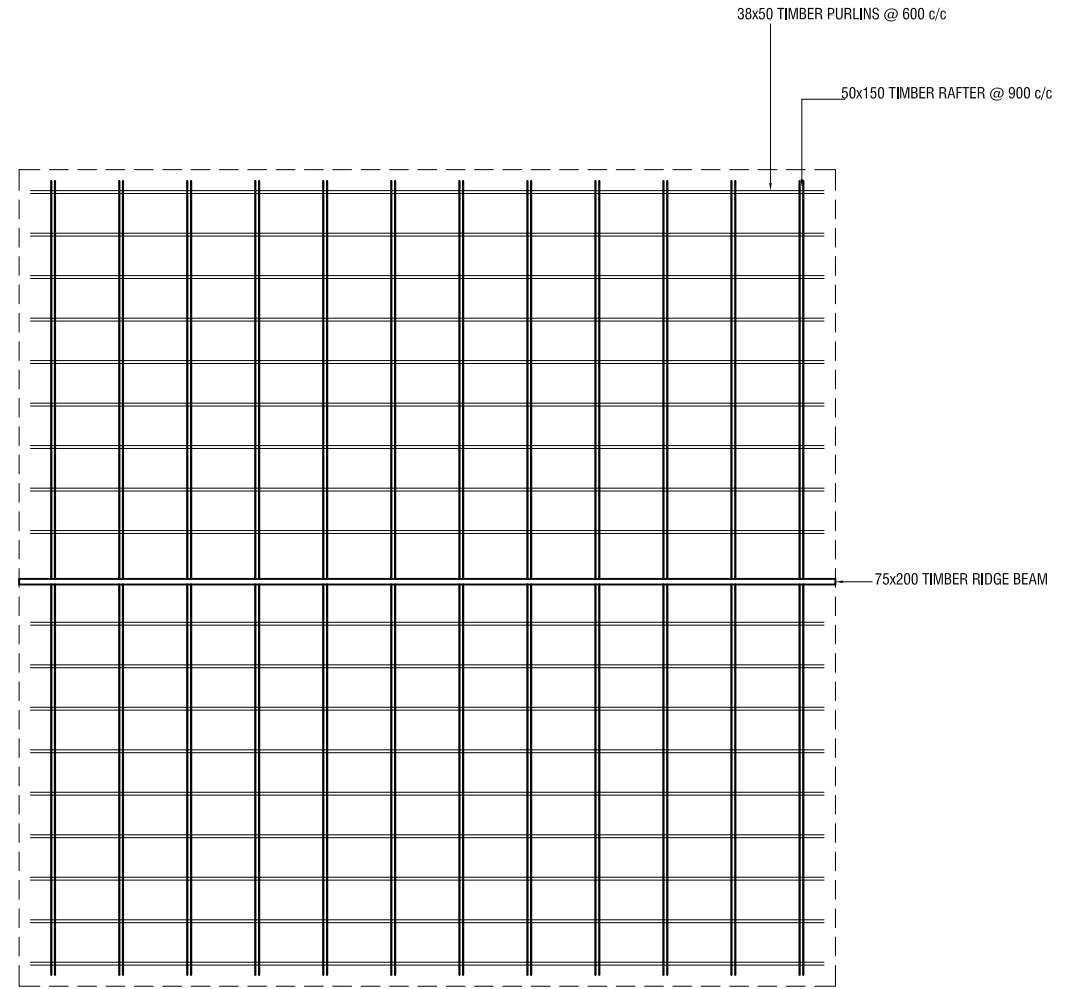
ROOF BEAM PLAN

SCALE 1:100



ROOF FRAMING PLAN

SCALE 1:100



CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER: -
DATE: MARCH 2017
ENGINEER: - Mohamed Saif Saeed
CHECKED BY: - Ihsan Wahheed
DRAWN BY: - Mariyam Irasha Shareef

Rev no	Date

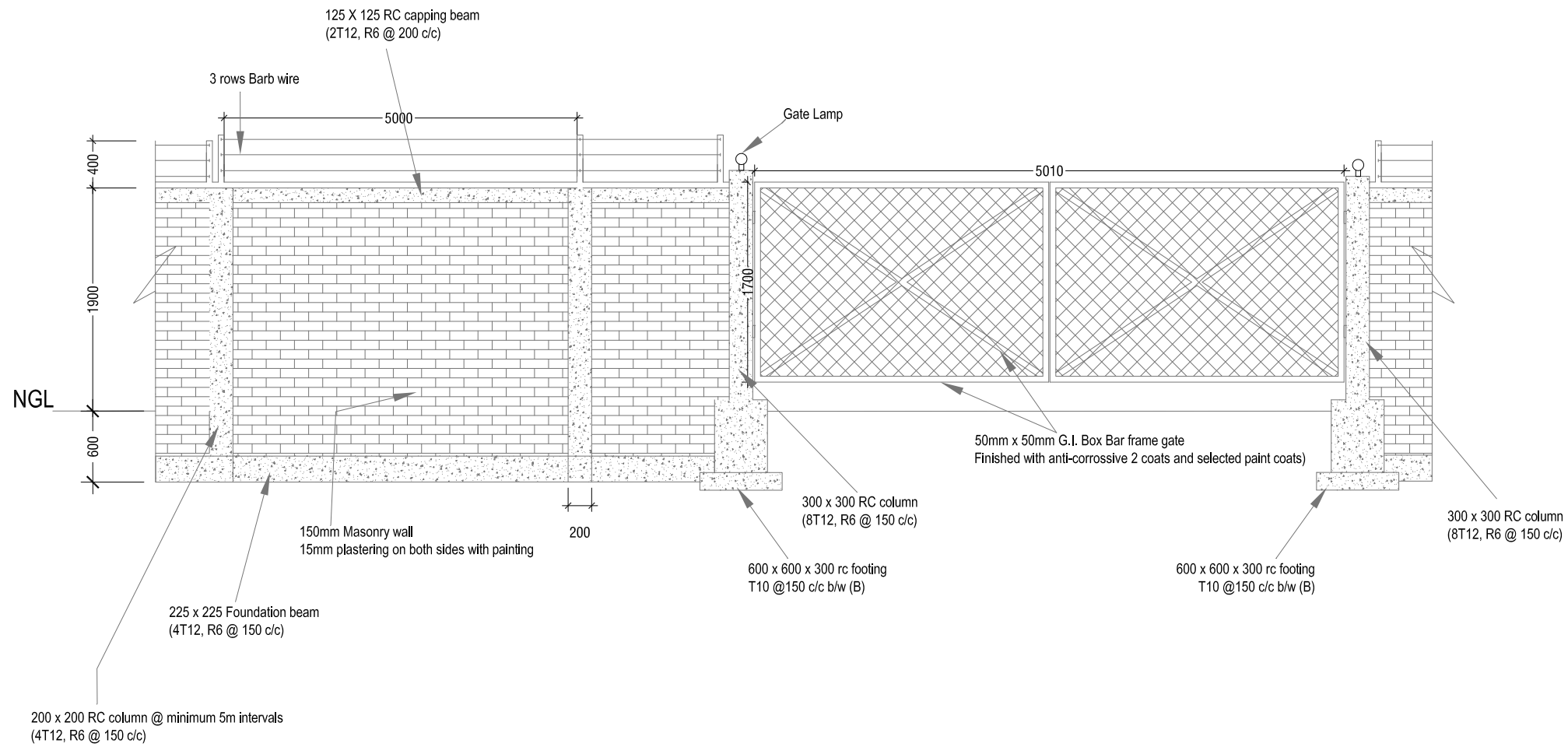


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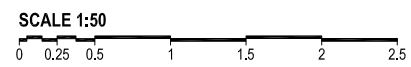
t: +9603315049 f: +9603310776
e: info@ryan.com.mv
w: www.ryan.com.mv
3rd floor, H. Azam, Alireenmagu, Atolle

Title: Admin Building Roof
Beam and Framing Plan
Page: A -19/28

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BOUNDARY WALL & GATE DETAIL



CONSULTANCY SERVICES FOR SURVEY & DESIGN
 OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES

CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER:

DATE: MARCH, 2017

ENGINEER :- Mohamed Saif Saeed

CHECKED BY :- Ihsan Wahheed

DRAWN BY :- Mariyam Irasha Shareef

Rev no	Date



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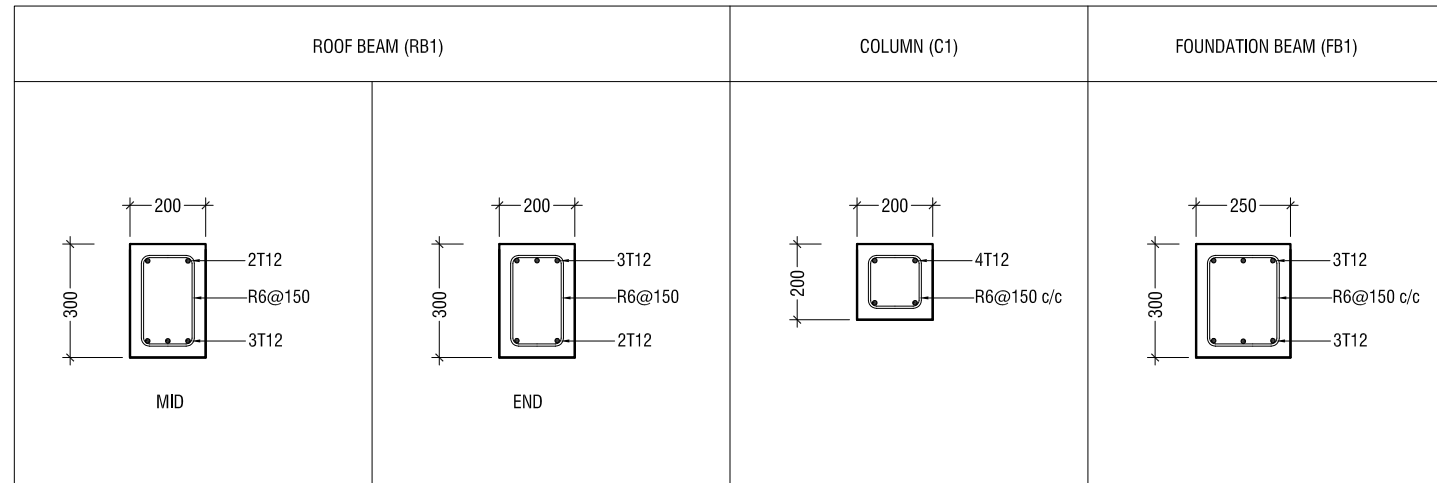
t: +9603315049 f: +9603310776
 e: info@ryan.com.mv
 w: www.ryan.com.mv

3rd floor, H. Azam, Alireenmagu, Atolle

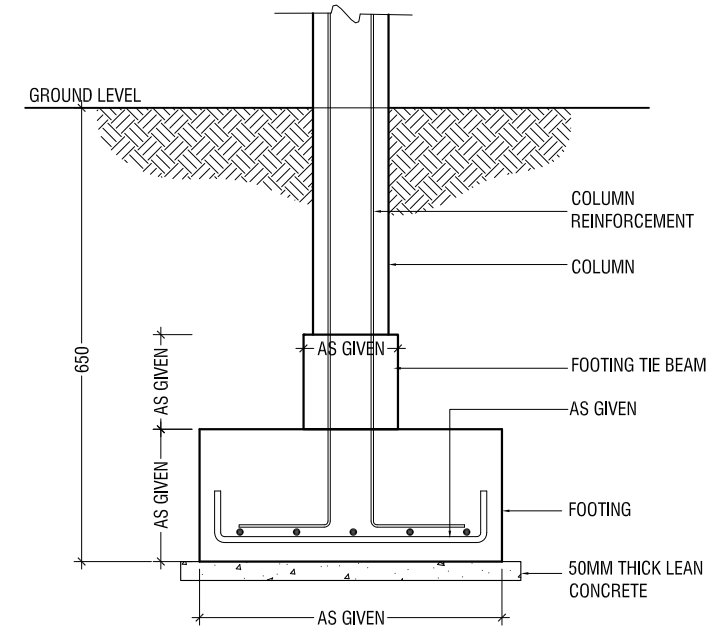
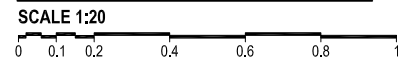
Title: Admin Building Boundary Wall & Gate Detail

Page: A - 20/28

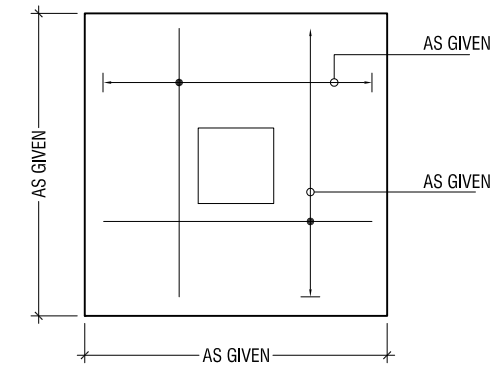
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STRUCTURAL DETAILS

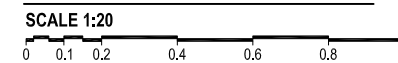


TYPICAL FOUNDATION DETAIL



PLAN

FOUNDATION DETAILS



FOOTING FADS

	FOOTING SIZE	REINFORCEMENT
F1	600 X 600 X 250	T10@150c/c BW (B)

FOUNDATION DEPTH - 650MM BELOW N.G.L

CONSULTANCY SERVICES FOR SURVEY & DESIGN
 OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY
 PROJECT NUMBER:
 DATE: MARCH 2017
 ENGINEER :- Mohamed Saif Saeed
 CHECKED BY :- Ihsan Wahheed
 DRAWN BY :- Mariyam Irasha Shareef

Rev no	Date



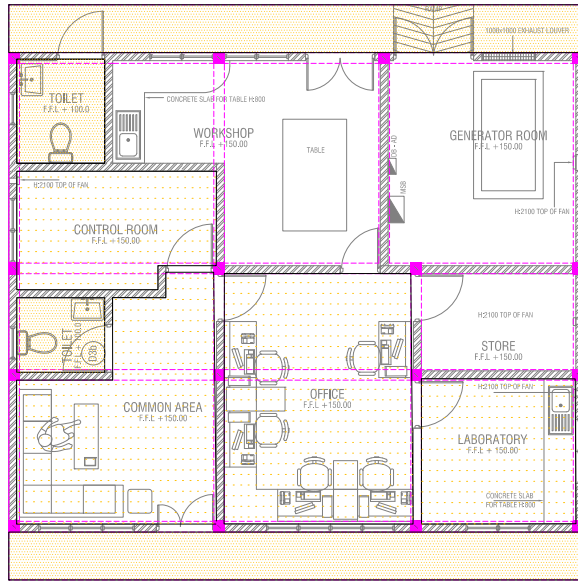
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 e: info@riyan.com.mv
 w: www.riyan.com.mv
 3rd floor, H. Azam, Alireenmagu, Atolle

Title: Admin Building Structural
 Details and Foundation Detail

Page: A -21/28

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GROUND FLOOR CEILING LAYOUT

SCALE 1:100



- NOTE:-**
- BEAMS AT CEILING LEVEL OF RESPECTIVE FLOORS
 - 6mm CEMENT BOARD CEILING
 - 12mm GYPSUM

CONSULTANCY SERVICES FOR SURVEY & DESIGN
 OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER :-
 DRAWN BY :- Maayam Ibrahim Shariq
 CHECKED BY :- Ihsan Mohamed
 SERVICES: Abhath Ahmed

Rev no	Date
-	-
-	-
-	-



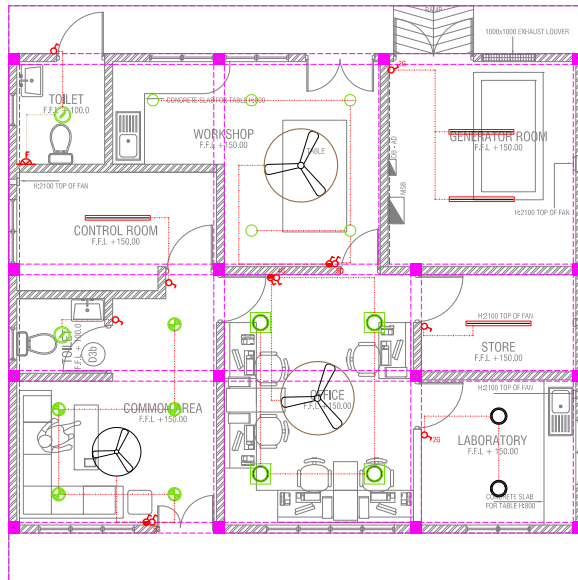
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 e: rpl@riyan.com.mv
 w: www.riyan.com.mv
 3rd floor, M. Aziz, Alweemeeqgu, Male'

Title: Admin Building Service
 Ground floor Ceiling layout

Page: A-22/28

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GROUND FLOOR LIGHTING LAYOUT

SCALE 1:100



LEGEND

- CRL1 RECESSED CEILING LIGHT TYPE 1 18W CFL
- H2 RECESSED DOWN LIGHT (18W)
- FL 2FT, 20W FLUORESCENT TUBE LIGHT
- 4FT, 20W FLUORESCENT TUBE LIGHT WITH OPAL CASING
- CRL2 RECESSED CEILING LIGHT TYPE 2 16W CFL
- CRL3 RECESSED CEILING DOWN LIGHT (18W)



CEILING FAN (32" - 36")

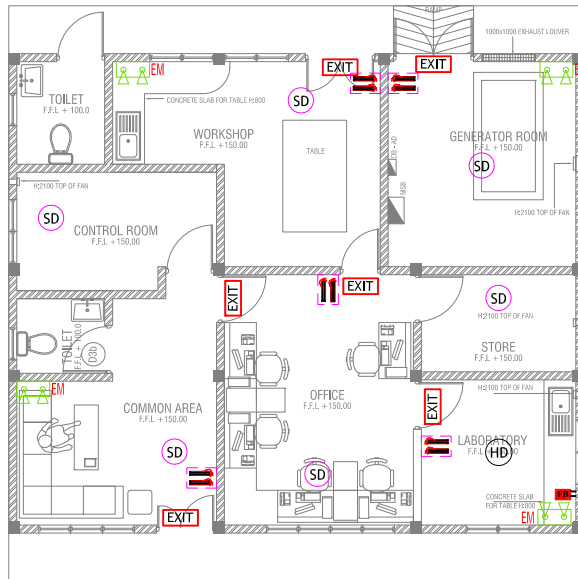


CEILING FAN (52" - 54")

NOTE:

- SWITCH CONTROL = 1200MM FROM FLOOR FIN. LEVEL
- KITCHEN SOCKETS = 1250MM FROM FLOOR FIN. LEVEL





GROUND FLOOR FIRE LAYOUT

SCALE 1:100



LEGEND

- SMOKE DETECTOR (STAND ALONE)
- HEAT DETECTOR (STAND ALONE)
- EXIT SIGN
- EMERGENCY LIGHT
- CO₂ EXTINGUISHER (LOAD: 2kg)
H₂O EXTINGUISHER (LOAD: 9L)
IN POLYCARBONATE ENCLOSURE(TYP.)
- FIRE BLANKET

CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER -
ENV/HA/2017
DESIGNED BY - Mostaff Gaff Saheed
CHECKED BY - Ihsan Mohamed
DRAWN BY - Maryam Ibrahim Shareef
SERVICES: Architect

Rev no	Date
-	-
-	-
-	-



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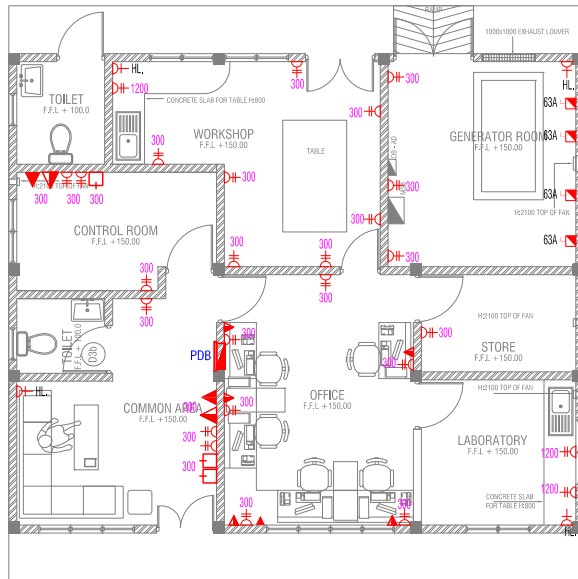
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e: rpl@ryan.com.mv
w: www.ryan.com.mv
3rd floor, M. Aziz: Alweemeeqgu, Male'

Title: Admin Building Services
Ground floor Fire layout
Page: A-24/28

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GROUND FLOOR POWER LAYOUT

SCALE 1:100



LEGEND

- TELEPHONE OUTLET (RJ11, CONNECTOR)
- COMPUTER NETWORK
- 13A POWER OUTLET
- 13A TWIN SOCKET OUTLET
- FLEX. POWER OUTLET W/ COVER PLATE
- DISTRIBUTION BOX
- 15A. SWITCHED/ SPUR UNIT @ H.L.
- TWO GANG TV/SAT SOCKET OUTLET
- H.L., HIGH LEVEL
- WEATHER PROOF POLYCARBONATE ENCLOSURE
- TPN ISOLATOR

CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER -
ENCLOSURE -
CHECKED BY -
DRAWN BY -
SERVICES:

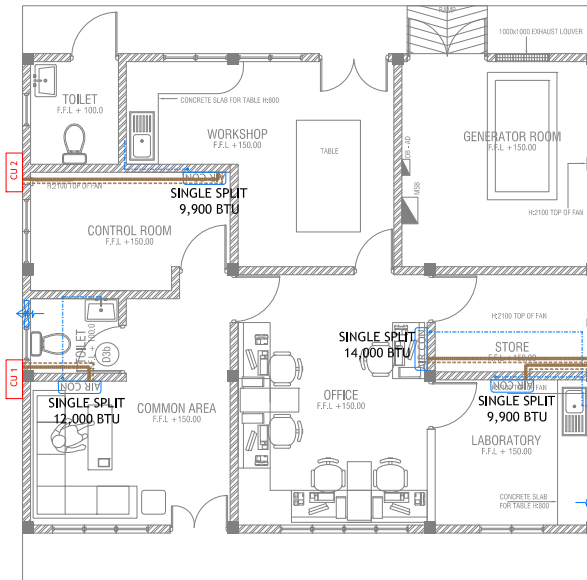
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Date




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3rd floor, M. Aziz, Aradiveemaguu, Male'

Title: Admin Building Services
Ground floor Power layout
Page: A-25/28



LEGEND

 EF EXHAUST FAN (WALL/WINDOW MOUNT)

GROUND FLOOR ACV LAYOUT

SCALE 1:100



CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER -
DWG NO: ACV/2017
DESIGNED BY - M. H. Saeed
CHECKED BY - Ihsan Mohamed
DRAWN BY - Maryam Ibrahim Shareef
SERVICES: Abhaith Ahmed

Rev no	Date
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-	-
-	-

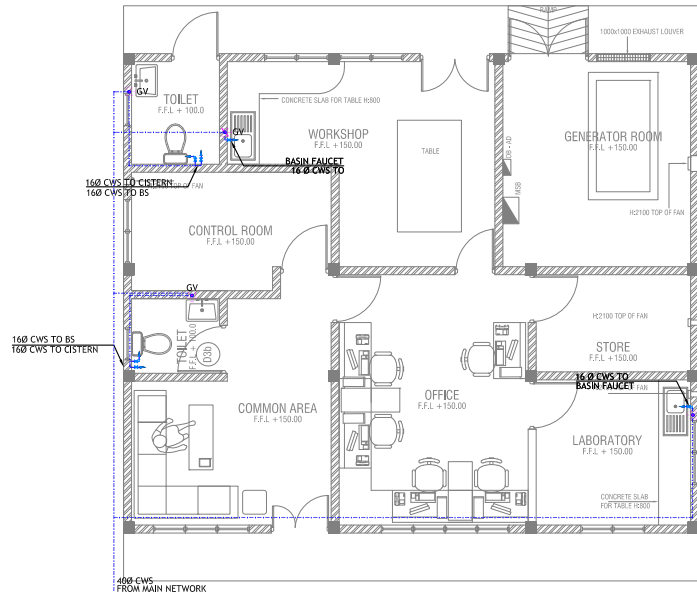


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Title: Admin Building Services
Ground floor ACV layout
Page: A-26/28

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GROUND FLOOR PLUMBING LAYOUT

SCALE 1:100



LEGEND

- CWS — Cold Water Supply
- HWS — Hot Water Supply
- RWS — Rain Water Supply
- GV Gate Valve
- WT Wall Tap
- TA To Above
- TB To Below

CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES

PROJECT NUMBER -
ENVIRONMENTAL ENGINEERING
CHECKED BY :- Ihsan Wahneed
DRAWN BY :- Maryam Inasha Shareef
SERVICES: Alhath Ahmed

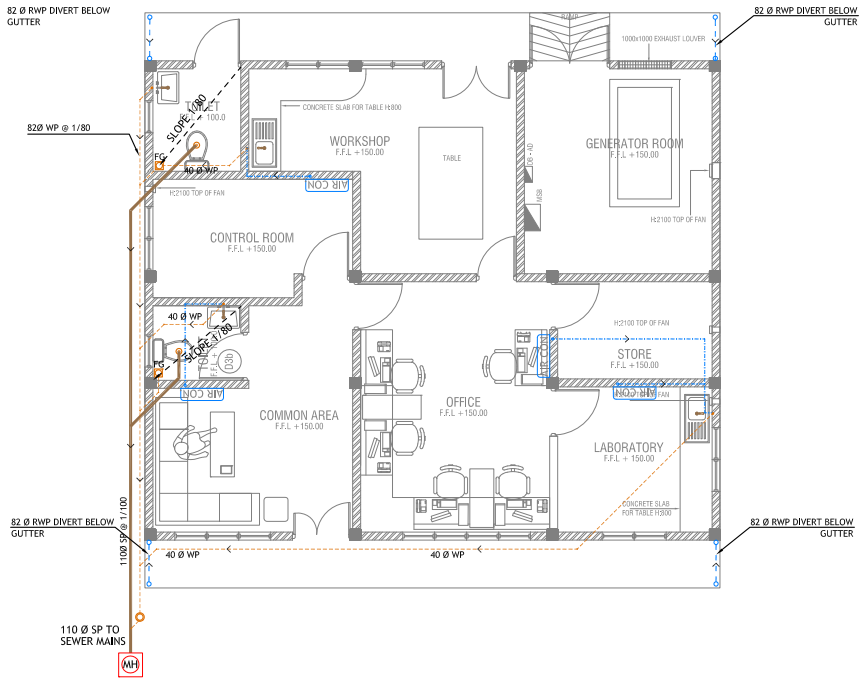
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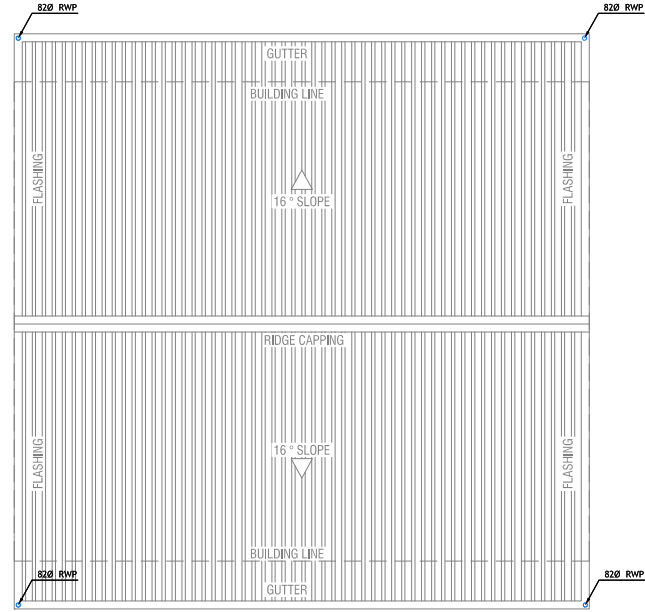
t: +9603335049 f: +9603307076
e: rpl@ryan.com.mv
w: www.ryan.com.mv
3rd Floor, W. Alhath, Dhiveyani, Malé

Admin Building Services
Title: Ground Floor Plumbing
Layout
Page: A-27/28



GROUND FLOOR DRAINAGE LAYOUT

SCALE 1:100



ROOF DRAINAGE LAYOUT

SCALE 1:100



LEGEND

- FG Floor Gully
- MH Chamber Manhole
- SP Soil pipe
- WP Waste pipe
- RWP Rain Water Pipe
- MHVP Manhole Vent Pipe
- GT Grease Trap
- CD Condensate Drain

ALL RAIN WATER OUTLETS TO HAVE PERFORATED COWLS ABOVE PAVING

CONSULTANCY SERVICES FOR SURVEY & DESIGN OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES

CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY
 PROJECT NUMBER: EN/100/2017
 DRAWN BY: - Maniyam Ibrahim Shareef
 CHECKED BY: - Ihsan Mohamed
 SERVICES: - Abhaath Ahmed

Rev no	Date
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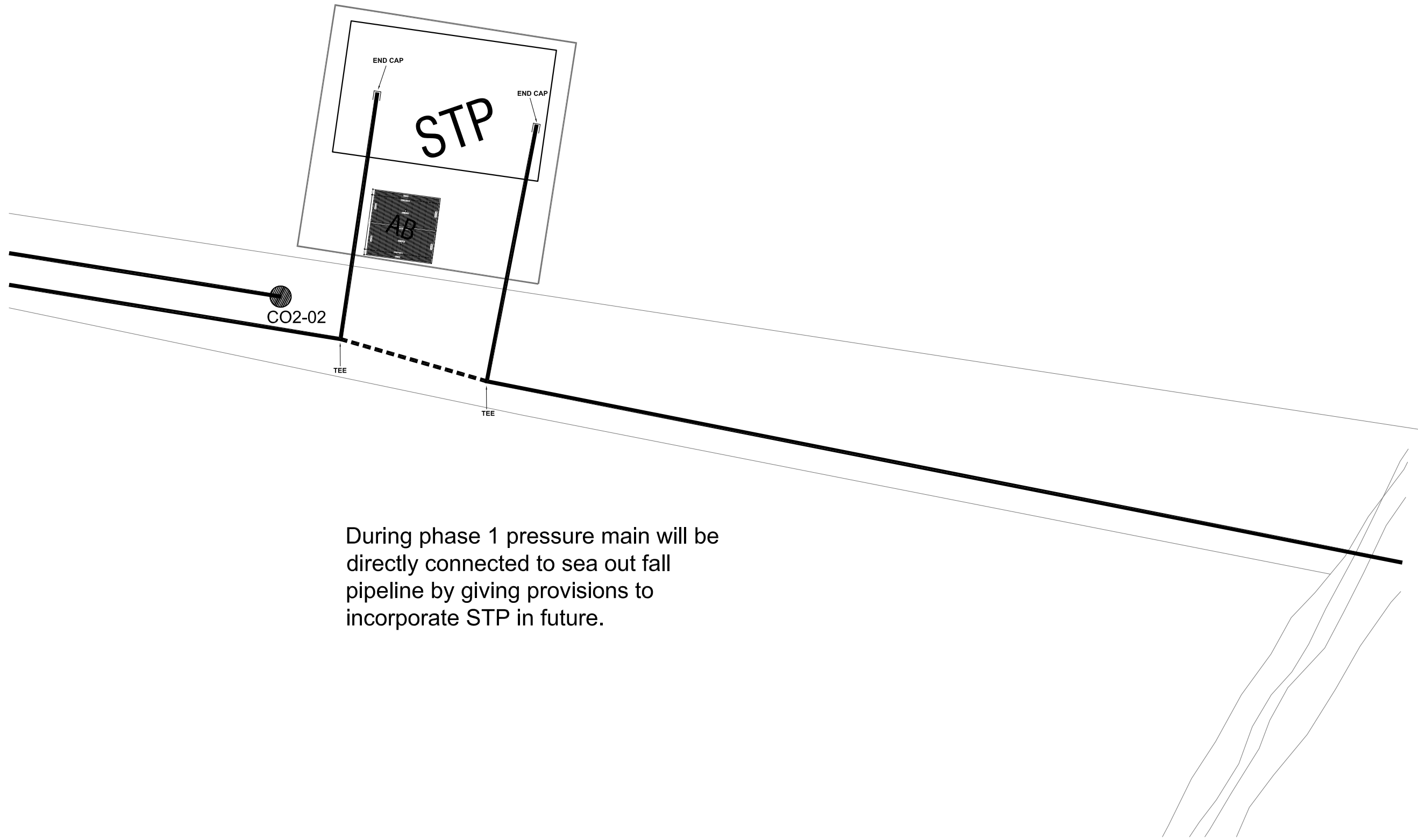


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 3rd Floor, W. Addeen, Dhiveenagaru, Male'

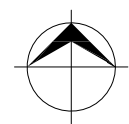
Admin Building Services
 Title: Ground & Roof Drainage layout
 Page: A-28/28

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During phase 1 pressure main will be directly connected to sea out fall pipeline by giving provisions to incorporate STP in future.

SITE PLAN
SCALE 1:500



CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER:
DATE: MARCH 2017
ENGINEER: - Mohamed Saif Saeed
CHECKED BY: - Ihsan Waheed
DRAWN BY: - Alshath Ahmed

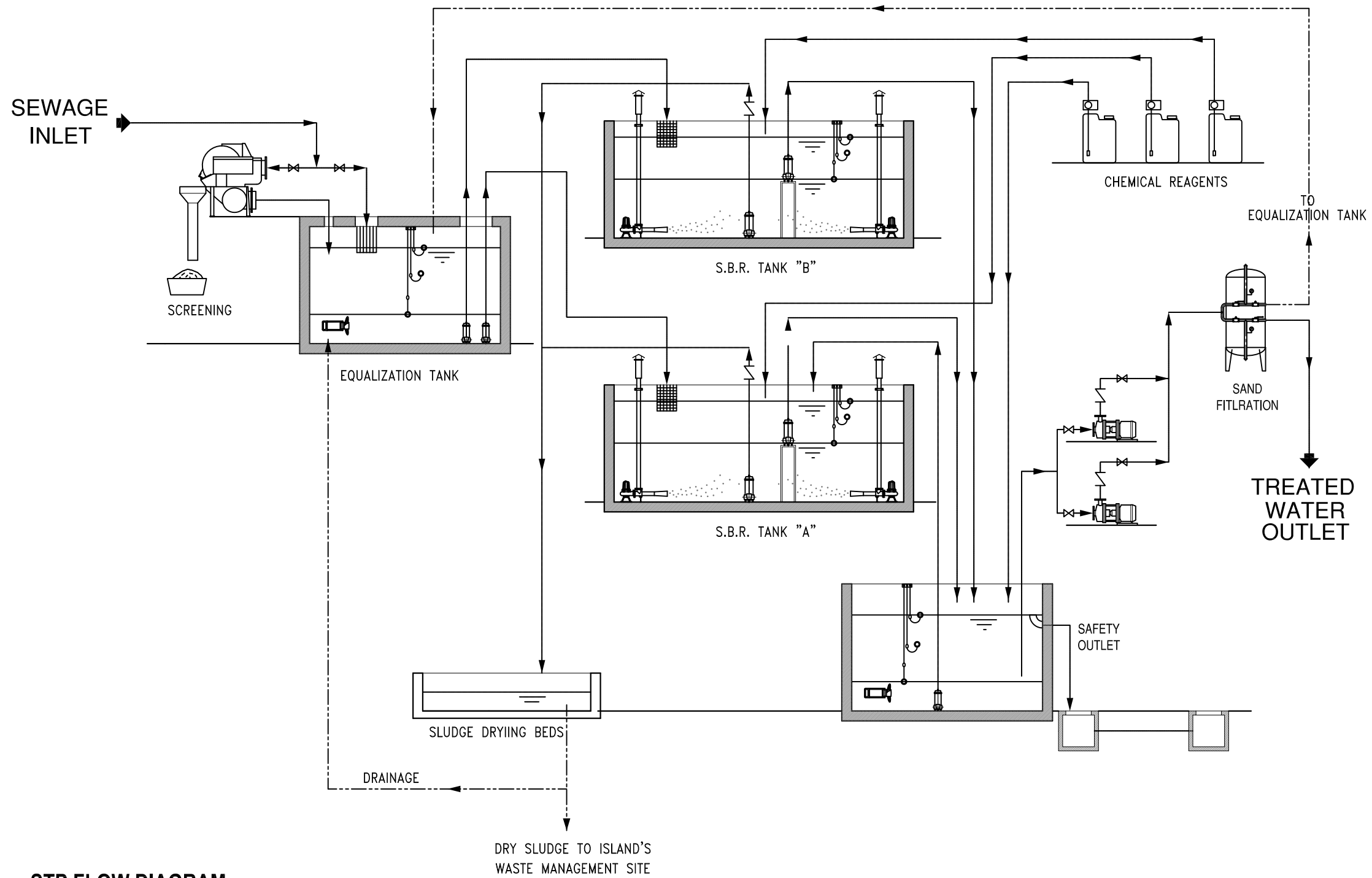
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Title: STP SITE PLAN
Page: STP - 1/4

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STP FLOW DIAGRAM

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 OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER: -
 DATE: MARCH 2017
 ENGINEER: - Mohamed Saif Saleed
 CHECKED BY: - Ihsan Wahheed
 DRAWN BY: - Alishah Ahmed

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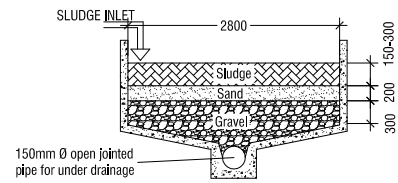
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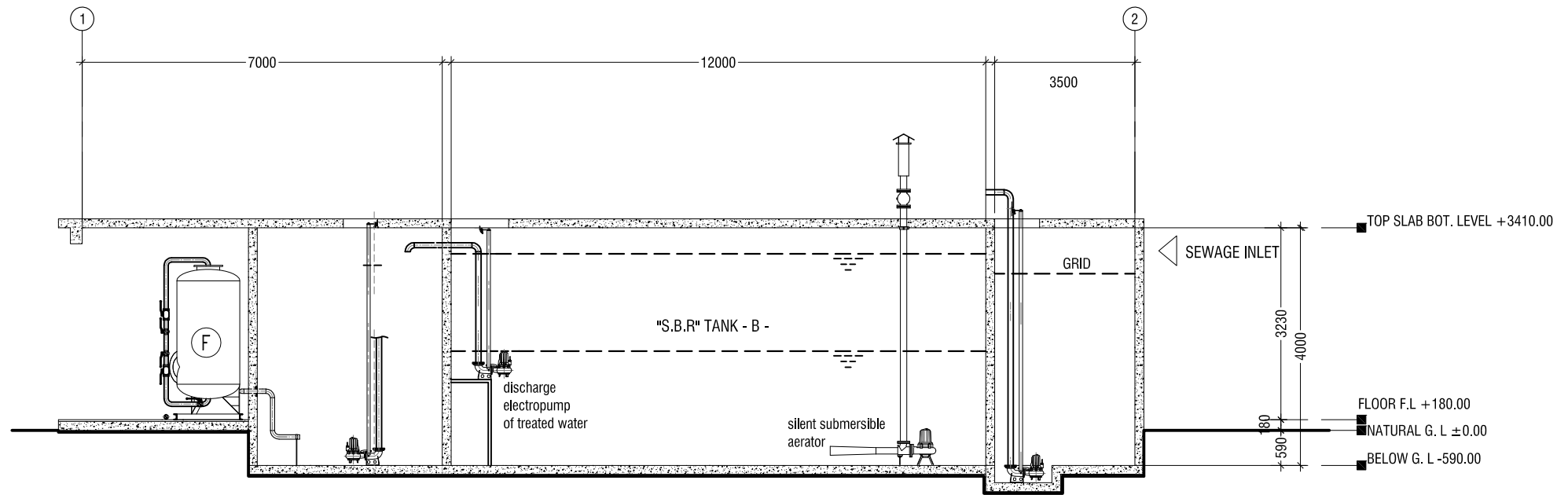
Title: STP FLOW DIAGRAM

Page: STP -2 /4

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SLUDGE DRYING BED DETAIL
NTS



SECTION S1 - S1
NTS

- Note:
- Sewerage Treatment Plant SBR 500m³/day.
 - Pumps, pipework and fittings to be installed in accordance with manufactureres recommendations.
 - 300mm thick C35 RC base. (T16 @ 150 C/C B/W T&B)
 - 300mm thick C35 RC wall. (T16 @ 125 C/C B/W 2LRS)
 - 150mm thick C35 RC top slab. (T12 @ 150 C/C B/W T&B)

CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER: -
DATE: MARCH, 2017
ENGINEER: -/ Mohamed Saif Saeed
CHECKED BY: -/ Ihsan Waheed
DRAWN BY: -/ Alshath Ahmed

Rev no	Date
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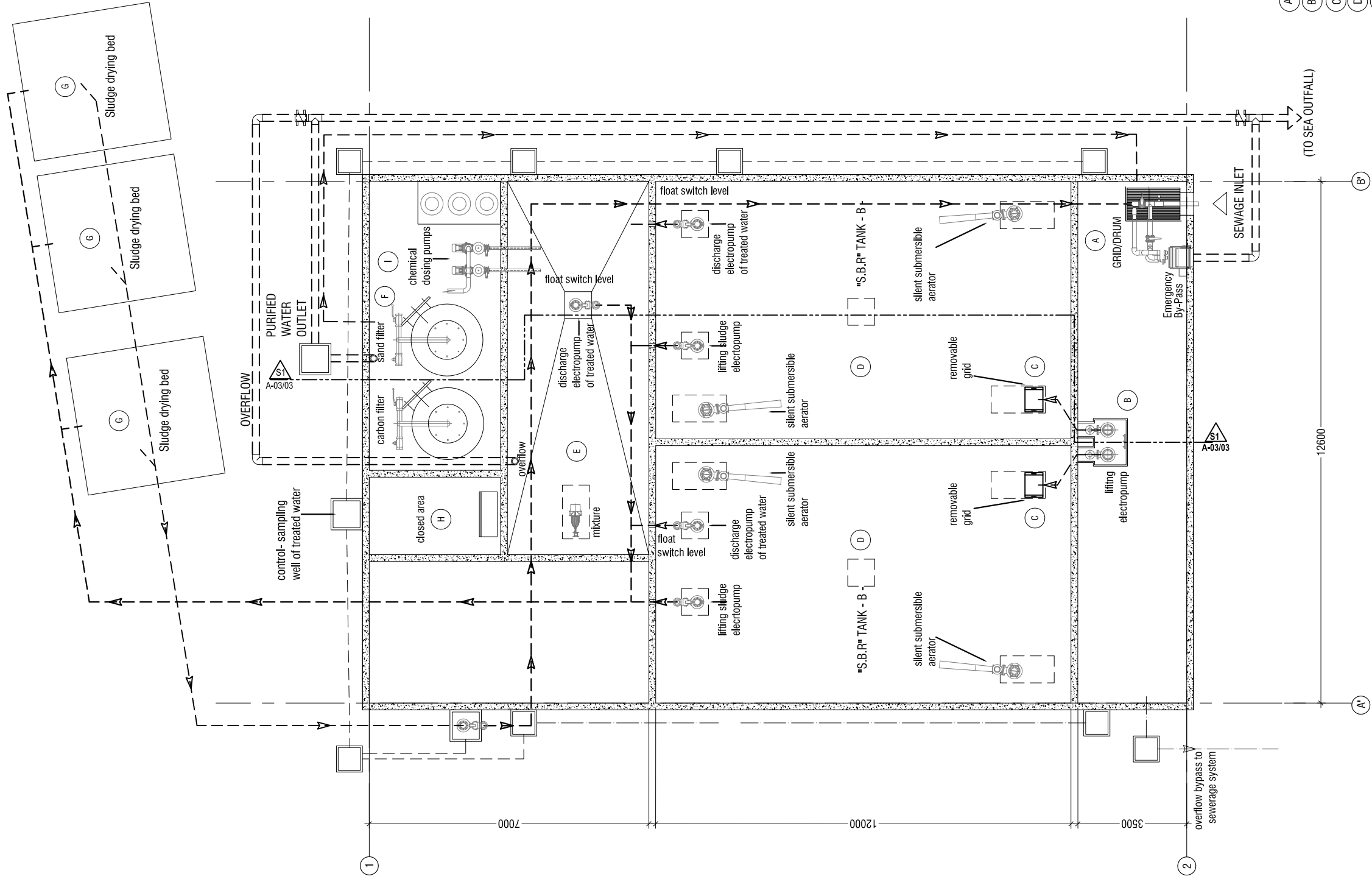
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Title: STP SECTION

Page: STP - 3/4

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- (A) GRID/DRUM SCREEN & EMERGENCY BY-PASS
- (B) STORAGE AND LIFTING
- (C) REMOVABLE GRID
- (D) 'SBR' REACTOR
- (E) DISINFECTION TANK
- (F) SAND AND CARBON FILTER
- (G) SLUDGE DRYING BED
- (H) CONTROL BOARD IN TECHNICAL ROOM
- (I) CHEMICAL PRODUCTS

GROUND FLOOR PLAN
NTS

CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA.BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER: -
DATE: MARCH 2017
ENGINEER: - Mohamed Saif Saleed
CHECKED BY: - Ihsan Wahheed
DRAWN BY: - Aishath Ahmed

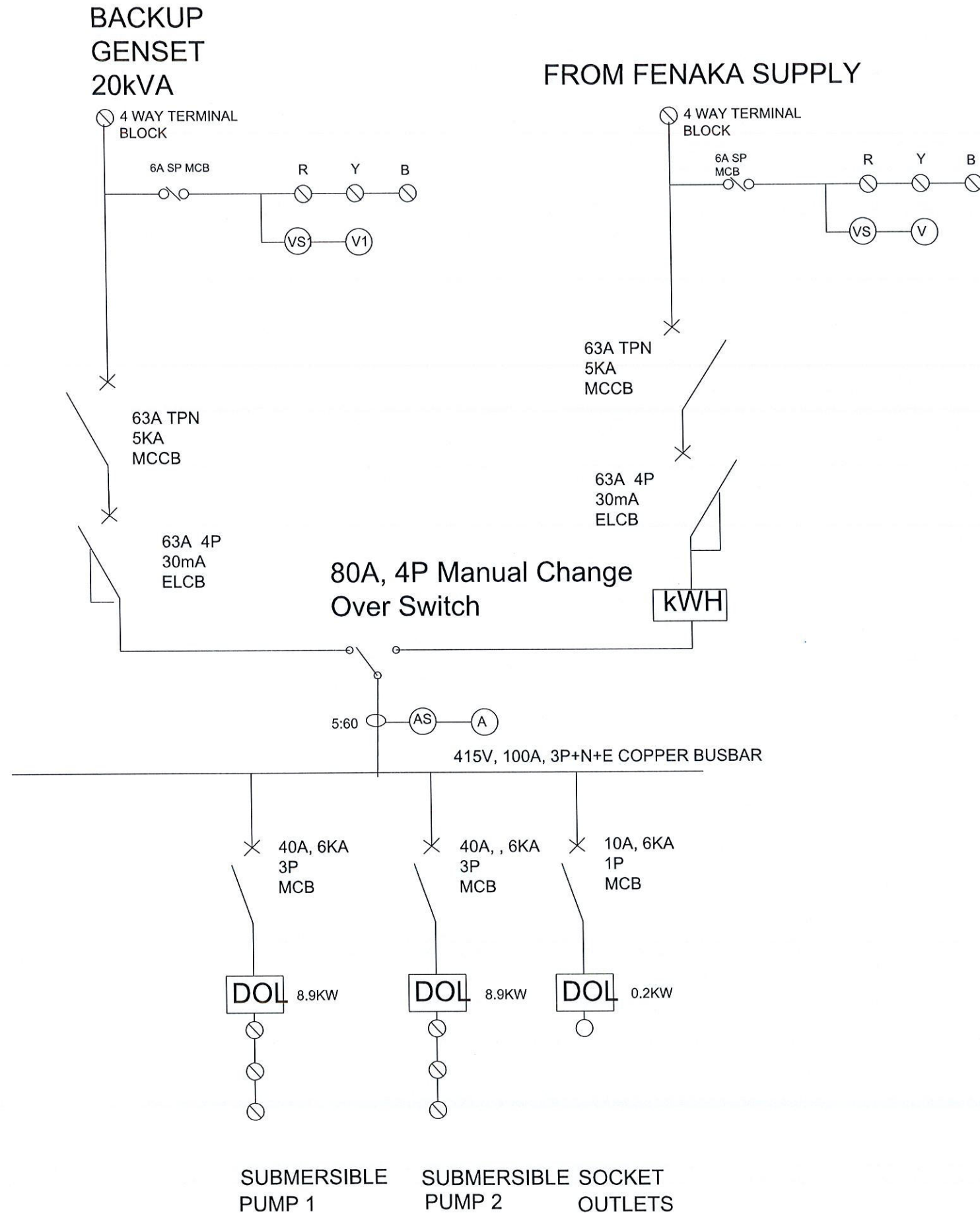
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3rd floor, H. Azum, Ameenemaguz, Male'

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PUMP STATION No.1



DESIGNED BY : A.WAHID

LICENSE : MEB/2005/419

SIGNATURE : *A. Wahid*

CONSULTANCY SERVICES FOR SURVEY & DESIGN
OF SEWERAGE FACILITIES IN HA. BAARAH, MALDIVES
CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY

PROJECT NUMBER :
DATE: MARCH 2017
ENGINEER: - Aboulla Wahid
CHECKED BY :
DRAWN BY : - Mohamed Saif

Rev no	Date



RYAN PRIVATE LIMITED

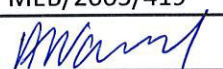
T: +9603315045 F: +9603310776
E: info@ryan.com.mv
W: www.ryan.com.mv
3rd floor, H. Azim, Aradhee Inqub, Malé

Title: POWER LAYOUT SINGLE LINE DIAGRAM FOR P1

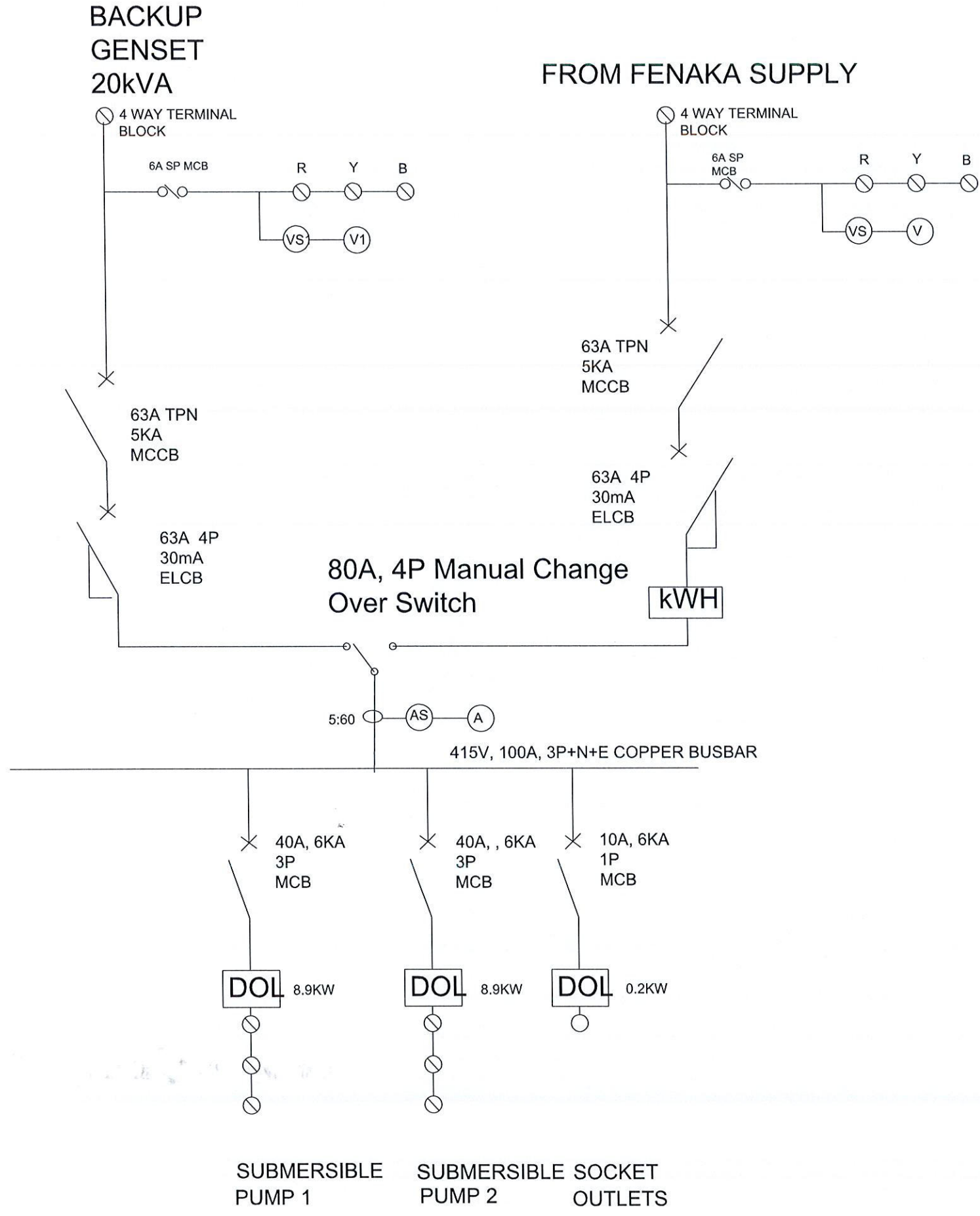
Page: E-01

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HA. BAARAH PS No.1

PUMP STATION No.1											
	Description	Oerating Cycle	Other Considerations	Qty (Nos.)	Power Ratings (Watt)	Current Rating (A)	DF	PF	Total Active Power (Watt)	Total Active Power (VA)	Total 3Ph Load (A)
1	Pump	2 (1 Duty ,1 stand by)	Controlled By Level sensors (float switch)	2	8900	12.85	1.00	1	17800	10277.1	25.69
2	1 x Socket Outlet 13A			1	200	0.29	1.00	1	200	115.5	0.29
3	Sub Total										25.98
	Riyan Pvt. Ltd.			Client:	M.E.E	Calculated by:	Abdulla Wahid				
	H.Azum			Project:	HA. Baarah Sewerage System	Licence :	MEB/2005/419				
	Ameenee magu			Calculation:	Load Calculation of PS1	Signature:					
	Male'			Title:	Electric Load Calculation	Date	12/03/2017				

PUMP STATION No.2



DESIGNED BY : A.WAHID

LICENSE : MEB/2005/419


SIGNATURE : *A. Wahid*

CONSULTANCY SERVICES FOR SURVEY & DESIGN
 OF SEWERAGE FACILITIES IN HA. BAARAH, MALDIVES
 CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY
 PROJECT NUMBER: -
 DATE: MARCH 2017
 ENGINEER: - Abdulla Wahid
 CHECKED BY: -
 DRAWN BY: - Mohamed Saif

Rev no	Date

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HA. BAARAH PS No.2

PUMP STATION No.2											
	Description	Operating Cycle	Other Considerations	Qty (Nos.)	Power Ratings (Watt)	Current Rating (A)	DF	PF	Total Active Power (Watt)	Total Active Power (VA)	Total 3Ph Load (A)
1	Pump	2 (1 Duty ,1 stand by)	Controlled By Level sensors (float switch)	2	8900	12.85	1.00	1	17800	10277.1	25.69
2	1 x Socket Outlet 13A			1	200	0.29	1.00	1	200	115.5	0.29
3	Sub Total										25.98
	Riyan Pvt. Ltd.			Client: M.E.E				Calculated by: Abdulla Wahid			
	H.Azum			Project: HA. Baarah Sewerage System				Licence : MEB/2005/419			
	Ameenee magu			Calculation: Load Calculation of PS2				Signature: 			
	Male'			Title: Electric Load Calculation				Date 12/03/2017			