



MINISTRY OF ENVIRONMENT AND ENERGY
REPUBLIC OF MALDIVES

TENDER DRAWINGS

01 MARCH 2016

PROJECT :

**PROVISION OF WATER SUPPLY
FACILITIES IN
F. NILANDHOO, MALDIVES**

CONSULTANT:



Al-Habshi Consultants Office




Tel.: 2430103 / 2433131 - Fax : 2431136
P.O.Box 27154 Safat 13132 - Kuwait

LIST OF DRAWINGS

DWG. NOS	DRAWING TITLES
GENERAL	
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FN-WS-103 (2 OF 2)	BRINE OUTFALL DETAILS
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LIST OF DRAWINGS

DWG. NOS	DRAWING TITLES
ELECTRICAL	
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0	18.10.'15	CONCEPT DESIGN SUBMISSION	SR	MP	MA
REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
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CLIENT					
<div><div></div><div>MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES</div></div>					
CONSULTANT:					
<div><div><div>ACO</div><div><div>دار الهندسة</div><div>Al Habshi Consultants Office</div><div><div>0115248000 0162248110</div><div>0162248110</div></div></div></div><div><div></div><div><div>0162248110</div><div>0162248110</div></div></div></div>					
PROJECT:					
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives					
DRAWING TITLE:					
LIST OF DRAWINGS F.NILANDHOO ISLAND					
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	N.T.S	09.12.'15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	FN-WS-100			
REV. No.	0				

WATER SUPPLY DRAWINGS



- NOTES:-
1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
 2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
 3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

REFERENCE DRAWINGS

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REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD

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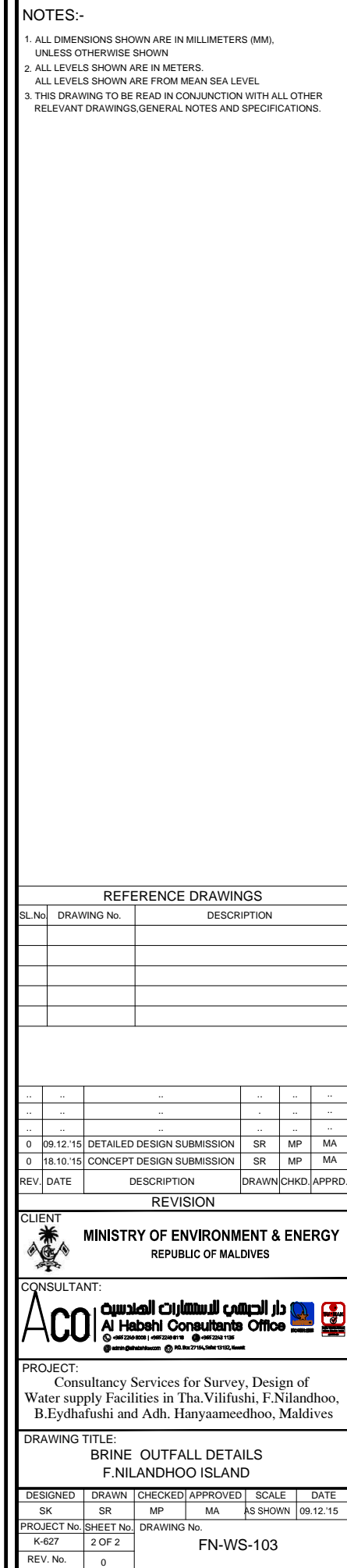
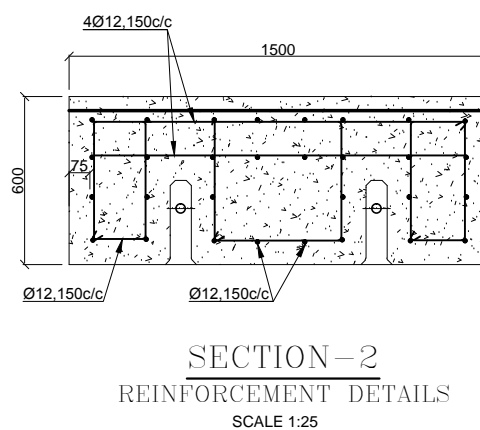
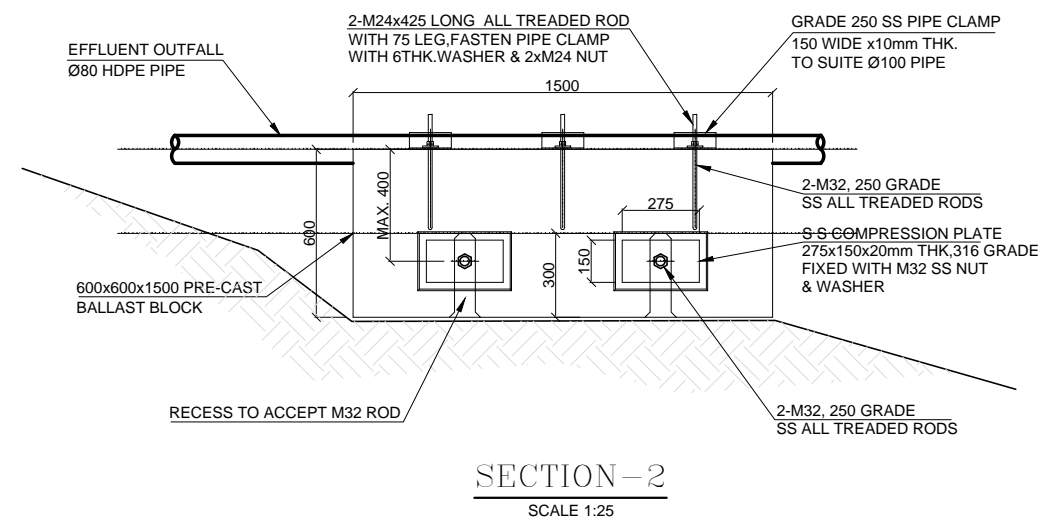
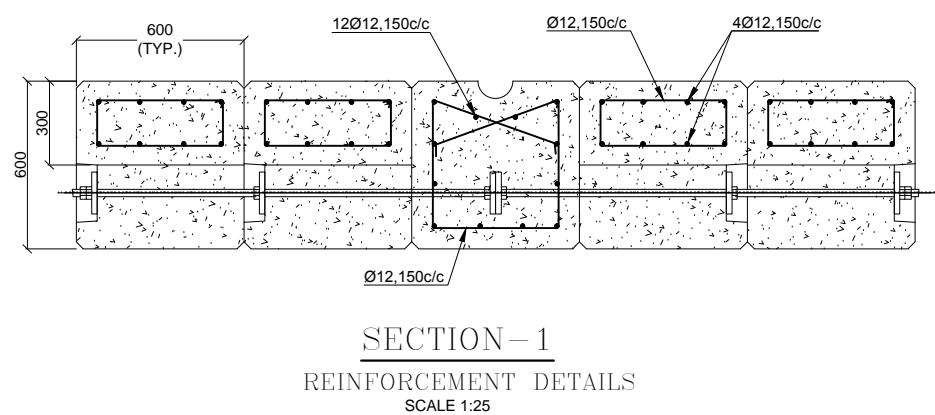
CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

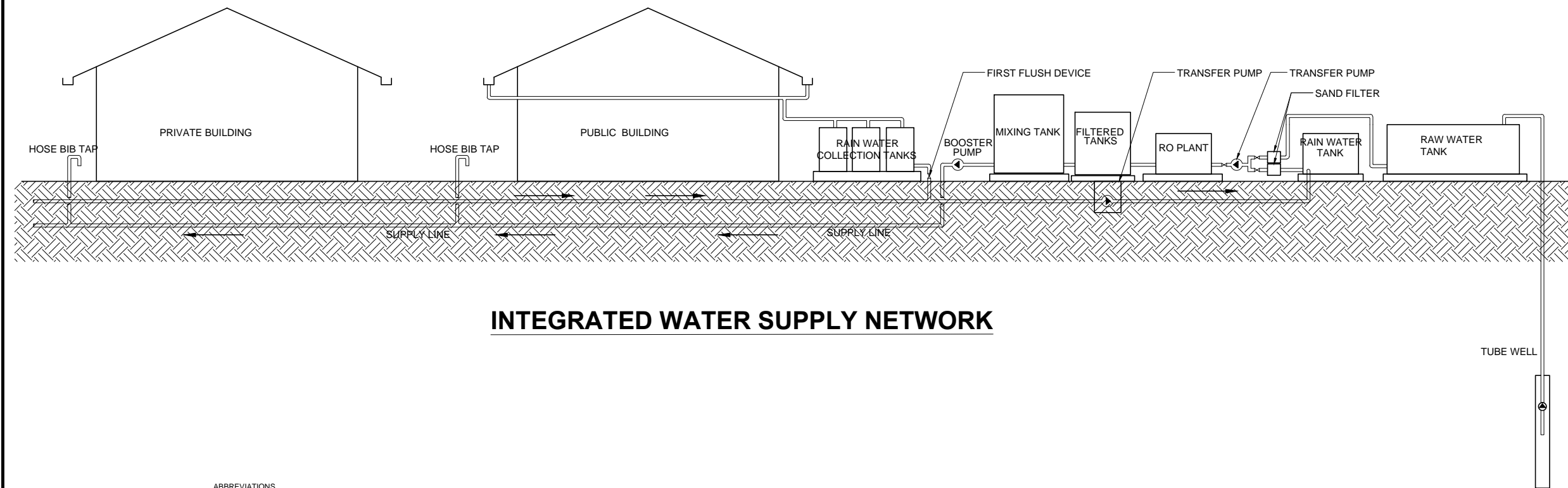
CONSULTANT:
ACO دار الحبيب الاستشارية
Al Habshi Consultants Office
+960 2268 9000 | +960 2268 9118 | +960 2268 1108
aco@alhabshi.com.mv | P.O. Box 5719, Male' 11102, Maldives

PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
RAIN WATER COLLECTION LAYOUT
F.NILANDHOO ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1 : 2500	09.12.15
PROJECT No.	SHEET No.	DRAWING No. FN-WS-102			
K-627	1 OF 1				
REV. No.	0				





INTEGRATED WATER SUPPLY NETWORK

- ABBREVIATIONS
- SF -SAND FILTER
 - RO -REVERSE OSMOSIS TANK
 - HBT -HOSE BIB TAP
 - RWS -RAIN WATER SUPPLY
 - WS -WATER SUPPLY
 - TP -TRANSFER PUMP
 - RWCP -RAINWATER COLLECTION PIPE
 - TP -TRANSFER PUMP
 - BP -BOOSTER PUMP

REFERENCE DRAWINGS		
SL.No	DRAWING No.	DESCRIPTION

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0	18.10.'15	CONCEPT DESIGN SUBMISSION	SR	MP	MA
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REPUBLIC OF MALDIVES

CONSULTANT:

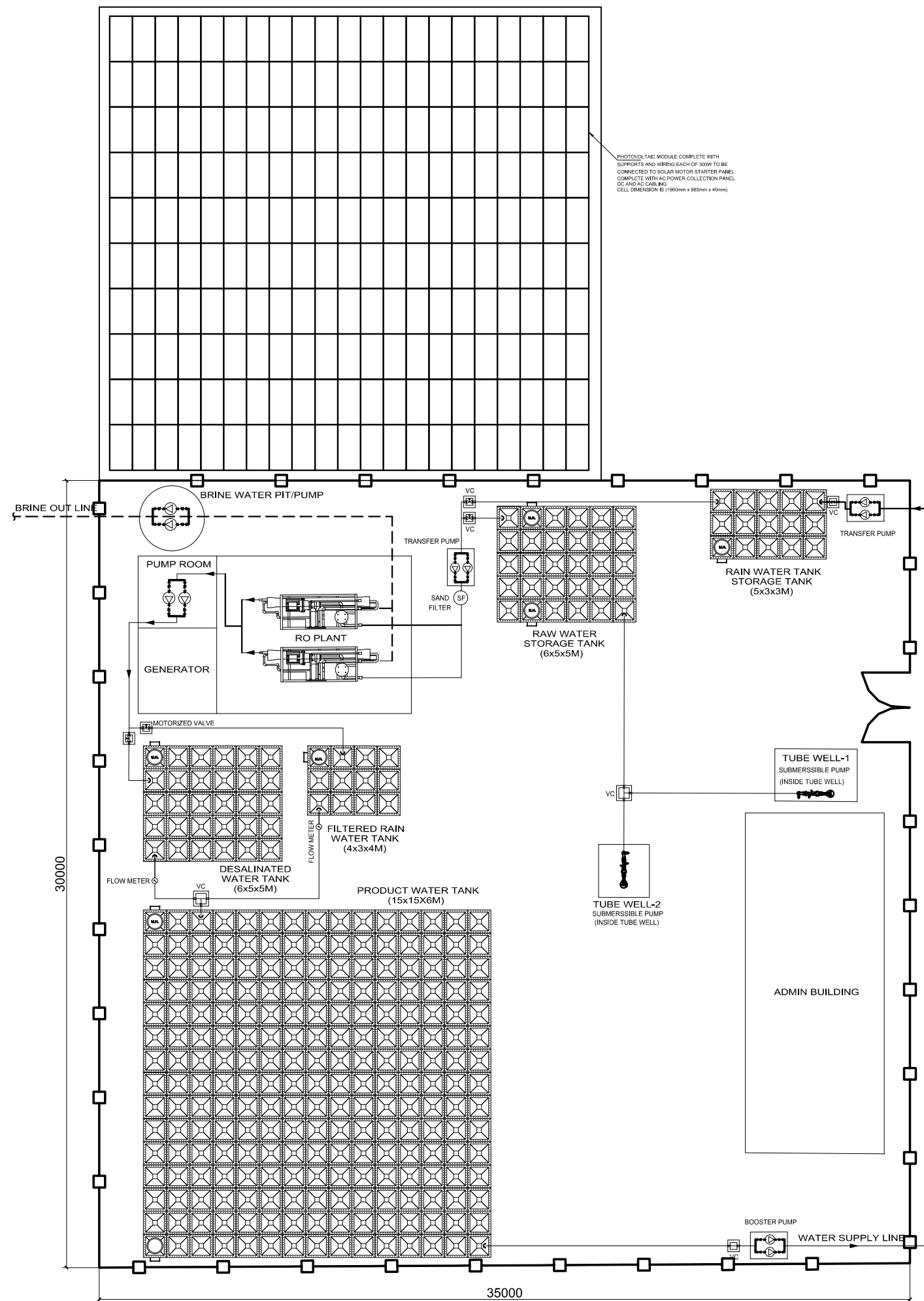


دار الهندسة المعمارية
Al Habshi Consultants Office
P.O. Box 2756, Male' 11502, Maldives
Tel: 994 224 8222 | Fax: 994 224 8110 | Email: info@alhabshi.com

PROJECT:
Consultancy Services for Survey, Design of
Water supply Facilities in Tha.Vilifushi, F.Nilandhoo,
B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
INTEGRATED WATER SUPPLY NETWORK
SCHEMATIC-F.NILANDHOO ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	N.T.S	09.12.'15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	FN-WS-104			
REV. No.	0				



NOTES:-

1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

REFERENCE DRAWINGS

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REVISION

CLIENT	MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES
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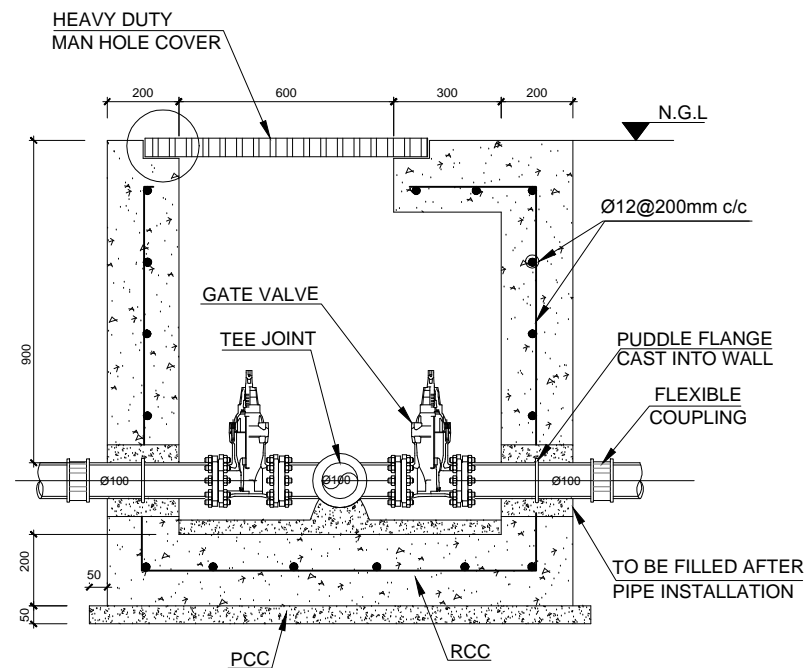
CONSULTANT:	ACO دار الجھي الاستشارات المادسيه Al Habshi Consultants Office
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PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

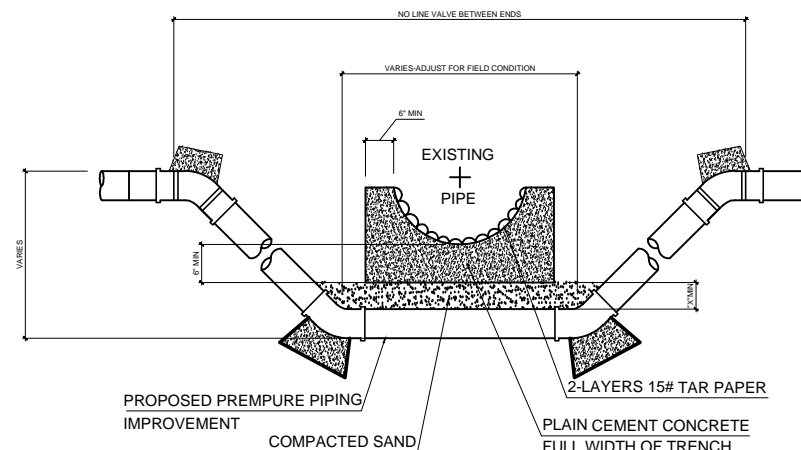
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RO PLANT LAYOUT
F.NILANDHOO ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1 : 150	09.12.'15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	FN-WS-105			
REV. No.	0				





VALVE CHAMBER



PIPE CROWING DETAIL
NTS

"X" DIMENSION REQUIRMENTS

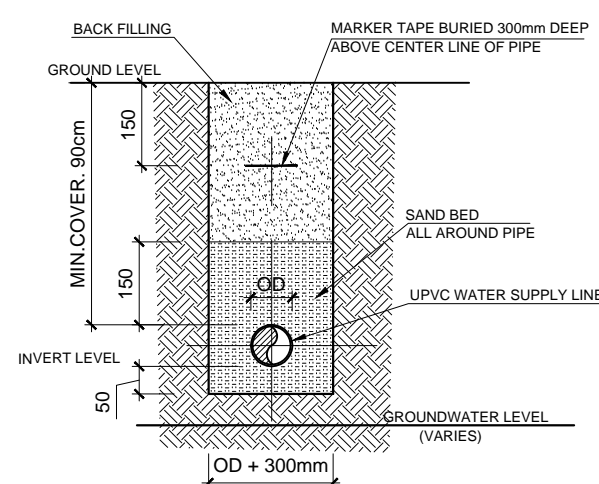
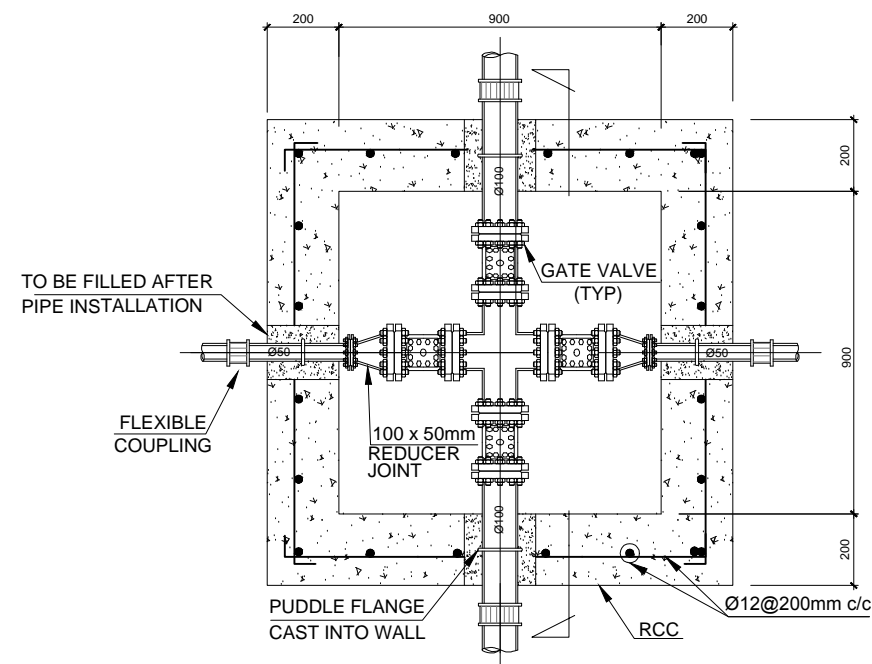
- A - 6" FOR (GAS & OBT LINE CROWING W/NO CRADLE NEEDED)
- B - 18" FOR STORM SEWER PIPE
- C - IF CROWING SPACE IS MORE THAN MIN.SPACE OF CRADLE BELOW PIPE BOTTOM PLUS AFORMENTIONED "X" DIMENSION THEN EXTEND "X" DIMENSION TO MAKE UP DIFFERENCE.

CONCRETE CRADLE CONDITIONS

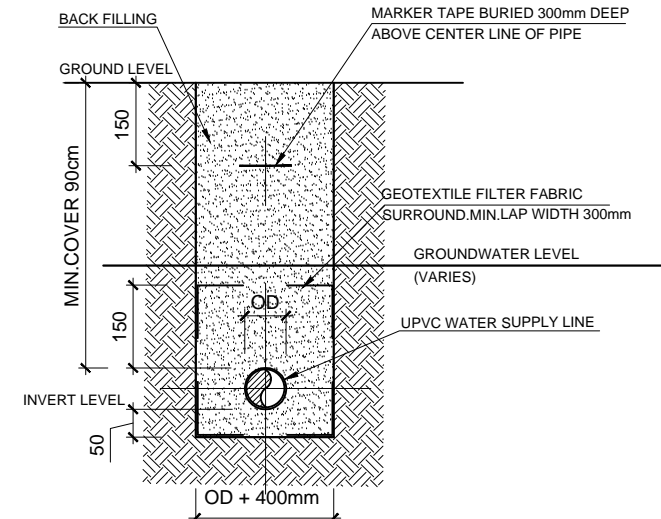
- A - IF SANITARY OR SEWER PIPE JOINT IS WITHIN PROPOSED IMPROVEMENT TRENCH LIMIT
- B - IF CROWING SPACE IS LEMP THAN MIN.SPACE OF CRADLE BELOW PIPE BOTTOM PLUS "X" DIMENSION THEN OMIT SAND FILL AND USE CONCRETE

NOTE:-

USE OF BENDS & THRUST BLOCKS OR JOINT DEFLECTION TO BE DETERMINED IN FIELD FOR EACH CROWING



TYPICAL PIPE TRENCH DETAIL
(WATER TABLE BELOW TRENCH BASE)
N.T.S



TYPICAL PIPE TRENCH DETAIL
(WATER TABLE ABOVE TRENCH BASE)
N.T.S

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	18.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

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CLIENT: **MINISTRY OF ENVIRONMENT & ENERGY**
REPUBLIC OF MALDIVES

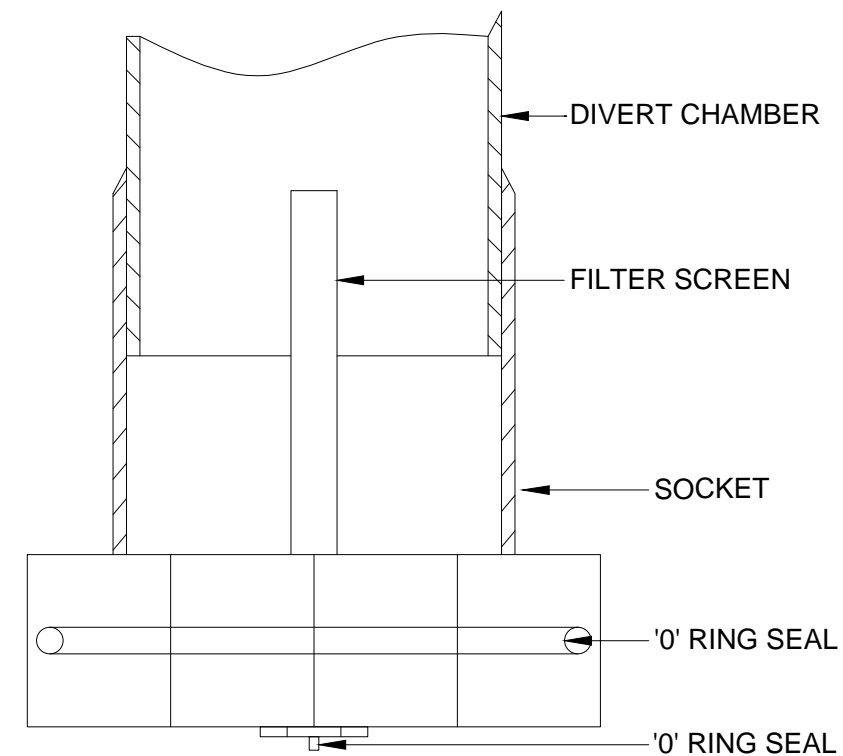
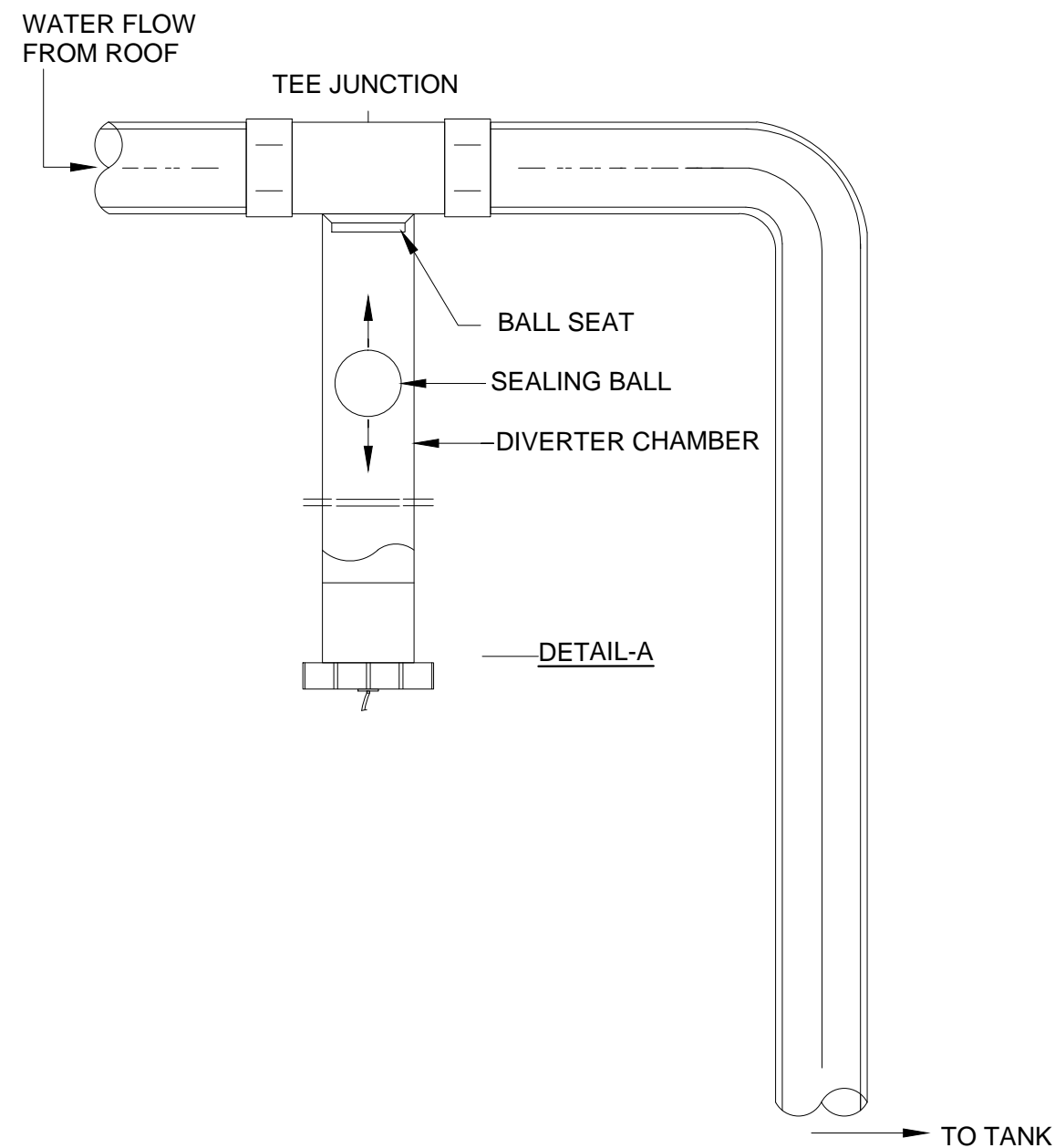
CONSULTANT: **ACO** **دار الجشبي الاستشارات الهندسية**
Al Habshi Consultants Office

PROJECT: Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

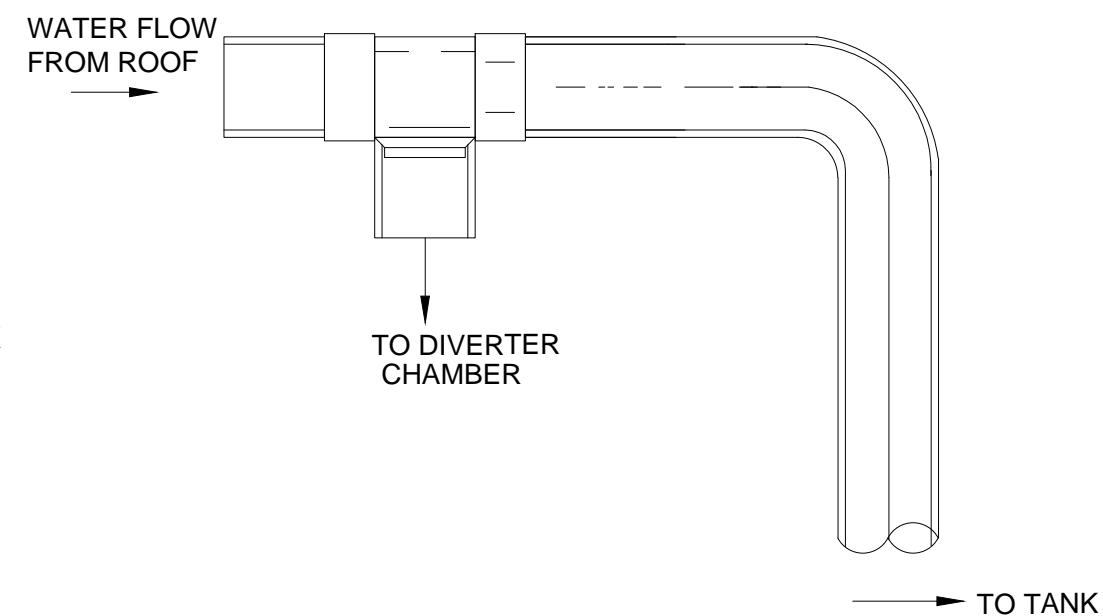
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F.NILANDHOO ISLAND

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SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	2 OF 4				
REV. No.	0				

FN-WS-109



DETAIL-A



TYPICAL FIRST FLUSH DIVERTER

REFERENCE DRAWINGS

SL. No.	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	18.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT	MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES
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CONSULTANT:	ACO دار الجشبي الاستشارات الهندسية Al Habshi Consultants Office
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PROJECT:	Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives
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DRAWING TITLE:	TYPICAL DETAILS-WATER SUPPLY - (SHEET-03) F.NILANDHOO ISLAND
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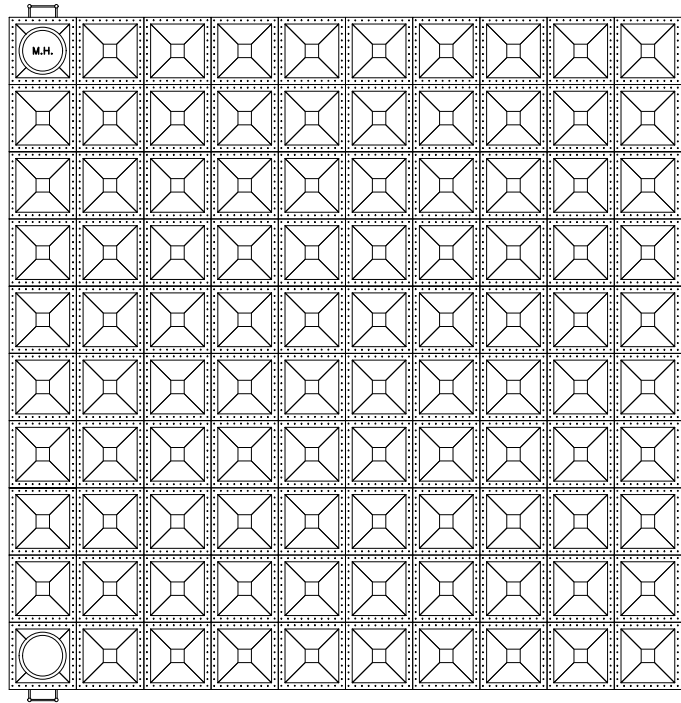
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REV. No.	0				



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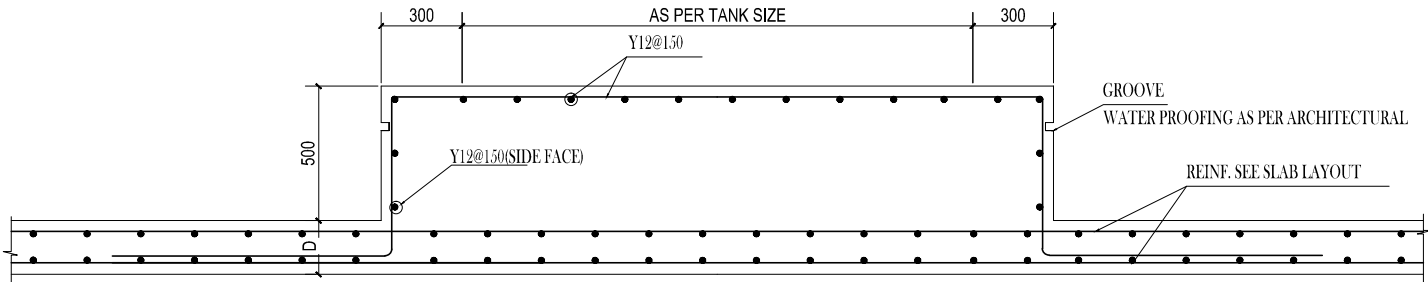


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PLAN GRP WATER TANK

- 1) Size : 6000x5000x5000mm
- 2) Size : 5000x3000x3000mm
- 3) Size : 6000x5000x5000mm
- 4) Size : 4000x3000x4000mm
- 5) Size : 15000x15000x6000mm



TYP.R.C DETAIL FOR ABOVE GROUND GRP TANK
SCALE N.T.S

1. ALL DIMENSION ARE IN MILLIMETER,UNLESS OTHERWISE NOTED
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS,GENERAL NOTES AND SPECIFICATIONS.
4. THE DESIGN IS INDICATIVE ONLY. THE CONTRACTOR TO DESIGN & BUILD THE TANK TOWER STRUCTURE.
5. WATER STOPS SHALL BE 210x9mm THICK MULTI-RIB TYPE WITH CANTER BULB FOR CONSTRUCTION,CONTROL AND EXPANSION JOINTS.

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

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0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	18.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA
REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD

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MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

CONSULTANT:



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Al Habshi Consultants Office

PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
GRP WATER TANK
F.NILANDHOO ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09-12-15
PROJECT No.	SHEET No.	DRAWING No. FN-WS-111			
K-627	1 OF 1				
REV. No.	0				



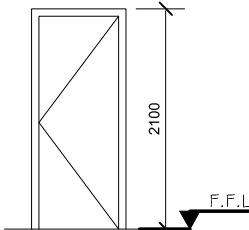
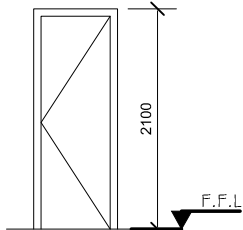
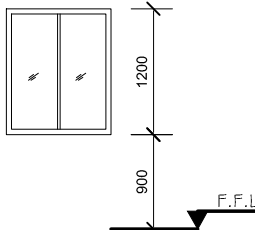
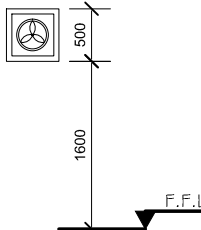
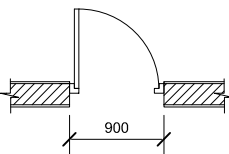
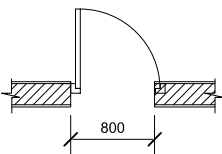
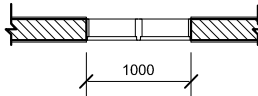
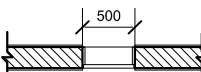
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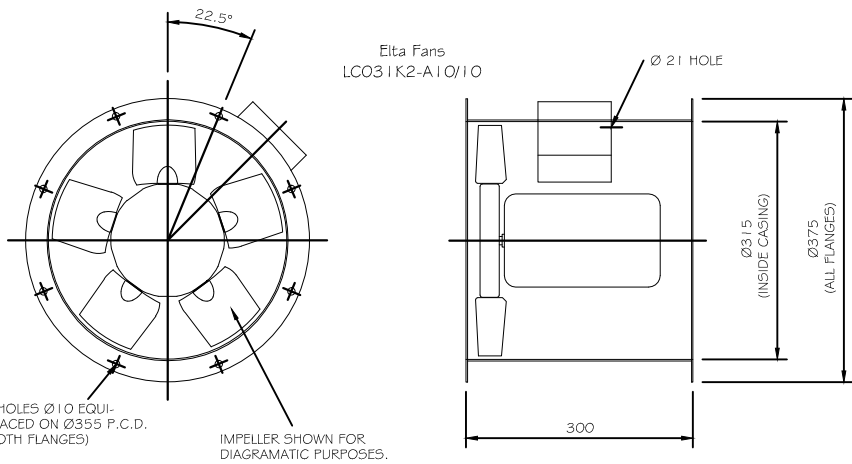
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REVISION						
C L I E N T						
MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES						
CONSULTANT:						
<div style="display: inline-block; text-align: left;"> <p>دار الهندسة المعمارية والبيئة Al Habshi Consultants Office</p> <p>Tel : +960 2200 0200 +960 2200 0100 F : +960 2200 1100 E : alhabshiconsultants@gmail.com Mob : 999 27195, 9999 19102, Rasool</p> </div>						
PROJECT:						
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives						
DRAWING TITLE:						
RO PLANT ADMIN. BUILDING FLOOR AND ROOF PLAN						
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE	
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PROJECT NO.		SHEET No.		DRAWING No.		
K-627		1 OF 1		FN-WS-113		
REV. No.						
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DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1:100	09.12.'15
PROJECT No.	SHEET No.	DRAWING No. FN-WS-114			
K-627	1 OF 1				
REV. No.	0				

DOOR & WINDOW SCHEDULE

																	
<u>ELEVATION</u>				<u>ELEVATION</u>				<u>ELEVATION</u>				<u>ELEVATION</u>					
																	
<u>PLAN</u>				<u>PLAN</u>				<u>PLAN</u>				<u>PLAN</u>					
D1	WIDTH	HEIGHT	DESCRIPTION	D2	WIDTH	HEIGHT	DESCRIPTION	W1	WIDTH	HEIGHT	SILL HEIGHT	DESCRIPTION	W2	WIDTH	HEIGHT	SILL HEIGHT	DESCRIPTION
	900	2100	WOODEN FRAME & WOODEN PANEL		800	2100	WOODEN FRAME & WOODEN PANEL		1000	1200	900	ALUMINIUM FRAME WITH DOUBLE GLAZED		500	500	1600	ALUMINIUM FRAME WITH GLASS & FAN



TYP.EXHAUST FAN

FANS SCHEDULE												REMARKS
REFERENCE	LOCATION	SERVICE	FLOW RATE	SP	POWER				FAN SPEED	FAN		
	AREA	AREA	CFM	IWG	KW	VOLTS	PH	HZ	RPM	FAN TYPE		
EXF-1	LABORATORY	LABORATORY	120	0.5	0.25	230	1	50	1450	AXIAL		
EXF-2	TOILET	TOILET	60	0.5	0.25	230	1	50	1450	AXIAL		
1. CONTRACTOR SHALL RECALCULATE ALL EXTERNAL STATIC PRESSURES AND PROVIDE THE ADEQUATE MOTOR .												
2. Stop EF at night time												

EXHAUST FAN SCHEDULE

- NOTES:-
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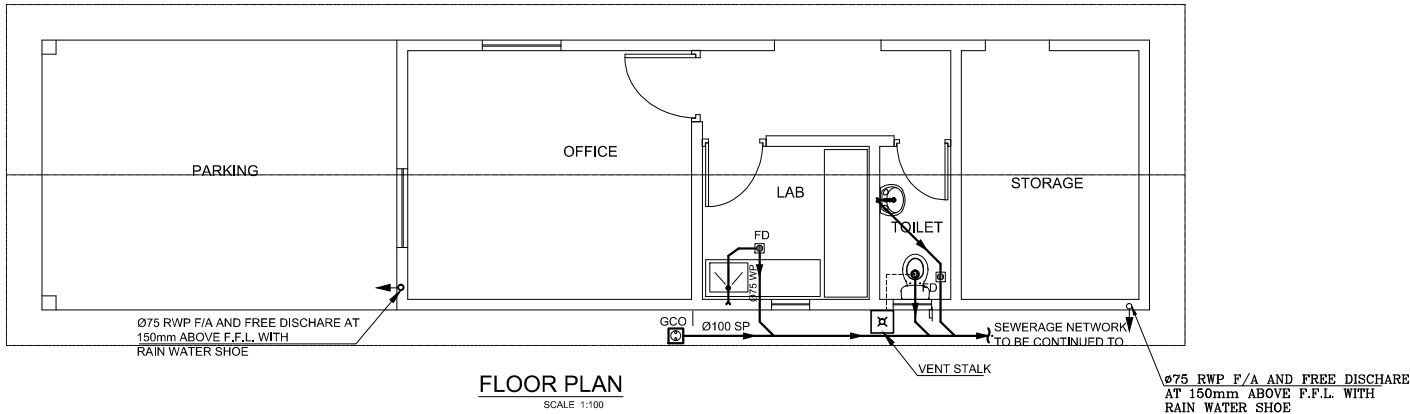
DRAWING TITLE:

RO PLANT ADMIN BUILDING
DOOR,WINDOW & EXHAUST FAN DETAILS

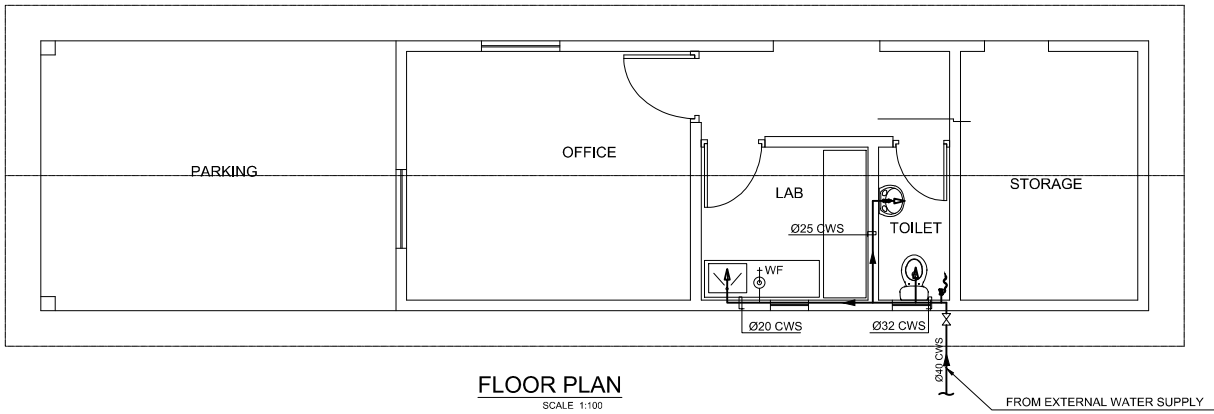
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PROJECT No.	SHEET No.	DRAWING No.
K-627	1 OF 1	FN-WS-115

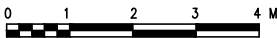
REV. No.	
0	



FLOOR PLAN
SCALE 1:100



FLOOR PLAN
SCALE 1:100



NOTES:-

1. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE SHOWN
2. ALL LEVELS SHOWN ARE IN METERS. ALL LEVELS SHOWN ARE FROM MEAN SEA LEVEL
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.

Legend :

	DRAINAGE PIPE (BELOW GRADE)
	DRAINAGE PIPE (ABOVE GRADE)
	RAIN WATER PIPE
	VENTILATION PIPE
	FLOOR DRAIN
	GROUND CLEAN OUT
	DIRECTION OF FLOW
	COLD WATER SUPPLY
	GATE VALVE
	WATER CLOSET
	WASH BASIN
	KITCHEN SINK

Abbreviations :

WP	WASTE PIPE
VP	VENT PIPE
RWP	RAIN WATER PIPE
L/L	LOW LEVEL
H/L	HIGH LEVEL
F/A	FROM ABOVE
F/B	FROM BELOW
T/A	TO ABOVE
T/B	TO BELOW
B/G	BELOW GRADE
B/S	BELOW SLAB

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

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0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	18.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA
REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD

REVISION

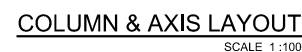
CLIENT	MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES
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CONSULTANT:	
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PROJECT:	Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives
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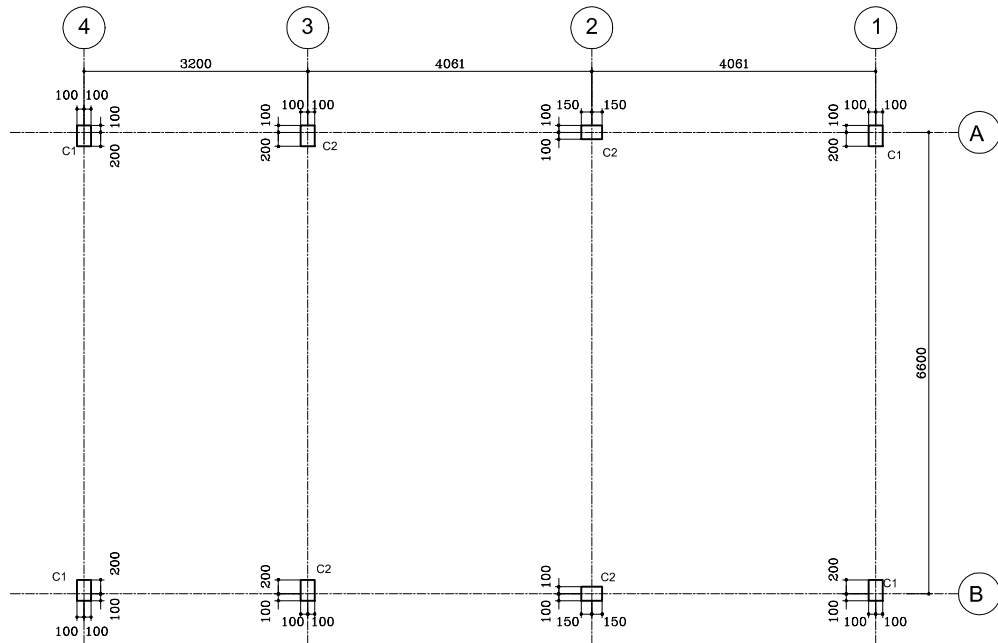
DRAWING TITLE:	RO PLANT ADMIN BUILDING SEWERAGE AND WATER SUPPLY LAYOUT
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DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1 : 100	09.12.15
PROJECT No.	SHEET No.	DRAWING No. FN-WS-116			
K-627	1 OF 1				
REV. No.	0				



BEAM REINFORCEMENT DETAILS							
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
B1	200	500	5T16	3T16	T6/125 c/c		
B2	200	500	4T16	3T16	T6/125 c/c		
B3	200	500	5T16	3T16	T6/100 c/c		





COLUMN & AXIS LAYOUT
SCALE 1 : 100

COLUMNS REINFORCEMENT DETAILS							
TYPE	FOUND			GROUND FLOOR			STIRRUPS
	SIZE	REINT.		SIZE	REINT.		
C1	200	300	6Y16	200	200	4Y16	Y8/200
C2	200	300	8Y16	200	300	8Y16	Y8/200

FOOTING REINFORCEMENT DETAILS							
MARK	DIMENSION			REINFORCEMENT		BOXED	REMARKS
	L	W	H	WIDTH	LENGTH		
F1	1800	1800	300	5Y16/m	5Y16/m		
F2	2500	2500	400	8Y16/m	8Y16/m		

GRADE BEAM REINFORCEMENT DETAILS						
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	REMARKS
	b	h				
GB1	300	300	3Y16	3Y16	Y8/200	

BEAM REINFORCEMENT DETAILS						
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	REMARKS
	b	h				
B1	200	500	3Y16 + 2Y16	2Y16	Y8/150	
B2	200	400	3Y16	3Y16	Y8/150	
B3	200	400	5Y16	3Y16	Y8/150	

SLABS REINFORCEMENT DETAILS				
MARK	THICK	REINFORCEMENT		REMARKS
		WIDTH	LENGTH	
S1	150	Y10/150	Y10/150	

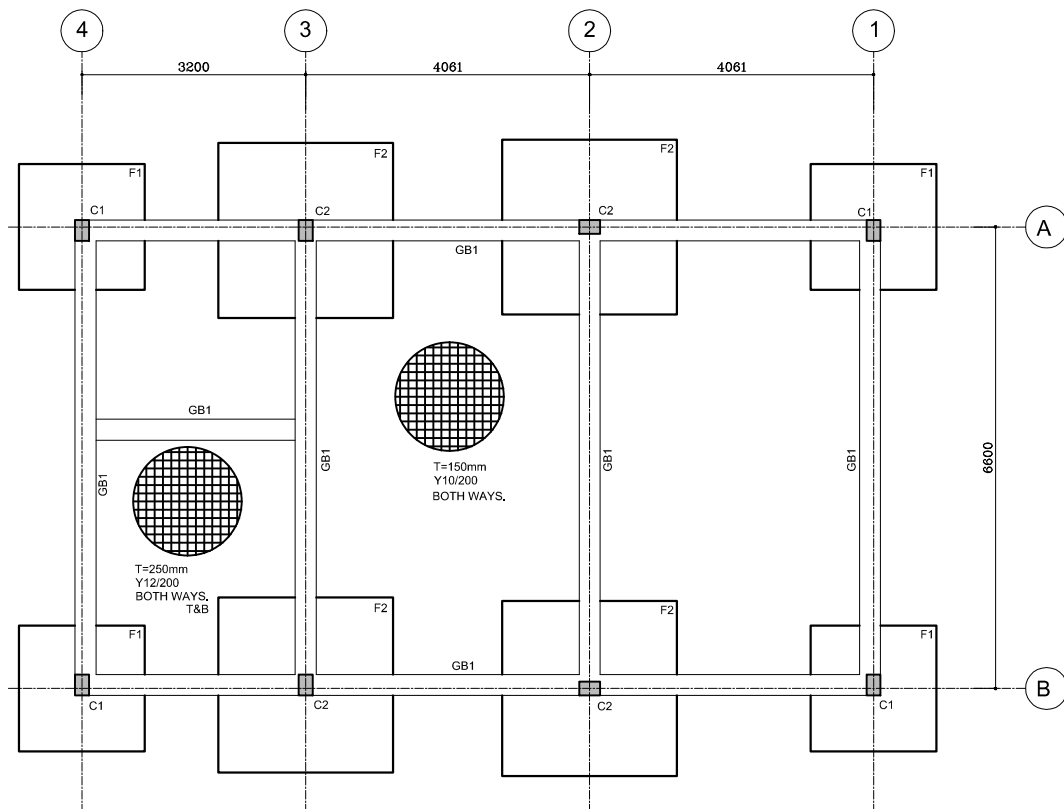
1. ALL DIMENSIONS ARE IN MILLIMETERS (MM).
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.
4. CONTRACTOR SHALL CONDUCT INDEPENDENT GEOTECHNICAL INVESTIGATION TO CONFORM THE BEARING CAPACITY OF SOIL 65 KN / M² AT 1M DEPTH AS DESIGNED IS APPROPRIATE. SHOULD THERE BE A VARIANCE CONTRACTOR SHALL REVISE THE DESIGN TO CONSTRUCT THE WORK
5. THE CONCRETE COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOW :-
COLUMN / BEAM = 40 mm
SLAB = 30 mm
FOUNDATION = 50 mm
6. WATER CEMENT RATIO SHALL BE 0.50
7. FOR ALL GENERAL NOTES REFER BY DWG UT-GN-01

LEGEND:-

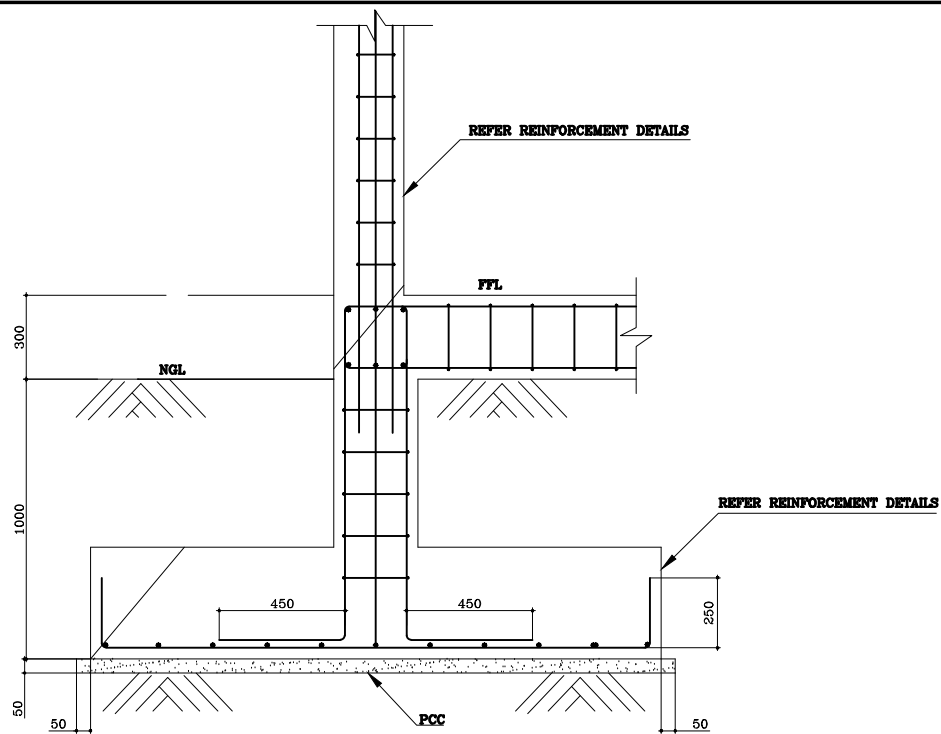
1. NGL - NATURAL GROUND LEVEL
2. FFL - FINISHED FLOOR LEVEL
3. PCC - PLAIN CEMENT CONCRETE

ABBREVIATIONS:-

- GRID No.
A - GRID MARK (HORIZONTAL)
- GRID No.
1 - GRID MARK (VERTICAL)



FOOTING & GRADE BEAM LAYOUT
SCALE 1 : 100



FOOTING DETAIL
SCALE 1 : 25



REFERENCE DRAWINGS

SL.No.	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
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REVISION

CLIENT
MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

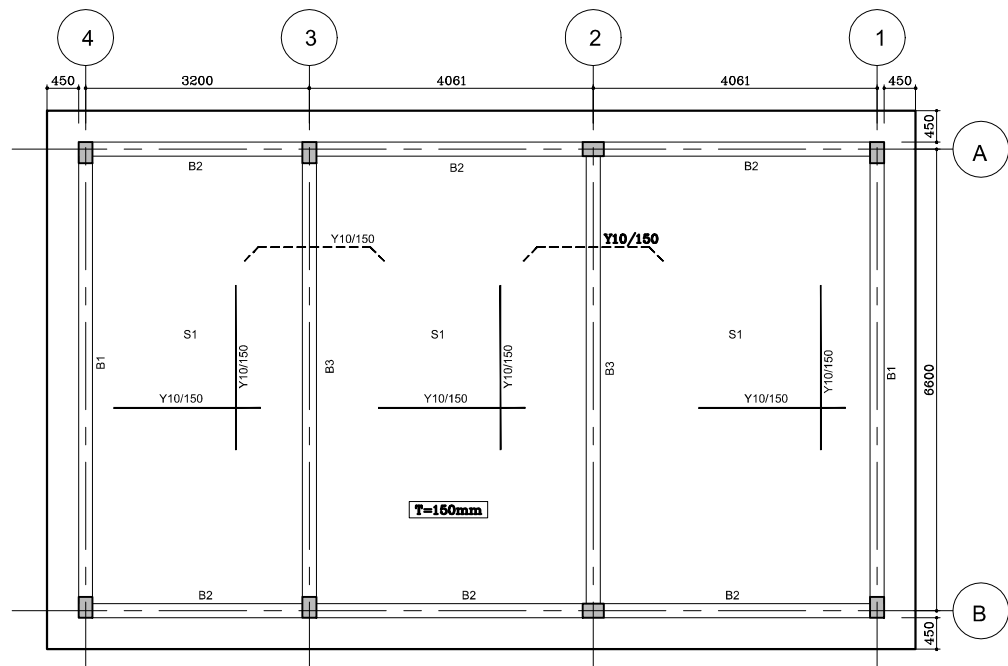
CONSULTANT:
ACO دار الجاهلي الاستشارية
Al Habshi Consultants Office

PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
REVERSE OSMOSIS UNIT STRUCTURAL PLANS
F.NILANDHOO ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1 : 100	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627		1 OF 1			
REV. No.		0			

FN-WS-119



ROOF SLAB LAYOUT
SCALE 1 : 100

COLUMNS REINFORCEMENT DETAILS							
TYPE	FOUND			GROUND FLOOR			STIRRUPS
	SIZE	REINT.		SIZE	REINT.		
C1	200	300	6Y16	200	200	4Y16	Y8/200
C2	200	300	8Y16	200	300	8Y16	Y8/200

FOOTING REINFORCEMENT DETAILS							
MARK	DIMENSION			REINFORCEMENT		BOXED	REMARKS
	L	W	H	WIDTH	LENGTH		
F1	1800	1800	300	5Y16/m	5Y16/m		
F2	2500	2500	400	8Y16/m	8Y16/m		

GRADE BEAM REINFORCEMENT DETAILS							
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
GB1	300	300	3Y16	3Y16	Y8/200		

BEAM REINFORCEMENT DETAILS							
MARK	SIZE		BOTTOM BARS	TOP BARS	STIRRUPS	SIDE BARS	REMARKS
	b	h					
B1	200	500	3Y16 + 2Y16	2Y16	Y8/150		
B2	200	400	3Y16	3Y16	Y8/150		
B3	200	400	5Y16	3Y16	Y8/150		

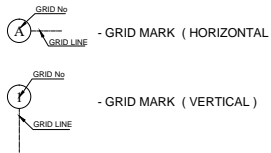
SLABS REINFORCEMENT DETAILS				
MARK	THICK	REINFORCEMENT		REMARKS
		WIDTH	LENGTH	
S1	150	Y10/150	Y10/150	

1. ALL DIMENSIONS ARE IN MILLIMETERS (MM).
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS.
4. CONTRACTOR SHALL CONDUCT INDEPENDENT GEOTECHNICAL INVESTIGATION TO CONFORM THE BEARING CAPACITY OF SOIL 65 KN / M² AT 1M DEPTH AS DESIGNED IS APPROPRIATE SHOULD THERE BE A VARIANCE CONTRACTOR SHALL REVISE THE DESIGN TO CONSTRUCT THE WORK
5. THE CONCRETE COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOW :-
COLUMN / BEAM = 40 mm
SLAB = 30 mm
FOUNDATION = 50 mm
6. WATER CEMENT RATIO SHALL BE 0.50
7. FOR ALL GENERAL NOTES REFER BY DWG UT-GN-01

LEGEND:-

1. NGL - NATURAL GROUND LEVEL
2. FFL - FINISHED FLOOR LEVEL
3. PCC - PLAIN CEMENT CONCRETE

ABBREVIATIONS:-



REFERENCE DRAWINGS

SL No.	DRAWING No.	DESCRIPTION

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0	09.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	18.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
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REVISION

CLIENT	MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES
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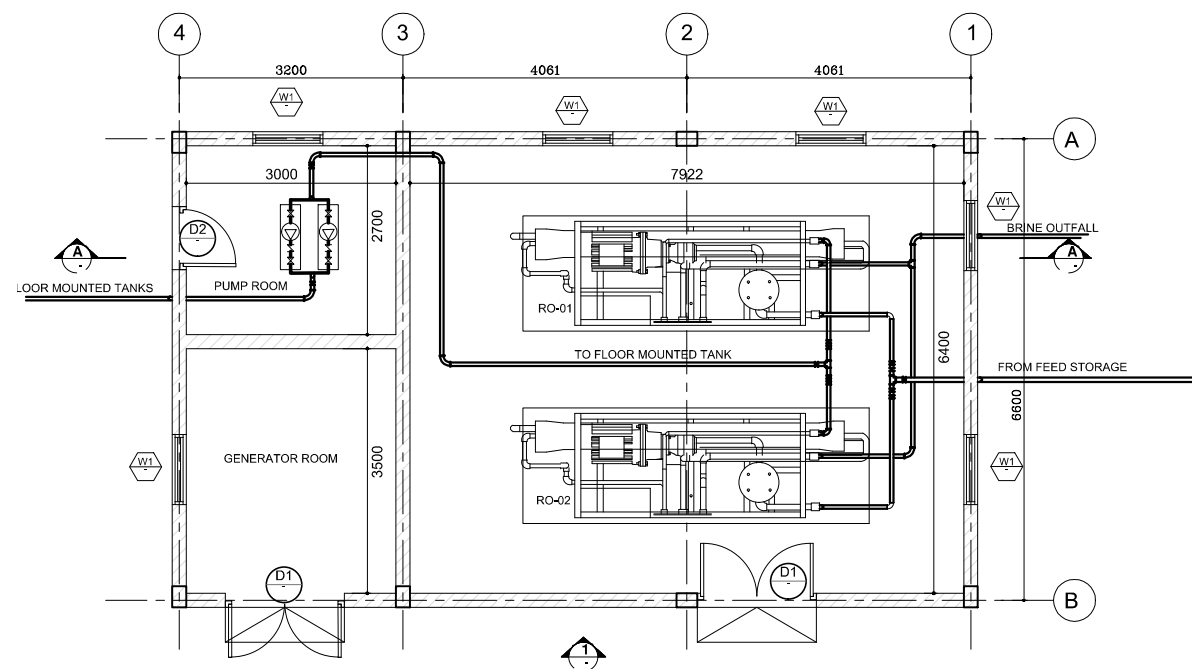
CONSULTANT:	دار الهندسة المعمارية Al Habshi Consultants Office
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PROJECT:
Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
REVERSE OSMOSIS UNIT STRUCTURAL
DETAIL & SCHEDULES

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	AS SHOWN	09.12.15
PROJECT No. SHEET No.		DRAWING No.			
K-627		1 OF 1			
REV. No.		0			

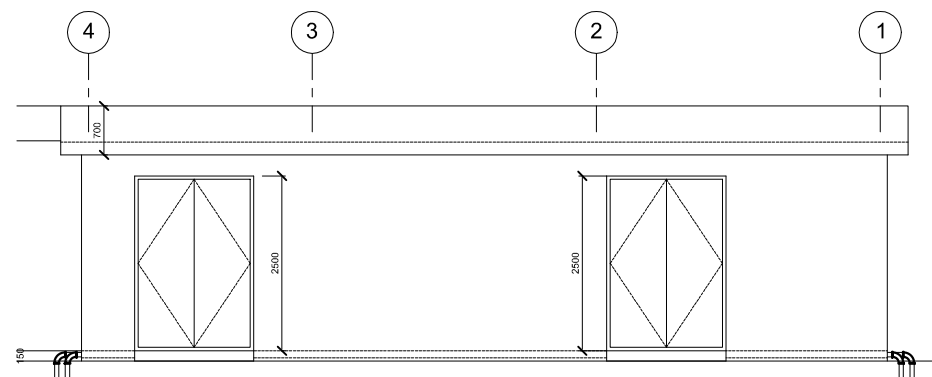
FN-WS-120



RO PLANT BUILDING
SCALE 1:100

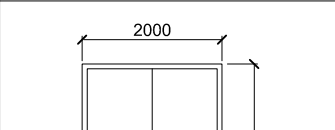
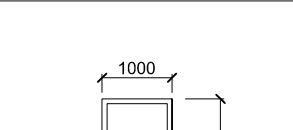
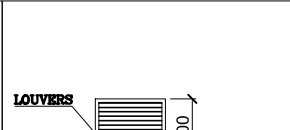
RO PLANT SCHEDULE FOR xxxxxxxx ISLAND

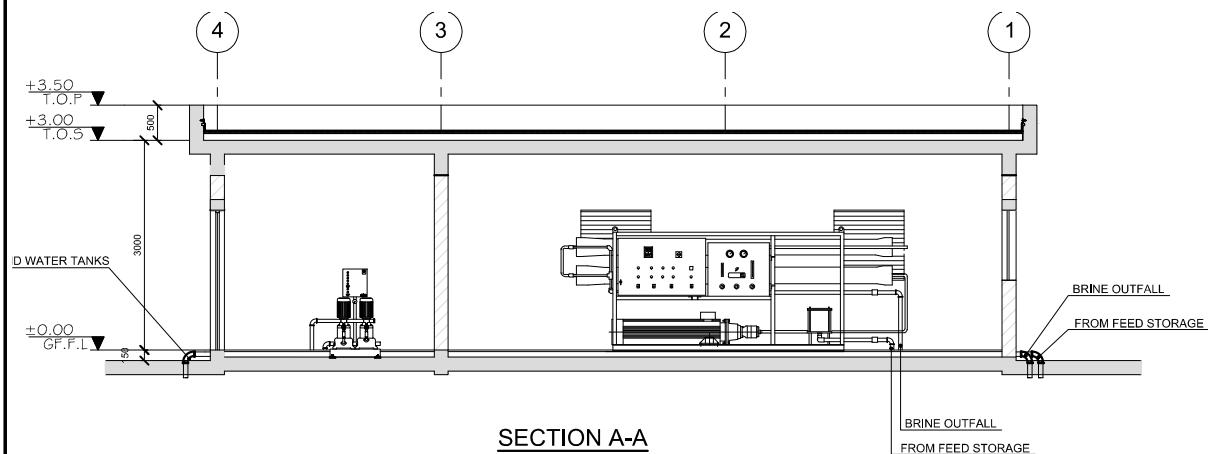
NO.	PUMP CAPACITY	MOTOR	POWER SUPPLY	REMARKS
01	25.0M ³ /HRS	35 KW(46.90 BHP)	400-415/3/50	TWO NOS OF RO PLANT WORKING ACCORDING TO FLOAT SENSOR



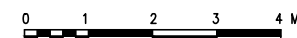
VIEW-1
SCALE 1:100

DOOR & LOUVER SCHEDULE

											
D1	WIDTH	HEIGHT	DESCRIPTION	D2	WIDTH	HEIGHT	DESCRIPTION	W1	WIDTH	HEIGHT	DESCRIPTION
	2000	2500	STEEL DOOR WITH LOUVERS		1000	2000	STEEL DOOR WITH LOUVERS		1000	1000	STEEL FRAME WITH LOUVERS



SECTION A-A
SCALE 1:100



NOTES:-

1. ALL DIMENSION ARE IN MILLIMETER (MM),UNLESS OTHERWISE NOTED
2. ALL LEVELS SHOWN ARE IN METERS.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS,GENERAL NOTES AND SPECIFICATIONS.

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	13.12.15	DETAILED DESIGN SUBMISSION	SR	MP	MA
0	22.10.15	CONCEPT DESIGN SUBMISSION	SR	MP	MA

REVISION

CLIENT: **MINISTRY OF ENVIRONMENT & ENERGY**
REPUBLIC OF MALDIVES

CONSULTANT: **ACO** **دار الهندسة المعمارية**
Al Habshi Consultants Office

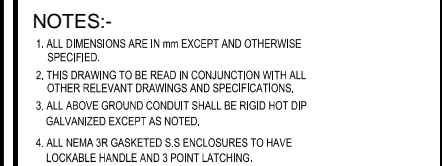
PROJECT: Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:
REVERSE OSMOSIS UNIT DETAILS
F.NILANDHOO ISLAND














DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
SK	SR	MP	MA	1 : 50	13.12.15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1	FN-WS-121			
REV. No.	0				

FN-WS-121

ELECTRICAL DRAWINGS



LEGENDS

TYPE	SYMBOL	DESCRIPTION
B		1 x 40w SURFACE MOUNTED FLUORESCENT LIGHT FITTING
C		1 x 40w WALL MOUNTED FLUORESCENT LIGHT FITTING-WEATHERPROOF
E		16x50 SURFACE MOUNTED FLUORESCENT DOWN LIGHT - WEATHERPROOF
		5A SWITCHED SOCKET OUTLET (1000W)
		5A SWITCHED SOCKET OUTLET AT HIGH LEVEL-WEATHER PROOF (1000W)
		13A TWIN SWITCHED SOCKET OUTLET
		JUNCTION BOX
		20A DP SWITCH
		EXHAUST FAN (80W)
		TELEPHONE TERMINAL BOX
		SINGLE OUTLET FOR DATA
		SINGLE OUTLET FOR VOICE
		0.6x0.6x0.6m HAND HOLE

REFERENCE DRAWINGS

[illegible]

01	02	03	04	05	06
07	08	09	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS	MA
REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPRD

REVISION

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MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

CONSULTANT:



دار الحبشي للاستشارات الهندسية
Al Habshi Consultants Office
☎ +96673220222 / +96673220222 ☎ +96673220222
📍 الرياض - حي النخيل - برج الخليج - الطابق ١٠ - مكتب ١٠١٠

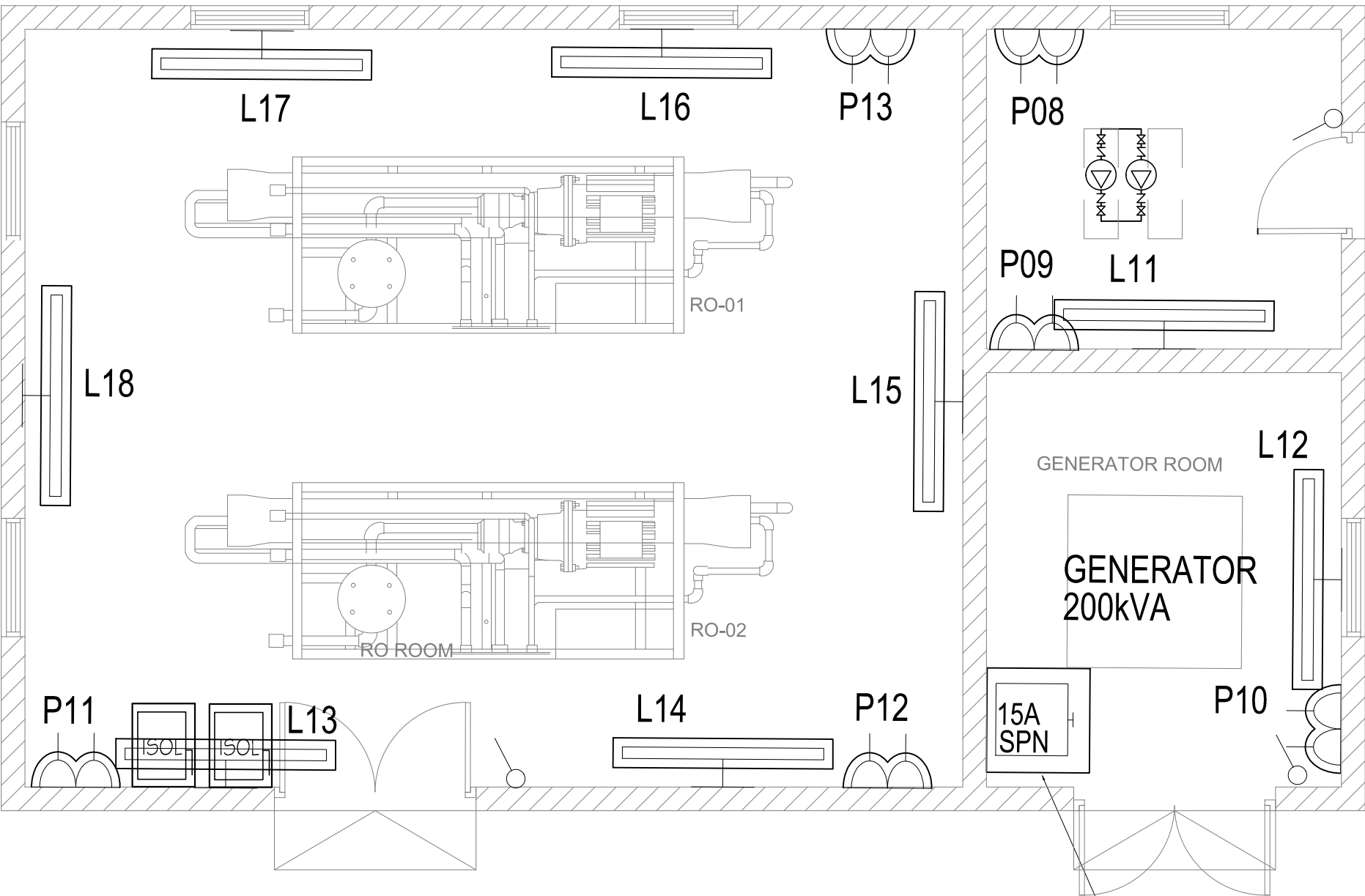
PROJECT:

Consultancy Services for Survey, Design of
Water supply Facilities in Tha.Vilifushi, F.Nilandhoo,
B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:

PROJECT TITLE:
A.HANGNAAMEEDHOO ISLAND
RO PLANT ADMIN BUILDING
ELECTRICAL LAYOUT

ELECTRICAL LAYOUT						
DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE	
RDS	BA	RDS	MA	1:50	28-12-'15	
PROJECT No.	Sheet No.	DRAWING No.				
K-627	1 OF 1	AH-EL-100				
REV. No.	0					



RO PLANT BUILDING
SCALE 1:100

NOTES

1. ALL DIMENSIONS ARE IN mm EXCEPT AND OTHERWISE SPECIFIED.

2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.

3. ALL ABOVE GROUND CONDUIT SHALL BE RIGID HOT DIP GALVANIZED EXCEPT AS NOTED.

4. ALL NEMA 3R GASKETED S.S ENCLOSURES TO HAVE LOCKABLE HANDLE AND 3 POINT LATCHING.

LEGENDS

TYPE	SYMBOL	DESCRIPTION
C		1 x 40W WALL MOUNTED FLUORESCENT
		SWITCH FUSE - WEATHERPROOF
		ISOLATOR FOR TUBE WELL PUMP ON / OFF
		13A TWIN SWITCHED SOCKET OUTLET - WEATHERPROOF

REFERENCE DRAWINGS

SL No.	DRAWING No.	DESCRIPTION

REVISION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

CLIENT

MINISTRY OF ENVIRONMENT & ENERGY
REPUBLIC OF MALDIVES

CONSULTANT:

ACO دار الحشمى للاستشارات الهندسية
Al Habshi Consultants Office

PROJECT:

Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives

DRAWING TITLE:

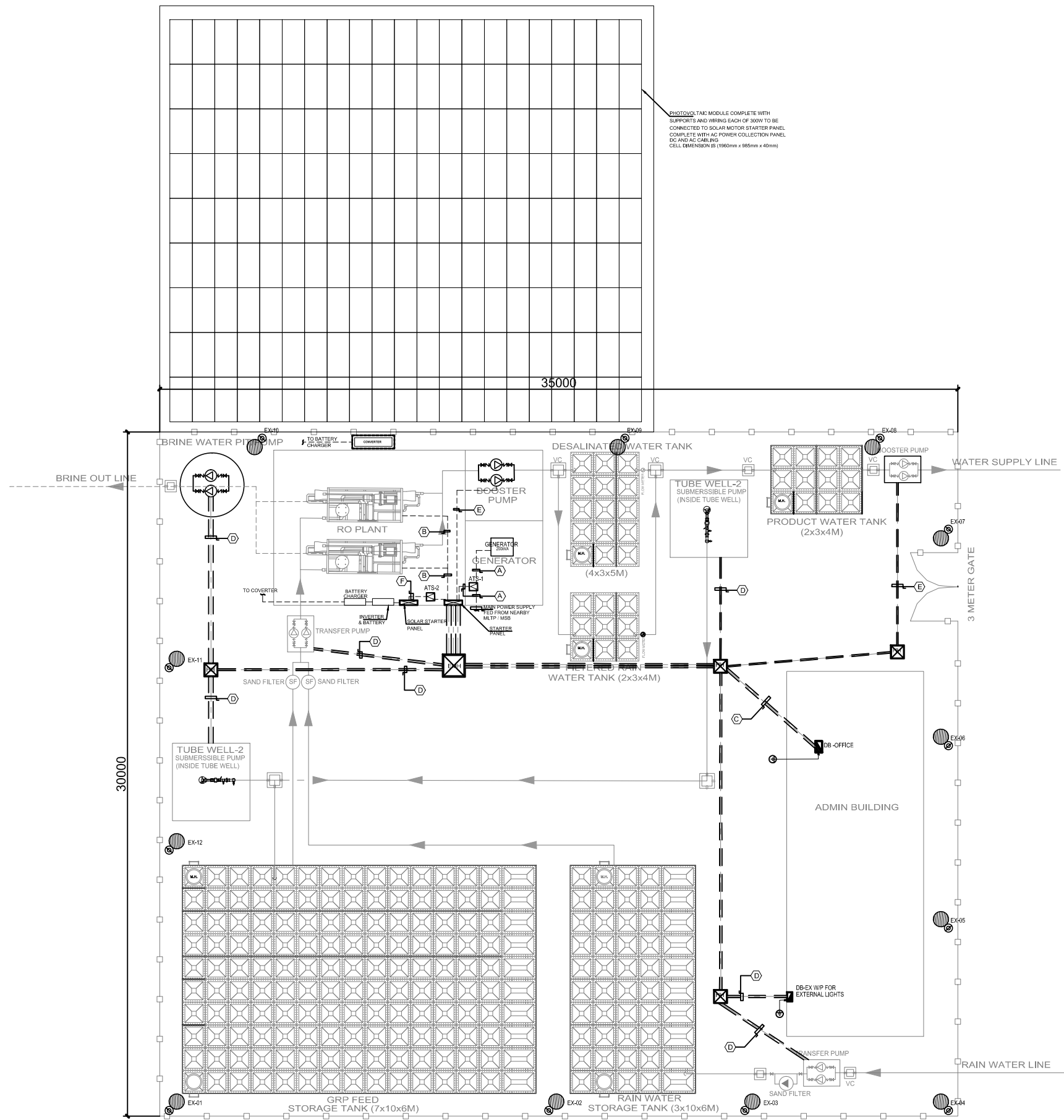
RO PLANT BUILDING ELECTRICAL LAYOUT
A.HANGNAAMEEDHOO ISLAND

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:100	28-12-15

PROJECT No.	SHEET No.	DRAWING No.
K-627	1 OF 1	

REV. No. 0

AH-EL-101



LEGENDS:-

①	TUBE WELL WITH SUBMERSIBLE PUMP 9m ³ /hour AT 62m HEAD
②	ADMIN.OFFICE INCLUDING ALL ELECTRO-MECHANICAL FACILITIES
③	GRP FEED STORAGE TANK
④	RO UNITS
⑤	GENERATOR ROOM
⑥	FLOOR MOUNTED GRP STORAGE TANK
⑦	TRANSFER PUMP (2 Sets.) 6m ³ /hour AT 20m HEAD
⑧	OVERHEAD GRP TANK
⑨	BRINE STORAGE WITH 2 Nos. PUMP 7.9m ³ /hour, BOTH WORKING

CABLE LEGEND:-

(A)	2x4c 150mmSQ cu/XLPE/SWA/PVC ON CABLE TRAY
(B)	(4x25.0+1x10.0)mmSQ cu./PVC IN 50mmØ PVC DUCT
(C)	(4x16.0+1x6.0) cu./ PVC IN 50mmØ PVC DUCT
(D)	(4x10.0+1x6.0)mmSQ cu./PVC IN PVC DUCT
(E)	(4x6.0+1x4.0)mmSQ cu./PVC IN PVC CONDUIT
(F)	4c 120mmSQ cu/XLPE/SWA/PVC ON CABLE TRAY

TYPE	SYMBOL	DESCRIPTION
G		W/P 70W HP SODIUM VAPOUR LAMP POST MOUNTED (6mts HT.)
		DISTRIBUTION BOARD
		DISTRIBUTION BOARD/WEATHER PROOF
		STARTER PANEL
		1.0x1.0x1.0m MANHOLE
		0.6x0.6x0.6m HANDHOLE

REFERENCE DRAWINGS

SL.No	DRAWING No.	DESCRIPTION

REV.	DATE	DESCRIPTION	DRAWN	CHKD.	APPRD.
0	28-12-15	DETAILED DESIGN SUBMISSION	BA	RDS	MA

REVISION

CLIENT	MINISTRY OF ENVIRONMENT & ENERGY REPUBLIC OF MALDIVES
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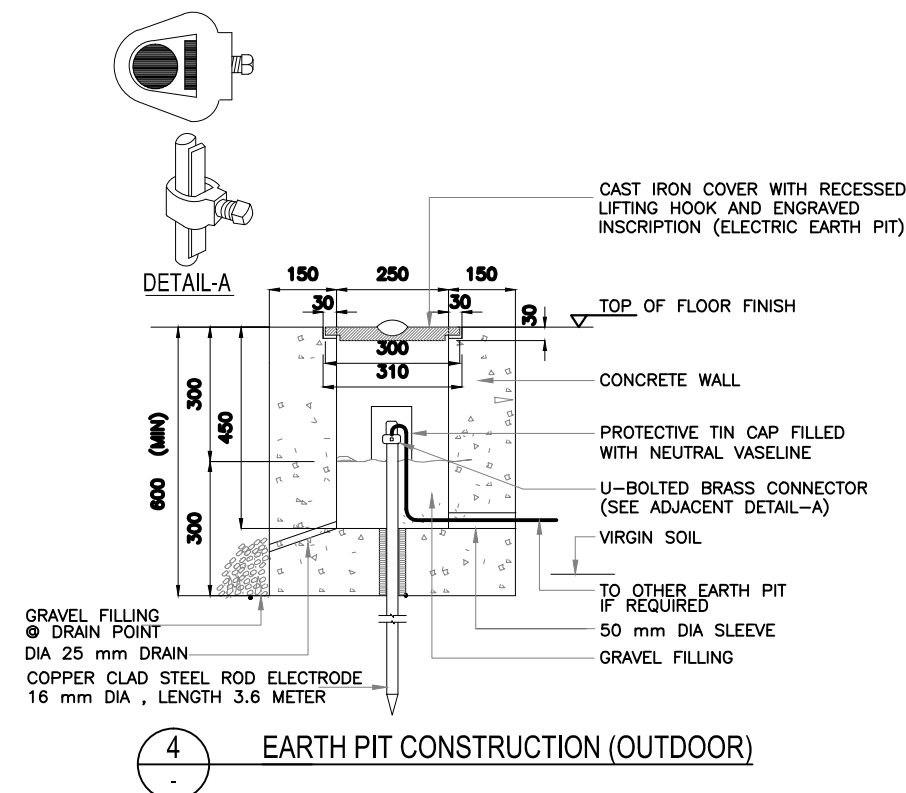
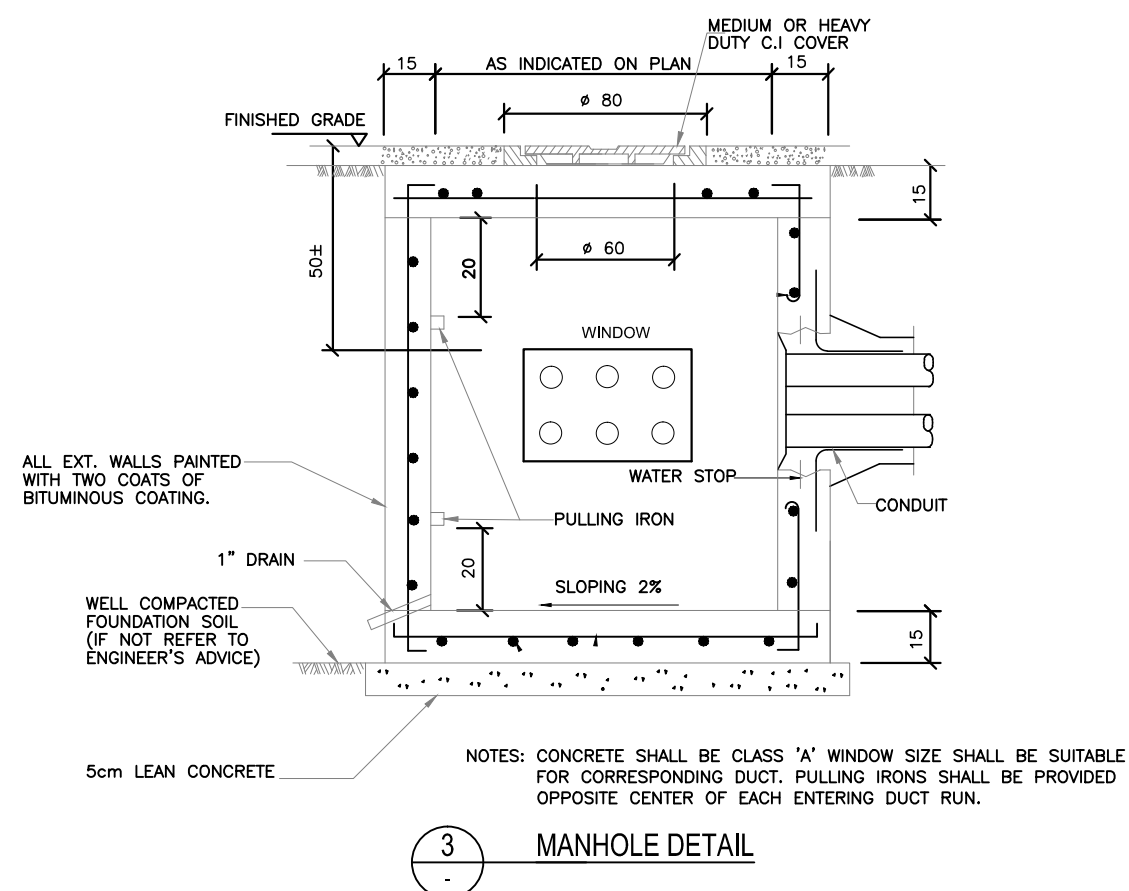
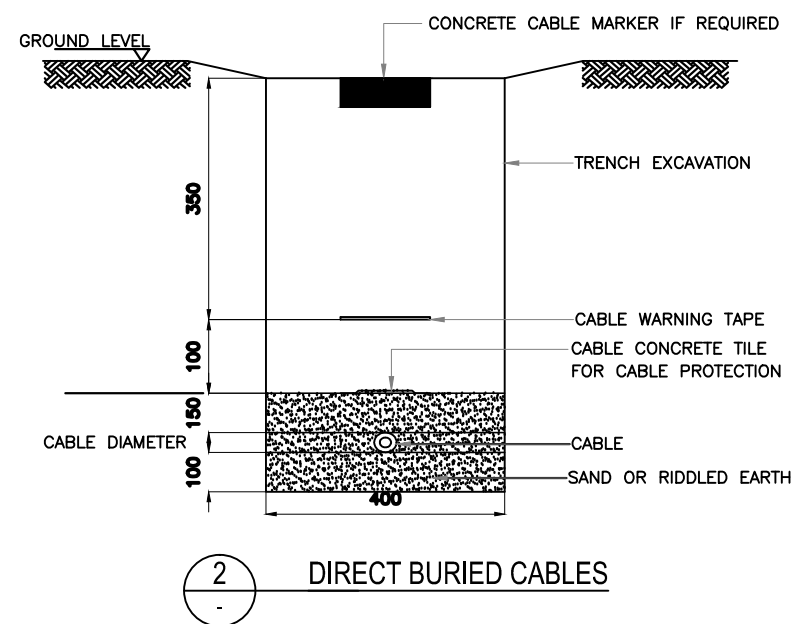
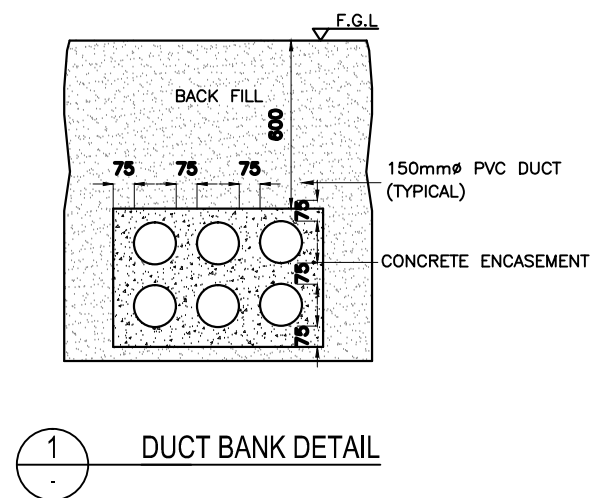
CONSULTANT:	ACO Al Habshi Consultants Office
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PROJECT:	Consultancy Services for Survey, Design of Water supply Facilities in Tha.Vilifushi, F.Nilandhoo, B.Eydhafushi and Adh. Hanyaameedhoo, Maldives
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DRAWING TITLE:	RO PLANT ELECTRICAL LAYOUT A.HANGNAAMEEDHOO ISLAND
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DESIGNED	DRAWN	CHECKED	APPROVED	SCALE	DATE
RDS	BA	RDS	MA	1:100	28-12-15
PROJECT No.	SHEET No.	DRAWING No.			
K-627	1 OF 1				
REV. No.	0				

AH-EL-102

[illegible]