

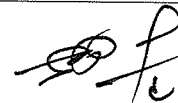
Clarification. 4

(Date of issue of Clarification No 4: 01 September 2023)

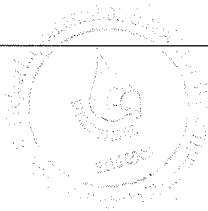
Contract No. and Title: KUKL/WW/TP/R-02: Construction of Remaining works of Wastewater Treatment Plants at Sallaghari, Kodku and Dhobighat

First Date of IFB Publication: 16 July 2023

No	Clause No. & Clause Reference	Bidder's Queries	Employer's Response
1.	Response to Query Number 190, 265, 294	We understand that the plant will be designed as per the table 5.4: Influent Wastewater Quality. However, during the operation phase, the actual level of influent parameters might vary from the design levels and in such case the generation of electricity from biogas will vary as the generation is fully dependent on the actual influent parameters (design load). Therefore, we kindly request the employer to reconsider the request of reassessing the generation formula during the operation phase.	The Biogas production of 7200 kWh per day is to be achieved at Design flows and Loads as stated in Employers requirements- influent load condition i.e 37 MLD flow with 300 mg/l BOD. If Flow or BOD changes, the minimum power generation will also change accordingly: 194.60 KWhr/MLD or 0.649 KWh per Kg BOD.
2.	Volume - III, Section - 8 PCC , Part - A Contract data, Clause 10.6 a Maximum compensation payable by contractor - 10% of the accepted contract amount for Operation Service	We understand that the Maximum compensation payable by contractor for FIDIC Sub Clause - 10.6 a is also applicable for FIDIC sub clause 10.7 - Please Confirm.	FIDIC Sub Clause - 10.6(a) and FIDIC sub clause 10.7 have different applications.
3.	Response to Query Number 170	The Advance shall be paid before the defined commencement date of Design Build as specified in this Tender Document.	The Advance Payment shall be made in accordance with PCC sub-clause 14.2 and 14.7.
4.	Response to Query Number 171 Financing Charges for Delayed Payment	The financing charges for delayed payment are not commensurate with the prevailing rates of Nepal Rashtira Bank. We are attaching the extract from Nepal Rashtira Bank. Kindly Confirm.	The provisions in the bidding document are self-explanatory.
5.	Response to Query Number 162	Our understanding is that the payment for importation of plant, Equipment and spare parts from abroad shall be paid through Letter of Credit by the Employer in bidder's country and same will be	Opening of LC for importation of plant, Equipment and spare parts from abroad, if so required is the

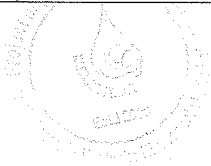
No	Clause No. & Clause Reference	Bidder's Queries	Employer's Response
		opened within 30 days from the Commencement date by the Employer.	responsibility of Contractor. Employer will facilitate on opening of LC upon Contractor's request.
6.	Response to Query Number 282	As per the payment terms, there is a retention of 5% payment on each invoice and deduction of 10% against installation even on supply plant and equipment, the bidder is exposed to negative cashflow. In addition to it the advance is recovered at the rate of 20% on each invoice; will further impact the Contractor's cashflow. Considering the above and huge fluctuations in the global market, We request Advance Payment to be repaid at 15% of each Interim Payment or as per tender @ 20% but the recovery of advance shall start after 20% of the Contract Value is Certified. Please Confirm	The provisions in the bidding document remain unchanged.
7.	Response to Query Number 246	We request Employer to release Maintenance Retention Fund for O&M at end of every operation year.	No, the provisions in the bidding documents remain unchanged.
8.	Response to Query Number 128,129	Chemicals Required for STP The bidder understands that chemicals to be used for WWTPs are not limited to the list specified in the Table. In addition, Bidder request Employer to consider the Gas Chlorination or electro chlorination for disinfection. Please Confirm	Only Electro chlorination shall be accepted for disinfection.
9.	Response to Query Number 157,158,160	Since the bidder will construct three independent WWTPs, we request that the PCC 9.6 on delay damages be applied on delay in individual plants rather than clubbing two plants under Section 1. All other terms remaining same we request three sections as per the definition of tender rather than two.	The provisions in the bidding documents remain unchanged.
10.	Response to Query Number 178, 327	We note that query number 178 and 327 are contradictory. It is our understanding that response to query 327 is appropriate. Please Confirm that response to query 327 supersedes response to query 178 and mandatory spares are not to be included in Schedule 1.	There is no contradiction: <ul style="list-style-type: none"> • Spare parts required for the commissioning shall be included in Schedule No. 1 • Spare parts required for the operational Service period (5 years) must be included in Schedule no. 5 List of the spare parts required for the operation of 10 years should be recommended/informed.



No	Clause No. & Clause Reference	Bidder's Queries	Employer's Response
11.	Response to Query Number 195	Please note that the process design and civil sizes are frozen in the case of this bid as you know. Therefore, based on the sizing and frozen design it is not possible to exceed 5% sludge Consistency from the designed mechanical thickener. Therefore, kindly review and amend to 5% accordingly.	The provision in the bidding document remains unchanged.
12.	Volume - III, Section - 8 PCC , Appendix to Particular conditions of Contract Part B, Price Schedule No. 5 - Operation and Maintenance service Five Percent (5%) of the total value (retention) of Operation and Maintenance services performed by the contractor shall be paid upon completion of operation services.	We request the Employer to reimburse the retention money after completion of maintenance services for that respective year along with the first month payment of subsequent year. Please confirm.	The provision in the bidding document remains unchanged.
13.	Response to Query Number 268	We would like to highlight to the Employer that this contract has significant impact of manpower cost due to unavailability of technical manpower in Nepal, hence the Contractor has to hire manpower from Neighboring countries which has huge cost impact. But manpower index provided in tender is only 30%. Hence we request the Employer to provide Labour weightage similar to other ADB tenders in Nepal like ADB tender "Kathmandu Valley Wastewater Management Project ADB Loan No. 3000NP Bidding Document for Rehabilitation and Expansion of Wastewater Treatment Plant at Guheshwori Package 1: Contract No. KUKLWW/TP/01" which has Labour weightage of 76% and previous call of "Sallaghari, Kodku and Dhobighat tender" has Labour weightage of 75% .Hence we request the Employer to reasonably increase the weightage to 75% for labour component in schedule of cost indexation during Operation service. Please confirm	The provision in the bidding documents remain unchanged



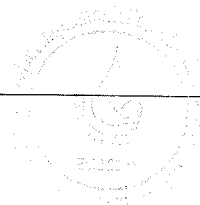
No	Clause No. & Clause Reference	Bidder's Queries	Employer's Response
14.	Volume - III, Section - 8 PCC, Appendix - 2 performance Damages, 2. Failure to reach production outputs, KPI description - S.No -2, a & b	You would appreciate the fact that all WWTPs have some water loss due to sludge generation, hence we understand that the average waste water treated on any day and average waste water treated per month shall be excluding water loss in sludge handling. Please confirm.	confirmed
15.	Response to Query Number 277	Please note that in Dhobhighat the tender asks for Power Generation using the Bio Gas. In such power generating plants the general practice is that the DGs will be sized for the critical/emergency drives only. However, in the Tender, it has been request to consider the 100% of operational load. We understand for Dhobhighat, the rated power of Standby Generator shall be designed to operate the loads on Net Power Consumption (Power Consumption – Power Generation). This is in our understanding more efficient design from an opex point of view as the asset belongs to Employer. Please Confirm	The provision in the Employer's requirements are self-explanatory.
16.	Vol II-Section 6- Employer's Requirement, As per Tender, Table: Influent Wastewater Quality TKN: 79 mg/l	Bidder understands that the Ammoniacal Nitrogen Fraction (NH3-N) of TKN will be approx. 70% in line with typical waste water characteristics and as per general literatures available. Kindly confirm	Influent waste water quality for NH3-N shall be considered same as TKN
17.		Regarding the "5.5 Effluent Quality Standard" in Volume II, Section 6A of the Tender Documents, which includes two standards ("Allowable" and "Nepal Gazette"), please confirm which standard will be used for project acceptance and operation.	"Allowable" standard will be used for project acceptance and operation.
18.	Vol III- Section 8 -Particular Conditions- Appendix 2 – Performance Damages 2. Failure to Reach Production Outputs	(1) Please confirm the assessment criteria for sections 2a and 2b.	The assessment criteria are self-explanatory in the bidding document.
19.	Vol III- Section 8 -Particular Conditions- Appendix 2 – Performance Damages	(2) The assessment method for section 3a seems unreasonable. The consumption of PAM for sludge dehydration is directly proportional to the amount of sludge generated by the wastewater treatment plant, which depends on the influent water quality (SS,	Polyelectrolyte usage for sludge dewatering will be 15 gm/kg dry TS.



No	Clause No. & Clause Reference	Bidder's Queries	Employer's Response
	2. Failure to Reach Production Outputs	COD, BOD, TP). If based on the influent water quality provided by the owner's tender documents, the target of 0.512kg of PAM per million liters of treated sewage is too low. It is recommended that the consumption of PAM per ton of DS (dry solids) produced by the wastewater treatment plant be used as an assessment indicator.	
20.	Vol III- Section 8 -Particular Conditions- Appendix 2 – Performance Damages 2. Failure to Reach Production Outputs	(3) Please confirm the consumption of NaOCl and NaCl in section 3b.	The consumption will be 4.0 Kg Cl (by NaOCl) per Million Liter of treated wastewater.
21.	Vol III- Section 8 -Particular Conditions- Appendix 2 – Performance Damages 2. Failure to Reach Production Outputs	(4) Is NaCl used as a raw material for the NaOCl generator? Please verify the reasonableness of its consumption.	NaCl shall be used as a raw material for the NaOCl generation.
22.	Vol III- Section 8 -Particular Conditions- Appendix 2 – Performance Damages 2. Failure to Reach Production Outputs	(5) Is the consumption of NaOCl based on an 8-10% concentration? If so, the set value for consumption is too low. Please verify.	The consumption will be 4.0 Kg Cl (by NaOCl) per Million Liter of treated wastewater.
23.		This project underwent bidding in 2017, and the contract was awarded to Shanghai Safbon Water Services Co., Ltd. It is understood that due to Safbon Water Services' failure to perform on time, the contract was terminated by the owner in September 2022. Please confirm the actual reason for contract termination and provide information about the owner's financial plan and payment capability for this project.	<ul style="list-style-type: none"> • Refer heading 1.1 of Employer's Requirement for the reason of contract termination • Refer IFB point no.1 for financial arrangement.
24.		We couldn't find much more information and details about the stone column works from section 6A & 6B and attached drawings as it said some works are not completed. Please kindly provide the design drawings about stone column to help us review the remaining works.	Please refer Clarification No. 2- Response to Query Number 305 to 315 and Section 6-Employer's Requirement -Appendix 6 A-1 and 6B. the details will be provided to the successful bidder. Please refer the stone column details in the website: https://kuklpid.org.np/



No	Clause No. & Clause Reference	Bidder's Queries	Employer's Response
25.		<p>As per the EMPLOYER'S REQUIREMENT and FSTPs at Dhobighat & Kodku.</p> <ul style="list-style-type: none"> i) There is no Deodorization facilities in both FSTP at Dhobighat & Kodku. We request that the same odor control process shall be considered as the facilities installed in the three WWTPs ii) For the Dewatering Facility refer to clause 9.5.2 of section 6A Screw press shall be capable of handling fecal sludge consisting of 3% by weight. The dewatered cake shall be based on minimum consistency of 22% by weight dry solids... we request the employer to clarify the minimum consistency of dry solids to 15% according to our operation experience and manufactures feedback iii) For the sludge Drying Machine refer to clause 9.5.2 of section 6A. The electric heat sludge dryer shall consist of rotary motor, heating motor and dehumidification fan... we assume it's a rotary drum dryer basing on the layout and detailed drawings, which is high energy consumed, environment unfriendly and nearly eliminated in the market. Please confirm if there is any economic and environmental restrictions on the sludge drying process iv) Please clarify that whether CCTV equipment are required in two FSTPs 	<ul style="list-style-type: none"> i) Odor from FSTP is collected and transferred to the WWTP deodorization unit. ii) Please refer Section 6-Employer's Requirement-Subheading 1.1 iii) Please refer Section 6-Employer's Requirement-Subheading 1.1 iv) Monitoring and control system are mandatory also in FSTP. Refer Section 6-Employer's Requirement-Heading 10.
26.		<p>As per clause 9.2.10 of section 6A 'The fan shall be stainless steel construction and shall have a scroll casing suction cone, and impeller,' while the P&ID and mechanical MGD show that the martial is FRP. We assume that FRP is preferable as the approved design. Please clarify.</p>	<p>Please follow specification in Section 6-Employer's Requirement-</p>
27.		<p>As per clause 9.5.2 of section 6A, "Tow stage-caustic scrubber with mist and frame traps with no chemical recovery shall be provided", which uses caustic desulfurization technologies as the P&ID shows. We request that whether Dry desulfurization with iron oxide desulfurizer is available.</p>	<p>Please refer Section 6-Employer's Requirement-Subheading 1.1. Bidder shall review the mechanical, electrical and instrumentation design documents of the Employer and may modify/update or redesign entirely if necessary for the compliance to the Functional Guarantee required as per the Employer's requirement.</p>



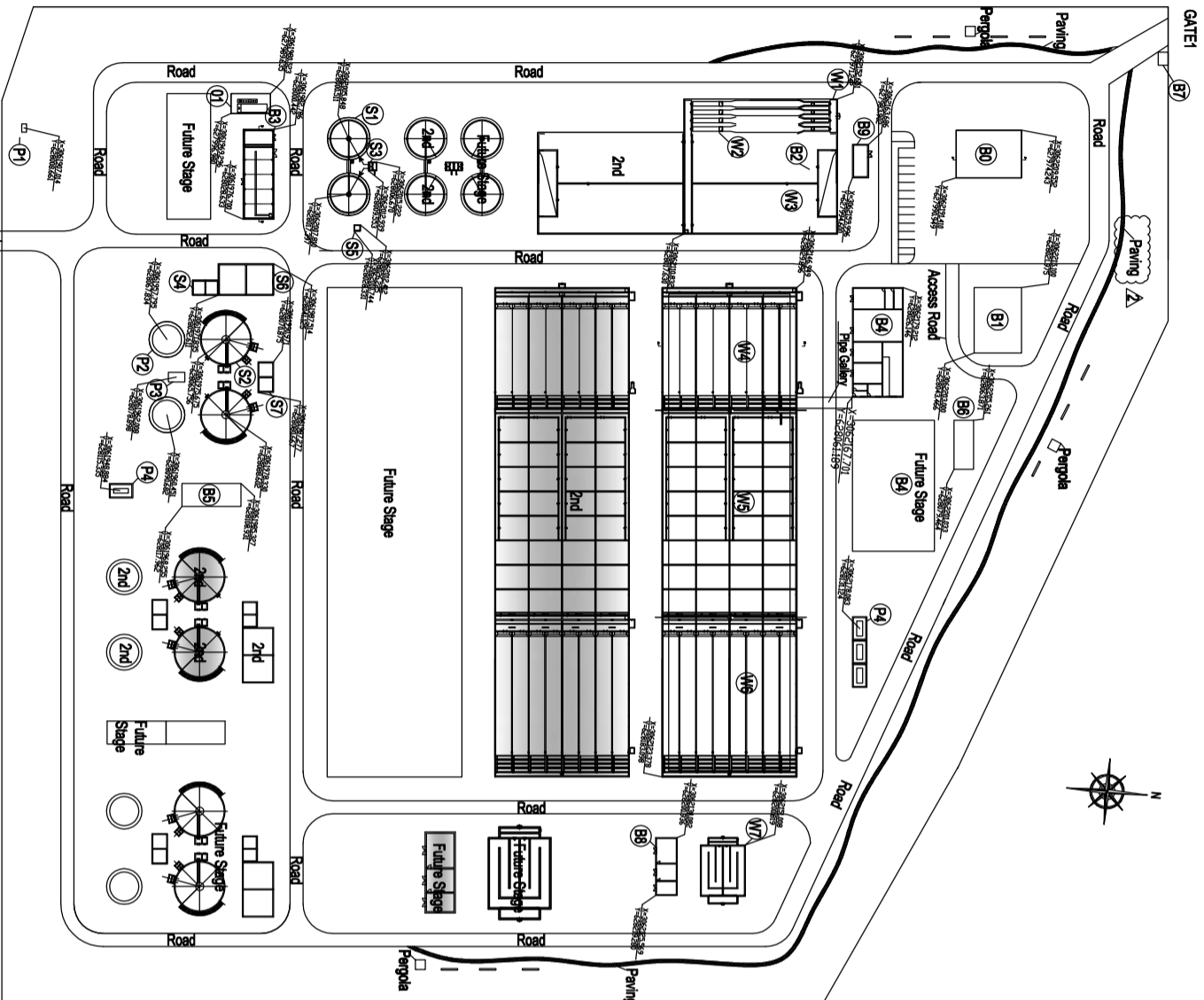
Drawing List

Pro. Name	Construction of Wastewater Treatment Plants at Shallaghari,Kodku and Dhobighat	Pro. Num.	KUKL/WW/TP/02			
Subpro.	STONE COLUMN FOR DHOBIGHAT SITE	Drawing No.	SB01-D03-250-000	Design Phase	Detail Design	
No.	Drawing No.	Drawing Name			Sheet	Remarks
0	SB01-D03-250-000	DRAWING LIST			1	
1	SB01-D03-250-001	GENERAL LAYOUT OF STONE COLUMN FOR DHOBIGHAT SITE			1	
2	SB01-D03-250-002	KUKL OFFICE (B0) - LAYOUT OF STONE COLUMN			1	
3	SB01-D03-250-003	SLUDGE TREATMENT BUILDING (B3) - LAYOUT OF STONE COLUMN			1	
4	SB01-D03-250-004	PRIMARY SEDIMENTATION TANK (W4) - LAYOUT OF STONE COLUMN			1	
5	SB01-D03-250-005	AERATION TANK (W5) - LAYOUT OF STONE COLUMN			1	
6	SB01-D03-250-006	SECONDARY SEDIMENTATION TANK (W6) - LAYOUT OF STONE COLUMN			1	
7	SB01-D03-250-007	PRIMARY SEDIMENTATION TANK (W4),AERATION TANK (W5) SECONDARY SEDIMENTATION TANK (W6) - LAYOUT OF STONE COLUMN			1	
8	SB01-D03-250-008	DISINFECTION TANK (W7) - LAYOUT OF STONE COLUMN			1	
9	SB01-D03-250-009	GRAVITY THICKNER (S1)SLUDGE DISTRIBUTION TANK (S3) - LAYOUT OF STONE COLUMN			1	
10	SB01-D03-250-010	WASTE ACTIVATED SLUDGE TANK (S4) ,MIXED SLUDGE TANK(S6) LAYOUT OF STONE COLUMN			1	
11	SB01-D03-250-011	GAS HOUSE (P2) -LAYOUT OF STONE COLUMN			1	
12	SB01-D03-250-012	BIO-FILTER FACILITY(01),RETURN FLOW TANK (S5), GAS FLARE PLATFORM (P2) - LAYOUT OF STONE COLUMN			1	

Sian: Ukesh

Check: Yano Wenfa

Approved: Liu Shun



GENERAL LAYOUT PLAN OF STONE COLUMN FOR DHOBI GHAT

SCHEDULE OF STONE COLUMN

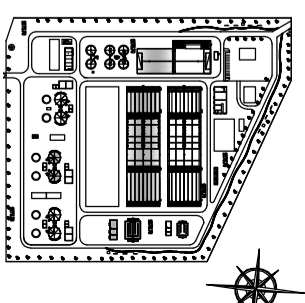
STRUCTURAL ID	STRUCTURAL NAME	DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
B0	KUL OFFICE	0.6	7	70
B3	SLUDGE TREATMENT BUILDING	0.6	8	65
W4	PRIMARY SEDIMENTATION TANK	0.6	7	327
W5	SECONDARY SEDIMENTATION TANK	0.6	7	532
W6	SECONDARY SEDIMENTATION TANK	0.6	8	422
W7	DISINFECTION TANK	0.6	8	59
S1	GRAVITY THICKENER	0.6	8	78
S3	SLUDGE DISTRIBUTION TANK	0.6	6	4
S4/S6	WASTE ACTIVATED SLUDGE TANK/MIXED SLUDGE TANK	0.6	8	52
S5	RETURN FLOW TANK	0.6	7	4
O1	BIO-FILTER FACILITY	0.6	8	18
P1	GAS FLARE PLATFORM	0.6	6	4
P2	GAS HOUSE	0.6	6	2 X 21 (42)

NO.	DESCRIPTION	Liba(m) ^(m)	QTY	UNIT	MATERIAL
WASTEWATER TREATMENT FACILITY					
W1	INLET CHAMBER	9.90x2.00x0.09	1	SET	RCS
W2	SCREEN AND GRIT CHAMBER	41.70x2.10x0.09	4	SET	RCS
W3	EQUALIZATION TANK	48.30x15.00x0.81	2	SET	RCS
W4	PRIMARY SEDIMENTATION TANK	58.30x4.80x4.50	8	SET	RCS
W5	AERATION TANK	62.50x6.80x6.50	4	SET	RCS
W6	SECONDARY SEDIMENTATION TANK	48.80x4.80x4.40	8	SET	RCS
W7	DISINFECTION TANK	18.80x6.40x2.80	2	SET	RCS
SLUDGE TREATMENT FACILITY					
S1	GRAVITY THICKENER	D=1.00, H=3.50	2	SET	RCS
S2	ANAEROBIC DICESTER	D=18.00, H=18.88	2	SET	RCS
S3	SLUDGE DISTRIBUTION TANK	2.00x2.00x1.50	1	SET	RCS
S4	WASTE ACTIVATED SLUDGE TANK	9.00x9.00x4.00	2	SET	RCS
S5	RETURN FLOW TANK	1.50x1.50x1.70	1	SET	RCS
S6	MIXED SLUDGE TANK	4.00x3.50x3.50	2	SET	RCS
S7	DIGESTED SLUDGE TANK	4.20x4.20x3.50	2	SET	RCS
BUILDINGS					
B0	KUL OFFICE	19.95x14.50x0.00	1	SET	FS
B1	ADMINISTRATION BUILDING	19.95x14.50x0.00	1	SET	FS
B2	PRE-TREATMENT BUILDING	30.30x9.00x3.00	1	SET	FS
B3	SLUDGE TREATMENT BUILDING	27.00x9.00x3.00	1	SET	FS
B4	BLOWER/ELECTRICAL BUILDING	33.00x15.00x5.00	1	SET	FS
B5	BIO-GAS GENERATION BUILDING	18.00x7.00x5.00	1	SET	FS
B6	STORAGE HOUSE	15.00x6.00x4.00	1	SET	FS
B7	GATE HOUSE	4.00x3.00x3.00	1	SET	FS
B8	REUSE WATER HOUSE	17.10x8.00x3.00	1	SET	FS
B9	ELECTRICAL ROOM	8.80x4.30x2.50	1	SET	FS
BIO-GAS GENERATION FACILITY					
P1	GAS FLARE PLATFORM	2.50x1.50	1	SET	RCS
P2	GAS HOLDER	Ø10.90	1	SET	RCS
P3	SCRUBBING TOWER	5.00x3.00	1	SET	RCS
P4	DIESEL TANK SUMP	7.20x4.40x2.20	2	SET	RCS
O1	BIO-FILTER FACILITY	12.00x6.00	1	SET	RCS

ABBREVIATION:
 Dimension Unit: Meter
 The Above Size is Net Size.
 RCS: Reinforced Concrete Structure
 FS: Frame Structure
 The Width of Road is 4m, Main Road from Gate 1 is 8m.
 Turning Radius is 5m.

Legend:
 122.370 Ground Level
 Future Stage

NOTES:
1. All dimensions are in mm.



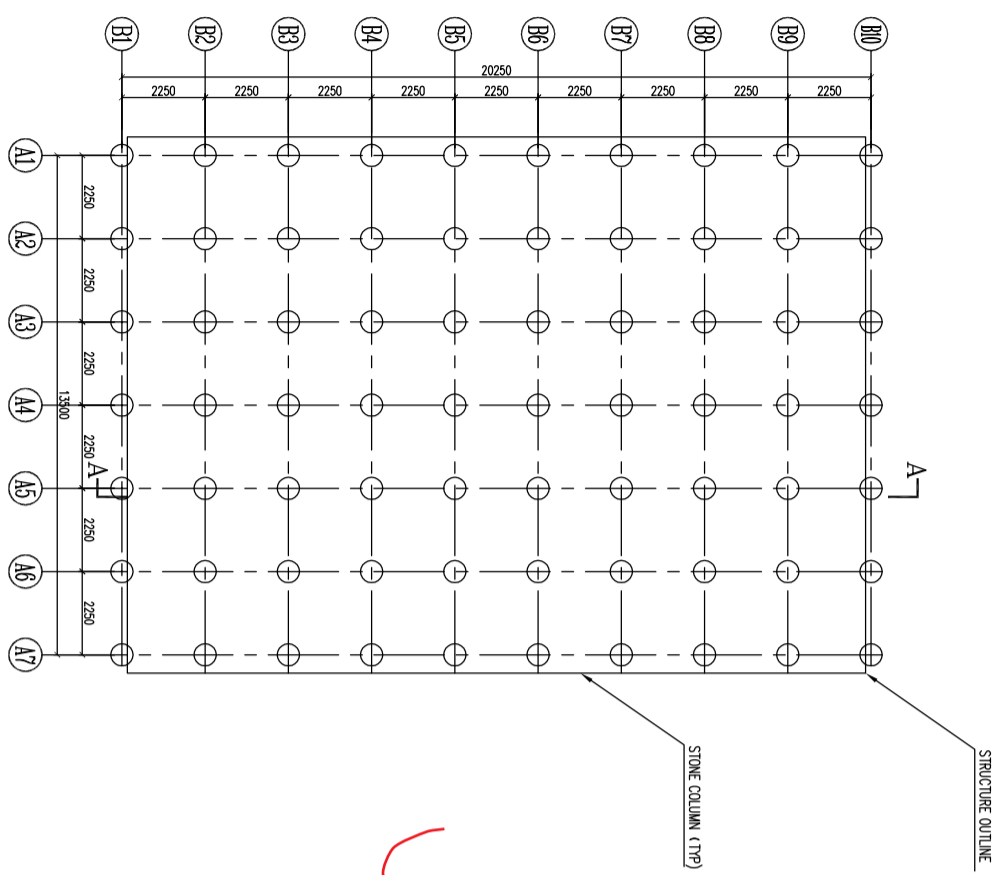
DRAWING SUBMISSION STATUS:

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
Δ	19/04/2018	FOR APPROVE	UNESH	NAVEENNA	LIJ SHAN
Δ	09/04/2018	FOR APPROVE	UNESH	NAVEENNA	LIJ SHAN

CLIENT: **DOHWA ENGINEERING COMPANY LTD**
 PROJECT REPRESENTATION DIRECTOR: **ANANDKANTHARAJAN**

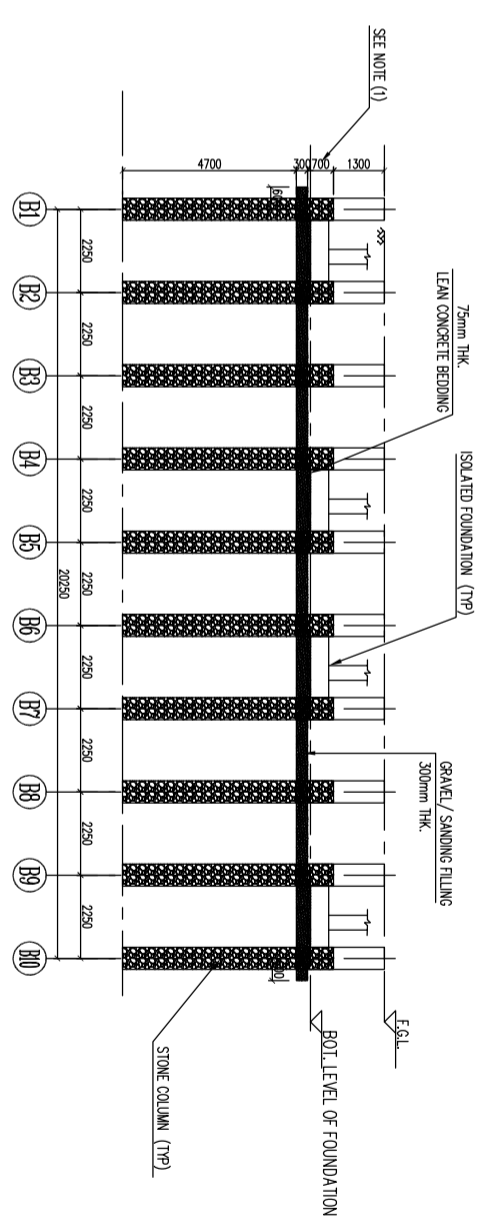
CONTRACTOR: **Safdar** (RICHMOND) INC., SINGAPORE
 PROJECT TITLE: **Construction of Wastewater Treatment Plants at Saligarthi, Kookku and Dhobighat.**

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUL/MW/TP/02	DRWN	UNESH		
8801-003-290-001	CHKD	NAVEENNA		
	APPD	LIJ SHAN		



SCHEDULE OF STONE COLUMN			
STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN	
		DIAMETER (m)	DEPTH (m)
B0	KUKL OFFICE	0.6	7
			70

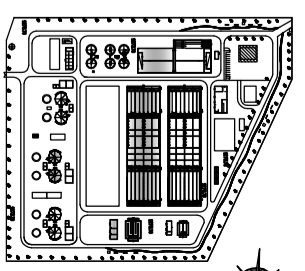
KUKL OFFICE (B0) - PLAN LAYOUT OF STONE COLUMN 1:100



SECTION @ A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FGL: 1225.70

- NOTES:
1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS:

NO.	DATE	DESCRIPTION	BY	CHECKED
1	15/04/2018	FOR APPROVE	UJESH	WANG BERNIA
2	16/04/2018	FOR APPROVE	UJESH	WANG BERNIA
3		DESCRIPTION	UJESH	WANG BERNIA
4			UJESH	WANG BERNIA

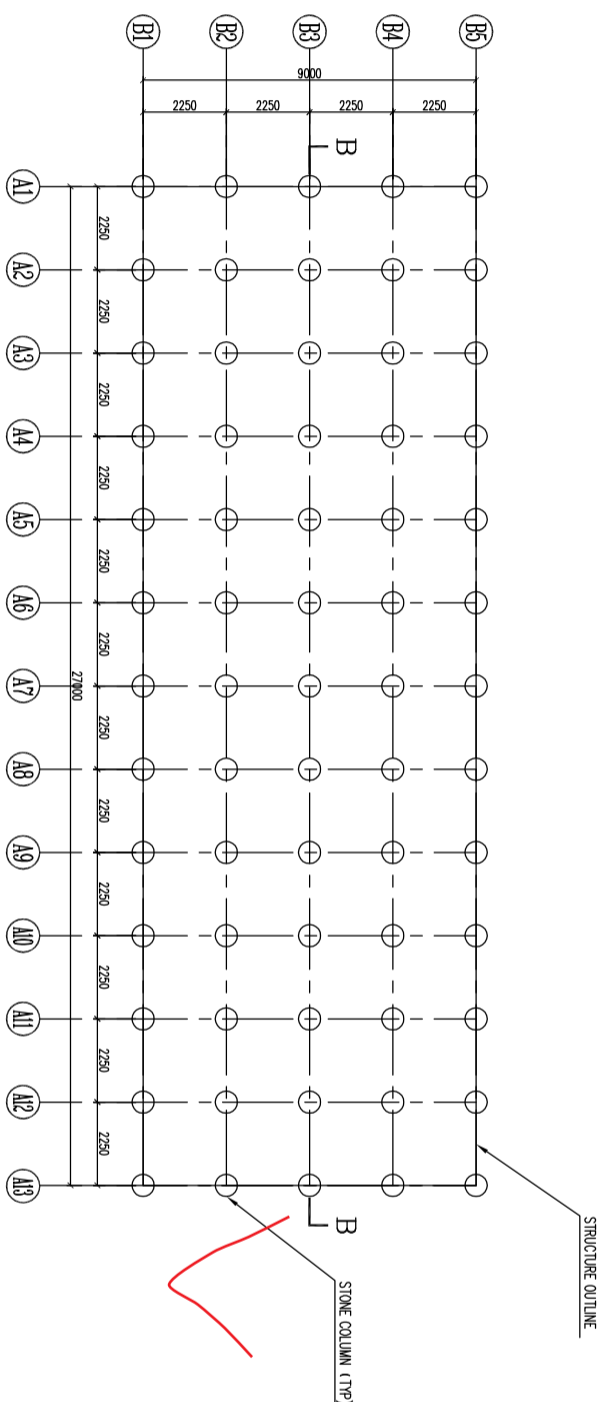
CLIENT: PROJECT REPRESENTATION DIRECTORATE, NATIONAL UNIVERSITY KOWNAKI LIMITED, AMMANMOHAMMADIYAH, JORDAN.

CONSULTANT: DOHMA ENGINEERING COMPANY LTD

CONTRACTOR: **SafBar** SAIBON WATER SERVICE (HOLDINGS) INC., SAIBON

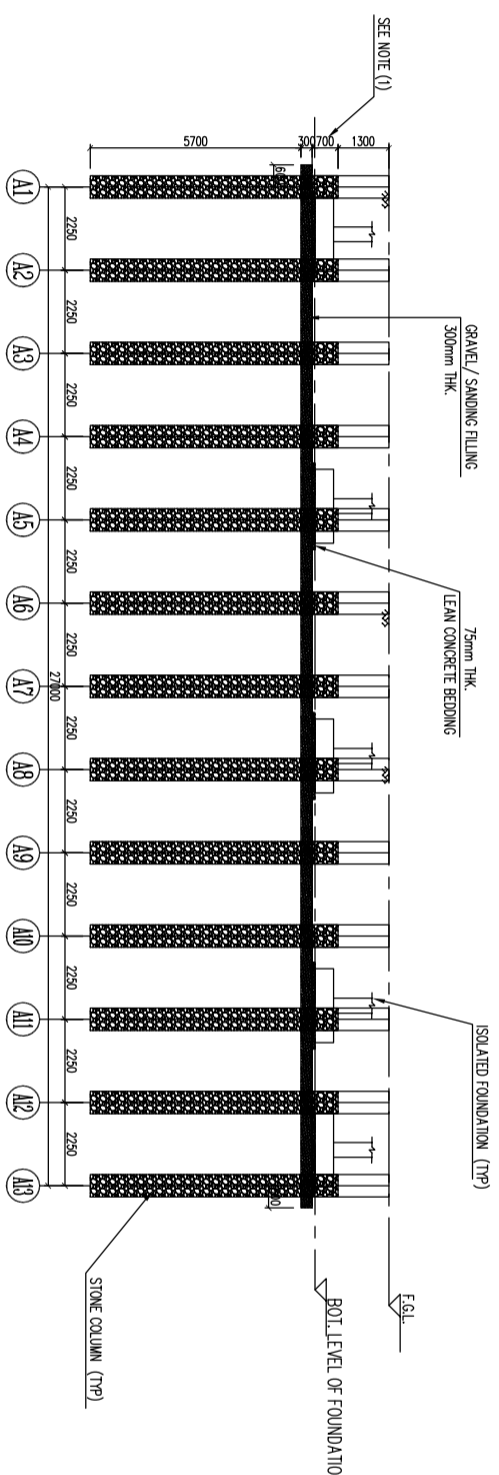
PROJECT TITLE: Construction of Wastewater Treatment Plants at **Saibon, Kofou and Diddigat**

FUNCTION	NAME	SIGN	DATE
CONTRACT NO.	KUKL/WW/TP/02		
DRAWING NO.	002		
APPD.	UJ. SAIB.		
SCALE	1:100		
SHEET NO.			



SCHEDULE OF STONE COLUMN				
STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
B3	SLUDGE TREATMENT BUILDING	0.6	8	65

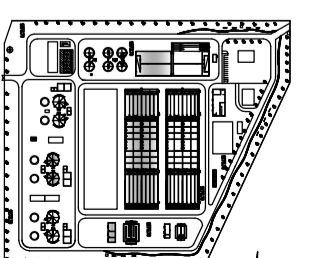
SLUDGE TREATMENT BUILDING(B3) - PLAN LAYOUT OF STONE COLUMN 1:100



SECTION @ B-B 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FGL: 1275.70

- NOTES:
1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

NO.	DATE	DESCRIPTION	BY	CHECKED BY
1	15/04/2018	FOR APPROVE	UJESH	VIJAY BERA
2	16/04/2018	FOR APPROVE	UJESH	VIJAY BERA
3		DESCRIPTION	UJESH	VIJAY BERA

CLIENT: **PROJECT IRRIGATION DIRECTORATE, KARNATAKA GOVT. ENGINEERING DEPARTMENT, MANGALAKOTTA**

CONSULTANT: **DOHVA ENGINEERING COMPANY LTD**

CONTRACTOR: **SafBar (INDIA) INC. SURANGA**

PROJECT TITLE: **Construction of Wastewater Treatment Plants at Saligrah, Kodur and Dvodipal.**

FUNCTION	NAME	SKIN	DATE
DRWN	UJESH		
CHGD	VIJAY BERA		
APPD	UJESH		

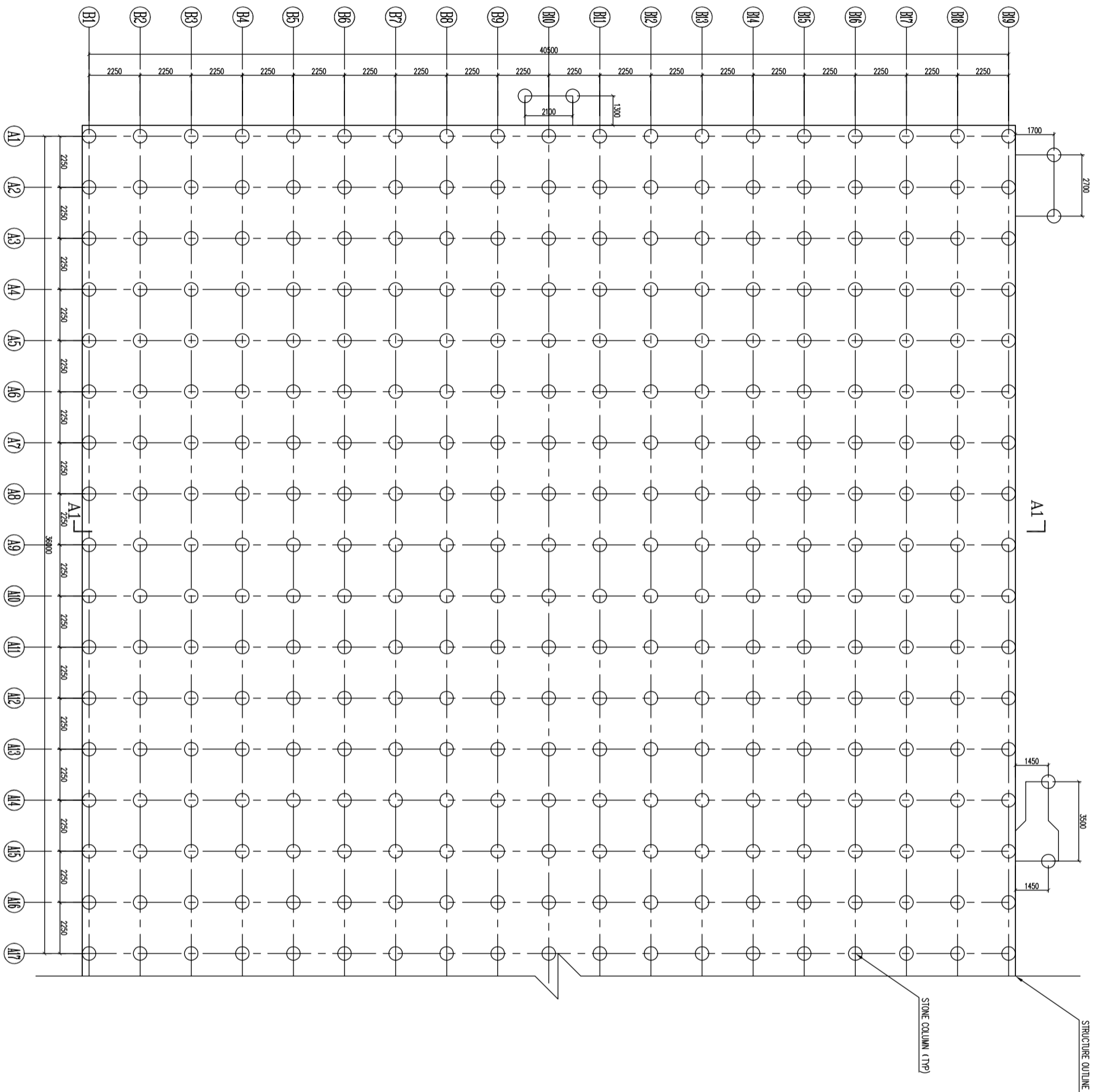
DRAWING TITLE: **SLUDGE TREATMENT BUILDING (B3) - LAYOUT OF STONE COLUMN**

CONTRACT NO.: **KUM/MW/TP/02**

DRAWING NO.: **SBM-200-29/003**

SCALE: **1:100**

SHEET NO.: **1**

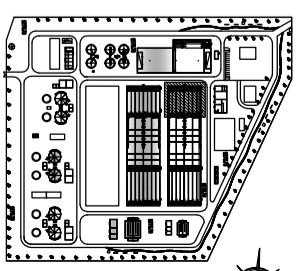


SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
W4	PRIMARY SEDIMENTATION TANK	0.6	7	327

PRIMARY SEDIMENTATION TANK (W4) - PLAN LAYOUT OF STONE COLUMN 1:100

- NOTES:
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

NO.	DATE	DESCRIPTION	BY	CHECKED	APPD
1	15/04/2018	FOR APPROVE	UJESH	VIJAY NERJA	LIJ SANKU
2	16/04/2018	FOR APPROVE	UJESH	VIJAY NERJA	LIJ SANKU
REV	DATE	DESCRIPTION	BY	CHECKED	APPD

CLIENT: **PROJECT IMPLEMENTATION DIRECTORATE, KATHIRAVADI URBAN LOCAL GOVERNMENT LIMITED, ANANDAPURAM ROAD, MADURAI.**

CONSULTANT: **DOHVA ENGINEERING COMPANY LTD**

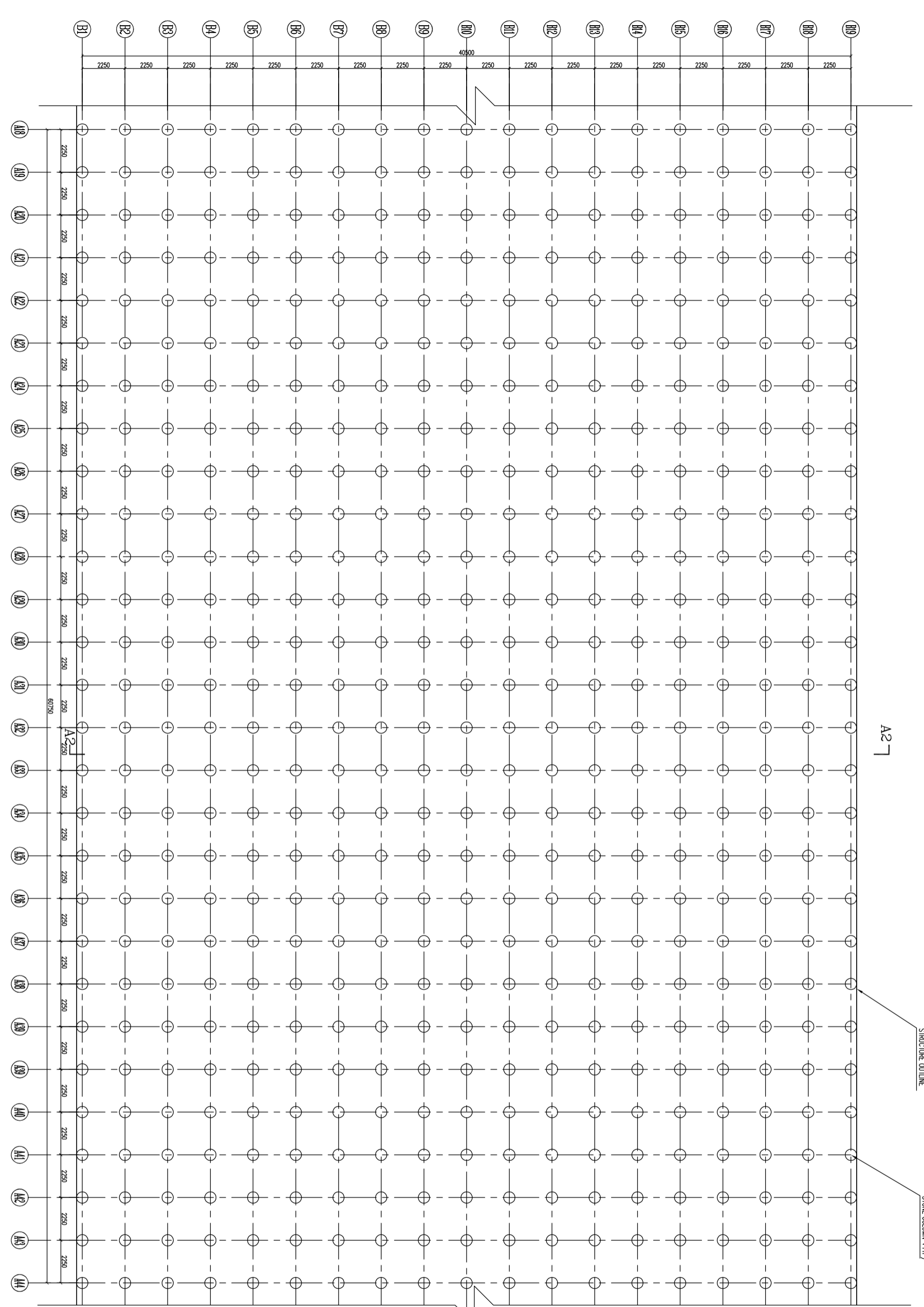
CONTRACTOR: **Safdar SARSON WATER SERVICE (INDIA) PVT. LTD., SHANGHAI**

PROJECT TITLE: **Construction of Wastewater Treatment Plants at Selaignat, Koddu and Divodipal.**

DRAWING TITLE: **PRIMARY SEDIMENTATION TANK (W4) - LAYOUT OF STONE COLUMN**

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUM/WW/TP/02	DRWN	UJESH		
DRAWING NO.	CHNG	VIJAY NERJA		
SBM-200-28104	APPD	LIJ SANKU		
SHEET NO.	SCALE	1:100	REV	1

ON SHEET



A2-1

STRUCTURE OUTLINE

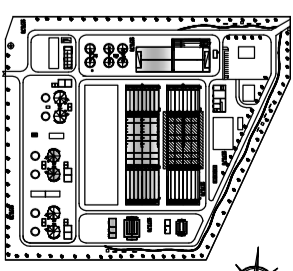
STONE COLUMN (TYP)

- NOTES:
1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level

SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
M5	SECONDARY SEDIMENTATION TANK	0.6	7	532

AERATION TANK (M5) - PLAN LAYOUT OF STONE COLUMN 1:100



DRAWING SUBMISSION STATUS :

NO.	DATE	DESCRIPTION	BY	CHKD	APPD
1	15/04/2018	FOR APPROVE	UNESH	WAS WENJA	LI SHIAN
2	16/04/2018	FOR APPROVE	UNESH	WAS WENJA	LI SHIAN
REV	DATE	DESCRIPTION	DRWN	CHKD	APPD

CLIENT: PROJECT IMPLEMENTATION DIRECTORATE, KUALA LUMPUR UTILITY (KUALA) LIMITED, ANAKKORANGKAM/BAU/DAULAT

CONSULTANT: DOHMA ENGINEERING COMPANY LTD

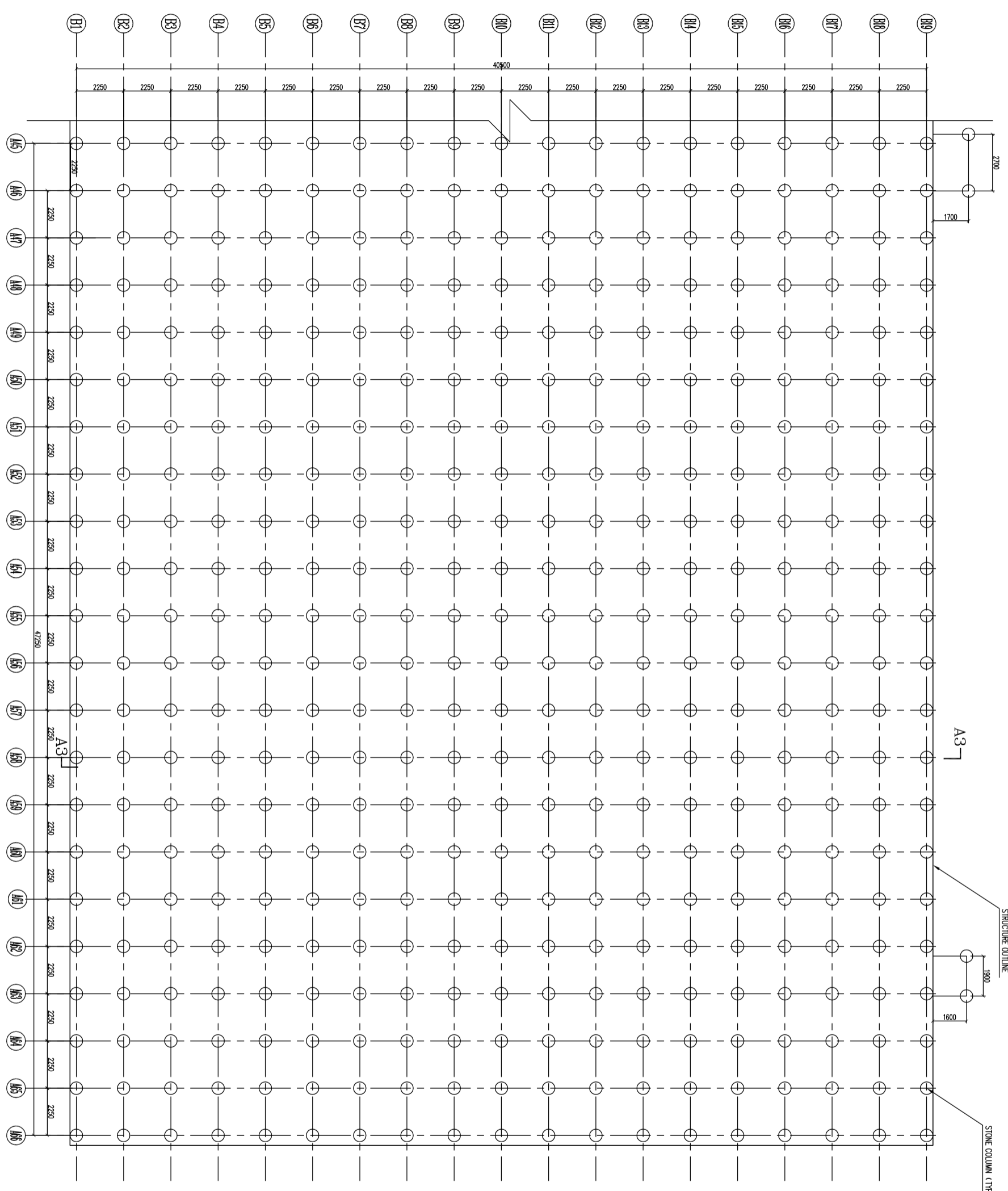
CONTRACTOR: Sagar Water Services (Malaysia) Sdn. Bhd.

PROJECT TITLE: Construction of Wastewater Treatment Plants at Saligat Kudu and Diddipal

DRAWING TITLE: AERATION TANK (M5) - LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KJKL/WW/TP/02	DRWN	UNESH		
DRAWING NO.	CHKD	WAS WENJA		
SP01-008-03-008	APPD	LI SHIAN		
SHEET NO.	SCALE	1:100	REV	1

A1(841x594) 1 2 3 4 5 6 7 8

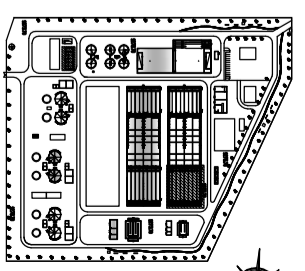


SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
W6	SECONDARY SEDIMENTATION TANK	0.6	8	422

SECONDARY SEDIMENTATION TANK (W6) - PLAN LAYOUT OF STONE COLUMN 1:100

- NOTES:
1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

NO.	DATE	DESCRIPTION	BY	CHECKED BY	APPROVED BY
1	19/04/2018	FOR APPROVE	UJESH	VIJAY BERA	LIJ SARKI
2	09/04/2018	FOR APPROVE	UJESH	VIJAY BERA	LIJ SARKI
REV	DATE	DESCRIPTION	BY	CHKD	APPD

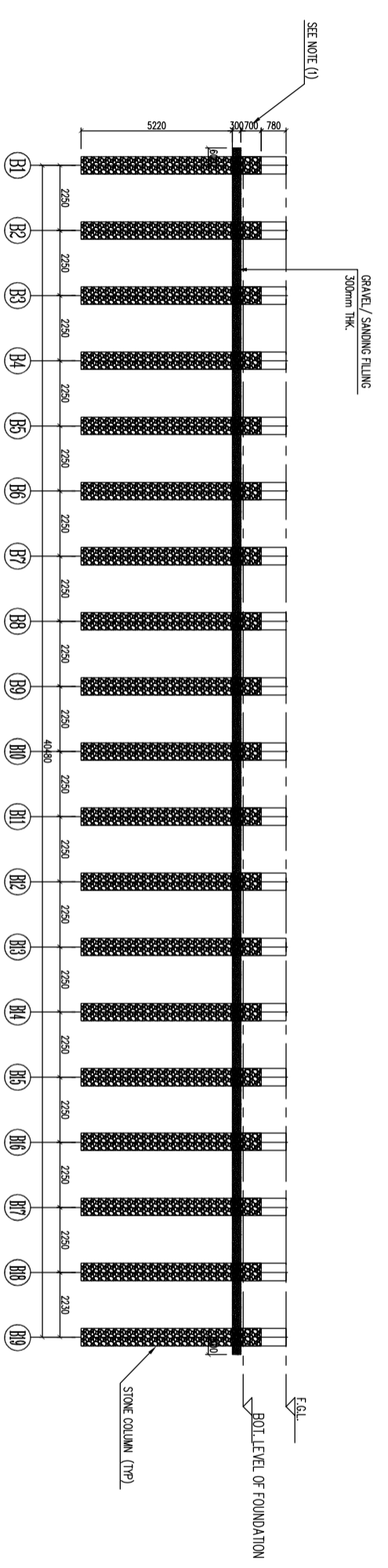
CLIENT: NATIONAL WATER SUPPLY CORPORATION, KATHMANDU, NEPAL
 PROJECT: WATER TREATMENT PLANT AT Salyang, Koshi and Doodhghat

CONSULTANT: DOHWA ENGINEERING COMPANY LTD

CONTRACTOR: Sagar Water Services (Pvt) Ltd, Salyang

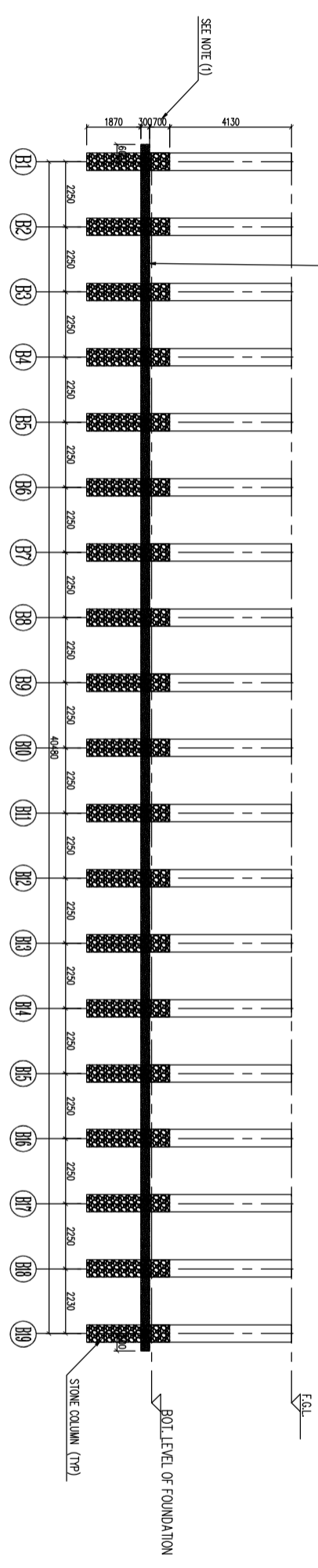
FUNCTION	NAME	SIGN	DATE
DESIGN	UJESH		
CHECK	VIJAY BERA		
APPD	LIJ SARKI		

CONTRACT NO.	DRAWING NO.	SCALE	SHEET NO.
KUM/WW/TP/02	004	1:100	1



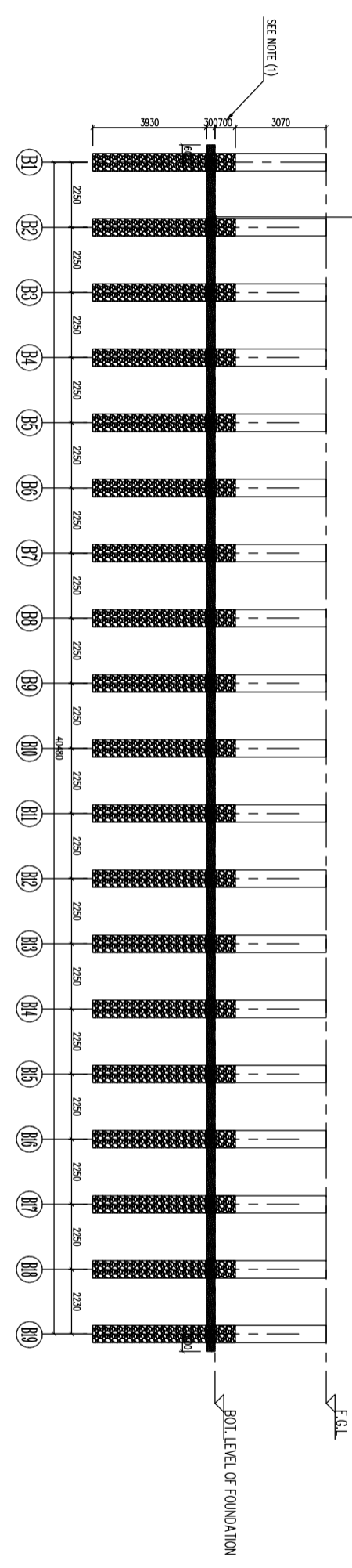
SECTION @ A1-A1 (PRIMARY SEDIMENTATION TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) F.G.L.: 1275.70



SECTION @ A2-A2(AERATION TANK) 1:100

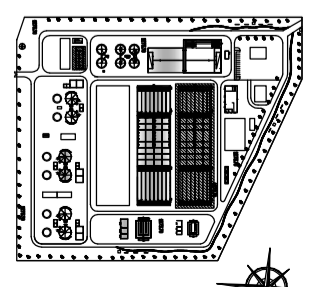
NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) F.G.L.: 1275.70



SECTION @ A3-A3(SECONDARY SEDIMENTATION TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) F.G.L.: 1275.70

- NOTES:
1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS:

NO.	DATE	FOR APPROVE	DESIGNER	CHECKED BY	DATE
1	19/04/2018	FOR APPROVE	UNESH	PAVU RAVIA	LIJ SAIK
2	06/04/2018	FOR APPROVE	UNESH	PAVU RAVIA	LIJ SAIK
REV	DATE	DESCRIPTION	BY	CHKD	APPD

CLIENT: PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER SUPPLY LIMITED, ANANDKUMARMARG/MARSHAL

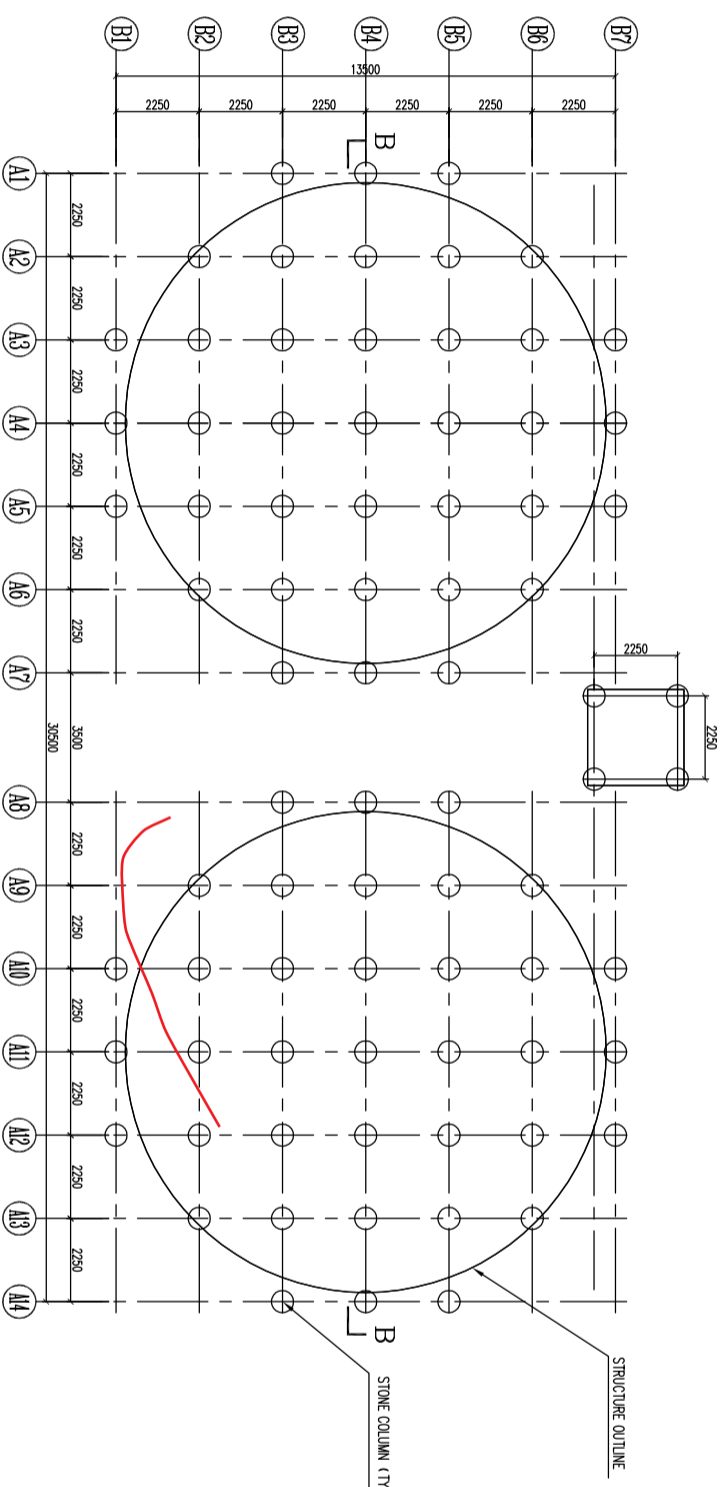
CONSULTANT: DOHNYA ENGINEERING COMPANY LTD

CONTRACTOR: **Safdar** SARSON WATER SERVICE (PVT) LTD, SARSONDA, SAHARNUWA

PROJECT TITLE: Construction of Wastewater Treatment Plants at Salyanghokou and Dhyabahal

DRAWING TITLE	FUNCTION	NAME	SKIN	DATE
PRIMARY SEDIMENTATION TANK (MS)	DESIGN	UNESH		
SECONDARY SEDIMENTATION TANK (MS) - LAYOUT OF STONE COLUMN	DESIGN	UNESH		
	CHKD	PAVU RAVIA		
	APPD	LIJ SAIK		

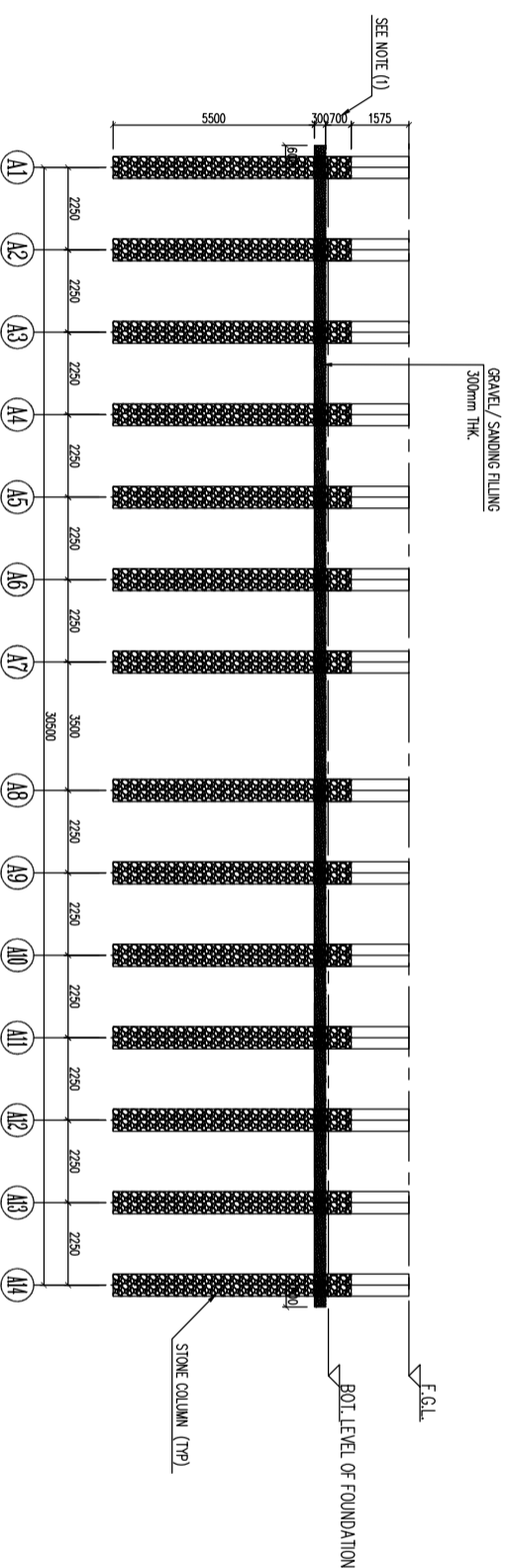
SHEET NO.	SCALE	REV
1	1:100	1



SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
S1	GRAVITY THICKNER	0.6	8	74
S3	SLUDGE DISTRIBUTION TANK	0.6	6	4

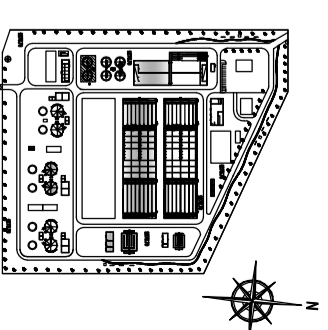
GRAVITY THICKNER/SLUDGE DISTRIBUTION TANK (S1/S3) - PLAN LAYOUT OF STONE COLUMN 1:100



SECTION @ B-B 1:100

- NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FGL: 1275.70

- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

NO.	DATE	FOR APPROVE	APPROVED BY	DESCRIPTION
1	15/04/2018	FOR APPROVE	UNESH	FINAL DESIGN
2	16/04/2018	FOR APPROVE	UNESH	FINAL DESIGN

CLIENT: **PROJECT IDENTIFICATION DIRECTORATE, KATHIRAVELURAYANA GOVERNMENT LIMITED, ANANDAPURATHALUKKURAI.**

CONSULTANT: **DOHMA ENGINEERING COMPANY LTD**

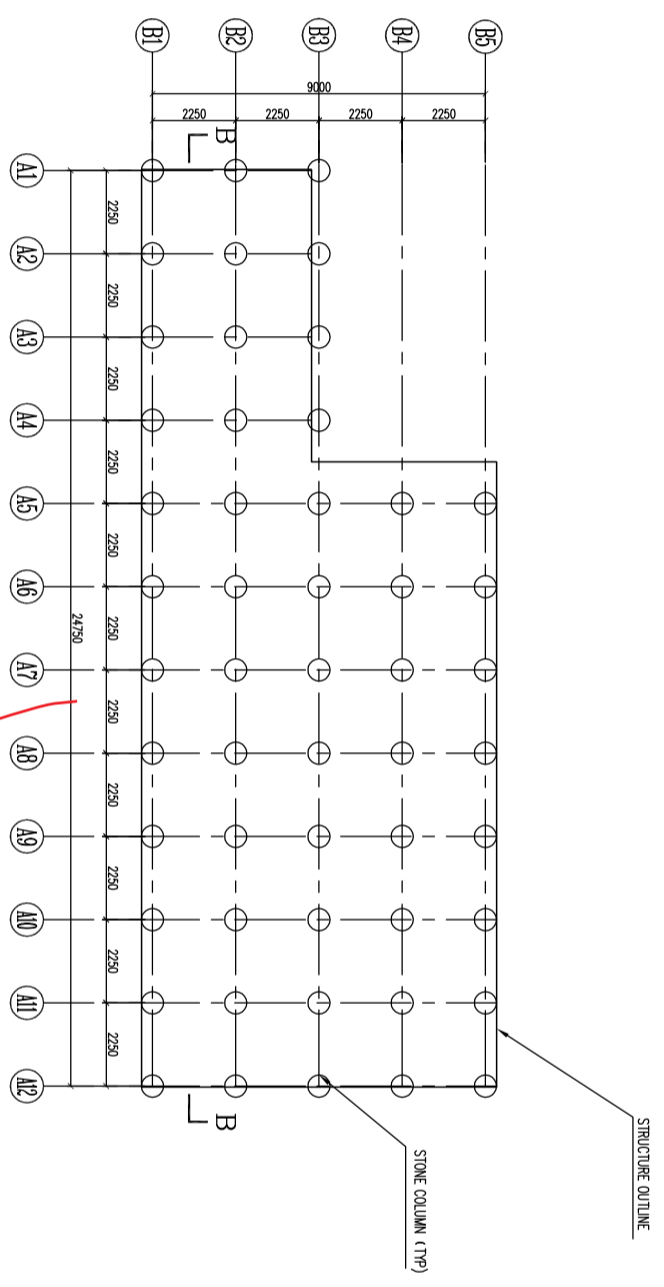
CONTRACTOR: **Safdar (INDIA) PVT. LTD.**

PROJECT TITLE: **Construction of Wastewater Treatment Plants at Saldattankodu and Dindoppal.**

DRAWING TITLE: **LAYOUT OF STONE COLUMN**

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUM/MW/TP/02	DRWN	UNESH		
	CHG	UNESH		
8801-003-291-008	APP	UNESH		

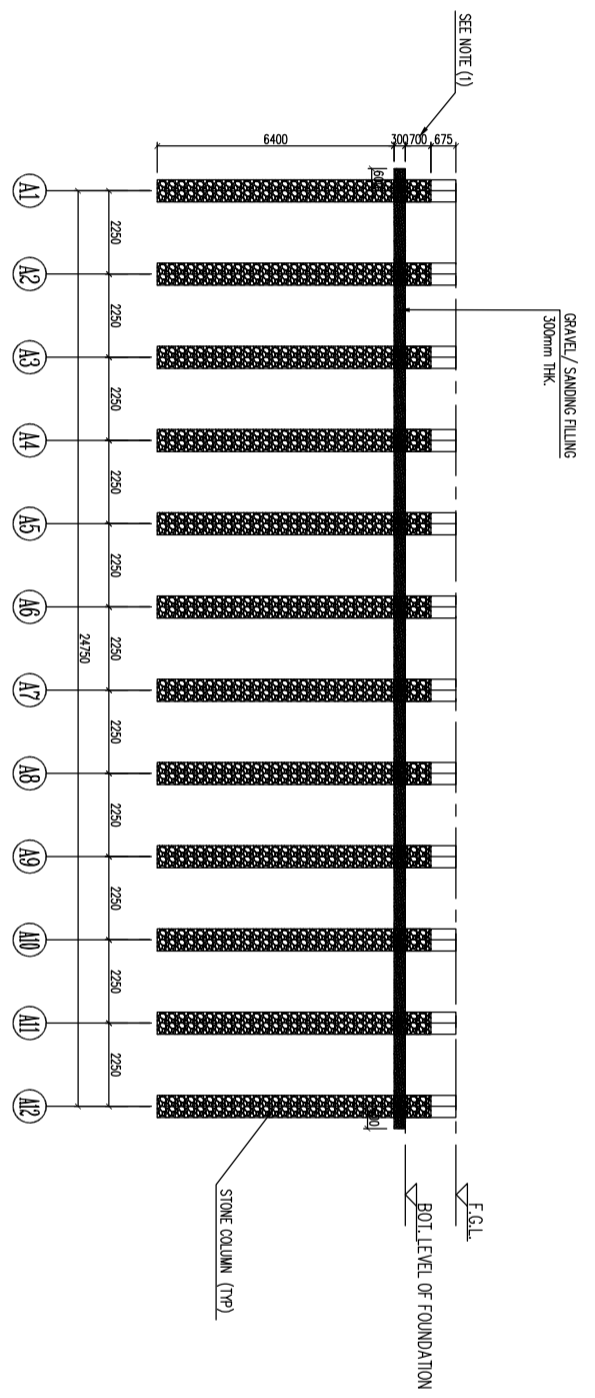
SHEET NO.	SCALE	TOTAL	REV
1	1:100	1	1



SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
S4/S6	WASTE ACTIVATED SLUDGE TANK/MIXED SLUDGE TANK	0.4	8	52

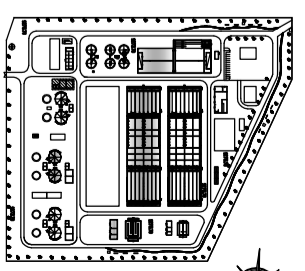
WASTE ACTIVATED SLUDGE TANK, MIXED SLUDGE TANK (S4/S6) - PLAN LAYOUT OF STONE COLUMN 1:100



SECTION @ B-B 1:100

NOTE:
 (1) ADDITIONAL 0.7m LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FGL: 1275.70

NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS:

NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	19/04/2018	FOR APPROVE	UJESH	VIJAY BERA	LIJ SAINI
2	04/04/2018	FOR APPROVE	UJESH	VIJAY BERA	LIJ SAINI
REV	DATE	DESCRIPTION	BY	CHECKED	APPROVED

CLIENT: **PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER SUPPLY AND SEWERAGE AUTHORITY, KATHMANDU**

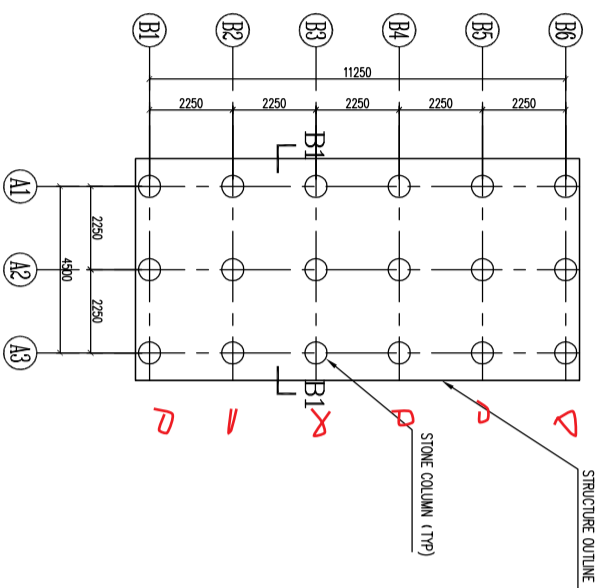
CONSULTANT: **DOHVA ENGINEERING COMPANY LTD**

CONTRACTOR: **Safdar SARGON WATER SERVICE (PVT) LTD. SARGON**

PROJECT TITLE: **Construction of Wastewater Treatment Plants at Salyan, Kailash and Dhyabahal**

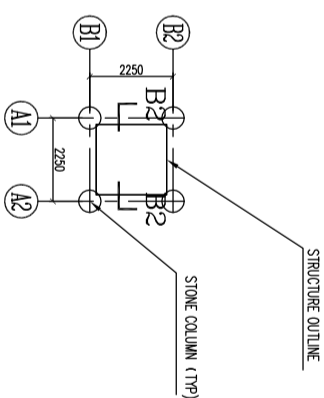
FUNCTION	NAME	SIGN	DATE
DRWN	UJESH		
CHKD	VIJAY BERA		
APPD	LIJ SAINI		

SHEET NO.	SCALE	TOTAL	REV
1	1:100	1	1

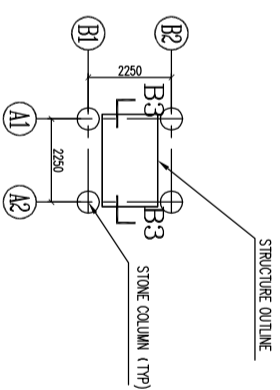


BIO-FILTER FACILITY (01) - PLAN LAYOUT OF STONE COLUMN 1:100

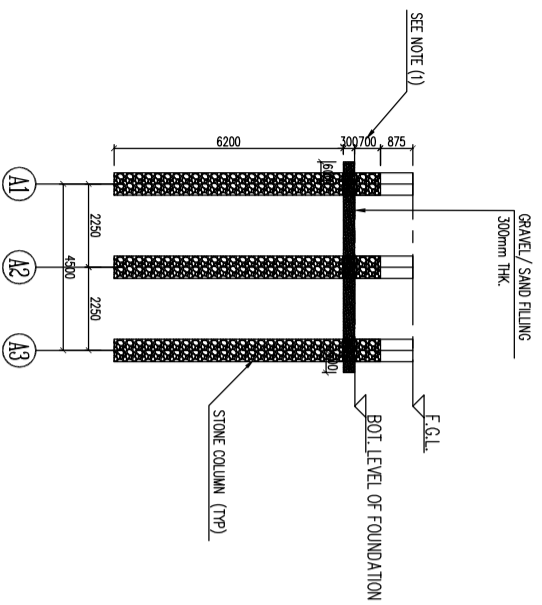
STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
01	BIO-FILTER FACILITY	0.6	8	18
S5	RETURN FLOW TANK	0.4	7	4
P1	GAS FLARE PLATFORM	0.4	6	4



RETURN FLOW TANK (S5) - PLAN LAYOUT OF STONE COLUMN 1:100

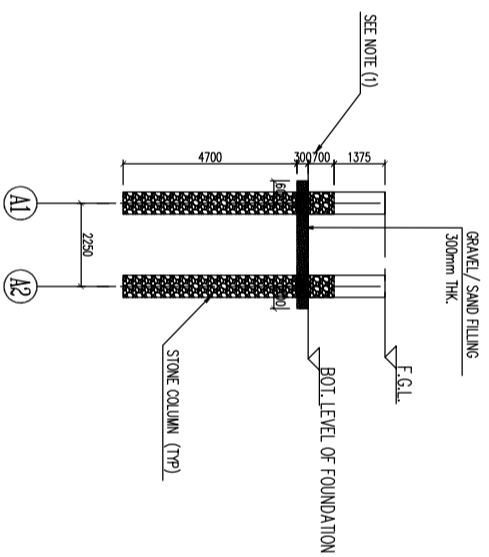


GAS FLARE PLATFORM (P1) - PLAN LAYOUT OF STONE COLUMN 1:100



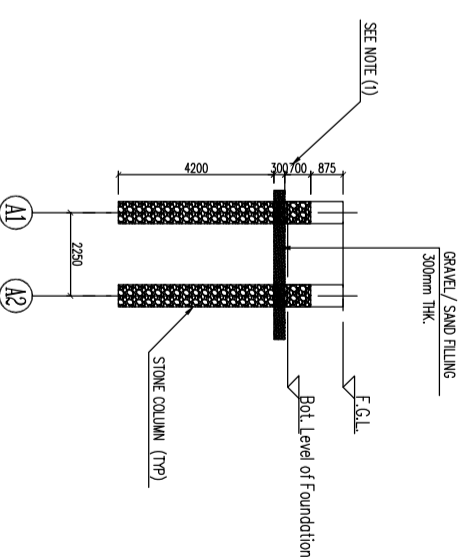
SECTION @ B1-B1 (BIO-FILTER FACILITY) 1:100

NOTE:
 (1) ADDITIONAL 0.7m LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FIG.: 1275.70



SECTION @ B2-B2 (RETURN FLOW TANK) 1:100

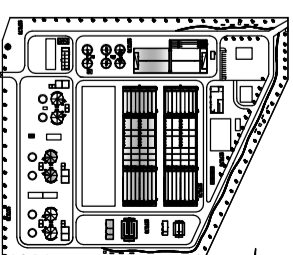
NOTE:
 (1) ADDITIONAL 0.7m LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FIG.: 1275.70



SECTION @ B3-B3 (GAS FLARE PLATFORM) 1:100

NOTE:
 (1) ADDITIONAL 0.7m LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.
 (2) FIG.: 1275.70

NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS:

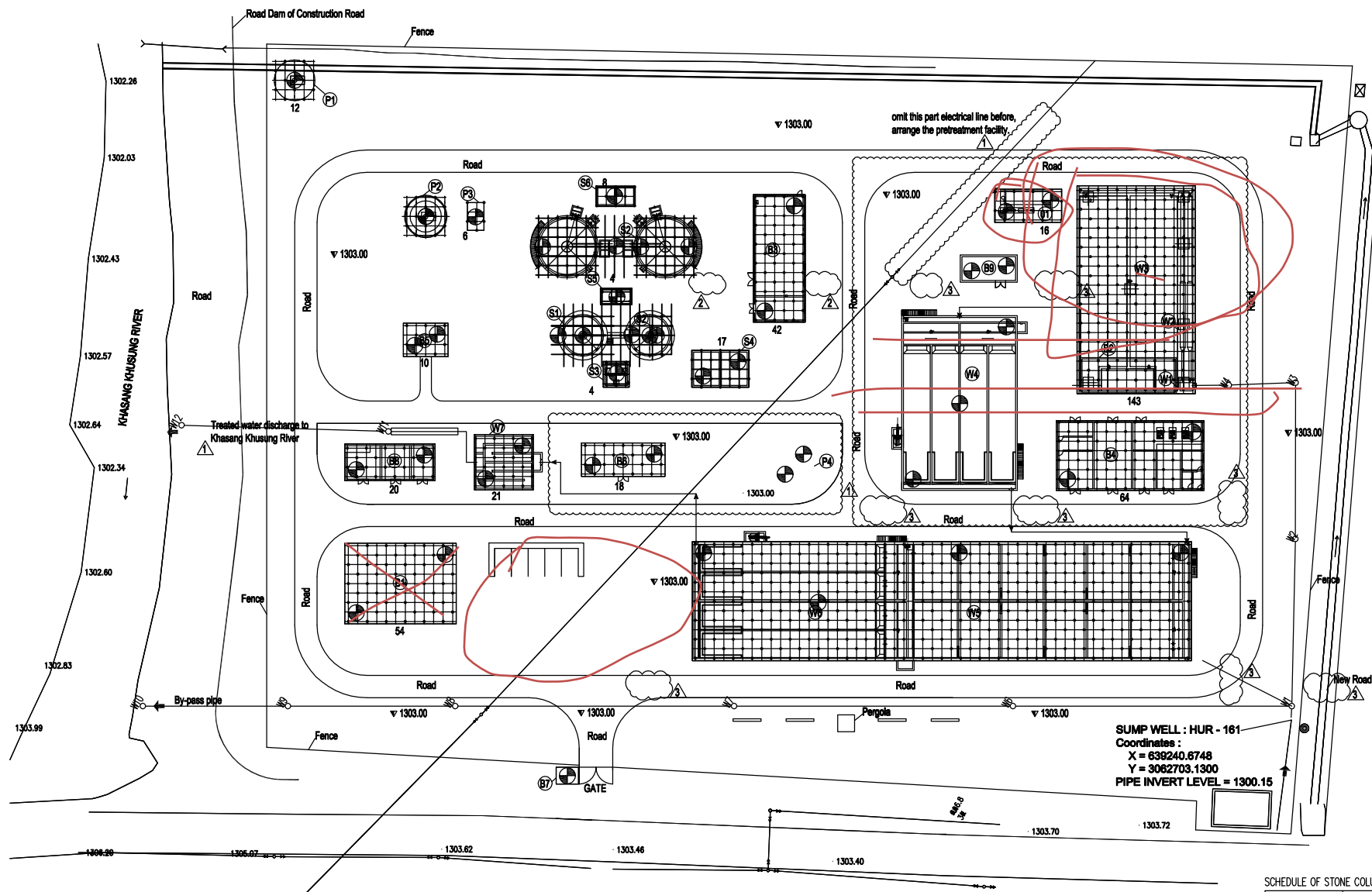
NO.	DATE	FOR APPROVE	APPROVED	DESCRIPTION
1	15/04/2018	FOR APPROVE	UNESH	FINAL DESIGN
2	16/04/2018	FOR APPROVE	UNESH	FINAL DESIGN
3		DESCRIPTION	UNESH	FINAL DESIGN

CLIENT	PROJECT INFORMATION
DOHWA ENGINEERING COMPANY LTD	NATIONAL URBANIZATION CORPORATION KAWASAKI KAWASAKI JAPAN

CONSULTANT	CONTRACTOR
DOHWA ENGINEERING COMPANY LTD	Sagami (KAWASAKI) INC. SHANGHAI

PROJECT TITLE	DRAWING TITLE
Construction of Wastewater Treatment Plants at Sahaighat, Koldu and Diddiphat.	BIO-FILTER FACILITY (01) RETURN FLOW TANK (S5) GAS FLARE PLATFORM (P1) LAYOUT OF STONE COLUMN
CONTRACT NO.	DRAWING NO.
KUM/MW/TP/02	SBH-008-280/02
FUNCTION	SCALE
DESIGN	1:100
CHECK	
APPROVE	
DATE	

SHEET NO.	SCALE	REV
8	1:100	1



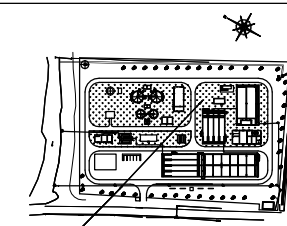
GENERAL LAYOUT OF STONE COLUMN FOR SALLAGHARI SITE 1:100

SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
B1	ADMINISTRATION BUILDING	0.6	8	70
B3	SLUDGE TREATMENT BUILDING	0.6	7	55
B4	BLOWER AND ELECTRICAL BUILDING	0.6	5	72
B5	BOILER BUILDING	0.6	8	12
B6	STORAGE BUILDING	0.6	6	21
B7	GATE HOUSE	0.6	7	4
B8	RECYCLED WATER PUMP BUILDING	0.6	6	32
W6	SECONDARY SEDIMENTATION TANK	0.6	6	190
W7	DISINFECTION TANK	0.6	6	26
S1	GRAVITY THICKNER	0.6	7	44
S3	SLUDGE DISTRIBUTION TANK	0.6	7	4
S4	WASTE ACTIVATED SLUDGE TANK	0.6	8	15
S5	MIXED SLUDGE TANK	0.6	8	6
P1	GASFLARE PLATFORM	0.6	6	2
P2	GAS HOLDER	0.6	6	9
P3	SCRUBBING TOWER	0.6	6	6
S6	DIGESTED SLUDGE TANK	0.6	8	8
O1	BIO-FILTER	0.6	10	18

NO.	DESCRIPTION	UNIT	QTY	UNIT	REMARKS
WASTEWATER TREATMENT FACILITY					
W1	SILEY CHAMBER	1.20x0.60x0.8	1	SET	
W2	SCREENING AND GFT CHAMBER	2.70x0.75x0.35	2	SET	143
W3	SEDIMENTATION TANK	2.70x0.60x0.8	2	SET	
W4	PRIMARY SEDIMENTATION TANK	2.70x0.60x0.8	4	SET	8
W5	AERATION TANK	4.20x0.60x0.8	2	SET	303
W6	SECONDARY SEDIMENTATION TANK	2.70x0.60x0.8	4	SET	
W7	DISINFECTION TANK	1.20x0.60x0.8	2	SET	21
SLUDGE TREATMENT FACILITY					
S1	GRAVITY THICKNER	2.40x0.60x0.8	2	SET	28
S2	ANHYDRIC DISSETER	2.40x0.60x0.8	2	SET	46
S3	SLUDGE DISTRIBUTION TANK	1.20x0.60x0.8	1	SET	4
S4	WASTE ACTIVATED SLUDGE TANK	1.20x0.60x0.8	2	SET	17
S5	MIXED SLUDGE TANK	1.20x0.60x0.8	2	SET	4
S6	DIGESTED SLUDGE TANK	1.20x0.60x0.8	2	SET	8
BUILDINGS					
B1	ADMINISTRATION BUILDING	8.20x14.40x3.0	1	SET	81
B2	PRE-TREATMENT BUILDING	8.20x14.40x3.0	1	SET	
B3	SLUDGE TREATMENT BUILDING	12.00x14.40x3.0	1	SET	42
B4	BLOWER/ELECTRICAL BUILDING	7.20x14.40x3.0	1	SET	81
B5	BOILER BUILDING	8.20x14.40x3.0	1	SET	10
B6	STORAGE HOUSE	10.20x14.40x3.0	1	SET	10
B7	GATE HOUSE	4.20x14.40x3.0	1	SET	8
B8	RECYCLED WATER PUMP ROOM	10.20x14.40x3.0	1	SET	30
B9	ELECTRICAL ROOM	8.20x14.40x3.0	1	SET	8
BIO-GAS GENERATION FACILITY					
P1	GAS FLARE PLATFORM	2.40x1.20	1	SET	12
P2	GAS HOLDER	2.40x1.20	1	SET	12
P3	SCRUBBING TOWER	1.20x1.20	1	SET	6
P4	CHIMNEY TOWER BLUP	1.20x1.20x1.20	2	SET	4
DISINFECTION FACILITY					
O1	BIO-FILTER FACILITY	12.00x6.00	1	SET	18

NOTES:
1. All dimensions are in mm.



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	UKESH	YANG MENFA	LIU SHUN

CLIENT: PROJECT IMPLEMENTATION DIRECTORATE, KATMANDU UPATYAKA KRANIPANI LIMITED, ANAHARA, KATMANDU, NEPAL

CONSULTANT: DOHWA ENGINEERING COMPANY LTD

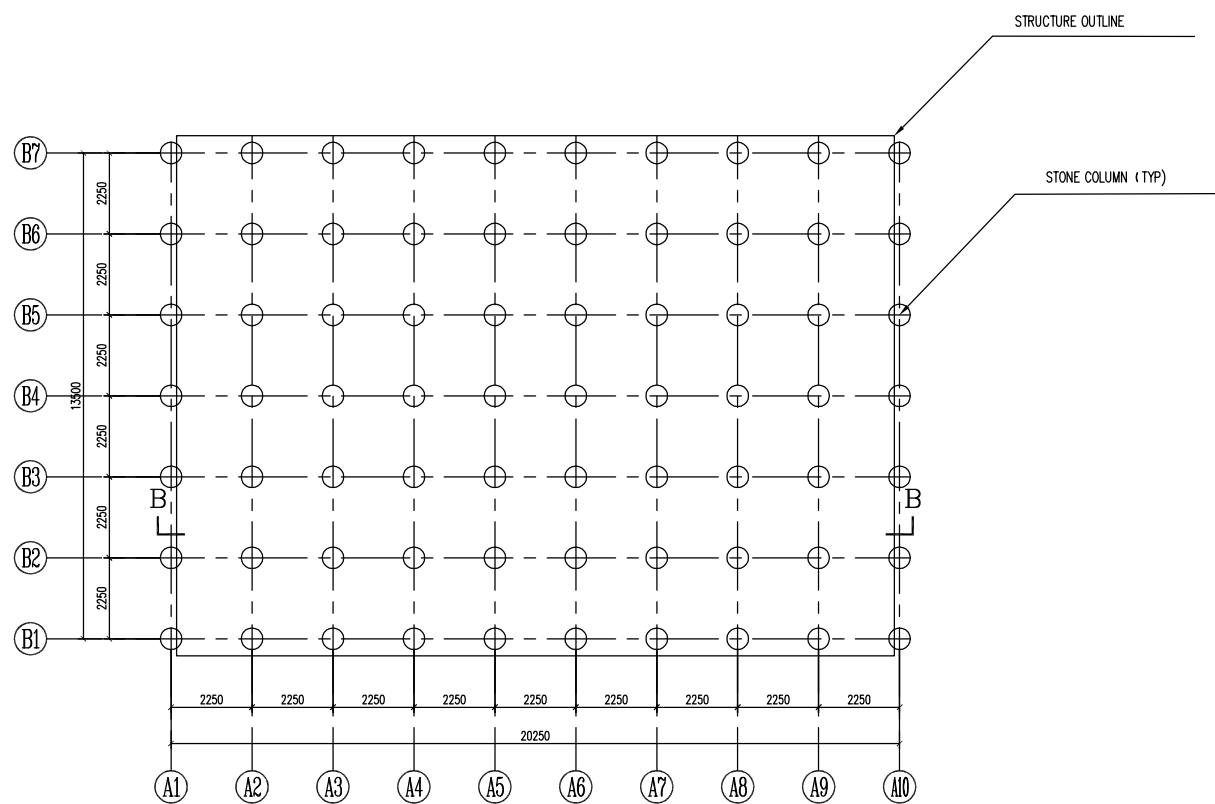
CONTRACTOR: **SafBon** SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghari, Kodku and Dhobighat

DRAWING TITLE: GENERAL LAYOUT OF STONE COLUMN FOR SALLAGHARI SITE

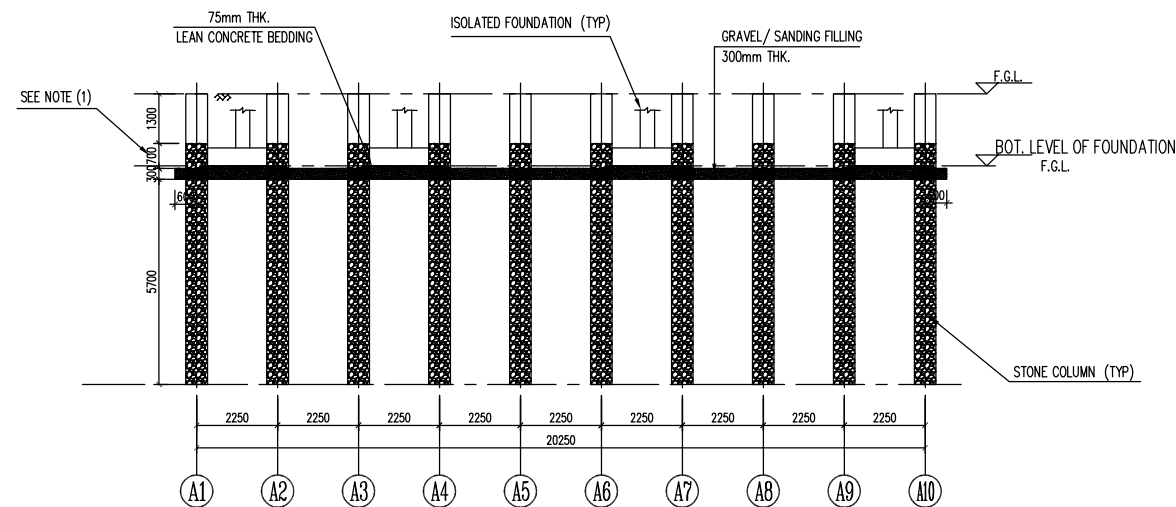
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG MENFA		
	APPD	LIU SHUN		

SHEET NO. SCALE REV 0



ADMINISTRATION BUILDING (B1) - PLAN LAYOUT OF STONE COLUMN

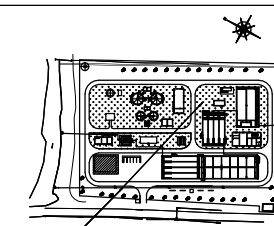
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOG)
B1	ADMINISTRATION BUILDING	0.6	8	70



SECTION @ B-B 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT PROJECT IMPLEMENTATION DIRECTORATE,
 KATHMANDU URBAN WATER & SEWERAGE LIMITED,
 ANAMGAHA, KATHMANDU, NEPAL

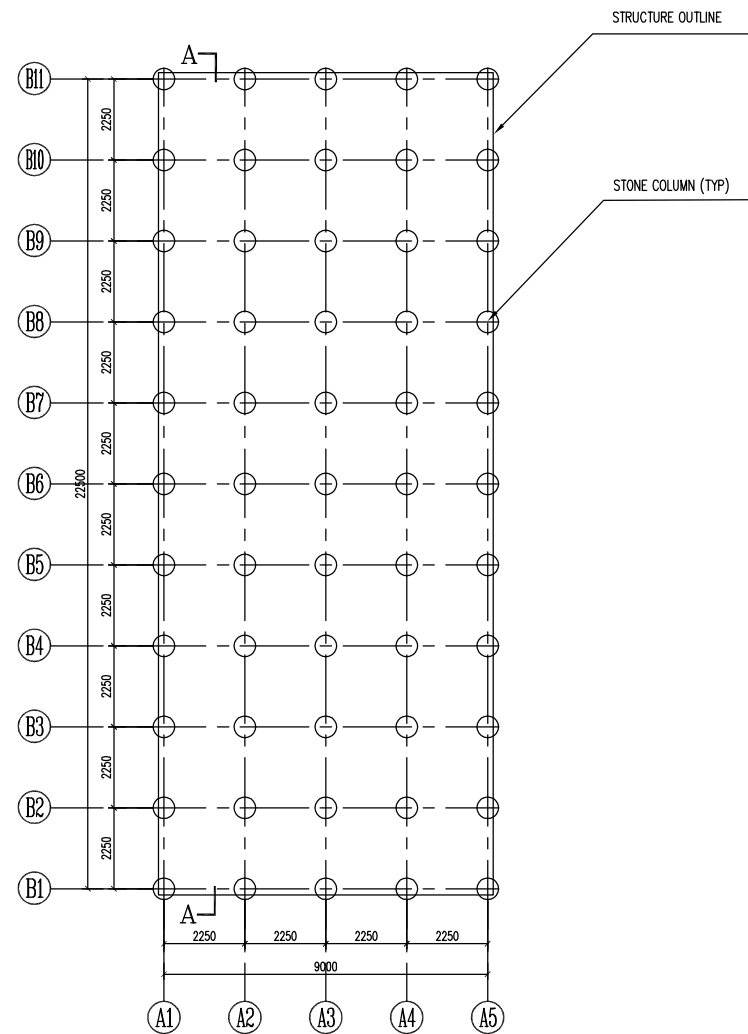
CONSULTANT DOHWA ENGINEERING COMPANY LTD

CONTRACTOR *SafBon* SAFBON WATER SERVICE
 (HOLDING) INC., SHANGHAI

PROJECT TITLE Construction of Wastewater Treatment Plants at
 Salaghar, Kodku and Dhobighat

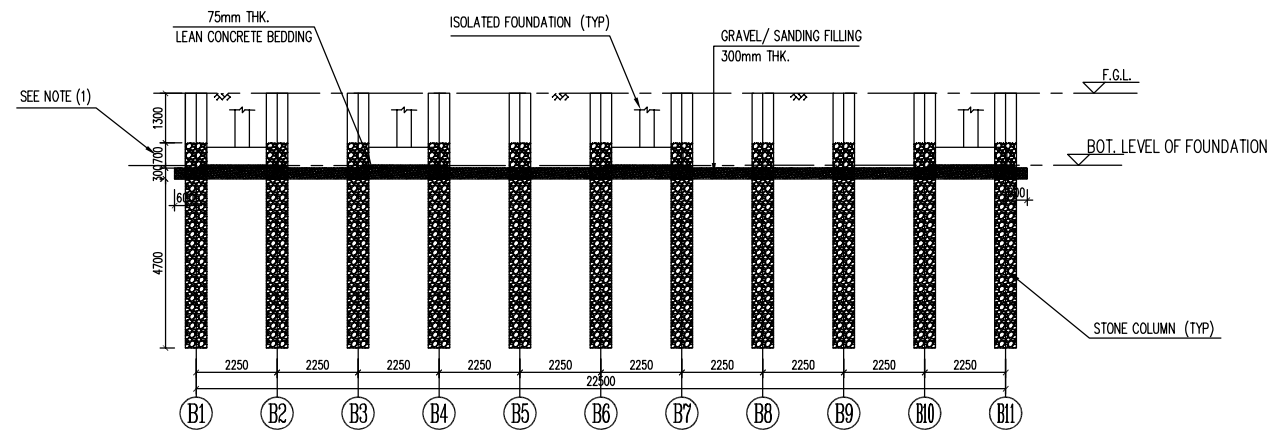
DRAWING TITLE ADMINISTRATION BUILDING (B1) - PLAN LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WWT/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
	SCALE		REV	0



SLUDGE TREATMENT BUILDING (B3) - PLAN LAYOUT OF STONE COLUMN 1:100

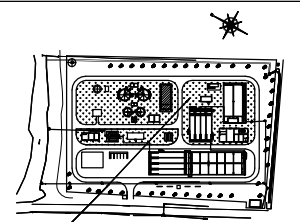
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B3	SLUDGE TREATMENT BUILDING	0.8	7	55



SECTION @A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 2. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT PROJECT IMPLEMENTATION DIRECTORATE,
 KATHMANDU URBAN WATER AND SEWERAGE LIMITED,
 ANAMGAUL, KATHMANDU, NEPAL

CONSULTANT DOHWA ENGINEERING COMPANY LTD

CONTRACTOR *SafBon* SAFBON WATER SERVICE
 (HOLDING) INC., SHANGHAI

PROJECT TITLE Construction of Wastewater Treatment Plants at
 Salaghar, Kodku and Dhobighat

DRAWING TITLE SLUDGE TREATMENT BUILDING (B3) - PLAN LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		

DRAWING NO. 8801-001-280-003

SHEET NO. SCALE REV 0

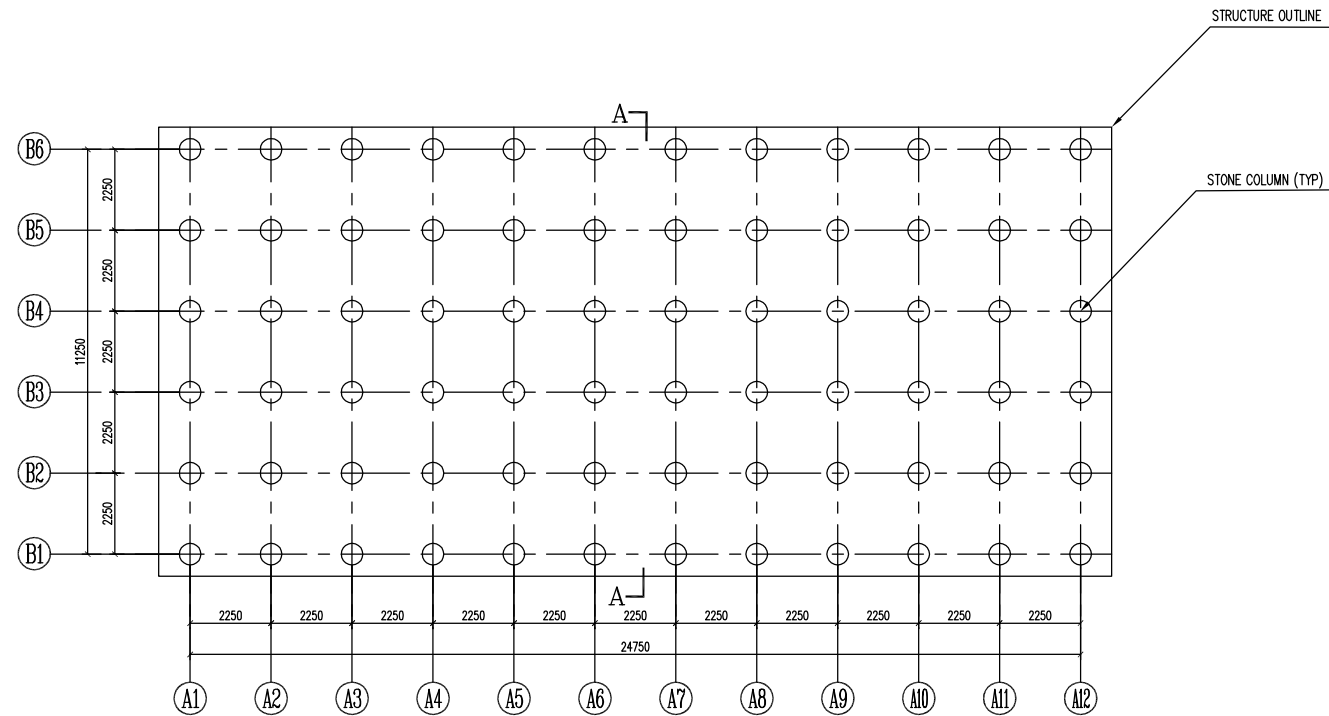
A

B

C

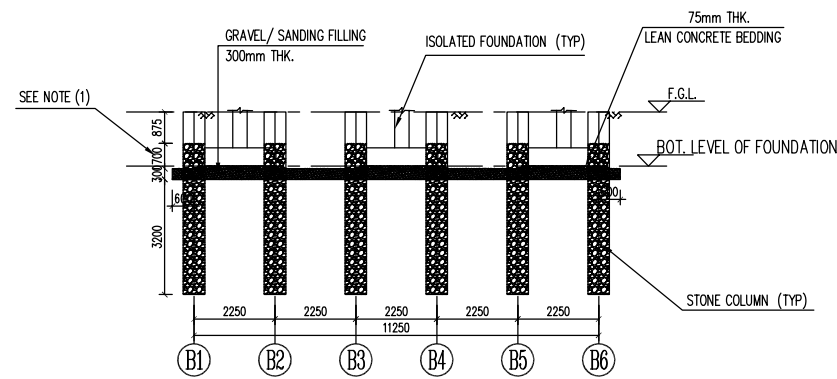
D

NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



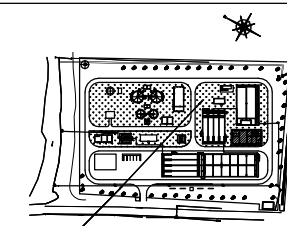
BLOWER AND ELECTRICAL BUILDING (B4) - PLAN LAYOUT OF STONE COLUMN 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B4	BLOWER AND ELECTRICAL BUILDING	0.8	5	72



SECTION @A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER SUPPLY AND SEWERAGE AUTHORITY, KATHMANDU, NEPAL
CONSULTANT	DOHWA ENGINEERING COMPANY LTD
CONTRACTOR	SafBon WATER SERVICE (HOLDING) INC., SHANGHAI

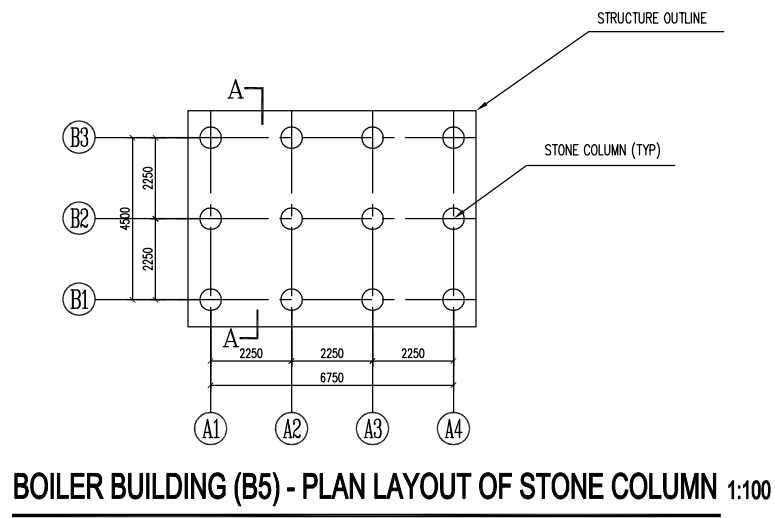
PROJECT TITLE: Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat

DRAWING TITLE: BLOWER AND ELECTRICAL BUILDING (B4) - PLAN LAYOUT OF STONE COLUMN

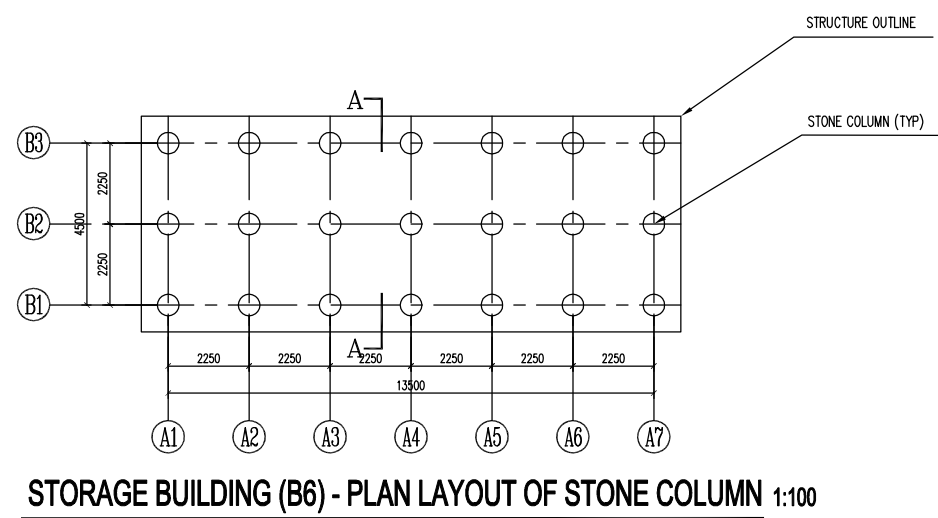
CONTRACT NO.	KUKL/WWT/TP/02
DRAWING NO.	8801-001-280-004

FUNCTION	NAME	SIGN	DATE
DRWN	UKESH		
CHKD	YANG WENFA		
APPD	LIU SHUN		

SHEET NO.	SCALE	REV	0
-----------	-------	-----	---

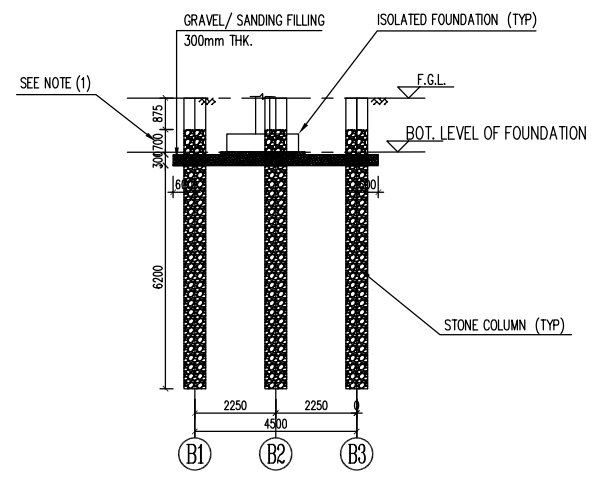


BOILER BUILDING (B5) - PLAN LAYOUT OF STONE COLUMN 1:100



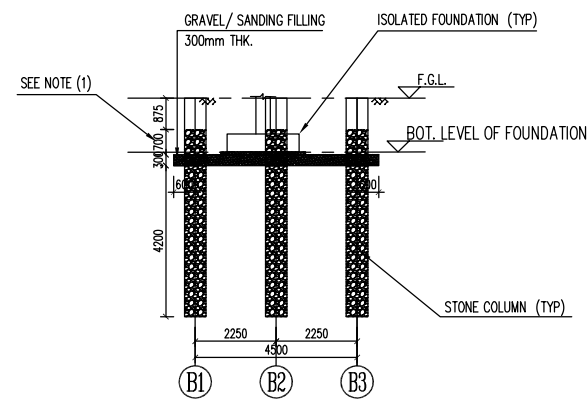
STORAGE BUILDING (B6) - PLAN LAYOUT OF STONE COLUMN 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B5	BOILER BUILDING	0.6	6	12
B6	STORAGE BUILDING	0.6	6	21



SECTION @A-A (BOILER BUILDING) 1:100

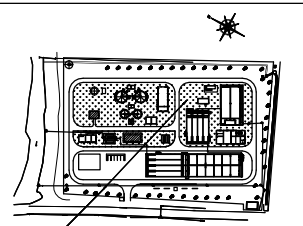
NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @A-A (STORAGE BUILDING) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

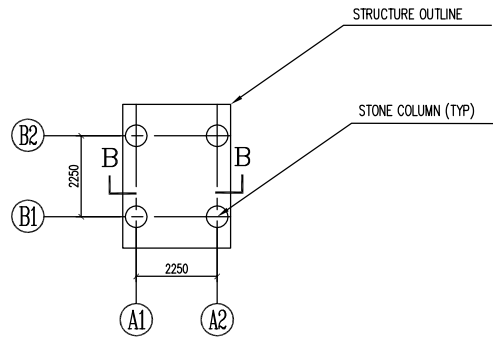
- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



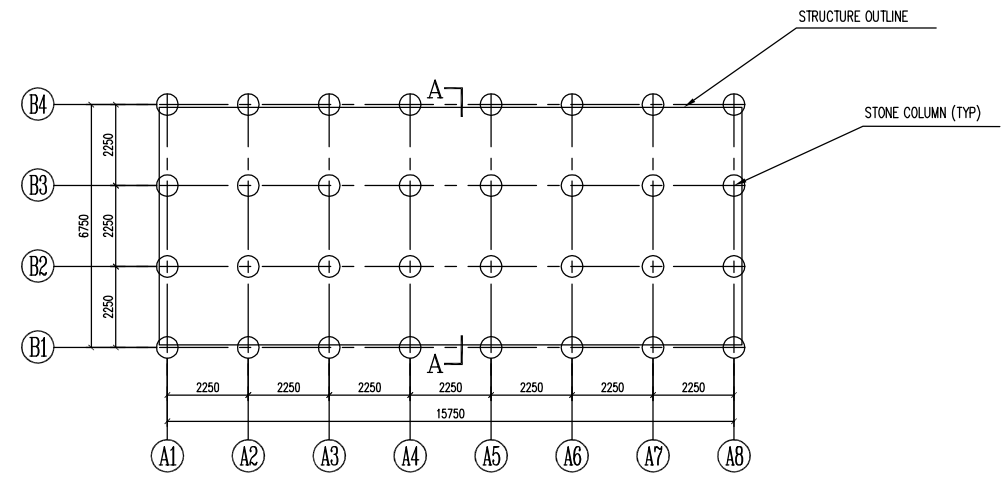
DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
△					
△					
△	07/05/2018	FOR APPROVAL	LUKESH	YANG WENFA	LIU SHUN

CLIENT		PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER SERVICE LIMITED, ANAMGAHA, KATHMANDU, NEPAL			
CONSULTANT		DOHWA ENGINEERING COMPANY LTD			
CONTRACTOR		SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI			
PROJECT TITLE Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat					
DRAWING TITLE BOILER BUILDING (B5) - PLAN LAYOUT OF STONE COLUMN STORAGE BUILDING (B6) - PLAN LAYOUT OF STONE COLUMN					
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE	
KUKLWW/TP/02	DRWN	LUKESH			
DRAWING NO.	CHKD	YANG WENFA			
SBD1-D01-250-005	APPD	LIU SHUN			
SHEET NO.	SCALE		REV	0	

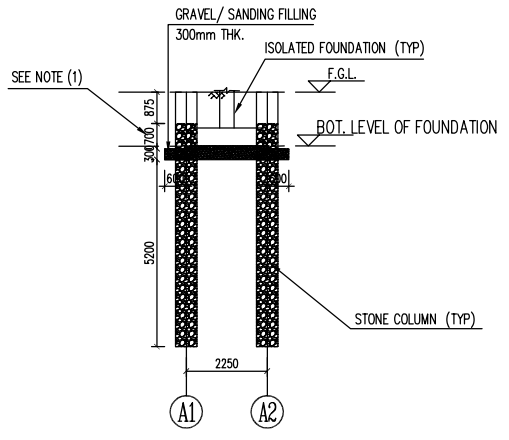


GATE HOUSE (B7) - PLAN LAYOUT OF STONE COLUMN 1:100



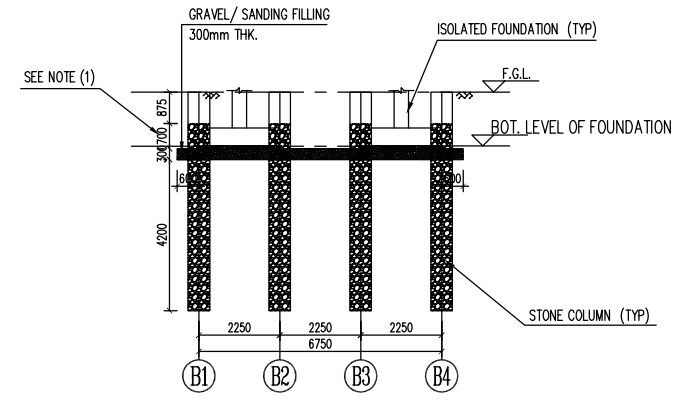
RECYCLED WATER PUMP ROOM (B8) - PLAN LAYOUT OF STONE COLUMN 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B7	GATE HOUSE	0.6	7	4
B8	RECYCLED WATER PUMP ROOM	0.6	6	32



SECTION @B-B(GATE HOUSE) 1:100

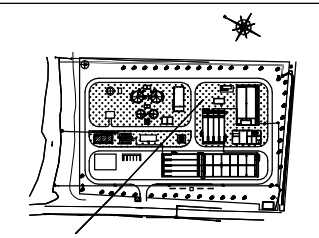
NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @A-A(RECYCLED WATER PUMP ROOM) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level

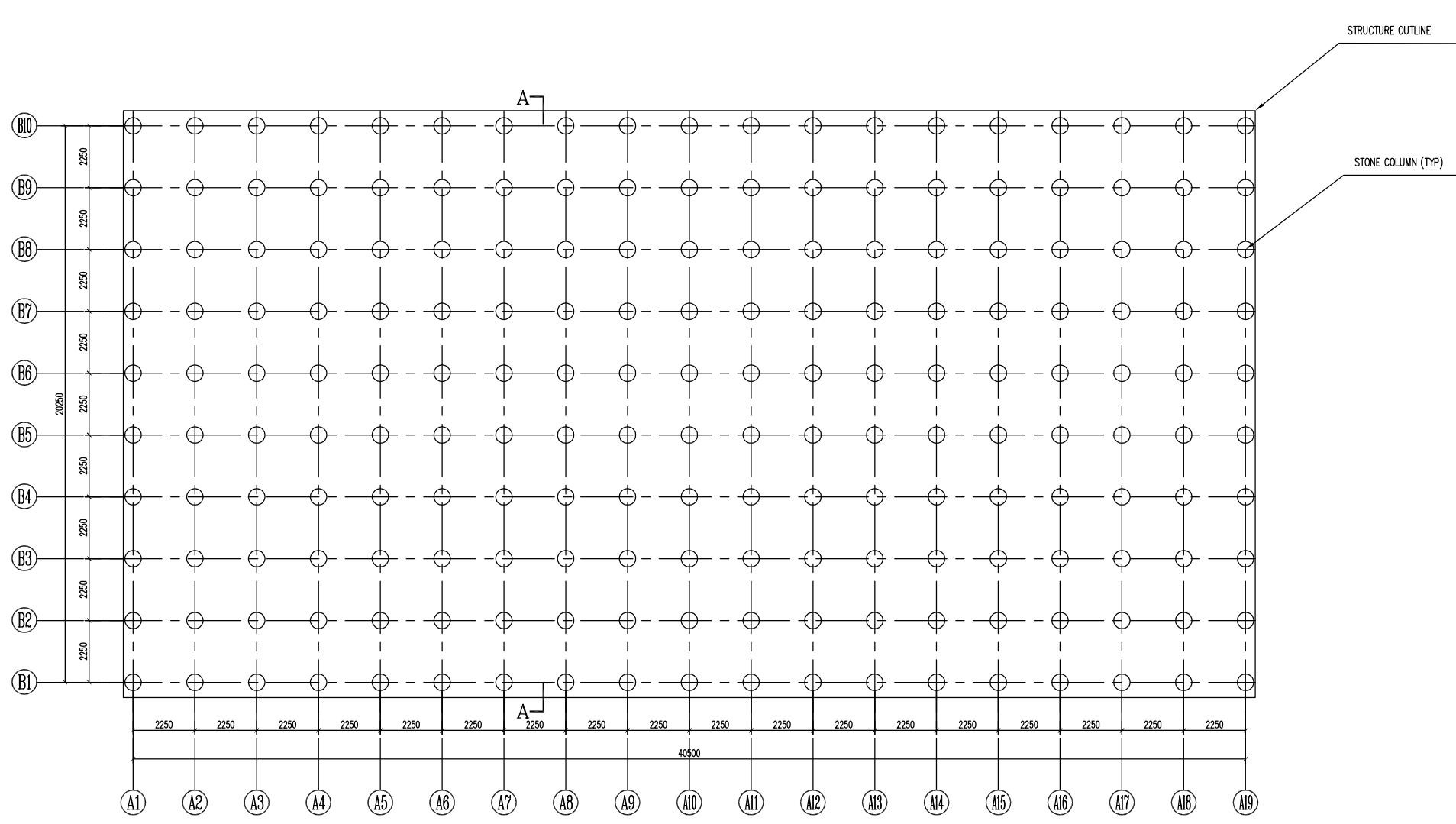


DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

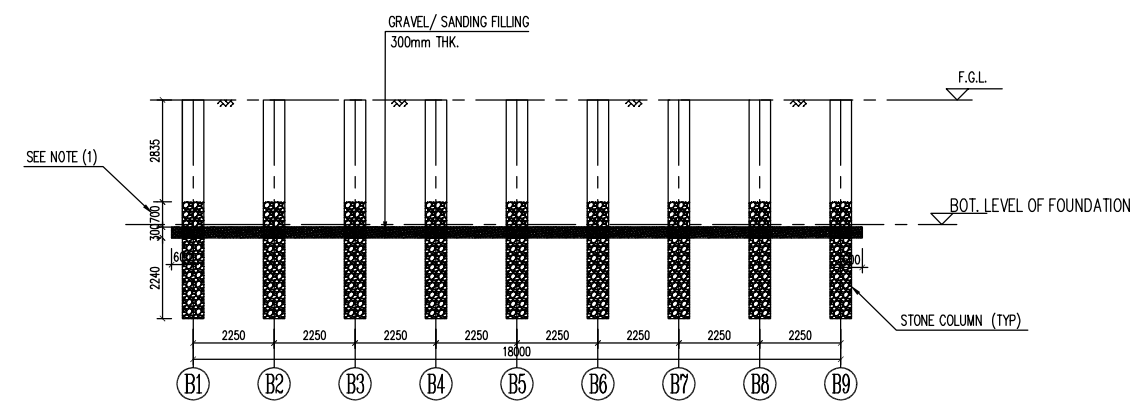
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER & SEWERAGE LIMITED, ANAMGAHA,KATHMANDU,NEPAL
CONSULTANT	DOHWA ENGINEERING COMPANY LTD
CONTRACTOR	<i>SafBan</i> SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

PROJECT TITLE				
Construction of Wastewater Treatment Plants at Salleghar,Kodku and Dhobighat				
DRAWING TITLE				
GATE HOUSE (B7) - PLAN LAYOUT OF STONE COLUMN RECYCLED WATER PUMP ROOM (B8) - PLAN LAYOUT OF STONE COLUMN				
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
DRAWING NO.	CHKD	YANG WENFA		
SBD1-D01-280-006	APPD	LIU SHUN		
SHEET NO.	SCALE	REV	0	



SECONDARY SEDIMENTATION TANK (W6) - PLAN LAYOUT OF STONE COLUMN 1:100

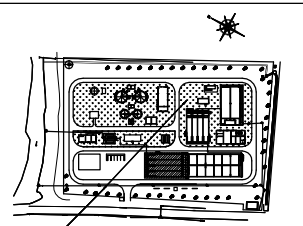
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
W6	SECONDARY SEDIMENTATION TANK	0.8	6	190



SECTION @A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT: PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER AND SEWERAGE LIMITED, ANAMGAHA, KATHMANDU, NEPAL.

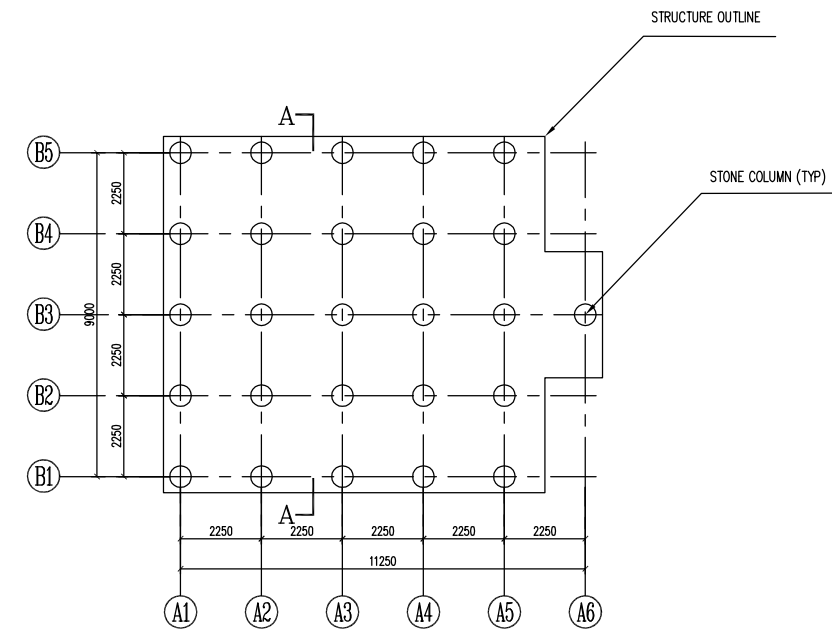
CONSULTANT: DOHWA ENGINEERING COMPANY LTD

CONTRACTOR: **Safon** SAFON WATER SERVICE (HOLDING) INC., SHANGHAI

PROJECT TITLE: Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat

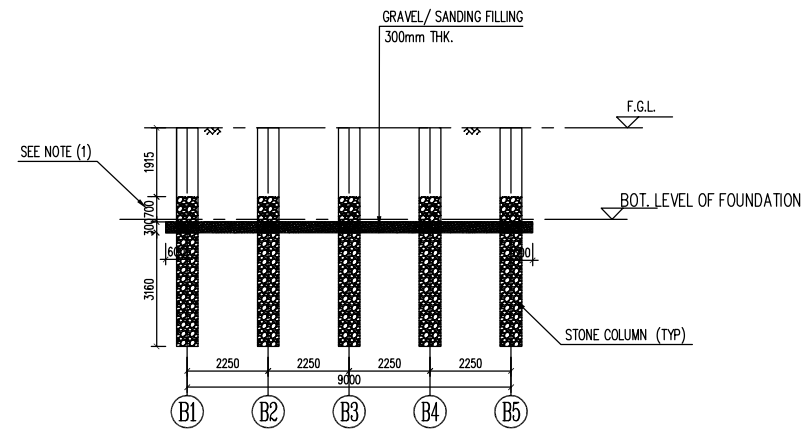
DRAWING TITLE: SECONDARY SEDIMENTATION TANK (W6) - PLAN LAYOUT OF STONE COLUMN

FUNCTION	NAME	SIGN	DATE
DRWN	UKESH		
CHKD	YANG WENFA		
APPD	LIU SHUN		
SCALE		REV	0



DISINFECTION TANK (W7) - PLAN LAYOUT OF STONE COLUMN 1:100

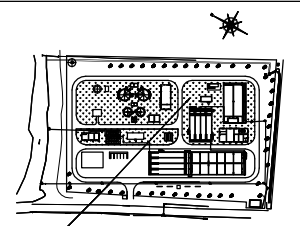
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
W7	DISINFECTION TANK	0.6	6	28



SECTION @A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	LUKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT PROJECT IMPLEMENTATION DIRECTORATE,
 KATHMANDU URBAN WATER SUPPLY AND SEWERAGE LIMITED,
 ANAMGAHA, KATHMANDU, NEPAL

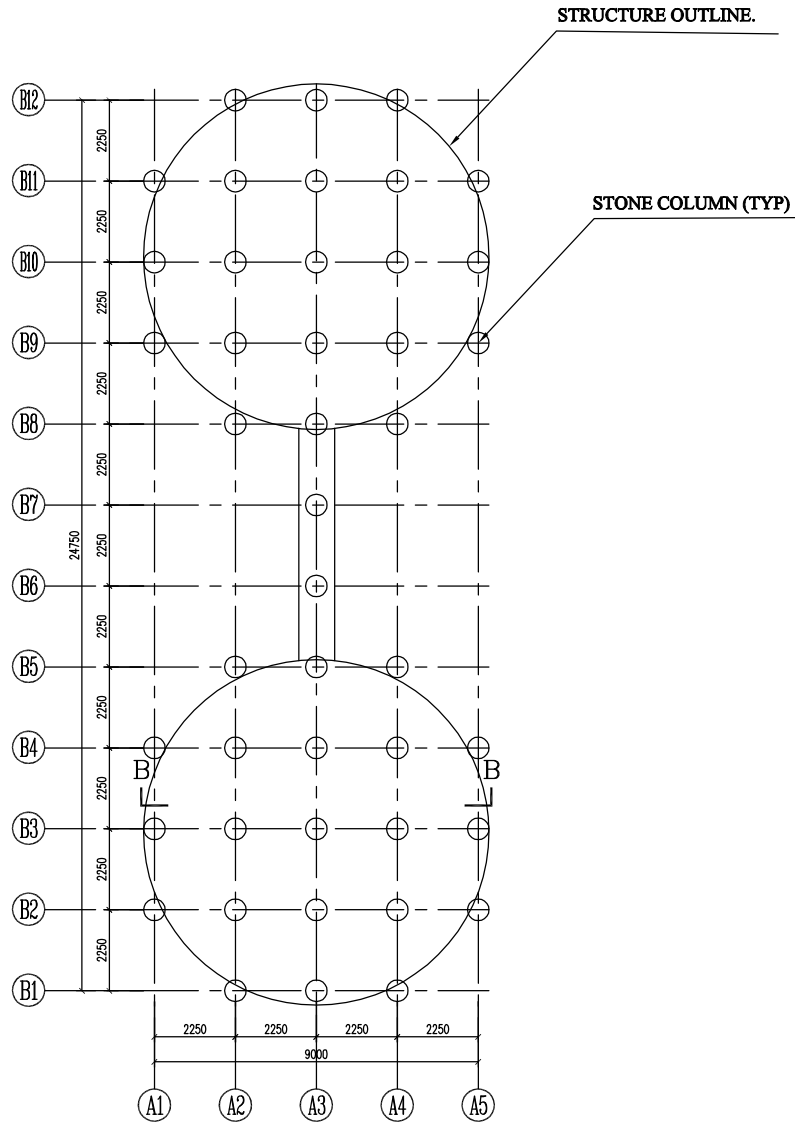
CONSULTANT DOHWA ENGINEERING COMPANY LTD

CONTRACTOR **SafBon** SAFBON WATER SERVICE
 (HOLDING) INC., SHANGHAI

PROJECT TITLE Construction of Wastewater Treatment Plants at
 Salaghar, Kodku and Dhobighat

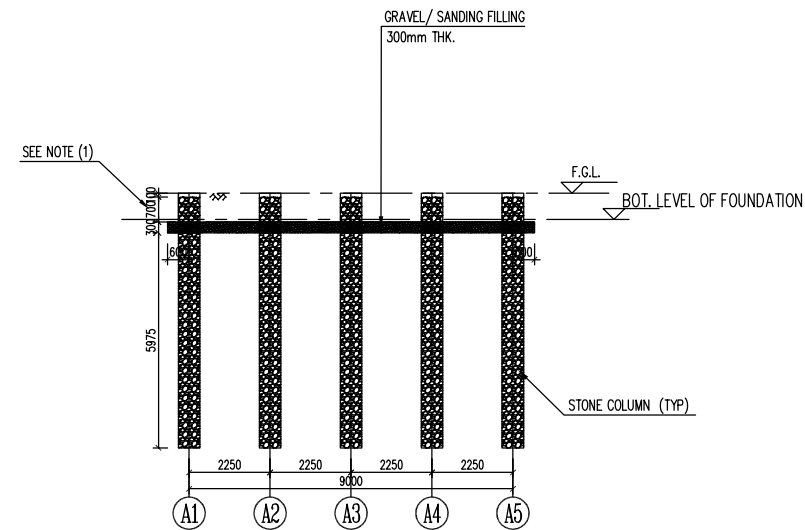
DRAWING TITLE DISINFECTION TANK (W7) - LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	LUKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
	SCALE		REV	0



GRAVITY THICKNER (S1) - PLAN LAYOUT OF STONE COLUMN 1:100

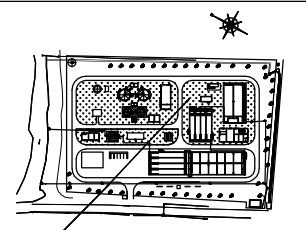
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
S1	GRAVITY THICKNER	0.6	7	44



SECTION @B-B 1:100

NOTE: (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
△					
△					
△	07/05/2018	FOR APPROVAL	LUKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER AND SEWERAGE LIMITED, ANAMGAHA, KATHMANDU, NEPAL

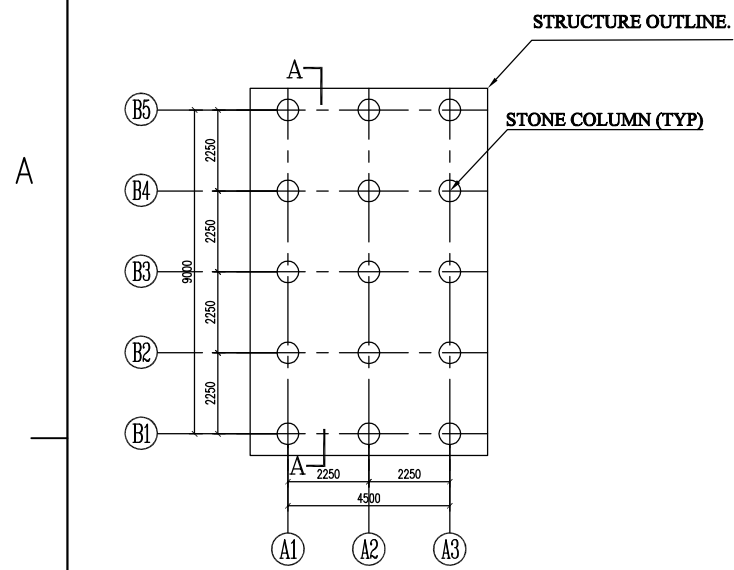
CONSULTANT DOHWA ENGINEERING COMPANY LTD

CONTRACTOR **SafBon** SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

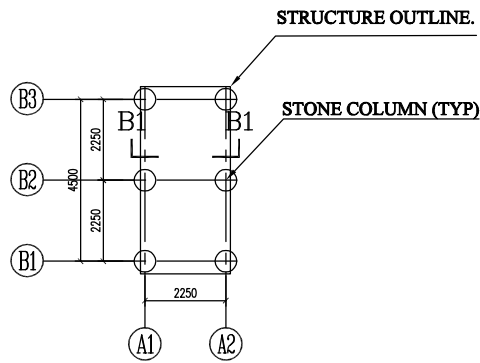
PROJECT TITLE Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat

DRAWING TITLE GRAVITY THICKNER (S1) - PLAN LAYOUT OF STONE COLUMN

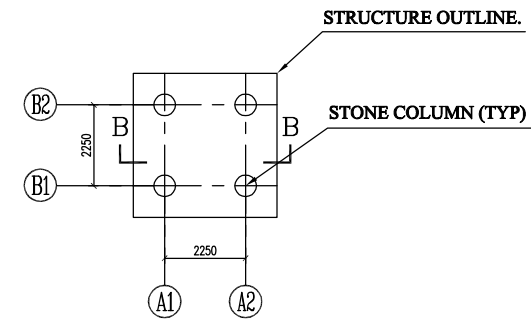
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	LUKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
DRAWING NO.				
S801-D01-250-009				
SHEET NO.	SCALE	REV		0



WASTE ACTIVATED SLUDGE TANK (S4) - PLAN LAYOUT OF STONE COLUMN 1:100

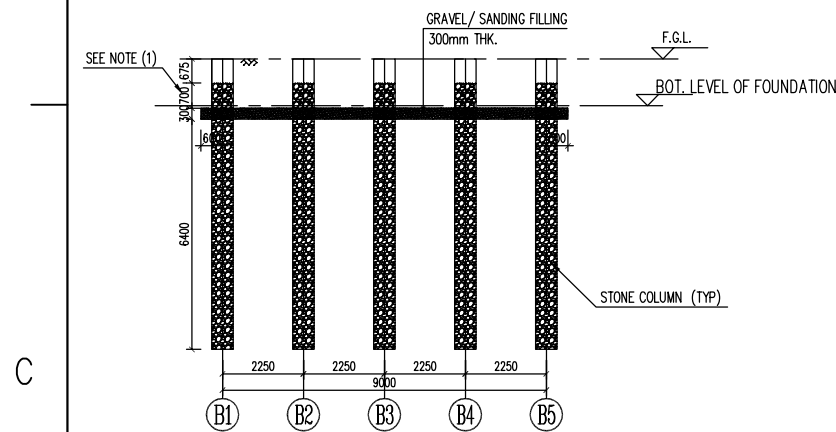


MIXED SLUDGE TANK (S5) - PLAN LAYOUT OF STONE COLUMN 1:100



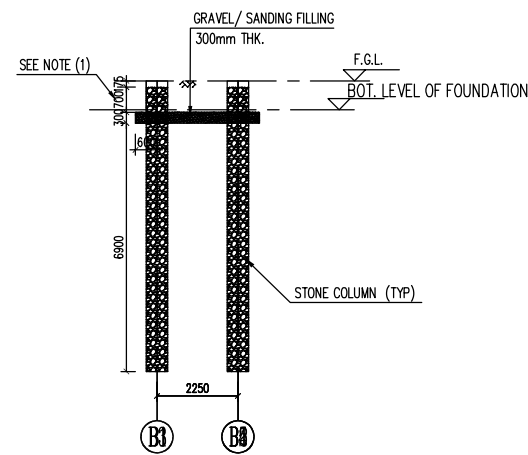
SLUDGE DISTRIBUTION TANK (S3) - PLAN LAYOUT OF STONE COLUMN 1:100

NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



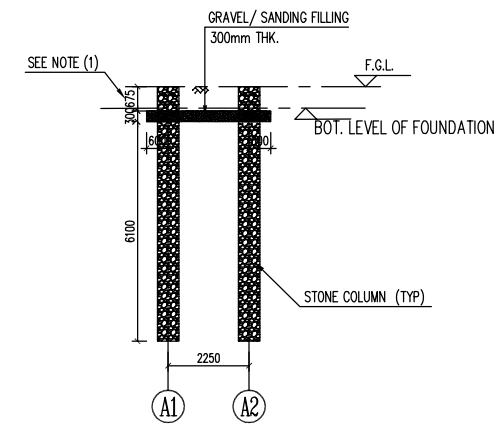
SECTION @ B-B (WASTE ACTIVATED SLUDGE TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



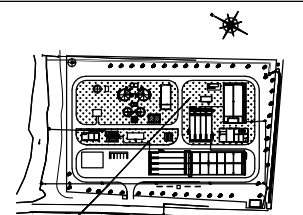
SECTION @ B1-B1 (MIXED SLUDGE TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @ B-B (SLUDGE DISTRIBUTION TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.675M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



DRAWING SUBMISSION STATUS :

△				
△				
△				
△	07/05/2018	FOR APPROVAL	UKESH	YANG WENFA
REV	DATE	DESCRIPTION	DRWN	CHKD

REVISION HISTORY

CLIENT PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER AND SEWERAGE LIMITED, ANAMGAHA, KATHMANDU, NEPAL

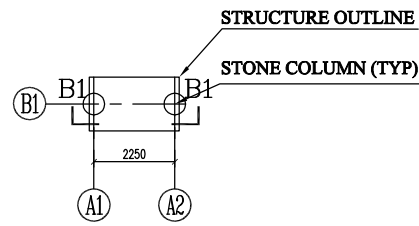
CONSULTANT DOHWA ENGINEERING COMPANY LTD

CONTRACTOR *SafBon* SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

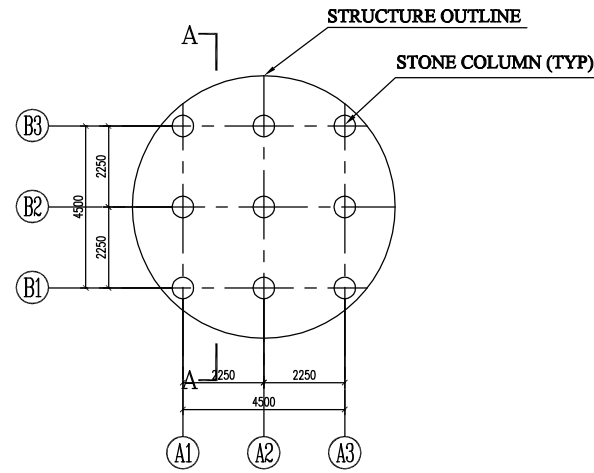
PROJECT TITLE Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat

DRAWING TITLE MIXED SLUDGE TANK(S5) - PLAN LAYOUT OF STONE COLUMN WASTE ACTIVATED SLUDGE TANK (S4) / SLUDGE DISTRIBUTION TANK (S3)

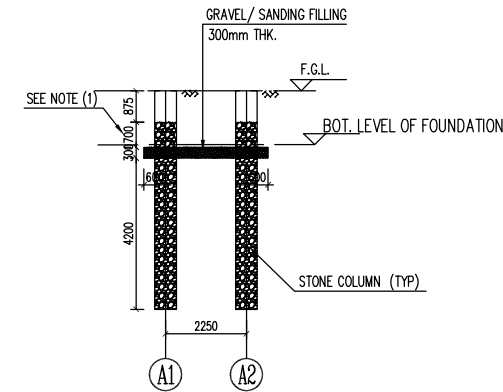
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WWT/PI02	DRWN	UKESH		
DRAWING NO.	CHKD	YANG WENFA		
8801-001-280-010	APPD	LIU SHUN		
SHEET NO.	SCALE	REV	0	



GAS FLARE PLATFORM (P1) - PLAN LAYOUT OF STONE COLUMN 1:100

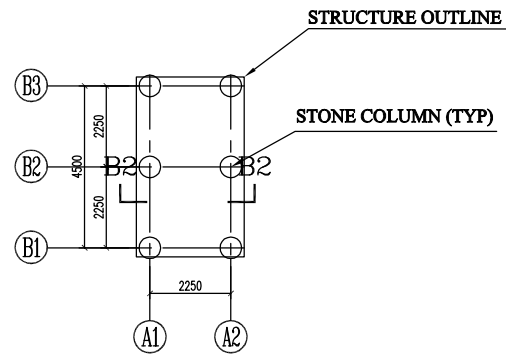


GAS HOLDER (P2) - PLAN LAYOUT OF STONE COLUMN 1:100



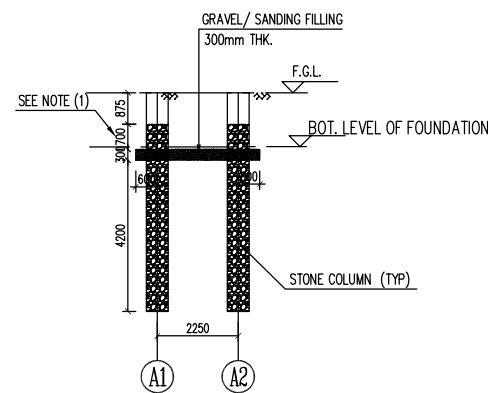
SECTION @ B1-B1(GAS FLARE PLATFORM) 1:100

NOTE:
(1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



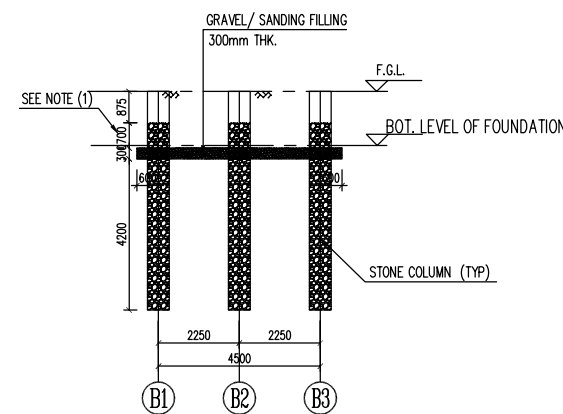
SCRUBBING TOWER (P3) - PLAN LAYOUT OF STONE COLUMN 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
P1	GAS FLARE PLATFORM	0.6	6	2
P2	GAS HOLDER	0.6	6	9
P3	SCRUBBING TOWER	0.6	6	6



SECTION @ B1-B1 (SCRUBBING TOWER) 1:100

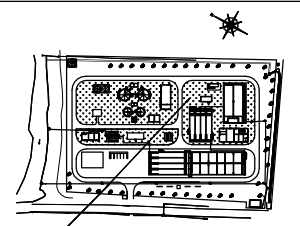
NOTE:
(1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @ B2-B2 (GAS HOLDER) 1:100

NOTE:
(1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

NOTES:
1. All dimensions are in mm.
2. TYP: Typical.
3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
07/05/2018		FOR APPROVAL	LUKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN AREA DEVELOPMENT AUTHORITY, KATHMANDU, NEPAL
--------	--

CONSULTANT	DOHWA ENGINEERING COMPANY LTD
------------	-------------------------------

CONTRACTOR	SafBan SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI
------------	--

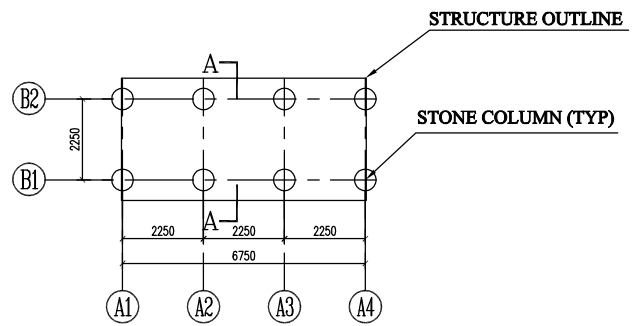
PROJECT TITLE	Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat
---------------	--

DRAWING TITLE	GAS FLARE PLATFORM (P1) - PLAN LAYOUT OF STONE COLUMN GAS HOLDER (P2) / SCRUBBING TOWER (P3) - PLAN LAYOUT OF STONE COLUMN
---------------	---

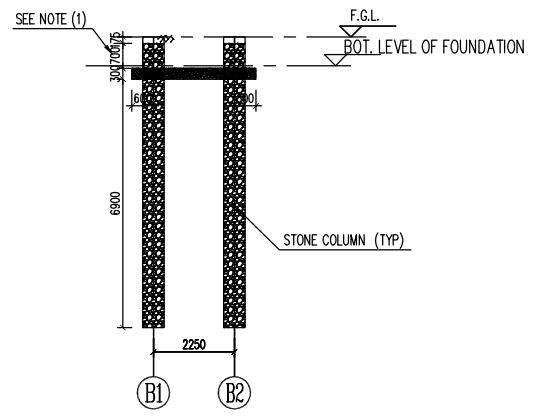
CONTRACT NO.	KUKL/WWT/TP/02
--------------	----------------

DRAWING NO.	8801-001-280-011
-------------	------------------

SHEET NO.	SCALE	REV	0
-----------	-------	-----	---

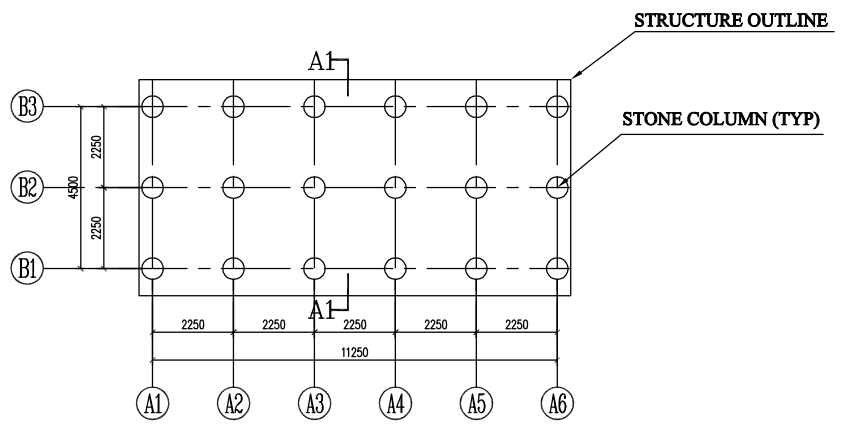


DIGESTED SLUDGE TANK (S6) - PLAN LAYOUT OF STONE COLUMN 1:100

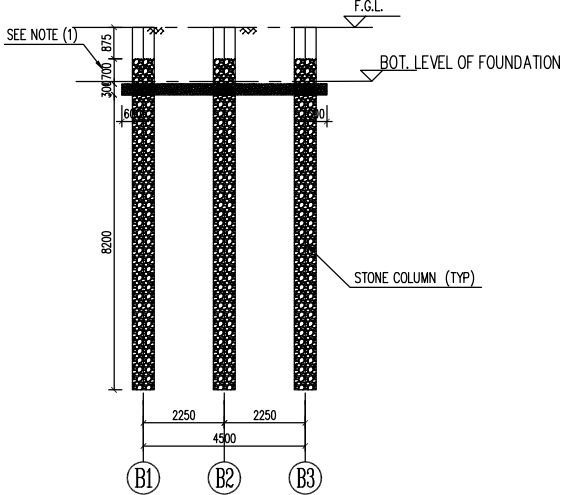


SECTION @ A-A (DIGESTED SLUDGE TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



BIO-FILTER (01) - PLAN LAYOUT OF STONE COLUMN 1:100

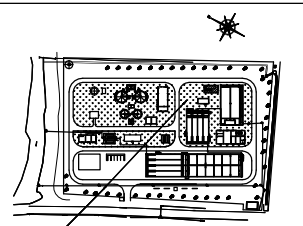


SECTION @ A2-A2 (BIO-FILTER) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
S6	DIGESTED SLUDGE TANK	0.6	8	8
01	BIO-FILTER	0.6	10	18

NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
△					
△					
△	07/05/2018	FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY	
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN WATER AND SEWERAGE LIMITED, ANAHARA, KATHMANDU, NEPAL
CONSULTANT	DOHWA ENGINEERING COMPANY LTD
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI
PROJECT TITLE: Construction of Wastewater Treatment Plants at Salaghar, Kodku and Dhobighat	
DRAWING TITLE: DIGESTED SLUDGE TANK (S6) - PLAN LAYOUT OF STONE COLUMN BIO-FILTER (01) - PLAN LAYOUT OF STONE COLUMN	
CONTRACT NO.	KUKL/WWT/TP/02
DRAWING NO.	8801-001-280-012
SHEET NO.	

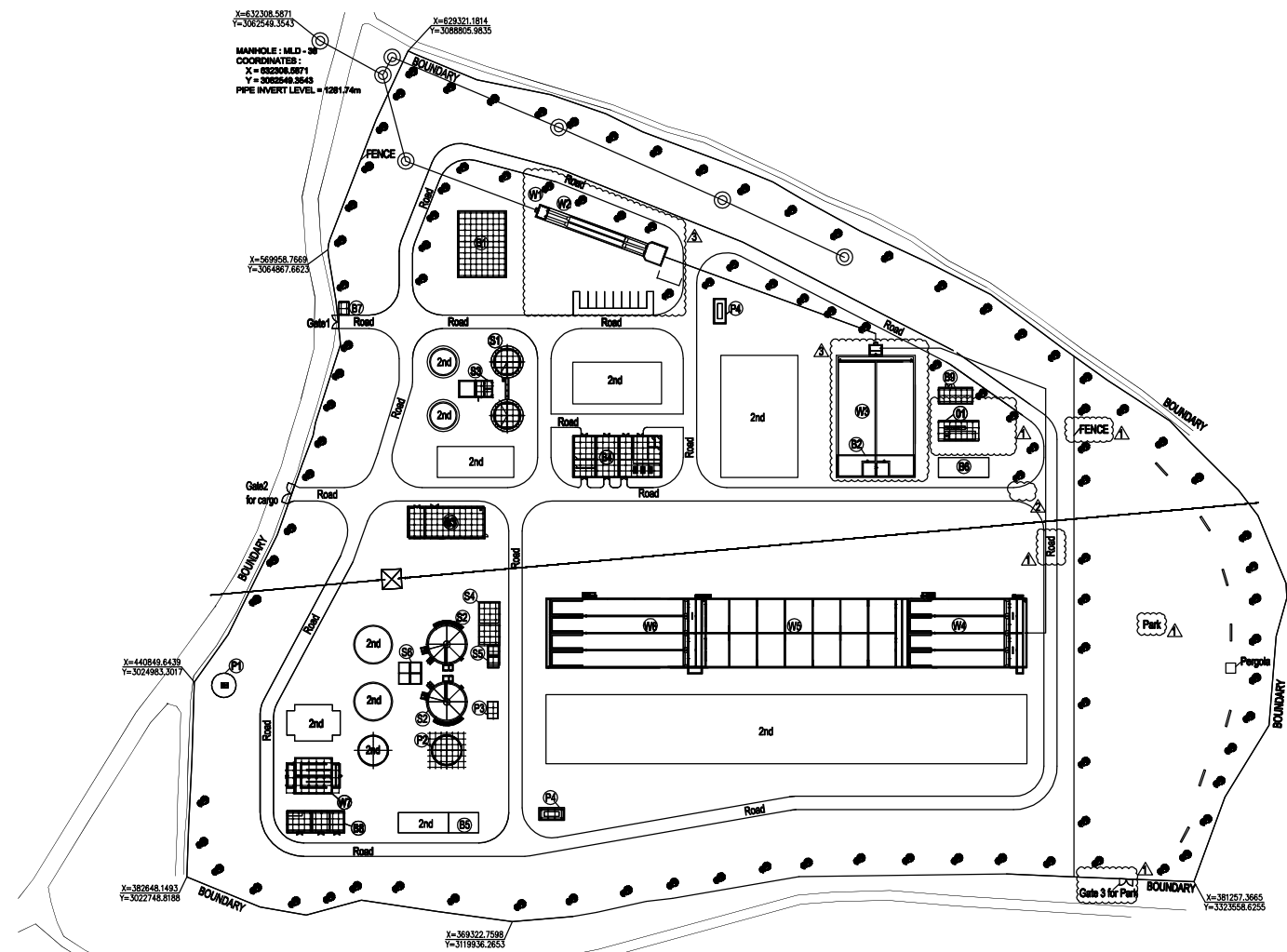
Drawing List

Pro. Name	Construction of Wastewater Treatment Plants at Shallaghari, Kodku and Dhobighat			Pro. Num.	KUKL/WW/TP/02		
Subpro.	STONE COLUMN FOR KODKU SITE		Drawing No.	SB01-D02-250-000		Design Phase	Detail Design
No.	Drawing No.	Drawing Name			Sheet	Remarks	
0	SB01-D02-250-000	DRAWING LIST			1		
1	SB01-D02-250-001	GENERAL LAYOUT OF STONE COLUMN FOR KODKU SITE			1		
2	SB01-D02-250-002	ADMINISTRATION BUILDING (B1) - LAYOUT OF STONE COLUMN			1		
3	SB01-D02-250-003	SLUDGE TREATMENT BUILDING (B3) - LAYOUT OF STONE COLUMN			1		
4	SB01-D02-250-004	BLOWER AND ELECTRICAL BUILDING (B4) - LAYOUT OF STONE COLUMN			1		
5	SB01-D02-250-005	GATE HOUSE (B7) & RECYCLED WATER PUMP ROOM (B8) LAYOUT OF STONE COLUMN			1		
6	SB01-D02-250-006	ELECTRICAL ROOM (B9) & DISINFECTION TANK (W7) - LAYOUT OF STONE COLUMN			1		
7	SB01-D02-250-007	GRAVITY THICKENER (S1) - LAYOUT OF STONE COLUMN			1		
8	SB01-D02-250-008	S3, S4 & S6 STRUCTURES - LAYOUT OF STONE COLUMN			1		
9	SB01-D02-250-009	P1 , P2 & P3 STRUCTURES - LAYOUT OF STONE COLUMN			1		
10	SB01-D02-250-010	O1 & P4 STRUCTURES - LAYOUT OF STONE COLUMN			1		

Sian: Ukesh

Check: Yano Wenfa

Approved: Liu Shun



GENERAL LAYOUT PLAN OF STONE COLUMN FOR KODKU SITE

NO.	DESCRIPTION	Lot(H)(m)	QTY	UNIT	MATERIAL
WASTEWATER TREATMENT FACILITY					
W1	INLET CHAMBER	3.40x2.80x5.54	1	SET	RCS
W2-1	SCREEN AND GRIT CHAMBER	34.00x1.45x5.14	2	SET	RCS
W2-2	PUMP SUMP	5.50x5.40x5.14	1	SET	RCS
W3	EQUALIZATION TANK	35.50x11.00x6.48	2	SET	RCS
W4	PRIMARY SEDIMENTATION TANK	37.20x4.80x4.50	4	SET	RCS
W5	AERATION TANK	59.08x9.08x5.50	2	SET	RCS
W6	SECONDARY SEDIMENTATION TANK	47.50x4.80x4.50	4	SET	RCS
W7	DISINFECTION TANK	15.87x4.95x3.50	2	SET	RCS
SLUDGE TREATMENT FACILITY					
S1	GRAVITY THICKNER	D=87.80,H=3.50	2	SET	RCS
S2	ANAEROBIC DIGESTER	D=911.00,H=14.25	2	SET	RCS
S3	SLUDGE DISTRIBUTION TANK	2.00x2.00x2.50	1	SET	RCS
S4	WASTE ACTIVATED SLUDGE TANK	8.00x5.70x4.00	2	SET	RCS
S5	MIXED SLUDGE TANK	3.00x2.80x3.00	2	SET	RCS
S6	DIGESTED SLUDGE TANK	3.00x3.00x3.30	2	SET	RCS
BUILDINGS					
B1	ADMINISTRATION BUILDING	19.85x14.45x6.00	1	SET	FS
B2	PRE-TREATMENT BUILDING	23.00x6.00x5.00	1	SET	FS
B3	SLUDGE TREATMENT BUILDING	22.50x6.30x5.00	1	SET	FS
B4	BLOWER/ELECTRICAL BUILDING	28.00x12.00x5.00	1	SET	FS
B5	BIO-GAS BUILDING	9.00x6.00x5.00	1	SET	FS
B6	STORAGE HOUSE	15.00x8.00x3.00	1	SET	FS
B7	GATE HOUSE	4.00x3.00x3.00	1	SET	FS
B8	RECYCLED WATER PUMP ROOM	18.80x6.00x5.00	1	SET	FS
B9	ELECTRICAL ROOM	9.80x4.30x5.00	1	SET	FS
BIO-GAS GENERATION FACILITY					
P1	GAS FLARE PLATFORM	2.50x1.50	1	SET	RCS
P2	GAS HOLDER	98.80	1	SET	RCS
P3	SCRUBBING TOWER	5.00x3.00	1	SET	RCS
P4	DIESEL TANK SUMP	7.0x3.20x1.60	2	SET	RCS
DEODORIZATION FACILITY					
D1	BIO-FILTER FACILITY	12.00x6.00	1	SET	RCS

NOTES:
1. All dimensions are in mm.

SCHEDULE OF STONE COLUMN

STRUCTURAL ID	STRUCTURAL NAME	STONE COLUMN		
		DIAMETER (m)	DEPTH (m)	QUANTITY (NOS)
B1	ADMINISTRATION BUILDING	0.6	5	70
B3	SLUDGE TREATMENT BUILDING	0.6	6	55
B4	BLOWER AND ELECTRICAL BUILDING	0.6	5	72
B7	GATE HOUSE	0.6	5	4
B8	RECYCLED WATER PUMP BUILDING	0.6	5	24
B9	ELECTRICAL ROOM	0.6	5	15
W7	DISINFECTION TANK	0.6	5	36
S1	GRAVITY THICKNER	0.6	5	32
S3	SLUDGE DISTRIBUTION TANK	0.6	5	9
S4	WASTE ACTIVATED SLUDGE TANK	0.6	5	18
S5	MIXED SLUDGE TANK	0.6	5	6
P1	GASFLARE PLATFORM	0.6	5	2
P2	GAS HOLDER	0.6	5	13
P3	SCRUBBING TOWER	0.6	5	6
P4	DIESEL TANK SUMP	0.6	5	8
D1	BIO-FILTER	0.6	5	18

DRAWING SUBMISSION STATUS :

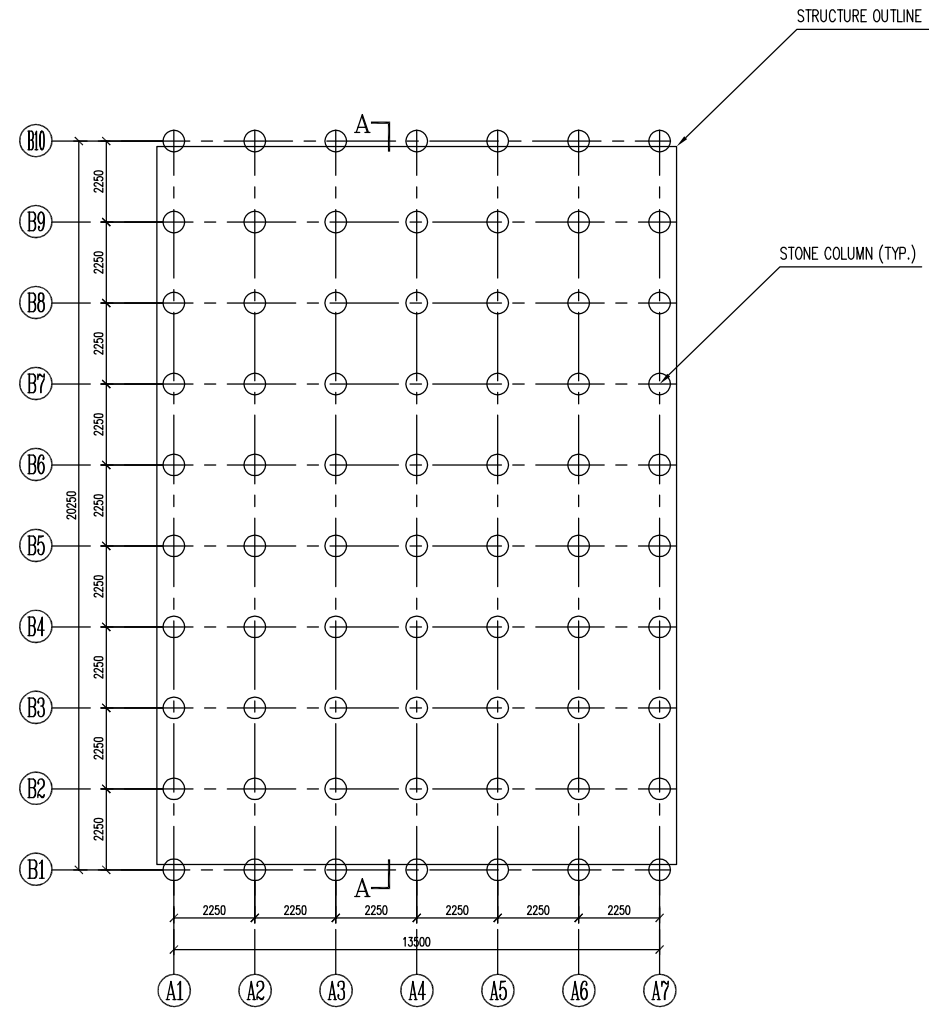
REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
09/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATMANDU UPATIYAJA KARANPANI LIMITED, ANAMAGAR, KATMANDU, NEPAL
CONSULTANT	DOHWA ENGINEERING COMPANY LTD
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

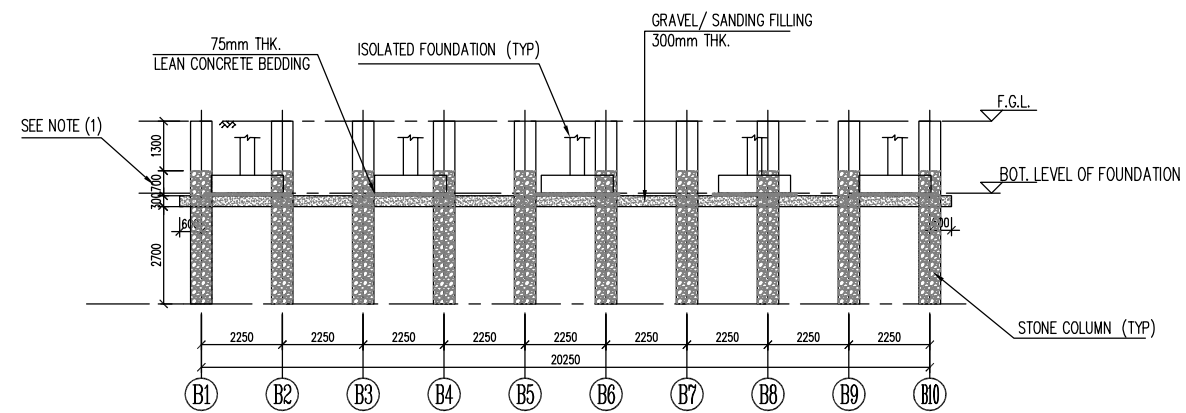
PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat

DRAWING TITLE				
GENERAL LAYOUT PLAN OF STONE COLUMN FOR KODKU SITE				
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/W/TP/02	DRWN	UKESH		
DRAWING NO.	CHKD	YANG WENFA		
SB01-002-250-001	APPD	LIU SHUN		
SHEET NO.	SCALE	1:100	REV	0



ADMINISTRATION BUILDING (B1) - PLAN LAYOUT OF STONE COLUMN 1:100

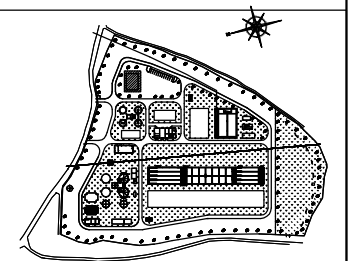
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B1	ADMINISTRATION BUILDING	0.6	5	70



SECTION @ A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
 1. All dimensions are in mm.
 2. TYP: Typical.
 3. F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
09/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT: PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN AREA DEVELOPMENT LIMITED, ANAMGAHA, KATHMANDU, NEPAL

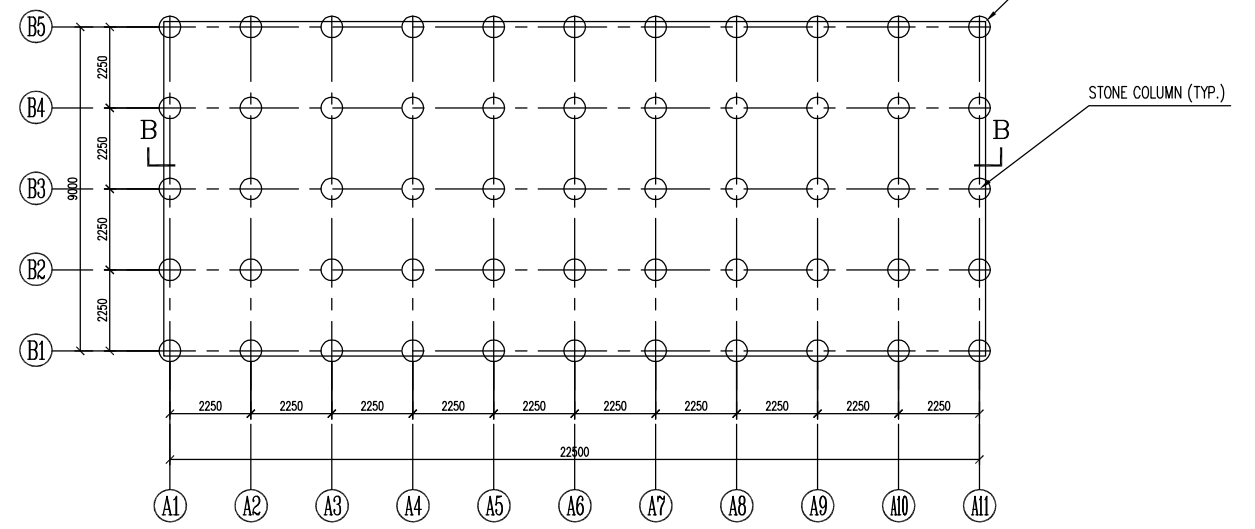
CONSULTANT: DOHWA ENGINEERING COMPANY LTD

CONTRACTOR: **SafBon** SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat

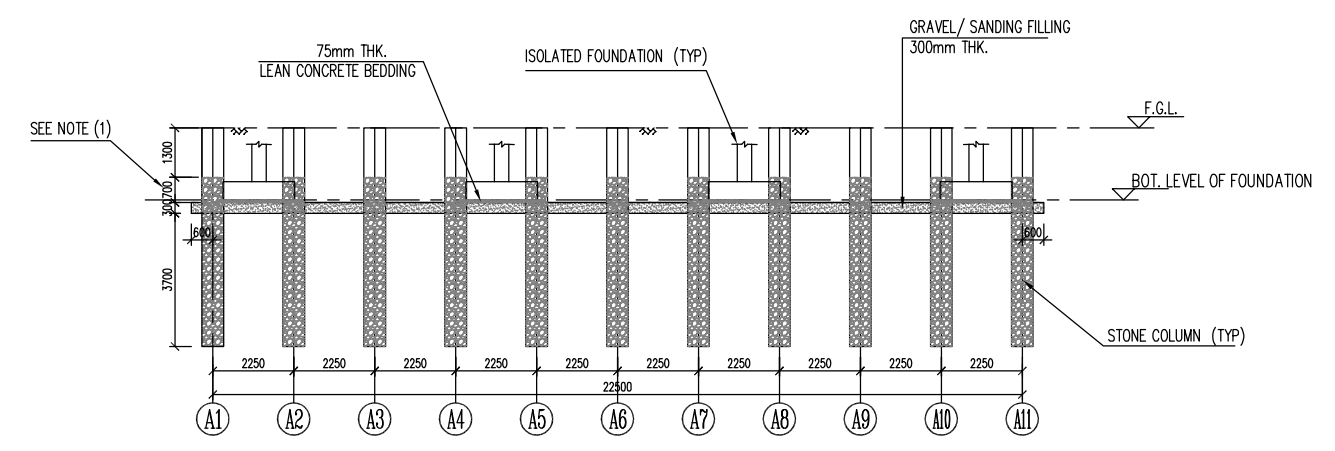
DRAWING TITLE: ADMINISTRATION BUILDING (B1) - LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
SHEET NO.	SCALE	1:100	REV	0



SLUDGE TREATMENT BUILDING (B3) - PLAN LAYOUT OF STONE COLUMN 1:100

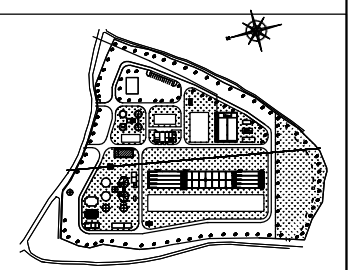
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B3	SLUDGE TREATMENT BUILDING	0.6	6	55



SECTION @ B-B 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:**
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



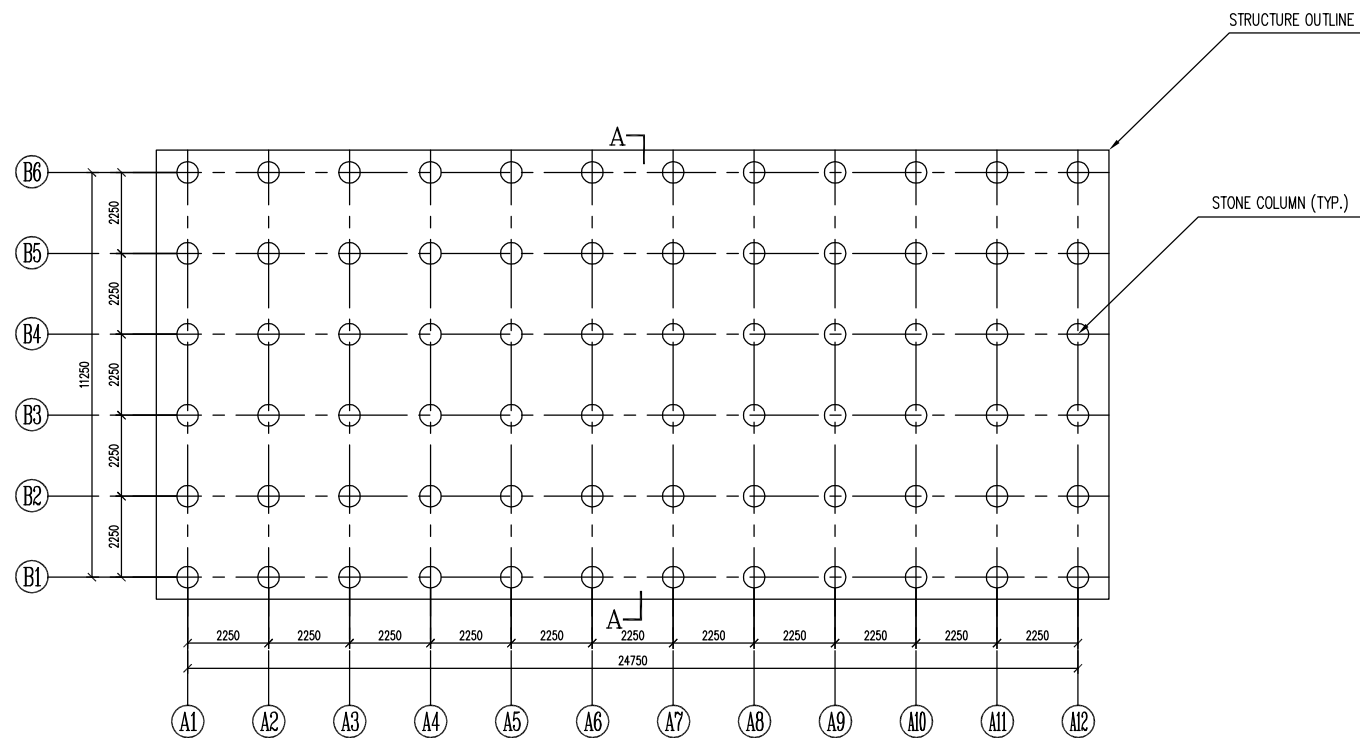
DRAWING SUBMISSION STATUS :

△					
△					
△					
△	09/05/2018	FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN
REV	DATE	DESCRIPTION	DRWN	CHKD	APPD

REVISION HISTORY

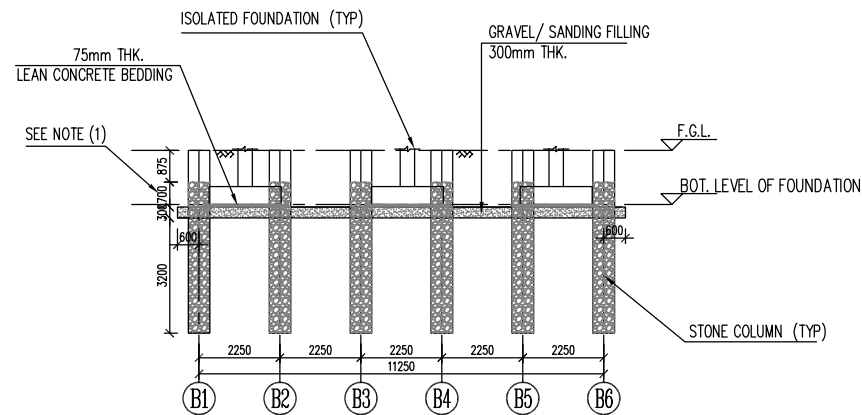
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN AREA DEVELOPMENT LIMITED, ANAMNAGAR, KATHMANDU, NEPAL
CONSULTANT	DOHWA ENGINEERING COMPANY LTD
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI
PROJECT TITLE	Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat
DRAWING TITLE	SLUDGE TREATMENT BUILDING (B3) - LAYOUT OF STONE COLUMN
CONTRACT NO.	KUKL/WW/TP/02
DRAWING NO.	SB01-002-250-003
SHEET NO.	

FUNCTION	NAME	SIGN	DATE
DRWN	UKESH		
CHKD	YANG WENFA		
APPD	LIU SHUN		
SCALE	1:100	REV	0



BLOWER AND ELECTRICAL BUILDING (B4) - PLAN LAYOUT OF STONE COLUMN 1:100

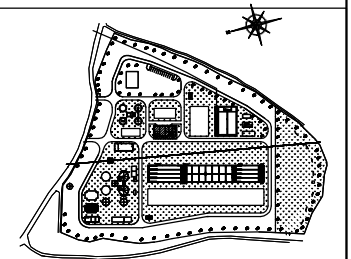
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B4	BLOWER AND ELECTRICAL BUILDING	0.6	5	72



SECTION @A-A 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:**
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
09/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN AREA CORPORATION LIMITED, ANAMGAHAT, KATHMANDU, NEPAL
--------	---

CONSULTANT	DOHWA ENGINEERING COMPANY LTD
------------	-------------------------------

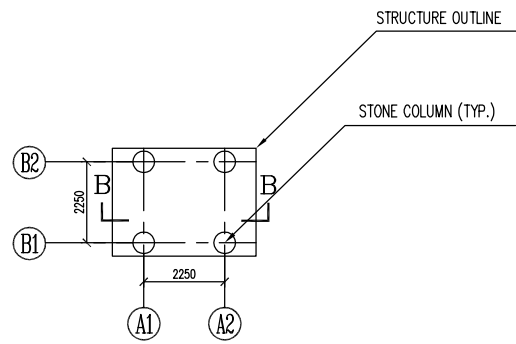
CONTRACTOR	SafBon WATER SERVICE (HOLDING) INC., SHANGHAI
------------	---

PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat

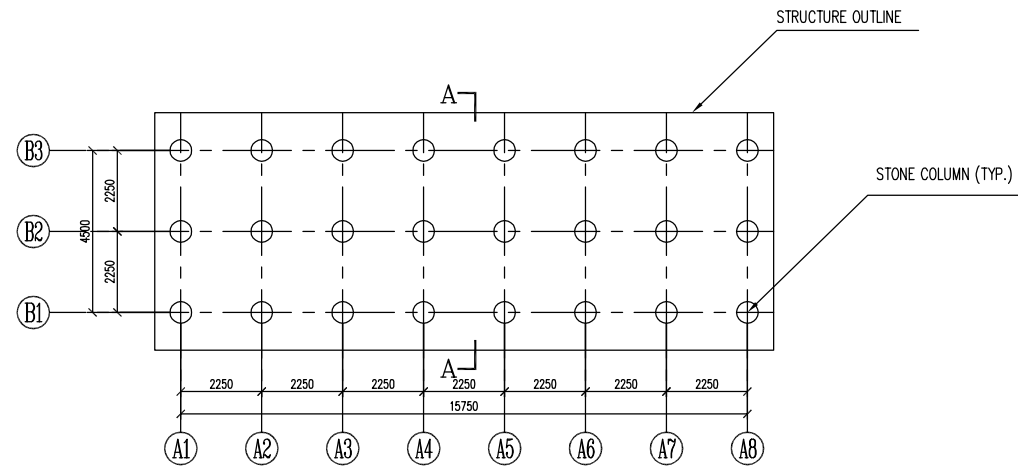
DRAWING TITLE: BLOWER AND ELECTRICAL BUILDING (B4) - LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		

SHEET NO.	SCALE	1:100	REV	0
-----------	-------	-------	-----	---

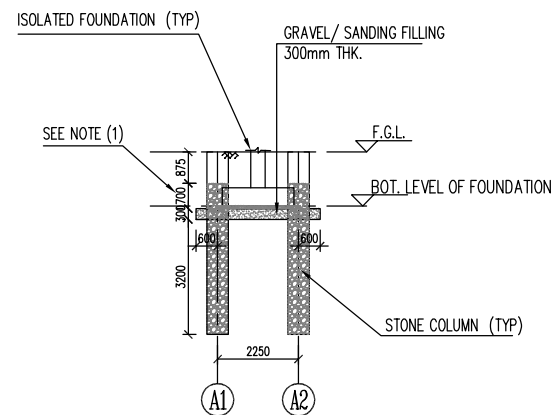


GATE HOUSE (B7) - PLAN LAYOUT OF STONE COLUMN 1:100



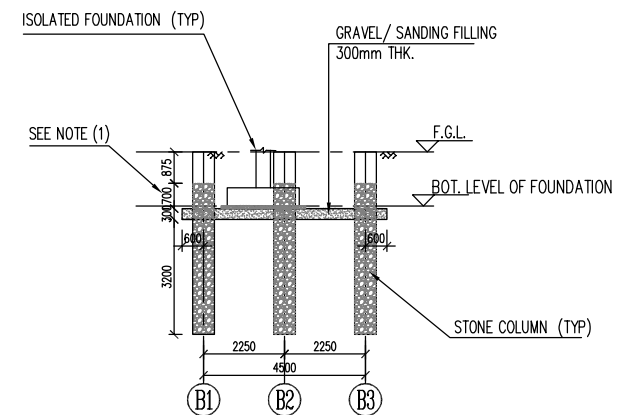
RECYCLED WATER PUMP ROOM (B8) - PLAN LAYOUT OF STONE COLUMN 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B7	GATE HOUSE	0.6	5	4
B8	RECYCLED WATER PUMP ROOM	0.6	5	24



SECTION @B-B(GATE HOUSE) 1:100

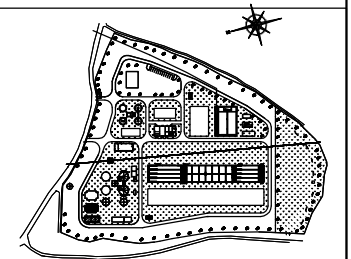
NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @A-A(RECYCLED WATER PUMP ROOM) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY.
 IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:**
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
09/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

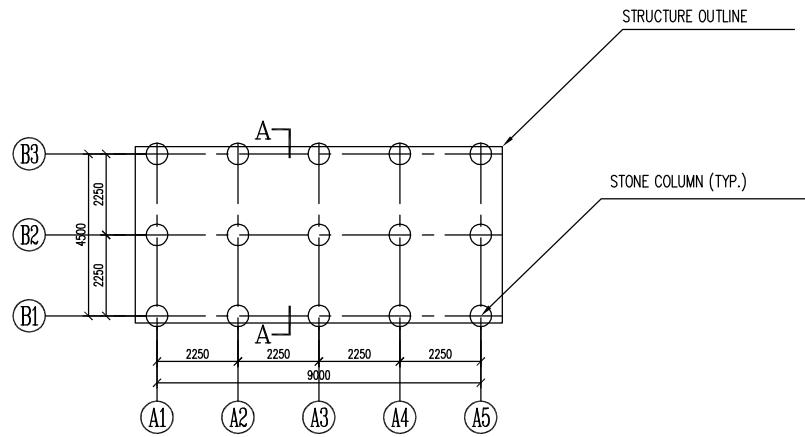
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATMANDU UPATIYA KA KARANPANI LIMITED, ANAMAGAR, KATMANDU, NEPAL
--------	--

CONSULTANT	DOHWA ENGINEERING COMPANY LTD
------------	-------------------------------

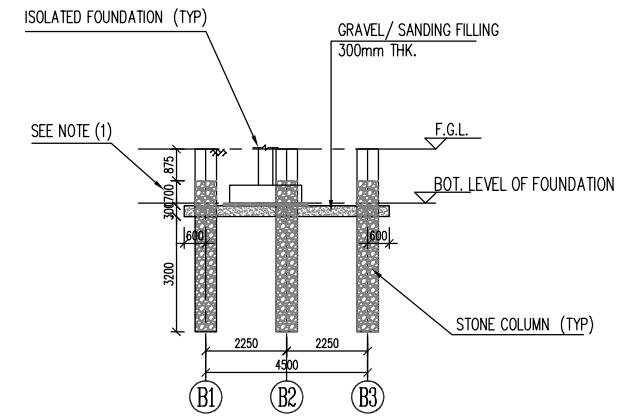
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI
------------	--

PROJECT TITLE	Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat
DRAWING TITLE	GATE HOUSE (B7) & RECYCLED WATER PUMP ROOM (B8) LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
	SCALE	1:100	REV	0

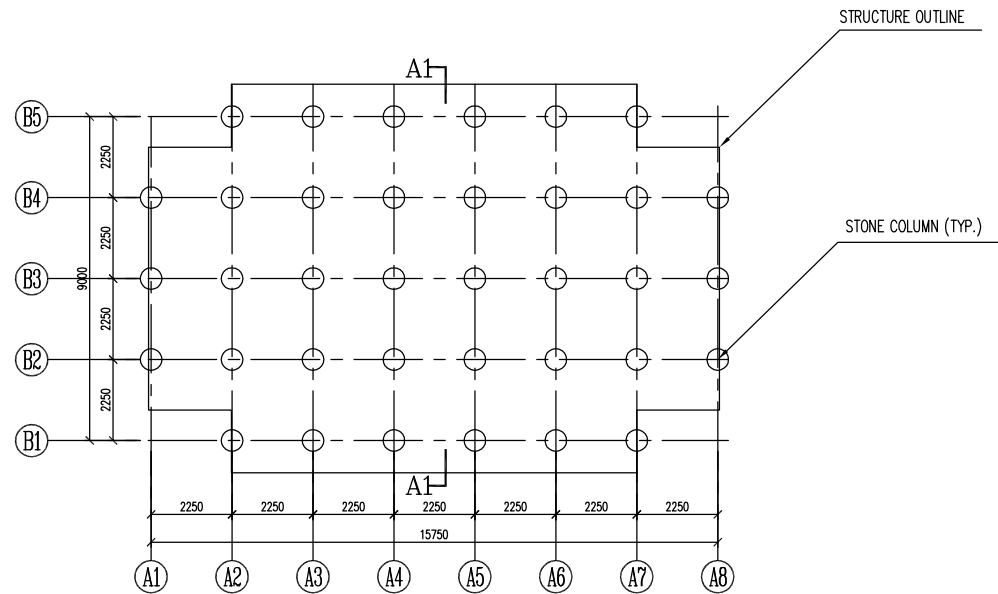


ELECTRICAL ROOM (B9) - PLAN LAYOUT OF STONE COLUMN 1:100

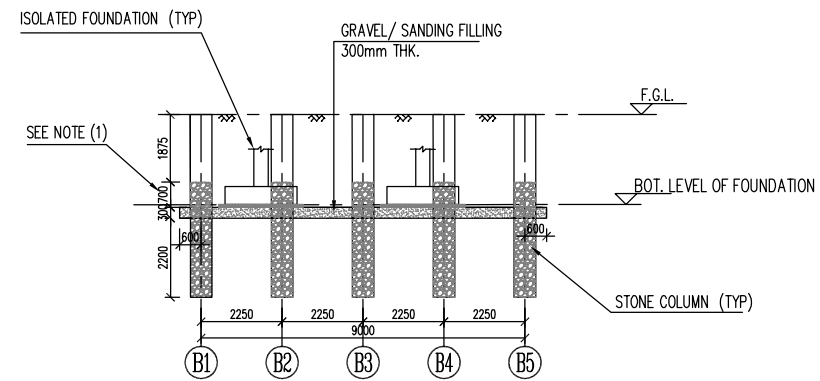


SECTION @A-A(ELECTRICAL BUILDING) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



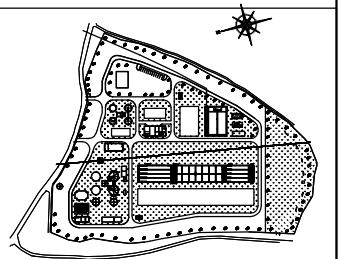
DISINFECTION TANK (W7) - PLAN LAYOUT OF STONE COLUMN 1:100



SECTION @A1-A1 (DISINFECTION TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:**
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

△					
△					
△					
△	09/05/2018	FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN
REV	DATE	DESCRIPTION	DRWN	CHKD	APPD

REVISION HISTORY

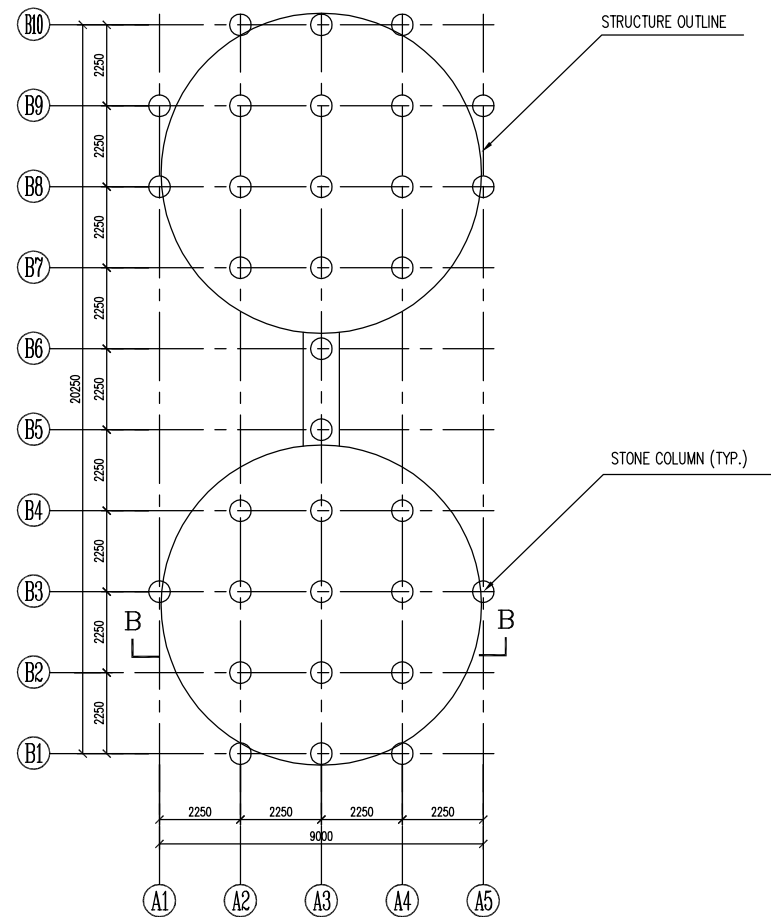
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATMANDU UPATIYA & KANEPANI LIMITED, ANAMAGAR, KATMANDU, NEPAL
CONSULTANT	DOHWA ENGINEERING COMPANY LTD
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat

DRAWING TITLE: ELECTRICAL ROOM (B9) & DISINFECTION TANK (W7) - LAYOUT OF STONE COLUMN

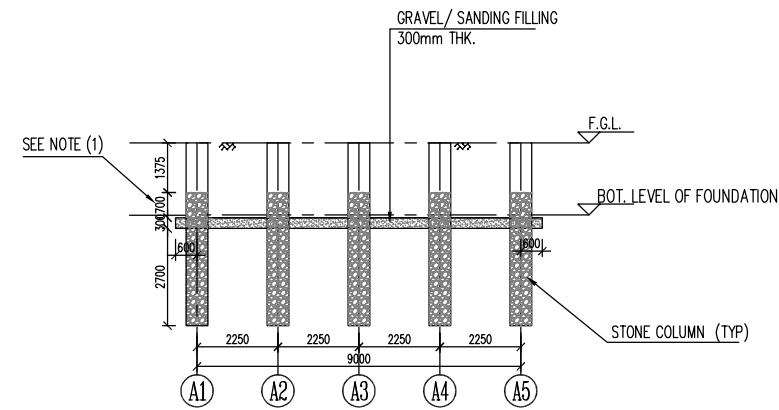
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
DRAWING NO.	CHKD	YANG WENFA		
SB01-002-250-006	APPD	LIU SHUN		
SHEET NO.	SCALE	1:100	REV	0

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
B9	ELECTRICAL ROOM	0.6	5	15
W7	DISINFECTION TANK	0.6	5	36



GRAVITY THICKENER (S1) - PLAN LAYOUT OF STONE COLUMN 1:100

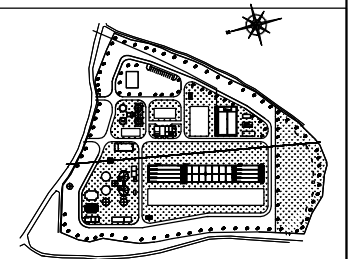
STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
S1	GRAVITY THICKENER	0.6	5	32



SECTION @ B-B (GRAVITY THICKNER) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:**
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
09/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

REVISION HISTORY

CLIENT: PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN AREA DEVELOPMENT CORPORATION, ANANGARAJ, KATHMANDU, NEPAL

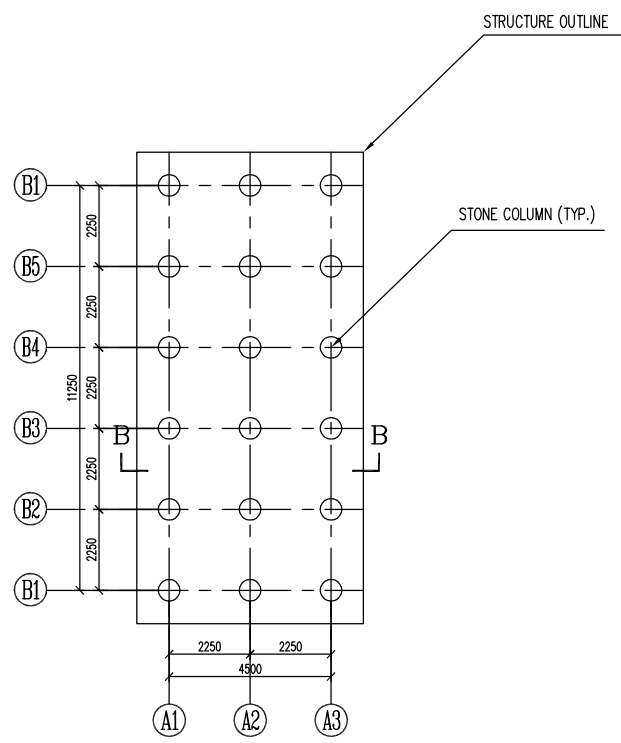
CONSULTANT: DOHWA ENGINEERING COMPANY LTD

CONTRACTOR: **SafBon** SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI

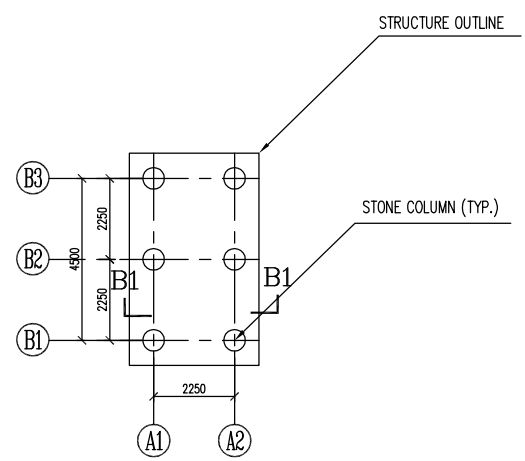
PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat

DRAWING TITLE: GRAVITY THICKENER (S1) - LAYOUT OF STONE COLUMN

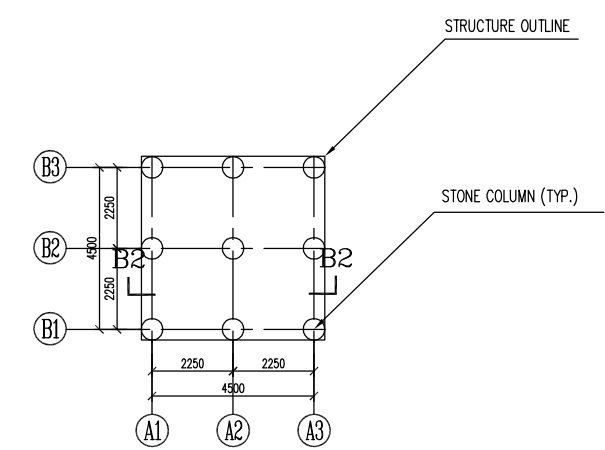
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
	SCALE	1:100	REV	0



WASTE ACTIVATED SLUDGE TANK (S4) 1:100

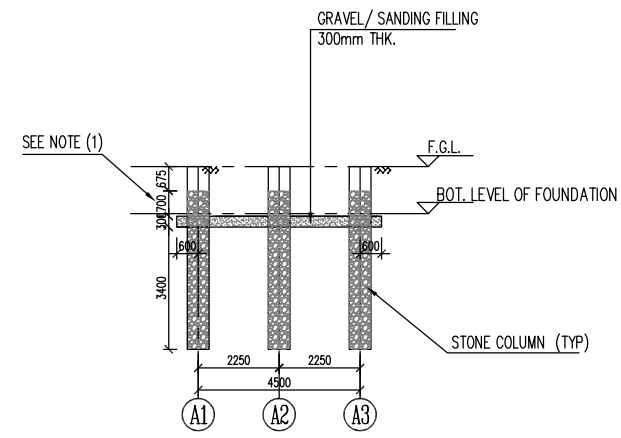


MIXED SLUDGE TANK (S5) 1:100



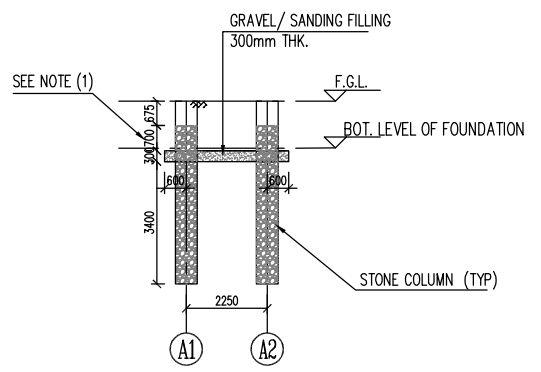
SLUDGE DISTRIBUTION TANK (S3) 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
S3	SLUDGE DISTRIBUTION TANK	0.6	5	9
S4	WASTE ACTIVATED SLUDGE TANK	0.6	5	18
S5	MIXED SLUDGE TANK	0.6	5	6



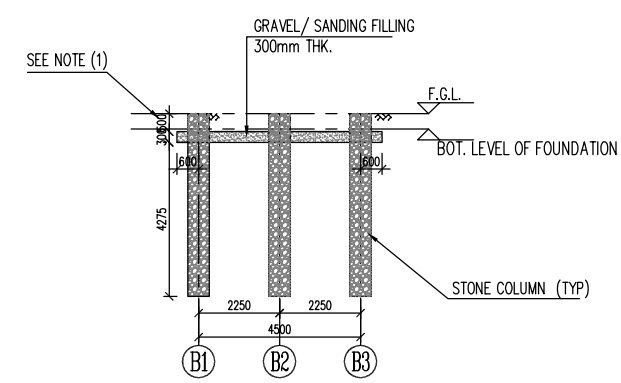
SECTION @B-B(WASTED ACTIVATED SLUDGE TANK) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @B1-B1(GAS FLARE PLATFORM) 1:100

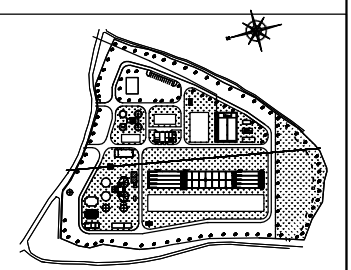
NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @B2-B2(SLUDGE DISTRIBUTION TANK) 1:100

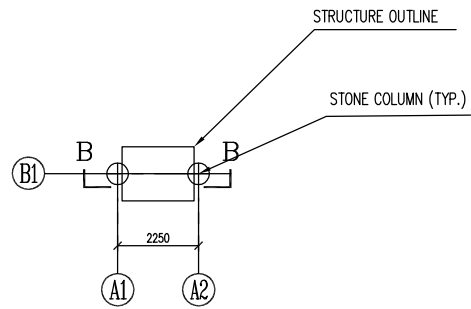
NOTE:
 (1) ADDITIONAL 0.5M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level

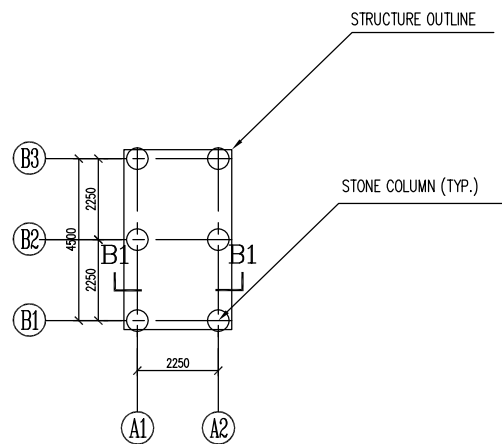


DRAWING SUBMISSION STATUS :				
△				
△				
△				
△	09/05/2018	FOR APPROVAL	UKESH	YANG WENFA
REV	DATE	DESCRIPTION	DRWN	CHKD
REVISION HISTORY				
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU URBAN AREA DEVELOPMENT LIMITED, ANAMRAJGAH, KATHMANDU, NEPAL			
CONSULTANT	DOHWA ENGINEERING COMPANY LTD			
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI			
PROJECT TITLE Construction of Wastewater Treatment Plants at Salleghari, Kodku and Dhobighat				
DRAWING TITLE S3, S4 & S5 STRUCTURES - LAYOUT OF STONE COLUMN				
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
DRAWING NO.	CHKD	YANG WENFA		
SB01-002-250-008	APPD	LIU SHUN		
SHEET NO.	SCALE	1:100	REV	0

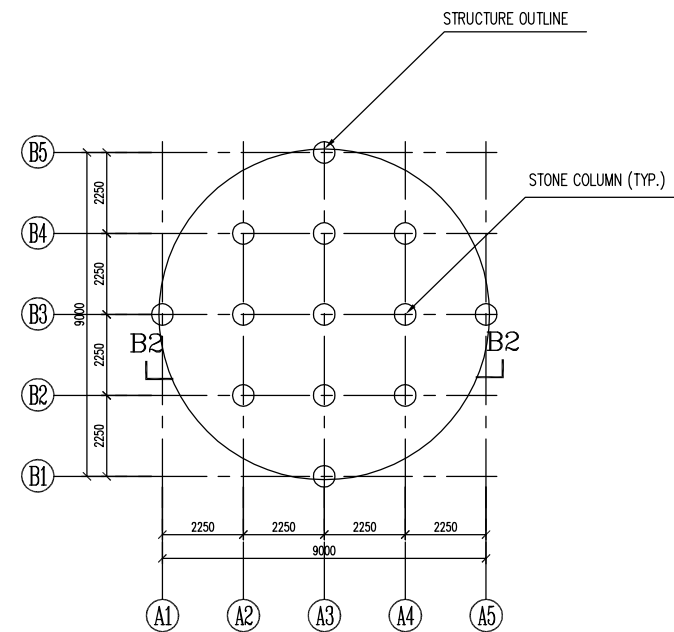
ON DIMENSION



GAS FLARE PLATFORM (P1) - PLAN LAYOUT OF STONE COLUMN 1:100

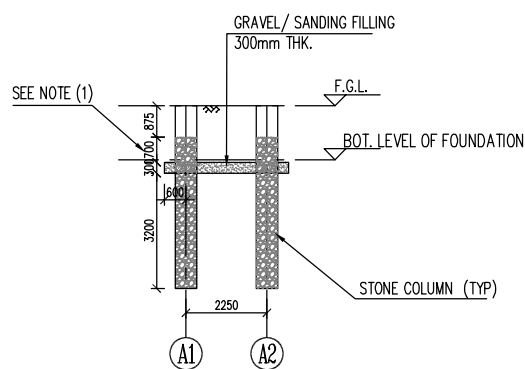


SCRUBBING TOWER (P3) - PLAN LAYOUT OF STONE COLUMN 1:100



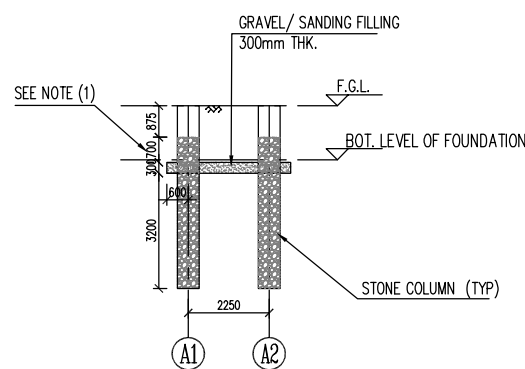
GAS HOLDER (P2) - PLAN LAYOUT OF STONE COLUMN 1:100

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
P1	GAS FLARE PLATFORM	0.6	5	2
P2	GAS HOLDER	0.6	5	13
P3	SCRUBBING TOWER	0.6	5	6



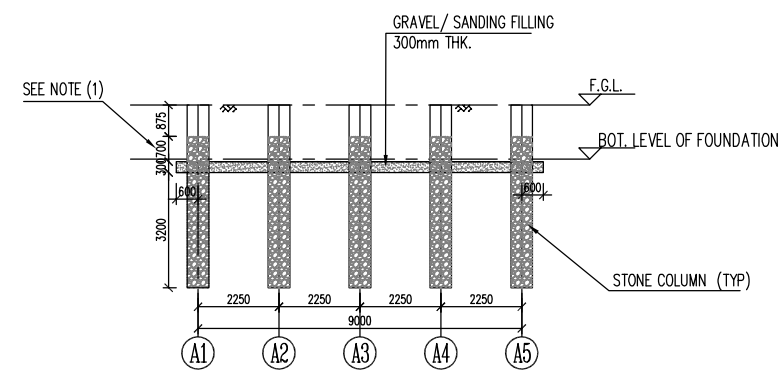
SECTION @B-B(GAS FLARE PLATFORM) 1:100

NOTE:
(1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @B1-B1(SCRUBBING TOWER) 1:100

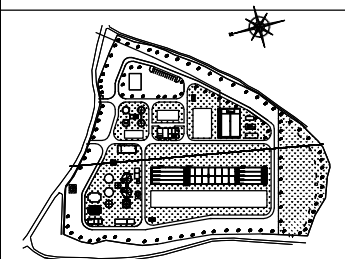
NOTE:
(1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



SECTION @B2-B2(GAS HOLDER) 1:100

NOTE:
(1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

REV	DATE	DESCRIPTION	DRWN	CHKD	APPD
09/05/2018		FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN

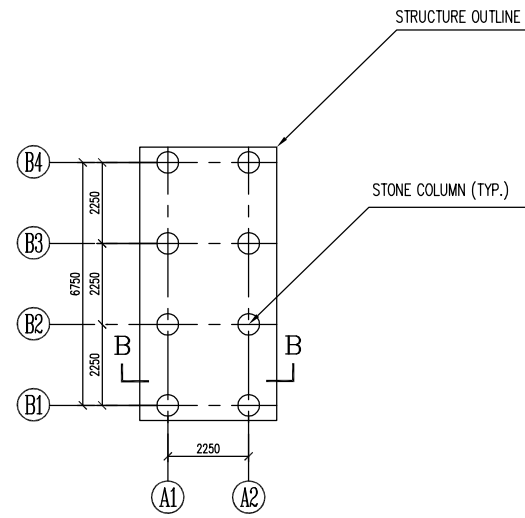
REVISION HISTORY					
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU UPATIYAJA KSHANPANI LIMITED, ANAMAGAR, KATHMANDU, NEPAL				
CONSULTANT	DOHWA ENGINEERING COMPANY LTD				
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI				

PROJECT TITLE: Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat

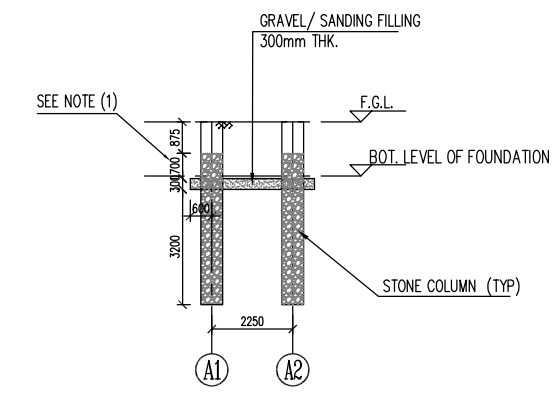
DRAWING TITLE: P1, P2 & P3 STRUCTURES - LAYOUT OF STONE COLUMN

CONTRACT NO.	FUNCTION	NAME	SIGN	DATE
KUKL/WW/TP/02	DRWN	UKESH		
	CHKD	YANG WENFA		
	APPD	LIU SHUN		
SHEET NO.	SCALE	1:100	REV	0

ON DRAWING

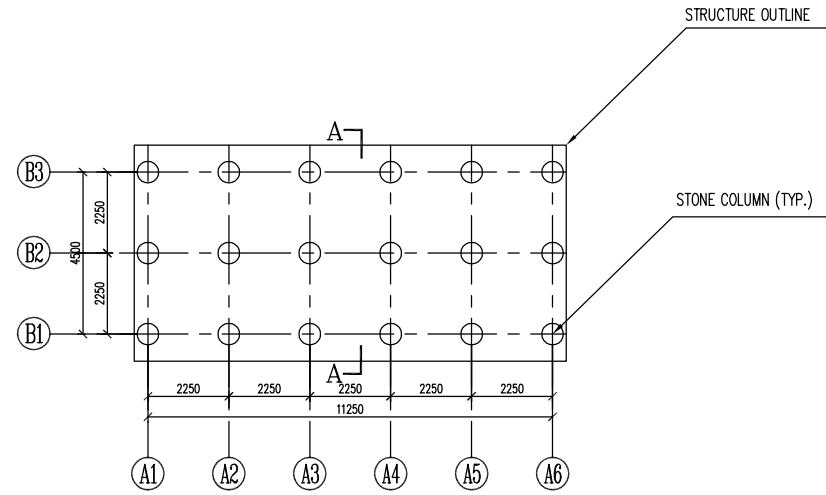


DIESEL TANK SUMP (P4) - PLAN LAYOUT OF STONE COLUMN 1:100

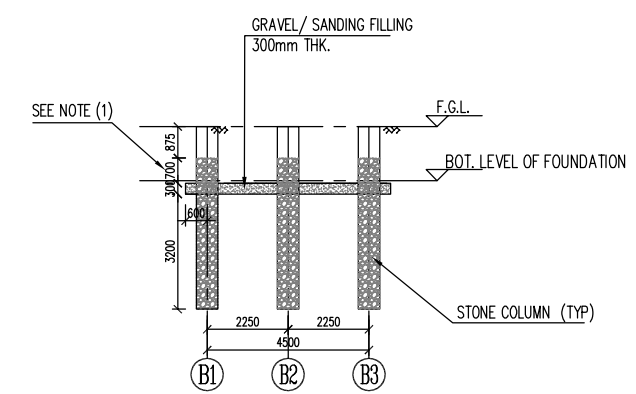


SECTION @B-B(DIESEL TANK SUMP) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.



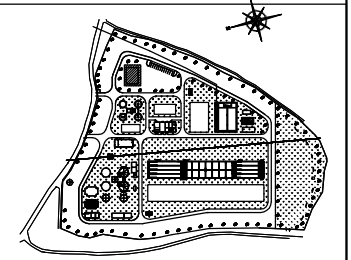
BIO-FILTER (01) - PLAN LAYOUT OF STONE COLUMN 1:100



SECTION @A-A(BIO-FILTER) 1:100

NOTE:
 (1) ADDITIONAL 0.7M LENGTH STONE COLUMN ABOVE THE FOUNDATION LEVEL WILL BE PROVIDED CONSERVATIVELY. IT WILL BE REMOVED DURING STRUCTURE FOUNDATION CONSTRUCTION.

- NOTES:**
- All dimensions are in mm.
 - TYP: Typical.
 - F.G.L.: Floor Ground Level



DRAWING SUBMISSION STATUS :

△					
△					
△	09/05/2018	FOR APPROVAL	UKESH	YANG WENFA	LIU SHUN
REV	DATE	DESCRIPTION	DRWN	CHKD	APPD

REVISION HISTORY					
CLIENT	PROJECT IMPLEMENTATION DIRECTORATE, KATHMANDU UPATIYAJA KAMAPANI LIMITED, ANAMAGAR, KATHMANDU, NEPAL				
CONSULTANT	DOHWA ENGINEERING COMPANY LTD				
CONTRACTOR	SafBon SAFBON WATER SERVICE (HOLDING) INC., SHANGHAI				
PROJECT TITLE Construction of Wastewater Treatment Plants at Sallaghar, Kodku and Dhobighat					
DRAWING TITLE 01 & P4 STRUCTURES - LAYOUT OF STONE COLUMN					
CONTRACT NO.	FUNCTION	NAME	SIGN	DATE	
KUKL/WW/TP/02	DRWN	UKESH			
DRAWING NO.	CHKD	YANG WENFA			
SB01-002-250-010	APPD	LIU SHUN			
SHEET NO.	SCALE	1:100	REV	0	

STRUCTURE ID	STRUCTURE NAME	STONE COLUMN		
		DIAMETER (M)	DEPTH (M)	QUANTITY (NOS)
P4	DIESEL TANK SUMP	0.6	5	8
01	BIO-FILTER	0.6	5	18