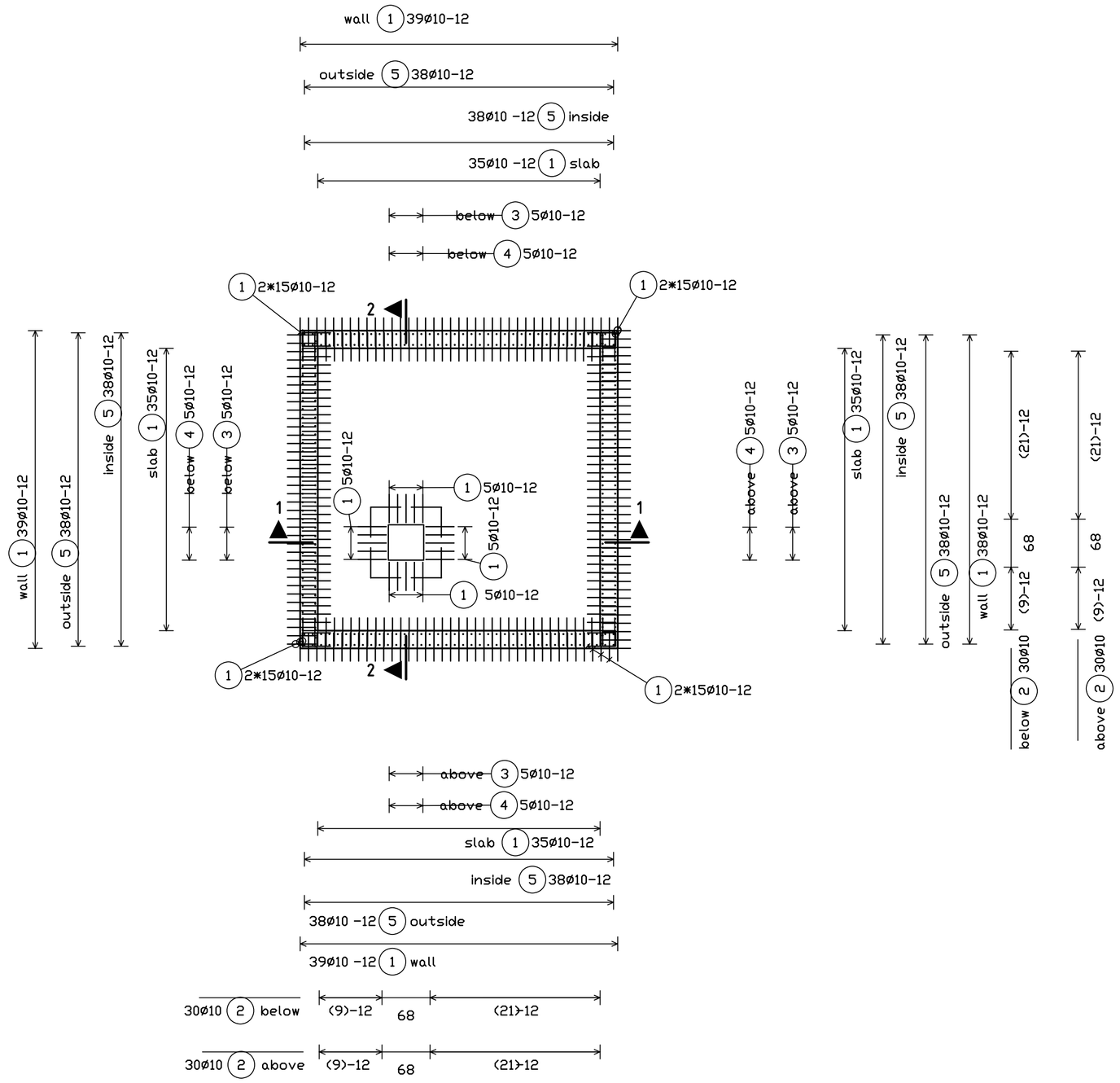
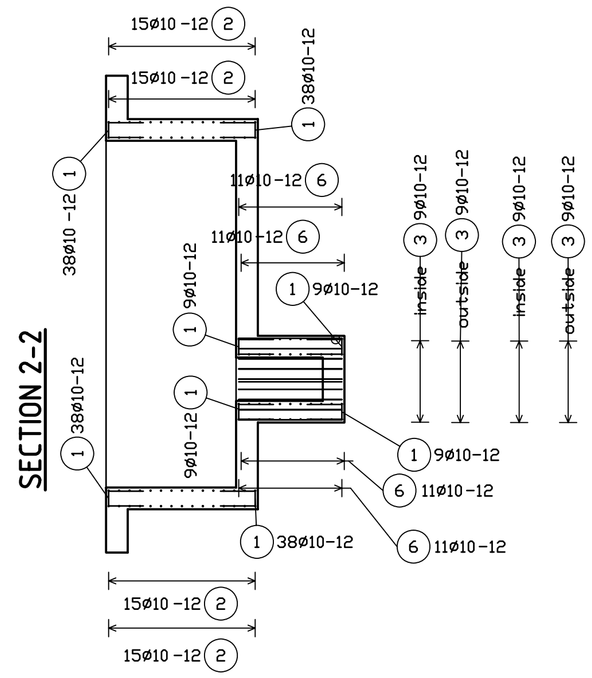
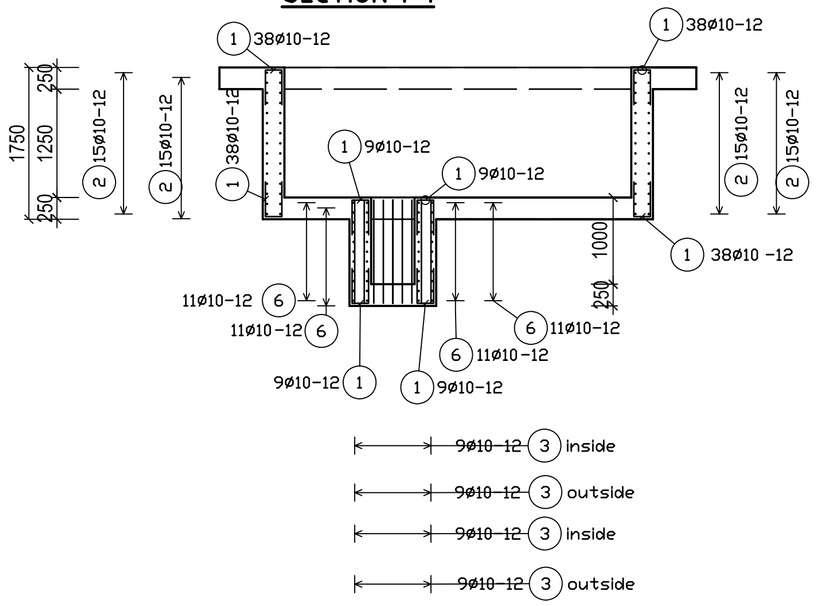
SHAFT

PLAN VIEW

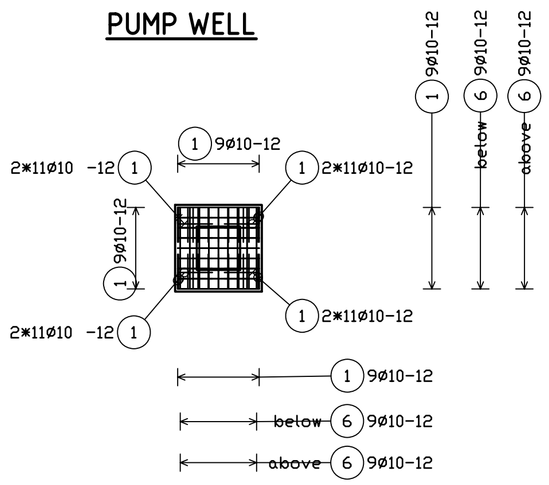




SECTION 1-1



PUMP WELL



NOTE:

- ANY CHANGES OF THE BENDING FORM NEED THE APPROVAL OF THE ENGINEER OR STRUCTURAL ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FAR ENOUGH IN ADVANCE (48 HOURS) OF EACH CONCRETE POUR TO ALLOW AMPLE TIME TO CHECK THE LAYOUT OF THE STEEL BEFORE THE BEGINNING OF THE ACTUAL POUR, BUT NOT PRIOR TO 90% OF THE STEEL HAVING BEEN PLACED.
- CONTRACTOR SHALL PROVIDE NECESSARY CONSTRUCTION JOINTS IN MONOLITHIC CONCRETE POURS SO THAT THE QUALITY OF PLACEMENT AND FINISH MEETS THE REQUIREMENTS OF PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT A PLAN SHOWING THE LOCATION OF ALL CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER FOR APPROVAL.
- THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS. ALL VERTICAL CONSTRUCTION JOINTS IN SLABS AND BEAMS SHALL BE MADE WITH BULKHEADS. ADDITIONAL REINFORCING AT CONSTRUCTION JOINTS SHALL BE AS SPECIFIED BY THE STRUCTURAL ENGINEER. SEE TYPICAL CONSTRUCTION JOINT DETAILS.
- FIX REINFORCEMENT AS SHOWN IN DRAWING
- MAINTAIN COVER TO ALL PIPES; CONDUITS; REGLETS; DRIP GROOVES ETC.
- ANY BAR LAYED ACROSS THE OPENNING HAS TO BE CUT

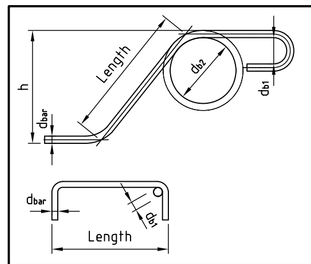
REFERENCE DRAWINGS

DRW- No.:	DESCRIPTION:

B E N D I N G S C H E D U L E Steelgrade: Grade 60

Pos.	No.	d	Length	dbr ds	Type	shape code	Tot.L	Weight kg
1	935	10	0.99		A3	40 / 19 / 40	925.65	571.126
2	240	10	4.44		A1	4.44	1065.60	657.475
3	92	10	1.19		A1	1.19	109.48	67.549
4	20	10	2.69		A1	2.69	53.80	33.195
5	304	10	1.69		A1	1.69	513.76	316.990
6	124	10	0.94		A1	94	116.56	71.918

Total weight (kg) 1718.252



BAR DIAMETER dbar (mm)	MINIMUM BENDING DIAMETER HOOKS, STIRRUPS db1	MINIMUM BENDING DIAMETER INCLINED BARS db2
<20	4 dbar	15 dbar
20 to 28	7 dbar	20 dbar

THIS DRAWING BELONGS TO:

FORMWORK DWG No. :						
STRUCTURAL ANALYSIS :						
BAR POSITION :	(1) - (6)					
STEEL GRADE :	ASTM A 615/615M-04 Grade 60					
ELEMENT :	CONCRETE	CONCRETE COVER (cm)				
		top	bottom	lateral	inside	outside
SHAFT	C30/37	3.0	3.0	3.0	3.0	3.0

No.	REVISION				DESCRIPTION
e					
d					
c					
b					
a					
	NAME	DATE	NAME	DATE	
	PREPARED, CHANGED		CHECKED		

STRUCTURAL DESIGN

ATTA

ATTA – Structural Engineering & Consulting Co., Ltd.

DRAWING KIND: Rebar Drawing

CONSTRUCTION STAGE:

PLANNING STAGE:

DESIGNATION: SHAFT

PROJECT: WATER TANK

PROJECT No.	ORIG. SIZE	ORIG. SCALE	DRAWING No.	REV.
XXX	A2	1:50	XXX	