GENERAL NOTES

1. IN CASE OF CONFLICTING INFORMATION IN TECHNICAL DOCUMENTS THE ORDER OF PRIORITY SHALL BE:
-PRIORITY 1: DESIGN DRAWINGS
-PRIORITY 2: THESE GENERAL NOTES
-PRIORITY 3: TECHNICAL SPECIFICATIONS
-PRIORITY 4: STANDARD DRAWINGS

2. ALL DIMENSIONS & SIZES SHALL BE IN MILLIMETERS & ALL COORDINATES & ELEVATIONS SHALL BE IN METERS.

3. ALL REINFORCED CONCRETE WORK SHALL COMPLY WITH
3. ALL REINFORCED CONCRETE WORK SHALL COMPLY WITH

4. ALLOWABLE BEARING PRESSURES FOR FOUNDATION DESIGN ARE PER SOIL CONSULTANT'S RECOMMENDATION , NORMALLY BASED UPON SOIL CONDITIONS ENCOUNTERED IN BORINGS AS DESCRIBED IN SOIL REPORTS. SHOULD OTHER SOIL CONDITIONS BE ENCOUNTERED DURING CONSTRUCTION , CORRECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR WITH THE APPROVAL OF THE OWNER REPRESENTATIVE .

5. ALL FOUNDATIONS SHALL BE PLACED ON NATURAL SOIL THUS ALL BACKFILLS AND EARTHFILLS SHALL BE EXCAVATED AND REFILLED WITH LEAN CONCRETE TO THE BOTTOM LEVEL OF FOUNDATIONS.

6. SINCE SOME OF DRAWINGS MAY NOT BE TO SCALE , ONLY READ THE JOB SPECIFIED DIMENSIONS FROM THE DRAWINGS. MISSED DIMENSIONS SHOULD BE ASKED FROM THE CONTRACTOR.

7. REINFORCEMENT MAY BE ADJUSTED LOCALLY TO SUIT RECESS FOR ANCHOR BOLTS , HOLES AND OTHER EMBEDDED MATERIALS.

8. LAP SPLICES OF SLAB BARS SHALL BE STAGGERED OVER SPAN LENGTH.

9. DEVELOPMENT LENGTH(Ld) FOR UNCOATED DEFORMED BARS SHALL CONFORM TO ACI 318, SEC.12.2 & SEC.21.5.4 FOR JOINTS IN SPECIAL MOMENT FRAMES.

9.1. DEVELOPMENT LENGTH IN TENSION (mm)

1) CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 2db, CLEAR COVER NOT LESS THAN db

(FY=400 N/mm^2)

f'c (N/MM^2)	DIA (db) LOCATION	ø10	ø12	ø14	ø16	ø20	ø22	ø25	ø28	ø32
25.0	TOP BAR	500	600	700	800	1250	1350	1550	1700	1950
	OTHERS	400	450	550	600	950	1050	1200	1350	1500
30.0	TOP BAR	450	550	650	750	1150	1250	1400	1550	1800
	OTHERS	350	450	500	550	850	950	1100	1200	1400
35.0	TOP BAR	450	500	600	700	1050	1150	1300	1450	1650
	OTHERS	350	400	450	550	800	900	1000	1100	1300

2) EXCEPT ABOVE 1)Ld SHALL BE INCREASED TO 1.5 TIMES.

3) TOP BAR DEVELOPMENT LENGTH SHALL BE USED WHERE HORIZONTAL REINFORCEMENT IS PLACED SUCH THAT MORE THAN 300 mm OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH.

9.2. DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION(mm)
FOR 90 DEGREE HOOKS WITH COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 50mm AND ENCLOSED WITHIN TIES OR STIRRUPS PARALLEL TO BARS BEING DEVELOPED, SPACED NOT GREATER THAN 3db ALONG THE LENGTH OF THE TALL EXTENSION OF THE HOOK PLUS BEND FOR JOINTS OF SPECIAL MOMENT FRAMES.

(FY=400 N/mm^2)

RE-BAR f'c (N/MM^2)	ø10	ø12	ø14	ø16	ø20	ø22	ø25	ø28	ø32
25	150	200	250	250	300	350	400	450	500
30	150	200	200	250	300	300	350	400	450
35	150	150	200	200	250	300	300	350	400

10. SPLICES OF DEFORMED BARS AND DEFORMED WIRE IN TENSION

10.1. MINIMUM LENGTH OF LAP FOR TENSION LAP SPLICES SHALL BE AS REQUIRED FOR CLASS A OR B SPLICE, BUT NOT LESS THAN 300mm WHERE:
CLASS A SPLICE ---- 1.0Ld.
CLASS B SPLICE ---- 1.3Ld.
WHERE Ld IS THE TENSILE DEVELOPMENT LENGTH.
LAP SPLICE CLASS A AND B ARE DEFINED AS FOLLOW:

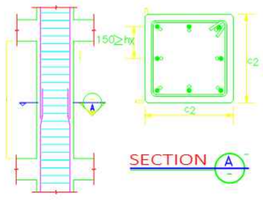
CLASS A	CLASS B
(AS PROVIDED) ≧ 2(AS REQUIRED) AND PERCENT AS SPLICE ≦ 50%	ALL OTHER CONDITIONS

*SPLICES SHALL BE STAGGERED AT LEAST 600mm.

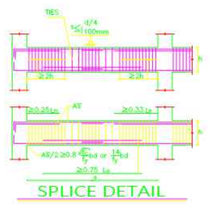
10.2. SPLICES OF DEFORMED BARS IN TENSION FOR CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 2db, CLEAR COVER NOT LESS THAN db AND CLASS B SPLICES:

(FY=400 N/mm^2)

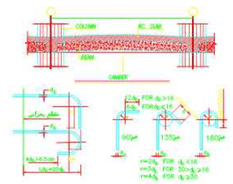
f'c (N/MM^2)	DIA (db) LOCATION	ø10	ø12	ø14	ø16	ø20	ø22	ø25	ø28	ø32
25.0	TOP BAR	650	800	900	1050	1600	1750	2000	2250	2550
	OTHERS	500	600	700	800	1250	1350	1550	1700	1950
30.0	TOP BAR	600	700	850	950	1450	1600	1850	2050	2350
	OTHERS	450	550	650	750	1150	1250	1400	1550	1800
35.0	TOP BAR	550	650	750	900	1350	1500	1700	1900	2150
	OTHERS	450	500	600	700	1050	1150	1300	1450	1650



TRANSVERS REBARS CRITERIA



SPLICE DETAIL



11. MINIMUM DISTANCE FROM THE CENTRE LINE OF BOLT TO EDGE OF CONCRETE PLINTH SHALL BE AS FOLLOWS, UP TO AND INCLUDING.
20 mm dia. = 125 mm
24 mm dia. = 150 mm
30 mm dia. = 160 mm
36 mm dia. = 180 mm
42 mm dia. = 210 mm
48 mm dia. = 240 mm
56 mm dia. = 280 mm
64 mm dia. = 320 mm

12. REINFORCEMENT BARS SHALL BE HIGH TENSILE STRENGTH GRADE AIIIWITH Fy=4000 Kg/cm

13. REBAR SPLICE OF TWO ADJACENT REINFORCEMENT SHOULD NOT BE AT THE SAME LOCATION. THEREFORE TWO ADJACENT REBARS SHOULD BE LOCATED ALTERNATE EACH OTHER.

14. THE LONGITUDINAL REINFORCEMENT OF TIE BEAMS SHALL BE CONTINUOUSLY EXTENDED THROUGH THE FOUNDATIONS.

15. THE CONTRACTOR SHALL PROVIDE SUFFICIENT SUPPORT,BY MEANS OF APPROVED CHAIRS,SPACERS ETC,TO ENSURE THAT ALL REINFORCEMENT IS HELD IN THE CORRECT POSITION WHILST CONCRETING IS TAKING PLACE.CONCRETE SPACERS SHALL BE MADE FROM MATERIALS IN NO WAY INFERIOR TO THOSE SPECIFIED FOR THE CONCRETE IN WITCH THE SPACER TO BE USED.ALL CONCRETE SPACERS SHALL BE WET CURED FOR 10 DAYS AND KEPT CLEAN PRIOR TO INSTALATION IN CONCRETE STRUCTURE.PLASTIC AND METAL SPACERS ARE NOT PERMITTED.

16- THE CLEAR COVER TO OUTERMOST REINFORCEMENT SHALL BE ACCORDING TO ENVIRONMENTAL CONDITIONS FOR REINFORCED CONCRETE:

Element Type	Environmental Conditions				
	Mild	Normal	Severe	Very Severe	High Intense
Beams & Columns	35	45	50	65	75
Slabs, Walls & Joists	20	30	35	50	60
Shells & Plates	20	25	30	45	55
Fundations	40	50	60	75	90

Project environmental condition: SEVERE

17. TYPE OF CEMENT TO BE USED SHALL BE : ACCORDANCE WITH SOIL INVESTIGATION REPORT.

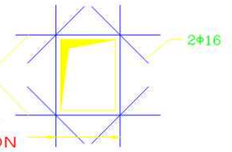
18. GRADES OF CONCRETE SHALL BE :
a. GRADE "C35" FOR ALL STRUCTURAL CONCRETE.
b. BLINDING AND LEAN CONCRETE SHALL HAVE MIN 150Kg CEMENT CONTENT. FOR MORE DETAILS OF CONCRETE GRADE PLEASE SEE SPECIFICATION FOR REINFORCED CONCRETE:

19. EXCAVATION SHALL NOT BE STARTED UNLESS THE FOUNDATION CONSTRUCTION & BACKFILLING CAN BE CARREID OUT IN A SHORT TIME AFTER EXCAVATION. EXCAVATED BASE SHALL BE CAREFULLY PROTECTED AGAINST ENTERING WATER.

20. UNDERGROUND CONCRETE SHALL BE COATED WITH BITUMINOUS PROTECTION ACCORDING TO CONSTRUCTION SPECIFICATION FOR REINFORCED CONCRETE:

21. MAXIMUM CONCRETE WATER PER CEMENT RATIO MUST (W/C) BE LIMITED TO 0.4

TOTAL CROSS AREA OF REBAR SECTIONS SHOULD BE EQUAL TO DISCONNECTED REBARS IN THIS DIRECTION



TOTAL CROSS AREA OF REBAR SECTIONS SHOULD BE EQUAL TO DISCONNECTED REBARS IN THIS DIRECTION

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN

REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

- ☐ AP: "Approved": No comment and the document is released for construction/manufacturing
- ☐ APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
- ☐ CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
- ☐ RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

K.S.C Date: Signature:

REVISION TABLE

REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

S.I.I.C

PROJECT TITLE:
COLD BRIQUETTE SPONGE IRON PROJECT

K.S.C

DOCUMENT DESCRIPTION:
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

DOCUMENT NO.	41S2CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO.
		03	SIZE	SCALE	NO/9

GENERAL NOTES - STEEL CONSTRUCTION

IN CASE OF CONFLICTING INFORMATION IN TECHNICAL DOCUMENT THE ORDER OF PRIORITY SHALL BE AS FOLLOWS:

- PRIORITY 1: DESIGN DRAWING
- PRIORITY 2: STANDARD DRAWINGS
- PRIORITY 3: THESE GENERAL NOTES
- PRIORITY 4: TECHNICAL SPECIFICATIONS

1. GENERAL

1 - FABRICATOR / CONSTRUCTION CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF THE PROJECT SPECIFICATION AND STANDARDS.

2 - FABRICATOR / CONSTRUCTION CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, QUANTITIES, DETAILS, FEASIBILITY, ... IN CONJUNCTION WITH OTHER STEEL AND CONCRETE STRUCTURE FORMWORK DRAWINGS, BEFORE FABRICATION/ CONSTRUCTION.

3 - ALL DETAILS SHOWN IN THIS DRAWING SHALL BE FOLLOWED WHERE APPLICABLE.

4 - ALL DIMENSIONS ON THE DRAWINGS ARE IN MILLIMETERS EXCEPT COORDINATES AND ELEVATIONS WHICH ARE IN METERS, UNLESS NOTED OTHERWISE.

2. MATERIALS

UNLESS OTHERWISE NOTED ON DESIGN DRAWINGS THE FOLLOWING MATERIALS SHALL BE USED FOR STRUCTURAL STEEL.

1 - STEEL HOT ROLLED PROFILES AND PLATES:
ASTM A36 / ST37-2(DIN17100) OR APPROVED EQUIVALENT

2 - HIGH STRENGTH HEXAGONAL BOLTS:
ASTM A325M / GRADE 8.8(EN14399) OR APPROVED EQUIVALENT

3 - HIGH STRENGTH HEXAGONAL BOLTS:
ASTM A490M / GRADE 10.9 OR APPROVED EQUIVALENT

4 - HEXAGONAL NUTS:
ASTM A563 / (EN14399)

5 - CIRCULAR WASHER:
ASTM F436 / (EN14399)

6 - WELDING ELECTRODE:
WELDING ELECTRODE ACCORDING TO AWS D1.1 STANDARD.

7 - ANCHOR BOLTS:
FOR ANCHOR BOLTS REFER TO PROJECT SPECIFICATION FOR ANCHOR BOLTS DOC NO. MKR-000-EB-ST-JSP-00009.

8 - ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED.

9 - PROJECTED PART PLUS 100mm OF EMBEDDED LENGTH OF ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED.

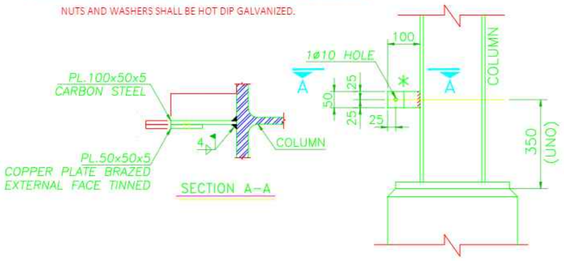


FIG. "1" -STEEL STRUCTURE EARTHING DETAILS

* FOR LOCATION ON PLAN AND MORE INFORMATION REFER TO ELECTRICAL STANDARD DRAWINGS.

3. FABRICATION

1 - IN PREPARATION OF SHOP DWGS SHALL BE CHECKED ALL PARAMETERS AND DIMENSIONS AND THE POTENTIAL OF ERECTION PROBLEMS DUE TO ASSIGNED CONNECTIONS.

2 - FABRICATOR SHALL PROVIDE DRAIN HOLES IN ALL HORIZONTAL MEMBERS POSITIONED WHERE MOISTURE MAY COLLECT.

3 - ERECTION DRAWINGS PREPARED BY THE FABRICATOR SHALL CONTAIN ALL FIELD BOLTS AND FIELD WELD DETAILS SHOWN ON ENGINEERING DRAWINGS IN ADDITION TO ERECTION SEQUENCES AND REQUIREMENTS.

4. ERECTION

1 - TEMPORARY SUPPORTS / BRACING SHALL BE PROVIDED AS REQUIRED TO STABILIZE THE STRUCTURE DURING ERECTION.

2 - DIRECTION OF BOLT PLACEMENT IN HOLES SHOULD BE SELECTED ACCORDING TO INSTALLATION FEASIBILITY AND GEOMETRY OF CONNECTION COMPONENTS.

3 - THE BOLTS DEFINED AS SNUG TIGHTENED TYPE(SNT) SHOULD BE FASTENED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A WORKER WITH AN ORDINARY SPUD WRENCH. NO SPECIAL FAYING SURFACES CONDITIONS ARE REQUIRED.

4 - FOR SLIDING CONNECTION, FABRICATOR SHALL PROVIDE TWO NUTS PER BOLT.

GENERAL REMARKS

1- ALL DIMENSION ARE IN MILLIMETERS EXCEPT OTHERWISE NOTED.

2- THE ELEVATIONS SHOWN ON CONSTRUCTION DWGS WITH THE SYMBOL ⏚ ARE REFERRED TO THE UPPER EDGE OF BEAMS UNLESS OTHERWISE INDICATED.

3- WHERE NO SPECIAL DETAIL IS REFERRED TO FOR AN INDIVIDUAL CONNECTION IN ENGINEERING DRAWINGS, THIS STANDARD DETAILS SHALL BE FOLLOWED.

4- THE FOLLOWING DISTINCTION BETWEEN "COLUMN" AND "POST" MUST BE CONSIDERED WHEN USING THIS STANDARD:

COLUMN: MAIN VERTICAL MEMBER, WHICH CONSTITUTE GLOBAL CONFIGURATION OF THE STRUCTURE AND IS SUPPORTED ON FOUNDATION OR PEDESTAL BY BASE PLATES.

POST: ANY SECONDARY VERTICAL MEMBER WHICH IS SUPPORTED BY STEEL BEAMS OR INSERT PLATES.

FILLET WELD SIZE DETERMINATION GUIDE IN STANDARD CONNECTION DRAWINGS

5 - MAXIMUM WELD SIZE IN 'CORNER' JOINT AND 'LAP' JOINT IS 2 MILLIMETERS LESS THAN PLATE THICKNESS FOR PLATES THICKER THAN 6 MILLIMETERS (SEE FIG."2").

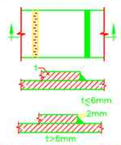


FIG."2"- FILLET WELD DETAIL

6 - MINIMUM WELD SIZE BASED ON THICKER PLATE JOINED, SHALL BE AS THE FOLLOWING TABLE: (ACCORDING TO AISC 360-16, TABLE J2.4: MINIMUM SIZE OF FILLET WELDS AND INBC-10)

THICKNESS PLATE (mm.)	MIN. WELD SIZE (mm.)
≤6	3
8,10,12	5
15	7
>15	8

7 - SINGLE GROOVE WELDS AND DOUBLE GROOVE WELDS ARE ACCORDING TO FIG."3".

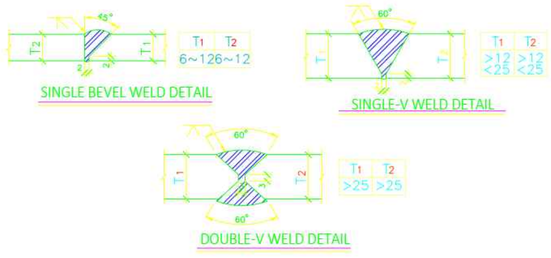
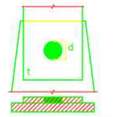


FIG. "3" -GROOVE WELD DETAILS

8 - CORNER OF WEB STIFFENERS AND OTHER PLATES IN SIMILAR POSITION SHOULD BE CHAMFERED 20mm IN ORDER TO PROVIDE SUFFICIENT SPACE FOR CONTINUOUS FILLET WELD. (SEE FIG. "4")

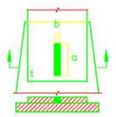
9 - CLIP CORNER OF ALL BEARING STIFFENERS, GUSSET PLATES AND INTERMEDIATE STIFFENERS SHALL HAVE WELD TERMINATION DETAIL AS SHOWN IN FIG."5".

10 - DETAILS OF PLUG WELD AND SLOT WLED ARE ACCORDING TO FIG."6" & FIG."7".



$(d_{min})=t+8mm$
$(d_{max})=\max(d_{min}+3mm\ ,\ 2.25t)$

FIG."3"- PLUG WELD DETAIL



$(a_{max})<10t$
$(b_{min})>t+3mm$
$(b_{max})=\max(b_{min}+3mm\ ,\ 2.25t)$

FIG."3"- SLOT WELD DETAIL

11 - BOLTS GEOMETRY MUST BE ACCORDING TO FIG."7". FOR A325 BOLTS IN STANDARD HOLES WASHER IS REQUIRED ONLY UNDER ROTATING PART. IN A490 BOLTS, WASHERS SHALL BE PLACED BOTH UNDER NUT AND UNDER BOLT HEAD. FOR SLOTTED HOLES WASHER SHALL BE PLACED ANYWAY.

12 - STEELWORK FOR PLATFORMS, WALKWAY, GRATING, STAIR TREADS, LADDERS, CAGES AND SAFETY GUARDS SHALL BE HOT DIP GALVANIZED ACCORDANCE WITH BS EN ISO 1461.

13 - ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.

14 - BOLTED CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS WITH THE THREAD INCLUDED IN THE PLAN OF SHEAR.

15 - JOINTS WITH OVERSIZED ROUND OR SLOTTED HOLES ARE SLIP CRITICAL UNLESS USED FOR EXPANSION OR NOTED OTHERWISE ON DESIGN DRAWINGS.

16 - ALL BOLTS EDGE DISTANCES SHALL BE 1.5 BOLTS DIAMETER MIN. UNLESS NOTED OTHERWISE.

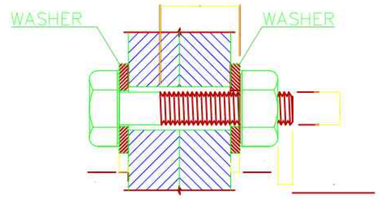


FIG."7"- DETAIL OF HS BOLT

Minimum Bolt Pretension, Pretensioned and Slip-Critical Joints		
Nominal Bolt Diameter (mm)	Specified Minimum Bolt Pretension ** Tb, KN	
	ASTM A325 (ISO 8.8)	ASTM A490 (ISO 10.9)
M16	91	114
M20	142	179
M22	176	221
M24	205	257
M27	267	334
M30	326	408
M36	475	595

** Equal to $0.55A_{F_u}$

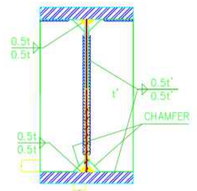


FIG."4"- TYPICAL CHAMFER DETAIL
GENERAL GIRDER

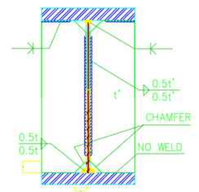


FIG."5"- CRANE TERMINATION DETAIL
CRANE GIRDER

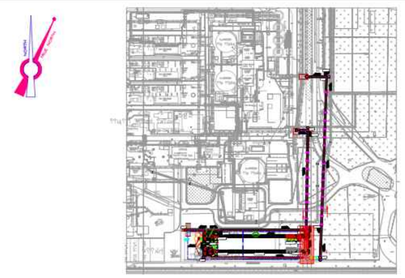
GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN



REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

- ☐ AP: "Approved": No comment and the document is released for construction/manufacturing
- ☐ APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
- ☐ CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
- ☐ RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

KSC
Date:
Signature:

REVISION TABLE

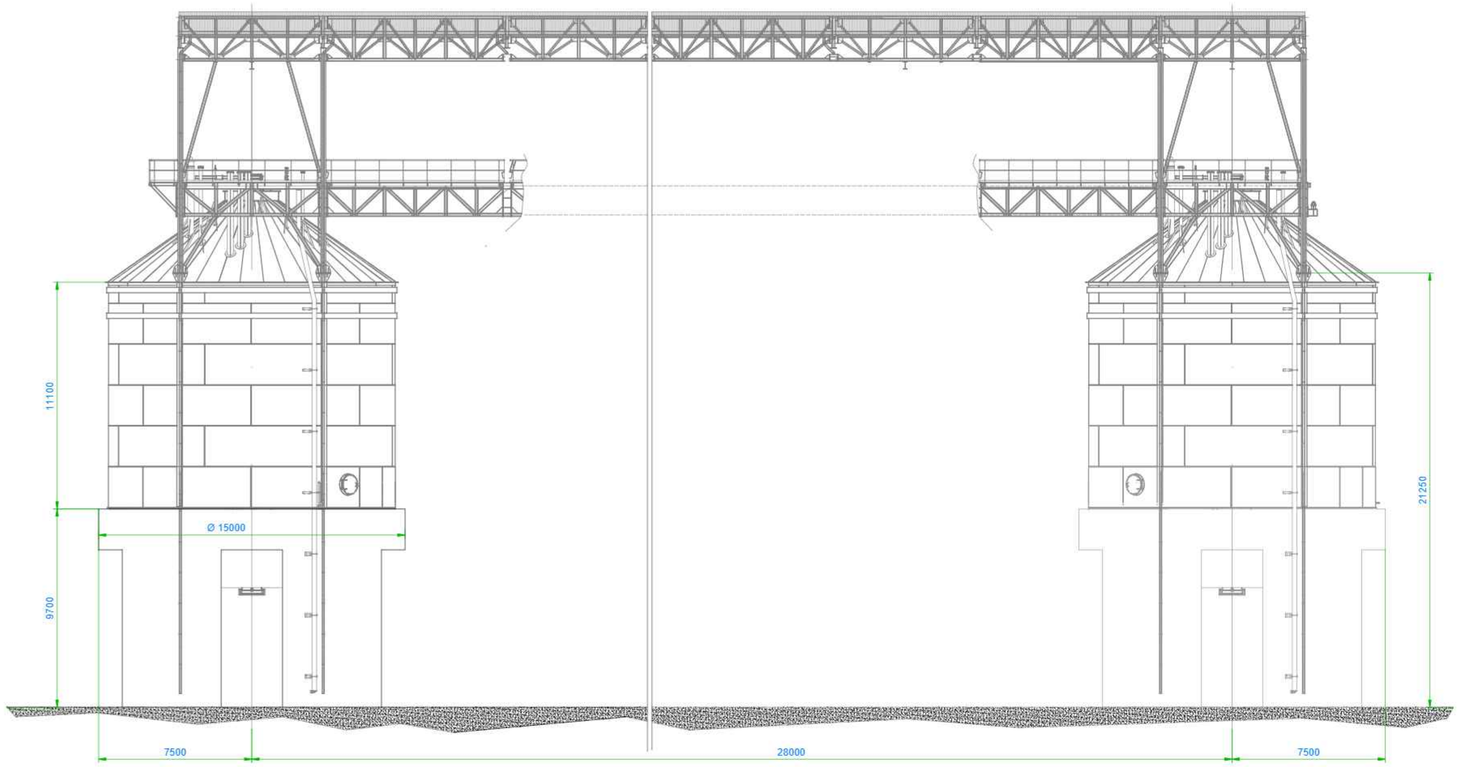
REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

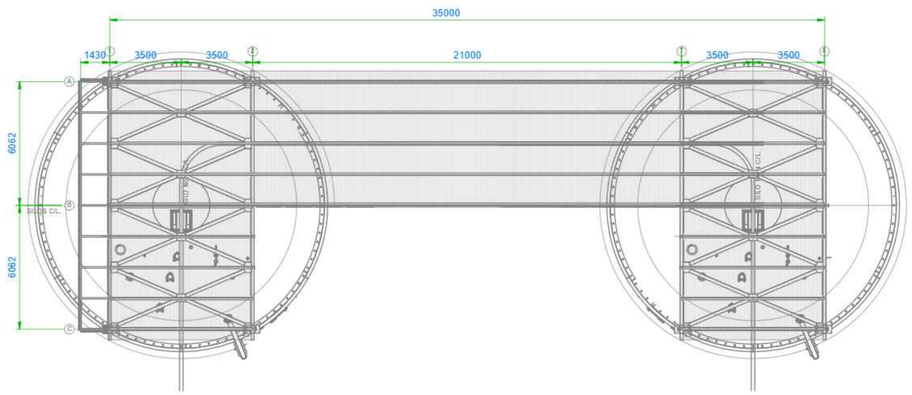
S.I.I.C

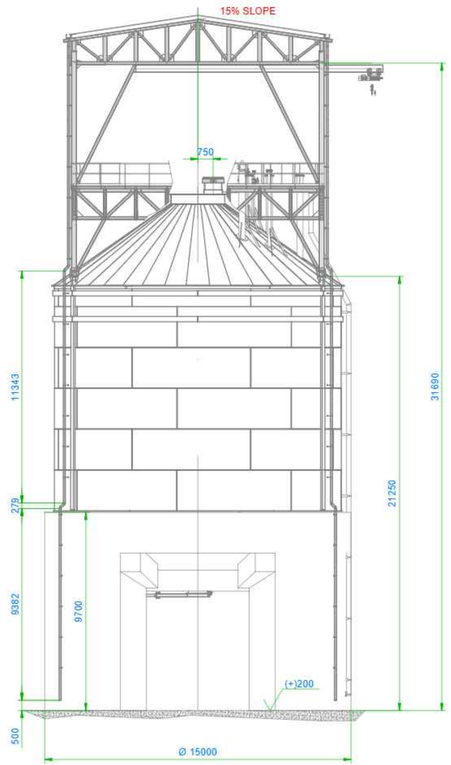
PROJECT TITLE:
COLD BRIQUETTE SPONGE IRON PROJECT

DOCUMENT DESCRIPTION:
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

DOCUMENT NO.	41S2CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO.
		03	SIZE	SCALE	NO/9







GENERAL NOTES

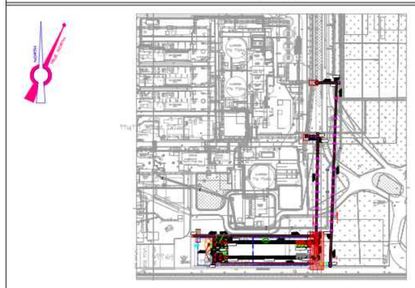
1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

Nozzle	Qty. (per silo)	Connection Standard	Description	Remarks
N.1	1	Flange DIN2576 PN10 DN100	Low level measuring nozzle	L-L Level
N.2	1	Flange DIN2576 PN10 DN50	Seal gas inlet nozzle	Seal gas
N.3	1	Flange DIN2576 PN10 DN150	Continuous level measuring nozzle	Level
N.4	1	Flange DIN2576 PN10 DN100	High level measuring nozzle	H-H Level
N.5	3	Pipe connection Ø300	Inspection nozzles	Inspection
N.6	1	Flange DIN2502 PN16 DN50	Continuous temperature measuring nozzle	Temperature
N.7	1	Flange DIN2576 PN10 DN25	Oxygen measuring nozzle	Oxygen
N.8	1	Flange DIN2633 PN16 DN50	Seal gas inlet nozzle	Seal gas
N.9	1	Pipe connection Ø273	Pressure relief valve nozzle	Pressure relief
N.10	1	Threaded connection 1/2" BSP	Pressure measuring nozzle	Pressure

ABBREVIATIONS & LEGEND

KEY PLAN



REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

☐	AP: "Approved": No comment and the document is released for construction/manufacturing
☐	APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
☐	CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
☐	RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

KSC Date:
Signature:

REVISION TABLE

REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

S.I.I.C

PROJECT TITLE:

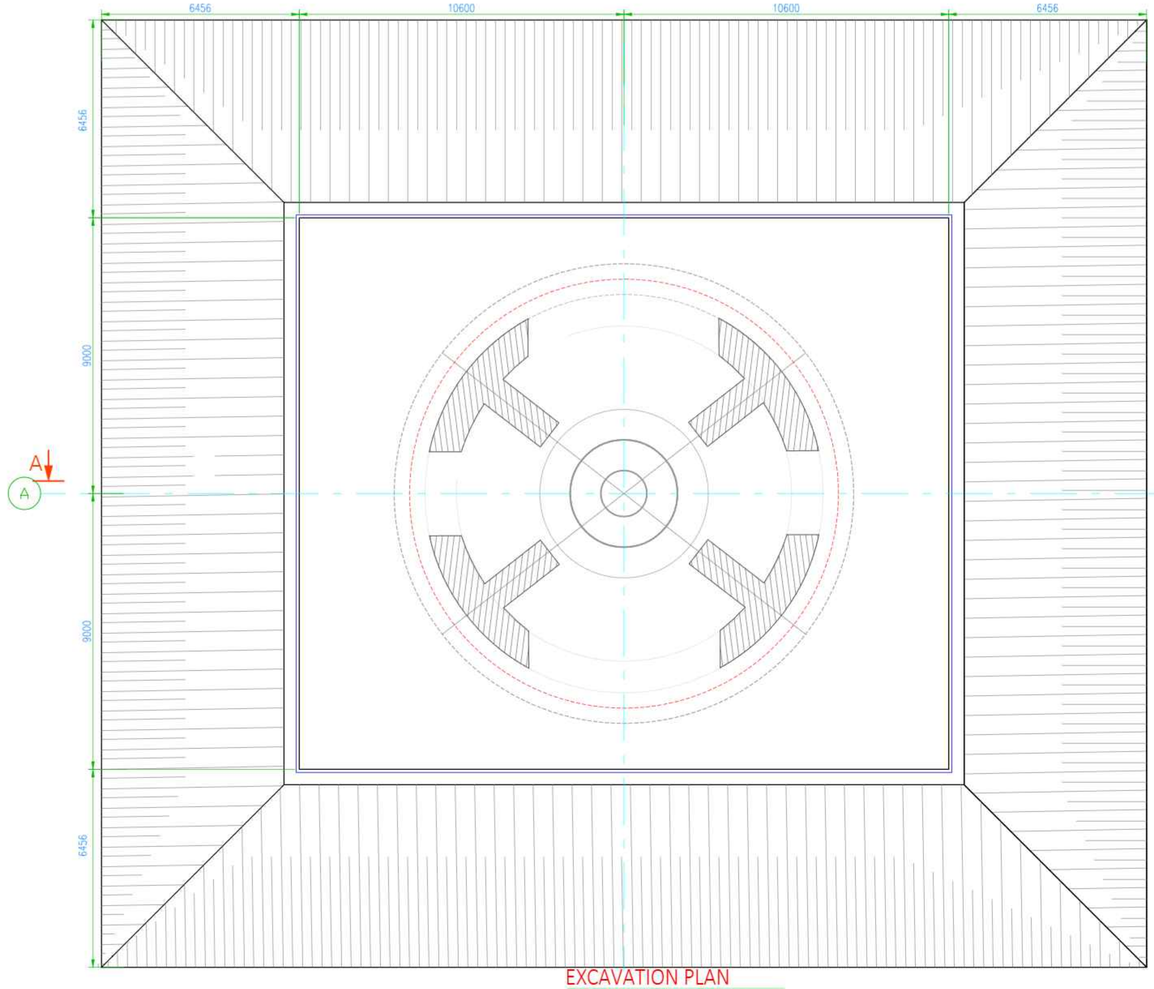
COLD BRIQUETTE SPONGE IRON PROJECT

KSC

DOCUMENT DESCRIPTION:

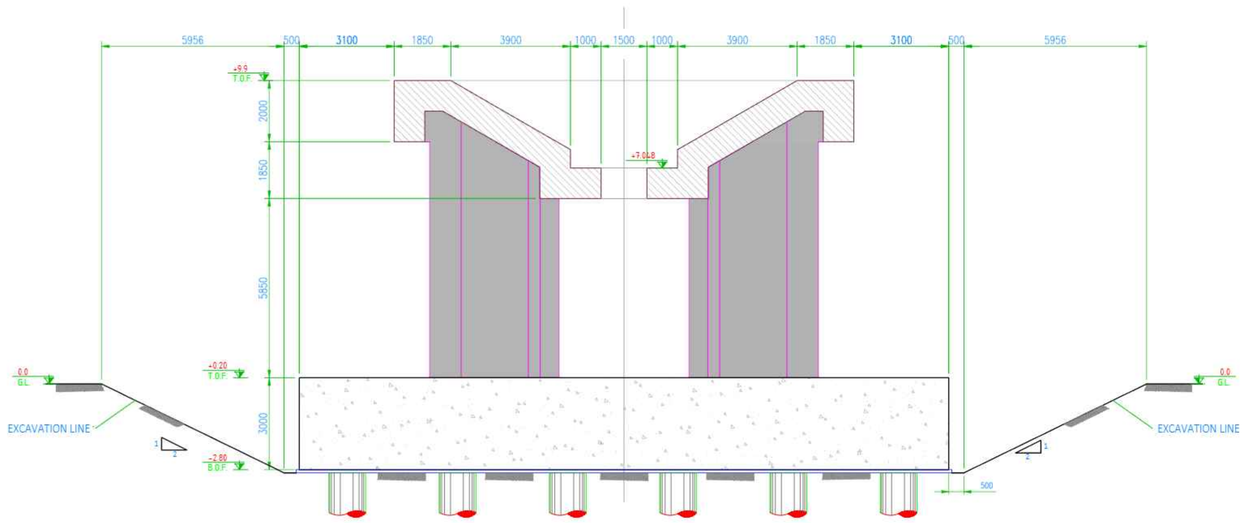
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

DOCUMENT NO.	41S2CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO
		03	SIZE	SCALE	NO/9



EXCAVATION PLAN

SCALE 1:100 FORMWORK



SECTION A-A

SCALE 1:100

03

GENERAL NOTES

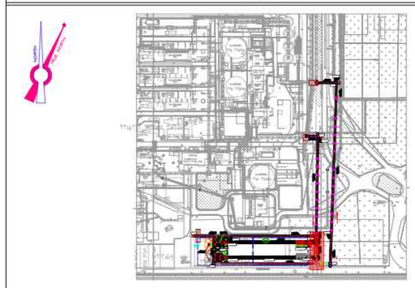
1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

Nozzle	Qty. (per silo)	Connection Standard	Description	Remarks
N.1	1	Flange DIN2576 PN10 DN100	Low level measuring nozzle	L-L Level
N.2	1	Flange DIN2576 PN10 DN50	Seal gas inlet nozzle	Seal gas
N.3	1	Flange DIN2576 PN10 DN150	Continuous level measuring nozzle	Level
N.4	1	Flange DIN2576 PN10 DN100	High level measuring nozzle	H-H Level
N.5	3	Pipe connection Ø300	Inspection nozzles	Inspection
N.6	1	Flange DIN2502 PN16 DN50	Continuous temperature measuring nozzle	Temperature
N.7	1	Flange DIN2576 PN10 DN25	Oxygen measuring nozzle	Oxygen
N.8	1	Flange DIN2633 PN16 DN50	Seal gas inlet nozzle	Seal gas
N.9	1	Pipe connection Ø273	Pressure relief valve nozzle	Pressure relief
N.10	1	Threaded connection 1/2" BSP	Pressure measuring nozzle	Pressure

ABBREVIATIONS & LEGEND

KEY PLAN



REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

- ☐ AP: "Approved": No comment and the document is released for construction/manufacturing
- ☐ APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
- ☐ CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
- ☐ RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

Date:
Signature:

REVISION TABLE

REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

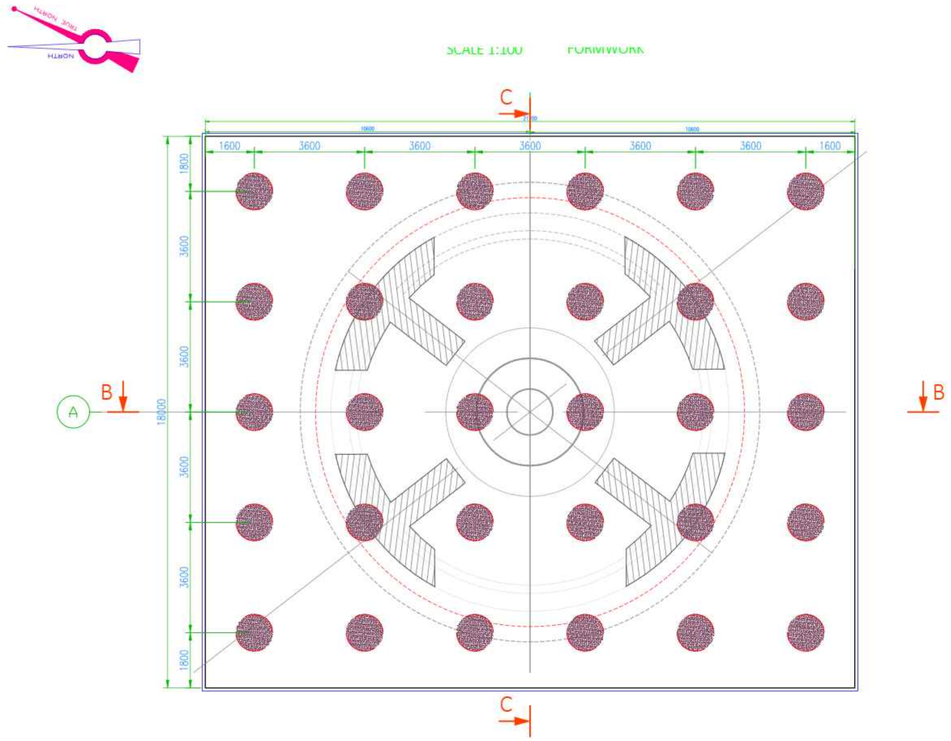
PROJECT TITLE:

COLD BRIQUETTE SPONGE IRON PROJECT

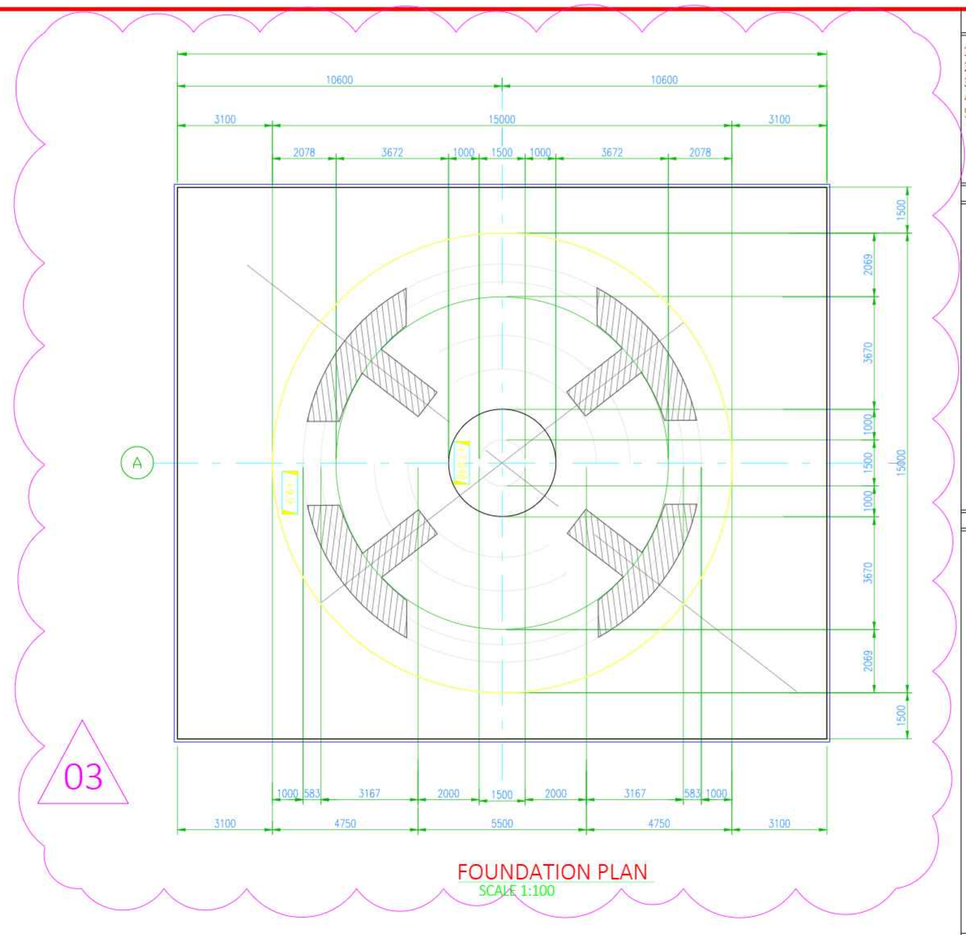
DOCUMENT DESCRIPTION:

DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

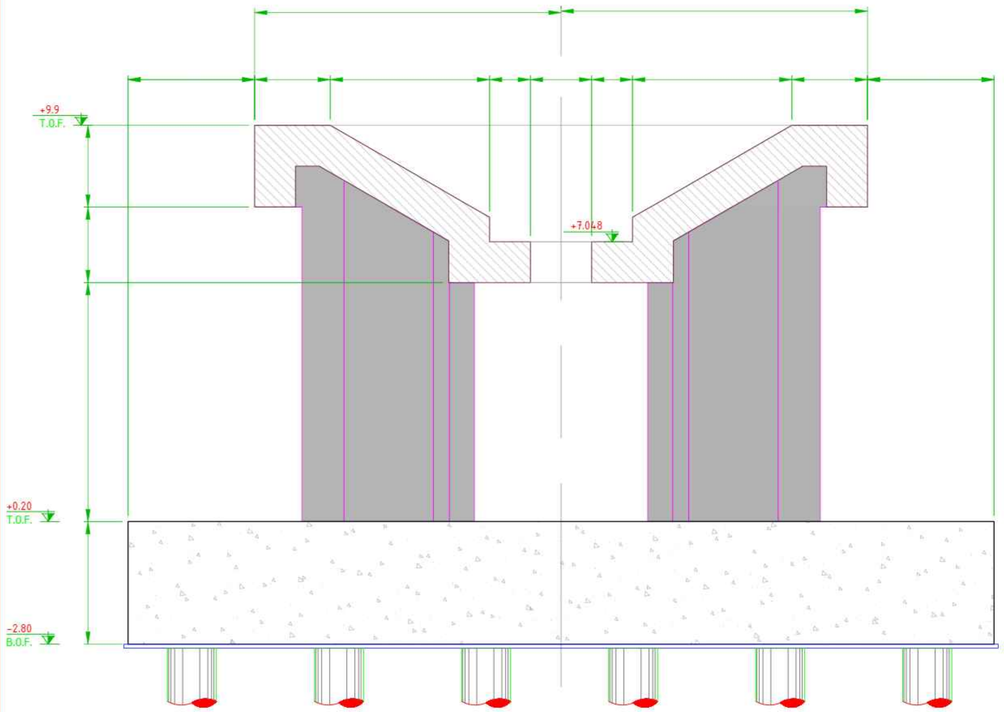
DOCUMENT NO.	4182CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO.
		03	SIZE	SCALE	NO/9



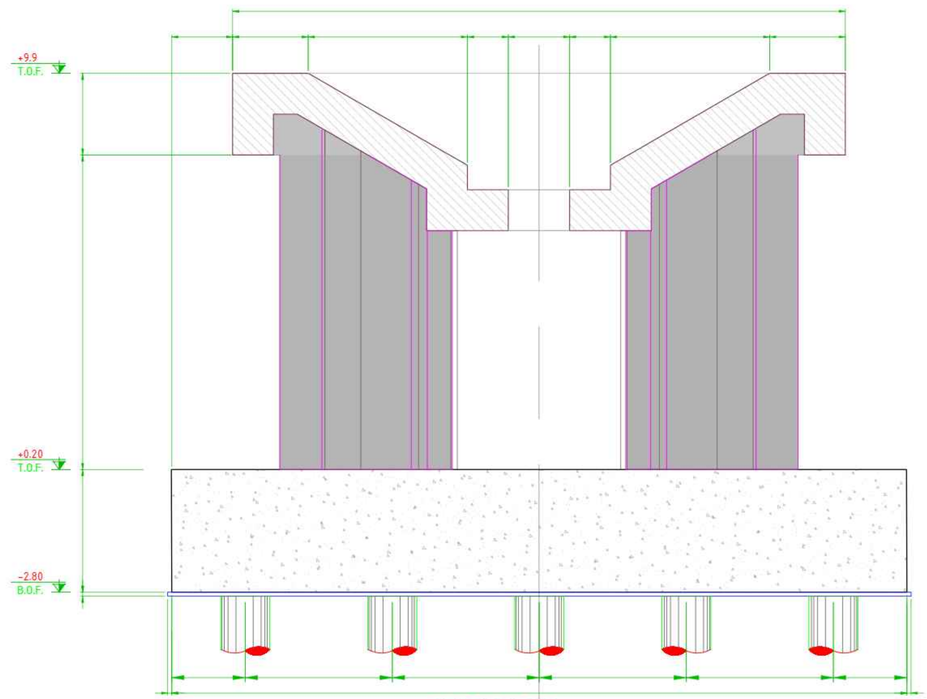
PILING LAYOUT
SCALE 1:100 FORMWORK



FOUNDATION PLAN
SCALE 1:100



SECTION B-B
SCALE 1:75 FORMWORK



SECTION C-C
SCALE 1:50 FORMWORK

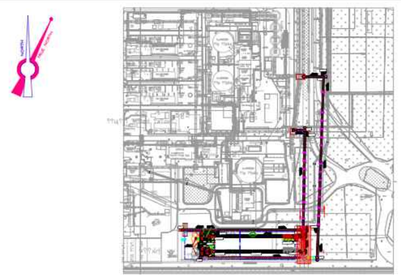
GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN



REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

- ☐ AP: "Approved": No comment and the document is released for construction/manufacturing
- ☐ APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
- ☐ CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
- ☐ RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

K.S.C Date: Signature:

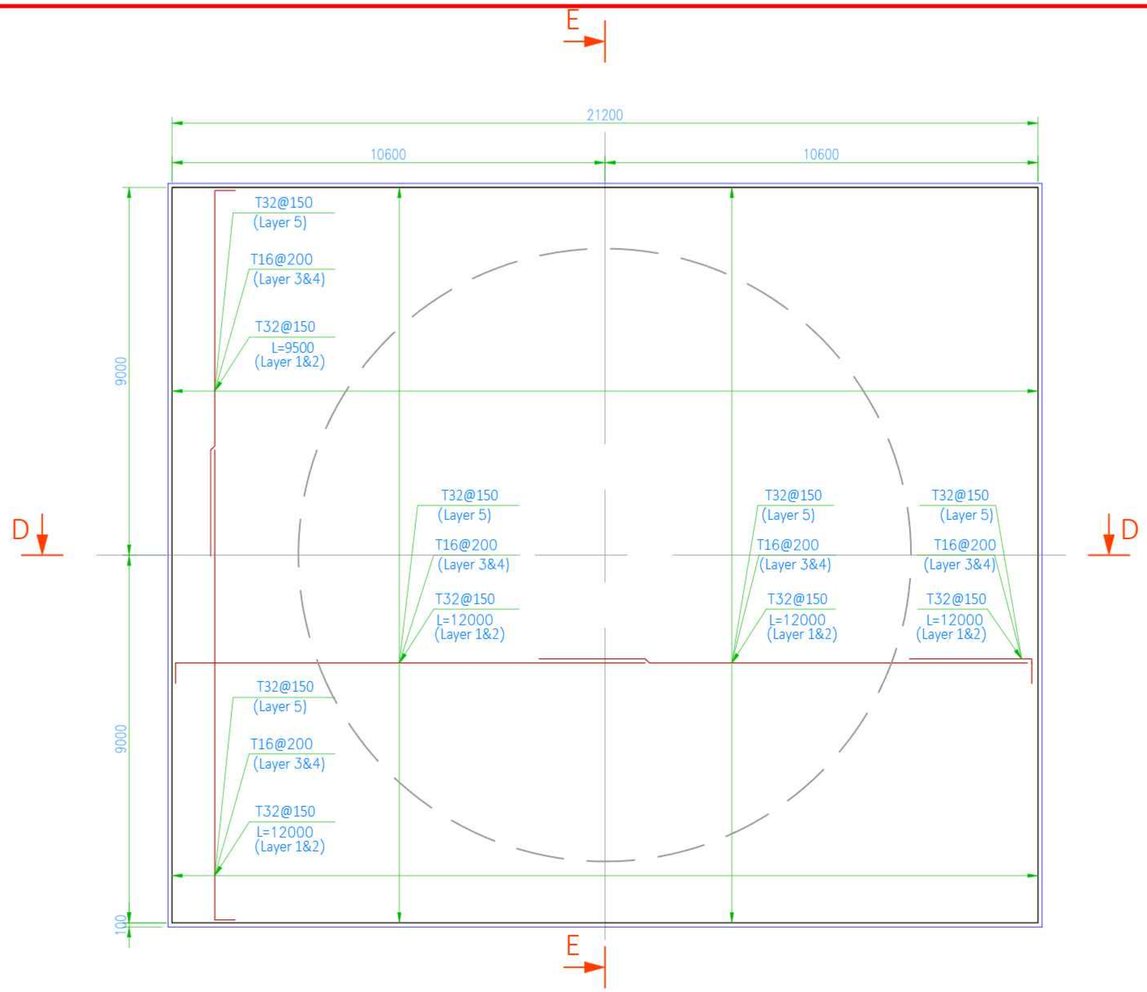
REVISION TABLE

REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

S.T.L.C PROJECT TITLE: **COLD BRIQUETTE SPONGE IRON PROJECT** K.S.C

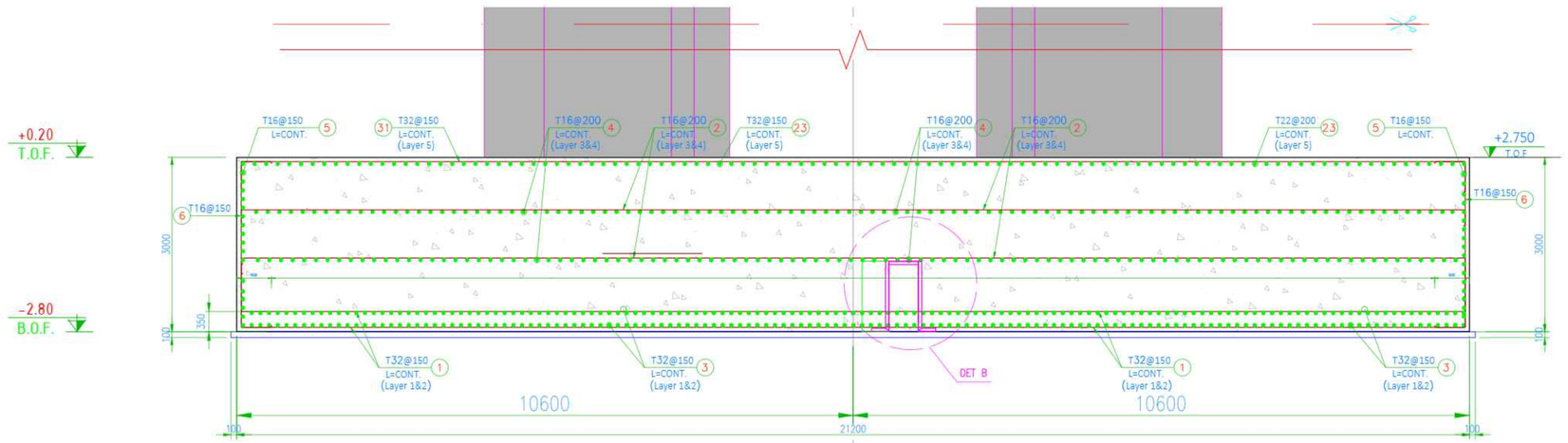
DOCUMENT DESCRIPTION: DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

DOCUMENT NO.	41S2CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO.
		03	SIZE	SCALE	NO/9



FOUNDATION PLAN

SCALE 1:75 REINFORCEMENT



SECTION D-D

SCALE 1:50 REINFORCEMENT

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN

REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

☐	AP: "Approved": No comment and the document is released for construction/manufacturing
☐	APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
☐	CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
☐	RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

K.S.C Date:
Signature:

REVISION TABLE

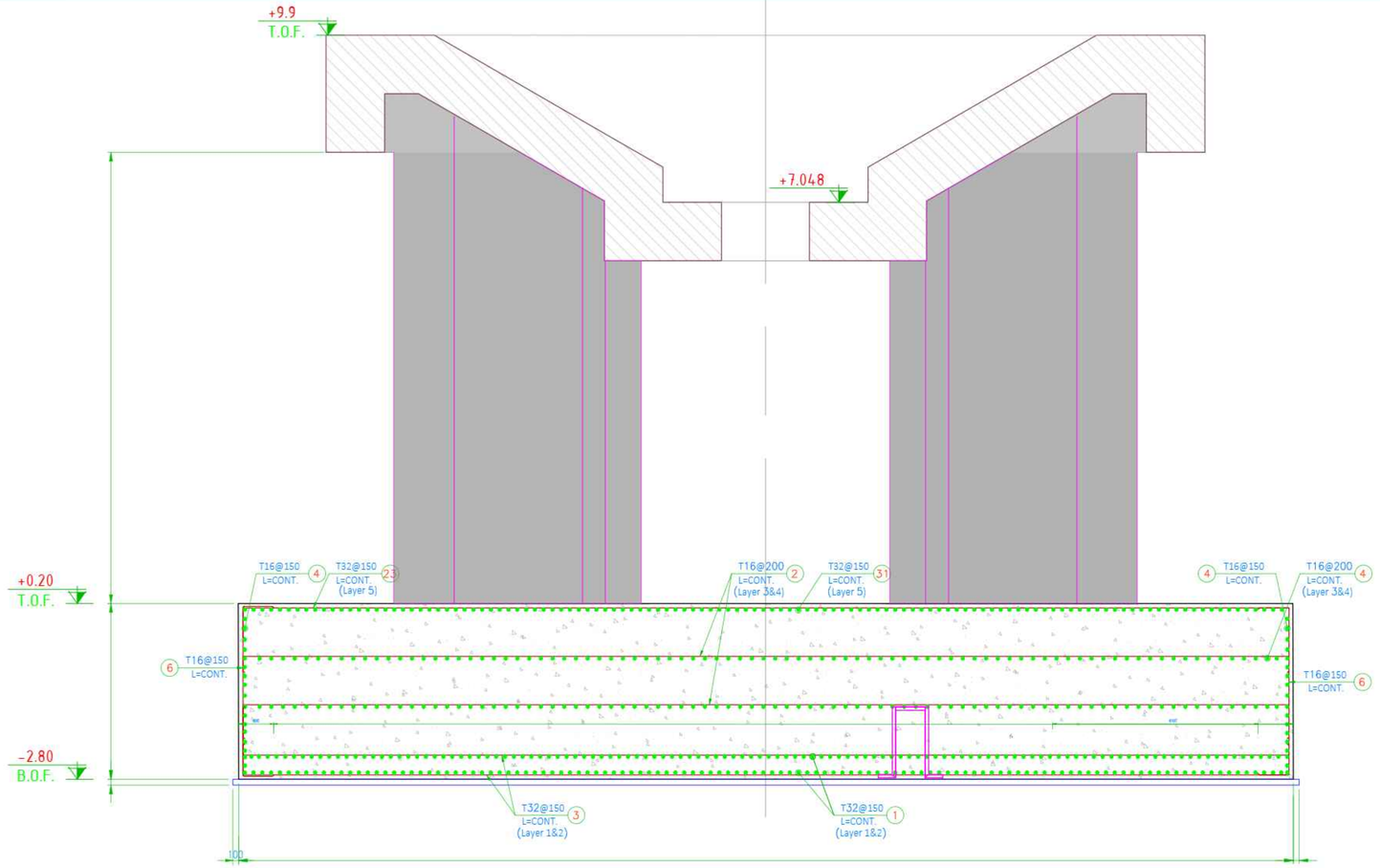
REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

S.I.I.C K.S.C

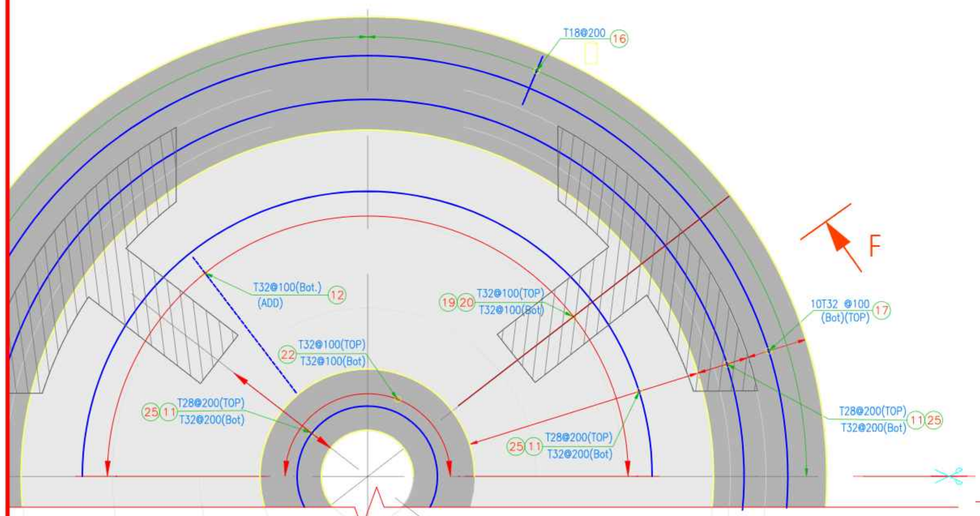
PROJECT TITLE:
COLD BRIQUETTE SPONGE IRON PROJECT

DOCUMENT DESCRIPTION:
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

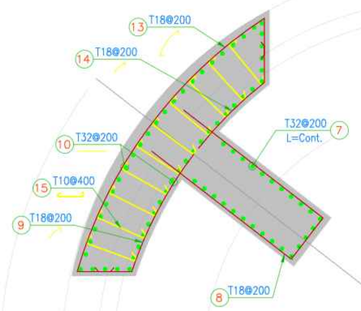
DOCUMENT NO.	REV.	SIZE	SCALE	SHEET NO.
41S2CBSI-1D-ST-DW-250-01	03	SIZE	SCALE	NO/9

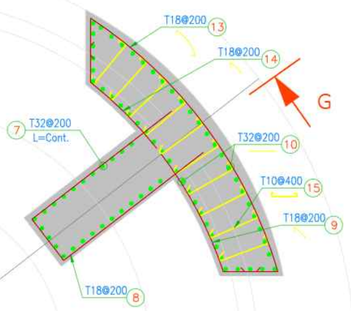


SECTION E-E
SCALE 1:50 REINFORCEMENT



CONCRETE REINFORCEMENT PLAN
SCALE 1:50 TOP&BOT.





CONCRETE REINFORCEMENT PLAN
SCALE 1:50 TOP&BOT.

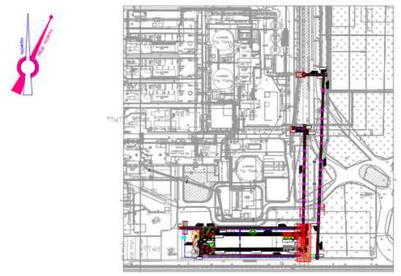
GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN



REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

☐	AP: "Approved": No comment and the document is released for construction/manufacturing
☐	APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
☐	CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
☐	RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

K.S.C Date: Signature:

REVISION TABLE

REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—

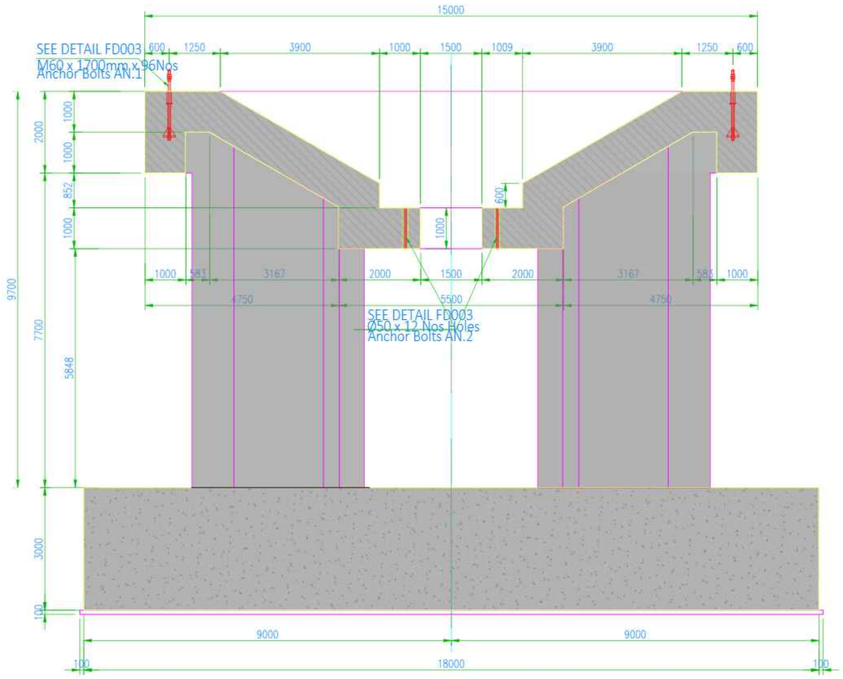
S.I.I.C

PROJECT TITLE:
COLD BRIQUETTE SPONGE IRON PROJECT

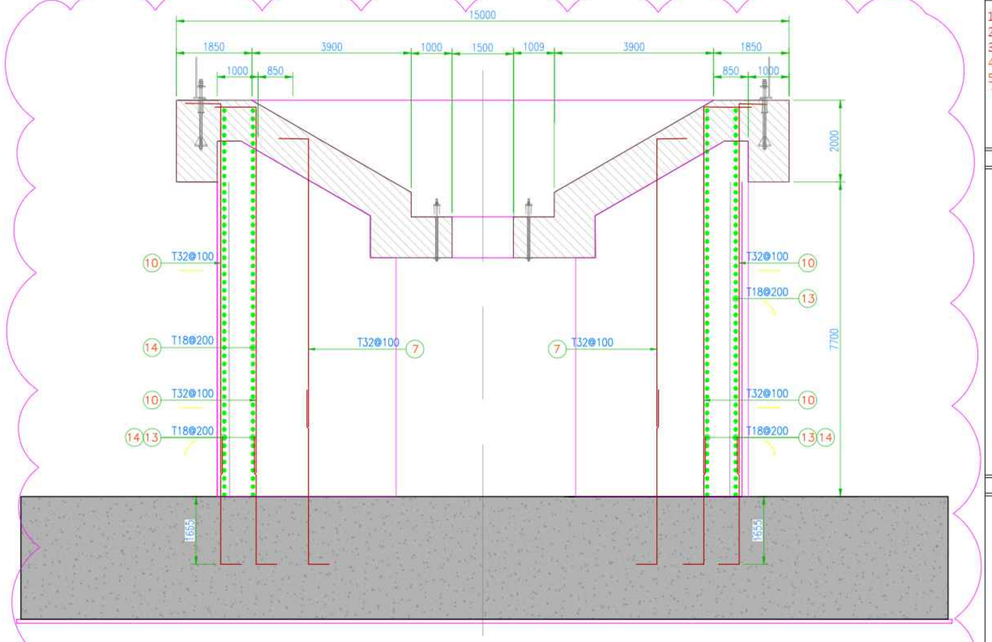
K.S.C

DOCUMENT DESCRIPTION:
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

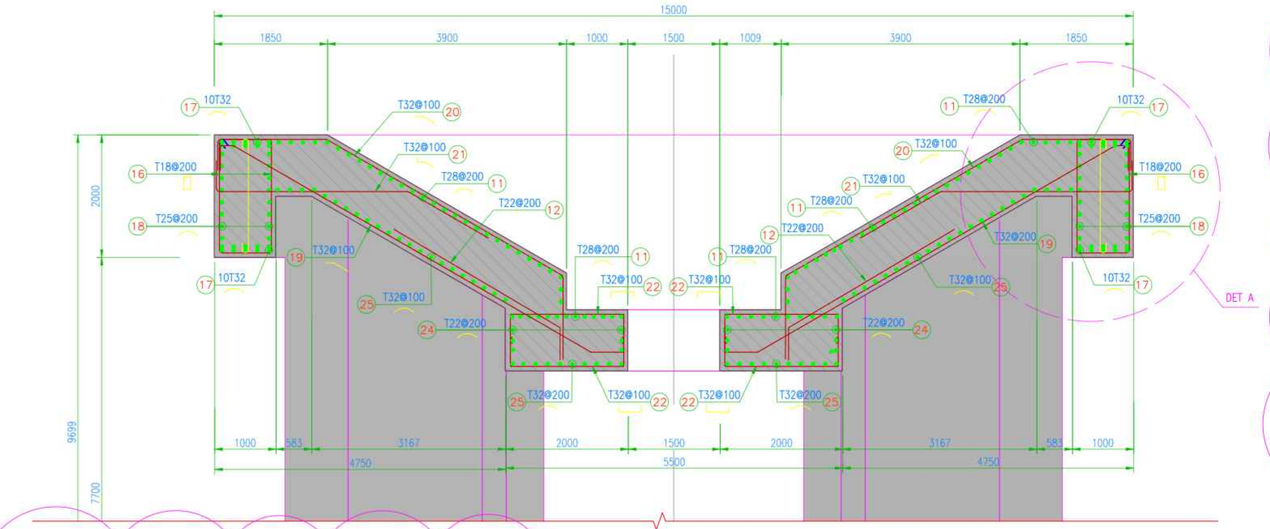
DOCUMENT NO.	41S2CBSI-ID-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO
		03	SIZE	SCALE	NO/9



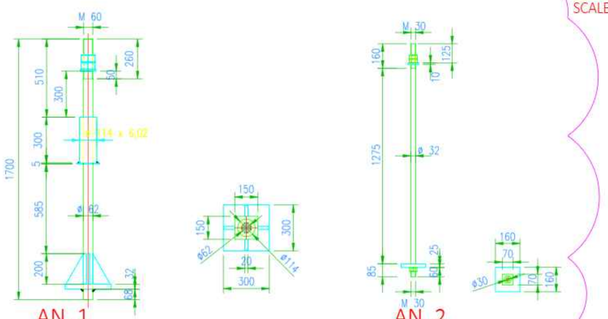
CONCRETE REINFORCEMENT PLANT (X&Y-DIRECTION)
SCALE 1:100



SECTION G-G
SCALE 1:75 CONCRETE REINFORCEMENT

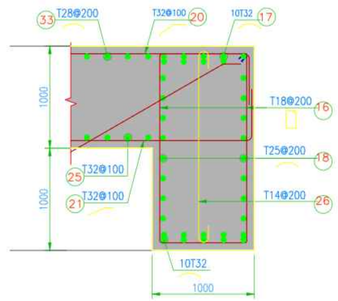


SECTION F-F
SCALE 1:50 REINFORCEMENT

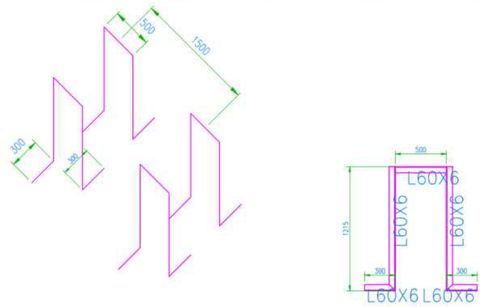


AN. 1
SCALE 1:20

AN. 2
SCALE 1:20



DETAIL A
SCALE 1:25 REINFORCEMENT



DETAIL B
SCALE 1:30

03

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN

REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

- ☐ AP: "Approved": No comment and the document is released for construction/manufacturing
- ☐ APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
- ☐ CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
- ☐ RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

K.S.C Date: Signature:

REVISION TABLE

REV.	Date					
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	—
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	—
01	26.08.2024	IFR	N.A.	R.S.	R.S.	—
00	18.07.2024	IFR	N.A.	R.S.	R.S.	—
REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client

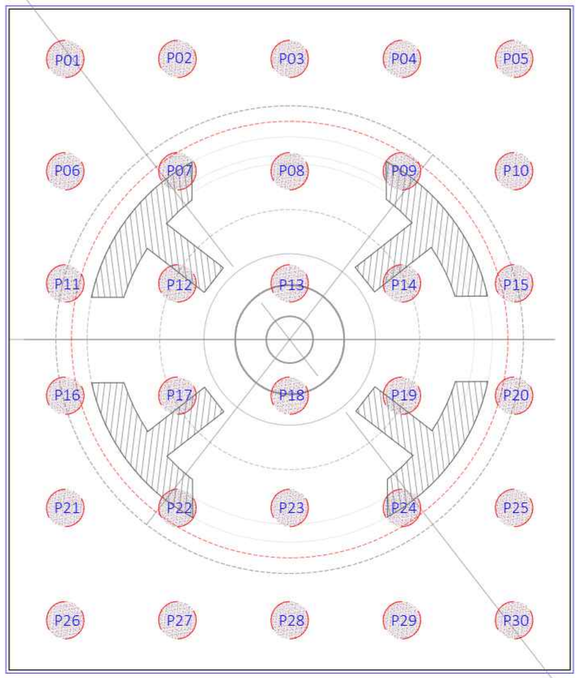
S.I.I.C

PROJECT TITLE:
COLD BRIQUETTE SPONGE IRON PROJECT

K.S.C

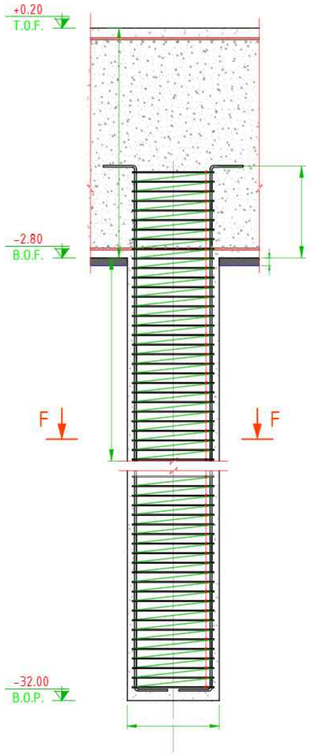
DOCUMENT DESCRIPTION:
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

DOCUMENT NO.	41S2CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO.
		03	SIZE	SCALE	NO/9

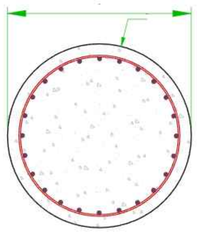


PILING COORDINATION
SCALE N.T.S.

PILE COORDINATION		
No.	X	Y
P01	1259063	5080987
P02	1262663	5080987
P03	1266263	5080987
P04	1269863	5080987
P05	1273463	5080987
P06	1259063	5077387
P07	1262663	5077387
P08	1266263	5077387
P09	1269863	5077387
P10	1273463	5077387
P11	1259063	5073787
P12	1262663	5073787
P13	1266263	5073787
P14	1269863	5073787
P15	1273463	5073787
P16	1259063	5070187
P17	1262663	5070187
P18	1266263	5070187
P19	1269863	5070187
P20	1273463	5070187
P21	1259063	5066587
P22	1262663	5066587
P23	1266263	5066587
P24	1269863	5066587
P25	1273463	5066587
P26	1259063	5062987
P27	1262663	5062987
P28	1266263	5062987
P29	1269863	5062987
P30	1273463	5062987



PILE DETAIL
SCALE 1:40



SECTION F-F
SCALE 1:20

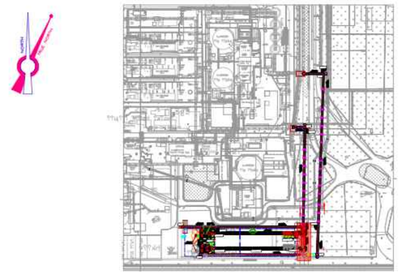
GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILIMETERS UNLESS STATED OTHERWISE.
2. ALL THE ELEVATIONS ARE RELATED TO THE ±0.00 OF THE SITE.
3. ELEVATION OF ±0.00 IS EQUAL TO +1220.00 OF THE SITE.
4- ALL STRUCTURAL CONCRETE SHALL BE OF STRENGTH C35, USING TYPE II CEMENT.
5-ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL HAVE A MINIMUM COVER OF 75mm
THE MINIMUM COVER FOR WALL AND SLAB IS 30mm AND FOR COLUMNS AND BEAMS IS 50 mm

SPECIFIC NOTES

ABBREVIATIONS & LEGEND

KEY PLAN



REFERENCE DRAWINGS

DESCRIPTION	REF. NO.

COMMENT TABLE

☐	AP: "Approved": No comment and the document is released for construction/manufacturing
☐	APN: "Approve As Note": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document. The document can be released for construction/manufacturing if changes incorporated
☐	CO: "Commented": Contractor, Vendor,Sub-Contractor shall correct / revise and resubmit the document by the date specified.
☐	RE: "Reject": Contractor, Vendor,Sub-Contractor shall rework/redesign/respecify the contents of the documents according to the comments/reasons for rejection. All corrected documents shall be resubmitted before starting the construction/manufacturing process.

Date:
Signature:

REVISION TABLE

REV.	Date	POI	Prepared	Checked	Approved by Contractor	Approved by Client
03	27.10.2024	IFR	N.A.	N.A.	E.SH.	——
02	06.10.2024	IFR	N.A.	N.A.	E.SH.	——
01	26.08.2024	IFR	N.A.	R.S.	R.S.	——
00	18.07.2024	IFR	N.A.	R.S.	R.S.	——

S.I.I.C

PROJECT TITLE:
COLD BRIQUETTE SPONGE IRON PROJECT

K.S.C

DOCUMENT DESCRIPTION:
DRI BIN BIN01-PILE AND FOUNDATION DRAWINGS

DOCUMENT NO.	4182CBSI-1D-ST-DW-250-01	REV.	SIZE	SCALE	SHEET NO.
		03	SIZE	SCALE	NO/9