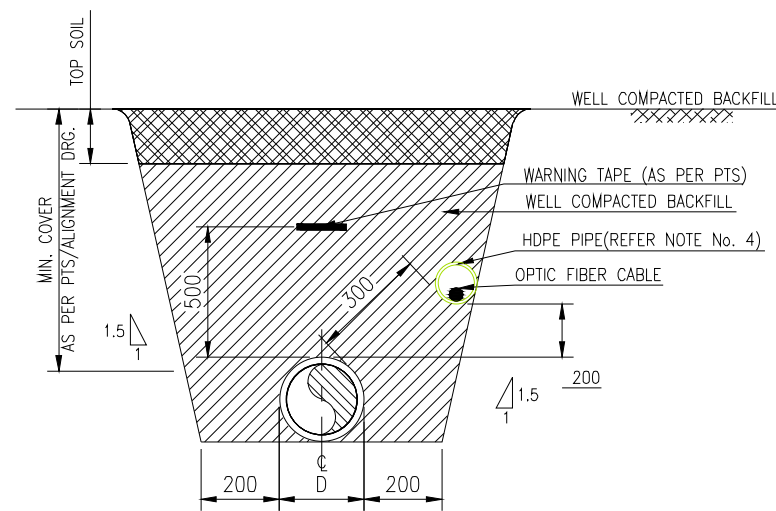
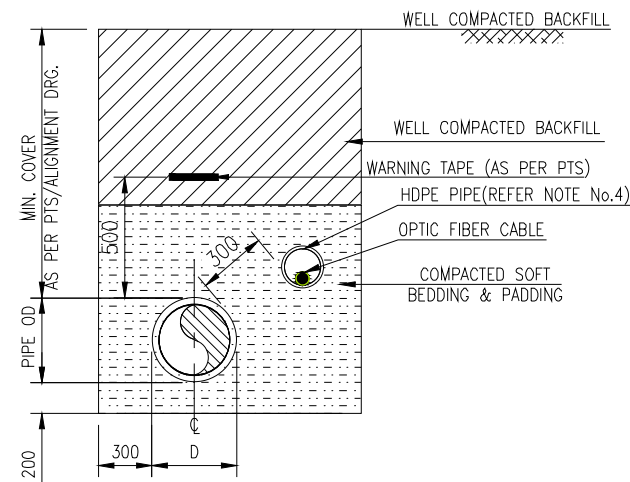


INDEX - TYPICAL DRAWINGS

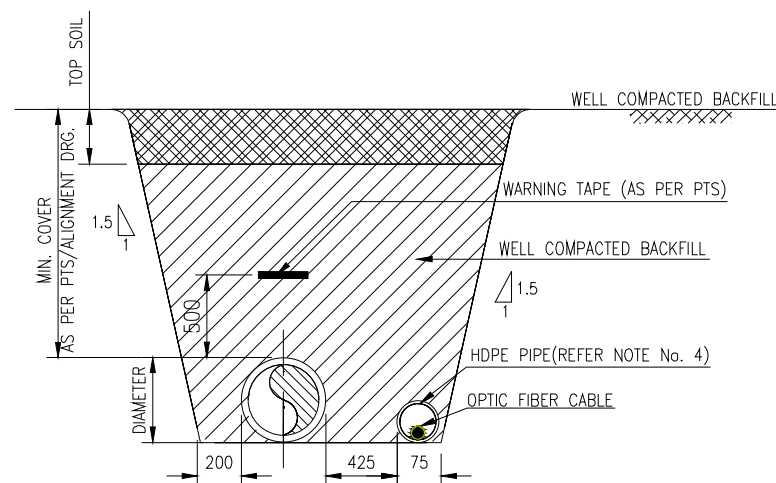
1. TYPICAL DRAWING FOR TRENCH DETAILS
2. TYPICAL DRAWING FOR RCC ROUTE MARKER
3. TYPICAL DRAWING FOR KM POST MARKER
4. TYPICAL DRAWING FOR PIPELINE WARNING SIGN
5. TYPICAL DRAWING FOR BARRICADING
6. CAUTION BOARD
7. TYPICAL DRAWING FOR RCC VALVE CHAMBER (2 Mtr. x1.5 Mtr.)
8. TYPICAL GENERAL ARRANGEMENT DRAWING FOR SV OF 8" SIZE WITH BY-PASS LINE AND VENT
9. TYPICAL PIPING GENERAL ARRANGEMENT DRAWING FOR CONNECTIVITY TO RO/CNG STATION
10. TYPICAL DRAWING OF CGS CUM MOTHER STATION CHURU



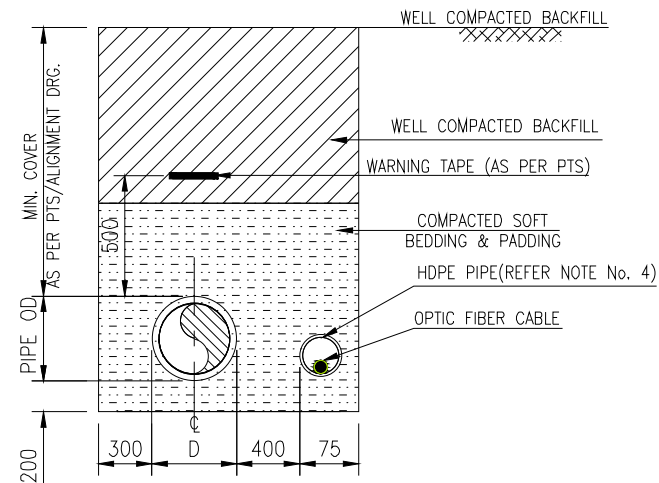
TYPICAL TRENCH DETAILS IN NORMAL SOIL
TYPE-1



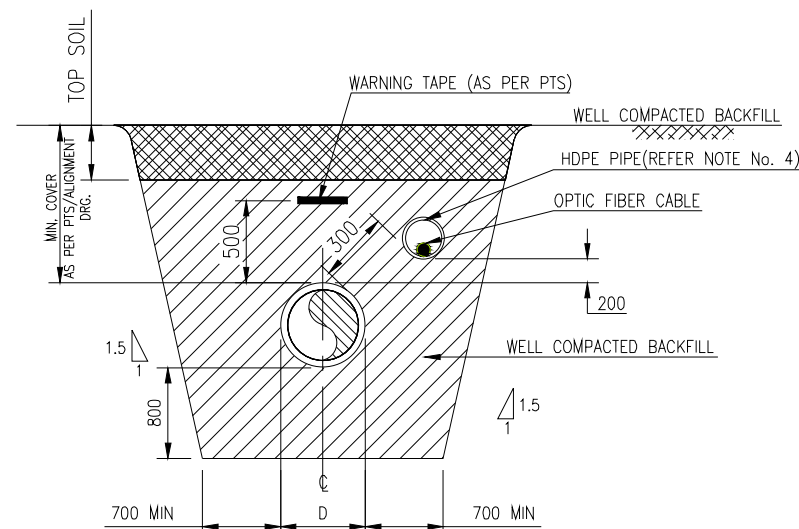
TYPICAL TRENCH DETAILS IN ROCK AREA
TYPE-3



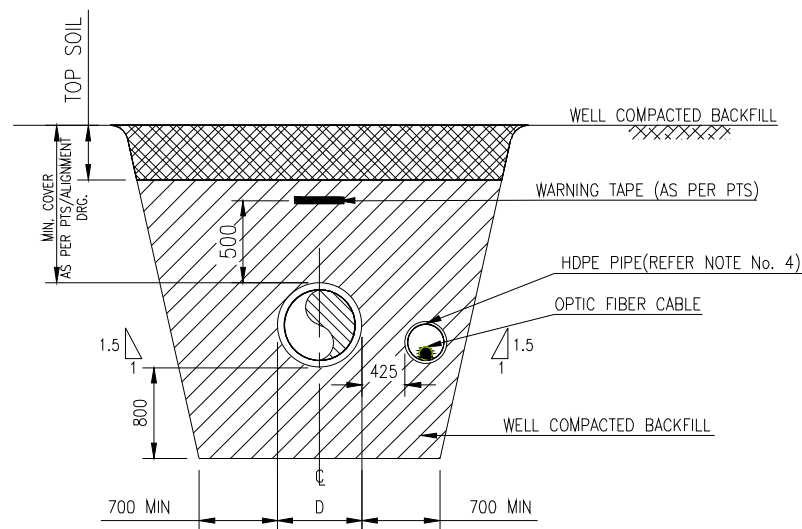
TYPICAL TRENCH DETAILS IN NORMAL SOIL
TYPE-2



TYPICAL TRENCH DETAILS ROCK
TYPE-4



TYPICAL TRENCH DETAILS FOR SEISMIC FAULT (IN NORMAL SOIL) AREAS
TYPE-5



TYPICAL TRENCH DETAILS FOR SEISMIC FAULT (IN ROCK) AREAS
TYPE-6

NOTES:-

1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
2. MINIMUM COVER OVER LINEPIPE SHALL BE AS PER PTS AND REQUIREMENT OF CONCERNED AUTHORITY.
3. THIS SKETCH IS INDICATIVE ONLY.
4. IF, AS PER SPECIFICATION, ARMoured OFC IS TO BE PROVIDED, IT WILL BE LAID ALONGWITH LINEPIPE AS PER THE APPROVED PROCEDURE.
5. TYPE OF TRENCHING TO BE USED SHALL BE AS PER PTS AND APPROVED PROCEDURE.
6. ALL TYPICAL CROSS SECTIONS MUST BE VIEWED LOOKING IN THE DIRECTION OF FLOW.

ISSUED FOR TENDER

CLIENT:

Gasonet

GASONET SERVICES (RJ) LIMITED

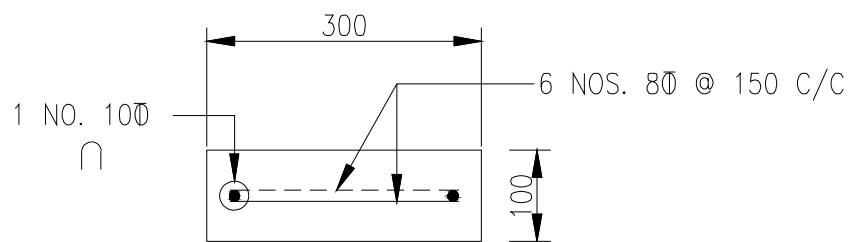
PROJECT:

CITY GAS DISTRIBUTION PROJECT, BIKANER & CHURU DISTRICTS, (GA ID-11.42)

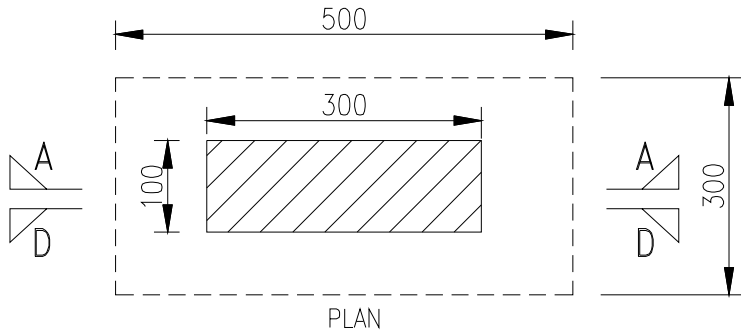
TITLE

TYPICAL DRAWING FOR TRENCH DETAILS

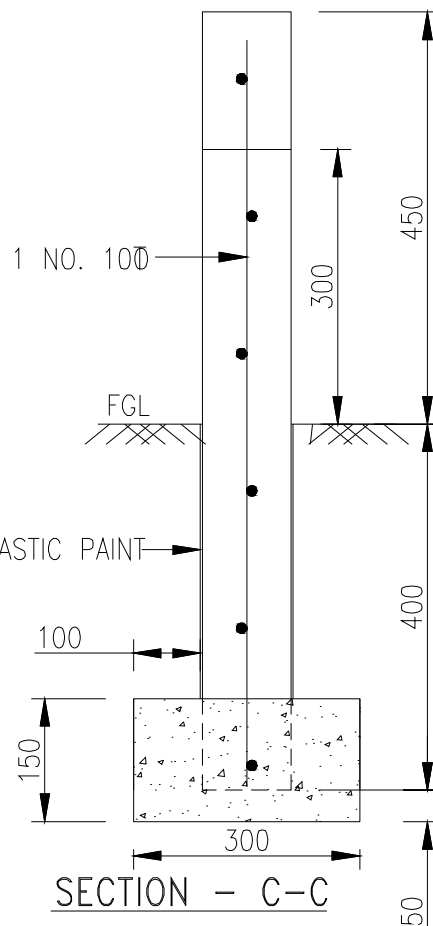
SIZE	DRAWING NO.	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/001	1 OF 1	0



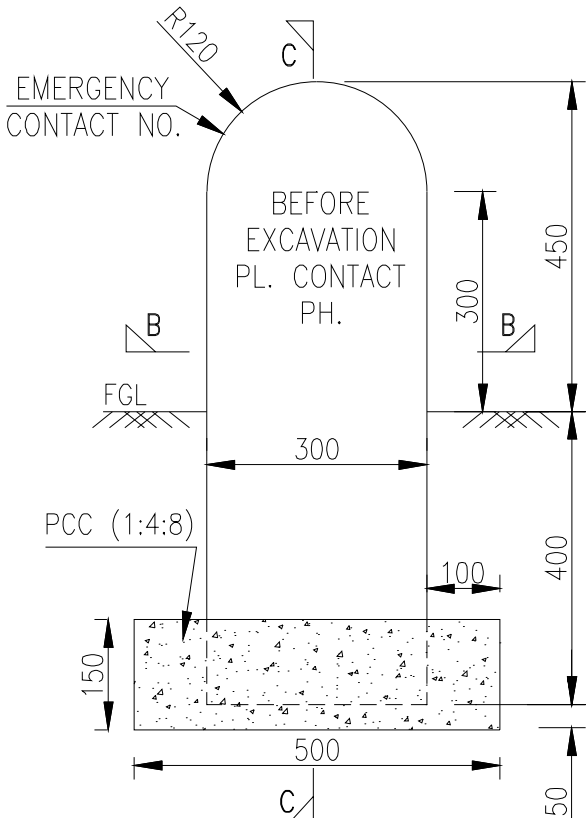
SECTION - B-B



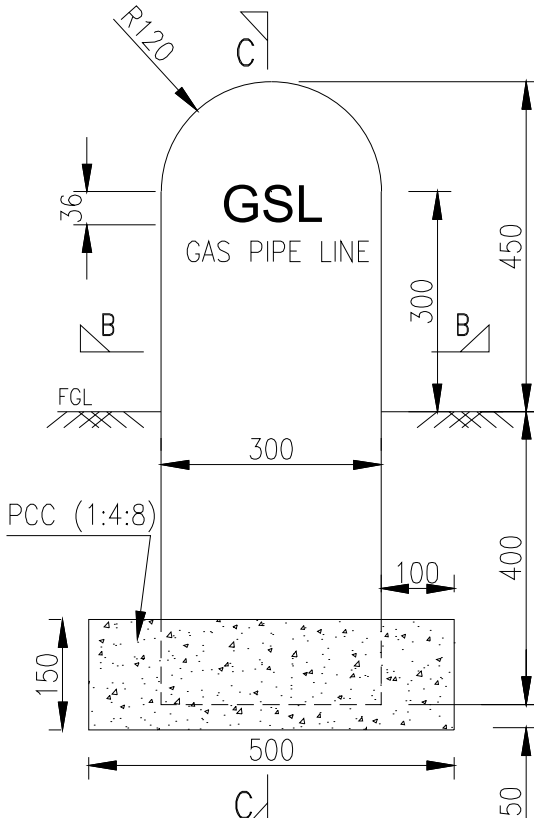
PLAN



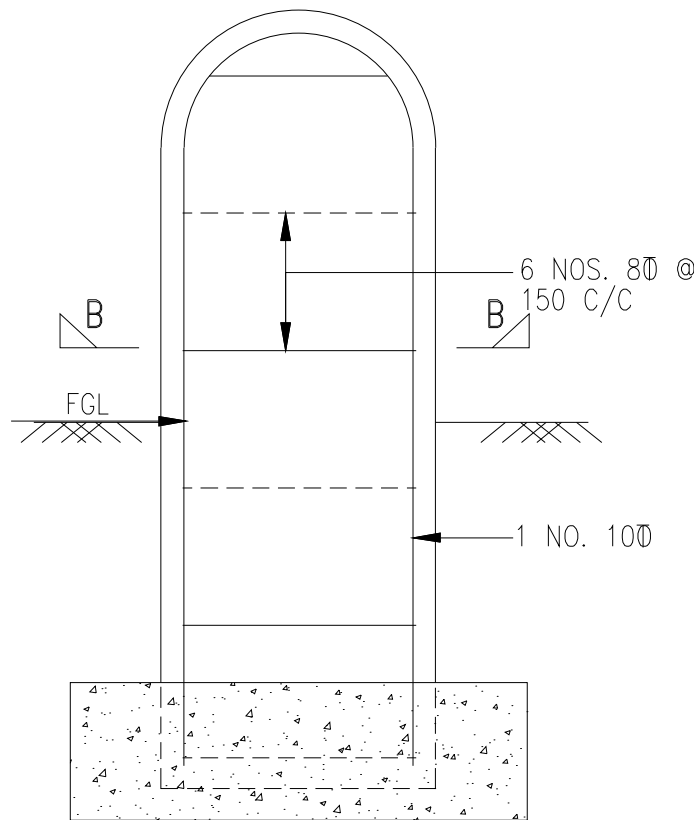
SECTION - C-C



SECTION - D-D
(FOR DIMENSION)



SECTION - A-A
(FOR DIMENSION)



SECTION - A-A & D-D
(FOR REINFORCEMENT)

NOTES

1. DRAWING IS NOT TO SCALE.
2. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
3. MARKERS SHALL BE INSTALLED IN EVERY 50 METER INTERVAL AS PER INSTRUCTIONS OF ENGINEER-IN-CHARGE.
4. ALL BOUNDARY MARKERS SHALL BE PRECAST & INSCRIPTIONS SHALL BE ENGRAVED 5mm DEEP IN THE MOULD ON BOTH FACE.
5. CONCRETE FOR BOUNDARY MARKER SHALL BE M - 20.

ISSUED FOR APPROVAL

CLIENT

Gasonet

GASONET SERVICES (RJ) LIMITED

PROJECT:

CITY GAS DISTRIBUTION PROJECT, BIKANER & CHURU DISTRICTS (GA ID 11.42)

TITLE:

TYPICAL DRAWING FOR RCC ROUTE MARKER

SIZE

DRAWING NO.

SHEET

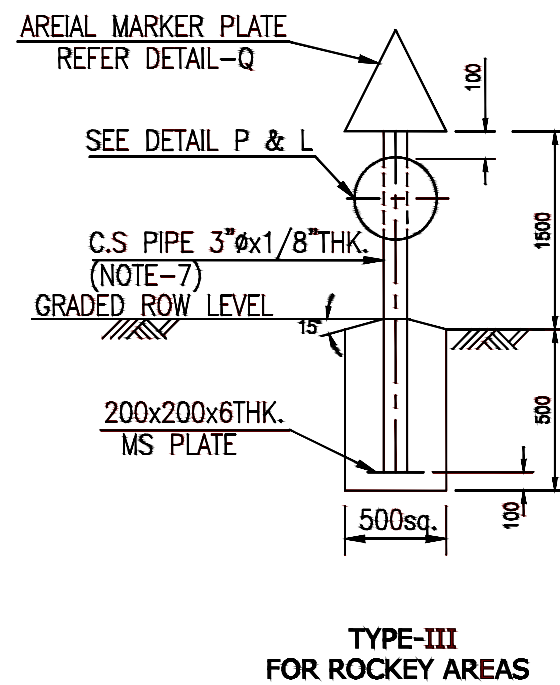
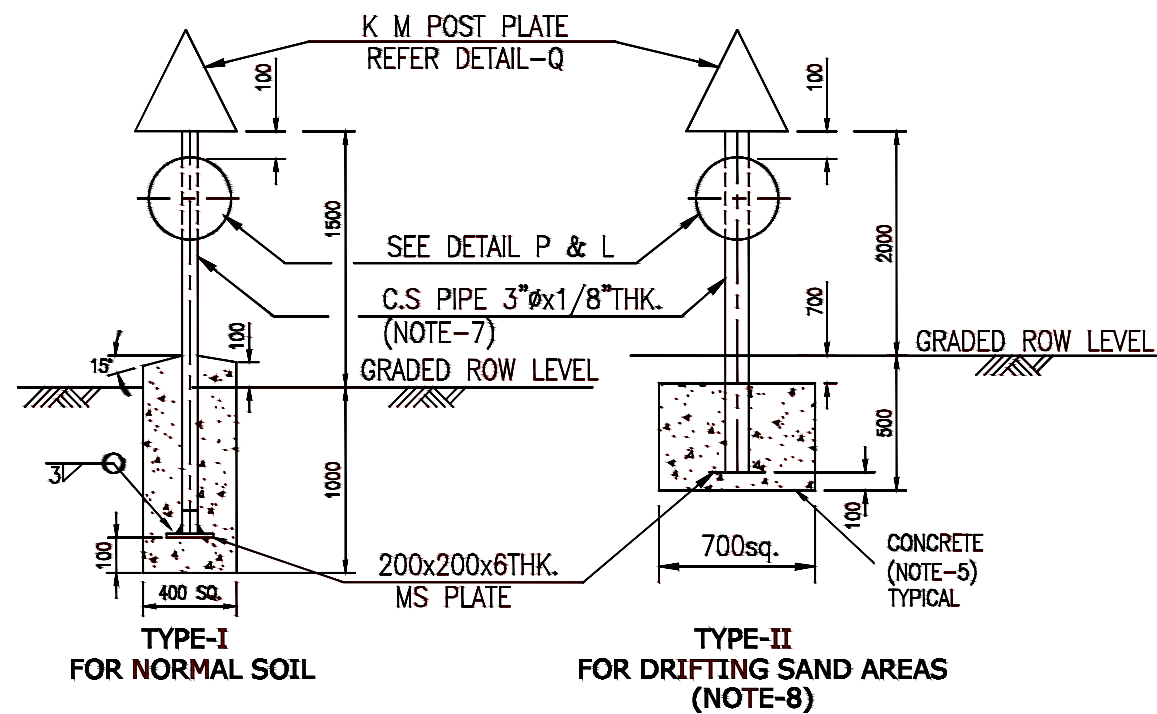
REV.

A3

GASONET/E&P/CS/2025-26/005

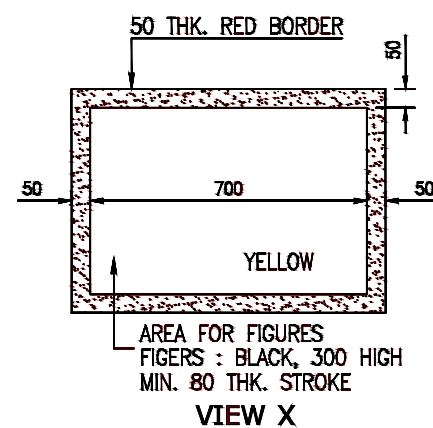
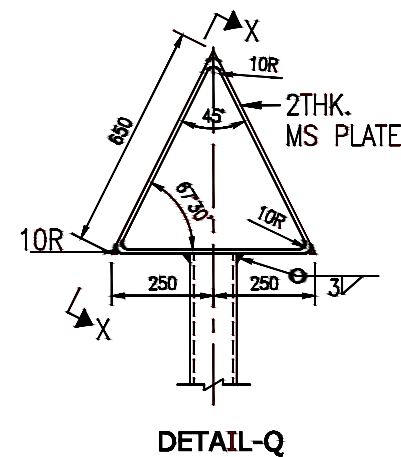
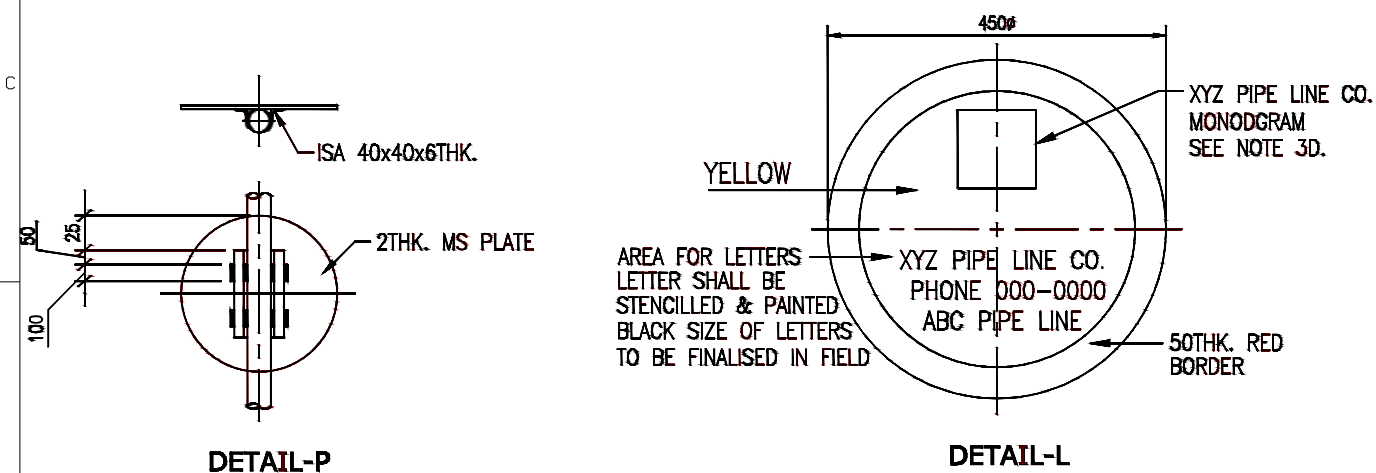
1 OF 1

0



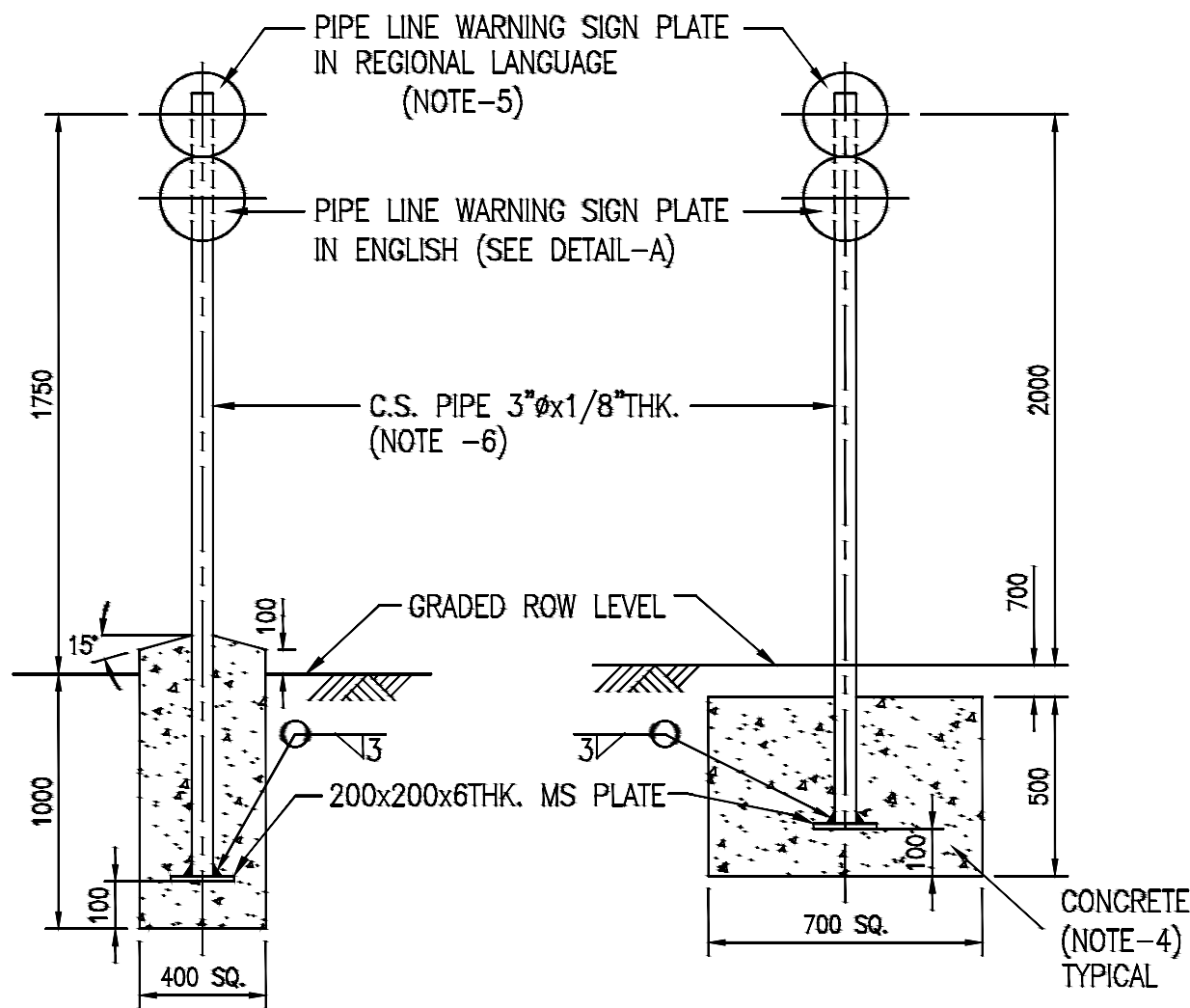
NOTES

- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE INDICATED.
- SCHEME OF PAINTING & COLOURING:-
- (a) UNDERGROUND STEEL STRUCTURE (EXCEPT THAT EMBEDDED IN CONCRETE) COAL TER EPOXY MIN.300 MICRON THK.)
- (b) OVER GROUND STEEL STRUCTURE : ONE COAT OF PRIMER & TWO COATS SPECIFIED COLOUR PAINT.
- (c) FIGURES SHALL BE STENCILED ON BOTH SIDES OF THE POSTS IN BLACK.
- (d) COLOUR SCHEME FOR XYZ PIPELINE CO. MONOGRAM SHALL BE AS DIRECTED BY OWNER.
- (e) POST SHALL BE PAINTED WITH 250 WIDE ALTERNATE BANDS OF BLACK AND WHITE PAINT.
- (f) ALL OTHER ABOVEGROUND STEEL SHALL BE PAINTED YELLOW.
- LOCATION:
- (a) K.M. POST SHALL BE INSTALLED AT EVERY KILOMETERS AS PER REQUIREMENTS OF CONTRACT AND AS DIRECTED BY OWNER.
- (b) OWNER NAME PLATE SHALL FACE THE PIPELINE.
- (c) K.M. POST SHALL BE 1000MM TO THE LEFT OF THE PIPE CENTER LINE VIEWING TOWARDS THE DIRECTION OF FLOW AND AS INDICATED IN SKETCH.
- THE FOUNDATION SHALL BE MADE OF CONCRETE M20.
- THE HEIGHT OF THE K.M. POST MAY BE VARIED TO SUIT FIELD REQUIREMENTS.
- THE MATERIAL FOR MARKERS SHALL BE AS FOLLOWING:
PLATE - IS-2062, Gr. A
PIPE - IS - 1239
- INSTALLATION OF MARKERS ON SLOPE OF SAND DUNE SHALL BE AVOIDED. IN SUCH CASES, SAME SHALL BE INSTALLED EITHER BEFORE OR AFTER THE SAND DUNE.



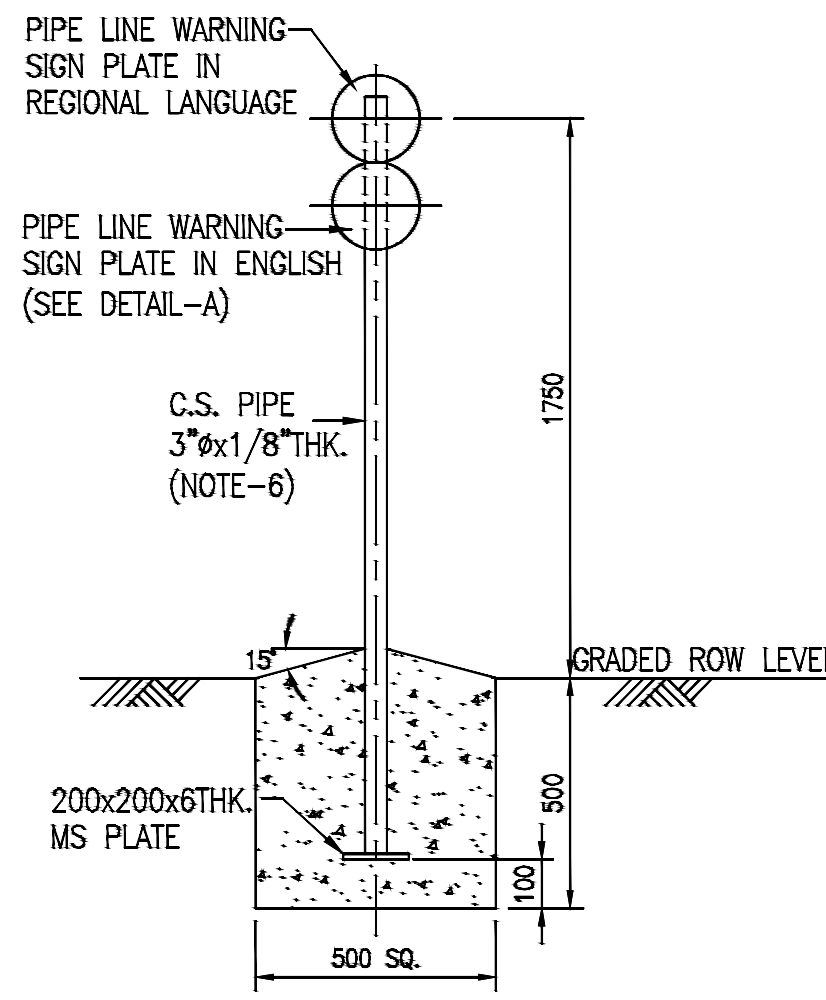
ISSUED FOR APPROVAL

CLIENT			
 GASONET SERVICES (RJ) LIMITED			
PROJECT:			
CITY GAS DISTRIBUTION PROJECT, BIKANER & CHURU DISTRICTS (GA ID 11.42)			
TITLE:			
TYPICAL DRAWING FOR KM POST MARKER			
SIZE	DRAWING NO.	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/007	1 OF 1	0

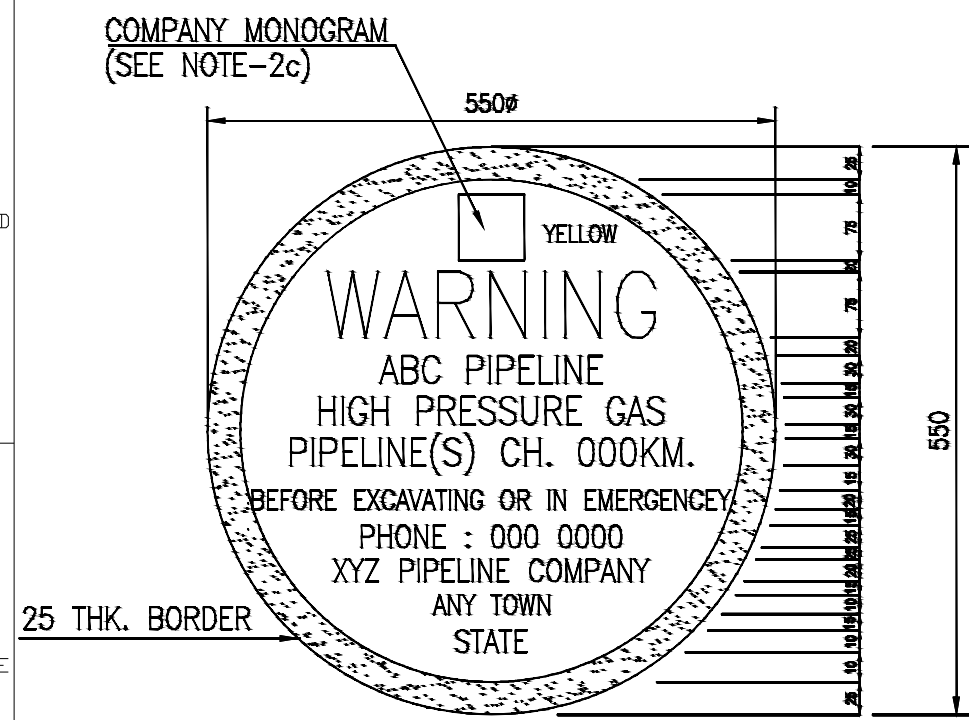


**TYPE-I
FOR NORMAL SOIL**

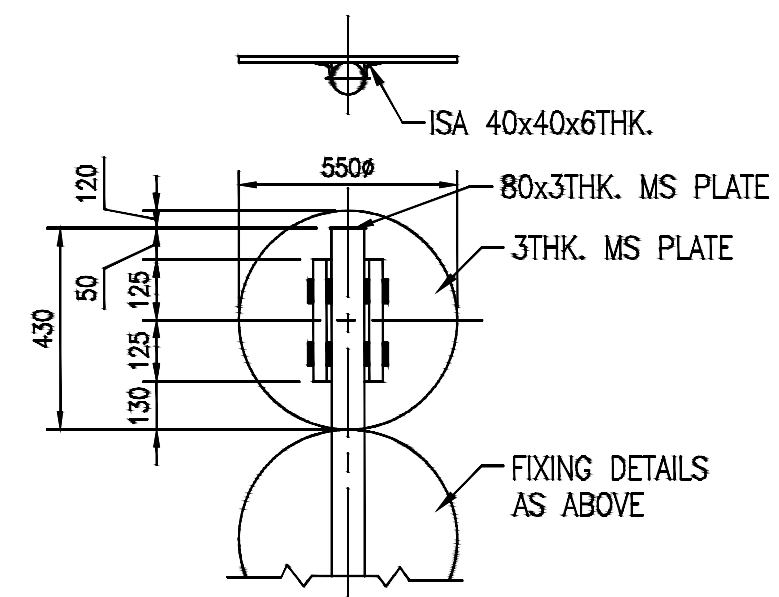
**TYPE-II
FOR DRIFTING SAND AREAS
(NOTE-7)**



**TYPE-III
FOR ROCKY AREAS**



DETAIL-A



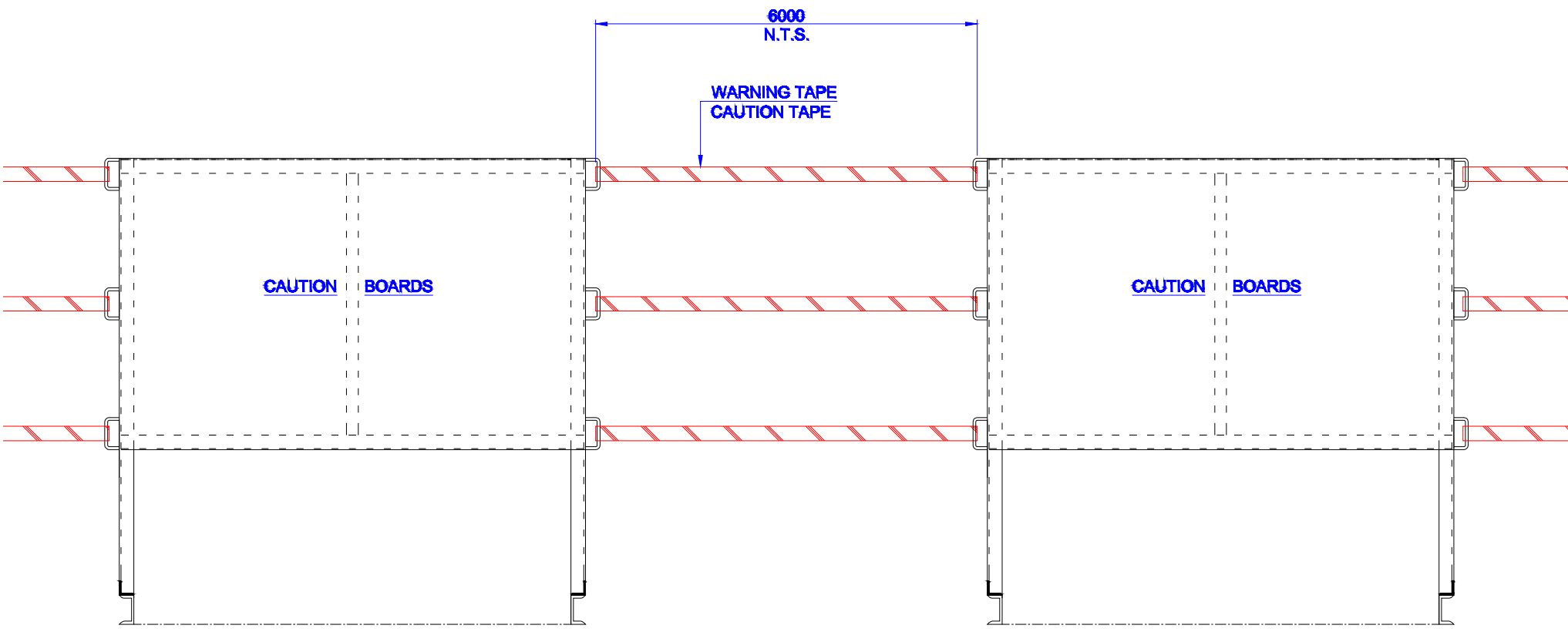
**WARNING SIGN PLATE
FIXING DETAILS**

NOTE:

- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.
- SCHEME OF PAINTING & COLOURING.
 - UNDERGROUND STEEL STRUCTURE (EXCEPT THAT EMBEDDED IN CONCRETE), : COAL TAR EPOXY MIN. 300 MICRON THK.
 - OVER GROUND STEEL STRUCTURE : ONE COAT OF PRIMER & TWO COATS SPECIFIED COLOUR PAINT.
 - COLOUR SCHEME FOR ABC PIPELINE CO. MONOGRAM SHALL BE AS DIRECTED BY OWNER.
 - ALL LETTERS SHALL BE PAINTED BLACK EXCEPT 'WARNING' WHICH SHALL BE PAINTED RED.
 - POST SHALL BE PAINTED WITH 250 WIDE ALTERNATE BANDS OF BLACK AND WHITE PAINT.
 - ALL OTHER ABOVEGROUND STEEL SHALL BE PAINTED YELLOW.
- LOCATION:
 - THE PIPE LINE WARNING SIGN SHALL BE INSTALLED IN ACCORDANCE WITH CONTRACT REQUIREMENTS AND AS DIRECTED BY OWNER IT SHALL BE INSTALLED TO THE LEFT OF THE PIPE CENTER LINE, VIEWING IN THE DIRECTION OF FLOW AT 1000MM FROM PIPELINE O.D. AND THE WARNING SIGN PLATE SHALL FACE THE UTILITY BEING CROSSED.
 - THE WARNING SIGN PLATE MAY BE MOUNTED ON VENT PIPES OR KM POST WHERE EVER POSSIBLE.
- THE FOUNDATION SHALL BE MADE OF CONCRETE M20.
- SIGN PLATE IN REGIONAL LANGUAGE SHALL BE PREPARED BY CONTRACTOR ON SIMILAR LINES AND APPROVED BY THE OWNER.
- THE MATERIAL FOR MARKERS SHALL BE AS FOLLOWING:
 - PLATE - IS2062, Gr. A
 - PIPE - IS - 1239
- INTALLATION OF MARKERS ON SLOPE OF SAND DUNE SHALL BE AVOIDED. IN SUCH CASES, SAME SHALL BE INSTALLED EITHER BEFORE OR AFTER THE SAND DUNE SLOPE.

ISSUED FOR APPROVAL

CLIENT			
 GASONET SERVICES (RJ) LIMITED			
PROJECT:			
CITY GAS DISTRIBUTION PROJECT, BIKANER & CHURU DISTRICTS (GA ID 11.42)			
TITLE:			
TYPICAL DRAWING FOR PIPELINE WARNING SIGN			
SIZE	DRAWING NO.	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/008	1 OF 1	0

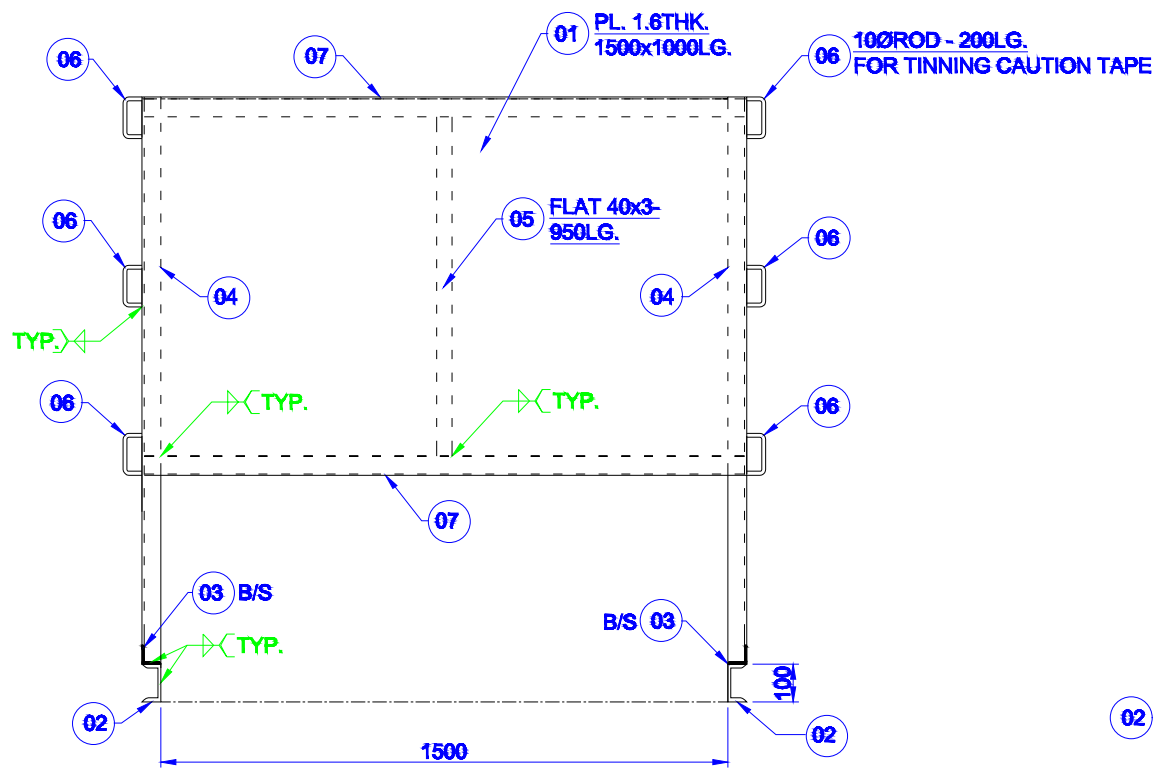


SCHEMATIC LAYOUT OF CAUTION BOARDS AND BARRICADING

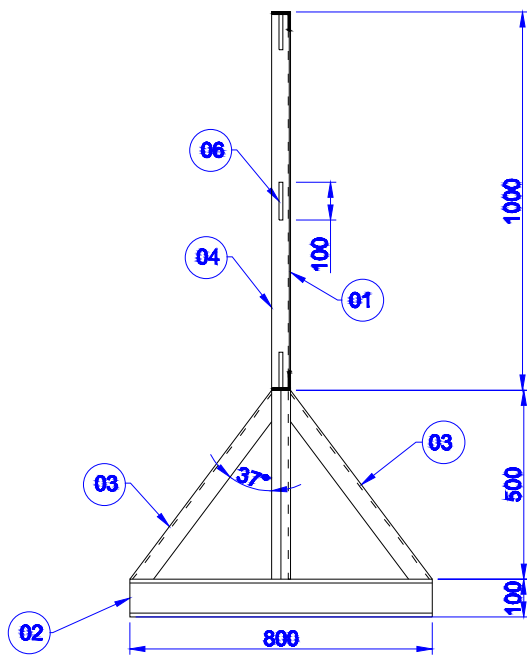
NOTES:-

- 1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
- 2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE THE DRAWINGS.
- 3. FOR DETAILS OF CAUTION BOARDS, REFER DRAWING NO. 13823-30-03-12 REV-0.

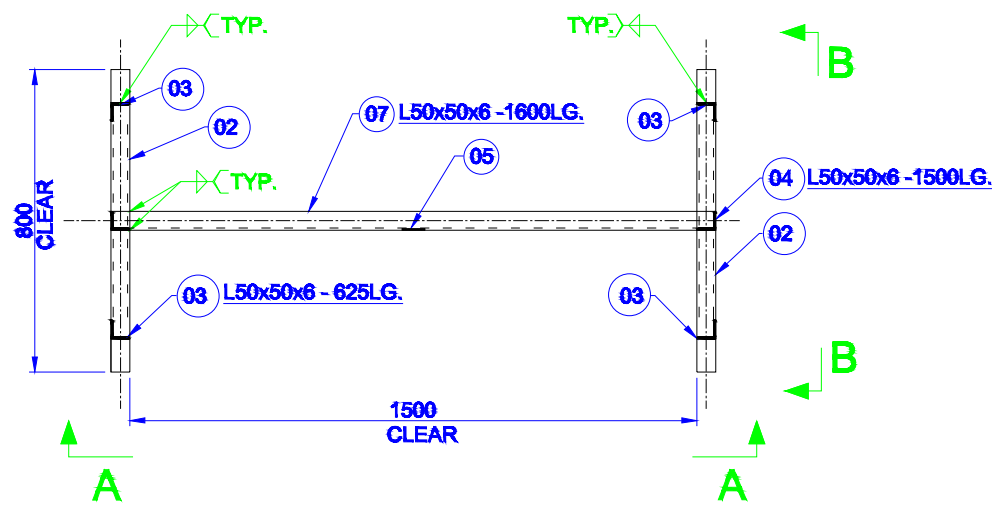
CLIENT: 			
GASONET SERVICES (RJ) LIMITED			
PROJECT: CITY GAS DISTRIBUTION PROJECT, BIKANER & CHURU DISTRICTS (GA ID 11.42)			
TITLE: TYPICAL DRAWING FOR BARRICADING			
SIZE	DRAWING NO.	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/018	1 OF 2	0



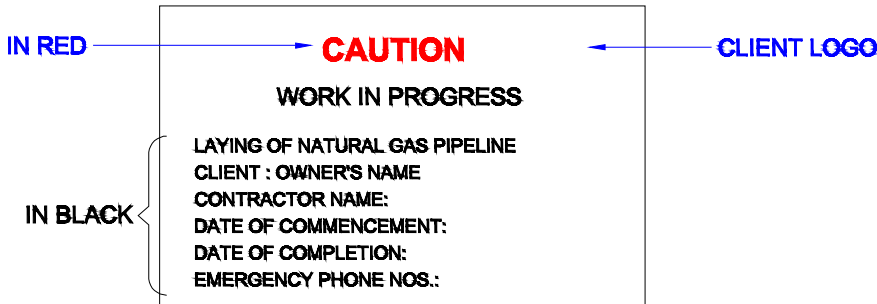
ELEVATION A-A



ELEVATION B-B



PLAN VIEW



TO BE PRINTED ON ITEM NO. 01

NOTES:-

1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE THE DRAWINGS.

BILL OF MATERIAL

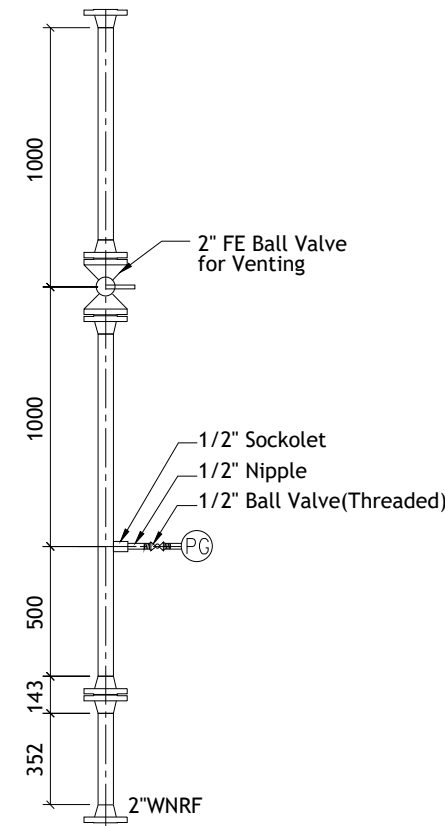
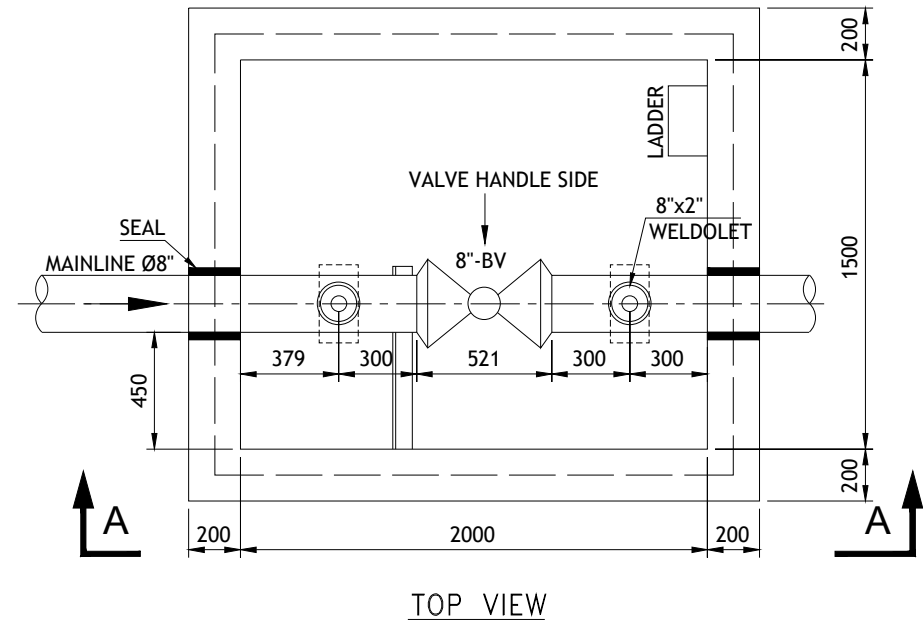
Item Mkd.	Section	Width	Length	Item Qty.	Weight	Total Weight
				(All Marks)	Kgs./MM2	In Kgs.
1.	PL. 1.6 THK.	1600	1000	1	12.56	20.10
2.	ISMC 100	—	800	2	9.20	14.72
3.	L50x50x6	—	625	4	4.50	11.25
4.	L50x50x6	—	1500	2	4.50	13.50
5.	Flat 3Thk.	900	40	1	0.94	0.03
6.	100 Rod	—	200	6	0.62	0.74
7.	L50x50x6	—	1600	2	4.50	14.40
				Grand Total (Kg)		74.74

CLIENT: **Gasonet®**
GASONET SERVICES (RJ) LIMITED

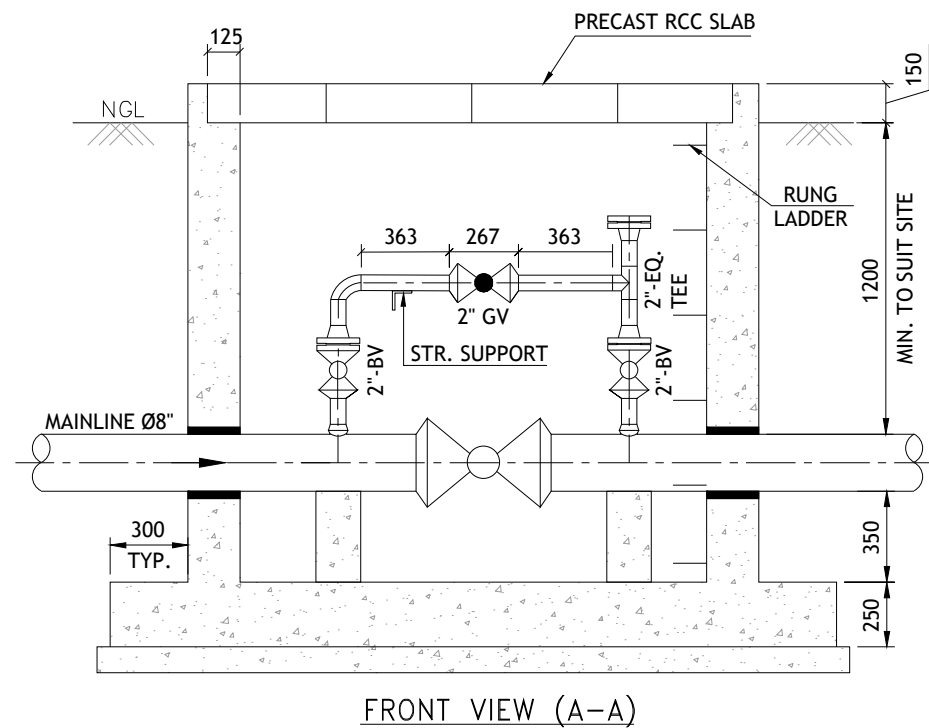
PROJECT:
CITY GAS DISTRIBUTION PROJECT,
BIKANER & CHURU DISTRICTS (GA ID 11.42)

TITLE:
CAUTION BOARD

SIZE	DRAWING NO.	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/019	2 OF 2	0



COMMON VENT PIPE FOR ALL SECTIONALIZING VALVES
(NOT TO BE FABRICATED FOR ALL SVs)



NOTES:-

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN M UNLESS OTHERWISE MENTIONED.
2. APPROVED SEALANT TO BE PROVIDED IN VALVE PIT ENTRY & EXIT OF PIPELINE TO RESTRICT WATER INTO PIT.
3. COMMON VENT NOT TO BE FABRICATED FOR EACH SV. MINIMUM TWO SUCH VENTS TO BE FABRICATED FOR GAS COMMISSIONING AND THEN TO BE KEPT IN ERV FOR O&M PURPOSE.
4. FIRST SECTIONALIZING VALVE OF MAINLINE TO BE PROVIDED WITH PERMANENT BY-PASS & VENT. THEREAFTER SVs MAY BE PROVIDED WITH PERMANENT BY-PASS & WITHOUT PERMANENT BY-PASS LINE ALTERNATIVELY.
5. FOR VALVE CHAMBER CONSTRUCTION, REFER RESPECTIVE DRAWING FOR CIVIL WORK. CHAMBER SLEEPERS MAY BE FABRICATED AS SHOWN IN THIS DRAWING FOR EASY LIFTING DURING O&M.
6. ORIENTATION OF 2" VALVES INSTALLED IN BY-PASS/TAP-OFF TO BE SUCH THAT VALVE LEVER/HANDLE MOVEMENT IS NOT RESTRICTED BY ADJACENT WALL OF A CHAMBER.
7. VALVE CHAMBER PROJECTION ABOVE FGL SHALL BE 150MM-300MM SUITED AS PER SITE CONDITIONS.

LEGEND:-

	BUTT WELD BALL VALVE (B.V.)
	FLANGED BALL VALVE
	BUTT WELD GLOBE VALVE (G.V.)
	FLANGED GLOBE VALVE
	THREAD END BALL VALVE

BOM

ITEM NO	MATERIAL DESCRIPTION	SIZE (INCH)	QTY.
1	BALL VALVE (BW)	8"	1
2	WELDOLET	8" X 2"	02
3	BALL VALVE ONE END BW & ONE END FE	2"	2
4	GLOBE VALVE (BW)	2"	1
5	BALL VALVE (FE)	2"	1
6	WNRF FLANGE	2"	9
7	BLRF BLIND	2"	1
8	GASKETS (SPIRAL WOUND)	2"	6
9	EQUAL TEE	2"	1
10	STUD & BOLT	2"	24
11	SOCKOLET	2" X 1/2"	1
12	BALL VALVE (THREADED)	1/2"	1
13	NIPPLE ONE END THREADED	1/2"	1
14	PRESSURE GAUGE (0-70 KG/CM2)	1/2"	1

CLIENT:

Gasonet

GASONET SERVICES (RJ) LIMITED

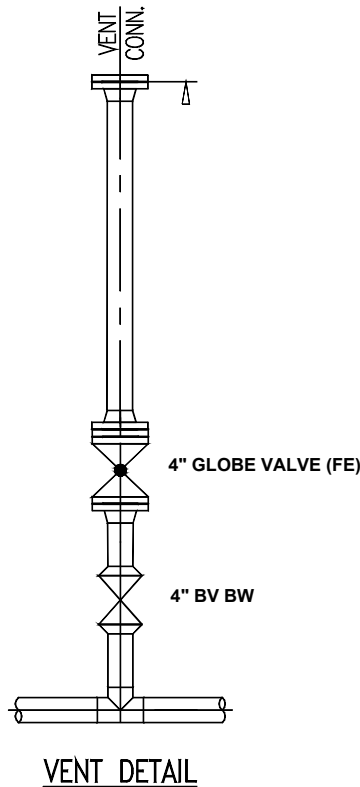
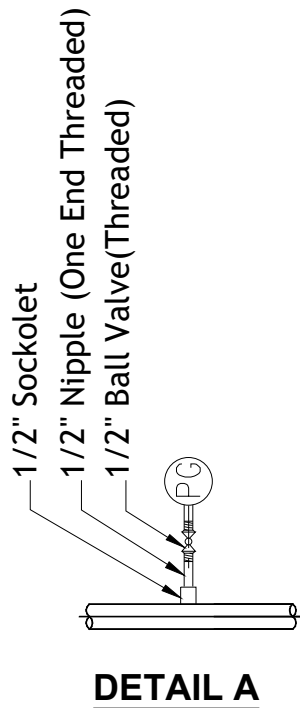
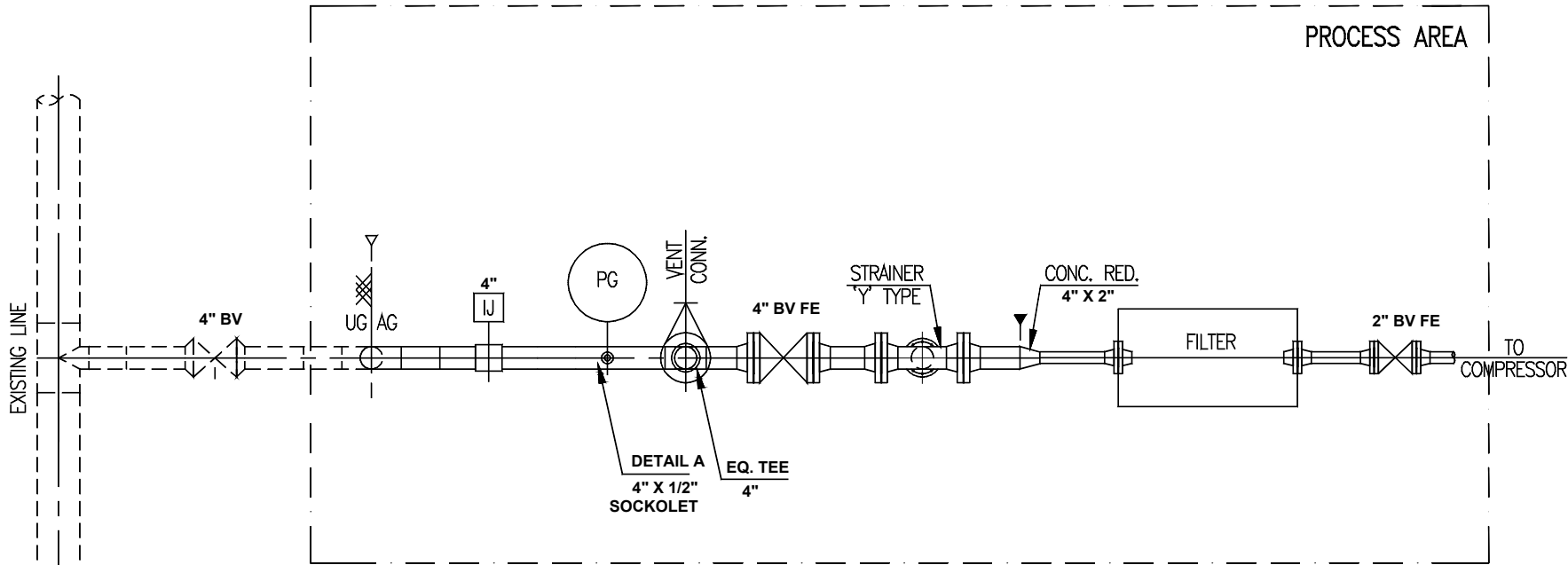
PROJECT:

CITY GAS DISTRIBUTION PROJECT, BIKANER & CHURU DISTRICTS (GA ID 11.42)

TITLE

TYPICAL GENERAL ARRANGEMENT DRAWING FOR SV OF 8" SIZE WITH BY-PASS LINE AND VENT

SIZE	DRAWING NUMBER	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/014	1 OF 1	0



NOTES

- 1 DRAWING IS NOT TO SCALE.
- 2 ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.

BOM (PROCESS AREA)

ITEM NO	MATERIAL DESCRIPTION	SIZE (INCH)	QTY.
1	BALL VALVE (BW)	4"	1
2	BALL VALVE (FE)	4"	1
3	GLOBE VALVE (FE)	4"	1
4	INSULATING JOINT	4"	1
5	BALL VALVE (FE)	2"	1
6	STRAINER Y TYPE	4"	1
7	WNRF FLANGE	4"	6
8	GASKETS (SPIRAL WOUND)	4"	6
9	WNRF FLANGE	2"	2
10	GASKETS (SPIRAL WOUND)	2"	2
11	EQ. TEE	4"	1
12	CONC.REDUCER	4" X 2"	2
13	SOCKOLET	4" X 1/2"	1
14	STUD & BOLT	4"	24
15	STUD & BOLT	2"	8
16	PIPE SCH	4"	AS PER SITE REQ.
17	PIPE SCH	2"	AS PER SITE REQ.
18	NIPPLE	1/2"	1
19	PRESSURE GAUGE	1/2"	1
20	BALL VALVE THREADED	1/2"	1
21	VENT FLAPPER	4"	1
22	90 DEGREE ELBOW LR	4"	1
23	DUPLEX FILTER	2"	1

ISSUED FOR APPROVAL

CLIENT:



GASONET SERVICES (RJ) LIMITED

PROJECT:

CITY GAS DISTRIBUTION PROJECT,
BIKANER & CHURU DISTRICTS (GA ID 11.42)

TITLE

TYPICAL PIPING GENERAL ARRANGEMENT DRAWING FOR
CONNECTIVITY TO RO/CNG STATION

SIZE	DRAWING NUMBER	SHEET	REV.
A3	GASONET/E&P/CS/2025-26/015	1 OF 1	0



REFERENCE DRAWINGS

S.NO.	DRAWING TITLE	DRAWING NUMBER
1.	CLIENT DOCUMENT (PLOT LAYOUT PLAN)	

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVEL ARE IN METERS.
- CNG DISPENSER IS CONNECTED TO STORAGE CASCADE VIA CNG COMPRESSOR BY SS TUBES.
- THE PROPOSED CNG FACILITIES ARE DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODE AND GUIDELINES:
 - NZS 5452- 1980/OISD-179.
 - PETROLEUM RULES-2002.
 - GAS CYLINDER RULES -2004/2016. (GOVT. OF INDIA).
 - GUIDE LINES OF CHIEF CONTROLLER OF EXPLOSIVES.
 - PNGRB GUIDELINES.
- FIRE SAFETY EQUIPMENT FOR CNG FACILITIES SHALL BE PROVIDED.
- FIRE SAFETY AND TRAFFIC SIGNS SHALL BE INSTALLED
- ALL EXISTING LIGHTING POLES SHOULD BE INSTALLED 6 METER AWAY FROM THE CNG EQUIPMENTS LIKE COMPRESSORS, CASCADE & DISPENSERS.
- ALL DIM./SIZE/ORIENTATION OF VENDOR PACKAGE ITEMS SHOULD BE CHECKED AND CORRELATED WITH VENDOR DRG. BEFORE EXECUTION.
- IN THE ABSENCE OF SURVEY DATA HPP OF THIS AREA IS ASSUMED 100.800M.
- THE STATION WILL ACT AS A DBS..
- THE BUFFER STRIP SHALL BE TURFED WITH PROVISION OF 275MM HIGH KERBS

ISSUED FOR APPROVAL

A	27.09.2024	ISSUED FOR PESO APPROVAL		YKB	PKN	AKN	-	
Rev	D M Y	Modifications		Drawn	Checked	Approved	Validated	

CUSTOMER

GASONET SERVICES (RJ) LIMITED

SUBJECTSCHEMATIC DIAGRAM OF CGS CUM MOTHER STATIONCHURU, TEH.- CHURU,DISTT. CHURU (RJ)

Resonance Energy Pvt. Ltd.

SizeScaleSheetRev.
Drawing No.A1 | 1:200 | 1 of 1 | A
REPL-GNET-RJ-CGS-CONG-011-Rev-A

3 2 1