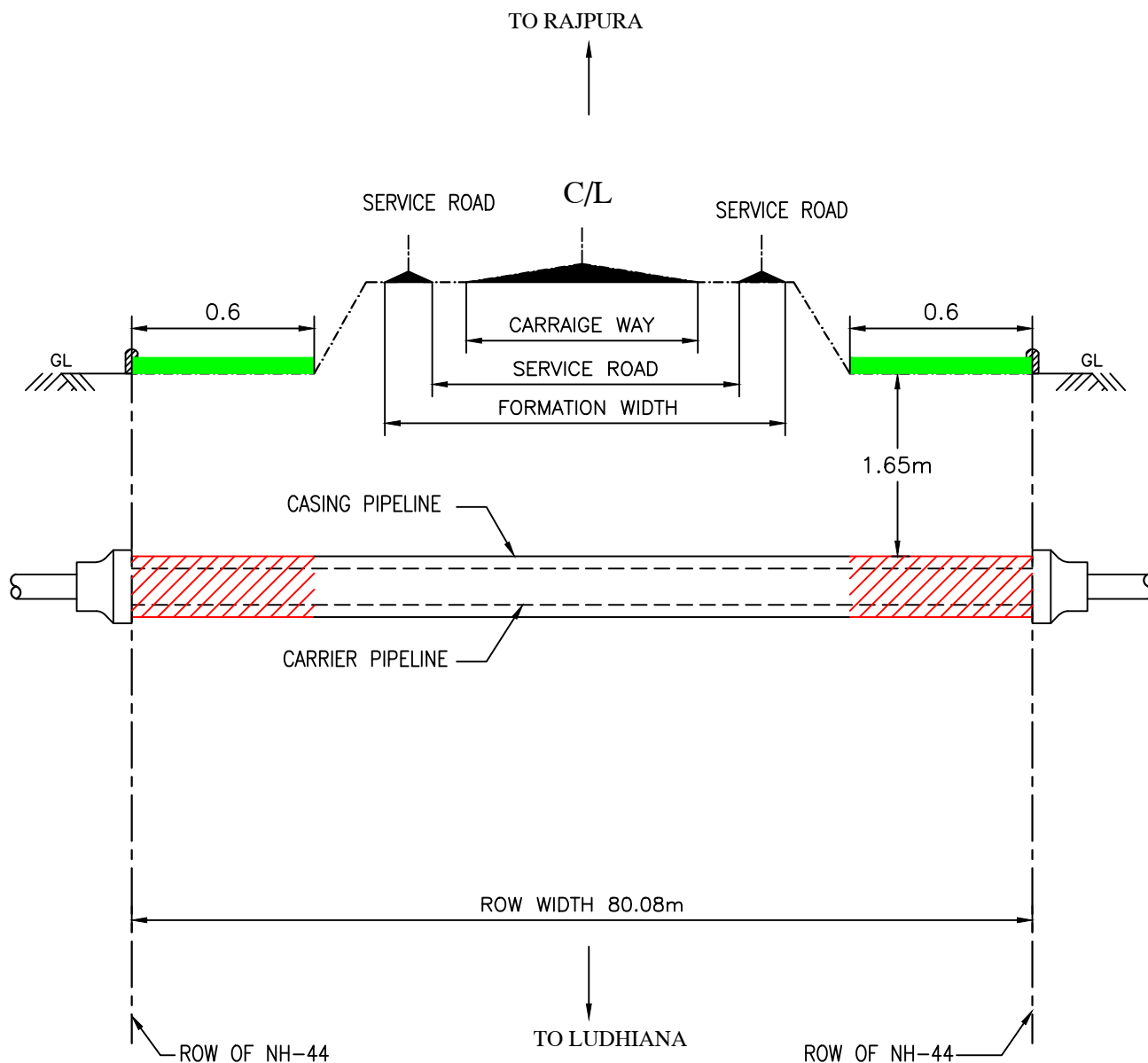


**TYPICAL CROSS SECTION FOR PROPOSED 8"Ø PIPELINE
ACROSS NH-44(LUDHIANA(KHANNA)-RAJPURA))(LUDHIANA-DELHI))**

ANNEXURE-31

CS-01



PROPOSED GAS PIPELINE

PROTECTED FOREST AREA

IRM ENERGY PRIVATE LIMITED

**PRERIT GUPTA
MANAGER - PNG
FATEHGARH SAHIB**

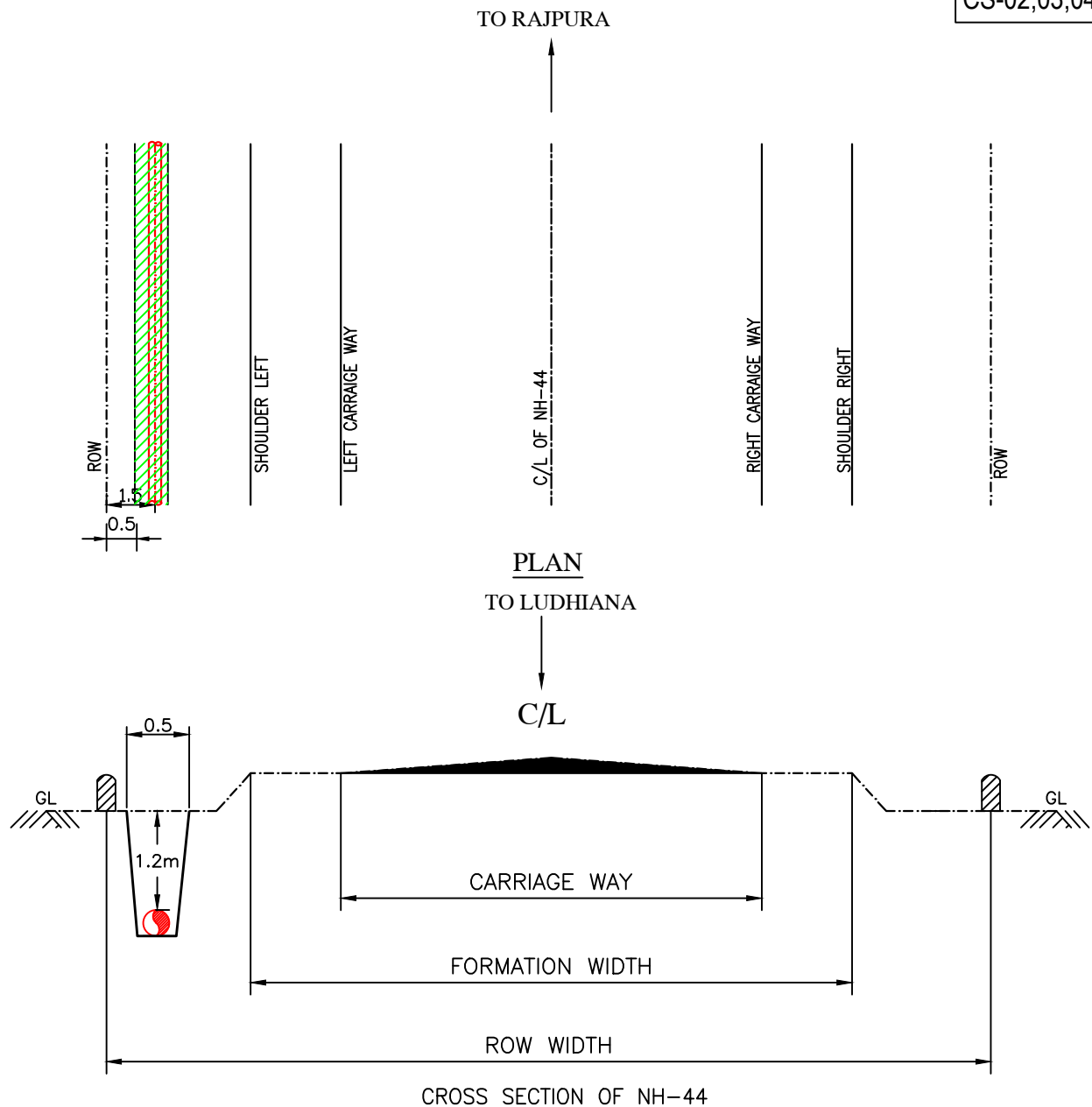
Sr. NO.	Route	Description	Chainage		WIDTH	Area (Ha.)
			From	To		
1	M - 1 (From 8" Dia Steel/ 125 mm PE P/L)	Across NH-44 (Ludhiana (Khanna)-Rajpura)) (Ludhiana-Delhi)	1321.58	1401.66	80.08	0.0048

21.02.17	ISSUED FOR CLIENT'S APPROVAL	MANISHA	PRS	MND	PRS
DATE	REVISIONS	BY	CHKD	APPD	PROJ ENGR
CLIENT :- IRM ENERGY PRIVATE LIMITED (A Group Company of Cadila Pharmaceuticals Ltd.) 4th Floor, Building No.08, Magnet Corporate Park Nr. Sola Bridge, S.G. Highway, Thaltej, Ahmedabad - 380054, Gujarat					
Project :- FATEHGARH SAHIB CGD PROJECT SECTION :- GAS DISTRIBUTION IN MANDI GOBINDGARH & ITS SURROUNDING AREA					
AT :- TYPICAL CROSS SECTION OF NH-44 (LUDHIANA-DELHI) Surveyed & Prepared by :- DESHPANDE - PATIL CONSULTANTS (LAND / TOPOGRAPHIC SURVEYS, PIPE LINE SURVEY, SOIL INVESTIGATION, ROU & STATUTORY CLEARANCES) CORPORATE OFFICE: 36, "BHISHACHAL", AJANTA NAGAR, BHARUCH - 392 001, GUJARAT. BASE CAMP: 26, GURU DAKSHIN, MANA-NR NAGAR, NR. SAI DAKSHIN TEMPLE, BHARUCH - 392 001, GUJARAT. Phone: (02642) 250052, 654959 Fax No.: (02642) 250052, E-mail: dpcsurveys@yahoo.com, dpcsurveys36@gmail.com					
SCALE	JOB NO.	DRAWING NO.			
N.T.S.	DPC/IRM/16-17	DPC - IRM - FATEHGARH SAHIB GA - RM - 01			

**TYPICAL CROSS SECTION FOR PROPOSED 6" DIA STEEL/125 mm PE PIPELINE ALONG
NH-44(LUDHIANA(KHANNA-Rajpura))(LUDHIANA-DELHI))**

ANNEXURE-31

CS-02,03,04&06



Sr. NO.	Route	Description	Chainage		Length	Area (Ha.)
			From	To		
2	SP-1.1(From 6" Dia Steel/ 125 mm PE P/L)	Along ServiceRoad (G.T. ROAD) of NH-44(Ludhiana(Khanna) -Rajpura))	0.00	5427.42	5427.42	0.2714
3	SP-1.2(From 6" Dia Steel/ 125 mm PE P/L)	Along ServiceRoad (G.T. ROAD) of NH-44(Ludhiana(Khanna) -Rajpura))	0.00	6837.79	6837.79	0.3419
4	SP-1.3(From 6" Dia Steel/ 125 mm PE P/L)	Along ServiceRoad (G.T. ROAD) of NH-44(Ludhiana(Khanna) -Rajpura))	0.00	617.04	617.04	0.0309
6	SP-1.4(From 6" Dia Steel/ 125 mm PE P/L)	Along ServiceRoad (G.T. ROAD) of NH-44(Ludhiana(Khanna) -Rajpura))	91.90	176.97	85.07	0.0043

NOTE:—DIMENSIONS ARE IN METRES
SCALE:—N.T.S

PROPOSED GAS PIPELINE 
PROTECTED FOREST AREA 

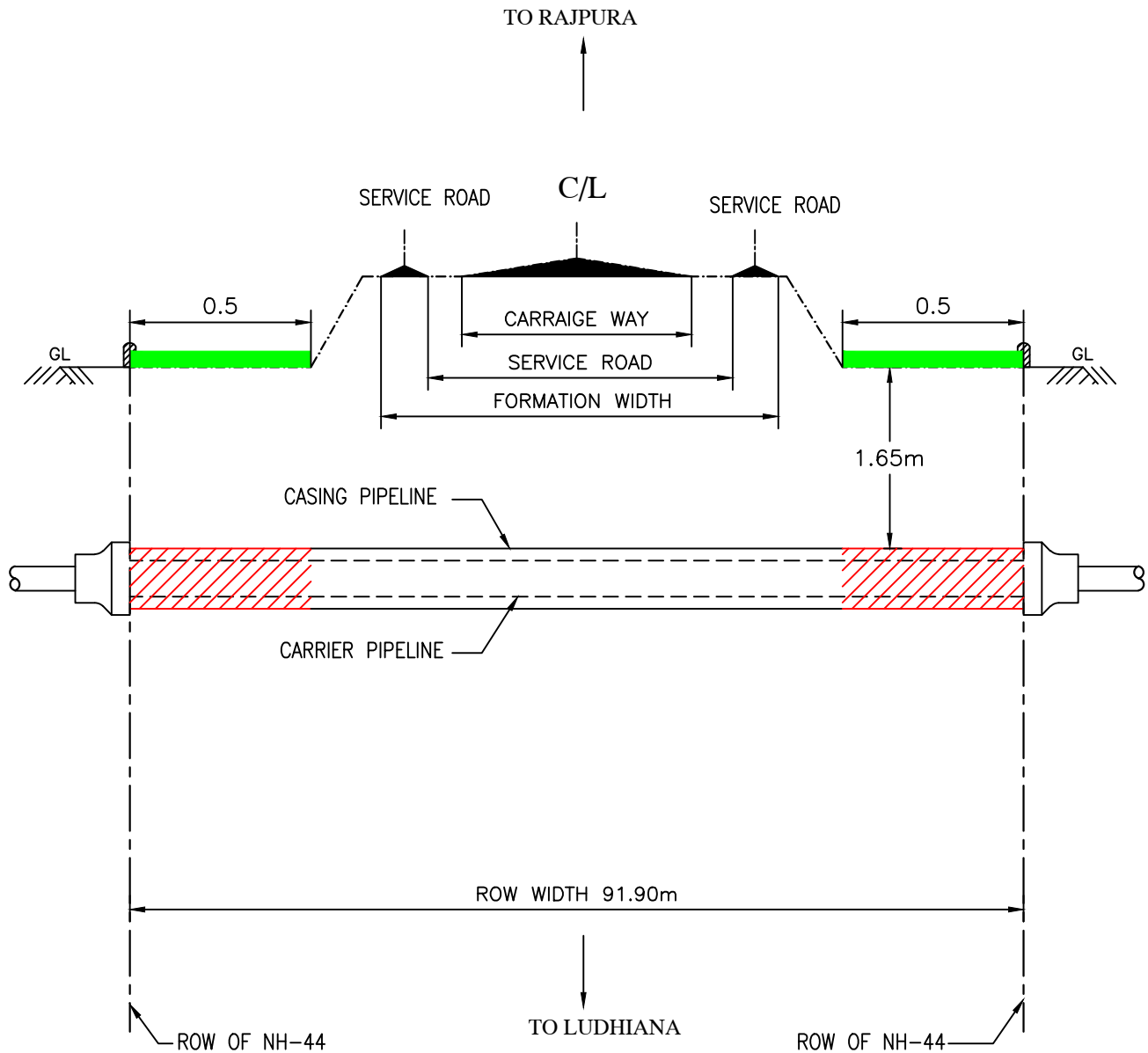
IRM ENERGY PRIVATE LIMITED

**PRERIT GUPTA
MANAGER - PNG
FATEHGARH SAHIB**

TYPICAL CROSS SECTION FOR PROPOSED 6" DIA STEEL/125 mm PE PIPELINE ACROSS NH-44(LUDHIANA(KHANNA)-RAJPURA)) (LUDHIANA-DELHI))

ANNEXURE-31

CS-05



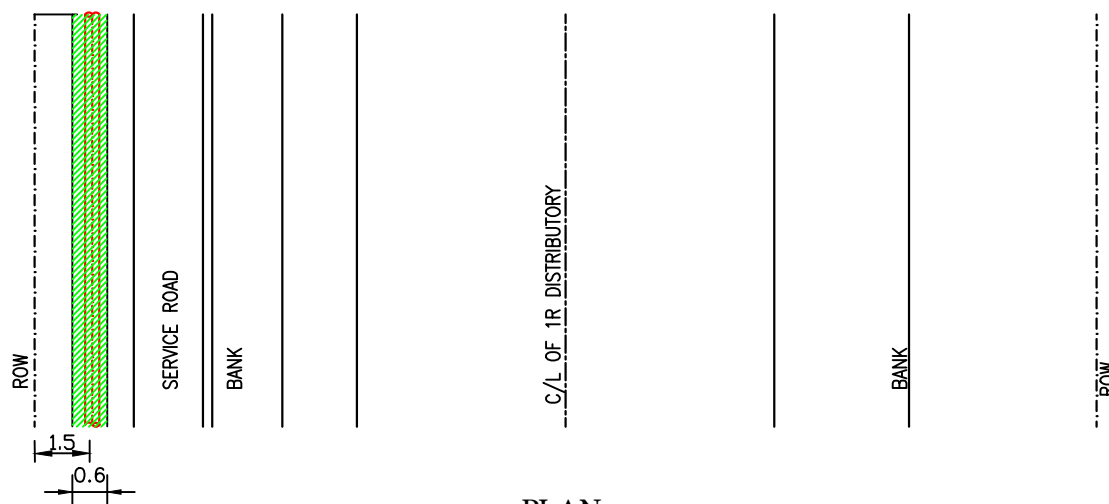
IRM ENERGY PRIVATE LIMITED

**PRERIT GUPTA
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FATEHGARH SAHIB**

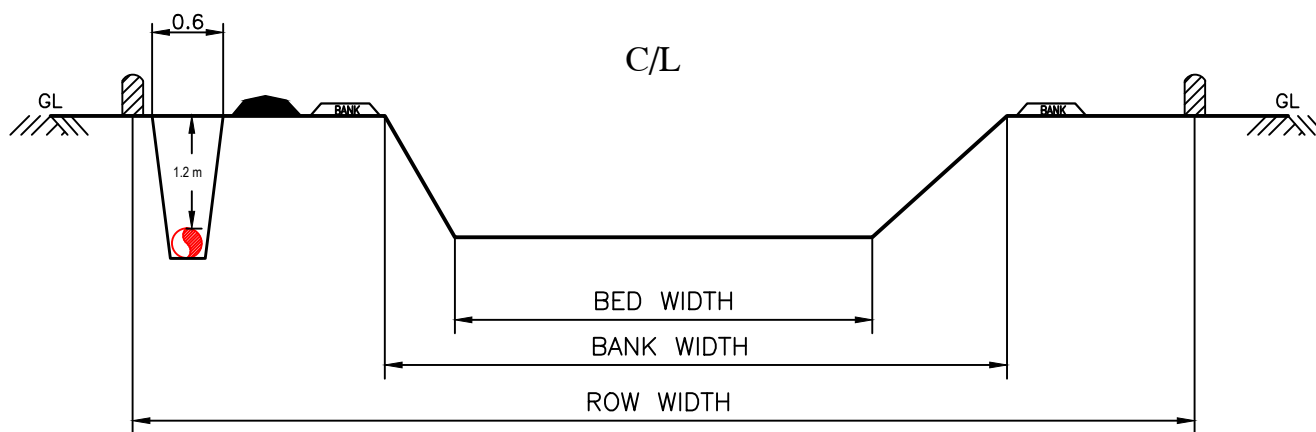
Sr. NO.	Route	Description	Chainage		WIDTH	Area (Ha.)
			From	To		
5	SP-1.4 (From 8" Dia Steel/ 125 mm PE P/L)	Across NH-44 (Ludhiana (Khanna)-Rajpura)) (Ludhiana-Delhi)	0.00	91.90	91.90	0.0046

PROPOSED GAS PIPELINE 
PROTECTED FOREST AREA 

21.02.17	ISSUED FOR CLIENT'S APPROVAL	MANISHA	PRS	MND	PRS
DATE	REVISIONS	BY	CHKD	APPD	PROJ ENGR
CLIENT :- IRM ENERGY PRIVATE LIMITED (A Group Company of Cadila Pharmaceuticals Ltd.) 4th Floor, Building No.08, Magnet Corporate Park Nr.Sola Bridge,S.G.Highway,Thaltej, Ahmedabad - 380054, Gujarat					
Project :- FATEHGARH SAHIB CGD PROJECT SECTION :- GAS DISTRIBUTION IN MANDI GOBINDGARH & ITS SURROUNDING AREA					
AT :- TYPICAL CROSS SECTION OF NH-44 (LUDHIANA-DELHI) Surveyed & Prepared by :- DESHPANDE - PATIL CONSULTANTS (LAND / TOPOGRAPHIC SURVEYS, PIPE LINE SURVEY, SOIL INVESTIGATION, ROU & STATUTORY CLEARANCES) CORPORATE OFFICE: 36, "BHISHACHAL", AJANTA NAGAR, BHARUCH - 392 001 (GUJ.) BASE CAMP: 26, GURU DAKSHIN, MAHADEV NAGAR, NR. SAI GANESH TEMPLE, BHARUCH - 392 001, GUJARAT Phone: (02642) 250052, 654959 Fax No.: (02642) 250052, E-mail: dpcsurveys@yahoo.com, dpcsurveys36@gmail.com					
SCALE	JOB NO.	DRAWING NO.			
N.T.S.	DPC/IRM/16-17	DPC - IRM - FATEHGARH SAHIB GA - RM - 01			



PLAN



NOTE:—DIMENSIONS ARE IN METRES

SCALE:—N.T.S

PROPOSED GAS PIPELINE 

PROTECTED FOREST AREA 

Sr. NO.	Route	Description	Chainage		Length	Area (Ha.)
			From	To		
7	M - 1 (From 8"DIA STEEL P/L)	Along Service Road of 1R Distributory Canal	0.70	1204.60	1203.90	0.0722

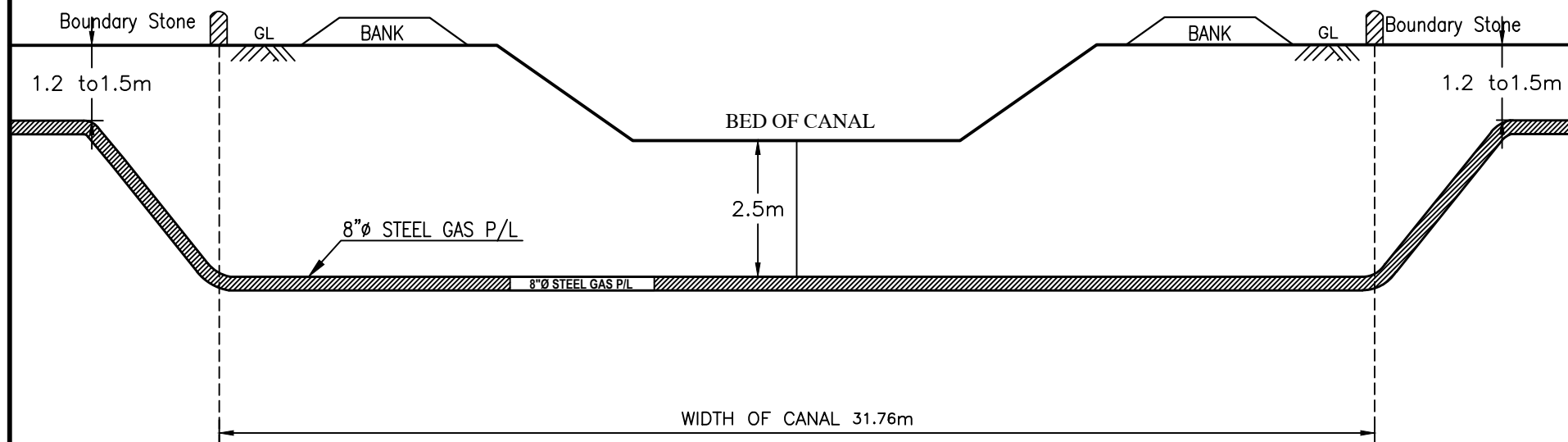
IRM ENERGY PRIVATE LIMITED



PRERIT GUPTA
MANAGER - PNG
FATEHGARH SAHIB

TYPICAL CROSS SECTION FOR PROPOSED 8"Ø PIPELINE ACROSS 1R-DISTRIBUTORY

ANNEXURE-31

CS-08



21.02.17	ISSUED FOR CLIENT'S APPROVAL	MANISHA	PRS	MND	PRS
DATE	REVISIONS	BY	CHKD	APPD	PROJ ENGR
CLIENT:					
 IRM ENERGY PRIVATE LIMITED (A Group Company of Cadila Pharmaceuticals Ltd.) 4th Floor, Building No.08, Magnet Corporate Park Nr. Sola Bridge, S.G. Highway, Thaltej, Ahmedabad - 380054, Gujarat					
Project :- FATEHGARH SAHIB CGD PROJECT					
SECTION :- GAS DISTRIBUTION IN MANDI GOBINDGARH & ITS SURROUNDING AREA					
AT :- TYPICAL CROSS SECTION OF 1R DISTRIBUTORY CANAL					
 DESHPANDE - PATIL CONSULTANTS (Since 1988 - Survey of India - Survey of India) (LAND / TOPOGRAPHIC SURVEYS, PIPE LINE SURVEY, SOIL INVESTIGATION, BOU & STATUTORY CLEARANCES) CORPORATE OFFICE: 36, "SHREEHACHAL", AJANTA NAGAR, BHARUCH - 392 001, GUJARAT BASE CAMP: 26, GURU DAKSHINAM, MAHADEV NAGAR, NR. SA. GANESHI TEMPLE, BHARUCH - 392 001, GUJARAT Phone: (02642) 250052, 654995 Fax No.: (02642) 250052 E-mail: desurvey@yahoo.com , desurvey36@gmail.com					
SCALE	JOB NO.	DRAWING NO.			
N.T.S.	DPC/IRM/16-17	DPC - IRM - FATEHGARH SAHIB GA - RM - 01			

Sr. NO.	Route	Description	Chainage		WIDTH	Area (Ha.)
			From	To		
8	M - 1 (From 8"DIA STEEL P/L)	Across 1 R Distributory	1204.60	1236.36	31.76	0.0019

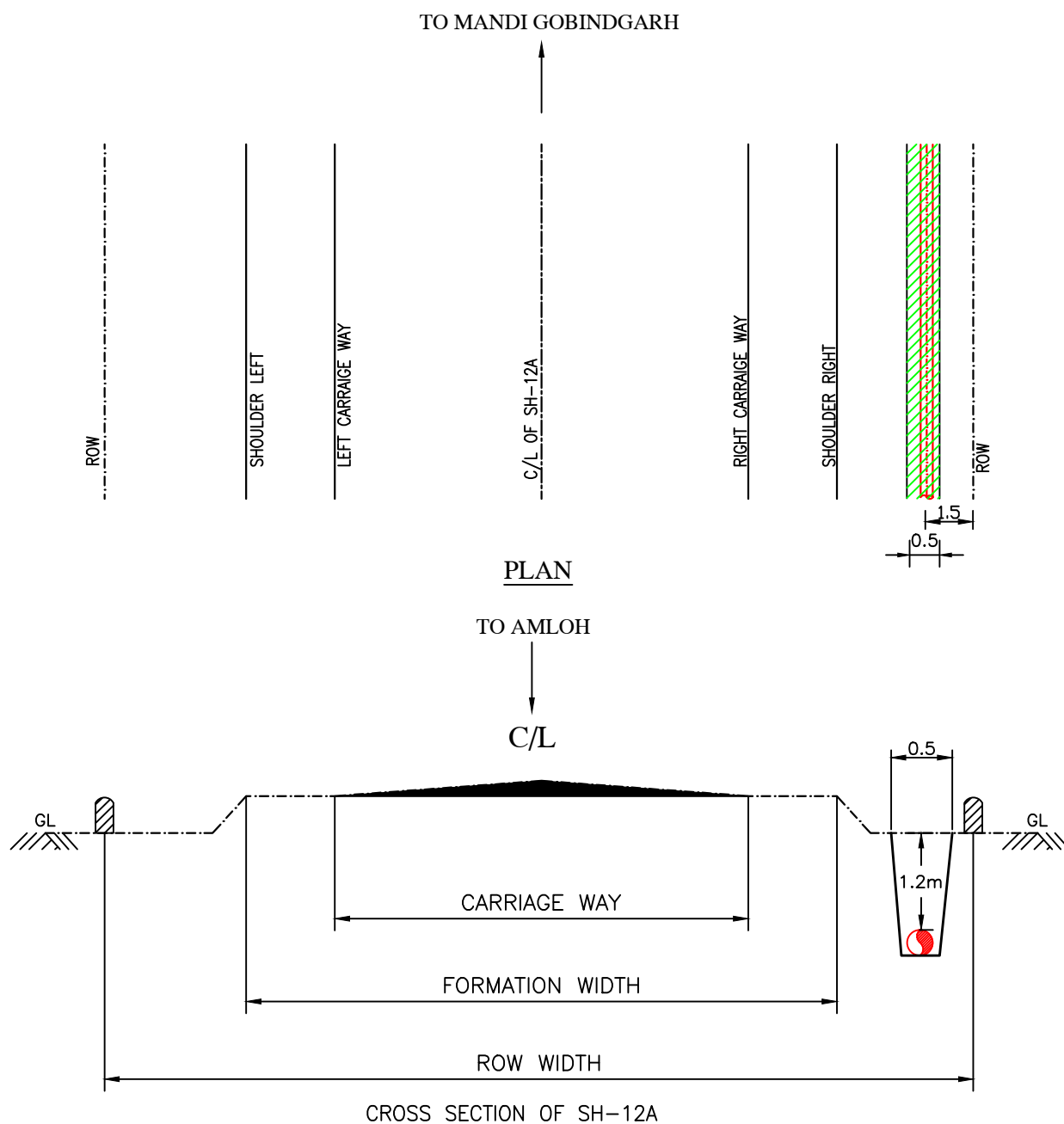
IRM ENERGY PRIVATE LIMITED

PRERIT GUPTA
MANAGER - PNG
FATEHGARH SAHIB

**TYPICAL CROSS SECTION FOR PROPOSED 6" DIA STEEL/125 mm PE PIPELINE
ALONG SH-12A (MANDI GOBINDGARH TO AMLOH)**

ANNEXURE-31

CS-09



NOTE:—DIMENSIONS ARE IN METRES

SCALE:—N.T.S

PROPOSED GAS PIPELINE 
PROTECTED FOREST AREA 

Sr. NO.	Route	Description	Chainage		Length	Area (Ha.)
			From	To		
9	M - 2 (From 6"DIA STEEL & 125mmDIA PE GAS P/L	Along SH-12A (Mandi Gobindgarh to Amloh)	2435.37	5581.48	3146.11	0.1573

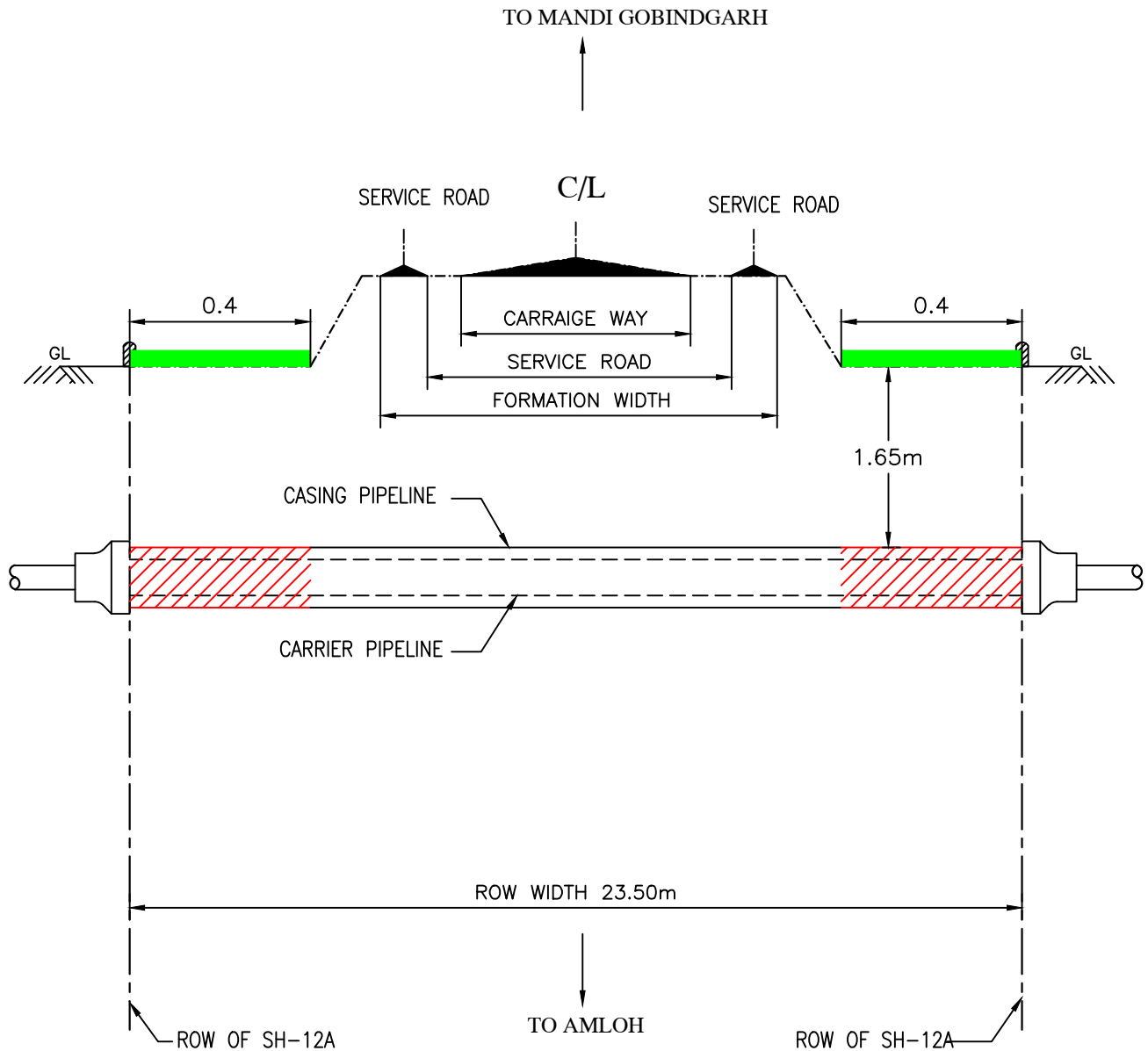
IRM ENERGY PRIVATE LIMITED

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MANAGER - PNG
FATEHGARH SAHIB**

**TYPICAL CROSS SECTION FOR PROPOSED 125 mm PE PIPELINE
ACROSS SH-12A (MANDI GOBINDGARH TO AMLOH)**

ANNEXURE-31

CS-10



PROPOSED GAS PIPELINE 
PROTECTED FOREST AREA 

IRM ENERGY PRIVATE LIMITED

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FATEHGARH SAHIB**

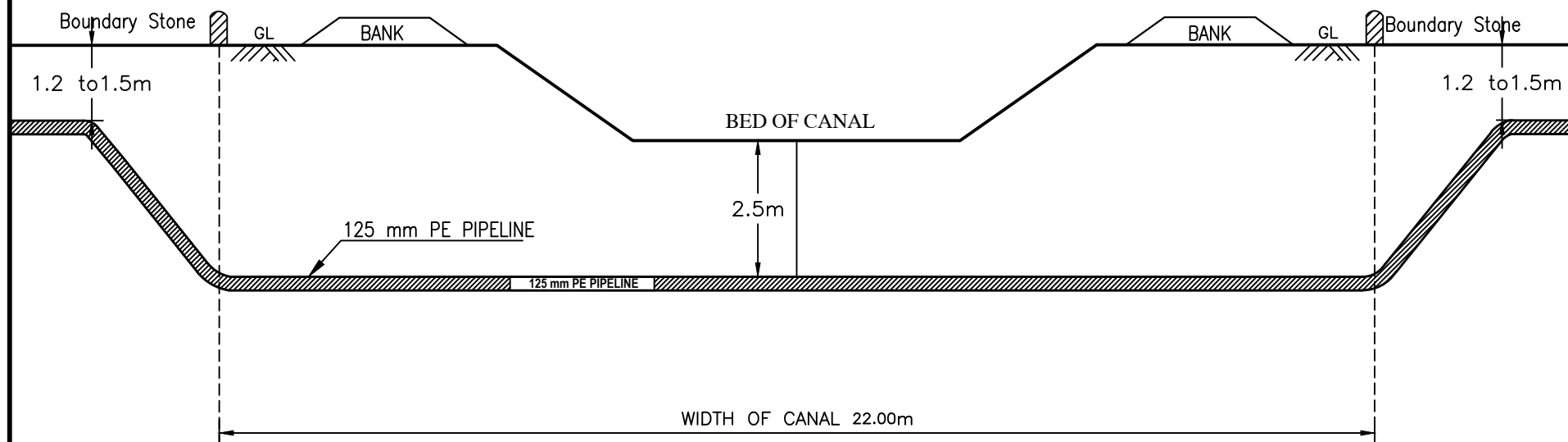
Sr. NO.	Route	Description	Chainage		WIDTH	Area (Ha.)
			From	To		
10	SP-2.1.1 (PROPOSED 125mmDIA PE PIPELINE SECTOR CONNECTIVITY)	Across SH-12A (Mandi Gobindgarh to Amlah)	0.00	23.50	23.50	0.0009



21.02.17	ISSUED FOR CLIENT'S APPROVAL	MANISHA	PRS	MND	PRS
DATE	REVISIONS	BY	CHKD	APPD	PROJ ENGR
CLIENT :- IRM ENERGY PRIVATE LIMITED (A Group Company of Cadila Pharmaceuticals Ltd.) 4th Floor, Building No.08, Magnet Corporate Park Nr. Sola Bridge, S.G. Highway, Thaltej, Ahmedabad - 380054, Gujarat					
Project :- FATEHGARH SAHIB CGD PROJECT SECTION :- GAS DISTRIBUTION IN MANDI GOBINDGARH & ITS SURROUNDING AREA					
AT :- TYPICAL CROSS SECTION OF NH-44 (LUDHIANA-DELHI) Surveyed & Prepared by :- DESHPANDE - PATIL CONSULTANTS (LAND / TOPOGRAPHIC SURVEYS, PIPE LINE SURVEY, SOIL INVESTIGATION, ROU & STATUTORY CLEARANCES) CORPORATE OFFICE: 36, "BHISHACHAL", AJANTA NAGAR, BHARUCH - 392 001, GUJARAT BASE CAMP: 26, GURU DAKSHIN, MANA-NR NAGAR, NR. SAI GANESH TEMPLE, BHARUCH - 392 001, GUJARAT Phone: (02642) 250052, 654959 Fax No.: (02642) 250052 E-mail: dpcsurveys@yahoo.com, dpcsurveys36@gmail.com					
SCALE	JOB NO.	DRAWING NO.			
N.T.S.	DPC/IRM/16-17	DPC - IRM - FATEHGARH SAHIB GA - RM - 01			

TYPICAL CROSS SECTION FOR PROPOSED 125 mm PE PIPELINE ACROSS 1R-DISTRIBUTORY

ANNEXURE-31

CS-11



21.02.17	ISSUED FOR CLIENT'S APPROVAL	MANISHA	PRS	MND	PRS
DATE	REVISIONS	BY	CHKD	APPD	PROJ ENGR
CLIENT:					
 IRM ENERGY PRIVATE LIMITED (A Group Company of Cadila Pharmaceuticals Ltd.) 4th Floor, Building No.08, Magnet Corporate Park Nr. Sola Bridge, S.G. Highway, Thaltej, Ahmedabad - 380054, Gujarat					
Project :- FATEHGARH SAHIB CGD PROJECT					
SECTION :- GAS DISTRIBUTION IN MANDI GOBINDGARH & ITS SURROUNDING AREA					
AT :- TYPICAL CROSS SECTION OF 1R DISTRIBUTORY CANAL					
 DESHPANDE - PATIL CONSULTANTS (Since 1988 - Survey of India - Survey of India) (LAND / TOPOGRAPHIC SURVEYS, PIPE LINE SURVEY, SOIL INVESTIGATION, BOU & STATUTORY CLEARANCES) CORPORATE OFFICE: 36, "SHREEBHACHAL", AJANTA NAGAR, BHARUCH - 392 001, GUJARAT BASE CAMP: 26, GURU DAKSHINAM, MAHARAJ NAGAR, NR. SA. GANESHI TEMPLE, BHARUCH - 392 001, GUJARAT Phone: (02642) 250052, 654995 Fax No.: (02642) 250052, E-mail: desurvey@yahoo.com , desurvey36@gmail.com					
SCALE	JOB NO.	DRAWING NO.			
N.T.S.	DPC/IRM/16-17	DPC - IRM - FATEHGARH SAHIB GA - RM - 01			

Sr. NO.	Route	Description	Chainage		WIDTH	Area (Ha.)
			From	To		
11	SP-1.5 (PROPOSED 125mm DIA PE PIPELINE PRABHAT INDUSTRY CONNECTIVITY)	Across 1 R Distributory	0.00	22.00	22.00	0.0009

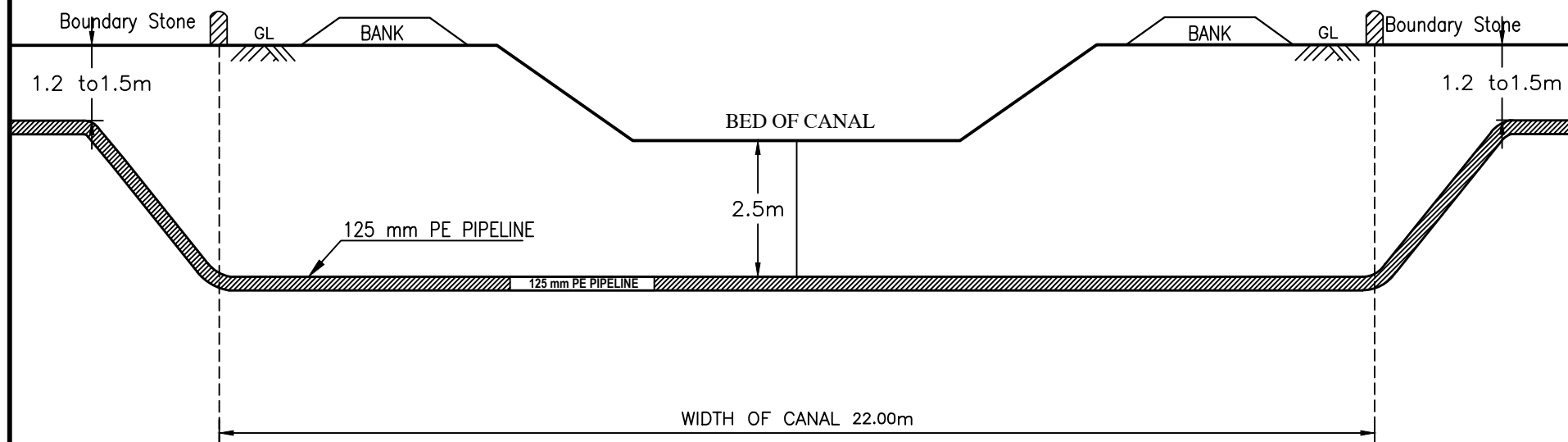
IRM ENERGY PRIVATE LIMITED



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FATEHGARH SAHIB

TYPICAL CROSS SECTION FOR PROPOSED 125 mm PE PIPELINE ACROSS AMLOH MINOR

ANNEXURE-31

CS-12



22.01.18	ISSUED FOR CLIENT'S APPROVAL	RADHIKA	VBB	MND	PRS
DATE	REVISIONS	BY	CHKD	APPD	PROJ ENGR
CLIENT:  IRM ENERGY PRIVATE LIMITED (A Group Company of Cadila Pharmaceuticals Ltd.) 4th Floor, Building No.08, Magnet Corporate Park Nr. Sola Bridge, S.G. Highway, Thaltej, Ahmedabad - 380054, Gujarat					
Project :- FATEHGARH SAHIB CGD PROJECT SECTION :- GAS DISTRIBUTION IN MANDI GOBINDGARH & ITS SURROUNDING AREA					
AT :- TYPICAL CROSS SECTION OF 1R DISTRIBUTORY CANAL					
 DESHPANDE - PATIL CONSULTANTS (Since 1988 - Survey of India - Survey of India) (LAND / TOPOGRAPHIC SURVEYS, PIPE LINE SURVEY, SOIL INVESTIGATION, BOU & STATUTORY CLEARANCES) CORPORATE OFFICE: 36, "SHREEBHACHAL", AJANTA NAGAR, BHARUCH - 392 001, GUJARAT BASE CAMP: 26, GURU DAKSHINAM, MAHADEV NAGAR, NR. SA. GANESHI TEMPLE, BHARUCH - 392 001, GUJARAT Phone: (02642) 250052, 6549959 Fax No.: (02642) 250052 E-mail: desurvey@yahoo.com , desurvey36@gmail.com					
SCALE	JOB NO.	DRAWING NO.			
N.T.S.	DPC/IRM/16-17	DPC - IRM - FATEHGARH SAHIB GA - RM - 01			

Sr. NO.	Route	Description	Chainage		WIDTH	Area (Ha.)
			From	To		
12	MODERN INDUSTRY CONNECTIVITY (PROPOSED 125mmDIA PE PIPELINE)	Across Amloh Minor	0.00	40.00	40.00	0.0016

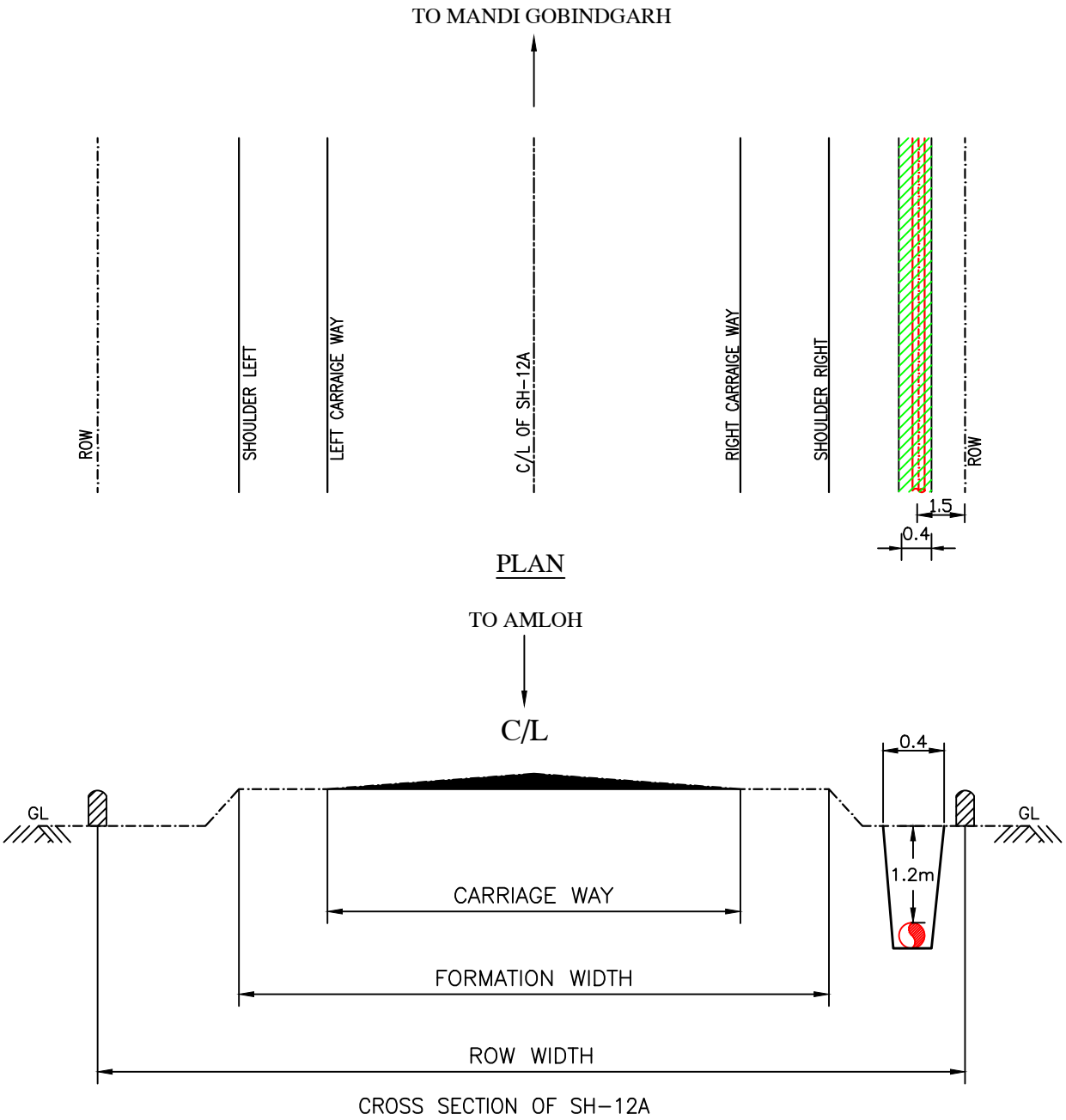
IRM ENERGY PRIVATE LIMITED

PRERIT GUPTA
MANAGER - PNG
FATEHGARH SAHIB

**TYPICAL CROSS SECTION FOR PROPOSED 125 mm PE PIPELINE
ALONG SH-12A (MANDI GOBINDGARH TO AMLOH)**

ANNEXURE-31

CS-13



NOTE:—DIMENSIONS ARE IN METRES
SCALE:—N.T.S

PROPOSED GAS PIPELINE 
PROTECTED FOREST AREA 

Sr. NO.	Route	Description	Chainage		Length	Area (Ha.)
			From	To		
13	Amloh Connectivity 125mmDIA PE GAS P/L	Along SH-12A (Mandi Gobindgarh to Amloh)	0.00	4040.00	4040.00	0.1616

IRM ENERGY PRIVATE LIMITED

**PRERIT GUPTA
MANAGER - PNG
FATEHGARH SAHIB**