



**REPLY TO BIDDER QUERIES**

Bid Doc No: 110330G/WGI/GAIL/03-R0

Project: Khera Compressor Station Upgradation Project

Item: Bid document for Terminal Works

Client :GAIL (India) LIMITED

S. NO.	BIDDER	BIDDER QUERY	WGI REPLY
1	SINGH ENGINEERING WORKS	In SOR Item No. A001 & A022 the Stud Bolts & Nuts; Gaskets; are to be supplied by Contractor. However the same materials are also included in Item No. A003 (A017 & A 018) where these items will be supplied by contractor. So please clarify.	Bidder has to supply Stud Bolts & Nuts and Gaskets as per SOR Item No. A017 and A018.
2	SINGH ENGINEERING WORKS	SOR Item No. A 039: What is the size (diameter) of Pipeline?	The size of the pipeline is 4".
3	SINGH ENGINEERING WORKS	SOR Item No. A 041: What type of coating to be done on 30" dia Pipeline ?	The free issue 30" pipe is 3-layer PE coated.
4	SINGH ENGINEERING WORKS	SOR Item No. A 041: The restoration of road is included in this item or will it be paid separately ?	To be included under the item A 041.
5	SINGH ENGINEERING WORKS	SOR Item No. A041 & A 042: Both these items include Road Crossing. So please clarify that payment of Road Crossing will be made under which item?	UnderItem A041 bidder should quote rate for open cut in road crossing where as under Item A042 bidder should quote for underground pipe laying/installation.
6	SINGH ENGINEERING WORKS	SOR Item No. A042: In detailed SOR it has been written that "No separate payment will be made for trenchless method" however in the "Notes-b" in the same SOR item it has been mentioned that "All crossings installed by HDD/Moling method without any casing pipe shall be paid separately as per the rates quoted for the same elsewhere in the SOR".	No separate payment will be made for trenchless method.
7	SINGH ENGINEERING WORKS	SOR Item No. A042: Please clarify whether the 30" dia pipeline to be issued from GAIL would be Bare or PE coated? As at one place in the SOR item it has been mentioned that the ".....Owner supplied 3 Layer PE coated line pipes...." However in "Notes-d" it has been mentioned that "Wrapping & Coating of the 30" bare free issue underground pipe would be in the contractor's scope".	The free issue 30" pipe is 3-layer PE coated.
8	SINGH ENGINEERING WORKS	SOR Item No. B058: What is the class of GI Pipe?	Medium Class
9	SINGH ENGINEERING WORKS	SOR Item No. B059: Drawing no. 1-05-041 is not available in the tender document? Hume pipe size mentioned in SOR item is 600 dia and as shown in Drawing is 1000 NB?	Size of hume pipe is 600 NB and reference drawing no. 1-05-041 is attached.
10	SINGH ENGINEERING WORKS	SOR Item No. C082: What is the Class of GI Pipe conduit?	Medium Class
11	SINGH ENGINEERING WORKS	Volume –II Technical: Page No.-11: Only 30" dia Valve & Filters to be supplied by owner, then what about 30" dia Pipes?	30"pipe, 30" valves and Filters are free issue material
12	SINGH ENGINEERING WORKS	Can Ultrasonic Testing be done after completion of all welding work or is it to be done before welding?	UT is to be done after welding.
13	SINGH ENGINEERING WORKS	As mentioned on page 12 of 345 of Volume –II Technical: The locations from where 30" dia pipes are to be shifted is Usar, Budrak, Mumbai, Hazira?	30" Line pipes are lying at Khera Site. Handling, stacking, storing, shifting of pipes to Khera terminal site is under contractor scope.



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14	SINGH ENGINEERING WORKS	Please provide the name of approved vendors for Blow Down Tank.	Bidder has to fabricate the Blow Down Tank on his own, hence no vendor list is required.
15	SINGH ENGINEERING WORKS	Would the owner(GAIL (I) Ltd.) provide the 30" dia pipe cut piece (on returnable basis) as free issue material for making Test Header.	Yes, 30" dia pipe cut piece would be provided by GAIL as free issue material.
16	SINGH ENGINEERING WORKS	What if any other fittings are required for the job other than those mentioned in SOR? Would it be paid to the contractor?	Payment for extra items would be made as per clause 60.0 of GCC to tender.
17	SINGH ENGINEERING WORKS	Item No. A043: The sch. mentioned in item is 40 Sch. However Sch.40 is not suitable for D1A Class Piping. Please clarify.	Refer Corrigendum-1
18	SINGH ENGINEERING WORKS	There are not any Indian Vendor for 30" dia Pipe Fittings in your approved list of Vendors.	The name of vendors provided in the vendor list are qualified for sizes upto 30".
19	INDCON PROJECTS	Kindly provide the name of approved vender for flanges of 30", 600#.	Refer the vendor list attached in the tender for all the sizes of the flange.
20	INDCON PROJECTS	Kindly provide the name of approved vender for Plug Valves.	Refer Corrigendum-1



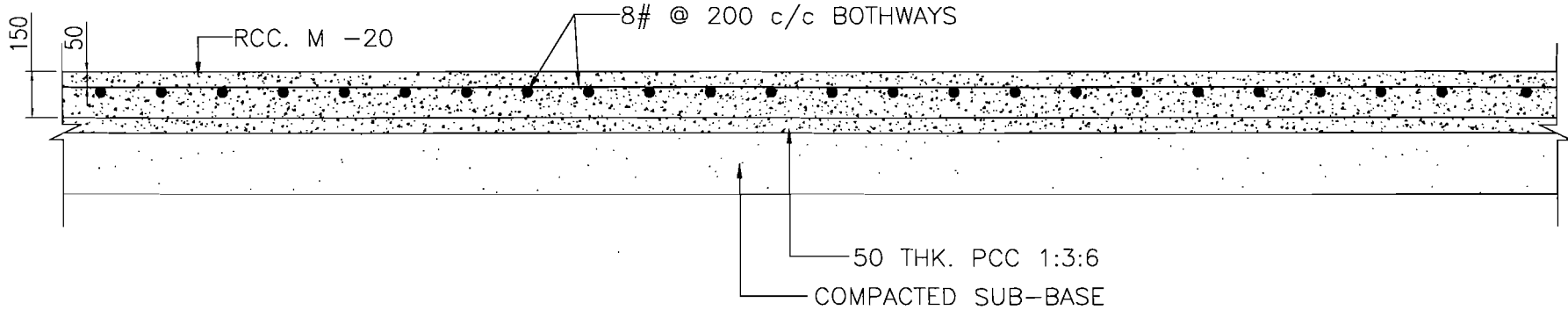
KHERA COMPRESSOR STATION UPGRADATION PROJECT  
BID DOCUMENT FOR TEMRINAL WORKS  
REPLIES TO BIDDERS QUERIES



**CORRIGENDUM-1**  
**Tender No – 110330E/WGI/GAIL/03-R0**  
**E TENDER No- 8000003857**

**DATE: 03.02.2012**


<b>Sr. No.</b>	<b>Section / Clause No.</b>	<b>Tender Doc. Page No.</b>	<b>Clause Description</b>	<b>WGI / GAIL Reply to Bidders Queries</b>
1.	VOL I OF II , SOR	SOR, Page No. 8, Item No. A043a)	30”-45° Elbow, BW, Sch. 40- (ASTM A 234 Gr. WPB)	30”-45° Elbow, BW, Sch. MxM- (ASTM A 234 Gr. WPB) (MxM Stands for Matching with Pipe thickness)
2.	VOL I OF II , SOR	SOR, Page No. 10, Item No. B057, B057.1, B059	Civil/ Structural/ Architectural Items of work.	Refer Annexure I, II & III
3.	VOL II of II, Technical	Page 199 of 344	List of Vendors	Refer Annexure IV
4.	VOL II of II, Technical	Addition	Datasheet of Plug Valve and Gate Valve.	Refer Annexure V
5.	VOL II of II, Technical	Page 199 of 344	List of Vendors	The following vendors are excluded from the list.  1) Microfinish Valve 2) Cooper Cameron Valves Pte. Ltd. 3) Eften Engineering Pvt. Ltd.

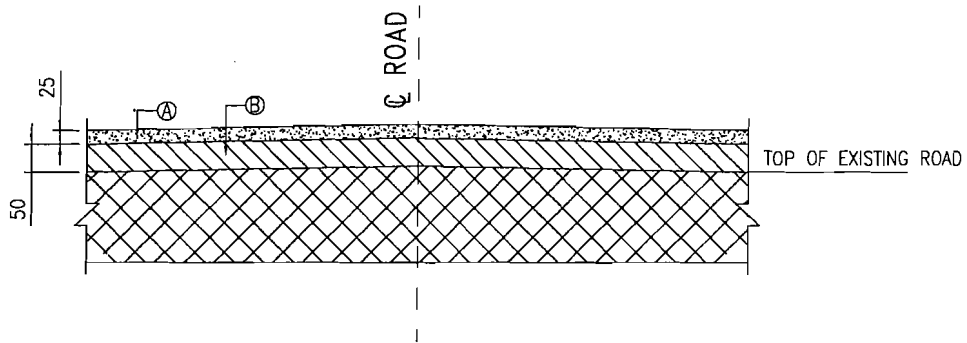


SECTION THROUGH PAVEMENT

NOTES:-

- 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METRES.
- 2. FOLLOW WRITTEN DIMENSIONS ONLY & DO NOT SCALE.

	<b>STANDARD FOR TYPICAL PAVEMENT DETAIL</b>	<b>DRAWING NUMBER</b>	<b>REV</b>
		1-05-039	A
		<b>SHEET 1 OF 1</b>	



CROSS SECTION OF ROAD

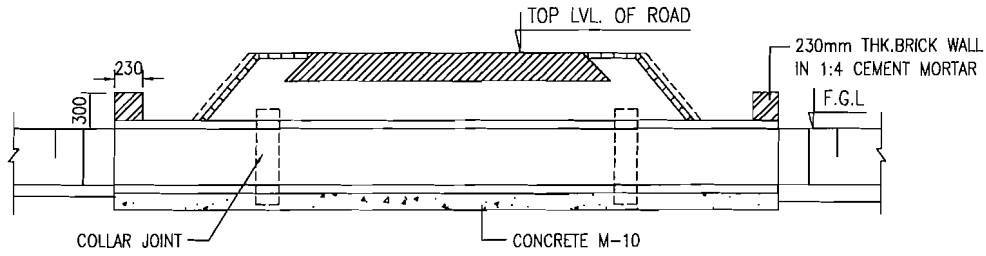
- A) PREMIX BITUMENOUS CARPET SURFACING WITH SEAL COAT USING STONE AGGREGATE 10MM NOMINAL SIZE AND BITUMEN EMULSION COMPLYING WITH IS:8887 INCLUDING CONSOLIDATION WITH ROAD ROLLER ETC COMPLETE
- B) BITUMEN MACADAM ON PREPARED SURFACE USING COARSE AGGREGATE OF SIZE 50-20MM WITH BITUMEN OF 60/70 GRADE 5% BY WEIGHT

NOTES

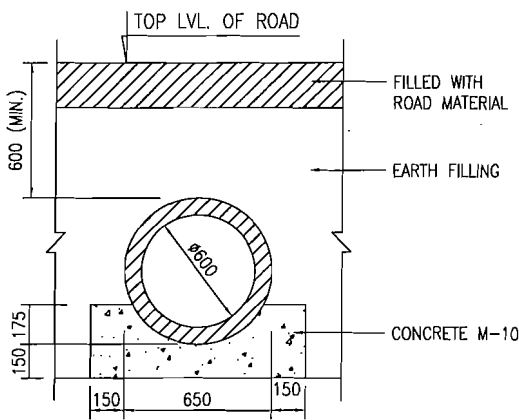
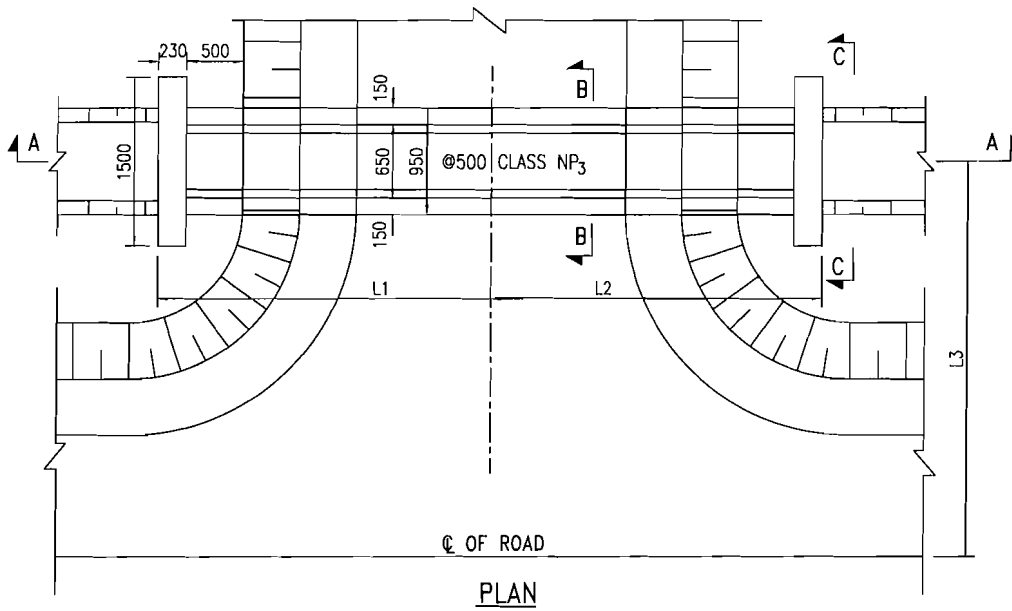
- 1. ALL DIMENSIONS ARE IN MM.  
UNLESS MENTIONED OTHERWISE

	<b>STANDARD FOR BITUMENOUS ROAD CARPETING</b>	<b>DRAWING NUMBER</b>	<b>REV</b>
		1-05-040	A
		SHEET 1 OF 1	

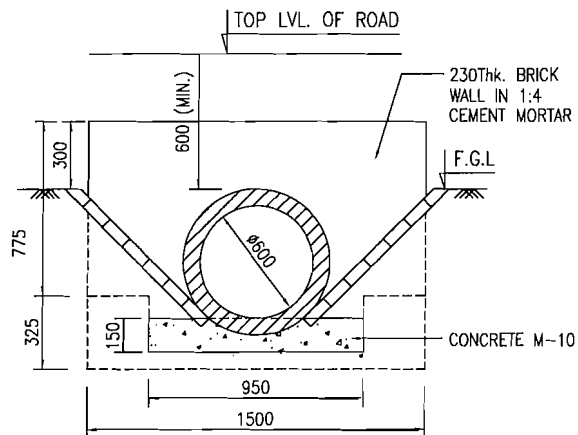
**Annexure III**



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**



**STANDARD  
FOR  
PIPE CULVERT FOR STORM  
WATER DRAINAGE**

**DRAWING NUMBER**

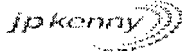
1-05-041

SHEET 1 OF 2


**REV**

A

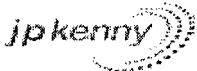
## Annexure IV

LIST OF RECOMMENDED VENDORS						
S.NO	ITEM	NAME OF VENDOR	ADDRESS	PHONE NO	FAX NO	QUALIFIED FOR SIZE
1	Gate Valves	BDK Engineering				
2		BHEL				
3		LEADERS				
4		KSB				
5		NECO SCHUBERT & SALZER				
6		L&T / Audco valves				
7	Plug Valves	L&T / Audco valves	Chennai			
8		Econo Valves Pvt. Ltd.	197, SIDCO Industrial Area, Ambattur, Chennai 600 098	044 6251829/ 6254371		
9		Hawa Valves (India) Pvt Ltd	4, Karmabhumi Industrial estate, opp. Ajit Mill Police chowky. Rakhial Road, Ahmedabad			
10		BDK Engineering				
11		Fluidtech Valves				
		<b>LIST OF RECOMMENDED VENDORS FOR PLUG VALVE</b>		<b>Document No.</b> 11-0330E-01-11-06-01	<b>Rev.</b> 1	


## Annexure V

CLIENT	GAIL (India) Limited	PROJECT: KHERA COMPRESSOR STATION UP-GRADATION	
SIZE/QUANTITY	2" & above		
<b>GENERAL SPECIFICATION</b>			
Process Fluid	NG/ R-LNG	ANSI Rating	150#
Design Temperature	( 0 to 65 deg C)	Design Pressure	19 barg
Design Standard	API 600	Piping Class	1A1
Size, mm (inch)	2" & above		
Valve Pattern	Regular		
Connection Type	FLG	Standard	ASME B16.5, B16.47
Pup piece/ Flange Face Finish	N.A./ RF 125AARH	Special Requirement	Vent, drain & Sealant connection Anti Blow out system
Locking Device Reqd	.		
<b>VALVE DESIGN CONDITIONS</b>			
Corrosion Allowance	1.5mm	Design Factor	0.5
Installation	Aboveground	Stem Ext Length, mm	NA
Opening/Closing time	.		
<b>CONNECTING PIPE DETAILS</b>			
Diameter, mm (inch)	Refer P&ID		
Wall Thck, mm/Sch	Refer P&ID		
Out of roundness	-		
<b>VALVE OPERATION</b>			
Actuation Requirement	NA		
Type of Actuator	NA		
<b>VALVE MATERIAL SPECIFICATION</b>			
PART DISCRPTION	SPECIFIED	MATERIAL OFFERED	
Body	A 216 Gr.WCB /A234 Gr.WPB	*	
Bonnet	A 216 Gr.WCB /A234 Gr.WPB	*	
Stem	ASTM A182-F6a	*	
Wedge	A 216 Gr.WCB	*	
Seat rings	ASTM A105 + STL. Overlay	*	
Handwheel	Ductile Iron	*	
Gasket	Graphoil	*	
Stud Bolts	ASTM A 193 Gr.B7	*	
Nuts	A194 Gr. 2H	*	
<b>TESTING REQUIREMENT</b>			
Hydrostatic Test Pressure	Body: 29 barg	Seat: 21 barg	
Air Test Pressure	7 bar		
Anti-Static Testing Requirement	As per API 598		
Hardness Test	248 HV10		
Charpy Impact Test/ Temperature	Yes (at 0 deg C)		
	DATA SHEET FOR GATE VALVES	Document No.	Rev.
		11-0330E-01-08-03-009	0
		SHEET 1 of 2	


**Annexure V**

<b>CLIENT</b>	GAIL (India) Limited	<b>PROJECT:KHERA COMPRESSOR STATION UP-GRADATION</b>	
<b>SIZE/QUANTITY</b>	2" & above		
<b>Fire Safe Test</b>	As per API 6FA		
<b>Valve Painting Specification</b>	Suitable for Corrosive Industrial Environment		
<b>Manufacturer's Painting Specification Number</b>	*		
<b>Notes</b>			
1. This Data Sheet Shall be read in conjunction with the Technical Specs, M.T.O.(if any), PMS which are enclosed along with this requisition.			
2. All Underground Valves shall be supplied with extended stem and Welded body type.			
3. Stem packing shall be renewable with valve open on stream.			
4. All valves shall be provided with valve position indicator.			
5. Valve shall be "pressure balanced design ", i.e It shall have an inherent feature using the line pressure to ensure that the line pressure cannot cause taper locking of the plug/plug movement into the taper.			
Abbreviations: SB - Small Bore, LB - Large Bore, BW - Butt welded, FLG - Flange, GPV - Gear Operated Plug Valve			
* To be filled by Vendor			
	<b>DATA SHEET FOR GATE VALVES</b>	<b>Document No.</b>	
		11-0330E-01-08-03-009	
		<b>SHEET 2 of 2</b>	
		<b>Rev.</b>	0

## Annexure V

CLIENT	GAIL (India) Limited	PROJECT:KHERA COMPRESSOR STATION UP-GRADATION	
SIZE/QUANTITY			
<b>GENERAL SPECIFICATION</b>			
Process Fluid	NG/ R-LNG	ANSI Rating	600#
Design Temperature	( 0 to 65 deg C)	Design Pressure	92 Kg/cm2 g
Design Standard	API 6D	Piping Class	6A1
Size, mm (inch)	2"		
Valve Pattern	Regular		
Connection Type	FLG.	Standard	ASME B16.5
Pup piece/ Flange Face Finish	N.A./ RF 125AARH	Special Requirement	Vent, drain & Sealant connection Anti Blow out system
Locking Device Req'd	*		
<b>VALVE DESIGN CONDITIONS</b>			
Corrosion Allowance	1.5mm	Design Factor	0.5
Installation	Aboveground	Stem Ext Length, mm	NA
Opening/Closing time	*		
<b>CONNECTING PIPE DETAILS</b>			
Diameter, mm (inch)	Refer P&ID		
Wall Thck, mm/Sch	Refer P&ID		
Out of roundness	-		
<b>VALVE OPERATION</b>			
Actuation Requirement	NA		
Type of Actuator	NA		
<b>VALVE MATERIAL SPECIFICATION</b>			
PART DISCRPTION	SPECIFIED	MATERIAL OFFERED	
Body	A 216 Gr.WCB / A234Gr.WPB	*	
Plug	(A 216 Gr.WCB/ A234Gr.WPB) + 0.003" ENP	*	
Cover	A 216 Gr.WCB/ A234Gr.WPB	*	
Stem	AISI 4140 + 0.03" ENP/ AISI 410	*	
Stem Seal	PTFE/ Viton	*	
Gasket	Graphoil	*	
Stud Bolts	ASTM A 193 Gr.B7	*	
Nuts	A194 Gr. 2H	*	
<b>TESTING REQUIREMENT</b>			
Hydrostatic Test Pressure	Body: 147 Kg/cm2 g	Seat: 107.8 Kg/cm2 g	
Air Test Pressure	7 bar		
Anti-Static Testing Requirement	As per API 6D Latest Edition		
Hardness Test	248 HV10		
Charpy Impact Test/ Temperature	Yes (at 0 deg C)		
	<b>DATA SHEET FOR PLUG VALVES 600#</b>	Document No.	Rev.
		11-0330E-01-08-03-008	1
		SHEET 1 of 2	

## Annexure V

<b>CLIENT</b>	GAIL (India) Limited	<b>PROJECT: KHERA COMPRESSOR STATION UP-GRADATION</b>	
<b>SIZE/QUANTITY</b>			
<b>Fire Safe Test</b>		As per API 6FA	
<b>Valve Painting Specification</b>		Suitable for Corrosive Industrial Environment	
<b>Manufacturer's Painting Specification Number</b>		*	
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* To be filled by Vendor			
	<b>DATA SHEET FOR PLUG VALVES</b>	<b>Document No.</b>	<b>Rev.</b>
		11-0330E-01-08-03-008	1
		SHEET 2 of 2	