

# CHENNAI METRO RAIL LIMITED

# CHENNAI METRO RAIL PROJECT PHASE I

# **CONTRACT BW-UG-02**

DESIGN AND CONSTRUCTION OF BALANCE WORKS OF UNDERGROUND STATIONS AT GOVERNMENT ESTATE, LIC AND THOUSAND LIGHTS AND ASSOCIATED TUNNELS

# ADDENDUM – 1



Sl.No	Reference	Available Para/Clause	Amendment	
A	All parts of Bid	Documents		
A1.		Employer's Representative	Replace with the following:	
			Engineer	
A2.		Engineer's Representative	Replace with the following:	
			Engineer	
A3.		LIC Building	Replace with the following:	
D	D 410 42 1		LIC	
B		III: Evaluation and Qualification Criter		
B1.	Clause 1.1.3	The Applicant shall meet the	Delete the following:	
	Others	following minimum criteria:	The Applicant shall most the following	
	(c) General	1 The guerran annual turns over	The Applicant shall meet the following minimum criteria:	
	Experience	1.The average annual turnover as prime contractor or joint	Illillillilli Citteria.	
		venture partner (defined as	1.The average annual turnover as prime	
		billing for works in progress	contractor or joint venture partner (defined	
		and completed) over the last 5	as billing for works in progress and	
		financial years (i.e financial	completed) over the last 5 financial years	
		years ending between April 1,	(i.e financial years ending between April 1,	
		2010 to March 31st, 2015) of	2010 to March 31st , 2015) of USD 85	
		USD 85 Million / INR 510	Million / INR 510 Crores equivalent.	
		Crores equivalent.	2. Successful experience as prime	
		2. Successful experience as	contractor in the execution of at least four	
		prime contractor in the	projects of comparable nature and	
		execution of at least four	complexity to the proposed contract within	
		projects of comparable nature	the last 10 years ending 31.03.2015; at least	
		and complexity to the proposed	two out of these four projects must have	
		contract within the last 10	been completed within the last 5 years	
		years ending 31.03.2015; at	ending 31.03. 2015.	
		least two out of these four		
		projects must have been	This experience in the last 5 years shall	
		completed within the last 5	include:	
		<u>years ending 31.03. 2015.</u>	i. Executed and completed at least	
		This considers in the last 5	one tunnel by Closed Face TBM of at least	
		This experience in the last 5	3 km in total length (single tunnel length to	
		<u>years shall include:</u> i. Executed and completed at	be counted), and of finished internal diameter not less than 5 m, below the local	
		least one tunnel by Closed	groundwater table and in mixed ground	
		Face TBM of at least 3 km in	conditions that vary from weak alluvial	
		total length (single tunnel	deposits to competent rock; and	
		length to be counted), and of	ii. Execution and completion of at least	
		finished internal diameter not	three underground stations all below the	
	1	janishea memul aumetel not	unce underground stations an octow the	



Sl.No	Reference	Available Para/Clause	Amendment		
		less than 5 m, below the local	local groundwater table and in mixed		
		groundwater table and in	ground conditions that vary from alluvial		
		mixed ground conditions that	deposits to competent rock and with the		
		vary from weak alluvial	following features:		
		deposits to competent rock;	- excavation depth to accommodate		
		and	two or more levels (platform and		
		ii. Execution and completion of	concourse) below the ground surface.; and		
		at least three underground	- An excavated volume of not less		
		stations all below the local	than 70,000 cubic meters in each station.		
		groundwater table and in			
		mixed ground conditions that			
		vary from alluvial deposits to			
		competent rock and with the			
		following features:			
		- excavation depth to			
		accommodate two or			
		more levels (platform			
		and concourse) below the			
		ground surface.; and			
		- An excavated volume			
		of not less than 70,000			
		<u>cubic meters in each</u>			
		<u>station.</u>			
		The applicant is required to submit			
		satisfactory performance certificates			
		from their respective client's along			
		with the tender. Where necessary,			
		CMRL will make inquiries with the			
		Applicant's clients.			
B2.	Clause 1.1.3	The Applicant must submit a list of	Add the following to para:		
	Others	potential Lead Detailed Design	Journ o Para.		
	(d) Lead	Consultants (DDC) they propose to	The Previous' Employer's Certificate shall		
	Detailed	appoint to prepare detailed design of	be provided in the format "Appendix 1 to		
	Design	the works on his behalf and the	EQC".		
	Consultant	successful contractor will be obliged to	This will be taken into account at the time		
	(DDC)	appoint a DDC from the list submitted.	of appointment of DDC after award of		
	(DDC)	It is not necessary for the DDC to be	contract.		
		•	Contract.		
		jointly and severally bound with the			
		Applicant. However the proposed			
		DDC must be separately listed in the			
		application with necessary documents			
		supporting their credentials/ experience			
		including their previous employers'			
		certificates. It is mandatory for these			



B3.   Clause   1.2.3   Bidders have the option to bid for any one or both packages. Bids will be evaluated package. Sids will be evaluated package. Only one package contract (BW-UG-O2 or BW-UG-O2 or bW-UG-O3) Contract(s) will be awarded to the Bidder of Bidders (s) meeting the required qualification Criteria for Multiple Contracts    Clause   2 (ii) Qualification Criteria for Multiple Contracts   Clause   2.3   Table for 2.3.1 to 2.3.3   Table for 2.3.1 to 2.3.3     B5.   Clause   2.3   Financial Situation   Endower with the following as note to Bidders below the table:   Situation   Endower with the following as applicable   Situation   Endower with the following as applicable   Situation   Endower with the following as note to Bidders below the Bidder (for Single entity or each member of the JV, as applicable   Situation   Endower with Situation   Situation   Endower with Situation   Situation   Endower with Situation   Situ	Sl.No	Reference	Available Para/Clause	Amendment		
B3. Clause 1.2.3 Replace with the following:  Award Criteria for Multiple Contracts (ITB 38.4)  B4. Clause 2 (ii) Qualification Criteria for Multiple Contracts  B5. Clause 2.3 Financial Situation  B5. Clause 2.3 Financial Situation  B6. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  B6. Clause 2.4 General Experience  B7. All EQC "Applicant" Replace with the following:  One or both packages. Bids will be evaluated packages. Only one or both packages. Bids will be evaluated packages. Only one package contract (BW-UG-02 or BW-UG-03) Contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined packages, subject to the selected Bidder(s) meeting the require qualification Criteria for Multiple Contracts  B6. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  B6. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  B7. Award Criteria for Multiple contracts award of two packages, the Bidder should satisfy the requirements set out in the qualifying criteria enclosed herewith as EQC for award of multiple packages.  Add the following as note to Bidders below the table:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each, as applicable).  B6. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  B7. Award Criteria for the package. Bids will be evaluated on to bid for any one or both packages. Bids will be evaluated one bidders have the option to bid for any or both packages. Bids will be evaluated on bidders have the option to bid for any or both packages. Bids will be evaluated to the sected by packages on a single bidder when he is lowest for both contracts. Be should meet EQC-Combined criteria in accordance with Clause 2 (ii) — Qualification Criteria for Multiple Contracts.  B7. Clause 2.4 Table for 2.3.1 to 2.3.3  B8. Clause 2.5 Table for 2.4.1 to 2.4.2 (b) ii)  B8. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) iii  B9. Clause 3.4 Table for 2.4.1 to 2.4.2 (b) iii  B9. Clause 4.4 Table for 2.4.1 to 2.4.2 (b) iii  B9. Clause 5.6 Ta						
B3.   Clause   1.2.3   Award Criteria   Award Criteria   For Multiple Contracts (ITB 38.4)   Early			<u> </u>			
Award Criteria for Multiple Contracts (ITB 38.4)  B4. Clause 2 (ii) Qualification Criteria for Multiple Contracts  Clause 2 (iii) Situation  B5. Clause 2.3 Financial Situation  B6. Clause 2 (Jause 2.4 (General Experience  B6. Clause 2.4 (General Experience  B7. All EQC  B6. Clause 2.4 (General Experience  B7. All EQC  B7. All EQC  B7. All EQC  B7. All EQC  All EQC  Applicant*  One or both packages. Bids will be evaluated to this ackage. Bids will be evaluated to a single bidder when he is lowest for both contracts, be should meet EQC-Combined criteria in accordance with Clause 2 (ii) - Qualification Criteria for Multiple Contracts.  Bidders have the option or both contracts, be should meet EQC-Combined criteria in accordance with Clause 2 (ii) - Qualification Criteria for Multiple	R3	Clause 123		Replace with the following:		
Criteria Multiple Contracts (ITB 38.4)  Clause 2 (ii) Qualification Criteria for Multiple Contracts  Clause 2.3 Financial Situation  B5. Clause 2.3 Financial Situation  B6. Clause 2.4 General Experience  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 3.4 Clause 2.4 General Experience  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 3.4 Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 3.4 Clause 2.4 General Experience  Contracts  Criteria for Multiple Contracts  Bidders have the option to bid for any one or both packages. Bids will be evaluated package-wise, taking into account discounts discounts offered, if any, for individual packages. Bids will be evaluated package-wise, taking into account discounts offered, if any, for individual packages. Bids will be evaluated package-wise, taking into account discounts offered, if any, for individual packages. Bids will be evaluated package-wise, taking into account discounts offered, if any, for individual packages. Bids will be evaluated package-wise, taking into account discounts offered, if any, for individual packages. Bids will be evaluated package-wise, taking into account discounts offered, if any, for individual packages. Bids will be evaluated package-wise, taking into account discounts offered, if any, for individual packages. Bids will be evaluated by the packages. Bids will be evaluated by the packages. Bids will be evaluated by the pac	<b>D</b> 3.		1 1	Replace with the following.		
Multiple Contracts (ITB 38.4)  B4. Clause 2 (ii) Qualification Criteria for Multiple Contracts  Contracts  Contracts  Contracts  B5. Clause 2.3 Financial Situation  B6. Clause 2.3 Financial Situation  B7. Clause 2.3 Financial Situation  B8. Clause 2.3 Financial Situation  Criteria contracts  Clause 2.3 Table for 2.3.1 to 2.3.3  Clause 2.3 Financial Situation  Criteria contracts  Clause 2.4 General Experience  Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  Clause 2.4 General Experience  Replace "Applicant" with "Bidder".				Bidders have the option to bid for any one		
(ITB 38.4)    Dackage contract (BW-UG-02 or BW-UG-03 Contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined packages, subject to the selected Bidder(s) meeting the required qualification criteria for Multiple Contracts    B4.   Clause 2 (ii) Qualification   Delete		Multiple				
B4.   Clause 2 (ii)   Qualification   Criteria   for Multiple   Contracts     B5.   Clause 2.3   Table for 2.3.1 to 2.3.3   Financial   Situation     B5.   Clause 2.3   Table for 2.4.1 to 2.4.2 (b) ii)   B6.   Clause 2.4   General   Experience     B6.   Clause 2.4   Table for 2.4.1 to 2.4.2 (b) ii)   General   Experience     B7   All EQC   "Applicant"   Applicant"   Replace "Applicant"   Replace "Applicant" with "Bidder".			1 &			
the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined packages, subject to the selected Bidder(s) meeting the required qualification criteria for the package.  B4. Clause 2 (ii) Qualification Criteria for Multiple Contracts  B5. Clause 2.3 Financial Situation  B5. Clause 2.3 Table for 2.3.1 to 2.3.3  Financial Situation  B6. Clause 2.4 General Experience  B7. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) ii)  B8. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) iii)  B8. Clause 2.4 Tapplicant"  The Bidder when he is lowest for both contracts, he should meet EQC-Combined criteria in accordance with Clause 2 (ii) — Qualification Criteria for Multiple Contracts.  B6. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) iii)  B7. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) iii)  B8. Clause 2.4 Table for 2.4.1 to 2.4.2 (b) iii)  B8. Clause 2.4 Tapplicant"  T8. Bidder when he is lowest for both contracts, he should meet EQC-Combined criteria in accordance with Clause 2 (ii) — Qualification Criteria for Multiple Contracts.  Replace with the following:  Replace with the following:  Torthe award of two packages, the Bidder should satisfy the requirements set out in the qualifying criteria enclosed herewith as EQC for award of multiple packages.  Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  Replace with New Table 2.4 attached to this addendum.  Experience  B7. All EQC  "Applicant"  Replace "Applicant" with "Bidder".		(ITB 38.4)				
Iowest evaluated cost to the Employer for combined packages, subject to the selected Bidder(s) meeting the required qualification criteria for Multiple Contracts				1 0 1		
B4. Clause 2 (ii) Qualification Criteria for Multiple Contracts  B5. Clause 2.3 Financial Situation  B6. Clause 2.3 Financial Situation  B7. Clause 2.3 Financial Situation  B8. Clause 2.4 For evaluation under Clause 2.3.3 Financial Situation  B8. Clause 2.4 General Experience  B8. Clause 2.4 Fable for 2.4.1 to 2.4.2 (b) ii)  B8. Clause 2.4 Fable for 2.4.1 to 2.4.2 (b) iii)  B8. Clause 2.4 Fable for 2.4.1 to 2.4.2 (b) iii)  Replace with the following:  Replace with clause 2.4  Rep				· 1		
Selected Bidder(s) meeting the required qualification criteria for Multiple Contracts.    B4.   Clause 2 (ii) Qualification Criteria for the package.   Replace with the following:			1			
B4. Clause 2 (ii) Qualification Criteria for the package.  Clause 1 (ii) Qualification Criteria for Multiple Contracts  B5. Clause 2.3 Table for 2.3.1 to 2.3.3  B5. Clause 2.3 Financial Situation  B5. Clause 2.3 Table for 2.4.1 to 2.4.2 (b) ii)  B6. Clause 2.4 General Experience  B7 All EQC "Applicant"  Qualification criteria for the package.  Replace with the following:  Replace with the f				` ′		
B4. Clause 2 (ii) Qualification Criteria for Multiple Contracts  B5. Clause 2.3 Financial Situation  B6. Clause 2.4. General Experience  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  B6. Clause 2.4. General Experience  B7 All EQC  **Applicant**  Replace with the following:  Replace with New Table 2.4 attached to this addendum.  Replace "Applicant" with "Bidder".				`		
Criteria for Multiple Contracts  B5. Clause 2.3 Financial Situation  B5. Clause 2.3 Table for 2.3.1 to 2.3.3  Clause 2.3 Financial Situation  Note to Bidders:  Note to Bidders:  1. For evaluation under Clause 2.3.3  (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3  (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Replace with New Table 2.4 attached to this addendum.  Replace "Applicant" with "Bidder".	B4.	Clause 2 (ii)		Replace with the following:		
Multiple Contracts  Bidders should satisfy the requirements set out in the qualifying criteria enclosed herewith as EQC for award of multiple packages.  B5. Clause 2.3 Financial Situation  Table for 2.3.1 to 2.3.3  Financial Situation  Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Replace "Applicant" with "Bidder".		~				
Contracts  B5. Clause 2.3 Table for 2.3.1 to 2.3.3  Financial Situation  Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable).  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Replace "Applicant"  Replace "Applicant" with "Bidder".						
B5. Clause 2.3 Financial Situation  Table for 2.3.1 to 2.3.3  Financial Situation  Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  General Experience  B7 All EQC  *Applicant*  **Replace "Applicant* with "Bidder*."		_		1		
B5. Clause 2.3 Financial Situation    Clause   2.3   Financial Situation   Sit		Contracts		_ ** *		
B5. Clause 2.3 Table for 2.3.1 to 2.3.3  Financial Situation  Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. General Experience  B7 All EQC  "Applicant"  Replace "Applicant" with "Bidder".				- · · · · · · · · · · · · · · · · · · ·		
Financial Situation  Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant"  Replace "Applicant" with "Bidder".	B5.	Clause 2.3	Table for 2.3.1 to 2.3.3			
Note to Bidders:  1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant" Replace "Applicant" with "Bidder".		Financial		v c		
1. For evaluation under Clause 2.3.3 (i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable). 2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant" Replace "Applicant" with "Bidder".		Situation				
(i): Bankers' reference to be provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant"  Replace "Applicant" with "Bidder".						
provided by the Bidder (for Single entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  General Experience  B7 All EQC "Applicant" Replace "Applicant" with "Bidder".						
entity or each member of the JV, as applicable).  2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  General Experience  B7 All EQC "Applicant"  Replace "Applicant" with "Bidder".						
B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant"  Replace "Applicant" With "Bidder".						
2. For evaluation under Clause 2.3.3 (ii): Auditor's Certificate to this effect has to be provided by the Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  General Experience  B7 All EQC "Applicant"  Replace "Applicant" with "Bidder".				· ·		
B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Experience  Replace with New Table 2.4 attached to this addendum.  Replace "Applicant"  Replace "Applicant"				,		
Bidder (for Single entity or JV-all parties combined, as applicable)  B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii) Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant" Replace "Applicant" with "Bidder".				, ,		
B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  Replace with New Table 2.4 attached to this addendum.  Experience  B7 All EQC "Applicant" Replace "Applicant" with "Bidder".				1 2		
B6. Clause 2.4. Table for 2.4.1 to 2.4.2 (b) ii)  General Experience  Replace with New Table 2.4 attached to this addendum.  Replace "Applicant"  Replace "Applicant" with "Bidder".						
General Experience  B7 All EQC "Applicant" addendum.  Replace "Applicant" with "Bidder".	R6	Clause 2.4	Table for 2.4.1 to 2.4.2 (b) ii)	• • • • • • • • • • • • • • • • • • • •		
Experience B7 All EQC "Applicant" Replace "Applicant" with "Bidder".	<b>D</b> 0.		1 4010 101 2.4.1 (0 2.4.2 (0) 11)	_		
B7 All EQC "Applicant" Replace "Applicant" with "Bidder".						
C Part 1 Section IV: Bidding Form			"Applicant"	Replace "Applicant" with "Bidder".		
<u> </u>	C.	Part 1 Section 1	IV: Bidding Form			
C1. Schedule of RBI-CPI- (labour) Replace with the following:	C1.		RBI-CPI- (labour)	Replace with the following:		
KDI-CI I- (Centent   Linte)- Centent		Adjustment	RBI-CPI- (Cement+Lime)- Cement	DDI CDI - for labore		
Data RBI-CPI - for labour		Data	RBI-CPI- (Steel Long)- Steel	KBI-CPI - <i>for</i> labour		



Sl.No	Reference	Available Para/Clause	Amendment		
Table A: Local Currency Column (C): Source of Index		RBI-CPI- Mineral Oil (Fuel)	RBI-WPI-(Cement+Lime) - for Cement RBI-WPI- (Steel Long) - for Steel RBI-WPI- Mineral Oil –for Fuel		
C2.	Schedule of Adjustment Data Table A: Local Currency	The Bidder shall fill in column (E) and specify a value within the ranges given by the Employer in b, c, d and e of column (F), so that the total weighting equals 1.00.	Note:		
C3.	Price Schedules	Price Schedules	Replace with the New Price Schedule attached herewith in Section 3.1 of Addendum 1.		
C4.	Schedule of Payments	Table: Price Centre A	Replace with tables New Price Centre A		
C5.	Schedule of Payments	Table: Price Centre I	Replace with tables New Price Centre I		
C6.	Form EQU: Equipment	Form	Add the following:  Note: For the major equipments proposed to be hired by Bidder, the Bidder shall submit the Consent letter of the Vendor/Supplier who is providing the equipment to the Bidder.		
C7	Form EXP-2(a)	Form	Add the following:  Note: As an enclosure to this form, the bidder (single firm or each member of JV) shall furnish Employer's Certificate containing the following details for each contract submitted for evaluation under this criteria:  1. Project name 2. Name and address of client/employer. 3. Brief description of scope (a) No. of underground stations, (b) length of metro rail tunnel,		





Sl.No	Reference	Available Para/Clause	Amendment		
			(c) tunnel diameter., methodology adopted for tunneling, (d) local groundwater condition etc.  4. Contract agreement number and date. 5. Type of contract. 6. Name of the contractor (single entity or JV) 7. Starting date and Contract duration 8. Original date of completion In case of JV: 9. Percentage participation of JV 10. Apportionment of works between JV partners. Status up to 30th September 2015 11. Value of project at award. 12. Percentage of works completed a) Each Underground stations b) Metro rail Tunnels c) Tunnel Dia. And methodology adopted for tunneling. 13. Value of work certified till date.		
D	Part 1 Section	 I: Supplementary Instructions			
D1	45.1.2.1	- Supplement J Histi dellons	Add the following:		
			The bidder shall note that the works are to be executed in mixed ground conditions varying from alluvial deposits to complete rock and below local ground water table.		
D2	45.4.2		Add the following:  45.4.3  Tentative list of equipments taken over from the terminated contractor and available in site in 'as-is-where-is' condition is provided in lists 1A, 1B and 2.  Equipments in list 1A and 1B are available free of cost.  Equipments in list 2 are available for hire and the rates are to be negotiated by the Bidder with the respective equipment owners directly.  Lists are attached as Annexure to Supplementary Instructions 45.4.3.  45.4.4  The bidder shall be responsible for all the plant & machinery, equipments provided by Employer, during the period of usage at		



Sl.No	Reference	Available Para/Clause	Amendment
			site, including operation, maintenance, repairs, safety, etc complete. They shall be returned to the Employer in working condition upon completion of works.
			45.4.5 The equipments are required to be certified by competent authority/ organization periodically as per statutory requirements. Necessary insurance for the equipments and third party insurance also should be covered by the Bidder during the period of usage.
E		II: Bid Data Sheet	D. J. C.H.
E1	ITB 1.1	The name, identification and number of the contract(s)comprising this ICB is:  (a) BW-UG-02"Design and Construction of balance works of underground stations at Government Estate, LIC, Thousand lights and Associated Tunnels"  (b) BW-UG-03"Design and Construction of balance works of underground stations at AGDMS, Teynampet, Nandanam, Saidapet and Saidapet ramp portion and Associated Tunnels"	Remove the following:  (b) BW-UG-03"Design and Construction of balance works of underground stations at AG-DMS, Teynampet, Nandanam, Saidapet and Saidapet ramp portion and Associated Tunnels"
E2	ITB 22.2	<ul> <li>(a) Board resolution of each member authorising their respective signatories</li> <li>(b) Power of Attorney of each member of JV/Consortium authorizing the signatories of the Bidder to commit the Tender.</li> </ul>	Replace with the following:  An authenticating document issued by the person with right of representation on behalf of the firm/company.
F		n VIII Particular Conditions Part A – C	
F1.	1.1.2.4 & 1.3 Contract Data	Chennai Metro Rail Limited CMRL Depot, Admin. Building, Poonamallee High Road, Koyambedu, Chennai 600 107.	Replace with the following:  The General Consultants, Chennai Metro Rail Limited, Admin. Building, CMRL Depot, Poonamallee High Road,



Sl.No	Reference	Available Para/Clause	Amendment		
			Koyambedu,		
			Chennai 600 107.		
F2.	1.3 Contract Data	"Electronic transmission systems"	Replace with the following:		
			Fax and e-mail.		
F3	8.1 (c)	"Immediately"	Replace with the following:		
			"Within 7 days after the issue of Letter of Acceptance"		
F4	13.8	Shall be only in INR and the amount	Replace with the following:		
1 '	13.0	to be adjusted shall be excluding	Replace will the jollowing.		
		Taxes, duties, TN VAT	Shall be applicable to the currencies		
		Tunes, unites, 117 7111	quoted by the contractor and the amount		
			adjusted shall be excluding taxes, duties		
			and TN VAT.		
F5	14.2	5% of the accepted contract amount	Replace 5% with 10%		
		payable in the currencies			
F6	14.3(c)	5%	Replace with the following		
	Percentage of	_			
	Retention		0%		
	Money				
F7	14.3(c) limit	5% of the Accepted Contract Amount	Replace with the following		
	of Retention				
	Money		2.5% of the Accepted Contract Amount in		
			the form of Bank Guarantee to be		
			submitted at the time of signing the		
			contract agreement		
G		n VIII Particular Conditions – Part B –			
G1.	Title Page 2-2	PART B – <u>Particular Conditions</u> (SP)	Replace "Particular Conditions" with "Specific Provisions".		
G2.	Title of Table	The following Clauses in this Part B –	Replace "Particular Conditions" with		
		<u>Particular Conditions</u> supplement	"Specific Provisions".		
		Section VII General Conditions, unless			
		otherwise stated.			
G3.	SP 6	Modify para 2 of 4.2 GC	Replace "Public Sector Undertaking bank"		
			with "Public Sector Undertaking bank		
		The Contractor shall deliver the	selected by the Contractor".		
		Performance Security to the Employer			
		within 28 days after receiving the			
		Letter of Acceptance, and shall send a			
		copy to the Engineer. The Performance			
		Security shall be issued by a <u>Public</u> <u>Sector Undertaking bank</u> , and shall be			
		in the form annexed to the Particular			
		in the form annexed to the farticular			



Sl.No	Reference	Available Para/Clause	Amendment		
		Conditions, as stipulated by the			
		Employer, or in another form approved			
		by the Employer.			
G4.	SP 12	Add the following sub-clause to the	Replace "Part B" with "Section VII".		
		end of Sub-Clause 4.15 of <i>Part B</i>			
		General Conditions			
G5.	SP 13.7.2.2 1.	Any new tax which is imposed "after	Replace with the following:		
		the due date of submission of tender"			
		and	"after the Base Date"		
G6.	SP 22	"Price Variation"	Replace with "Price Adjustment"		
G7	SP	SP	Add the following new items:		
			SP 26		
			SP 27		
H	Part 2 Employe	er's Requirements Volume 1 Appendix 2	2B		
H1	Contract Key	Key Dates Column with key dates as	Remove the Column with key dates as per		
	Dates (Table)	per calendar year	calendar year		

#### Encl:

Appendix 1 to EQC: Format for Previous Employer's Certificate for DDC

New Table 2.4: General Experience EQC for award of multiple packages

Section 3.1: New Price Schedule including Pricing Summary

New Price Centre A New Price Centre I SP 26 and SP 27

Annexure to Supplementary Instructions 45.4.3



Appendix 1 to EQC: Refer Sl.No.B2 of Addendum 1

# Appendix 1 to EQC Format for Previous Employer's Certificate for DDC

APPLICATION FORM (1)

# **Lead Detailed Design Consultant (DDC)**

Name of Lead Detailed Design Consultant (DDC)	

To technically qualify, the Lead Detailed Design Consultant (DDC) shall be required to pass the specified requirements applicable to this form, as set out in this document.

On a separate page, using the format of Forms (1a) and (1b), the Lead DDC is requested to list all contracts of a similar nature and complexity to the contract for which the Lead DDC wishes to qualify and undertaken during the last 10 years. The value should be based on the currencies of the contracts converted into INR, at the date of substantial completion, or for current contracts at the time of award. The information is to be summarized, using Forms (1a) and (1b), for each contract completed or under execution, designed by the Lead DDC.



APPLICATION FORM (1a)

# **Lead Detailed Design Consultant (DDC) Details of Contracts of Similar Nature and Complexity**

Nar	ne of lead design consultant				
Use a	a separate sheet for each contract.				
1.	Number of contact	Country			
	Name of the contract				
2.	Name of employer				
3.	Employer Address				
4.	Nature of works and special features relevant to the contract fo	r which the Applicant			
	wishes to prequalify. (Please use separate sheets if the space is	insufficient)			
5.	Consultancy Role (Check One)				
	Lead Consultant Consultant	Sub-consultant			
6.	Value in specified currencies at completion, or at date of award	l for current contracts,			
	• Total Consultancy Amount: (name of curren	cy)			
	• Sub-Contract Amount (if the role was sub-contractor):	(name of			
	currency)				
	• Responsible Consultancy Amount (if the role was partner in a joint venture):				
	(name of currency)				
	(percentage of share)%				
7.	Equivalent value INR (please specify exchange rates)				
8.	Date of Award				
9.	Date of Completion				
10.	Contract/subcontract duration (years and months)				
	·				
11.	Specified requirements <sup>4</sup> (Please use separate sheets if the space				
	<sup>4</sup> The Applicant should insert details pertaining to any specific particular operations as listed in Clause 1.1.2 (d) of Evalu Initial Filter	c contractual criteria required for lation and Qualification Criteria:			

Protection



APPLICATION FORM (1b)

# Lead Detailed Design Consultant (DDC) Details of Contracts of Similar Nature and Complexity

Name	of lead design	consultant	
Name	of Contract, C	ontract No. and Location	
Sl. No.	Eligibility para	ameters	Description of the Contract details to be filled in by the Lead Detailed Design Consultant
1.	Tunnels:	Mixed ground Conditions	
		Use of Closed face tunnel boring machines	
		Total length of the tunnel	
		Finished internal Dia. of the tunnel	
2.	Underground	Mixed ground Conditions	
	Stations	No. of stations	
		Excavation depth	
		Excavation Volume	
		Traffic Management	
		Utility Diversion	



# New Table 2.4: Refer Sl.No. B6. of Addendum 1

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
	T /	D	Cin ala Englis	Joint Vent	Joint Venture (existing or intended)		
No.	Factor/ Sub-Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements
2.4 Ex	2.4 Experience						
2.4.1	General Experience	Experience under contracts in the role of prime contractor (single entity or JV member), for at least the last ten years starting 1st January 2005.	Must meet requirement	N/A	Must meet requirement	Must meet requirement	Form EXP- 1
2.4.2 (a)	Specific Experience	A minimum number of <i>two</i> similar <sup>(i)</sup> contracts that have been satisfactorily and substantially <sup>(ii)</sup> com pleted as a prime contractor (single entity or JV member) <sup>(iii)</sup> since 1 <sup>st</sup> January 2005 of which <i>one</i> contracts must have been completed since 1 <sup>st</sup> January 2010 till 30 <sup>th</sup> September 2015.	Must meet requirement including underground stations and tunnel	Must meet full requirements <sup>(iv)</sup> including tunnel and underground stations	Must meet minimum 30% requirement of minimum value of work either for underground station or tunnel.	N/A	Form EXP - 2(a)
2.4.2 (b)	Specific Experience	For the above or othe entity or JV member) the following key act i. Executed and completed at least one Metro tunnel by Closed Face TBM of at least 3 km in total length (single tunnel length to be	, between 1st Jar	nuary 2010 and <i>30</i>			
		counted), and of finished internal diameter not less					



El	Eligibility and Qualification Criteria				Documentation		
	Factor/ Requirement		Simala Endidor	Joint Vent	nt Venture (existing or intended)		Submission
No.	Sub-Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Requirements
2.4 Ex	perience						
		than 5 m; and					
		ii) Execution and completion of at least two underground stations with the following features: -excavation depth to accommodate two or more levels (platform and concourse) below the ground surface.;	Must meet requirements	Must meet requirements	NA	Must meet minimum 50% of requirement	Form EXP- 2(b)

#### Notes for the Bidder

- (i) The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VI, Employer's Requirements. Summation of number of small value Contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted. Single similar works mean the construction of Metro Rail tunnel and/or underground station in a unban environment and the minimum value of work should be INR 350 crores.
- (ii) Substantial completion shall be based on 80% or more works completed under the Contract.
- (iii) For contracts under which the Bidder participated as a JV member, only the Bidder's share, by value, shall be considered to meet this requirement.
- (iv) In case of a JV, the value of Contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single Contract has been met. Instead, each Contract performed by each member shall satisfy the minimum value of a single Contract as required for single entity. In determining whether the JV meets the requirement of total number of Contracts, only the number of Contracts completed by all members each of value equal or more than the minimum value required shall be aggregated. *Minimum value of single contract of similar nature*<sup>(i)</sup> is INR 350 crore.



### EQC for award of Multiple Packages: Refer Sl.No.B4 of Addendum 1

If the Bidder is the L1 for contracts BW-UG-02 and BW-UG-03 individually, then the bidder shall satisfy the following requirements for award of both contracts (BW-UG-02 & BW-UG-03):

Cr		rd of multiple -UG-02 & BW-	C	Documentation			
	Factor/			Joint Venture (existing or intended)			
No.	Sub-Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements
2.1 El	2.1 Eligibility						
2.1.1	Nationality	Nationality in accordance with ITB 4.3.	Must meet requirement	N/A	Must meet requirement	N/A	Form ELI –1.1 and 1.2, with attachments
2.1.2	Conflict of Interest	No conflicts of interests as described in ITB 4.2.	Must meet requirement	N/A	Must meet requirement	N/A	Letter of Bid
2.1.3	JICA Ineligibility	Not having been declared ineligible by JICA as described in ITB 4.4.	Must meet requirement	N/A	Must meet requirement	N/A	Letter of Bid Form ACK





Cr	iteria for awa	Qualification ard of multiple Y-UG-02 & BW- 03)			Documentation		
	Factor/			Joint Ven	ture (existing or	intended)	Submission
No.	Sub- Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Requirements
2.2 Hi	storical Cont	ract Non-Performa	nnce				
2.2.1	History of non- performing Contracts	Non- performance of a Contract <sup>(i)</sup> did not occur as a result of Contractor's default since 1 <sup>st</sup> January 2010	Must meet requirement(ii)	N/A	Must meet requirement(ii)	N/A	Form CON
2.2.2	Pending Litigation	All pending litigation shall in total not represent more than Fifty percent (50%) of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement <sup>(ii)</sup>	N/A	Must meet requirement(ii)	N/A	Form CON
2.2.3	Litigation History	No consistent history of court/arbitral award decisions against the Bidder (iii) since 1st January 2005	Must meet requirement <sup>(ii)</sup>	N/A	Must meet requirement(ii)	N/A	Form CON

#### Notes for the Bidder

- (i)Non-performance, as decided by the Employer, shall include all Contracts:
  - (a) where non performance was not challenged by the Contractor, including through referral to the dispute resolution mechanism under the respective Contract, and
  - (b) that were so challenged but fully settled against the Contractor.

Non-performance shall not include Contracts where Employers decision was overruled by the dispute resolution



Cr	iteria for awa	Qualification rd of multiple -UG-02 & BW- 03)	Compliance Requirements			Documentation	
No.	Factor/ Sub- Factor	Requirement	Single Entity	Joint Ven All Parties Combined	ture (existing or Each Member	One Member	Submission Requirements

#### 2.2 Historical Contract Non-Performance

mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective Contract and where all appeal instances available to the Applicant have been exhausted.

- (ii) This requirement also applies to Contracts executed by the Bidder as a JV member.
- (iii) The Bidder shall provide accurate information on the related Bidding Form about any litigation or arbitration resulting from Contracts completed or ongoing under its execution over the last Ten (10) years. A consistent history of awards against the Bidder or any member of a joint venture may result in rejection of the Bid.



_	•	ation Criteria for award of BW-UG-02 & BW-UG-03)	Compliance	Requirements	5		Documentation	
No.	Factor/ Sub-Factor	Requirement	Single Entity	Joint Ventur All Parties Combined			Submission Requirements	
2.3 Fi	nancial Situation							
2.3.1	Financial Performance	The audited balance sheets or, if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, for the last five years (including 2015) shall be submitted and must demonstrate the current soundness of the Bidder's financial position and its prospective long term profitability. As the minimum requirement, a Bidder's net worth calculated as the difference between total assets and total liabilities should be positive since 2010.	Must meet requirement	N/A	Must meet requirement	N/A	Form FIN – 1 with attachments	
2.3.2	Average Annual Turnover	Minimum average annual turnover of INR 1020 Crore / 160 Million USD calculated as total certified payments received for Contracts in progress and/or completed, within the last Five years divided by Five years.	Must meet requirement	Must meet requirement	Must meet 25 percentage of the requirement	Must meet 40 percentage of the requirement	Form FIN –2	
2.3.3	Financial Resources	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the cash flow requirements estimated as INR 180	Must meet requirement	Must meet requirement	Must meet 25 percentage of the requirement	Must meet 40 percentage of the requirement	Form FIR- 1	



_	Eligibility and Qualification Criteria for award of multiple packages (i.e. BW-UG-02 & BW-UG-03)		Compliance		Documentation			
	<b></b>		Joint Venture (existing or intended)					
No.	Factor/ Sub-Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements	
2.3 Fi	2.3 Financial Situation							
		Crores for four months <sup>8</sup> for						
		the subject Contract(s) net						
		of the Bidder's other						
		commitments.						
		(ii) The Bidder shall also						
		demonstrate, to the						
		satisfaction of the						
		Employer, that it has						
		adequate sources of finance	Must meet	Must meet	N/A	N/A	Form FIR-1 and	
		to meet the cash flow	requirement	requirement	IV/A	IV/A	Form FIR - 2	
		requirements on works						
		currently in progress and						
		for future contract						
		commitments.						



award	•	ication Criteria for Ekages (i.e. BW-UG-		Docume ntation			
N.T.	Factor/	D	Simala Endidor	Joint Vent	ture (existing or in	tended)	Submissi on
No.	Sub-Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Require ments
2.4 Ex	perience						•
2.4.1	General Experience	Experience under contracts in the role of prime contractor (single entity or JV member), for at least the last ten years starting 1st January 2005.	Must meet requirement	N/A	Must meet requirement	Must meet requirement	Form EXP-1
2.4.2 (a)	Specific Experience	A minimum number of four similar <sup>(i)</sup> contracts that have been satisfactorily and substantially <sup>(ii)</sup> completed as a prime contractor (single entity or JV member) <sup>(iii)</sup> since 1 <sup>st</sup> January 2005 of which two contracts must have been completed since 1 <sup>st</sup> January 2010 till 30 <sup>th</sup> September 2015.	Must meet requirement including underground stations and tunnel	Must meet full requirements <sup>(iv)</sup> including tunnel and underground stations	Must meet minimum 30% requirement of minimum value of work either for underground station or tunnel.	N/A	Form EXP - 2(a)



Eligibility and Qualification Criteria for award of multiple packages (i.e. BW-UG- 02 & BW-UG-03)		Compliance Requirements				Docume ntation	
<b>N</b> T	Factor/	Requirement	Ch. 1. F. 44.	Joint Vent	Submissi on		
No.	Sub-Factor	Kequirement	Single Entity	All Parties Combined	Each Member	One Member	Require ments
2.4 Ex	perience						•
2.4.2 (b)	Specific Experience	For the above or other member), between 1st activities successfully  i. Executed and completed at	January 2010 and	•	-		•
		least one Metro tunnel by Closed Face TBM of at least 3 km in total length (single tunnel length to be counted) of underground metro tunnel.	Must meet requirements	Must meet requirements	NA	Must meet minimum 50% of requirement	Form EXP- 2(b)
		ii. Execution and completion of at least four underground stations with the following features: -excavation depth to accommodate two or more levels (platform and concourse) below the ground surface.;	Must meet requirements	Must meet requirements	NA	Must meet minimum 50% of requirement	Form EXP- 2(b)

#### Notes for the Bidder

- (i) The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VI, Employer's Requirements. Summation of number of small value Contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted. Single similar works mean the construction of Metro Rail tunnel and/or underground station in an urban environment and the minimum value of work should be INR 350 crores.
- (ii) Substantial completion shall be based on 80% or more works completed under the Contract.
- (iii) For contracts under which the Bidder participated as a JV member, only the Bidder's share, by value, shall be



award	• -	cation Criteria for ekages (i.e. BW-UG-	Compliance Requirements				Docume ntation
<b>N</b> T	Factor/	D	Circle E-44	Joint Vent	ture (existing or in	tended)	Submissi on
No.	Sub-Factor	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Require ments

#### 2.4 Experience

considered to meet this requirement.

(iv) In case of a JV, the value of Contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single Contract has been met. Instead, each Contract performed by each member shall satisfy the minimum value of a single Contract as required for single entity. In determining whether the JV meets the requirement of total number of Contracts, only the number of Contracts completed by all members each of value equal or more than the minimum value required shall be aggregated. *Minimum value of single contract of similar nature* (i) is INR 350 crore.



#### Section 3.1: New Price Schedule Refer Sl.No.C3. of Addendum 1

# **Price Schedules**

This is a terminated contract for the balance works. The Bidder is required to go through the drawings and schedules before quoting. However they are indicative only he is also required to visit the site.

#### 1.1. Preamble

The Pricing Document shall be read in conjunction with Notice of Invitation to Tender, Instructions to Bidders and all Tender Documents.

The Contract is a lump sum priced Contract, adjusted by the Price Variation Formula detailed in <u>SP</u> <u>Clause 22 of Part 2</u>. The Works are divided into Price Centres each representing one or more groups of inter-related works forming part of the Works. The detailed Scope of Works is given in <u>Part 2-Employer's</u> Requirements.

The individual item descriptions within each Price Centre are indicative only of the Work included in this Contract and shall not be taken as defining the scope of work to be executed either under the Price Centre or the Contract.

The item descriptions, if given, are general summaries only, therefore no omission from, or error in, item descriptions within this Pricing Document shall warrant an adjustment of the Contract Price nor entitle the Contractor to seek an extension of time under the Contract.

The rates to be quoted for non-schedule items should be based on TN PWD schedules and rates 2015. For the items not available in TNPWD schedule, DSR 2015 will be adopted. No escalation will be allowed.

The individual percentages inserted in the Percentage Column of the Pricing Schedule shall be used for the sole purpose of assessing amounts due for inclusion or exclusion (negative variations) within interim payments.

The percentage rate for each item detailed in Price Centres A, B, C, D, E, F, G, and H and the rates included in Price Centre I of this Pricing Document are for finished items of work 100% complete in all respects, and shall be held to include all waste on materials, duties, landing charges, shipping costs for transport by air, sea or land (or any combination thereof), insurance, import taxes and duties, input VAT, unloading, storage, getting into position, hoisting, lowering, erection, distributing to positions, fixing, temporary works including false-work and formwork (shuttering), demolition, excavation, removal of debris, labour, materials, scaffolding and staging, plant, supervision, maintenance, contractor's profit and establishment/ overheads, together with preparation of design and drawings, all general risks, insurance liabilities, compliance of labour laws and taxes/duties etc. as per statuary obligations set out or implied in the Contract, making good prior to handing over to the Employer and anything reasonably to be inferred



from the description of the item and indispensably necessary thereto, and all other requirements of the Contract.

The activity descriptions for items within Price Centres shall be deemed to cover all aspects of the relevant item scope, irrespective of the fact that the Bidder may not have inserted an amount against any item description. The total amount of each Price Centre shall be deemed inclusive of all of the Contractor's obligations to execute the part of the Works covered by the Price Centre and to perform all of his other obligations under the Contract in respect thereof. The Contractor shall not be entitled to receive any further or additional payment in respect of such Price Centre.

The total amount payable for each of the <u>Price Centres B to H</u> shall be equal to 95% of the Sum of the Price Centres inserted into the Pricing Summary Schedule below.

The person authorized to sign on behalf of the Bidder shall sign in full, with company seal and date, at the bottom of all pages of the Pricing Schedule.

#### 1.2. Contract Price

The total of all Price Centres B, C, D, E, F, G, H and I, as shown in the Pricing Summary Schedule below, with the addition of Tamil Nadu VAT, constitutes the Contract Price which shall be the total amount to be paid to the Contractor for executing the Works and performing all other obligations under the Contract, subject only to any further amounts as may be determined by the Engineer as being due to the Contractor in accordance with the Contract.

The Price Centre totals and the Contract Price shall not be subject to adjustment by the Contractor in respect of any error or oversight in the preparation of this Pricing Document, and they represent the full extent of the Contractor's entitlement to receive payment in respect of such Price Centres. Errors will be corrected by the Employer for any arithmetic mistakes in computation or summation found in the tender submission, as indicated in the ITB Part 1.

The Bidder is to note that Price Centre "I" must be priced in Indian Rupees only.

The payment for all utility diversion works (temporary or permanent diversion) undertaken for the purpose of completion of the scope of works entrusted shall be based on the applicable departmental rates for the year 2015 (TNEB, CMWSSB, BSNL, TNPWD, etc.). The contractor shall have to submit the necessary estimated bill of quantities and drawings prior to execution to the Engineer for approval of proposal. After execution of the diversion works, the Employer shall release the payments for the subject diversion based on the completion certificate received from the concerned department along with the as-built records that have been jointly signed-off by the contractor, Engineer and the utility department authority. The payment will only be made on the basis of actual measurement of work done and will be valued accordingly.

Payments for Price Centres B, C, D, E, F, G, and H will be made in the currencies quoted by the contractor upto 95% of the respective price centre values.

Price Centre "A" calculated as 5% of the price centre totals of price centre B to H shall also be paid in the currencies quoted by the contractor.

For the purpose of calculation of Price Adjustment under SP Clause 22, the Contract Price shall be calculated excluding TN VAT and Basic Customs Duty (since they are reimbursed as per actuals).



# 1.3. Description of Pricing Centres

The Pricing Documents comprise Price Centre "A", which represents Preliminaries and General Requirements associated with Price Centres B to H inclusive, and Price Centres "B, C, D, E, F, G, H and I", which represent a series of work activities comprising a complete component when constructed.

Price Centre "I" represents Schedule of items for D-Wall/ Structural Repair for Stations and Tunnel and the rates quoted by the Bidder shall include all such costs related to Preliminaries and General Requirements for such works.

- 1.3.1 Price Centre A is not priced as it is deemed to be included in the total amount inserted into the Pricing Summary for Price Centres "B to H" and is included in this document for payment purposes only. Price Centre A is dedicated to Preliminaries and General Requirements as stated in the Schedule of Payments, including, but not limited to, the following, as per the requirements and other details given in the Employer's Requirements, Drawings and Specifications;
  - a) Initial works programme
  - b) Three month rolling programme
  - c) Detailed works programme
  - d) Monthly progress report
  - e) Software support plan
  - f) Back-up copies of the software submission
  - g) Interface management plan
  - h) Interface matrix and specific contract interface sheets
  - i) Station co-ordination installation plan for each station on a room by room basis
  - j) Project management information system
  - k) Contractor's staff organisation plan
  - 1) Project signboard submission
  - m) Occupational Safety, Health & Environmental Plan
  - n) OHS&E Manual requirements submission
  - o) Environmental management plan
  - p) Detailed spoils management plan
  - q) Diesel emission mitigation plan
  - r) Dust Control plan
  - s) Temporary traffic and control plan
  - t) Accommodation proposals and provisions
  - u) Procurement Plan
  - v) Contractor's manufacturing management plan
  - w) Comprehensive testing programme
  - x) Installation plan and programme
  - y) Method statement for installation
  - z) Comprehensive testing and commissioning programme
  - aa) Test procedures
  - bb) Inspection and Test Plan
  - cc) Factory test plan
  - dd) Partial acceptance test plan
  - ee) System acceptance test plan



- ff) Maintenance support plan
- gg) Schedule of spare parts for EMS
- hh) Training plan
- ii) All interfacing works within the Project and other Interfacing Contractors, and
- jj) All other items included in the Scope of Works given in Employer's Requirements (Part 2).

The Bidder is to note that some of the Items are payable as a portion of the indicated percentage on a monthly or quarterly basis or are paid proportionately using the percentages of the items of works as noted in brackets (\*\*%) in the Price Centre.

The Bidder should note that for the following Key Staff; QA Manager, Safety Manager and Chief Interface Coordinator, not employed and on site within 30 days of date of mobilisation in accordance with the Contractor's Programme, there shall be a deduction of 2 lakhs for each month, or part thereof, as determined by the Engineer, whose decision shall be final and binding.

1.3.2 Price Centres "B, C, D, E, F, G, H and I" are dedicated to the design of the temporary and permanent works, construction and finishing of all Stations, entrances/exits, bored tunnels, cut and cover tunnels, access shafts, cross passages, subways, walkways, vehicle parking, drop off zones, landscaping, restoration/reinstatement of the road works, architectural and builders works, building services, finishes, etc.., as specified and as stated in the Schedule of Payments, as per the requirements and other details given in the Employer's Requirements, Drawings and Specifications, all as specified in Part 2.

The Contractor is to note that some of the Items are payable proportionately using the percentages of the items of works, as cumulative percentages, as noted in brackets (\*\*%) in the Price Centre item description.

1.3.3 The cost of additional repair/restoration/reinstatement items of works undertaken by the contractor beyond the scope shall be paid as variation on the basis of actual measurement of works done and will be valued based on Southern Railway SOR 2008 + 50%, latest DSR, TNPWD rates etc as applicable to the year 2015.

Price Centre I is dedicated to the costs relating to items for D-Wall/ Structural Repair for Stations and Tunnel and any such works to be executed shall be paid on actual measurement basis. The Contractor is required to price these items, which shall include the Contractor's requirements for preliminaries, general requirements for execution, overheads, profit, etc.

For items payable under Price Centre I, payment will only be made on the basis of certification of actual measurement of work done and will be valued in accordance with the relevant item in Price Centre I.

The Employer will be arranging alternative water supplies for existing water wells affected by the Works and where required any assistance rendered by the Contractor shall be paid by the latest TamilNadu PWD rates.

The cost of those utilities which the Contractor chooses to retain/protect during construction will be deemed to be included in Price Centres "B to H".



#### 1.3.4 Price / Cost Breakdown

- 1.3.4.1 The totals for each Price Centre B, C, D, E, F, G and H and rates for items in Price Centre I of this Pricing Document shall be deemed to include for all costs associated with the supply, manufacture and delivery to Site of such item by the Contractor (including, without limitation, the cost of design, manufacture, packing, supply and delivery to Site, testing and commissioning, labour cost if applicable, preliminaries and other general requirements, overheads and profit) irrespective of the quantity of the items to be supplied.
- 1.3.4.2 The percentage rate for each item detailed in Price Centres B, C, D, E, F, G, and H and rates for items in Price Centre I of this Pricing Document are for finished items of work, 100% complete in all respects, as stated in Clause 1.1 above.
- 1.3.4.3 Variations will only be considered if there is any additional work required beyond the scope of the underground stations and tunnels, or the Engineer instructs any changes to the existing scope. Variations shall include all works instructed by the Engineer (in consultation with the Employer), beyond the scope of the balance works contractor. The price adjustment clause in SP 22 shall not be applicable for variation items.
- 1.3.4.4 Payments to the Contractor will be made on a monthly basis in accordance with Clause 14.3 of GC, unless otherwise stipulated. All items will be paid at 100% completion unless payment is noted as being paid proportionately using the percentages of the items of works as noted in brackets (\*\*%) in the Price Centre.
  - For any additional items, payment will be made on the basis of actual measurement of work-done and valued in accordance with any relevant item(s) in i) latest Tamil Nadu PWD rates and ii) latest DSR (applicable as written in priority).
- 1.3.4.5 No payment will be made against any item in the Contractor's Pricing Document which does not have a value entered against it within the Amount column, including '0', 'NIL' or intentionally left blank.
- 1.3.4.6 The lump sums included for Tunnel Price Centres shall include for the capping, removal of or other measures necessary for dealing with the presence of the existing wells but the reprovision of the water supply shall be arranged by the Employer.

#### 1.4 Schedule of Payments (SOPs)

The total sum for Price Centre "A" Preliminaries shall be equal for 5% of Price Centres B, C, D, E, F, G, and H. Payments under Price Centre A will be made on a monthly, quarterly, or percentage basis as indicated in Price Centre A.

The Schedule of Payments, refer Sub-clause 14.4 of GC, for a Price Centre shows the amount payable to the Contractor for work carried out in that Price Centre subject to conditions stated in this Contract and shall be used to determine the amounts of the interim payments in accordance with Sub-clause 14.3 of GC.

The value of Basic Customs Duty shall be subtracted proportionately from all Price Centres for the purpose of calculation of Price Centre Values in the Interim Payment Certificates.

As part of the first Monthly Progress Report provided in accordance with <u>Sub-clause 4.21</u> of GC, the Contractor shall convert the time scale of the SOPs included as part of the Contractor's Submission from "months after Commencement Date" to months and years on the Gregorian calendar.



#### 1.5 Payment Concept

Payment will be calculated using the Schedule of Payments (SOPs), subject to the Engineer being satisfied that the works for each item are 100% complete, unless payment is on a percentage/monthly/quarterly basis. Payment will be based on the Contractor's submission of a monthly statement, in accordance with Sub-clause 14.3 of GC. The Engineer may, at his discretion, certify partial completion and payment of item units in parts of not less than 30% of that item.

Subject to the Contractor's Monthly Statement meeting the minimum value of 2% of Contract Price, and after the Engineer's assessment, the Engineer will issue an Interim Payment Certificate calculated on percentages from the SOP Items, Sub-clause 1.3.4.6 above, for each Price Centre in the manner described in Sub-clause 14.6 of GC.

#### 1.6 Revisions During the Contract Period.

#### 1.6.1 Revisions to Price Centres.

In the unlikely event that revisions to the Price Centres are required during the Contract in accordance with Clause 14 of GC, the following procedures shall apply:

- a) Where new items are required, the Schedule of Payments and the Price Centre Descriptions shall be revised, by the Contractor, to include the new item(s) with the appropriate description of the work and submitted to the Engineer for a Notice
- b) Where revisions to existing Price Centres are required, the appropriate Price Centre description shall be revised by the Engineer to reflect the revisions to the work.

#### 1.6.2 Revisions to Schedule of Payments.

The affected Price Centre total, the Schedule of Payments, and the Contractor's Price shall be adjusted by the Engineer to incorporate any change to the Contract Price. The Contractor shall update the Schedule of Payments and submit to the Engineer for a Notice of No Objection.

1.6.3 Engineer may revise the Schedule of Payments in consultation with the Employer during the course of execution.



#### **Contract No.BW-UG-02**

DESIGN AND CONSTRUCTION OF BALANCE WORKS OF UNDERGROUND STATIONS AT GOVERNMENT ESTATE, LIC AND THOUSAND LIGHTS AND ASSOCIATED TUNNELS

#### PRICING SUMMARY

Price Centre	Description	Indian Rupees	Foreign Currency (1)	Foreign Currency (2)
	Stations			
В	Government Estate Station			
С	LIC Station			
D	Thousand Lights Station			
	<b>Tunnel Sections</b>			
Е	South end of May Day Park Shaft to Government Estate Station			
F	Government Estate Station to LIC Station			
G	LIC Station to Thousand Lights Station			
Н	Thousand Lights Station to north end of Gemini Station			
I	Schedule of items for D wall/structural repair for stations and tunnels		-	-
	TENDER SUB TOTAL (P)			
	TN VAT (Ceiling Amount) (Q)			
	TENDER TOTAL (R=P+Q)			
	BASIC CUSTOMS DUTIES (S)			
	(Ceiling Amount)			
	TOTAL AMOUNT (T=R-S)			
	Rate of Conversion of Foreign Currency to INR on Base Date			
	Equivalent Total Amount in Indian Rupees ( <b>T</b> for evaluation purpose – Both in figures and in words)			

#### Chennai Metro Rail Project – Phase I Contract No.BW-UG-02



Addendum 1

#### Note:

- (1) Payments for this Contract will be made in Indian Rupees, two other currencies from OECD countries, if the Contractor so desires, or in a combination of all three currencies. Bidders shall quote for Price Centres B to I including Customs Duty but excluding TN VAT. Price Centre A has not been priced but will be 5% of the price centre totals of Price Centres B to H quoted in the table.
- (2) Insert one currency symbol as appropriate.
- (3) The Bidder is to note that i) Price Centre I, ii) TN VAT (Ceiling Amount) and iii) Basic Customs Duties (Ceiling Amount), must be priced in Indian Rupees only.
- (4) Bidder is to insert a ceiling amount for Tamil Nadu VAT and Basic Customs Duties, which will be reimbursed in accordance with contract condition. Bidders shall note that the Basic Customs Duty and TN VAT indicated in the above table will be reimbursed by the Employer on proof of payment/liability subject to the ceiling amounts indicated in the above table.
- (5) The Equivalent Total Amount shall be equal to the sum of the Tender Totals, minus the sum inserted for Basic Customs Duties. The Equivalent Total Amount shall be converted into Indian Rupees if other currencies are used and the exchange rate(s) shall be that prevalent on the Base Date as publicised by the Reserve Bank of India.
- (6) The Bidder shall complete the Tender Total (R) in words below;

<b>TENDER TOTAL (R):</b>	

**Authorized Signatory with Company Seal** 



#### New Price Centre A: Refer Sl.No. C4. of Addendum 1

### **Schedule of Payments**

Pricing centre "A" Preliminaries shall be equal to 5% of the Price centre Totals of Price centre B to H

Price Centre 'A' Details

Price Centre	Description	Percentage %	% for Sub Items
		%	Unit
A	Preliminaries (5%)		
A1	Contractual Submissions		
A1.1	Submission of PII, Bond, insurances, etc.	4%	
A1.a	Submission of Performance BG	40%	
A1.b	Professional Indemnity Insurance	30%	
A1.c	Car Policy ( Insurances)	30%	Quarterly
A2	General Items		
A2.1	Initial Works Programme,	4%	
A2.2	Detailed Works Programme, updates, revisions and Three Month Rolling Programme	4%	Quarterly
A2.3	Monthly Progress Report	6%	Monthly
A2.4	Design Statement & Programme for Design Deliverables (Design Units)	4%	LS
i	On Submission	60%	
ii	On Approval	40%	
A2.5	Quality Assurance & Quality Control Plans & Audits	8%	LS
i	Submission of Plan	25%	
ii	Audit	75%	
A2.6	Interface Management Plan & Audits	8%	LS
a	Submission of IMP(25% of 8%)	25%	
b	Quarterly Audit on Interface Performance(75% of 8%)	75%	
A2.7	Interface Matrix and Specific Contract Interface Sheets	4%	LS
	a) Nomination of CIC (25% of 4%)	25%	
	b) Detailed study of Interface Points(75% of 4%)	75%	
A2.8	All Interface management and coordination, including provision of services, for the Interfacing Contractors	4%	Monthly



# **Schedule of Payments**

Pricing centre "A" Preliminaries shall be equal to 5% of the Price centre Totals of Price centre B to H

Price Centre 'A' Details

Price Centre	Description	Percentage % for Sub Items	
		%	Unit
A2.9	Interface management and coordination from the issue of Taking Over Certificate until start of Revenue Services. (Employer to instruct if required.)	4%	Quarterly
A2.10	Station Coordination Installation Plan for Each Station on a Room by Room Basis	4%	LS
i	Station Coordination Installation Plan	25%	Monthly
ii	Room By Room Basis	75%	Monthly
A2.11	Project Management Information System	4%	Nos
A2.12	Contractor's Staff Organisation Plan & Key Staff.(Contractor		Monthly
A2.13	Project Sign Boards	2%	Yearly
A2.14	OHS&E Plan Submission	4%	One Time
A2.15	Compliance with Occupational Safety, Health and Environmental Plan & Audits	12%	LS
i	Submission of Plan	25%	One Time
ii	Audit	75%	Quarterly
A2.16	Environmental Management Plan & Audits to include; Spoils Management, Diesel Emission Mitigation and Dust Control Plans & Audits	4%	LS
i	Submission of Plan	25%	One Time
ii	Audit	75%	Quarterly
A2.17	Comprehensive Testing and Commissioning Programme	4%	After ROD
A2.18	Schedule of Spare Parts	4%	LS
A2.19	Training Plan, Updates and Audits	4%	LS
i	Submission of Plan	25%	One Time
ii	Audit	75%	Quarterly
	Sub Total	96%	
A2.20	All other Items that are included or inferred in the Employer's Requirements Part 2.	4%	



	Schedule of Payments						
Pricing	Pricing centre "A" Preliminaries shall be equal to 5% of the Price centre Totals of Price centre B to H  Price Centre 'A' Details						
Price Centre	Description	Percentage % for Sub Items					
		%	Unit				
	Total for Price Centre A	100%					

The Above Total for Price Centre A shall be equal to 5% of the sum of the Total Amount for the each Price centre "B to H".



# New Price Centre I: Refer Sl.No. C5. of Addendum 1

	Schedule of Payments							
	Price Centre "I" Schedule of items for D-Wall/ Structural Reparation Price Centre "I" Details	ir for Sta	tions and T	unnels				
Price Centre	Item Description Unit Qty. Rate Amo							
Undertake	e necessary D-Wall and Structural Repair (Roof, Concourse, Base works by Terminated Contractor with Approved Method Statements				-			
I.1.	Undertake repair works of all types of Cracks and Joint leakages including dry/wet cracks of various thickness includes with D-Wall Joints, Structural cracks in roof, concourse, base etc. as per approved method statement and materials to the satisfaction of the Engineer.	RM	200m					
I.2.	Undertake repair works for rebar exposed area including removal of contaminated concrete to sound concrete, application of bonding agent, structural repair, to required finish standard, curing with approved methods and materials to the satisfaction of the Engineer.	$M^2$	100m <sup>2</sup>					
I.3.	Mapping of exposed coupler including with drilling and grouting of displaced coupler along with required pull-out test etc. as per approved methods statement and materials to the satisfaction of Engineer.	Nos.	20,000					
I.4.	Chipping and repair of honey comb concrete including removal of loose concrete to the sound concrete, application of bonding agent, structural repair to the required finish standard, curing etc. with approved method statement and materials to the satisfaction of the Engineer.	$M^2$	100m <sup>2</sup>					
I.5.	Undertake control chipping of excess bulging concrete beyond 25mm exposure. Including with repair of chipped concrete to match with adjoining finishes with approved method statement and materials to the satisfaction of the Engineer.	$M^3$	20m <sup>3</sup>					
I.6.	Undertake necessary repair of soil subsidence with TAM/Pressure grouting or lean concrete filling for complete stabilization including with secondary treatment for subsequent subsidence with approved method statement and materials to the satisfaction of the Engineer.	$M^3$	100m <sup>3</sup>					



	Schedule of Payments						
	Price Centre "I" Schedule of items for D-Wall/ Structural Repair for Stations and Tunnels						
	Price Centre 'I' Details						
Price	Item Description	Unit	Qty.	Rate	Amount		
Centre							
I.7.	Undertake back-up D-wall panel of single bite panel (2.5m length 1.0m thick and 20m deep approximately) with plain cement concrete (M-35) as per approved method statement and materials to the satisfaction of the Engineer.	$M^3$	200m <sup>3</sup>				
I.8. Undertake repair of all types of cracks and Joint leakages including dry/wet cracks of various thickness in installed tunnel rings as per approved method statement and materials to the satisfaction of the Engineer.							
TOTAL	TOTAL for Price Centre "I"			(in	INR only)		
(both in	figures and in words)				_		

#### **Note:**

- (1) The quantities indicated are tentative only. However, payment will be made based on actual measurement of work done.
- (2) For every repair, the contractor should make a mapping of the defect, suggest the method of repair and material to be used and its quality control procedure.
- (3) There is no limit to increase or decrease in the above quantities.
- (4) Any other item not covered above, but required as per site condition, will be paid as variation.



# SP 26 and SP 27: Refer Sl.No.G6 & G7 of Addendum 1

SP No.	Section VII -	The following Clause in this Part-B Specific Provisions supplement Section
	GC Sub-	VII General Conditions, unless otherwise stated.
	Clause No.	
SP 26	2.1	Replace Clause 2.1(b) of General Conditions with the following
	Right of Access	
	to the Site	In case of delay in handing over of the site by the Employer, the Contractor will be given extension of time only. The payment in the extended period in such cases will be with price adjustment effective from the original date of completion.
SP 27	14.9	Add the following sub-clause at the end of Clause 14.9 of General Conditions:
	Payment of	G
	Retention	14.9.1 One half of the retention money in the form of Bank Guarantee will be
	Money	released when the Taking Over Certificate is issued by the Engineer.
		Balance retention money (BG) will be released within 21 days after the
		issue of Performance Certificate.



# Annexure to Supplementary Instructions 45.4.3: Refer Sl.No. D2 of Addendum 1

# LIST 1A INVENTORY OF PLANT AND MACHINERIES BW-UG-02

	T	B 11 6 3 0 2		T
Sl.No.	Location	Equipment	Make	Reference
1	Batching plant	Transit mixer	Schwing Stetter	TN-19-F-4964
2	Batching plant	Transit mixer	Schwing Stetter	TN-19-F4963
3	Batching plant	Transit mixer	Schwing Stetter	TN-19-F-4997
4	Batching plant	Transit mixer	Schwing Stetter	TN-19-F-4988
5	Batching plant	Dumper	Leyland	TN-09-BS-0753
6	Batching plant	Loader	Hindustan	TN-09-BS-7229
7	Batching plant	Generator250(KVA)	Jakson	CJS-11114400
8	Batching plant	Batching Plant Unit	Schwing stetter	BAP/0056/18532
9	Batching plant	Air Compressor (XRH1100)	Atlas copco	ACP/1100/32424
10	Batching plant	Air Compressor(XA146)	Atlas copco	ACP/0300/30323
11	Batching plant	Electronic Weigh Bridge 100T	Viswakarma	ENB/0100/42213
12	Batching plant	Transit mixer	Ashok Leyland	TN18E6041
13	Batching plant	Chiller Plant	Reynold	RR1GO175DC
14	Batching plant	Generator(125KVA)	Jakson	CJS-11114266
15	SGE	DG (250KVA) - 1No	Jacksons Ltd	JSPF- 250
16	SGE	DG (125KVA) - 1No	Jacksons Ltd	CJ125D5P
17	SGE-Site Office	Containers - 7Nos	N.A	N.A
18	SGE - Ancillary Building Area	Container- 1No	N.A	N.A
19	SGE-JV Safety Container	Total Station	SOKKIA- SET510	D21866
20	SGE-JV Safety Container	Total Station	TOPCON	750746
21	SLIRL/Ancillary Bldg	Vibro Hammer -Powerpack	ICE	HA 15
22	SLIRL/Ancillary Bldg	Vibro Hammer-Driving Head	ICE	VHH1250001
23	SLI-RL/Higgins opp	Container	N.A	N.A
24	SLI-RL/Entry B	BentoniteTank	N.A	N.A



# LIST 1A INVENTORY OF PLANT AND MACHINERIES BW-UG-02

Sl.No.	Location	Equipment	Make	Reference
25	SLI - Entry A	Bentonite Mixer tank with 20HP Motor	N.A	N.A
26	SLI - Concourse Level, Main Station Box	Grouting Pump	N.A	PMG/0300/27339
27	STL- Office container	KODEN	KODEN	60400495
28	STL - RL office area	BABY ROLLER	GREEVES	A3F0741274
29	STL - RL/South (AARTI)	Grouting rig	N.A	WDL/045/13514



## LIST 1B INVENTORY OF PLANT AND MACHINERIES BW-UG-02

Sl.No.	Location	Equipment	Make	Reference
1	SGE	Ventilation Fans with ducts - 2Nos	Zitron	ZVN-14-160/4
2	SGE	Distribution Transformer (800KV)	Current Electricals Limited	126110
3	SGE	Air Compressor - 2Nos	ADEKOM	KD 7508
4	SGE	Air Tanks -2Nos	Shangai Shenjian Pressure Vessel Co Ltd	2170310402012F196
5	SLI- RL/Stn box	Ambulance	Maruthi-Suzuki	TN09 BR 5486
6	May day park	40 TON GANTRY CRANE	Atlas Crane Pvt ltd	529
7	May day park	20 TON GANTRY CRANE	HI TECH ENGG	528
8	May day park	JCB LOADALL(FORKLIFT)	JCB 540-170	FORKLIFT
9	May day park	Van	AMBULANCEE	TN 09 BR 5486
10	May day park	Batching plant	schwing setter CP-	N.A
11	May day park	Air Compressor	Atlas Copco	XA176
12	May day park	Loco Motive-02	Schoma LokoMotiven	5790
13	May day park	Conveyor Belt Set up S-703	НК	N.A
14	May day park	Conveyor Belt Set up S-704	НК	N.A
15	May day park	Loco Motive-05	Schoma LokoMotiven	5879
16	May day park	Loco Motive-03	Schoma LokoMotiven	5787



### LIST 1B INVENTORY OF PLANT AND MACHINERIES BW-UG-02

Sl.No.	Location	Equipment	Make	Reference
15	May day		Schoma	<b>55</b> 00
17	park	Loco Motive-06	LokoMotiven	5739
18	May day park(Shaft)	Man Rider-02	N.A	N.A
19	May day park(703)	Man Rider-03	N.A	N.A
20	May day park(Shaft)	Grout Car 1	N.A	N.A
21	May day park(703)	Grout Car 2	N.A	N.A
22	May day park	DG -set 14000KVA	Grand Motor	ALT no: 280041/1
23	May day park	DG -set 14000KVA	Grand Motor	ALT no: 280041/2
24	May day park	DG -set 14000KVA	Grand Motor	ALT no: 280041/3
25	May day park	DG -set 14000KVA	Grand Motor	ALT no: 280041/4
26	May day park (Shaft)	TBM S703 + 01 no Backup bridge+ 4 nos of backup gantry+ segment erector+ segment feeder+ segment crane (EOT)	НК	S703
27	May day park (Shaft)	TBM S704 + Backup bridge+ 4 nos of backup gantry+ segment erector+ segment feeder+ segment crane (EOT)	НК	S704



# LIST 2 INVENTORY OF PLANT AND MACHINERIES BW-UG-02

Sl.No.	Location	Equipment	Make	Equipment Reference	Ownership
1	SGE	Bentonite Tanks- 8Nos (Including Desanding unit-1No)	N.A	BT4- 24,47,73,40,22,21,42,75, SC51	Al Ghurair
2	SLI - RL/Stn box	Bentonite Container (6 Nos)	Tank	N.A	L&T GEO
3	SLI - RL/Higgins opp	Crane 50T	SANY	CS 50-19	L&T GEO
4	SLI - RL/Higgins opp	Desander	GMT	N.A	L&T GEO
5	SLI - RL/Higgins opp	Bentonite plant	N.A	B2-004	L&T GEO
6	SLI - RL/Ancillary Bldg	DG 82 KVA	Powerica	01/13/05/1458	L&T GEO
7	STL - RL/GL - Stn box	Grab CC16	Liebherr	184588	Al Ghurair
8	STL - RL/GL - Entrance	Crane 50T (Crawler)	Hitachi K180	N.A	Al Ghurair
9	STL - RL/GL - (HDFC)	Desander (with 9 nos bentonite tanks)	N.A	DS12	Al Ghurair
10	STL - RL/Overseas Bldg	DG 250 kVA	Powerica	01/13/02/7711	Al Ghurair
11	STL - RL/Overseas Bldg	Bentonite mixing plant	N.A	N.A	Al Ghurair
12	Cross Passage 11	Jet Grouting Rig	Klemm (Ascon)	Ascon	ETA