

राष्ट्रीय राजमार्ग एवं अवसंरचना विकास निगम लिमिटेड

सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार
तीसरी मंजिल, पीटीआई बिल्डिंग, 4-संसद मार्ग, नई दिल्ली 110001

National Highways & Infrastructure Development Corporation Limited

Ministry of Road Transport & Highways, Govt. of India
3rd Floor, PTI Building, 4-Parliament Street, New Delhi-110001, +91 11 2346 1600, www.nhidcl.com



BHARATMALA
ROAD TO PROSPERITY



NHIDCL
BUILDING INFRASTRUCTURE - BUILDING THE NATION

CIN: U45400DL2014GOI269062

सार्वजनिक क्षेत्र का उपक्रम

A PUBLIC SECTOR UNDERTAKING

NHIDCL/J&K/Zojila-R1/NH1/2019 /258

16.04.2019

To
All the prospective bidders

Subject: Construction, Operation and Maintenance of 2-Lane Bi-Directional Zojila Tunnel with Parallel Escape (Egress) Tunnel excluding approaches on Srinagar-Leh section connecting NH-1 at Km 95.00 and at Km 118.00 in the State of Jammu & Kashmir on EPC mode.

Ref: RFP dated 22.02.2019.

Sir/ Madam

Please find enclosed herewith Amendment No: 2 along with the following reports:

- i. Revised Risk Allocation Matrix
- ii. Revised BoQ
- iii. Contour Drawings near shafts.
- iv. Drawings of Baltal area.
- v. Borelog reports.
- vi. DPR Cost Estimate.
- vii. Zoji La Traffic Studies.
- viii. Chemical Analysis of Water Samples.
- ix. Laboratory Testing of Rock Samples.
- x. Material survey.
- xi. Report of Water Sample.
- xii. Study of seismicity.
- xiii. Topographic survey report.


(B. Shyprasad)
General Manager (Tech.)

National Highways & Infrastructure Development Corporation Limited

Construction, Operation and Maintenance of 2-Lane Bi-Directional Zojila Tunnel with Parallel Escape (Egress) Tunnel excluding approaches on Srinagar-Leh section connecting NH-1 at Km 95.00 and at Km 118.00 in the State of Jammu & Kashmir on EPC mode.

Amendment No.-2

SI No.	Clause	Existing Provision	Modified Provision (To be read as)
Request for Proposal (RFP):			
1.	NIT Page no 4	Maintenance Period = 10 years	Maintenance Period = 4 years
2.	Clause 1.2.4	A Bidder is required to deposit, along with its BID, a BID Security of Rs 10.00 Crore (the "BID Security"),alongwith Soft copy.	A Bidder is required to deposit, along with its BID, a BID Security of Rs 24.50 Crore (the "BID Security"),alongwith Soft copy.
3.	Clause 2.11.1 (f)	BID Security of Rs. 10 Crore (Rupees Ten Crore) in the form of Bank Guarantee in the format at Appendix-II from a Scheduled Bank <u>OR</u> copy of Demand Draft in original <u>OR</u> copy of payment receipt (RTGS/NEFT/Other online mode);	BID Security of Rs. 24.50 Crore (Rupees Twenty Four Crore and Fifty Lakh) in the form of Bank Guarantee in the format at Appendix-II from a Scheduled Bank <u>OR</u> copy of Demand Draft in original <u>OR</u> copy of payment receipt (RTGS/NEFT/Other online mode);
4.	Clause 2.2.2.1	A=Maximum value of civil engineering works excluding the amount of bonus received, if any, in respect of EPC Projects executed in any one year during the last seven years (updated to the price level of the year indicated in table at Note-3 below) taking into account the completed as well as works in progress. The EPC projects include turnkey project/ Item rate contract/ Construction works.	A=Maximum value of civil engineering works excluding the amount of bonus received, if any, in respect of EPC Projects executed in any one year during the last Twelve years (updated to the price level of the year indicated in table at Note-3 below) taking into account the completed as well as works in progress. The EPC projects include turnkey project/ Item rate contract/ Construction works.


16/4/19

<p>5.</p>	<p>Clause 2.2.2.2</p>	<p>(i) For demonstrating technical capacity and experience (the "Technical Capacity"), the Bidder shall, over the past 12 (Twelve) financial years preceding the Bid Due Date, have received payments for construction of Eligible Project(s), or has undertaken construction works by itself in a PPP project, such that the sum total thereof, as further adjusted in accordance with clause 2.2.2.5 (i) & (ii), is more than Rs.9798.84 Crore (Rs. Nine Thousand Seven Hundred Ninety Eight point Eight Four Crore) (the "Threshold Technical Capacity").</p> <p>(ii) The bidder himself should have the experience as mentioned below or propose a specialised sub-contractor who has successfully completed at least one work of underground excavation of not less than 50,000 CuM through vertical shaft of minimum 200 m depth. The Bidders shall submit the credentials and the qualifying experience of the specialized sub-contractor along with the Technical Proposal of the bid.</p> <p>(iii) The sole Bidder or in case the Bidder being a Joint Venture, Lead Member of Joint Venture shall have completed atleast one tunnel project in the last 12 (Twelve) years preceding the Bid Due Date (including tunnel(s) for roads/Railway/Metro rail/irrigation/hydro-electric projects etc.) having atleast 50% of the cross-sectional area and 25% length of the tunnel to be constructed in this project and the cost of such project shall be atleast 25% of the Estimated Project Cost and the Other Members of the Joint Venture in case of bidder being a JV, shall have completed atleast one tunnel project in the last 12 (Twelve) years preceding the Bid Due Date (including tunnel(s) for roads/Railway/Metro rail/irrigation/hydro-electric projects etc.) having atleast 50% of the cross-sectional area and 10% length of the tunnel to be constructed in this project and the cost of such project shall be atleast 10% of the Estimated Project Cost. For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 25% of the Estimated Project Cost.</p> <p>(iv) For demonstrating Technical Capacity further, the bidders shall</p>	<p>(i) For demonstrating technical capacity and experience (the "Technical Capacity"), the Bidder shall, over the past 12 (Twelve) financial years preceding the Bid Due Date, have received payments for construction of Eligible Project(s), or has undertaken construction works by itself in a PPP project, such that the sum total thereof, as further adjusted in accordance with clause 2.2.2.5 (i) & (ii), is more than Rs.9798.84 Crore (Rs. Nine Thousand Seven Hundred Ninety Eight point Eight Four Crore) (the "Threshold Technical Capacity").</p> <p>(ii) The bidder himself should have the experience as mentioned below or propose a specialised sub-contractor who has successfully completed at least one work of underground excavation of not less than 50,000 CuM through vertical shaft of minimum 200 m depth. The Bidders shall submit the credentials and the qualifying experience of the specialized sub-contractor along with the Technical Proposal of the bid.</p> <p>(iii) The sole Bidder or in case the Bidder being a Joint Venture, Lead Member of Joint Venture shall have completed atleast one tunnel project in the last 12 (Twelve) years preceding the Bid Due Date (including tunnel(s) for roads/Railway/Metro rail/irrigation/hydro-electric projects etc.) having atleast 50% of the cross-sectional area and 25% length of the tunnel to be constructed in this project and the cost of such project shall be atleast 25% of the Estimated Project Cost. In addition, the aggregate length of tunnel (having atleast 50% of the cross-sectional area of the tunnel to be constructed in this project) constructed by bidder in last 12 years preceding the Bid Due Date shall be 11.00 km.</p> <p>For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 25% of the Estimated Project Cost.</p> <p>Note: For qualification criteria under clause 2.2.2.2, the cross-sectional area of the tunnel to be constructed in this project will be 95 sq m for unlined tunnel and 85 sq m for lined tunnel. The area of the completed/excavated tunnel will be calculated as per IRC SP:91:2010.</p>
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		<p>submit a Technical Proposal complying with the requirements mentioned in Annexure-IX of Appendix-I of RFP.</p> <p>(v) The updation factor to update the price of the eligible projects for the year indicated in table below:</p> <table border="1" data-bbox="472 316 1055 715"> <tr> <td>Year</td> <td>Year 1</td> <td>Year 2</td> <td>Year 3</td> <td>Year 4</td> <td>Year 5</td> </tr> <tr> <td>Up-dation factor</td> <td>1.00</td> <td>1.05</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> <tr> <td>Year 6</td> <td>Year 7</td> <td>Year 8</td> <td>Year 9</td> <td>Year 10</td> <td>Year 11</td> </tr> <tr> <td>1.25</td> <td>1.30</td> <td>1.35</td> <td>1.40</td> <td>1.45</td> <td>1.50</td> </tr> <tr> <td>Year 12</td> <td colspan="5"></td> </tr> <tr> <td>1.55</td> <td colspan="5"></td> </tr> </table>	Year	Year 1	Year 2	Year 3	Year 4	Year 5	Up-dation factor	1.00	1.05	1.10	1.15	1.20	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	1.25	1.30	1.35	1.40	1.45	1.50	Year 12						1.55						<p>(iv) For demonstrating Technical Capacity further, the bidders shall submit a Technical Proposal complying with the requirements mentioned in Annexure-IX of Appendix-I of RFP.</p> <p>(v) The updation factor to update the price of the eligible projects for the year indicated in table below:</p> <table border="1" data-bbox="1272 347 1854 746"> <tr> <td>Year</td> <td>Year 1</td> <td>Year 2</td> <td>Year 3</td> <td>Year 4</td> <td>Year 5</td> </tr> <tr> <td>Up-dation factor</td> <td>1.00</td> <td>1.05</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> <tr> <td>Year 6</td> <td>Year 7</td> <td>Year 8</td> <td>Year 9</td> <td>Year 10</td> <td>Year 11</td> </tr> <tr> <td>1.25</td> <td>1.30</td> <td>1.35</td> <td>1.40</td> <td>1.45</td> <td>1.50</td> </tr> <tr> <td>Year 12</td> <td colspan="5"></td> </tr> <tr> <td>1.55</td> <td colspan="5"></td> </tr> </table>	Year	Year 1	Year 2	Year 3	Year 4	Year 5	Up-dation factor	1.00	1.05	1.10	1.15	1.20	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	1.25	1.30	1.35	1.40	1.45	1.50	Year 12						1.55					
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6.	Clause 2.2.2.3 (iii)	<p>The bidder (all partners in case of JV) shall not be in Corporate Insolvency Resolution Process (CIRP)/National Company Law Tribunal (NCLT) process and shall not have defaulted on any debt obligations in the last 3 years.</p>	<p>The bidder (all partners in case of JV) shall not be in Corporate Insolvency Resolution Process (CIRP)/National Company Law Tribunal (NCLT)/CDR/SDR process and shall not be in a default on any debt obligations on the Bid Due Date. An undertaking of bidder (all partners in case of JV) duly certified by the statutory auditor of the bidder must be submitted along with the bid.</p>																																																																								
7.	Clause 2.2.2.4	<p>In case of a Joint Venture:</p> <p>The Bid Capacity, Technical Capacity and Financial Capacity of all the Members of Joint Venture would be taken into account for satisfying the above conditions of eligibility. Further, Lead Member shall meet at least 60% requirement of Bid Capacity, Technical and Financial Capacity as per Clause 2.2.2.1, 2.2.2.2 (i) and 2.2.2.3 and requirements of clause 2.2.2.2 (iii) and 2.2.2.3 (ii) & (iii). Other Member(s) of JV shall meet at least 20% requirement of Bid Capacity, Technical and Financial Capacity individually as per Clause 2.2.2.1,</p>	<p>In case of a Joint Venture:</p> <p>The Bid Capacity, Technical Capacity and Financial Capacity of all the Members of Joint Venture would be taken into account for satisfying the above conditions of eligibility. Further, Lead Member shall meet at least 60% requirement of Bid Capacity, Technical and Financial Capacity as per Clause 2.2.2.1, 2.2.2.2 (i) and 2.2.2.3 and requirements of clause 2.2.2.2 (iii) and 2.2.2.3 (ii) & (iii). Other Member(s) of JV shall meet at least 20% requirement of Bid Capacity, Technical and Financial Capacity individually as per Clause 2.2.2.1, 2.2.2.2 (i) & (iii) and 2.2.2.3 and requirements of</p>																																																																								

		2.2.2.2 (i) and 2.2.2.3 and requirements of clause 2.2.2.2 (iii) and 2.2.2.3 (ii) & (iii). For avoidance of doubt it is further clarified that the Joint Venture must collectively and individually satisfy the above qualification criteria i.e. JV shall cumulatively/collectively fulfill the 100% requirement.	clause 2.2.2.3 (ii) & (iii). For avoidance of doubt it is further clarified that the Joint Venture must collectively and individually satisfy the above qualification criteria i.e. JV shall cumulatively/collectively fulfill the 100% requirement.
8.	Clause 2.21.1	Within 30 (thirty) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the form set forth in Appendix-VII (the "Performance Security") for an amount equal to 5% (five percent) of its Bid Price. In case of bids mentioned below, the Selected Bidder, along with the Performance Security, shall also furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the same form given at Appendix-VII towards an Additional Performance Security (the "Additional Performance Security") for an amount calculated as under:	Within 30 (thirty) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the form set forth in Appendix-VII (the "Performance Security") for an amount equal to 2.5% (Two point five percent) of its Bid Price. In case of bids mentioned below, the Selected Bidder, along with the Performance Security, shall also furnish to the Authority an irrevocable and unconditional guarantee from a Bank in the same form given at Appendix-VII towards an Additional Performance Security (the "Additional Performance Security") for an amount calculated as under:
9.	Clause 3.1.4	To facilitate evaluation of Technical BIDs, the Authority may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Technical BID. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing. The bids will be examined and evaluated on the BIMS portal in accordance with the provisions set out in this Section 3. The Authority will subsequently flag issues, if any with the data updated by the Bidders.	To facilitate evaluation of Technical BIDs, the Authority may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Technical BID. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing. The bids will be examined in accordance with the provisions set out in this Section 3. The Authority will subsequently flag issues, if any with the data updated by the Bidders.
10.	Clause 3.1.9	The Bidders will be automatically evaluated on BIMS by the Authority. After evaluation of Technical Bids, the Authority will publish a list of Technically Responsive Bidders whose financial bids shall be opened. The Authority shall notify other Bidders that they have not been technically responsive. The Authority will not entertain any query or clarification from Applicants who fail to qualify.	The Bidders will be evaluated by the Authority. After evaluation of Technical Bids, the Authority will publish a list of Technically Responsive Bidders whose financial bids shall be opened. The Authority shall notify other Bidders that they have not been technically responsive. The Authority will not entertain any query or clarification from Applicants who fail to qualify.
EPC Agreement:			
11.	Article Definitions	1 -----	"Bank Rate" is the interest rate at which a nation's central bank (RBI) lends money to domestic banks, often in the form of very short term loans.

12.	Article Definitions 1	<p>“Project Highway” means the site (New alignment) comprising the proposed construction of 2-lane bi-directional mined tunnel (14.083 Km) with egress tunnel (14.200 Km) , Cut and Cover tunnel on both Eastern and Western portal of lengths 37 m and 30 m respectively and its approaches on this alignment (Total length of Project Highway including approaches =20.090 Km approx.) connecting NH-1 at Km 95.00 and at Km 118.00 and all Project Assets, and its subsequent development and augmentation in accordance with this Agreement.</p>	<p>“Project Highway” means the site (New alignment) comprising the proposed construction of 2-lane bi-directional tunnel (14.150 Km) with egress tunnel (14.200 Km) having Cut and Cover tunnel on both Eastern and Western portal of lengths 37 m and 30 m respectively and approach to portals along with loops on both portals having length of 82.5 m (Western portal) and 46.2 m (Eastern portal) (Total length of Project Highway = 14.310 Km approx. as per drawing no. 8482B_II ZOT_POR-01-12-00 and 8482B_II ZOT_POR-08-12-00) connecting NH-1 at Km 95.00 and at Km 118.00 and all Project Assets, and its subsequent development and augmentation in accordance with this Agreement.</p>
13.	Clause 8.3	<p>Damages for delay in handing over the Site (i) In the event the Right of Way to any part of the Site is not provided by the Authority on or before the date(s) specified in Clause 8.2 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Authority shall pay Damages to the Contractor a sum calculated in accordance with the following formula for and in respect of those parts of the Site to which the Right of Way has not been provided: Amount of Damages in Rs. per day per metre = $0.05 \times C \times 1/L \times 1/N$</p> <p>Where, C = the Contract Price; L = length of the Project Highway in metres; and N = Completion period in days (Appointed Date to Scheduled Completion Date)</p> <p>.....</p>	<p>Damages for delay in handing over the Site (i) In the event the Right of Way to any part of the Site is not provided by the Authority on or before the date(s) specified in Clause 8.2 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Authority shall pay Damages to the Contractor a sum calculated in accordance with the following formula for and in respect of those parts of the Site to which the Right of Way has not been provided: Amount of Damages in Rs. per day per metre = $0.05 \times C \times 1/L \times 1/N$</p> <p>Where, C = the Contract Price; L = length of the Project Highway in metres = 14310; and N = Completion period in days (Appointed Date to Scheduled Completion Date)</p> <p>.....</p>
14.	Clause 10.2	<p>The Contractor shall also obtain the consent of the Authority for two (2) key personnel of the Proof Consultant who shall have adequate experience and qualifications in highways and bridges respectively.</p>	<p>The Contractor shall also obtain the consent of the Authority for two (2) key personnel of the Proof Consultant who shall have adequate experience and qualifications in tunnel design work.</p>
15.	Clause 14.1	<p>(i) The Contractor shall operate and maintain the Project Highway for a period of 10 years, corresponding to the Defects Liability Period, commencing from the date of the Completion Certificate (the “Operation and Maintenance Period”). For the performance of its Operation and Maintenance obligations, the Contractor shall be paid:</p>	<p>(i) The Contractor shall operate and maintain the Project Highway for a period of 4 years, corresponding to the Defects Liability Period, commencing from the date of the Completion Certificate (the “Operation and Maintenance Period”). For the performance of its Operation and Maintenance obligations, the Contractor shall be paid:</p>



16.	Clause 19.10 (iv) (c)	<p>The following expressions and meanings are assigned to the value of the work done:</p> <p>.....</p> <p>CO = The WPI for grey cement for the month of the Base Date.</p> <p>CI = The WPI for grey cement for the month three months prior to the month to which the IPC relates.</p> <p>FO = The official retail price of high speed diesel (HSD) oil at the existing consumer pumps of Indian Oil Corporation ("IOC") in the State of [Haryana] on the Base Date.</p> <p>FI = The official retail price of HSD at the existing consumer pumps of IOC in the State of [Haryana] on the first day of the month three months prior to the month to which the IPC relates.</p> <p>LO = The consumer price index for industrial workers for the [circle **** in the State of Uttar Pradesh], published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the month of the Base Date.</p> <p>LI = The CPI for the month three months prior to the month to which the IPC relates.</p> <p>SO = The WPI for steel (re-bars) for the month of the Base Date.</p> <p>SI = The WPI for steel (re-bars) for the month three months prior to the month to which the IPC relates.</p> <p>Sum of PA,PL,PC,PS,PF = 0.85</p> <p>(f) In case an IPC relates to a month which is within 3 (three) months</p>	<p>The following expressions and meanings are assigned to the value of the work done:</p> <p>.....</p> <p>CO = The WPI for Ordinary Portland Cement (OPC) for the month of the Base Date.</p> <p>CI = The WPI for Ordinary Portland Cement (OPC) for the month three months prior to the month to which the IPC relates.</p> <p>FO = The official retail price of high speed diesel (HSD) oil at the existing consumer pumps of Indian Oil Corporation ("IOC") in the State of [Jammu & Kashmir] on the Base Date.</p> <p>FI = The official retail price of HSD at the existing consumer pumps of IOC in the State of [Jammu & Kashmir] on the first day of the month three months prior to the month to which the IPC relates.</p> <p>LO = The consumer price index for industrial workers for the [circle **** in the State of Jammu & Kashmir], published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the month of the Base Date.</p> <p>LI = The CPI for the month three months prior to the month to which the IPC relates.</p> <p>SO = The WPI for steel (Long products) for the month of the Base Date.</p> <p>SI = The WPI for steel (Long products) for the month three months prior to the month to which the IPC relates.</p> <p>Sum of PA,PL,PC,PS,PF = 0.85</p>

		from the Base Date, no price adjustment shall be applicable.	(f) In case an IPC relates to a month which is within 3 (three) months from the Base Date, no price adjustment shall be applicable.			
17.	Clause 19.1	(i) The Authority shall make payments to the Contractor for the Works on the basis of the lump sum price accepted by the Authority in consideration of the obligations specified in this Agreement for an amount of INR (..... ..) and USD (.....) (the "Contract Price"), which shall be subject to adjustments in accordance with the provisions of this Agreement. For the avoidance of doubt, the Parties expressly agree that the Contract Price shall not include the cost of Maintenance, which shall be paid separately in accordance with the provisions of Clause 19.7. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.	(i) The Authority shall make payments to the Contractor for the Works on the basis of the lump sum price accepted by the Authority in consideration of the obligations specified in this Agreement for an amount of INR (..... ..) (the "Contract Price"), which shall be subject to adjustments in accordance with the provisions of this Agreement. For the avoidance of doubt, the Parties expressly agree that the Contract Price shall not include the cost of Maintenance, which shall be paid separately in accordance with the provisions of Clause 19.7. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.			
18.	Article 21 Annexure-I	Risk Allocation Matrix	Attached as 'Annexure-I:Revised Risk Allocation Matrix '.			
19.	Annexure-I Schedule-B Clause 1.1.1 Western Tunnel Portal	To be added	<table border="1"> <tr> <td>Buildings for Authority and Security personnel</td> <td>:</td> <td>Floor space of 800 m². To be constructed as per drawings approved by the Authority Engineer.</td> </tr> </table>	Buildings for Authority and Security personnel	:	Floor space of 800 m ² . To be constructed as per drawings approved by the Authority Engineer.
Buildings for Authority and Security personnel	:	Floor space of 800 m ² . To be constructed as per drawings approved by the Authority Engineer.				
20.	Annexure-I Schedule-B Clause 1.1.2 Eastern Tunnel Portal	To be added	<table border="1"> <tr> <td>Buildings for Authority and Security personnel</td> <td>:</td> <td>Floor space of 800 m². To be constructed as per drawings approved by the Authority Engineer.</td> </tr> </table>	Buildings for Authority and Security personnel	:	Floor space of 800 m ² . To be constructed as per drawings approved by the Authority Engineer.
Buildings for Authority and Security personnel	:	Floor space of 800 m ² . To be constructed as per drawings approved by the Authority Engineer.				
21.	Annexure-I Schedule-B	<p>1.3.2 Mined Tunnel</p> <p>The mined tunnel is defined as section between the mined tunnel portal West and East with a length of 14.083 m. The typical cross sections are given in the drawings attached as Appendix B-I.</p> <p>A clearance profile with a height of 5.5 m over the carriageway and 2.3 m over the walkway shall be provided. The width of the clearance profile</p>	<p>1.3.2 Mined Tunnel</p> <p>The mined tunnel is defined as section between the mined tunnel portal West and East with a length of 14.083 m. The typical cross sections are given in the drawings attached as Appendix B-I.</p> <p>Option 1:</p> <p>A clearance profile with a height of 5.5 m over the carriageway and 2.3 m over the walkway shall be provided. The width of the clearance profile shall</p>			

shall be 10.0 m as per the table below:-

Table 2: Cross section elements mined tunnel

Cross Section Element	Width
Walkway:	1.00 m
Hard shoulder:	0.50 m
Driving lane:	3.50 m
Mountable Median	0.50 m
Driving lane:	3.50 m
Hard shoulder:	0.50 m
Walkway:	1.00 m
Overall:	10.50 m

be 10.50 m as per the table below:-

Table 2: Cross section elements mined tunnel

Cross Section Element	Width
Walkway:	1.00 m
Hard shoulder:	0.50 m
Driving lane:	3.50 m
Mountable Median	0.50 m
Driving lane:	3.50 m
Hard shoulder:	0.50 m
Walkway:	1.00 m
Overall:	10.50 m

Option 2:

A clearance profile with a height of 5.5 m over the carriageway and 2.3 m over the walkway shall be provided. The width of the clearance profile shall be 9.00 m as per the table below:-

Table 2A: Cross section elements mined uni-directional tunnel

Cross Section Element	Width
Walkway:	0.60 m
Hard shoulder:	0.50 m
Driving lane:	3.50 m
Road Marking	0.40 m
Emergency lane:	3.00 m
Walkway:	1.00 m

			Overall: 9.00 m
			Note: Necessary modifications in ventilation and fire & life safety facilities must be carried out for this option.
22.	Appendix-B1	To be added	T 20 8482B_II- ZOT_GEOM- ALT-01 ALTERNATE TYPICAL CROSS SECTION, FOR UNI-DIRECTIONAL TWIN TUNNEL AND CLEARANCE PROFILE
23.	Annexure-I Schedule-B	<p>1.4.2 Ventilation Cavern</p> <p>The three ventilation caverns are situated perpendicular to the main tunnel at approx. km 4.489, km 7.646 and km 11.076 respectively south of the lay-bye, between the main tunnel and the separate egress tunnel, with a length of approx. 30 m. The main characteristics of each of the three ventilation caverns are as follows.</p> <p>Cavern excavation height: 15.0 m</p> <p>Cavern excavation width: 21.0 m</p> <p>Cavern length: 30.0 m</p> <p>Excavation cross section: 185 m2</p> <p>.....</p>	<p>1.4.2 Ventilation Cavern</p> <p>The three ventilation caverns are situated perpendicular to the main tunnel at approx. km 4.489, km 7.646 and km 11.076 respectively south of the lay-bye, between the main tunnel and the separate egress tunnel, with a length of approx. 30 m. The main characteristics of each of the three ventilation caverns are as follows.</p> <p>Cavern excavation height: 15.0 m</p> <p>Cavern excavation width: 21.0 m</p> <p>Cavern length: 30.0 m</p> <p>.....</p>
24.	Annexure-I Schedule-B	<p>1.10 Final Interior Finish.</p> <p>The main traffic tunnel shall have a final interior finish of a fire resistant material of suitable surface characteristics as per Contractor's detailed design subject to approval by Authority Engineer.</p>	<p>1.10 Final Interior Finish.</p> <p>The main traffic tunnel shall have a final interior finish of a fire resistant material of suitable surface characteristics as per Contractor's detailed design subject to approval by Authority Engineer.</p> <p>Fire Protection Materials to be installed in tunnels must be capable of</p>

			<p>performing under extreme fire exposure conditions. They must withstand rapid thermal shock when exposed to fire and be able to withstand exposure to high temperatures up to 1400°C (2552°F) for long periods of time. They cannot be affected by the corrosive atmospheres present in tunnels where long term exposure to carbon monoxide, Carbon dioxide and nitrogen dioxide which are constantly present. They should be resistant to cyclic loading and mechanical impact and be easily repaired if damaged by vehicle impact.</p>
25.	Schedule-C Annexure-I	<p>o. Vehicle for Authority.</p> <p>The vehicles / passenger cars for the project shall be 4x4 SUVs, petrol or diesel driven having cylinder capacity of minimum 1500cc. The hard top SUVs shall be 4 W Drive either petrol or diesel driven and may be Innova/Toyota Fortuner/Jeep Compass/ Scorpio or equivalent. Four number of vehicles are to be provided by the Contractor with front and rear AC for inspection and liaisoning with other departments for 3500 Kms per month..</p> <p>The Contractor shall provide within one month from the appointed date and shall be provided and maintained until issue of the Taking Over Certificate for the complete work. During Operation & Maintenance stage only 2 vehicles are to be provided for the use of Authority. Initially, new vehicles shall be provided and a vehicle shall replaced with a new vehicle after a maximum run of 75, 000 km or Four years whichever is earlier. All necessary taxes for operating the vehicles shall be fully paid and all necessary papers shall be provided as required by prevailing Motor Vehicles Act with comprehensive insurance cover for the vehicles. The vehicles shall be provided day and night as required by the Authority. The Contractor shall also make available drivers having valid licence at such times and for such duration as instructed by the Authority.</p> <p>The vehicles shall be maintained in a smooth running condition. All expenses required for keeping the vehicles in smooth running condition such as fuel, lubrication oil and other consumables, necessary service and maintenance, drivers, repairs and replacement etc. are to be met by</p>	<p>o. Vehicle for Authority.</p> <p>The vehicles / passenger cars for the project shall be 4x4 SUVs, petrol or diesel driven having cylinder capacity of minimum 1500cc. The hard top SUVs shall be 4 W Drive either petrol or diesel driven and may be Innova/Toyota Fortuner/Jeep Compass/ Scorpio or equivalent. Four number of vehicles are to be provided by the Contractor with front and rear AC for inspection and liaisoning with other departments for 3500 Kms per month..</p> <p>The Contractor shall provide within one month from the appointed date and shall be provided and maintained until issue of the Taking Over Certificate for the complete work. During Operation & Maintenance stage only 2 vehicles are to be provided for the use of Authority. Initially, new vehicles shall be provided and a vehicle shall replaced with a new vehicle after Four years. All necessary taxes for operating the vehicles shall be fully paid and all necessary papers shall be provided as required by prevailing Motor Vehicles Act with comprehensive insurance cover for the vehicles. The vehicles shall be provided day and night as required by the Authority. The Contractor shall also make available drivers having valid licence at such times and for such duration as instructed by the Authority.</p> <p>The vehicles shall be maintained in a smooth running condition. All expenses required for keeping the vehicles in smooth running condition such as fuel, lubrication oil and other consumables, necessary service and maintenance, drivers, repairs and replacement etc. are to be met by the Contractor. In the event of any vehicle being off the road for maintenance or on account of breakdown, the Contractor shall provide substitute vehicle(s)</p>

		<p>the Contractor. In the event of any vehicle being off the road for maintenance or on account of breakdown, the Contractor shall provide substitute vehicle(s) immediately. If the Contractor at any time fails to provide vehicle(s) or substitute vehicle(s) as specified above, an amount of Rs. 2500 per day or part thereof for each vehicle (that the Contractor failed to provide) shall be debited to the Contractor's account. Also the number of days for which the vehicle(s) were not provided shall not be included for payment.</p>	<p>immediately. If the Contractor at any time fails to provide vehicle(s) or substitute vehicle(s) as specified above, an amount of Rs. 2500 per day or part thereof for each vehicle (that the Contractor failed to provide) shall be debited to the Contractor's account. Also the number of days for which the vehicle(s) were not provided shall not be included for payment.</p>
26.	Schedule-C Annexure-I	<p>p. Training</p> <p>Training to officers of the Authority for 5 Days (excluding journey time) including all arrangements of Lodging, Food as per 3 star facilities. Training shall include 3 days classroom and 2 days site visit.</p> <p>Training should be arranged in two batches within one year of Appointed Date, each batch will have 8 participants.</p>	<p>p. Training</p> <p>Training to officers of the Authority for 5 Days (excluding journey time) including all arrangements of Lodging, Food as per 3 star facilities. Training shall include 3 days classroom and 2 days site visit in a country having similar type of tunnel construction preferably in developed country.</p> <p>Training should be arranged in two batches within one year of Appointed Date and each batch will have 8 participants.</p>
27.	Annexure-1A Schedule-C Clause 1.1.2	<p>(i) The construction of the new office building for the Authority's Engineer shall be completed within 60 days since the date of commencement of the Contract and shall be equipped and maintained by the Contractor to the satisfaction of the Authority's Engineer until 3 months after the issue of a Completion Certificate for the Works or such earlier time as instructed by the Authority's Engineer whereupon the furniture shall be removed and any internal partition walls modified as required by the Authority's Engineer.</p>	<p>(i) The construction of the new office building including furnishings for the Authority and Authority's Engineer shall be completed within 120 days since the date of commencement of the Contract and shall be equipped and maintained by the Contractor to the satisfaction of the Authority's Engineer until 3 months after the issue of a Completion Certificate for the Works or such earlier time as instructed by the Authority's Engineer whereupon the furniture shall be removed and any internal partition walls modified as required by the Authority's Engineer.</p>

28.	Annexure-1A Schedule-C	<p>1.2.1 Accommodation</p> <p>(1) General</p> <p>(i) Immediately after the date for Commencement of Works, during the first 3 months or until the permanent installations are prepared and approved, the Contractor shall provide rented houses as per the accommodation for all staff of the Authority's Engineer.</p>	<p>1.2.1 Accommodation</p> <p>(1) General</p> <p>(i) Immediately after the date for Commencement of Works, during the first 3 months or until the permanent installations are prepared and approved, the Contractor shall provide duly furnished rented houses as per the accommodation for all staff of the Authority and Authority's Engineer.</p>
29.	Annexure-1A Schedule-C Clause 2	<p>Note: (1)All the residential accommodation must have temperature control facility so that temperature is neither more than 24°C nor less than 15°C.</p>	<p>Note: (1)All the residential accommodation must be fully furnished and shall have temperature control facility so that temperature is neither more than 24°C nor less than 15°C.</p>
30.	Schedule-D Annexure-I	<p>1. Specifications and Standards</p> <p>All Materials, works and construction operations shall conform to the Manual of Specifications and Standards for Two-Laning of Highways (IRC:SP:73-2007), referred to as the Manual, and MORTH Specifications for Road and Bridge Works. For tunnel works including portals section 14 of IRC: SP 84: 2014 and IRC SP:91:2010 (Guidelines for Road tunnels) may be followed. Where the specification for a work is not given, PIARC guidelines/ relevant international codes/ Good Industry Practice shall be adopted to the satisfaction of the Authority's Engineer.</p>	<p>1. Specifications and Standards</p> <p>All Materials, works and construction operations shall conform to the Manual of Specifications and Standards for Two-Laning of Highways (IRC:SP:73-2007), referred to as the Manual, and MORTH Specifications for Road and Bridge Works. For tunnel works including portals IRC SP:91:2010 (Guidelines for Road tunnels) may be followed. Where the specification for a work is not given, PIARC guidelines/ relevant international codes/ Good Industry Practice shall be adopted to the satisfaction of the Authority's Engineer.</p>
31.	Schedule-D Attachment D-II Page 259	<p>3. PROJECT HIGHWAY OVERVIEW</p> <p>.....</p> <p>A fire-extinguishing water pipe is installed at one roadway side providing a fresh water supply to the hydrants in case of an incident or for maintenance measures.</p> <p>The egress tunnel shall also be equipped with lighting and safety facilities such as CCTV cameras, fire detection system, etc.</p> <p>.....</p>	<p>3. PROJECT HIGHWAY OVERVIEW</p> <p>.....</p> <p>A fire-extinguishing water pipe is installed at one roadway side providing a fresh water supply to the hydrants in case of an incident or for maintenance measures.</p> <p>The Ventilation and Fire & Life Safety system shall be designed for passage of Petroleum tankers with a design Heat Release Rate of 200 MW.</p> <p>The egress tunnel shall also be equipped with lighting and safety facilities such as CCTV cameras, fire detection system, etc.</p>

		
32.	Schedule-D Attachment D-II Page 259	<p>3.1 Definition of Fixed Operating Equipment (FOE)</p> <p>Tunnel and open road fixed operating equipment sub-systems:</p> <ul style="list-style-type: none"> □ Ventilation □ Traffic Control □ Closed circuit television (CCTV) □ Emergency call system (ECS) □ Communication systems □ Fire safety system □ Lighting □ Tunnel control system (SCADA) 	<p>3.1 Definition of Fixed Operating Equipment (FOE)</p> <p>Tunnel and open road fixed operating equipment sub-systems:</p> <ul style="list-style-type: none"> □ Ventilation □ Traffic Control □ Closed circuit television (CCTV) □ Emergency call system (ECS) □ Communication systems □ Fire & Life safety system □ Lighting □ Tunnel control system (SCADA)
33.	General	DPR	<p>Following reports of DPR have been uploaded on NHIDCL website:</p> <ol style="list-style-type: none"> i. Contour Drawings near shafts ii. Drawings of Baltal area. iii. Borelog reports. iv. DPR Cost Estimate. v. Zoji La Traffic Studies. vi. Chemical Analysis of Water Samples. vii. Laboratory Testing of Rock Samples. viii. Material survey. ix. Report of Water Sample. x. Study of seismicity. xi. Topographic survey report.
34.	Price Bid	BoQ	Attached as 'Revised BoQ'.
35.	General	Design Fire size - Ventilation & fire fighting system	The ventilation and fire fighting system shall be designed for peak heat release rate of 200 MW (Design HRR) for passage of petroleum tankers.

36.	Clause 8 of Notice Inviting Tender (NIT)				
		Bid Submission Start Date	16.04.2019 at 1100 Hrs	Bid Submission Start Date	16.04.2019 at 1100 Hrs
		Last date of Request for BID Document	23.04.2019 at 1100 Hrs	Last date of Request for BID Document	06.05.2019 at 1100 Hrs
		BID Due Date	23.04.2019 at 1500 Hrs	BID Due Date	06.05.2019 at 1500 Hrs
		Opening of Technical BIDs	24.03.2019 at 1530 Hrs	Opening of Technical BIDs	07.05.2019 at 1530 Hrs

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