



Government of Jammu & Kashmir  
Project Management Unit  
Jhelum & Tawi Flood Recovery Project (JTFRP)  
JKERA Commercial Complex Rambagh Srinagar.



No:JTFRP/PMU/Camp/777/325  
Date:28-11-2019

**Sub: Corrigendum No 03 to REVISED/ROADS/JAMMU/01 ( Upgradation of Sidhra Surinsar & Tutan Di Khuie to Khada-Madana Road)**

The Following Changes are being made in the Bid Document:

1. The package is hereby divided into following lots:

**Lot 1 : Upgradation of Sidhra Surinsar Road**

**Lot 2 : Upgradation of Tutan Di Khuie to Khada-Madana Road.**

The Bidders can bid for individual Lots or whole Package. In case the bidder bids for both lots, the bidder shall meet the qualification criteria for both lots combined. The Lotwise qualification Criteria and other details are as follows:

Lot No	Description	Bid Security (INR)	Time of Completion
Lot 1	<b>Upgradation of Sidhra Surinsar Road</b>	33 Lacs	12 Months, plus DLP of 1 year reckoned from the date of issue of completion certificate.
Lot 2	<b>Upgradation of Tutan Di Khuie to Khada-Madana Road.</b>	37Lacs	15 Months, plus DLP of 1 year reckoned from the date of issue of completion certificate.
Lot 1 + Lot 2	<b>Upgradation of Sidhra Surinsar &amp;Tutan Di Khuie to Khada-Madana Road</b>	70 Lacs	15 Months, plus DLP of 1 year reckoned from the date of issue of completion certificate.

*Note: The Cost of Bidding Document is only 10,000 INR irrespective of fact the bidder bids for a single lot or a combination of lots or whole package.*

The Qualification Criteria and BoQ for each Lot is appended as **Annexure A** and **Annexure B** respectively.

Sd/-  
DirectorTechnical  
JTFRP

## Annexure A

### Qualification Criteria for Lot 1

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2.1 Eligibility</b>							
2.1.1	<b>Nationality</b>	Nationality in accordance with ITB Sub-Clause 4.3.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N / A	Forms ELI –1.1 and ELI-1.2 With attachments
2.1.2	<b>Conflict of Interest</b>	No conflicts of interest in ITB Sub-Clause 4.2.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N / A	Letter of Bid
2.1.3	<b>Bank eligibility</b>	Not having been declared ineligible by the Bank, as described in ITB Sub-Clause 4.4.& 4.7.	Must meet requirement	Existing JV must meet requirement	Must meet requirement	N / A	Letter of Bid
2.1.4	<b>Government Owned Entity</b>	Applicant required to meet conditions of ITB-A Sub-Clause 4.5. The entity should not be a dependent agency of the borrower or sub-borrower or Employer.	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Forms ELI -1.1 and 1.2 with attachments
2.1.5	<b>United Nations resolution or Borrower's country law</b>	Not having been excluded as a result of prohibition in the Borrower's country laws or official regulations against commercial relations with the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.7	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Forms ELI -1.1 and 1.2 with attachments

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
		and Section V.					
<b>Historical Contract Non-Performance</b>							
2.2.1	<b>History of Non-Performing Contracts</b>	Non-performance of a contract <sup>1</sup> did not occur as a result of contractor default since 1 <sup>st</sup> January 2014.	Must meet requirement by itself or as member to past or existing JV	N / A	Must meet requirement by itself or as member to past or existing JV	N / A	Form CON - 2
2.2.2	<b>Suspension due to withdrawal of the Bid within Bid validity</b>	Not under suspension due to withdrawal of the Bid pursuant ITB 19.6.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
2.2.3	<b>Pending Litigation</b>	Bidder's financial position and prospective long term profitability sound according to criteria established in 2.3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement by itself or as member to past or existing JV	N / A	Must meet requirement by itself or as member to past or existing JV	N / A	Form CON - 2

<sup>1</sup> Non-performance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts 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 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 Bidder have been exhausted.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.2.4	<b>Litigation History</b>	No consistent history of court/arbitral award decisions against the Bidder <sup>2</sup> since 1 <sup>st</sup> January 2014	Must meet requirement by itself or as member to past or existing JV	Must meet requirement	Must meet requirement by itself or as member to past or existing JV	N/A	Form CON - 2
2.2.5	<b>Declaration: Environmental, Social, Health, and Safety (ESHS) past performance</b>	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, (including sexual exploitation and abuse (SEA) and gender based violence (GBV)), or health or safety requirements or regulations in the past five years <sup>3</sup> .	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Each must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Form CON-3 ESHS Performance Declaration

<sup>2</sup>The Bidder shall provide accurate information on the letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	

### 2.3 Financial Situation and Performance

2.3.1	<b>Financial Capabilities</b>	<p>(a) 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 construction cash flow requirements estimated as <b>INR 10 Crores</b> for the subject contract(s) net of the Bidders other commitments</p> <p>(b) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract</p>	(a) Must meet requirement	(a) Must meet the requirement	(a) Must meet at least 25% of the requirement as a minimum	(a) Must meet at least 50% of the requirement as a minimum	Form FIN - 3.1 with attachments
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No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.3.2	<b>Annual Construction Turnover</b>	Achieved in at least two financial years (in the last Seven years) a minimum annual financial turnover <sup>4</sup> in civil engineering construction work of <b>INR 40 Crores [Forty Crore Rupees]</b> calculated as total certified payments received for contracts in progress or completed,	Must meet requirement	Must meet requirement	Must meet twenty five percent (25%) of the requirement	Must meet fifty percent (50%) of the requirement	Form FIN - 3.2
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	

<sup>4</sup> At price level. Financial turnover of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	

## 2.4 Experience

2.4.1	<b>General Construction Experience</b>	Experience under construction contracts for similar works such as those pertaining to CONSTRUCTION OF ROADS in the role of contractor, JV member, subcontractor, or management contractor for at least the last Seven (7) years prior to the bid submission deadline.	Must meet requirement	N/A	Must meet requirement of having executed works of similar nature	N/A	Form EXP – 4.1
2.4.2 (a)	<b>Specific Construction Experience</b>	Bidder should have successfully completed as a prime contractor, JV member <sup>5</sup> , management contractor or sub-contractor, minimum One (1) civil contract substantially completed within the last Seven	Must meet requirement	Must meet requirement	Must meet requirement for one contract of 25% value	Must meet requirement	Form EXP 4.2(a). The contractor should have borne responsibility for execution of works to the extent he claims experience. A

<sup>5</sup> For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.



No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements	
				All Parties Combined	Each Member	One Member		
		(7) years (FY2013-2014.to FY 2019-20), with a value <sup>6</sup> of at least <b>INR 16 Crores</b> involving Construction, Upgradation of Roads (Flexible Pavement)					contractor should not claim experience for the works he has never executed.	
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements	
				All Parties Combined	Each Member	One Member		
<p><b>2.4.2 (b)</b> For a bidder (either individually as a single entity or as a JV member) to qualify for a group of lots (contracts), he must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for all the contracts in question.</p>								

<sup>6</sup>At 2018-2019 .price level. Cost of completed works of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.4.2 (d)	<p>Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value of the work. The available bid capacity will be calculated as under:</p> <p>Assessed Available bid capacity = (A*N*2-B)</p> <p>Where,</p> <p>A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the financial year ..... at the rate of 5% per year), taking into account the completed as well as works in progress).</p> <p>N = Number of years prescribed for completion of the works for which bids are invited (period upto 6 months to be taken as half-year and more than 6 months as one year).</p> <p>B = Value, at the current price level, of existing commitments on on-going works to be completed during the period of completion of the</p>						

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.4.2 (e)		works for which bids are invited.  Note: <i>the statements in Section IV showing the value of existing commitments of on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.</i>  Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have: -					
		<ul style="list-style-type: none"> <li>- made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement;</li> <li>- record of poor performance such as abandoning the works, not properly completion or financial failures etc.</li> <li>- consistent history of litigation or arbitration awards against the bidder or any member or the joint venture.</li> </ul>					

## Qualification Criteria for Lot 2

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2.1 Eligibility</b>							
2.1.1	<b>Nationality</b>	Nationality in accordance with ITB Sub-Clause 4.3.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N / A	Forms ELI -1.1 and ELI-1.2 With attachments
2.1.2	<b>Conflict of Interest</b>	No conflicts of interest in ITB Sub-Clause 4.2.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N / A	Letter of Bid
2.1.3	<b>Bank eligibility</b>	Not having been declared ineligible by the Bank, as described in ITB Sub-Clause 4.4.& 4.7.	Must meet requirement	Existing JV must meet requirement	Must meet requirement	N / A	Letter of Bid
2.1.4	<b>Government Owned Entity</b>	Applicant required to meet conditions of ITB-A Sub-Clause 4.5. The entity should not be a dependent agency of the borrower or sub-borrower or Employer.	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Forms ELI -1.1 and 1.2 with attachments
2.1.5	<b>United Nations resolution or Borrower's country law</b>	Not having been excluded as a result of prohibition in the Borrower's country laws or official regulations against commercial relations with the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.7 and Section V.	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Forms ELI -1.1 and 1.2 with attachments

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>Historical Contract Non-Performance</b>							
2.2.1	<b>History of Non-Performing Contracts</b>	Non-performance of a contract <sup>7</sup> did not occur as a result of contractor default since 1 <sup>st</sup> January 2014.	Must meet requirement by itself or as member to past or existing JV	N / A	Must meet requirement by itself or as member to past or existing JV	N / A	Form CON - 2
2.2.2	<b>Suspension due to withdrawal of the Bid within Bid validity</b>	Not under suspension due to withdrawal of the Bid pursuant ITB 19.6.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
2.2.3	<b>Pending Litigation</b>	Bidder's financial position and prospective long term profitability sound according to criteria established in 2.3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement by itself or as member to past or existing JV	N / A	Must meet requirement by itself or as member to past or existing JV	N / A	Form CON - 2
2.2.4	<b>Litigation History</b>	No consistent history of court/arbitral award decisions against the Bidder <sup>8</sup> since 1 <sup>st</sup> January 2014	Must meet requirement by itself or as member to past or existing JV	Must meet requirement	Must meet requirement by itself or as member to past or existing JV	N/A	Form CON - 2

<sup>7</sup> Non-performance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts 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 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 Bidder have been exhausted.

<sup>8</sup>The Bidder shall provide accurate information on the letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.2.5	<b>Declaration: Environmental, Social, Health, and Safety (ESHS) past performance</b>	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, (including sexual exploitation and abuse (SEA) and gender based violence (GBV)), or health or safety requirements or regulations in the past five years <sup>9</sup> .	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Each must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Form CON-3 ESHS Performance Declaration

No.	Subject	Requirement	Single Entity	Joint Venture where permitted	Submission Requirements

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				<b>All Parties Combined</b>	<b>Each Member</b>	<b>One Member</b>	
<b>2.3 Financial Situation and Performance</b>							
2.3.1	<b>Financial Capabilities</b>	<p>(a) 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 construction cash flow requirements estimated as <b>INR 10 Crores</b> for the subject contract(s) net of the Bidders other commitments</p> <p>(b) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments</p> <p>(c) The audited balance sheets or, if not required by the laws of the Bidder's country, other financial</p>	<p>(a) Must meet requirement</p> <p>(b) ) Must meet</p>	<p>(a) Must meet the requirement</p> <p>(b) ) Must</p>	<p>(a) Must meet at least 25% of the requirement as a minimum</p> <p>N/A</p>	<p>(a) Must meet at least 50% of the requirement as a minimum</p> <p>N/A</p>	<p>Form FIN - 3.1 with attachments</p>

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
		statements acceptable to the Employer, for the last <i>Five</i> years shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability.	requirement	meet requirement			
			(c) Must meet requirement	N/A	(c) Must meet requirement	N/A	



No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.3.2	<b>Annual Construction Turnover</b>	Achieved in at least two financial years (in the last Seven years) a minimum annual financial turnover <sup>10</sup> in civil engineering construction work of <b>INR 40 Crores [Forty Crore Indian Rupees]</b> calculated as total certified payments received for contracts in progress or completed,	Must meet requirement	Must meet requirement	Must meet twenty five percent (25%) of the requirement	Must meet fifty percent (50%) of the requirement	Form FIN - 3.2
No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	

<sup>10</sup> At price level. Financial turnover of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2.4 Experience</b>							
2.4.1	<b>General Construction Experience</b>	Experience under construction contracts for similar works such as those pertaining to CONSTRUCTION OF ROADS / BRIDGES in the role of contractor, JV member, subcontractor, or management contractor for at least the last seven [7] years prior to the bid submission deadline.	Must meet requirement	N/A	Must meet requirement of having executed works of similar nature	N/A	Form EXP – 4.1
2.4.2 (a)	<b>Specific Construction Experience</b>	Bidder should have successfully completed as a prime contractor, JV member <sup>11</sup> , management contractor or sub-contractor, minimum One (1) civil contract substantially completed within the last	Must meet requirement	Must meet requirement	Must meet requirement for one contract of 25% value	Must meet requirement	Form EXP 4.2(a). The contractor should have borne responsibility for execution of works to the extent he claims experience. A

<sup>11</sup> For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
		Seven(7) years (FY2014-2015.to FY 2018-19), with a value <sup>12</sup> of at least <b>INR 20 Crores</b> involving Construction, Upgradation of Roads (Flexible Pavement).					contractor should not claim experience for the works he has never executed.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	

**2.4.2 (b)** For a bidder (either individually as a single entity or as a JV member) to qualify for a group of lots (contracts), he must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for all the contracts in question.

<sup>12</sup>At 2018-2019 .price level. Cost of completed works of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received.

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.4.2 (d)	<p>Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value of the work. The available bid capacity will be calculated as under:</p> <p>Assessed Available bid capacity = (A*N*2-B)</p> <p>Where,</p> <p>A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the financial year ..... at the rate of 5% per year), taking into account the completed as well as works in progress).</p> <p>N = Number of years prescribed for completion of the works for which bids are invited (period upto 6 months to be taken as half-year and more than 6 months as one year).</p> <p>B = Value, at the current price level, of existing commitments on on-going works to be completed during the period of completion of the</p>						

No.	Subject	Requirement	Single Entity	Joint Venture where permitted			Submission Requirements
				All Parties Combined	Each Member	One Member	
	works for which bids are invited.						
	<p>Note: <i>the statements in Section IV showing the value of existing commitments of on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.</i></p>						
<b>2.4.2 (e)</b>	<p>Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have: -</p> <ul style="list-style-type: none"> <li>- made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement;</li> <li>- record of poor performance such as abandoning the works, not properly completion or financial failures etc.</li> <li>- consistent history of litigation or arbitration awards against the bidder or any member or the joint venture.</li> </ul>						

## Annexure B

### BOQ of 1: Sidhra-Surinsar Road

<b>BOQ of 1: Sidhra-Surinsar Road</b>						
<b>Bill no:-1 :Dismantling</b>						
<i>Sl. No</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate in Word</i>	<i>Rate in figure</i>	<i>Amount</i>
1.1	Clearing jungle including uprooting of rank vegetation,grass, brushwood, trees and saplings of girth upto 30cm measured at height of 1m above ground level and removal of rubbish upto a distance of 50m outside the periphery of the area cleared as per MoRTH clause no 201	Sqm	31694.00			
1.2	Dismantling of flexible bituminous pavements and disposal of dismantled materials up to a desired lead of metres, stacking serviceable and unserviceable materials separately as per MoRTH clause no 202	Sqm	808.05			
1.3	Scarification of flexible pavements and disposal of dismantled materials up to a lead of metres, stacking serviceable and unserviceable materials separately as per MoRTH clause no 202	Sqm	96965.55			
<b>Bill no:-2 : Earth work</b>						
2.1	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead as per MoRTH clause no 301					
	Ordinary Soil	Cum	15661.23			
2.2	Removal of unserviceable soil including excavation, loading and disposal upto <b>within all lifts and lead</b> but excluding replacement by suitable soil which shall be paid separately	Cum	1566.12			
2.3	Construction of embankment with approved material obtained from borrow pits <b>with all lifts and leads</b> , transporting to site, spreading, grading to required slope and compacting to meet requirement of as per MoRTH clause 305.	Cum	4545.07			
2.4	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded	Cum	14095.11			

	and compacted to meet requirement of table as per MoRTH clause 305.					
2.5	Construction of unpaved shoulders with approved material ( <b>PI max-6%</b> ) obtained from available material approved by the EIC <b>with all lifts &amp; leads</b> , transporting to site, spreading, grading to required slope and compacted to meet requirement of as per MoRTH clause 305					
	Rolling with vibratory roller	Cum	3658.00			
2.6	Slip clearance in ordinary soils disposal lead upto 50 m and lift upto 1.5 m.	Cum	6193.13			
<b>Bill no:-3 : Pavement Work</b>						
3.1	Construction of subgrade with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of as per MoRTH clause 305	Cum	593.750			
3.2	Construction of <b>crushed granular sub-base Grade-II</b> by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per MoRTH clause 401	Cum	1227.50			
3.3	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density as per clause 406 of MoRTH.	Cum	883.65			
3.4	Providing and applying Prime coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime at the rate of 0.7 kg/sqm using mechanical means as per MoRTH clause 502	Sqm	5847.50			
3.5	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.25 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom as per MoRTH clause 503	Sqm	215679.00			

3.6	Providing and laying <b>bituminous concrete</b> with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder (VG-10) @ 5.4 to 5.6 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.	Cum	3235.19			
3.7	Providing and laying graded <b>dense bituminous macadam</b> with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder (VG-10) @ 4.5 to 5.0 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 505 complete in all respects.	Cum	8303.64			
<b>Bill no:-4:Culvert</b>						
4.1	Earthwork in excavation of foundation for structures including pipe culverts in all types of soil including lead & lifts complete as per drawings and MORT&H specifications clauses 304 & 2903.	Cum	273.24			
4.2	Providing & Laying Plain Cement Concrete levelling course in open foundation including centering and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100.					
	M-15 grade	Cum	197.26			
4.3	Providing, laying & jointing RCC NP4 pipe including testing complete as per drg. & MORT&H specifications section 2900.					
	1200mm dia	M	55.50			
4.4	Providing & laying filter material underneath stone boulder pitching on slopes complete as per drg. and MORT&H specifications section 2500.	Cum	15.78			



4.5	Providing & laying stone boulder pitching on slopes complete as per drg. and MORT&H specifications section 2500.	Cum	31.55			
4.6	Providing & laying stone pitching on slopes for pipe culvert complete as per drg	Cum	59.29			
4.7	Providing & laying selected granular material for pipe bedding as per drg. and MORT&H specifications section 2900.	Cum	49.21			
4.8	<b>Dismantling</b>					
(i)	Plain Cement Concrete	cum	4.79			
(ii)	Pipe	m	30.50			
(iii)	Brick / Stone Structures	cum	38.56			
<b>Bill no:-05:Drain</b>						
5.1	Earthwork in excavation of foundation for structures including all types of soil including lead & lifts complete as per drawings and MORT&H specifications clauses 304 & 2903.	cum	704.16			
5.2	Providing & Laying Plain Cement Concrete M-15 levelling course in open foundation including centering and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100.	cum	898.37			
<b>Bill no:-06:Traffic Signs, Marking and Appurtenances</b>						
6.1	Retro- reflectorised Traffic signs (Providing and fixing of retro- reflectorised cautionary, mandatory and inforatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)					
(i)	90 cm equilateral triangle (Give Way)	each	4			
(ii)	60 cm equilateral triangle	each	172			
(iii)	90 cm circular(Speed Limit at sharp bend)	each	360			

( iv )	90cm x 30cm rectangular (Object hazard)	each	388			
( v )	60 cm x 45 cm rectangular (Place identification)	each	2			
(vi )	60 cm x 50 cm rectangular Chevron ( at sharp bend)	each	10			
6.2	Direction and Place Identification signs upto 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	sqm	1.08			
6.3	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	sqm	3902			
6.4	Kilometre Stone (Reinforced cement concrete M15 grade kilometre stone of standard design as per IRC:8-1980, fixing in position including painting and printing etc)					
( i )	5th kilometre stone (precast)	each	3			
( ii )	Ordinary Kilometer stone (Precast)	each	15			
( iii )	200 mt stone (Precast)	each	72			
6.5	Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings.)	each	1940			
6.6	Convex Mirror at sharp curved	No	48			
6.7	Type - A, "W" : Metal Beam Crash Barrier (Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet ( <b>Fe-510</b> ) metal beam rail, 70 cm above road/ground level, fixed on ISMC ( <b>Fe-410 C</b> ) series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road	metre	2800			

	level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, <b>W-beam should confirm as per latest revision of IS-5986 and for post and spacer IS-2062</b> , metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810)					
(i)	Parapet wall white painting	Sqm	7303.53			
(ii)	Parapet wall PCC M-15	Cum	356.25			

**Bill no: -07:Protection work**

7.1	Earthwork in excavation of foundation for structures including pipe culverts in all types of soil including lead & lifts complete as per drawings and MORT&H specifications clauses 304 & 2903.	Cum	3184.25			
7.2	Providing & Laying Plain Cement Concrete M15 levelling course in open foundation including centering and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100.	Cum	4350.91			
7.3	Providing weep holes in Plain/Reinforced concrete abutment, wing wall/return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical specifications	Nos	1084			

**Bill No 08 Environment Management Plan**

8.1	<b>SITE SAFETY MEASURES: Barricading</b> as Per IRC SP-55. Rate shall be inclusive of cost of providing all materials and fixing arrangements, including excavation, transportation to site, fixing, backfilling, removal of the complete barricading after construction work is over and rehabilitation of the site etc., with all incidental charges, leads, lifts and all taxes and duties as applicable and as specified by Engineer-in-charge. Material of barricading shall be the property of contractor after completion the work. Barricading shall be maintained throughout the construction period. It should be installed in a manner so that one cannot crawl underneath it, should be sturdy enough to bear normal wear and tear at the	Rmts	500			
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	construction site, should not topple off and hurt someone and should be strong enough to withstand the elements, including high wind conditions.					
8.2	Provision, installation and maintenance of cautionary/warning signage, including diversion boards as per IRC specifications (SP:55, 2014) on the main road and along the access, including cost of boards and other materials required for fixing, with all incidental charges leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge	No	2			
8.3	Cost towards first aid and emergency response arrangements in the camp and worksite (including fire and electrical safety provisions)	Job	1			
8.4	Cost towards periodic health check-ups once in three months for all construction workers	Job	1			
8.5	Wet type portable toilet (MS fabricated) 2 seats (1 for men and 1 for women with separate entrances), fitted with 2000 liters capacity overhead tank and 500 liters capacity bottom tank, fitted with Indian type of pot with other facilities such as tap, lighting and ventilation; and sludge tank of capacity 1000L, and stationed at a suitable place in or around 50 meters from work front. Includes cost of water, cost for emptying of bottom tank through mobile suction machine, attendant cost for looking after cleaning and operation of the toilets, all materials and labour charges, all incidental charges, leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge.	No	2			
8.6	Dry type portable toilet (MS fabricated) (bio digester) of approved design with 2 seats (one for men and one for women). Includes cost of water, cost for emptying of bottom tank through mobile suction machine, attendant cost for looking after cleaning and operation of the toilets, all materials and labour charges, all incidental charges, leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge.	No	2			
8.7	Providing of mobile drinking water counter/kiosk, fabricated from stainless steel	No	2			

	with 300 liters capacity, with two taps and with bottom tank (300 litre holding capacity) to collect waste water and stationed at a suitable place within operational area, with one common attendant for both mobile toilet and drinking water kiosk. Cost includes charges for emptying bottom tank through suction machine, shifting cost of the kiosk from one operational area to another area, attendant cost for looking after cleaning and operation, all materials and all labour charges, all incidental charges, leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge					
8.8	OTHER ENVIRONMENT, HEALTH AND SAFETY MEASURES: Information dissemination about type and schedule of civil works, utility shifting/damage/emergency repairs, complaint handling and all such issues that affect public/near-by residents Road users close to the work zone. Dissemination modes to include display of banners/notices, distribution of handbills, organization of meetings and other appropriate means at least once in a month for the entire project duration.	Months	9			
8.9	Provision of Project Information Board in sheet steel and all supports, including fixing and maintenance during the entire project. Minimum board size should be 3 meters x 2 meters, with necessary information in English and local language written in black paint with white back ground. The board details and the required information will be furnished by the Engineer. The complete design, including logo and information to be displayed shall be approved by the Engineer	no	2			
8.10	<b>Cost of environmental monitoring (air, water and noise) during entire construction period .</b> <b>Ambient Air quality, Ambient Noise level and water quality monitoring.</b> (24 Hourly Ambient Air Quality Monitoring for PM2.5 PM10,SO2, Nox and CO)-Noise Levels (dB) for Day and Night, Water Monitoring- . <b>AAQ-</b> Once before start of work and thereafter once in every quarter, <b>AAN-</b> Once before start of work and thereafter once in every month, <b>Water monitoring</b> – once before start of	Job	1			

	work & thereafter after completion of work					
8.11	Providing of red fluorescent with white reflective sleeve traffic cone made of low density polyethylene(LDPE) material with a square base of 390x390x35mm and a height of 770mm, 4Kg in weight, placed at 1.5m interval, all as per BS 873 including cost of all materials, labour, loading, unloading, lead, lift, transporting etc complete Technical Specification section & IRC SP 55-2001.	No	20			
	<b>Total Bid Cost in Figures (INR)</b>					
	<b>A</b>					
	<b>Total Bid Cost in Words (INR)</b>					
	<b>Provisional Sum</b>	<b>50,00000/-</b>				
	<b>B</b>					
	<b>Total Cost including provisional sum</b>					
	<b>(A+B)</b>					

## BOQ of Lot 2: Tutan Di Khuie to Khada-Madana Road.

Sl. No	Description	Unit	Qty	Rate in Word	Rate in figure	Amount
<b>Bill no: -1 :Dismantling</b>						
1.1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30cm measured at height of 1m above ground level and removal of rubbish upto a distance of 50m outside the periphery of the area cleared as per MoRTH clause no 201	Sqm	22000.00			
<b>Bill no: -2 : Earth work</b>						
2.1	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead as per MoRTH clause no 301					
	Ordinary Soil	Cum	3341.75			
2.2	Removal of unserviceable soil including excavation, loading and disposal upto <b>within all lifts and lead</b> but excluding replacement by suitable soil which shall be paid separately	Cum	668.35			
2.3	Construction of embankment with approved material obtained from borrow pits <b>with all lifts and leads</b> , transporting to site, spreading, grading to required slope and compacting to meet requirement of as per MoRTH clause 305.	Cum	23196.73			
2.4	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table as per MoRTH clause 305.	Cum	3007.58			
2.5	Construction of unpaved shoulders with approved material ( <b>PI max-6%</b> ) obtained from available material approved by the EIC <b>with all lifts &amp; leads</b> , transporting to site, spreading, grading to required slope and compacted to meet requirement of as per MoRTH clause 305					
	Rolling with vibratory roller	Cum	5500.00			

<b>Bill no:- 3 : Pavement Work</b>						
3.1	Construction of subgrade with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of as per MoRTH clause 305	Cum	1463.89			
3.2	Construction of <b>crushed granular sub-base Grade-II</b> by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per MoRTH clause 401	Cum	2845.41			
3.3	Providing, laying, spreading and compacting graded stone aggregate to water bound macadam ( <b>For layer II- Gr III and for layer I-Gr -II</b> ) specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.as per MoRTH clause 404	Cum	11557.75			
3.4	Providing and applying Prime coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime at the rate of 0.7 kg/sqm using mechanical means as per MoRTH clause 502	Sqm	47444.43			
3.5	Providing and applying tack coat with bitumen emulsion complying with IS-8887-1995 spraying the bitumen emulsion with mechanically operated spray unit, cleaning and preparing the existing road surface as per spec over W.B.M @ 0.4Kg/sqm	Sqm	94888.86			
3.6	Providing and laying <b>seal coat</b> of premixed fine aggregate(passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade 80/100 bitumen ' .per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface including rolling and finishing with road all complete	Sqm	47444.43			
3.7	Providing and laying 2.5 cm <b>premix carpet</b> surfacing withwith 2.25cu.m. and 1.12 cu.m of stone chippings of 13.2 mm and 11.2 size respectively per 100 sq.m. and 52kg. and 56 kg. of hot bitumen per cu.m. of stone chippings of 13.2 mm and 11.2 mm size respectively including a tack coat with hot straight run bitumen including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately)	Sqm	47444.43			



3.8	Providing and laying <b>Bituminous Macadam</b> on prepared surface with specified graded crushed stone aggregate for profile corrective base/binder course including loading of aggregate with F. E. loader, hot mixing of stone aggregates in hot mix plant, transporting the mixed material by tippers to paver and laying the mixed material with paver finisher fitted with electronic sensing device to the required level and grade and rolling with road rollers, as per MORTH specification to achieve the desired density and compaction but excluding the cost of primer/tack coat.	Cum	2372.22			
<b>Bill no :-4: Culvert</b>						
4.1	Earthwork in excavation of foundation for structures including pipe culverts in all types of soil including lead & lifts complete as per drawings and MORT&H specifications clauses 304 & 2903.	Cum	6038.63			
4.2	Back filling behind abutments, wing walls and return walls with selected granular material of approved quality with all leads and lifts complete as per drg. and MORT&H specifications clauses 305 & 2907.	Cum	133.99			
4.3	Filter media behind abutments, wing walls, & return walls, including all material, labour, equipment carriage etc. all complete as per drawing and Technical Specification Clauses 305, 309 & 2504.	Cum	179.68			
4.3(a)	Providing & Laying Plain Cement Concrete levelling course in open foundation including centring and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100.					
	M-15 grade	Cum	1725.80			
4.4	Providing & Laying Reinforced Cement Concrete in open foundation including centering and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100.					
	M-25 grade	Cum	362.75			
4.5	Cement Concrete / Reinforced Cement Concrete in sub-structure including form work but excluding reinforcement complete as per drg. and MORT&H specifications sections 1500, 1700 and 2200.					
	M-25 grade	Cum	399.58			

4.6	Reinforced Cement Concrete in super-structure including centring and shuttering but excluding reinforcement complete as per drg. and MORT&H specifications sections 1500, 1700 and 2300.					
	M-25 grade	Cum	104.90			
4.7	Supplying, fitting & placing in position HYSD / TMT bar reinforcement complete as per drg. and MORT&H specifications sections 1600.					
(i)	Foundation	MT	10.77			
(ii)	Sub-structure	MT	19.43			
(iii)	Superstructure	MT	10.49			
4.8	Providing & fixing Bitumen impregnated fibre board expansion joints complete as per drg. and Technical specifications	M	196.00			
4.9	Providing weep holes in brick masonry / plain / reinforced concrete abutment, wing walls / return wall with 100mm dia AC pipe, extending through the full width of structure with slope of IV:20H towards draining face complete as per drg. and MORT&H specifications clause 2706.	Nr.	294.00			
4.10	Providing, laying & jointing RCC NP4 pipe including testing complete as per drg. & MORT&H specifications section 2900.					
	1200mm dia	M	468.00			
4.11	Rigid apron 150mm thick flat stone embedded in 300mm thick M-15 grade concrete as per drawing and technical specification Clause 2505.	Cum	1335.91			
4.12	Providing & laying stone boulder apron complete as per drg. & MORT&H specifications section 2500.	Cum	1485.54			

4.13	Providing & laying filter material underneath stone boulder pitching on slopes complete as per drg. and MORT&H specifications section 2500.	Cum	243.50			
4.14	Providing & laying stone boulder pitching on slopes complete as per drg. and MORT&H specifications section 2500.	Cum	486.99			
4.15	Providing & laying stone pitching on slopes for pipe culvert complete as per drg	Cum	467.21			
4.16	Providing & laying selected granular material for pipe bedding as per drg. and MORT&H specifications section 2900.	Cum	416.50			
4.17	Providing cement concrete in curtain wall complete as per drg. and MORT&H specifications sections 1500, 1700, 2100, 2200 & clause 2507.					
4.18	M-15 grade	Cum	559.55			
4.19	Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 515.)	Sq.m.	882.00			
4.20	Drainage Spouts complete as per drawing and Technical specification	Nos	14.00			
4.21	PCC M15 Grade leveling course below approach slab complete as per drawing and Technical specification	Cum	70.56			
4.22	Reinforced cement concrete approach slab including reinforcement and formwork complete as per drawing and Technical specification	Cum	205.80			
4.23	<b>Dismantling</b>					
(i)	Plain Cement Concrete	cum	53.74			
(ii)	Pipe	m	450.53			
(iii)	Brick / Stone Structures	cum	499.67			
<b>Bill no: -05:Drain</b>						
5.1	Earthwork in excavation of foundation for structures including all types of soil including lead & lifts complete as per drawings and MORT&H specifications	cum	6705.00			

	clauses 304 & 2903.					
5.2	Providing & Laying Plain Cement Concrete M-15 levelling course in open foundation including centering and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100.	cum	3893.63			
<b>Bill no:-06:Traffic Signs, Marking and Appurtenances</b>						
6.1	Retro- reflectorised Traffic signs (Providing and fixing of retro- reflectorised cautionary, mandatory and inforamatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)					
( i )	90 cm equilateral triangle (Give Way)	each	2			
( ii )	60 cm equilateral triangle	each	115			
( iii )	90 cm circular(Speed Limit at sharp bend)	each	226			
( iv )	90cm x 30cm rectangular (Object hazard)	each	312			
( v )	60 cm x 45 cm rectangular (Place identification)	each	14			
(vi)	60 cm x 50 cm rectangular Chevron ( at sharp bend)	each	4			
6.2	Direction and Place Identification signs upto 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorised sign asper IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	sqm	1.08			
6.3	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot	sqm	2200.00			

	applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)					
6.4	Kilometre Stone (Reinforced cement concrete M15 grade kilometre stone of standard design as per IRC:8-1980, fixing in position including painting and printing etc)					
(i)	5th kilometre stone (precast)	each	2.00			
(ii)	Ordinary Kilometer stone (Precast)	each	9.00			
(iii)	200 mt stone (Precast)	each	44.00			
6.5	Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and confirming to IRC-79 and the drawings.)	each	1606.00			
6.6	Convex Mirror at sharp curved	No	58			
6.7	Type - A, "W" : Metal Beam Crash Barrier (Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet ( <b>Fe-510</b> ) metal beam rail, 70 cm above road/ground level, fixed on ISMC ( <b>Fe-410 C</b> ) series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fittings to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, <b>W-beam should confirm as per latest revision of IS-5986 and for post and spacer IS-2062</b> , metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810)	metre				
6.8	Parapet wall white painting	Sqm	8418			
6.9	Parapet wall PCC M-15	Cum	1311.00			
<b>Bill no:-07:Protection work</b>						

7.1	Earthwork in excavation of foundation for structures including pipe culverts in all types of soil including lead & lifts complete as per drawings and MORT&H specifications clauses 304 & 2903.	Cum	1080.3			
7.2	Filter media behind abutments, wing walls, & return walls, including all material, labour, equipment carriage etc. all complete as per drawing and Technical Specification Clauses 305, 309 & 2504.	Cum	174			
7.3	"Providing & Laying Plain Cement Concrete ( <b>M-15</b> ) levelling course in open foundation including centering and shuttering but excluding reinforcement all complete as per drg. and MORT&H specifications sections 1500, 1700 and 2100."	Cum	1248.92			
7.4	Providing weep holes in Plain/Reinforced concrete abutment, wing wall/return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical specifications	Nos	520			

### Bill No 08 Environment Management Plan

8.1	<b>SITE SAFETY MEASURES: Barricading</b> as Per IRC SP-55. Rate shall be inclusive of cost of providing all materials and fixing arrangements, including excavation, transportation to site, fixing, backfilling, removal of the complete barricading after construction work is over and rehabilitation of the site etc., with all incidental charges, leads, lifts and all taxes and duties as applicable and as specified by Engineer-in-charge. Material of barricading shall be the property of contractor after completion the work. Barricading shall be maintained throughout the construction period. It should be installed in a manner so that one cannot crawl underneath it, should be sturdy enough to bear normal wear and tear at the construction site, should not topple off and hurt someone and should be strong enough to withstand the elements, including high wind conditions.	Rmts	500			
8.2	Provision, installation and maintenance of cautionary/warning signage, including diversion boards as per IRC specifications (SP:55, 2014) on the main road and along the access, including cost of boards and other materials required for fixing, with all incidental charges leads, lifts and all taxes	No	2			

	as applicable from time to time and as specified by Engineer-in-charge					
8.3	Cost towards first aid and emergency response arrangements in the camp and worksite (including fire and electrical safety provisions)	Job	1			
8.4	Cost towards periodic health check-ups once in three months for all construction workers	Job	1			
8.5	Wet type portable toilet (MS fabricated) 2 seats (1 for men and 1 for women with separate entrances), fitted with 2000 liters capacity overhead tank and 500 liters capacity bottom tank, fitted with Indian type of pot with other facilities such as tap, lighting and ventilation; and sludge tank of capacity 1000L, and stationed at a suitable place in or around 50 meters from work front. Includes cost of water, cost for emptying of bottom tank through mobile suction machine, attendant cost for looking after cleaning and operation of the toilets, all materials and labour charges, all incidental charges, leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge.	No	2			
8.6	Dry type portable toilet (MS fabricated) (bio digester) of approved design with 2 seats (one for men and one for women). Includes cost of water, cost for emptying of bottom tank through mobile suction machine, attendant cost for looking after cleaning and operation of the toilets, all materials and labour charges, all incidental charges, leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge.	No	2			
8.7	Providing of mobile drinking water counter/kiosk, fabricated from stainless steel with 300 liters capacity, with two taps and with bottom tank (300 litre holding capacity) to collect waste water and stationed at a suitable place within operational area, with one common attendant for both mobile toilet and drinking water kiosk. Cost includes charges for emptying bottom tank through suction machine, shifting cost of the kiosk from one operational area to another area, attendant cost for looking after cleaning and operation, all materials and all labour	No	2			

	charges, all incidental charges, leads, lifts and all taxes as applicable from time to time and as specified by Engineer-in-charge					
8.8	OTHER ENVIRONMENT, HEALTH AND SAFETY MEASURES: Information dissemination about type and schedule of civil works, utility shifting/damage/emergency repairs, complaint handling and all such issues that affect public/near-by residents Road users close to the work zone. Dissemination modes to include display of banners/notices, distribution of handbills, organization of meetings and other appropriate means at least once in a month for the entire project duration.	Months	9			
8.9	Provision of Project Information Board in sheet steel and all supports, including fixing and maintenance during the entire project. Minimum board size should be 3 meters x 2 meters, with necessary information in English and local language written in black paint with white back ground. The board details and the required information will be furnished by the Engineer. The complete design, including logo and information to be displayed shall be approved by the Engineer	no	2			
8.10	<b>Cost of environmental monitoring (air, water and noise) during entire construction period .</b> <b>Ambient Air quality, Ambient Noise level and water quality monitoring.</b> (24 Hourly Ambient Air Quality Monitoring for PM2.5 PM10,SO2, Nox and CO)-Noise Levels (dB) for Day and Night, Water Monitoring- . <b>AAQ-</b> Once before start of work and thereafter once in every quarter, <b>AAN-</b> Once before start of work and thereafter once in every month, <b>Water monitoring</b> – once before start of work & thereafter after completion of work	Job	1			
8.11	Providing of red fluorescent with white reflective sleeve traffic cone made of low density polyethylene(LDPE) material with a square base of 390x390x35mm and a height of 770mm, 4Kg in weight, placed at 1.5m interval, all as per BS 873 including cost of all materials, labour, loading,	No	20			



	unloading, lead, lift, transporting etc complete Technical Specification section & IRC SP 55-2001.					
<b>Bill No 09 Vented Causeways</b>						
9.1	Design & Construction of twolane vented causeways including Geotechnical investigation, Topo survey with approach Slabs,Return walls as per GAD including River Training works & River bed protection,(complete job),( total 06nos)	RMT	285			
	<b>Total Bid Cost in Figures (INR)</b> <b>A</b>					
	<b>Total Bid Cost in Words (INR)</b>					
	<b>Provisional Sum</b> <b>B</b>	50,00000/-				
	<b>Total Cost including provisional sum</b> <b>(A+B)</b>					