

SCHEDULE - G

(See Clauses 7.1 and 19.2)

FORM OF BANK GUARANTEE

Annexure-I

(See Clause 7.1)

[Performance Security/Additional Performance Security]

The Managing Director,
National Highways & Infrastructural Development Corporation Ltd.
PTI Building, 3rd Floor,
4, Parliament Street
New Delhi - 110001

WHEREAS:

(A) _____ [name and address of contractor] (hereinafter called the "Contractor") and National Highways and Infrastructure Development Corporation Ltd. , (here in after called the "Authority") have entered into an agreement (here in after called the "Agreement") for "Widening/Improvement to 4 (Four) Lane with Paved Shoulder from KM 146+230 to Km 157+460 (Design Chainage 145+712 to 156+502) of Dillai- Lahorijan (Section 7) of NH 29 in the state of Assam on EPC mode " subject to and in accordance with the provisions of the Agreement

(B) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period/ Defects Liability Period and Maintenance Period} (as defined in the Agreement) in a sum of Rs..... cr. (Rupees crore) (the "Guarantee Amount ").

(C) We, through our branch at (the "Bank") have agreed to furnish this bank guarantee (hereinafter called the "Guarantee") by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor's obligations during the {Construction Period/ Defects Liability Period and Maintenance Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of General Manager in the National Highways & Infrastructure Development Corporation Limited, that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court,

tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on\$. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
12. Bank Guarantee has been sent to authority's bank through SFMS gateway as per the details below:-

Sl.	Particulars	Details
1	Name of the Beneficiary	National Highways and Infrastructure Development Corporation Limited
2	Beneficiary Bank Account No.	90621010002659
3	Beneficiary Bank Branch	IFSC CNRB0019062
4	Beneficiary Bank Branch Name	Transport Bhawan, New Delhi
5	Beneficiary Bank Address	Canara Bank, Transport Bhawan, 1 st Parliament street, New Delhi-110001

Notes:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

**Annexure – II
(Schedule - G)**

(See Clause 19.2)

Form for Guarantee for Advance Payment

To,
National Highways & Infrastructural Development Corporation Ltd.

WHEREAS:

(A) [name and address of contractor] (hereinafter called the "Contractor") has executed an agreement (hereinafter called the "Agreement") with the National Highways and Infrastructure Corporation Ltd., (hereinafter called the "Authority") for the "Widening/Improvement to 4 (Four) Lane with Paved Shoulder from KM 146+230 to Km 157+460 (Design Chainage 145+712 to 156+502) of Dillai- Lahorijan (Section 7) of NH 29 in the state of Assam on EPC mode" subject to and in accordance with the provisions of the Agreement

(B) In accordance with Clause 19.2 of the Agreement, the Authority shall make to the Contractor an interest bearing @Bank rate + 3% advance payment (herein after called " Advance Payment") equal to 10% (ten per cent) of the Contract Price; and that the Advance Payment shall be made in three installments subject to the Contractor furnishing an irrevocable and unconditional guarantee by a scheduled bank for an amount equivalent to 110% (one hundred and ten percent) of such installment to remain effective till the complete and full repayment of the installment of the Advance Payment as security for compliance with its obligations in accordance with the Agreement. The amount of {first/second/third} installment of the Advance Payment is Rs. --- --- cr. (Rupees ----- crore) and the amount of this Guarantee is Rs. ----- cr. (Rupees ----- crore) (the "**Guarantee Amount**") \$.

(C) We, through our branch at (the "Bank") have agreed to furnish this bank guarantee (hereinafter called the "Guarantee") for the Guarantee Amount.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful repayment on time of the aforesaid installment of the Advance Payment under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

A letter from the Authority, under the hand of an officer not below the rank of [General Manager in the National Highways& Infrastructure Development Corporation Limited], that the Contractor has committed default in the due and faithful performance of all or any of its obligations for the repayment of the instalment of the Advance Payment under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The

Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.

2. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
- 3 It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
- 4 The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Advance Payment or to extend the time or period of its repayment or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
- 5 This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Advance Payment.
- 6 Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
- 7 The Guarantee shall cease to be in force and effect on ****. ^{\$} Unless a demand or claim under this Guarantee is made in writing on or before the aforesaid date, the Bank shall be discharged from its liabilities hereunder.
8. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
9. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to

have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

10. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
11. This Guarantee shall also be oprtable at our Branch in Guwahati, from whom, confirmation regarding the issue of this guarantee or extension / renewal thereof shall be made available on demand. In the contingency of this being invoked and payment there under claimed, the said branch shall accept such invocation letter and make payment of amounts so demand under the said invocation.
12. Bank Guarantee has been sent to authority's bank through SFMS gateway as per the details below:-

Sl.	Particulars	Details
1	Name of the Beneficiary	RO NHIDCL PROJECTS
2	Beneficiary Bank Account No.	73653210000013
3	Beneficiary Bank Branch	Canara Bank (Erstwhile Syndicate Bank)
4	Beneficiary Bank IFSC Code	CNRB0017365
5	Beneficiary Bank Branch Name	Dispur, Guwahati
6	Beneficiary Bank Address	Upasana Complex, Dr. R. P. Road, Ganeshguri, Dispur, Guwahati.

13. Signed and sealed this day of, 20..... at

SIGNED, SEALED AND DELIVERED

For and on behalf of the bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

Note:

- i. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- ii. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch

SCHEDULE - H

See Clauses 10.1 (iv) and 19.3

Contract Price Weightages

1.1 The Contract Price for this Agreement is Rs.*****

1.2 Proportions of the Contract Price for different stages of Construction of the Project Highway shall be as specified below:

Item	Weightage in percentage to the Contract Price	Stage of Payment	Percentage Weightage
1	2	3	4
Road works including culverts, widening and repair of culverts.	47.54%	A- Widening and strengthening of existing road	
		(1)) Earthwork up to top of sub-grade	11.11%
		(2) Sub Base Course	12.01%
		(3) Non Bituminous Base Course	13.67%
		(4) Bituminous Base Course	27.08%
		(5) Wearing Coat	11.84%
		(6) Widening and repair of culvert	0.00%
		B.1- Reconstruction / New 2-Lane realignment/ bypass (Flexible Pavement)	
		(1)) Earthwork up to top of sub-grade	2.81%
		(2) Sub Base Course	0.00%
		(3) Non Bituminous Base Course	9.09%
		(4) Bituminous Base Course	0.47%
		(5) Wearing Coat	9.53%
		B.2- Reconstruction / New 2-Lane realignment/ bypass (Rigid Pavement)	0.00%
		(1)) Earthwork up to top of sub-grade	0.00%
		(2) Sub Base Course	0.00%
		(3) Dry Lean Concrete (DLC) Course	0.00%
		(4) Pavement Quality Control (PQC) Course	0.00%
		C.1- Reconstruction / New Service road (Flexible Pavement)	0.00%
		(1)) Earthwork up to top of sub-grade	0.00%
		(2) Sub Base Course	0.00%
		(3) Non Bituminous Base Course	0.00%
		(4) Bituminous Base Course	0.00%
		(5) Wearing Coat	0.00%
		C.2- Reconstruction / New Service road (Rigid Pavement)	0.00%

Item	Weightage in percentage to the Contract Price	Stage of Payment	Percentage Weightage
1	2	3	4
		(1)) Earthwork up to top of sub-grade	0.00%
		(2) Sub Base Course	0.00%
		(3) Dry Lean Concrete (DLC) Course	0.00%
		(4) Pavement Quality Control (PQC) Course	0.00%
		D- Re-Construction and New culverts on existing road, realignments, bypasses:	0.00%
		Culverts (Length <6 m)	2.39%
Minor Bridges / Underpasses / Overpasses	20.89%	A.1- Widening and repairs of Minor Bridges (length>6m and <60m)	
		Minor Bridges	24.99%
		A.2- New Minor Bridges (length>6m and <60m)	0.00%
		(1) Foundation	5.73%
		(2) Sub-structure	3.97%
		(2) Super-Structure: On completion of the super structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road sign & markings tests on completion etc. complete in all respect.	6.34%
		(3) Approaches: On completion of approaches including retaining walls, stone pitching, protection works complete in all respect and fit for use.	0.76%
		(4) Guide Bunds and River Training works :	
		On completion of Guide Bunds and river Training works complete in all respects	2.51%
		B.1- Widening and Repair of underpasses/overpasses	
		Underpasses/ Overpasses	0.00%
		B.2- New underpasses/ overpasses	
		(1) Foundation +Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers upto the abutment/pier cap.	23.57%

Item	Weightage in percentage to the Contract Price	Stage of Payment	Percentage Weightage
1	2	3	4
		(2) Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road signs & makings, tests on completion etc. complete in all respect.	17.49%
		Wearing Coat (a) in case of Overpass- wearing coat including expansion joints complete in all respects as specified and (b) in case of underpass- rigid pavement including drainage facility complete in all respects as specified as specified.	0.56%
		(3) Approaches: On completion of approaches including Retaining walls/ Reinforced Earth walls, stone pitching, protection works complete in all respect and fit for use.	14.08%
			0.00%
Major Bridges (Length >60m) works and ROB/RUB/elevated section/flyover including viaducts if any.	0.00%	A.1 - Widening and repairs of Major Bridges	
		(1) Foundation	0.00%
		(2) Sub-structure	0.00%
		(3) Super-structure (including bearings)	0.00%
		(4) Wearing Coat including expansion joints	0.00%
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	0.00%
		(6) Wing walls/return walls	0.00%
		(7) Guide Bunds, River Training works etc.	0.00%
		(8) Approaches (including Retaining walls, stone pitching and protection works)	0.00%
		A.2- New Major Bridges	0.00%
		(1) Foundation	0.00%
		(2) Sub-structure	0.00%
		(3) Super-structure (including bearings)	0.00%
		(4) Wearing Coat including expansion joints	0.00%

Item	Weightage in percentage to the Contract Price	Stage of Payment	Percentage Weightage
1	2	3	4
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	0.00%
		(6) Wing walls/return walls	0.00%
		(7) Guide Bunds, River Training works etc.	0.00%
		(8) Approaches (including Retaining walls, stone pitching and protection works)	0.00%
		B.1- Widening and Repair of underpasses/overpasses	0.00%
		(a) ROB	0.00%
		(b) RUB	0.00%
		(1) Foundation	0.00%
		(2) Sub-structure	0.00%
		(3) Super-structure(including bearings)	0.00%
		(4) Wearing Coat: (a) in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB- rigid pavement under RUB including drainage facility complete in all respects as specified.	0.00%
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	0.00%
		(6) Wing walls/return walls	0.00%
		(7) Approaches (including Retaining walls, stone pitching and protection works)	0.00%
		B.2- New ROB/RUB	0.00%
		(a) ROB	0.00%
		(b) RUB	0.00%
		(1) Foundation	0.00%
		(2) Sub-structure	0.00%
		(3) Super-structure (including bearings)	0.00%
		(4) Wearing Coat: (a) in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB- rigid pavement under RUB including drainage facility complete in all respects as specified.	0.00%

Item	Weightage in percentage to the Contract Price	Stage of Payment	Percentage Weightage
1	2	3	4
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	0.00%
		(6) Wing walls/return walls	0.00%
		(7) Approaches (including Retaining walls, stone pitching and protection works)	0.00%
		C.1- Widening and repair of Elevated Section/Flyovers/Grade Separators	0.00%
		(1) Foundation	0.00%
		Wearing Coat	0.00%
		(3) Super-structure (including bearings)	0.00%
		(4) Wearing Coat including expansion joints .	0.00%
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	0.00%
		(6) Wing walls/return walls	0.00%
		(7) Approaches (including Retaining walls/ Reinforced Earth wall, stone pitching and protection works)	0.00%
		C.2- New Elevated Section/Flyovers/Grade Separators	0.00%
		(1) Foundation	0.00%
		(2) Sub-structure	0.00%
		(3) Super-structure (including bearings)	0.00%
		(4) Wearing Coat including expansion joints.	0.00%
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	0.00%
		(6) Wing walls/return walls	0.00%
		(7) Approaches (including Retaining walls/ Reinforced Earth wall, stone pitching and protection works)	0.00%
Other works	29.63%	(i) Toll Plaza	0.00%
		(ii) Road side drains	17.68%
		(iii) Road signs, markings, km stones, safety devices,	21.15%
		(iv) Project facilities	0.00%
		(a) Bus Bays & Bus Shelter	1.49%
		(b) Truck lay-byes	0.00%
		(c) Rest areas	0.00%

Item	Weightage in percentage to the Contract Price	Stage of Payment	Percentage Weightage
1	2	3	4
		(d) Electrical Works	1.16%
		(e) Junctions	11.97%
		(f) others	0.00%
		(v) Road side plantation	3.09%
		(vi) Protection works other than elevated sections/ flyovers/grade separators and ROB/RUBs.	42.75%
		(vii) Safety and traffic management during construction	0.00%
		(vii) Maintenance of Existing road	0.00%
		(ix) Median & Island Filling	0.71%
Electrical utilities and Public Health Utilities (Water pipe lines and sewage lines)	1.94%	(i) EHT Line	0.00%
		(ii). EHT crossings	0.00%
		(iii). HT/LT line	40.00%
		(iv). HT/LT crossings	60.00%
		(v). Water pipeline	0.00%
		(vi). Water pipeline crossings	0.00%

1.3 Procedure of estimating the value of work done

1.3.1 Road works.

Procedure for estimating the value of road work done shall be as follows:

Table 1.3.1

Stage of Payment	Percentage - weightage	Payment Procedure
A-Widening and Strengthening of existing road		Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 10% (ten per cent) of the total length.
(1) Earthwork up to top of the sub-grade	11.11%	
(2) Sub-Base Course	12.01%	
(3) Non Bituminous Base Course	13.67%	
(4) Bituminous Base Course	27.08%	
(5) Wearing Coat	11.84%	
(6) Widening and repair of culverts	0.00%	Cost of completed culverts shall be determined pro rata with respect to the total number of culverts. Payment shall be made on the completion of atleast five culverts.
B.1- Reconstruction/New 2-lane realignment/bypass (Flexible pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro rata basis on completion of a stage in full length or 5(five) km. length whichever is less.
(1) Earthwork up to top of the sub-grade	2.81%	
(2) Sub-Base Course	0.00%	
(3) Non Bituminous Base Course	9.09%	
(4) Bituminous Base Course	0.47%	
(5) Wearing Coat	9.53%	
B.2- Reconstruction / New 2-Lane realignment/ bypass (Rigid Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro rata basis on completion of a stage in full length or 5(five) km. length whichever is less.
(1)) Earthwork up to top of sub-grade	0.00%	
(2) Sub Base Course	0.00%	
(3) Dry Lean Concrete (DLC) Course	0.00%	
(4) Pavement Quality Control (PQC) Course	0.00%	
C.1- Reconstruction / New Service road (Flexible Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro rata basis on completion of a stage in full length or 5(five) km. length whichever is less.
(1)) Earthwork up to top of sub-grade	0.00%	
(2) Sub Base Course	0.00%	
(3) Non Bituminous Base Course	0.00%	
(4) Bituminous Base Course	0.00%	
(5) Wearing Coat	0.00%	

C.2- Reconstruction / New Service road (Rigid Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro rata basis on completion of a stage in full length or 5(five) km. length whichever is less.
(1)) Earthwork up to top of sub-grade	0.00%	
(2) Sub Base Course	0.00%	
(3) Dry Lean Concrete (DLC) Course	0.00%	
(4) Pavement Quality Control (PQC) Course	0.00%	Cost of each culvert shall be determined on pro rata basis with respect to the total number of culverts. Payment shall be made on the completion of atleast five culvert.
D- Re-Construction and New culverts on existing road, realignments, bypass:		
(1) Culverts (Length <6 m)	2.39%	

@. For example, if the total length of bituminous work to be done is 100 km, the cost per km of bituminous work shall be determined as follows:

Cost per km = $P \times \text{weightage for road work} \times \text{weightage for bituminous works} \times (1/L)$

Where P = Contract Price

L= Total length in km

Similarly, the rates per km for other stages shall be worked out accordingly.

Note : The length affected due to law and order problems or litigation during execution due to which the contractor is unable to execute the work, may be deducted from the total project length for payment purposes. The total length calculated here is only for payment purposes and will not affect and referred in other clauses of the Contract Agreement.

1.3.2 Minor Bridges and Underpasses/Overpasses.

Procedure for estimating the value of Minor bridge and Underpasses/Overpasses shall be as stated in table 1.3.2:

Table 1.3.2

Stage of Payment	Weightage	Payment Procedure
A.1- Widening and repair of minor bridges (length > 6m and <60m)	24.99%	Cost of each minor bridge shall be determined on pro rata basis with respect to the total linear length of the minor bridges. Payment shall be made on completion of widening & repair works of a minor bridge.
A.2- New minor bridges		
(i) Foundation	5.73%	(i) Foundation: Cost of each Minor Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Minor Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the minor Bridge subject to completion of atleast two foundations of the minor Bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Sub-structure	3.97%	(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the minor bridge subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the minor bridge.
(ii) Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road signs & markings, tests on completion etc. complete in all respect.	6.34%	(ii) Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure of atleast one span in all respects as specified in the column of "Stage of Payment" in this sub-clause.
(iii) Approaches: On completion of approaches including Retaining walls, stone pitching, protection works complete in all respect and fit for use.	0.76%	(iii) Approachers: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of approaches in all respect as specified in the column of "Stage of Payment" in this sub-clause.

(iv) Guide Bunds and River Training Works: On completion of Guide Bunds and river Training Works complete in all respects	2.51%	(iv) Guide Bunds and River Training Works: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of guide Bunds and River training works in all respects as specified.
B.1- Widening and repair of underpasses/overpasses	0.00%	Cost of each underpass/overpass shall be determined on pro rata basis with respect to the total linear length of the underpasses/overpasses. Payment shall be made on the completion of widening & repair works of a underpass/overpass.
B.2- New Underpasses/Overpasses:		
(i) Foundation +Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers upto the abutment/pier cap.	23.57%	(i) foundation +Sub-Structure: cost of each Underpass/Overpass shall be determined on pro rata basis with respect to the total linear length (m) of the Underpasses/Overpasses. Payment against foundation + sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation +sub-structure of each Underpasses/Overpasses subject to completion of atleast two foundations along with sub-structure upto abutment/pier cap each underpass/overpass. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road signs & markings, tests on completion etc. complete in all respect. Wearing coat (a) in case of Overpass-wearing coat including expansion joints complete in all respects as specified and (b) in case of underpass-rigid pavement including drainage facility complete in all respects as specified.	18.05%	(ii) Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure of atleast one span in all respects as specified in the column of "Stage of Payment" in this sub-clause.
(iii) Approaches: On completion of approaches including Retaining walls/Reinforced Earth walls, stone pitching, protection works complete in all respect and fit for use.	14.08%	(iii) Approaches: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of approaches in all respect as specified.

1.3.3 Major Bridges works, ROB/RUB and Structures.

Procedure for estimating the value of Major bridge works, ROB/RUB and Structures shall be as stated in table 1.3.3:

Table 1.3.3

Stage of Payment	Weightage	Payment Procedure
A.1- Widening and repairs of Major Bridges		
(i) Foundation	0.00%	<p>(i) Foundation: Cost of each Major Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the major Bridge subject to completion of atleast two foundations of the major Bridge.</p> <p>In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.</p>
(ii) Sub-structure	0.00%	<p>(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the major bridge subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the major bridge.</p>
(iii) Super-structure (including bearings)	0.00%	<p>(iii) Super-structure : Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structures including bearings of atleast one span in all respects as specified.</p>
(iv) Wearing Coat including expansion joints	0.00%	<p>(iv) Wearing Coat : Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.</p>
(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	0.00%	<p>(v) Miscellaneous : Payment shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.</p>
(vi) Wing walls/return walls	0.00%	<p>(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in</p>

		all respects as specified.
(vii) Guide Bunds, River Training works etc.	0.00%	(vii) Guide Bunds, River Training works : Payment shall be made on completion of all guide bunds/river training works etc. complete in all respects as specified.
(viii) Approaches (including Retaining walls, stone pitching and protection works)	0.00%	(viii) Approaches : Payment shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.
A.2- New Major Bridges		
(i) Foundation	0.00%	(i) Foundation: Cost of each Major Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the major Bridge subject to completion of atleast two foundations of the major Bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Sub-structure	0.00%	(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the major bridge subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the major bridge.
(iii) Super-structure (including bearings)	0.00%	(iii) Super-structure : Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structures including bearings of atleast one span in all respects as specified.
(iv) Wearing Coat including expansion joints	0.00%	(iv) Wearing Coat : Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	0.00%	(v) Miscellaneous : Payment shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.

(vi) Wing walls/return walls	0.00%	(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(vii) Guide Bunds, River Training works etc.	0.00%	(vii) Guide Bunds, River Training works : Payment shall be made on completion of all guide bunds/river training works etc. complete in all respects as specified.
(viii) Approaches (including Retaining walls, stone pitching and protection works)	0.00%	(viii) Approaches : Payment shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.
B.1 - Widening and repairs of		
(a) ROB		
(b) RUB		
(i) Foundation	0.00%	(i) Foundation: Cost of each ROB/RUB shall be determined on pro rata basis with respect to the total linear length (m) of the ROB/RUBs. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the ROB/RUB subject to completion of atleast two foundations of the ROB/RUB. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Sub-structure	0.00%	(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the ROB/RUB subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the ROB/RUB.
(iii) Super-structure (including bearings)	0.00%	(iii) Super-structure : Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structures including bearings of atleast one span in all respects as specified.
(iv) Wearing Coat including expansion joints in case of ROB. In case of RUB, rigid pavement under RUB including drainage facility as specified.	0.00%	(iv) Wearing Coat : Payment shall be made on completion of (a) in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB- rigid pavement under RUB including drainage facility complete in all

		respects as specified as specified.
(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	0.00%	(v) Miscellaneous : Payment shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.
(vi) Wing walls/return walls	0.00%	(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(vii) Approaches (including Retaining walls, stone pitching and protection works)	0.00%	(vii) Approaches : Payment shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.
B.2 - New	0.00%	
(a) ROB	0.00%	
(b) RUB	0.00%	
(i) Foundation	0.00%	(i) Foundation: Cost of each ROB/RUB shall be determined on pro rata basis with respect to the total linear length (m) of the ROB/RUBs. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the ROB/RUB subject to completion of atleast two foundations of the ROB/RUB. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Sub-structure	0.00%	(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the ROB/RUB subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the ROB/RUB.
(iii) Super-structure (including bearings)	0.00%	(iii) Super-structure : Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structures including bearings of atleast one span in all respects as specified.

(iv) Wearing Coat including expansion joints in case of ROB. In case of RUB, rigid pavement under RUB including drainage facility as specified.	0.00%	(iv) Wearing Coat : Payment shall be made on completion of (a) in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB- rigid pavement under RUB including drainage facility complete in all respects as specified as specified.
(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	0.00%	(v) Miscellaneous : Payment shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.
(vi) Wing walls/return walls	0.00%	(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(vii) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	0.00%	(vii) Approaches : Payment shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.
C.1- Widening and repairs of Elevated Section/Flyovers/ Grade Separators	0.00%	
(i) Foundation	0.00%	(i) Foundation: Cost of each Major Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the major Bridge subject to completion of atleast two foundations of the major Bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Sub-structure	0.00%	(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the major bridge subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the major bridge.
(iii) Super-structure (including bearings)	0.00%	(iii) Super-structure : Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structures including bearings of atleast one span in all respects as

		specified.
(iv) Wearing Coat including expansion joints	0.00%	(iv) Wearing Coat : Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	0.00%	(v) Miscellaneous : Payment shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.
(vi) Wing walls/return walls	0.00%	(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(vii) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	0.00%	(vii) Approaches : Payment shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.
C.2- New Elevated Section/Flyovers/ Grade Separators	0.00%	
(i) Foundation	0.00%	(i) Foundation: Cost of each Major Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the major Bridge subject to completion of atleast two foundations of the major Bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(ii) Sub-structure	0.00%	(ii) Sub-structure : Payment against Sub-structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub-structure of the major bridge subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the major bridge.
(iii) Super-structure (including bearings)	0.00%	(iii) Super-structure : Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structures including bearings of atleast one span in all respects as

		specified.
(iv) Wearing Coat including expansion joints	0.00%	(iv) Wearing Coat : Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	0.00%	(v) Miscellaneous : Payment shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.
(vi) Wing walls/return walls	0.00%	(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(vii) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	0.00%	(vii) Approaches : Payment shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.

Note: (1) In case of innovate Major Bridge projects like cable suspension/cable stayed/Extra Dozed and exceptionally long span bridges, the schedule may be modified as per site requirements before bidding with due approval of Competent Authority.

(2) The Schedule for exclusive tunnel projects may be prepared as per site requirements before bidding with due approval of Competent Authority.

1.3.4 Other Works

Procedure for estimating the value of other works done shall be as stated in table 1.3.4:

Table 1.3.4

Stage of Payment	Weightage	Payment Procedure
(i) Toll Plaza	0.00%	Unit of measurement is each completed toll plaza. Payment of each toll plaza shall be made on pro rata basis with respect to the total of all toll plazas.
(ii) Road side drains	17.68%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 10% (ten per cent) of the total length.
(iii) Road signs, Markings, KM stones, Safety devices, ...	21.15%	
(iv) Project facilities	0.00%	Payment shall be made on pro rata basis for completed facilities.
a) Bus bays	1.49%	
b) Truck lay-byes	0.00%	
c) Rest areas	0.00%	
d) Electrical Works	1.16%	
e) Junctions	11.97%	
f) others	0.00%	
(v) Roadside plantation	3.09%	Unit of measurement is linear length. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 10% (ten per cent) of the total length.
(vi) Repair of protection works other than elevated sections/flyovers/grade separators and ROBs/RUBs	42.75%	
(vii) Safety and traffic management during construction	0.00%	Payment shall be made on prorata basis every six months.
(viii) Median & island Filling	0.71%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 10% (ten per cent) of the total length.
(ix) Maintenance of Existing road	0.00%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 10% (ten per cent) of the total length.

1.3.5 Electrical Utilities and Public Health Utilities (Water pipe lines and sewage lines)

Procedure for estimating the value of Electrical Utilities and Public Health Utilities (Water pipe lines and sewage lines) shall be as stated in table 1.3.5:

Table 1.3.5

Stage of Payment	Weightage	Payment Procedure
(i) EHT Line	0.00%	Unit of measurement is as per completed activities. Cost per activity shall be determined on pro-rata basis as per its weightage with reference to total cost of EHT line. Payment shall be made for completed activity. (The average weightage of major activities (only for payment purpose) in shifting work is (i) Erection of poles-20%, (ii) Conductor stringing including laying of cable-30%, (iii) DTR erection (if involved)- 15% and (iv) Charging of line including dismantling and site clearance-35% (with DTR) and 50% without DTR)
(ii) EHT crossings	0.00%	Cost of each crossing shall be determined on pro-rata basis with reference to the total no. of crossings. Payments shall be made for not less than 25% of the crossings subject to a minimum of 4 crossings.
(iii) HT/LT line (including Transformers if any)	40.00%	Unit of measurement is as per completed activities. Cost per activity shall be determined on pro-rata basis as per its weightage with reference to total cost of HT/LT line. Payment shall be made for completed activity. (The average weightage of major activities (only for payment purpose) in shifting work is (i) Erection of poles-20%, (ii) Conductor stringing including laying of cable-30%, (iii) DTR erection (if involved)- 10% and (iv) Charging of line including dismantling and site clearance-40% (with DTR) and 50% without DTR)
(iv) HT/LT line crossings	60.00%	Cost of each crossing shall be determined on pro-rata basis with reference to the total no. of crossings. Payments shall be made for not less than 25% of the crossings subject to a minimum of 10 crossings.

(v) Water pipeline.	0.00%	Unit of measurement is as per completed activities. Cost per activity shall be determined on pro-rata basis as per its weightage with reference to total cost of pipe line. Payment shall be made for completed activity. (The average weightage of major activities (only for payment purpose) in shifting work is laying of pipe-50%, Charging of line including all miscellaneous works and dismantling and site clearance-50%)
(vi) Water pipeline crossings.	0.00%	Cost of each crossing shall be determined on pro-rata basis with reference to the total no. of crossings. Payments shall be made for not less than 25% of the crossings subject to a minimum of 8 crossings.
(vii) Sewage lines.	-	Unit of measurement is as per completed activities. Cost per activity shall be determined on pro-rata basis as per its weightage with reference to total cost of pipe line. Payment shall be made for completed activity. (The average weightage of major activities (only for payment purpose) in shifting work is laying of pipe-50%, Charging of line including all miscellaneous works and dismantling and site clearance-50%)
(vii) Sewage line crossings.	-	Cost of each crossing shall be determined on pro-rata basis with reference to the total no. of crossings. Payment shall be made for completed activity. (The average weightage of major activities (only for payment purpose) in shifting work is laying of pipe-50%, Charging of line including all miscellaneous works and dismantling and site clearance-50%)