



**Government of India
Ministry of Road Transport & Highways
Transport Bhawan
(EAP) Zone**

**Transport Bhawan
1, Parliament Street
New Delhi-110 001**

No.RW/NH-37010/4/2010/PIC-EAP(Printing)

Dated the 22.08.2017

To

1. The Principal Secretaries/Secretaries of all States/UTs Public Works Department dealing with National Highways, other Centrally Sponsored Schemes & State Schemes.
2. The Engineers-in-Chief and Chief Engineers of all States/UTs Public Works Department dealing with National Highways, other Centrally Sponsored Schemes & State Schemes.
3. Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110010
4. The Chairman, National Highways Authority of India (NHAI), G-5&6, Sector-10, Dwarka, New Delhi-110 075.
5. The Managing Director, National Highway Infrastructure Development Corporation Ltd., 3rd floor, PTI Building, Parliament Street, New Delhi-110 001

Subject: Amendment to Standard EPC Agreement for National Highways and centrally sponsored Road & Bridge Works proposed to be implemented on Engineering, Procurement & Construction (EPC) mode

Sir,

With reference to Standard EPC Agreement issued vide circular 17.01.17 for National Highways and centrally sponsored Road & Bridge works to be implemented on Engineering, Procurement & Construction (EPC) mode, following amendments are being issued:

- (i) Schedule-H read with Clauses 10.1.4 and 19.3 shall be amended as per Annex-I.
- (ii) Clause 14.1.1- *Maintenance obligations of the Contractor*, shall be read as under:

14.1.1 The Contractor shall maintain the Project Highway for a period of 4 (four) years commencing from the date of the Provisional Certificate (the "Maintenance Period"). For the performance of its Maintenance obligations, the contractor shall be paid [0.5%][#] of the Contract Price for the first year and [1%][#], [1.5%][#], [2%][#] of the Contract Price for the second, third and fourth year respectively in case of road projects. But in case of stand alone Bridge / structure work, the contractor shall be paid 0.25%, 0.5%, 0.5% and 0.5% of the Contract Price for the first, second, third and fourth year respectively. Amount shall be, inclusive of all taxes. The amount payable for maintenance shall be adjusted to reflect

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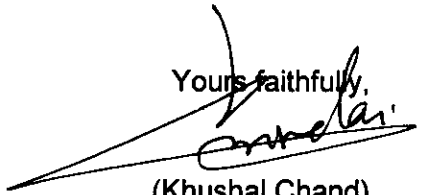
any increase or decrease arising out of variation in WPI to be determined in accordance with the provisions of Clause 19.12. For the avoidance of doubt, it is agreed that in the event no Provisional Certificate is issued, the Maintenance Period shall commence from the date of the Completion Certificate. It is further agreed that the Contract Price hereunder shall be reckoned with reference to the amount specified in Clause 19.1.1, which shall be adjusted to the extent of Change of Scope and the works withdrawn under the provisions of Clause 8.3.3, but shall not include any price adjustments in pursuance of Clause 19.10.

Add footnote:

#- In case of Rigid Pavement-0.25% of the Contract Price for the 1st year and 0.5%, 0.75%, 1% of the Contract Price for the Second, third and Fourth year respectively in case of road projects.

2. The above amendments will be applicable for the projects whose bids are yet to be received.
3. The contents of this circular may be brought to the notice of all the concerned for immediate compliance.
4. This issues with approval of Hon'ble Minister (RT&H).

Encl: As above.

Yours faithfully,

(Khushal Chand)
Superintending Engineer (EAP)

Copy To:

1. All Technical Officers at the Headquarters
2. Secretary General, Indian Roads Congress
3. Director, IAHE, NOIDA
4. All ROs and ELOs of MoRT&H.

Copy for information to:

1. PPS to Secretary (RT&H), PPS to DG(RD) & SS, PS to AS&FA.
2. NIC- with the request to upload in the Ministry's portal

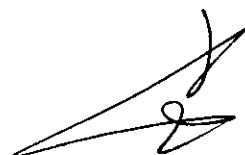
SCHEDULE - H
(See Clauses 10.1.4 and 19.3)

Contract Price Weightages

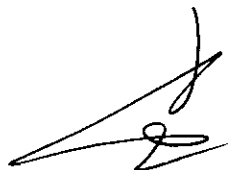
1.1 The Contract Price for this Agreement is Rs. *****

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 for Payment	Percentage weightage
1	2	3	4
Road works including culverts, widening and repair of culverts.	[*****]	A- Widening and strengthening of existing road (1) Earthwork up to top of the sub-grade (2) <u>Sub-Base Course</u> (3) <u>Non Bituminous Base Course</u> (4) <u>Bituminous Base Course</u> (5) <u>Wearing Coat</u> (6) Widening and repair of culverts B.1- Reconstruction/ New 2-lane realignment/ bypass (Flexible pavement) (1) Earthwork up to top of the sub-grade (2) <u>Sub Base Course</u> (3) Non-Bituminous Base Course	 [**] [**] [**] [**] [**] [**] [**] [**] [**]



Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		(4) Bituminous Base Course (5) Wearing Coat	[**] [**]
		B.2- Reconstruction/ New 2-lane realignment/ bypass(Rigid Pavement)	
		(1) Earthwork up to top of the sub-grade (2) <u>Sub Base Course</u> (3) Dry Lean Concrete(DLC) Course (4) Pavement Quality Control (PQC) Course	[**] [**] [**] [**]
		C.1- Reconstruction/ New service road (Flexible pavement)	
		(1) Earthwork up to top of the sub-grade (2) <u>Sub Base Course</u> (3) Non-Bituminous Base Course (4) Bituminous Base Course (5) Wearing Coat	[**] [**] [**] [**] [**]
		C.2- Reconstruction/ New Service road (Rigid Pavement)	
		(1) Earthwork up to top of the sub-grade (2) <u>Sub Base Course</u>	[**] [**]




Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		(3) Dry Lean Concrete(DLC) Course (4) Pavement Quality Control (PQC) Course D- Re-Construction and New culverts on existing road, realignments, bypasses: Culverts (length < 6 m)	[**] [**] [**]
Minor Bridges/ Underpasses/ Overpasses	[*****]	A.1- Widening and Repair of Minor bridges (length > 6 m and < 60 m) Minor bridges A.2- New Minor bridges (length >6 and <60 m.) (1) Foundation +Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers upto the abutment/pier cap. (2) 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.	[**] [**] [**]

Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		<p>(3) Approaches: On completion of approaches including Retaining walls, stone pitching, protection works complete in all respect and fit for use.</p> <p>(4) Guide Bunds and River Training Works: On completion of Guide Bunds and river Training Works complete in all respects</p> <p>B.1- Widening and Repair of underpasses/ overpasses Underpasses/ Overpasses</p> <p>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.</p> <p>(2) 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</p>	<p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p>



Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		<p>completion etc. complete in all respect.</p> <p>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.</p> <p>(3) Approaches: On completion of approaches including Retaining walls/ Reinforced Earth walls, stone pitching, protection works complete in all respect and fit for use.</p>	<p>[**]</p>
Major Bridge(length > 60 m.) works and ROB/RUB/ elevated sections/flyovers including viaducts, if any	[*****]	<p>A.1- Widening and repairs of Major Bridges</p> <p>(1) Foundation</p> <p>(2) Sub-structure</p> <p>(3) Super-structure (including bearings)</p> <p>(4) Wearing Coat including expansion joints</p> <p>(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)</p> <p>(6) Wing walls/return walls</p> <p>(7) Guide Bunds, River Training works etc.</p> <p>(8) Approaches (including Retaining walls, stone</p>	<p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p>

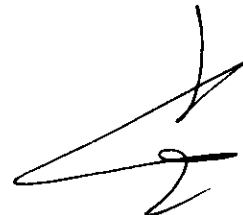


Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		pitching and protection works)	
		A.2- New Major Bridges	
		(1) Foundation	[**]
		(2) Sub-structure	[**]
		(3) Super-structure	[**]
		(including bearings)	[**]
		(4) Wearing Coat including expansion joints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

Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		<p>RUB- rigid pavement under RUB including drainage facility complete in all respects as specified as specified.</p> <p>(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)</p> <p>(6) Wing walls/return walls</p> <p>(7) Approaches (including Retaining walls, stone pitching and protection works)</p> <p>B.2- New ROB/RUB</p> <p>(a)ROB</p> <p>(b) RUB</p> <p>(1) Foundation</p> <p>(2) Sub-structure</p> <p>(3) Super-structure (including bearings)</p> <p>(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 as specified.</p> <p>(5) Miscellaneous Items like hand rails, crash</p>	<p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p> <p>[**]</p>

Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		barriers, road markings etc.)	
		(6) Wing walls/return walls	[**]
		(7) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[**]
		C.1- Widening and repair of Elevated Section/Flyovers/ Grade Separators	
		(1) Foundation	[**]
		(2) Sub-structure	[**]
		(3) Super-structure (including bearings)	[**]
		(4) Wearing Coat including expansion joints	[**]
		(5) Miscellaneous Items like hand rails, crash barriers, road markings etc.)	[**]
		(6) Wing walls/return walls	[**]
		(7) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[**]
		C.2-New Elevated Section/Flyovers/ Grade Separators	
		(1) Foundation	[**]
		(2) Sub-structure	[**]
		(3) Super-structure (including bearings)	[**]

Item	Weightage in percentage to the Contract Price	Stage for Payment	Percentage weightage
1	2	3	4
		(4) Wearing Coat including expansion joints (5) Miscellaneous Items like hand rails, crash barriers, road markings etc.) (6) Wing walls/return walls (7) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[**] [**] [**] [**]
Other works	[*****] a) Bus bays b) Truck lay-byes c) Rest areas d) others	(i) Toll Plaza (ii) Road side drains (iii) Road signs, markings, km stones, safety devices, (iv) Project facilities (a) Bus Bays (b) Truck lay-byes (c) Rest areas (d) others (v) Road side plantation (vi) Repair of protection works other than approaches to the bridges, elevated sections/flyovers/grade separators and ROB/RUBs. (vii) Safety and traffic management during construction	[**] [**] [**] [**] [**] [**] [**] [**] [**] [**]



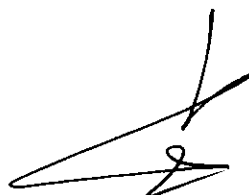
1.3 Procedure of estimating the value of work done

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. Payment of each stage shall be made on pro rata basis on completion of a stage in a length of not less than 10 (ten) percent of the total length.
(1) Earthwork up to top of the sub-grade	[**]	
(2) <u>Sub-Base Course</u>	[**]	
(3) <u>Non Bituminous Base Course</u>	[**]	
(4) <u>Bituminous Base Course</u>	[**]	
(5) <u>Wearing Coat</u>	[**]	
(6) Widening and repair of culverts	[**]	Cost of completed culverts shall be determined pro rata basis with respect to the total no. of culverts. The 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



Stage of Payment	Percentage - weightage	Payment Procedure
(1) Earthwork up to top of the sub-grade	[**]	length or 5(five) km. length, whichever is less.
(2) <u>Sub Base Course</u>	[**]	
(3) Non-Bituminous Course	[**]	
(4) Bituminous Base Course	[**]	
(5) Wearing Coat	[**]	
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 the sub-grade	[**]	
(2) <u>Sub Base Course</u>	[**]	
(3) Dry Lean Concrete (DLC) Course	[**]	
(4) Pavement Quality Control (PQC) Course	[**]	
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 the sub-grade	[**]	
(2) <u>Sub Base Course</u>	[**]	
(3) Non-Bituminous Course	[**]	
(4) Bituminous Base Course	[**]	



Stage of Payment	Percentage - weightage	Payment Procedure
(5) Wearing Coat	[**]	
C.2- Reconstruction/ New service road (Rigid pavement) (1) Earthwork up to top of the sub-grade	[**]	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..
(2) <u>Sub Base Course</u>	[**]	
(3) Dry Lean Concrete (DLC) Course	[**]	
(4) Pavement Quality Control (PQC) Course	[**]	
D- Re-Construction and New culverts on existing road, realignments, bypasses: (1) Culverts (length < 6m)	[**]	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 culverts.

@. 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 x weightage for road work x weightage for bituminous work x (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:

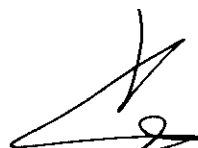
Table 1.3.2

Stage of Payment	Weightage	Payment Procedure
1	2	3
A.1-Widening and repair of minor bridges (length > 6m and < 60m)	[**]	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 the completion of widening & repair works of a minor bridge.
A.2- New minor bridges (i) Foundation +Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers upto the abutment/pier cap.	[**]	(i) Foundation +Sub-Structure: Cost of each minor bridge shall be determined on pro rata basis with respect to the total linear length (m) of the minor bridges. 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 bridge subject to completion of atleast two foundations along with sub-structure upto abutment/pier cap level of each bridge. 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	[**]	(ii) Super-structure: Payment shall be made on pro-rata basis on completion of a



<p>rails, crash barriers, road signs & markings, tests on completion etc. complete in all respect.</p> <p>(iii) Approaches: On completion of approaches including Retaining walls, stone pitching, protection works complete in all respect and fit for use.</p>	<p>[**]</p>	<p>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.</p> <p>(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 in the column of "Stage of Payment" in this sub-clause.</p>
<p>(iv) Guide Bunds and River Training Works:</p> <p>On completion of Guide Bunds and river Training Works complete in all respects</p>	<p>[**]</p>	<p>(iv) Guide Bunds and River Training Works:</p> <p>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.</p>
<p>B.1-Widening and repair of underpasses/overpasses</p>	<p>[**]</p>	<p>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.</p>
<p>B.2- New Underpasses/ Overpasses:</p> <p>(i) Foundation +Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers upto the abutment/pier cap.</p>	<p>[**]</p>	<p>(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 +</p>

<p>(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.</p> <p>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.</p> <p>(iii) Approaches: On completion of approaches including Retaining walls/ Reinforced Earth walls, stone pitching, protection works complete in all respect and fit for use.</p>	<p>[**]</p> <p>[**]</p>	<p>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 level each underpass/overpass.</p> <p>In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.</p> <p>(ii) Super-structure:</p> <p>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.</p> <p>(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.</p>
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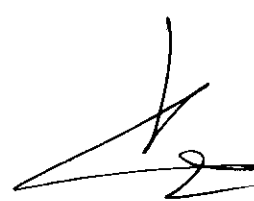


1.3.3 Major Bridge works, ROB/RUB and Structures.

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

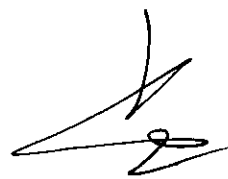
Stage of Payment	Weightage	Payment Procedure
1	2	3
A.1- Widening and repairs of Major Bridges (i) Foundation	[**]	<p>(i) Foundation: Cost of each Major Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made 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	[**]	<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>



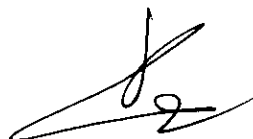
(iii) Super-structure (including bearings)	[**]	<p>(iii) Super-structure:</p> <p>Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure including bearings of atleast one span in all respects as specified.</p>
(iv) Wearing Coat including expansion joints	[**]	<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.	[**]	<p>(v) Miscellaneous: Payments 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	[**]	<p>(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.</p>
(vii) Guide Bunds, River Training works etc.	[**]	<p>(vii) Guide Bunds, River Training works: Payments shall be made on completion of all guide bunds/river training works etc. complete in all respects as specified.</p>
(viii) Approaches (including Retaining walls, stone pitching and protection works)	[**]	<p>(viii) Approaches: Payments shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.</p>



A.2- New Major Bridges		
(i) Foundation	[**]	<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	[**]	<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)	[**]	<p>(iii) Super-structure:</p> <p>Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure including bearings of atleast one span in all respects as specified.</p>



(iv) Wearing Coat including expansion joints	[**]	(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.	[**]	(v) Miscellaneous: Payments 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	[**]	(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.	[**]	(vii) Guide Bunds, River Training works: Payments 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)	[**]	(viii) Approaches: Payments 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	[**]	(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



		<p>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.</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	[**]	<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 ROB/RUB subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the ROB/RUB.</p>
(iii) Super-structure (including bearings)	[**]	<p>(iii) Super-structure:</p> <p>Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure including bearings of atleast one span in all respects as specified.</p>
(iv) Wearing Coat including expansion joints in case of ROB. In case of RUB, rigid pavement under RUB including drainage facility as specified.	[**]	<p>(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.</p>



(v) Miscellaneous Items like hand rails, crash barriers, road markings etc.	[**]	(v) Miscellaneous: Payments 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	[**]	(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)	[**]	(vii) Approaches: Payments shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.
B.2- New (a) ROB (b) RUB (i) Foundation	[**]	(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	[**]	(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)	[**]	(iii) Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure 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.	[**]	(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.	[**]	(v) Miscellaneous: Payments 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	[**]	(vi) Wing walls/return walls: Payments shall be made on completion of all wing

(iii) Super-structure (including bearings)	[**]	<p>two sub-structures of abutments/piers upto abutment/pier cap level of the structure.</p> <p>(iii) Super-structure:</p> <p>Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure including bearings of atleast one span in all respects as specified.</p>
(iv) Wearing Coat including expansion joints	[**]	<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.	[**]	<p>(v) Miscellaneous: Payments 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	[**]	<p>(vi) Wing walls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.</p>
(vii) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[**]	<p>(vii) Approaches: Payments shall be made on completion of both approaches including stone pitching, protection works, etc. complete in all respects as specified.</p>



C.2 -New Elevated Section/Flyovers/ Separators Grade		
(i) Foundation	[**]	<p>(i) Foundation: Cost of each structure shall be determined on pro rata basis with respect to the total linear length (m) of the structures. 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 structure subject to completion of atleast two foundations of the structure .</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	[**]	<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 structure subject to completion of atleast two sub-structures of abutments/piers upto abutment/pier cap level of the structure.</p>
(iii) Super-structure (including bearings)	[**]	<p>(iii) Super-structure:</p> <p>Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super-structure including bearings of</p>

		atleast one span in all respects as specified.
(iv) Wearing Coat including expansion joints	[**]	(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.	[**]	(v) Miscellaneous: Payments 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	[**]	(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)	[**]	(vii) Approaches: Payments 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 DG(RD)&SS, MoRT&H.
- (2) The Schedule for exclusive tunnel projects may be prepared as per site requirements before bidding with due approval of DG(RD)&SS, MoRT&H.



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	[**]	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	[**]	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, ...	[**]	
(iv) Project Facilities		Payment shall be made on pro rata basis for completed facilities.
d) Bus bays	[**]	
e) Truck lay-byes	[**]	
f) Rest areas	[**]	
d) others	[**]	
(v) Roadside plantation	[**]	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 approaches to the bridges, elevated sections/ flyovers/grade separators and ROB/RUBs.	[**]	
(vii) Safety and traffic management during construction	[**]	Payment shall be made on prorata basis every six months.



2. Procedure for payment for Maintenance

2.1 The cost for maintenance shall be as stated in Clause 14.1.1.

2.2 Payment for Maintenance shall be made in quarterly instalments in accordance with the provisions of Clause 19.7.

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