

**F. No. 2/21/2025 - PIU  
Government of India  
Ministry of Finance  
Department of Economic Affairs  
Infrastructure Finance Secretariat  
ISD Division  
(PIU)  
\*\*\*\*\***

**4<sup>th</sup> Floor, STCs Building,  
Janpath New Delhi  
Dated: 24<sup>th</sup> March 2026**

**Record of Discussion**

**Subject: Record of Discussion of the 140<sup>th</sup> meeting of the PPPAC for considering two road project proposals and cost revision of three road projects of Ministry of Road, Transport & Highways (MoRTH) on PPP mode.**

**Reference: (i) 140<sup>th</sup> meeting of the PPPAC held on 09<sup>th</sup> March 2026.  
(ii) 139<sup>th</sup> meeting of the PPPAC held on 06<sup>th</sup> February 2026.**

**Sir/Madam,**

The undersigned is directed to forward the Record of Discussion of the 140<sup>th</sup> meeting of the PPPAC held on 09<sup>th</sup> March 2026 under the chairmanship of Secretary (EA) for information and necessary action.

2. This issues with the approval of the Competent Authority.

  
**(Arya Balan Kumari)**  
Joint Director (PIU)  
011-2370 1219

**To,**

- 1. Secretary, Department of Expenditure, New Delhi-01**
- 2. CEO, NITI Aayog, Yojana Bhawan, New Delhi-01**
- 3. Secretary, Ministry of Road, Transport & Highways, Transport Bhawan, New Delhi.**
- 4. Secretary, Department of Legal Affairs, Shastri Bhawan, New Delhi.**

**Copy to:**

- 1. Sr. PPS to Secretary (EA)**
- 2. PPS to JS (IFS)**

**Subject: Record of Discussion of the 140<sup>th</sup> meeting of the PPPAC for considering the following two road proposals and cost revision of three road proposals:**

- I. **Anisabad-Deedargunj proposal:-** Construction of 6-Lane Elevated Road Along with Six Lane At-Grade Road with Service Road in Anisabad-Deedargunj Section Of NH-22(Old NH-30) & NH-31(Old NH-30) Starting Near Saristabad (Existing Chainage Km.181+300, Junction Of NH-30(Old) & NH-83(Old)) and Terminating after Deedargunj Junction (Existing Chainage Km.195+420 of NH30(Old)) in the State of Bihar on Hybrid Annuity Mode
- II. **Patna to Purnea proposal: -** Construction of 4-Lane Greenfield Expressway from Patna to Purnea (NE-9) (Design Ch. Km. 0.000 to Km. 244.960, Total Design Length – 244.960 Km.) in the state of Bihar on Hybrid Annuity Mode (HAM) under NH(O)
- III. **Section of Varanasi-Ranchi-Kolkata Highway: -** Construction of 6-lane Greenfield Varanasi-Ranchi-Kolkata Highway from Konki Village to Lerua village from Km 0+000 to Km 41+955 under NH (O) in the State of Bihar on Hybrid Annuity Mode.
- IV. **Guwahati to Tezpur proposal: -** Construction of 4-Lane Highway from Baihata Chariali (Km 0+000), near Guwahati to Tezpur (Km 135+000) & excluding Mangaldoi Bypass (from Km 28+500 to 42+590) along NH-15 in the State of Assam in HAM mode.
- V. **Thiruvananthapuram Outer Ring Road (ORR):-** Construction of 4-Lane Thiruvananthapuram Outer Ring Road (ORR) from Navaikulam (Ch. 0+00) to Vizhinjam (Ch. 62+70) section of NH-866 in Kerala on BOT Mode.

1. The 140<sup>th</sup> meeting of the PPPAC was held on 09<sup>th</sup> March 2026 at 12:30 hours to consider the above-mentioned five road proposals of MoRTH. The projects mentioned at Sl.No. (I, II & III) were earlier presented to the PPPAC in its 139<sup>th</sup> meeting held on 06.02.2026 and the PPPAC recommended to present the projects again to the PPPAC as MoRTH suggested that the costs need to be aligned according to MoRTH Guideline on HAM. The projects mentioned at Sl. No (IV & V) were also presented to the PPPAC, however, the ROD is on hold due to the Model Code of Conduct (MCC). The ROD for the same shall be published once the MCC is lifted.2. List of attendees is placed at **Annexure-I**.

3. With the permission of Secretary (EA), Joint Secretary (IFS) welcomed all the attendees to the meeting. NHA made a detailed presentation on both the PPPAC road project proposals.

**Construction of Six Lane Elevated Road Along with Six Lane At-Grade Road with Service Road in Anisabad-Deedargunj Section in the State of Bihar on Hybrid Annuity Mode.**

1. The details of the project are given in the table below:

**Table 1: Details of the project as submitted to the 139<sup>th</sup> PPPAC.**

<b>Project Description</b>	Construction of Six Lane Elevated Road including Six Lane At-grade in Anisabad-to Deedargunj Section of NH-31 Starting from junction with NH-83 and Terminating After Deedargunj Junction on NH-31 on Hybrid annuity mode in Patna, Bihar under NH(O)		
<b>PPP Model</b>	Hybrid Annuity Mode		
<b>Sponsoring Authority</b>	Ministry of Road Transport and Highways, Government of India		
<b>Implementing Agency</b>	National Highways Authority of India (NHAI)		
<b>Location</b>	State: Bihar District: Patna		
<b>Type of Pavement</b>	Flexible Pavement For Entire length except Rigid pavement at Toll Plaza		
<b>Lane configuration</b>	6-lane elevated + 6 lane At grade along with Both side service road carriageway		
<b>Details of Structures</b>	<b>Sr. No.</b>	<b>Project Features</b>	<b>Details</b>
	1	Total Length	13.4125 km (Mainline)
	2	Elevated Main Road Structures	7.515 km
	3	Elevated Ramp length	8.604 km
	4	At-Grade Road Length	11.662 km
	5	Minor Bridges (widening)	01 Nos. widening of existing minor bridge @ 48.565m
	6	Road Over Bridges (ROB)	01 Nos. (3 lane new+ 3 lane reconstruction+ 2lane service road)
	7	Flyovers	02 Nos. (1No.-3X34m & 1 No.3X30m)
	8	LVUP / SVUP / SVUP	LVUP: 04 Nos.
	9	Major / Minor Junctions	Major: 04 Nos./Minor: 87 Nos.
	10	Culverts	08 Box Culverts, 10 Pipe Culverts
	10	Service Road / Slip Road Length	21.846 km (Including both sides)
	11	Utility Ducts	27 Nos. (1x0.60 dia.)
16	Toll Plaza	Existing Toll Plaza @ 191+500 Ch. Of Patna Baktiyarpur shall be utilized for tolling	

<b>Concession Period</b>	18 years (3 years construction period + 15 years Maintenance Period)		
<b>Estimated Capital Cost with Break-up under major heads of expenditure</b>	<b>S. No</b>	<b>Details</b>	<b>Total Amount (Rs. in Crore)</b>
	1	<b>Civil Construction Cost</b>	3,093.87
	2	Utility Shifting Cost	308.50
	3	Add Labour Cess @1%	30.94
	4	Seigniorage fee	9.61
	5	<b>Civil Construction Cost (i/c Utility Shifting)</b>	<b>3,443.18</b>
	6	IC & Pre - operative expenses (1% of Civil Cost)	34.43
	7	Financing Cost	15.67
	8	Interest during construction period on Debt	229.27
	9	<b>Estimated project cost (Excl. GST)</b>	<b>3,722.29</b>
	10	GST @ 18% on Civil Construction cost	556.90
	11	Contingencies @1% on Civil Cost (As per Ministry's circular dated 09.05.2018)	30.94
	12	<b>Estimated project cost (incl. GST)</b>	<b>4,310.12</b>
	13	Escalation during construction (5% per annum)	783.14
	14	Estimated O&M Cost for 15-year concession period	465.41
	15	Land acquisition & other pre-construction cost	232.29
	16	<b>Total Capital Cost* (Estimated Project Cost + Cost of Pre-construction Activities + GST)</b>	<b>5,790.96</b>
17	<b>Bid Project Cost (BPC) (INR)</b>	<b>4,475.08</b>	
<b>Land Acquisition Status &amp; other clearances</b>	<b>Particular</b>	<b>Status</b>	
	<b>Land Acquisition</b>		Most of the project facilities are within the available ROW. Total Land required 95.71 Hac., More than 90 % land available with NHAI. Additional land of about 8.12 Ha may be required at some locations. Out of 8.12 HA, 6.95 HA land is Govt land and remaining about 1.16 HA is Pvt land. Process for acquiring Balance land is in progress & 3A under finalization.
	<b>Forest Clearance</b>		Not required
	<b>Tree Cutting Permission</b>		Required. Tree Enumeration is in progress.
	<b>Wildlife Clearance</b>		Not required
	<b>Utility</b>		Joint site Visit with utilities owning department

	<b>Shifting</b>	completed. The details of utilities to be shifted has been mentioned under Schedule-A in the scope of the Concessionaire.
	<b>ROB</b>	Joint site visit with Railway completed.
		NHAI vide letter dated 18.08.2025 requested the State Government following components cost which are either notional or under the State's jurisdiction may kindly be exempted/ borne by the State Government: (a) State GST i.e., 9% of construction cost (b) Royalty & Seigniorage charges on all construction materials required for the Project (c) Cost of shifting State-owned utilities, including electricity, water supply, municipal assets, and ducts belonging to State agencies. The response from the State Government is awaited.
<b>Financial Viability</b>	<b>Equity IRR</b>	15.00%
	<b>Project IRR</b>	12.05%
<b>Concession Agreement</b>		The project is proposed to be implemented as per latest Model Concession Agreement of MoRT&H.
<b>Bidding parameter</b>		Lowest Bid Project Cost
<b>Bidding process</b>		Single Stage Two-part system of bidding

*\*The indicated Total Capital Cost has been revised as per as per the latest HAM guidelines issued by MoRT&H (Attached at Annexure-II) inclusive of NPV value of 15 years maintenance & interest on Annuity; for uniformity in cost estimation of HAM projects. The revised cost is place at Annexure-III.*

2. The primary purpose of proposed project is to resolve severe traffic bottlenecks at key urban choke points in the heart of Patna including Mithapur Chowk, Zero Mile More, Gurudwara More, and Deedarganj Junction. It also aims to enhance freight movement efficiency and improve road safety metrics while supporting multi-modal connectivity. Strategically, the corridor links with NH-83, SH-01, and NH-22, providing seamless connectivity between South Patna (AIIMS corridor) and East Patna while decongesting inner-city roads. It will serve as a crucial connector for regional traffic moving from Patna towards Bakhtiyarpur, Bhagalpur, Hajipur, Gaya and Patna-Purnea Expressway via Mahatma Gandhi Setu. The projected traffic on the proposed corridor is about 84,069 PCUs in 2024 and is expected to cross 1,27,601 PCUs by 2030 and 3,53,096 PCUs by 2049. Additionally, it boosts tourism and pilgrimage by providing smoother access to Takhat Sri Patna Sahib and forming part of the Swadesh Darshan 2.0 Buddhist Circuit, while easing congestion around Patna Junction and the airport.

3. The instant project is for the development of 6-lane elevated corridor and 6-lane at-grade corridor along with service road. The project will be

executed under the HAM model with a Total Capital Cost of Rs. 5,790.96 crore<sup>[1]</sup> and an Estimated project cost (EPC) of Rs. 4,310.12 crore. The project is included under the NH(O) scheme. The financial assessment indicates the project IRR as 12.05% and the equity IRR as 15%.

4. The proposed elevated corridor intersects Railway line at (Sipara) and have to retrofit considering the alignment of two metro-lines traversing along the project corridor with 4 metro stations within the Project corridor. Further, at junction with NH-22 (approach to 8-lane MG Setu across river Ganga), 3 level interchange is proposed as per site condition. Therefore, the project is required to be designed with maximum height of pier up to 35m at some locations.

5. After the detailed presentation, the Chair asked the PPPAC members for their observations. DoLA supported the proposal and stated that no further comments to offer.

6. AS, Department of Expenditure raised the following observations:

i) There is a significant increase in the estimated project cost in comparison with the normative cost. The justification for the higher cost to be provided.

ii) Despite the project being located within an urban area, no State Government contribution has been indicated in the proposal. It is recommended that State contribution be considered, particularly in terms of land acquisition, utility shifting, and waiver or bearing of State GST, royalty, and seigniorage charges.

7. PD, NITI Aayog raised the following observations:

i) MoRTH may explain the details of end-to-end traffic considered for the proposed corridor, as this would enable optimization of the complex design of the proposal. After the development of the Patna Ring Road, through traffic should preferably be encouraged to use the ring road rather than pass through the city, particularly if toll rates on the ring road are competitive. The proposed corridor should not incentivize through traffic movement within the urban area.

ii) Upon completion of the proposed project, Anisabad may emerge as a new traffic bottleneck for the city. Accordingly, the proposal should be approached as a comprehensive urban mobility solution rather than isolated elevated structures.

iii) Considering the traffic, why is the proposal not taken up on BOT (Toll)?

iv) Further, MoRTH may adopt QCBS instead of lowest-cost EPC for bidding. Additionally, MoRTH may also adopt measures for dust and pollution control and ensure that the design proposed is the optimal design.

v) The required statutory and project clearances are not presently in place. The same to be obtained by the PSA (Project Sponsoring Authority) before the bid due date.

vi) The elevated portion of the project reaches a height of 35 m. in some locations, leading to significantly higher structural costs and also the traction requirement for the vehicles. MoRTH to indicate the alternatives considered including the option of underground tunnels to avoid this height of 35 m.

8. Secretary (MoRTH) highlighted the following observations:

i) Adequate horizontal and vertical clearance shall be ensured between the proposed elevated corridor and the edge of the metro station wall as well as the metro station roof, in accordance with applicable safety norms and design standards.

ii) There is no need for providing truck lay-bys within Patna city limits and therefore, the same needs to be removed from the proposed road design.

iii) The total capital cost calculation may be aligned as per the latest HAM guidelines issued by MoRTH inclusive of NPV value of 15 years maintenance & interest on Annuity for uniformity in cost estimation of HAM projects.

9. The Chair made the following observations:

i) The design of the proposed road project is complex in nature, involving multiple components at varying elevations and requiring navigation through existing flyovers and metro lines. From an engineering perspective, the feasibility of the proposal needs to be carefully examined. Accordingly, the design and execution of the project shall be appropriately fine-tuned to address structural, safety, and constructability challenges.

ii) As the proposed National Highway alignment passes through the city limits of Patna. Whether the option constructing a bypass was explored. Further, it is to be decided whether the development of the corridor falls within the scope of NHAI/MoRTH or the State Government. The justification for NHAI undertaking the project instead of the State Government needs to be explained, along with details of the State Government's responsibilities in the proposed project.

iii) The possibility of supporting the project through the SASCI route may be explored in consultation with the State Government.

10. MoRTH submitted the following to the queries raised by the PPPAC Members: -

i) The estimated project cost exceeds the normative cost due to the use of (i) updated SOR 2025–26, (ii) significantly greater structure heights (up to 35 m), (iii) inclusion of portal frame and steel structures (about 6.4 km) not covered under the normative tool, (iv) deeper pile foundations (up to 35 m) based on geotechnical requirements, (v) enhanced drainage provisions, and higher seismic design standards applicable to Seismic Zone IV as compared to the assumptions of the normative cost framework. Further, the proposed project is unique and highly complex, with no direct precedent or reference

project, and therefore involves specialized design solutions beyond the scope of standard normative assumptions.

ii) At present, no direct capital contribution from the State Government is provided. However, NHAI, vide letter dated 18.08.2025, has requested the State Government to bear or exempt State GST, royalty and seigniorage charges, and to bear 50% cost of shifting of utilities. The response from the State Government is awaited.

iii) The toll differential between the proposed corridor and the Patna Ring Road is not expected to significantly influence traffic diversion. While north-south through traffic may prefer the ring road, the east-west traffic shall prefer the proposed corridor with urban and regional origins and destinations. From a long-term perspective, the proposed corridor represents the only viable capacity augmentation option in the area, as further widening or development in the future would not be feasible due to severe right-of-way constraints and engineering complexity. Accordingly, the corridor has been designed to its maximum practical capacity to cater to future traffic demand and long-term growth.

iv) To ensure that Anisabad would not be the next bottleneck, a proposal of an elevated corridor between Anisabad and AIIMS is under consideration.

v) The stretch under consideration forms part of the 4-laning of the Patna-Bakhtiyarpur section (length 50.19 km), which was constructed in 2016 on BOT (Toll) mode with a concession period valid up to March 2028. In view of the existing concession, it would not be feasible to award the upgraded project on BOT (Toll) mode prior to concession expiry. Accordingly, to avoid contractual complications and enable future monetization of the upgraded asset under the extant policy framework, it is proposed to implement the project on HAM mode.

vi) Lowest project cost will be the bidding criteria. Further, the proposed design is the best design available to decongest the stretch. Additionally, the project is envisaged for use of mechanized equipment, precast structures and other latest technological means to shorten the Construction period and curb the dust pollution during construction.

vii) The clearances are in progress and would be obtained before the bid due date.

viii) The project is planned entirely within urban area having constraint of two metro-lines traversing along the project corridor due to which the elevated portion of the project reaches a height of 35 m. Additionally, the site is low lying with existing nallahs, high groundwater table, major sewage interceptors and a river flow close by. Therefore, providing and operating a multi lane road tunnel would be technically and economically unviable.

ix) Adequate horizontal and vertical clearance between the proposed elevated corridor and the metro station wall and roof will be ensured.

x) The provision of truck lay-bys within the Patna city area was proposed

considering the prevailing practice of on-street truck parking in the vicinity. However, in view of urban traffic requirements, the truck lay-bys shall be removed from the proposed road design.

xi) The total capital cost calculation has been aligned as per the latest HAM guidelines issued by MoRTH. *(The revised cost is placed at Annexure-III)*

xii) The proposed corridor has been examined from an engineering perspective and is considered feasible and is the only available best option.

xiii) The existing corridor was originally developed as a bypass to Patna city; however, due to urban expansion over time, the bypass has now become part of the city core, resulting in severe congestion and loss of its intended highway function. The proposed project is part of NH-31 and hence the responsibility of development of the NH falls within the ambit of NHAI/MoRTH. Additionally, the project cost primarily comprises structural works. NHAI, vide letter dated 18.08.2025, has requested the State Government to bear or exempt cost components falling under the State's jurisdiction or of notional nature, namely State GST, royalty and seigniorage charges, and the cost of shifting State-owned utilities.

xiv) The option of extending support through the SASCI route will be examined in consultation with the State Government. Allocation of 25% of the overall project cost through SASCI funding would be explored.

## **Recommendations**

**11.** After detailed deliberations, the PPPAC unanimously recommended the proposal for "Construction of Six Lane Elevated Road along with Six Lane at-Grade Road with Service Road in Anisabad-Deedargunj Section of NH-22 (Old NH-30) & NH-31(Old NH-30) starting near Saristabad (Existing Chainage Km.181+300, Junction Of NH-30(Old) & NH-83(Old)) and Terminating after Deedargunj Junction (Existing Chainage Km.195+420 of NH30(Old)) in the State of Bihar on Hybrid Annuity Mode" subject to following recommendations, for consideration of the Competent Authority for giving Administrative Approval.

i) The appraised Total Capital Cost of the proposed Anisabad - Deedargunj section is Rs. 8455.86 crore *(revised TCC as per Annexure-III)* with a total estimated project cost (excluding GST) of Rs. 3722.29 crore.

ii) The project should be taken up on HAM under the NH(O) scheme.

iii) The PPPAC assessed that the proposed project is highly unusual in nature, involving significant technical complexity, multi-level structures, and constrained urban conditions, and therefore requires careful planning and execution.

iv) The State Government may consider supporting the project through the SASCI fund (approx. 25% of the project cost from SASCI fund), as deemed appropriate by the State Government. Additionally, the waiver of State GST, seigniorage charges, and sharing of 50% of the utility shifting cost may also be taken up by the State Government.

v) MoRTH may examine the issue of tolling on State Roads and consider developing an appropriate policy framework or mechanism.

vi) The concession period of the project is 18 years including 3 years construction

period.

vii) Land acquisition and necessary clearances to be obtained in a time bound manner before the bid due date so as to avoid any delay in the project.

viii) The provision of trucks-lay-bys will be removed.

ix) The revised Total Capital Cost (as placed at Annexure-III) is higher than the proposal earlier submitted to the PPPAC. However, the revised TCC is in-line with the latest HAM guidelines dated 06.11.2025 issued by MoRTH and the civil cost or the overall estimated project cost remains the same.

**12.** Revalidation of its recommendation by the PPPAC is not required for following post recommendation changes in the project costs/bid documents: -

i) Any change in the date/time period for any time-bound actions like appointed date, financial close, construction period etc.

ii) Non-substantial change in risk-allocation.

iii) Any other changes/modification in the project proposal with the overall objective of making project successful.

iv) Further, MoRTH/NHAI may decide whether the changes proposed post recommendations of the project proposal by the PPPAC fall within the threshold criteria as stated above. All such changes falling within the threshold criteria shall be appraised at the level of Secretary (RTH)/BoD of NHAI as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

---

[1] The TCC has been revised to Rs.8455.86 crore as per the MoRTH Guideline dated 6<sup>th</sup> November 2025 (Annexure-III).

**II. Construction of 4-Lane Greenfield Expressway from Patna to Purnea (NE-9) in the state of Bihar on Hybrid Annuity Mode (HAM) under NH(O)**

1. The details of the project are given in the table below:

**Table 2: Details of the project presented to the PPPAC in its 139<sup>th</sup> Meeting**

<b>Project Description</b>	Construction of 4-Lane Greenfield Expressway from Patna to Purnea (NE-9) (Design Ch. Km. 0.000 to Km. 244.960, Total Design Length of 244.960 Km.) in the state of Bihar on Hybrid Annuity Mode (HAM) under NH(O)				
	The current proposal is developed in three packages as follows:				
	<b>Packages</b>	<b>From</b>	<b>To</b>	<b>Length (KM)</b>	
	<b>I</b>	Mirnagar Arazi (Km. 0.000)	Bhiraha (Km. 84.500)	84.500 km	
<b>II</b>	Bhiraha (Km. 84.500)	Saraunja (Km. 136.335)	51.835 km (including 7.020 Km Kosi River Bridge)		
<b>III</b>	Saraunja (Km. 136.335)	Hansdah (Km. 244.960)	108.625 Km		
<b>PPP Model</b>	Hybrid Annuity Mode				
<b>Sponsoring Authority</b>	Ministry of Road Transport and Highways, Government of India				
<b>Implementing Agency</b>	National Highways Authority of India (NHAI)				
<b>Location</b>	<b>State:</b> Bihar <b>District:</b> Vaishali, Samastipur, Darbhanga, Saharsa, Madhepura & Purnia				
<b>Type of Pavement</b>	Flexible (except Toll Plaza & Connecting Road)				
<b>Lane configuration</b>	4 lanes + Paved Shoulder with Depressed Median.				
<b>Details of Structures</b>	<b>(INR in crore)</b>				
	<b>Particulars</b>	<b>Package-1</b>	<b>Package-2</b>	<b>Package-3</b>	<b>Total Amount</b>
	Length (km)	84.500 km	51.835 km (including 7.020 Km Kosi River Bridge)	108.625 Km	244.960 Km
	Major Bridges (Nos.)	04 nos.	08 nos.	13 nos.	25 nos.
	Minor Bridges (Nos.)	21 nos.	12 nos.	80 nos.	113 nos.
	Railway Crossing/ROB (Nos.)	03 nos.	02 nos.	04 nos.	9 nos.
Flyovers (Nos.)	09 nos.	02 nos.	09 nos.	20 nos.	

	Viaduct	-	03 no.	-	03 no.	
	Interchanges (Nos.)					
	Cloverleaf	1	-	-	1	
	Trumpet	1	-	2	3	
	Double Trumpet	-	-	1	1	
	Double Dumbbell	3	1	1	5	
	Flyover with Rotary below	2	1	5	8	
	VUP (Nos.)	19 nos.	04 nos.	11 nos.	34 nos.	
	LVUP (12 x 4.5m) (Nos.)	14 nos.	07 nos.	41 nos.	62 nos.	
	SVUP (7 x 4.5m) (Nos.)	74 nos.	25 nos.	46 nos.	145 nos.	
	Box Crossings (4m x3.5m)	26 no.	15 no.	20 no.	61 nos.	
	Gas Pipeline Crossing	02 nos.	-	09 nos.	11 nos.	
	Box Culverts (Nos.)	345 Nos.	147 Nos.	307 Nos.	799 nos.	
	Length of Connecting Road (Km.)	23.590 km	Nil	12.730 km	36.32 Km	
	Redevelopment of existing roads (3.75m width)	22.745 Km.	6.500 Km.	8.830 Km.	38.075 Km.	
	Tolling System	Closed Tolling				
	Toll Plaza on Ramps (Nos.)	7 Locations / 30 nos. Entry- Exit Toll Booth	2 Locations / 08 nos. Entry- Exit Toll Booth	9 Locations / 28 nos. Entry- Exit Toll Booth	18 Locations / 66 nos. Entry- Exit Toll Booth	
	Short Lay bye / Truck Lay Bys (Nos.)	4 nos.	2 nos.	4 nos.	10 nos.	
	Pickup Bus Stop at Entry- Exit location	28 nos.	04 nos.	21 nos.	53 nos.	
<b>Concession Period</b>	18 years (3 years construction period + 15 years Operation Period)					
<b>Estimated Capital Cost with Break-up under major heads of expenditure</b>	<b>(INR in crore)</b>					
	<b>S. No.</b>	<b>Description</b>	<b>Pkg-I / 84.530</b>	<b>Pkg-II / 51.835</b>	<b>Pkg-III / 108.625</b>	<b>Total Amount</b>
	<b>A</b>	<b>Civil Cost (Including Utility Shifting, Seigniorage, Labour cess)</b>	<b>3,427.82</b>	<b>3,329.06</b>	<b>4,511.85</b>	<b>11,268.73</b>
		<b>Centages</b>				
	<b>B</b>	<b>IC &amp; Pre-operation expenses @1% of A</b>	<b>34.28</b>	<b>33.29</b>	<b>45.12</b>	<b>112.69</b>
	<b>C</b>	<b>Financing Cost/Expenses</b>	<b>15.00</b>	<b>15.00</b>	<b>17.47</b>	<b>47.47</b>
<b>D</b>	<b>Interest during construction (IDC)</b>	<b>186.48</b>	<b>182.19</b>	<b>254.90</b>	<b>623.57</b>	

<b>E</b>	<b>Estimated Project Cost as on Bid Date (excluding GST) (A+B+C+D)</b>	<b>3,663.58</b>	<b>3,559.54</b>	<b>4,829.34</b>	<b>12,052.46</b>
	GST@18% of A	617.01	599.23	812.13	2,028.37
	Estimated Project Cost as on Bid Date (including GST)	4,280.59	4,158.77	5,641.47	14,080.83
<b>F</b>	<b>Estimated Bid Project Cost</b>	<b>4,165.56</b>	<b>4,031.73</b>	<b>5,394.37</b>	<b>13,591.66</b>
	<b>Estimated Bid Project Cost with GST</b>	<b>4,915.36</b>	<b>4,757.44</b>	<b>6,365.36</b>	<b>16,038.16</b>
<b>G</b>	Escalation during Construction Period	274.81	302.30	406.07	983.18
<b>H</b>	Estimated O&M cost for 15 Years Maintenance Period including escalation	673.02	631.53	782.86	2,087.41
<b>I</b>	Supervision charge including GST (1% of E)	36.64	35.60	48.29	120.52
	<b>Total Project Cost (F+G+H+I)</b>	<b>5,150.03</b>	<b>5,001.16</b>	<b>6,631.59</b>	<b>16,782.77</b>
<b>J</b>	Contingencies @1% on Civil Construction Cost (A1)	32.63	32.11	43.24	107.98
<b>K</b>	<b>Cost of Pre-construction Activities</b>				
<b>K1</b>	Cost of Land Acquisition, Re-settlement and Rehabilitation	1,902.87	638.78	2,671.69	5,213.34
<b>K2</b>	Cost of Diversion of Forest Area and Tree Cutting, Utility supervision Charges & EMP	10.00	5.00	10.00	25.00
	Sub Total (K=K1+K2)	<b>1,912.87</b>	<b>643.78</b>	<b>2,681.69</b>	<b>5,238.34</b>
<b>L</b>	<b>Total Capital Cost* F+G+H+I+J+K</b>	<b>7,095.53</b>	<b>5,677.04</b>	<b>9,356.52</b>	<b>22,129.09</b>
<b>Land Acquisition &amp; Status other clearances</b>	Total Land Required (in Ha.)	2236.003			
	Land already in Possession (in Ha.)	-			
	Additional Land Acquisition required (in Ha.)	2236.003			
	Forest Area (in Ha.)	53.091			
	Govt. Land (in Ha.)	37.18			
	Private Land (in Ha.)	2117.218			
	3(A) (in Ha.)	1032.15 (46.16% Completed)			
	3(D) (in Ha.)	To be published after approval of project			
	<b>Approvals / Clearances</b>	<b>Status / Expected Timeline</b>			
	Forest	Forest Clearance proposal for diversion of 53.091 Ha. Forest land submitted to MoEF&CC (Proposal ID: FP/BR/ROAD/554834/2025 dated 17.12.2025). Reply of EDS and tree marking under progress.			

	Clearance	Forest Clearance expected by April-2026. Permission from Forest Department for felling of Trees will be made available before the Appointed Date.		
	Environment Clearance	Environment Clearance Proposal submitted to MoEF&CC. ToR issued on 14.01.2026. Draft EIA under preparation. Thereafter, public hearing will be conducted. Environment Clearance expected by May-2026.		
	Wildlife Clearance	Not Required as the project does not pass through any Protected Area/ESZ.		
	ROB GAD	Joint Feasibility completed for all 9 nos. of ROB. Conceptual plan/span arrangement submitted to Railways, approval expected by April-2026.		
	National Waterway Clearance	Bridge span arrangements has been proposed duly considering the IWAI requirements for Kosi River (NW-58 / Class-III). Formal approval of IWAI is under Process.		
<b>Financial Viability</b>	<b>Parameters</b>	<b>Package - 1</b>	<b>Package - 2</b>	<b>Package - 3</b>
	EIRR	12%	12%	12%
	PIRR	10.56%	10.45%	11.71%
<b>Concession Agreement</b>	The project is proposed to be implemented as per latest Model Concession Agreement of MoRT&H issued in November-2020 including amendments issued time to time.			
<b>Bidding parameter</b>	Lowest Bid Project Cost			
<b>Bidding process</b>	Single Stage Two-part system of bidding			

*\*The indicated Total Capital Cost has been revised as per the latest HAM guidelines issued by MoRT&H inclusive of NPV value of 15 years maintenance & interest on Annuity; for uniformity in cost estimation of HAM projects. The revised cost is placed at Annexure-V.*

**2.** The primary objective of the proposed 4-lane greenfield expressway is to establish a direct, high-speed connectivity between Patna and Purnea in the State of Bihar. The corridor will serve as an efficient alternative to the existing East–West Corridor (NH-27) and NH-31, benefitting the districts of Patna, Vaishali, Samastipur, Darbhanga, Saharsa, Madhepura, Purnea, and Kishanganj by improving trade and logistics movement. As Purnea functions as a gateway to North-Eastern India, including Assam and West Bengal, and Patna serves as a key administrative and commercial hub, the proposed expressway is expected to substantially reduce transportation costs, improve supply chain efficiency, and stimulate industrial development along the route. The existing travel time of 7–8 hours will be reduced to approximately 4 hours 30 minutes, compared to the present NH-22 and NH-27 alignment. The design speed of the expressway would be 120 km/hr. The projected traffic for the year 2029 is 21342 PCU and shall cross 35810 PCUs in the year 2060.

**3.** The project is planned as an access-controlled expressway with provision for future expansion to six lanes, ensuring long-term capacity augmentation. The project will be executed under the HAM model with a Total Capital Cost of Rs. 22,129.09 crore<sup>[1]</sup> in three packages. The project is included under the NH(O). The financial assessment

indicates the project IRR of more than 10% for all the packages with an equity IRR of 12%.

4. After a detailed presentation, the Chair asked the PPPAC members for their observations. DoLA supported the proposal and stated that no further comments to offer.

5. PD, NITI Aayog raised the following observations:-

- i. The proposed alignment runs parallel to existing NH-27 and NH-31. However, details regarding current traffic volumes on these highways have not been provided and may be furnished.
- ii. Out of the total civil construction cost of Rs.11,268.73 Cr, Major Bridges accounts for around 17% (Rs. 1832.06 Cr.) of the total cost. In this regard, the proposed project viability under BOT (Toll) mode be calculated excluding the bridge cost from the project expenses. The funding for major bridge cost be made by the Government under funded works.

6. AS, DoE raised the following observations: -

- i. The IRR of the project is 10.56%, 10.45%, and 11.71% for Packages I, II, and III respectively, which is only marginally higher than the hurdle rate of 10%. Any adverse variation in capital expenditure or revenue assumptions may further reduce the project IRR.

7. Advisor (EU) highlighted the following observations:

- i. The proposed alignment for the Patna-Purnea greenfield highway, lies approximately 60 km away from the existing NH-27 & about 44 km from the existing NH-31/NH-231 therefore, the status of these existing highways with respect to any competing clauses in current contracts may be assessed.
- ii. MoRTH may provide a per km cost in comparison to the similar projects.

8. Secretary (MoRTH) highlighted the following:

- i. The total capital cost calculation may be aligned as per the latest HAM guidelines issued by MoRT&H inclusive of NPV value of 15 years maintenance & interest on Annuity for uniformity in cost estimation of HAM projects.

9. The Chair made the following observations: -

- i. What is the rationale for structuring the project into three packages?
- ii. What is the status of land acquisition?
- iii. It may be clarified whether the cost of spurs has been included in the overall project estimate.

10. MoRTH submitted the following to the queries raised by the PPPAC members:

- i. The existing NH-27 and NH-31 are already operating under congested conditions and do not have adequate scope for further widening to accommodate the projected increase in traffic volumes. The current traffic of NH-27 for the year 2025 is 20000-25000PCUs and for NH-31 it is around 18416 PCUs.
- ii. The project being greenfield & single continuous corridor, viability under BOT (Toll) mode excluding the bridge cost from the project

expenses will not serve the purpose. The cost has to be borne by the Govt. in one way or other. However, upon completion, the highway will be considered for monetization under TOT/INVIT for realisation of revenues.

- iii. The existing NH-27 as well as Bakhtiyarpur to Khagaria section of NH-31 has already been 4-laned under HAM/EPC mode with tolling rights under Authority and hence competing clause is not applicable. Further, The Khagaria to Purnea section of NH-31/NH-231 is being developed from existing 2-lane to 4-lane configuration on BOT (Toll) mode wherein the effect of Patna-Purnea Expressway has already been considered in the traffic projection of Khagaria-Purnea section.
- iv. The per km. cost has been compared with similar projects and is placed at Annexure-IV.
- v. The total capital cost calculation shall be aligned as per the latest HAM guidelines issued by MoRTH. (*The revised cost is placed at Annexure-V*)
- vi. The proposed project has been structured into three separate packages due to the requirement of a bridge in package 2 which require experienced concessionaire for the development of the bridge.
- vii. Land acquisition is at an advanced stage.
- viii. The cost of spurs has not been incorporated in the present project estimate. A separate Detailed Project Report (DPR) will be prepared for the development of spur connectivity.

## **Recommendations**

**11.** After detailed deliberations, the PPPAC unanimously recommended the proposal for, Construction of 4-Lane Greenfield Expressway from Patna to Purnea (NE-9) (Design Ch. Km. 0.000 to Km. 244.960, Total Design Length – 244.960 Km.) in the state of Bihar on Hybrid Annuity Mode (HAM) under NH(O) scheme” subject to following recommendations, for considerations of the Competent Authority for giving Administrative Approval.

- i. The appraised Total Capital Cost of the project is Rs. 31,987.11 Crore (Package-I: Rs. 10,083.96 Crore; Package-II: Rs. 8564.82 and Package-III: Rs.13,338.32 Crore). The Estimated Project Cost excluding GST is Rs. 12052 Crore (Package-I: Rs.3663.58 Crore; Package-II: Rs.3559.54 and Package-III: Rs.4829.34 Crore). The detailed cost estimates are given at Annexure-V.
- ii. The project should be taken up on HAM model under the NH(O) scheme.
- iii. The Concession period of the project is 18 years including three years construction period.
- iv. The project shall be taken up in three packages.
- v. Land acquisition and necessary clearances to be obtained in a time bound manner before the bid due date so as to avoid any delay in the project.
- vi. The revised Total Capital Cost (as placed at Annexure V) is higher than the proposal earlier submitted to the PPPAC. However, the revised TCC is in-line with the latest HAM guidelines issued by MoRTH and the total civil cost or the overall estimated project cost remains the same.

**12.** Revalidation of its recommendation by the PPPAC is not required for following post recommendation changes in the project costs/bid documents:

- i. Any change in the date/time period for any time-bound actions like appointed date, financial close, construction period etc.
- ii. Non-substantial change in risk-allocation.
- iii. Any other changes/modification in the project proposal with the overall objective of making project successful.
- iv. Further, MoRTH/NHAI may decide whether the changes proposed post recommendations of the project proposal by the PPPAC fall within the threshold criteria as stated above. All such changes falling within the threshold criteria shall be appraised at the level of Secretary (RTH)/BoD of NHAI as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

---

[1] The TCC has been revised to Rs. 31987.11 crore as per the MoRTH Guideline dated 6<sup>th</sup> November 2025 (Annexure-V).

**III. Construction of 6-lane Greenfield Varanasi-Ranchi Kolkata Highway from Konki Village to Lerua village from Km 0+000 to Km 41+955 under NH (O) in the State of Bihar on Hybrid Annuity Mode.**

1. The details of the project are given in the table below:

**Table 3: Details of the project as presented to the PPPAC in its 139<sup>th</sup> Meeting**

<b>Project Description</b>	Construction of 6-lane Greenfield Varanasi-Ranchi-Kolkata Highway from Konki Village to Lerua village from Km 0+000 to Km 41+955 under NH (O) in the State of Bihar on Hybrid Annuity Mode		
<b>PPP Model</b>	Hybrid Annuity Mode		
<b>Sponsoring Authority</b>	Ministry of Road Transport and Highways, Government of India		
<b>Implementing Agency</b>	National Highways Authority of India (NHAI)		
<b>Location</b>	<b>State:</b> Bihar <b>District:</b> Rohtas, Aurangabad		
<b>Type of Pavement</b>	Perpetual Flexible Pavement For Entire length except Rigid pavement at Toll Plaza		
<b>Lane configuration</b>	6-lane without Paved Shoulder (2x10.5m) + (4x.5m edge strip)		
<b>Details of Structures</b>	<b>Sr. No.</b>	<b>Project Feature</b>	<b>Details</b>
	1	Total Length	41.955 Km
	2	Major Bridge	02, (1no. @ Sone river (LHS:1x35+88x60;RHS:1x35+1x51.9+87x60) & 1 no. @ 2x35)
	3	Minor Bridge	26
	4	VUP/ LVUP/ SVUP	04/18/14
	5	Flyovers	01
	6	Elevated Viaduct	04
	7	New Box Culverts	109 (84+25)
	8	Service/ Slip Road (Km)	1.490 km/ 2.346Km (Including both side)
	9	Length of Ramps & loops	15.57 km (Including both side)
10	Toll Plaza	Close tolling with 4 Nos. of exit/entry	
<b>Concession Period</b>	18 years (3 years construction period + 15 years Maintenance Period)		
	<b>Sl. No.</b>	<b>Description of Item</b>	<b>Amount</b>
			<b>(Rs. in Crore)</b>
	<b>A</b>	<b>Total Civil cost excluding GST</b>	<b>2558.83</b>
	i.	Utility Shifting Cost	77.47

<b>Estimated Capital Cost with Break-up under major heads of expenditure</b>	ii.	Seigniorage Charge	20.26
	iii.	Labour Cess (1%)	25.59
	<b>B</b>	<b>Total Civil cost including Seigniorage and Labour Cess</b>	<b>2682.15</b>
	C	Financial centages as per FC Financial analysis	
	i.	IC/Pre-Operative Expenses @ 1% of Total EPC Cost mentioned at A	26.82
	ii.	Financing Expenses	10.48
	iii.	Interest During Construction (IDC) @ 9.85% p.a.	172.90
	<b>D</b>	<b>Estimated Project cost (including Financial centages)</b>	<b>2892.35</b>
	E	Contingencies 1% on Civil Cost (A) (As per Ministry's circular dated 09.05.2018)	25.59
	F	GST (18%) on Total Civil Cost (A)	460.59
	G	Estimated O&M Cost for 15-year concession period	321.83
	H	Escalation during construction	410.35
	<b>I</b>	<b>Total Estimated Cost incl. GST &amp; Centages</b>	<b>4110.71</b>
	J	Forest Clearance and Environment Clearance	2.13
	K	Land Acquisition Cost and R&R Cost	959.29
	<b>L</b>	<b>Total cost of Preconstruction activities (J+K)</b>	<b>961.42</b>
<b>Total Capital Cost*</b>		<b>5072.13</b>	
<b>Estimated BPC</b>		<b>3218.34</b>	

<b>Land Acquisition Status &amp; other clearances</b>	<b>S.No.</b>	<b>Activity</b>	<b>Status</b>	
	1.	Land Acquisition	<b>Particulars</b>	<b>Area in HA</b>
	<b>Total Land Required.</b>		310.7763	
	<b>Government Land</b>		24.8270	
	<b>Additional Land Required</b>		285.9493	
	<b>3A Completed</b>		67.8718 balance 3A is under progress	
	<b>3D Completed</b>		67.8718	
	<b>3G award declared</b>		58.9630	
2.	Environment Clearance	MOEFEC in its meeting dated 17.11.2025 has recommended for grant of Environmental clearance with condition to obtain NOC from District Administration.		
3	Forest Clearance	Forest Proposal of 7.603 Hac. is uploaded on Parivesh portal 26.09.2025 and Stage-I Forest clearance is in progress.		
3.	Wildlife Clearance	Proposal for wildlife clearance for project being located in ESZ has been uploaded in Parivesh on 12.11.2025 and the proposal is currently with wildlife Warden, Kaimur WLS, Sasaram, Bihar.		
4.	Utility Shifting	The details of utilities to be shifted has been mentioned under Schedule-A and its shifting is under the scope of Concessionaire. The survey with		

		concerned department is under progress.
	5.	ROB(GAD) Nil
<b>Financial Viability</b>	<b>Equity IRR</b>	12.00%
	<b>Project IRR</b>	10.26%
<b>Concession Agreement</b>	The project is proposed to be implemented as per latest Model Concession Agreement of MoRT&H.	
<b>Bidding parameter</b>	Lowest Bid Project Cost	
<b>Bidding process</b>	Single Stage Two-part system of bidding	

*\*The indicated Total Capital Cost has been revised as per the latest HAM guidelines issued by MoRT&H inclusive of NPV value of 15 years maintenance & interest on Annuity; for uniformity in cost estimation of HAM projects. The revised cost is placed at Annexure-VI.*

2. The project is part of Varanasi – Kolkata corridor of NH-319B which is divided into number of packages, out of which, Package-IV and Package-V could not be awarded along with other packages due to pending forest clearance and tunnel work. Further, due to pending wildlife clearances, Packages IV and V could not be awarded earlier under Bharatmala Pariyojna and have now been combined and considered under NH(O) as per MoRTH OMs dated 02.08.2025 and 08.08.2025. The primary objective of the project is to develop the balance section of NH-319B in Bihar by constructing a 6-lane Greenfield Varanasi–Ranchi–Kolkata Highway from Konki Village to Lerua Village (km 0+000 to km 41+955) on HAM model. The project aims to provide seamless, high-capacity connectivity between Uttar Pradesh, Bihar, Jharkhand, and West Bengal, facilitating efficient inter-state movement of passenger and freight traffic.
3. The expansion of the existing alignment to six lanes is constrained due to high land acquisition costs and extensive ribbon development along the corridor. To overcome these limitations, a new greenfield alignment has been proposed. The current route from Varanasi to Kolkata via NH-19 (GQ) takes 12-13 hours from NH-19 (Old NH-2). It is very difficult to provide access-controlled facility on NH-2 due to huge ribbon development along the highway and very high cost of land acquisition & resettlement. The new alignment will likely to reduce the travel time by almost six hours and will also benefit the road user through significant savings in the vehicle operation cost (VOC).
4. The project will be executed under the HAM model with a Total Capital Cost of Rs. 5,072.13 crore<sup>[1]</sup>. The project is included under the NH(O) for the FY 2025-26. The financial assessment indicates the equity IRR as 12% and project IRR as 10.26%.
5. After a detailed presentation, the Chair asked the PPPAC members for their observations. DoLA and DoE supported the proposal and stated that no further comments to offer.
6. PD, NITI Aayog raised the following observations: -
  - i. A 3.5 km bridge is proposed over the river. Whether it would be feasible to

augment NH-19 and connect to the proposed alignment, instead of constructing a bridge, as the proposed alignment runs parallel to NH.

7. Adviser (Energy) raised the following observation:

- i. There is already an existing alignment passing through the wildlife. Why is the option of augmenting the existing road is not explored?
- ii. The estimated total traffic of the proposed corridor is ~17,000 PCUs. it may be clarified why the project is not being proposed on BOT mode.

8. Secretary (MoRTH) highlighted the following: -

- i) The total capital cost calculation may be aligned as per the latest HAM guidelines issued by MoRTH inclusive of NPV value of 15 years maintenance & interest on Annuity for uniformity in cost estimation of HAM projects.

9. The Chair made the following observations:

i) Whether structures have been proposed to facilitate wildlife movement?

ii) What is the status of environmental clearances? Whether the State Wildlife Board has been consulted?

10. MoRTH submitted the following to the queries raised by the PPPAC members: -

i. The option of utilizing the NH-19 bridge is not feasible as this would create bottleneck. The proposed corridor has a design speed of 100 km/hr as compared to the NH-19 where the design speed is lesser than that. Additionally, there may be issues relating to tolling.

ii. The augmentation of existing road is not permitted in the wildlife area, hence, either tunnelling through Tunnel Boring Machine or bypassing the wildlife are the options available. Since TBM increases the cost substantially, it is proposed to bypass the wildlife area.

iii. The BOT analysis shows that the estimated VGF is 65.92% for EIRR of 14% with 30 years Concession Period. However, the subject project is missing link of the Varanasi-Ranchi-Kolkata Corridor having cumulative length of 387 kms in state of Bihar. The packages preceding and succeeding to the instant package are already awarded on HAM. Hence, it may not be suitable to take up the project on BOT(Toll) project for a missing link.

iv. The total capital cost calculation shall be aligned as per the latest HAM guidelines issued by MoRTH. (*The revised cost is placed at Annexure-VI*)

v. Structures such as viaducts, interchanges etc., are proposed for the smooth wildlife movement.

vi. The State Wildlife Board has been consulted and the MOEFEC in its meeting dated 17.11.2025 has recommended for grant of Environmental clearance with condition to obtain NOC from District Administration. The same is under process.

### **Recommendations**

11. After detailed deliberations, the PPPAC unanimously recommended the

proposal for, construction of 6-lane Greenfield Varanasi-Ranchi Kolkata Highway from Konki Village to Lerua village from Km 0+000 to Km 41+955 under NH (O) in the State of Bihar on Hybrid Annuity Mode subject to following recommendations, for considerations of the Competent Authority for giving Administrative Approval.

i.. The appraised Total Capital Cost of the project is Rs. 7331.40 Crore. The Estimated Project Cost excluding GST is Rs. 2897.16 Crore. The detailed of the revised cost estimates are given at Annexure-VI.

ii. The project should be taken up on HAM model under the NH(O) scheme.

iii. The Concession period of the project is 18 years including three years construction period.

iv. Land acquisition and necessary clearances to be obtained in a time bound manner before the bid due date so as to avoid any delay in the project.

v. The revised Total Capital Cost (as placed at Annexure-VI) is higher than the TCC earlier submitted to the PPPAC. However, the revised TCC is in-line with the latest HAM guidelines issued by MoRTH dated 06.11.2025 and the total civil cost or the overall estimated project cost remains the same.

**12.** Revalidation of its recommendation by the PPPAC is not required for following post recommendation changes in the project costs/bid documents: -

i. Any change in the date/time period for any time-bound actions like appointed date, financial close, construction period etc. Non-substantial change in risk-allocation.

ii. Any other changes/modification in the project proposal with the overall objective of making project successful.

iii. Further, MoRTH/NHAI may decide whether the changes proposed post recommendations of the project proposal by the PPPAC fall within the threshold criteria as stated above. All such changes falling within the threshold criteria shall be appraised at the level of Secretary (RTH)/BoD of NHAI as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

---

[1] The Revised Capital Cost of the project based on MoRTH circular dated 06.11.2025 is Rs. 7331.40 crore (at Annexure-VI)

**List of the participants of the 140<sup>th</sup> meeting of the PPPAC**

- a. **Department of Economic Affairs, Ministry of Finance**
- b. Ms. Anuradha Thakur, Secretary (EA)
- c. Shri Alok Tiwari, JS (IFS)
- d. Ms. Arya Balan Kumari, Joint Director (PIU)
- e. Shri Rajender Singh, SO (PIU)
- f. Shri Manjeet Yadav, ASO (PIU)
- b. **Department of Expenditure**
- g. Shri, Bharat Singh, Under Secretary
- c. **NITI Aayog**
- h. Shri. Partha Reddy, Programme Director
- d. **Department of Legal Affairs**
- i. Shri Jagat Prakash, Assistant Legal Adviser
- e. **Ministry of Road Transport and Highway**
- j. Shri. V Umashankar, Secretary, MoRTH
- k. Shri. Puneet Agarwal, AS&FA, MoRTH
- l. Shri. Manoj Kumar, CE, BP&SP.
- f. **NHIDCL**
- m. Dr. Krishan Kumar, Managing Director
- n. Shri. Amarender Kumar, Director (Technical)
- o. Shri. S.B. Singh, Executive Director (Technical)
- p. Shri. Saurav Deo, Deputy General Manager (Technical)
- g. **Indian Air Force:**
- q. Representing Officer of HQ, EAC
- r. Shri. A.N. Karulkar, AOC, Airforce Station, Tezpur
- h. **Govt. of Assam**
- s. Shri. Raj Chakraborty, Special Secretary PWD.

Table 4: HAM Guidelines Issued by MoRTH

121.3.28

RW/NH-24036/56/2024-BP&SP  
 Government of India  
 Ministry of Road Transport & Highways  
 (BP & SP Cell)  
 Transport Bhawan, 1 Parliament Street, New Delhi - 110001

Date: 06<sup>th</sup> November, 2025

To

1. The Chief Secretaries of all State Governments/UTs
2. The Chairman, NHAI, Dwarka, New Delhi
3. The Managing Director, NHIDCL, New Delhi
4. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other Centrally Sponsored Schemes & State Schemes.
5. The Engineers-in-Chief and Engineers of all States/UTs Public Works Department dealing with National Highways, other Centrally Sponsored Schemes.

Subject: Cost norms in respect of National Highway Projects to be implemented on Hybrid Annuity Mode.

References: (i) Ministry's Circular no. No. RW/NH-37011/15/2015-PPP dated 16.10.2015

(ii) Ministry's Circular no. No. RW/NH-24036/27/2010-PPP dated 19.02.2016

Madam/Sir,

This is in supersession to the Ministry's circulars referred to above.

2. The various centages to be taken for calculating the Estimated Project Cost and Total Capital Cost for the project to be implemented on Hybrid Annuity Mode for appraisal purposes have been reviewed and shall be as under:

	A1 = Rs. 100 cr. - Rs. 500 cr.	A1 = Rs. 500 cr. - Rs. 1000 cr.	A1 > Rs. 1000 crores
Civil Construction Cost	A1	A1	A1
Utility shifting cost	A2	A2	A2
Total Cost including Utility	A = (A1+A2)	A = (A1+A2)	A = (A1+A2)

shifting			
IC/Pre-operative Expenses	B = 1% of A	B = 1% of A	B = 1% of A
Financing Cost	C = 1% of Debt amount subject to maximum of 4 Cr	C = 0.75% of Debt Amount subject to minimum Rs. 4 Cr	C = 0.75% of Debt Amount if A1 is less than Rs 2000 Crore, 0.50% of Debt Amount if A1 > Rs 2000 Crore subject to minimum of Rs. 15 Cr
Interest during construction	D (as per Financial Model)	D (as per Financial Model)	D (as per Financial Model)
Estimated Project Cost (EPC)	E = (ΣA:D)	E = (ΣA:D)	E = (ΣA:D)
GST @18%	18% of A	18% of A	18% of A
Estimated Project Cost (EPC) with GST			
Bid Project Cost (BPC)	F = As per Financial Model	F = As per Financial Model	F = As per Financial Model
Bid Project Cost (BPC) with GST			
Contingencies	G = 2% of A1 subject to minimum of Rs. 3 cr.	G = 1.5% of A1 subject to minimum of Rs. 10 cr.	G = 1% of A1 subject to minimum of Rs. 15 cr.
Price Escalation during construction period	H = % of A defined below	H = % of A defined below	H = % of A defined below
18 months construction period	6% of A	6% of A	6% of A
2 years construction period	7% of A	7% of A	7% of A
30 months construction period	8% of A	8% of A	8% of A
3 years construction period	9% of A	9% of A	9% of A

Maintenance charges including price escalation	I = % of E defined below	I = % of E defined below	I = % of E defined below
15 years Maintenance period (flexible pavement)	15% of E	15% of E	15% of E
15 years Maintenance period (rigid pavement)	8% of E	8% of E	8% of E
15 years Maintenance period (structure)	7% of E	7% of E	7% of E
Interest on Annuity	J = 50% of E	J = 50% of E	J = 50% of E
GST	K = 18% of (F+G+H+I+J)	K = 18% of (F+G+H+I+J)	K = 18% of (F+G+H+I+J)
Agency charges	L = 2% of A subject to maximum of 8 Cr	L = 1.5% of A subject to minimum Rs. 8 Cr and maximum of 12 Cr	L = 1% of A subject to minimum Rs. 12 cr.
Supervision charges including GST	M = 3% of E upto 200 Crore subject to maximum of Rs. 4 cr., 1% of E beyond 200 Crore subject to minimum of Rs. 4 cr.	M = 1% of E	M = 1% of E
LA and other pre-construction charges	N	N	N
Total Capital Cost	O = ( $\Sigma$ F:N)	O = ( $\Sigma$ F:N)	O = ( $\Sigma$ F:N)
NPV of Total Capital Cost			

3. This issues with the concurrence of Internal Finance Division of this Ministry vide Note # 237490 dated 03.10.2025 and with the approval of the Competent Authority.

  
Ravishek  
Executive Engineer (BP&SP)

Copy to:

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

Copy for information to:

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

**Table 5: Revised cost for the Construction of the Anisabad-to Deedargunj Section**

Construction of Six Lane Elevated Road including Six Lane At-grade in Anisabad-to Deedargunj Section of NH-31 Starting from junction with NH-83 and Terminating After Deedargunj Junction on NH-31 on Hybrid annuity mode in Patna, Bihar under NH(O)		
Sl. No.	Description of Item	Amount
		(Rs. in Crore)
A1	Total Civil cost excluding GST	3093.87
A2	Utility Shifting Cost	308.50
A3	Seigniorage Charge	9.61
A4	Labour Cess (1%)	30.94
A	<b>Total Civil cost including Seigniorage and Labour Cess</b>	<b>3442.92</b>
B	IC/Pre-Operative Expenses @ 1% of Total EPC Cost mentioned at A	34.43
C	Financing Expenses	15.67
D	Interest During Construction (IDC) as per Financial Model	229.27
E	<b>Estimated Project cost (including Financial centages)</b>	<b>3722.29</b>
F	<b>Estimated BPC</b>	<b>4475.08</b>
G	Contingencies @1% on Civil Cost (A)	30.94
H	Escalation during construction @ 9% of (A)	309.86
I	Maintenance charges including price escalation @ 7% of (E)	260.56
J	NPV of Maintenance charges including price escalation	87.84
K	Interest on annuity @ 50% of (E)	1861.14
L	NPV of Interest on annuity	635.40
M	Supervision charge including GST (1% of E)	37.22
N	GST= 18% of (F+G+H+I+K)	1248.77
O	LA & Other Pre-Construction Charges	232.29
P	<b>Total Capital Cost (Q= F+G+H+I+K+M+N+O)</b>	<b>8455.86</b>
Q	<b>NPV of Total Capital Cost (R= 1.18*(F+G+H+J+L)+M+O)</b>	<b>6805.68</b>

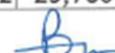


Table 6: Comparison of Patna to Purnia proposal with similar expressway project

Particulars	Instant project (4-lane Expressway)	Similar Project 6-lane Delhi Dehradun Expressway (Phase-1)	Remarks
Length (Km.)	244.96	31.60	-
Lane (Nos.)	4	6	-
Estimated Civil Cost / Awarded Cost (Cr.)	11268.73	2423.52	Awarded in July- 2021
Estimated Civil Cost / Awarded Cost Per Km/ lane (Cr.)	11.5	12.78	The cost is well comparable

Table 7: Revised cost for the Construction of the Patna to Purnia proposal

Construction of 4-lane Greenfield expressway from Patna to Purnia NE-9, Design Length 244.960 Km, in the State of Bihar on Hybrid Annuity Mode.					
Package / Length of Package (In Km.)		Pkg-I / 84.530	Pkg-II / 51.835	Pkg-III / 108.625	Total
S.No.	Description	Amount (in Cr.)	Amount (in Cr.)	Amount (in Cr.)	Amount (in Cr.)
A1	Civil Construction Cost	3,263.13	3,210.90	4,323.84	10,797.87
A2	Utility Shifting Cost	101.61	67.56	104.54	273.71
A3	Labour cess @1% of Civil Construction Cost	32.63	32.11	43.24	107.98
A4	Seigniorage charges @ 10% of Mining Material cost	30.45	18.49	40.23	89.16
A	Total Civil Cost including Utility Shifting, Seigniorage, Labour cess (Sum A1 to A4)	3,427.82	3,329.06	4,511.85	11,268.73
	Civil Construction Cost + GST@18% Centages	3,850.49	3,788.87	5,102.14	12,741.49
B	IC/Pre-operation Expenses @1% of A	34.28	33.29	45.12	112.69
C	Financing Cost (0.5% of Debt Amount subject to minimum 15 Cr.)	15.00	15.00	17.47	47.47
D	Interest during construction (IDC)	186.48	182.19	254.90	623.57
E	Estimated Project Cost as on Bid Date (excluding GST) (A+B+C+D)	3,663.58	3,559.54	4,829.34	12,052.46
F	Estimated Bid Project Cost (BPC)	4,165.56	4,031.73	5,394.37	13,591.66
G	Contingencies @1% on Civil Construction Cost (A1) subject to minimum 15 Cr.	32.63	32.11	43.24	107.98
H	Price Escalation during Construction Period (9% of A)	308.50	299.62	406.07	1,014.19
I	Estimated O&M cost for 15 Years Maintenance Period including escalation (15% of E for flexible pavement)	549.54	533.93	724.40	1,807.87
J	NPV of Maintenance charges including price escalation	192.07	176.64	239.76	608.47
K	Interest on Annuity (50% of E)	1,831.79	1,779.77	2,414.67	6,026.23
L	NPV of Interest on Annuity	597.55	580.34	787.70	1,965.59
M	Supervision charges (1% of E)	36.64	35.60	48.29	120.52
N	Agency Charges	-	-	-	-
O	GST@18% (on F+G+H+I+K+M+N)	1,246.44	1,208.29	1,625.59	4,080.32
<b>Cost of Pre-construction Activities</b>					
P1	Cost of Land Acquisition, Re-settlement and Rehabilitation	1,902.87	638.78	2,671.69	5,213.34
P2	Cost of Diversion of Forest Area and Tree Cutting, Utility supervision Charges & EMP	10.00	5.00	10.00	25.00
P	Sub Total (P1+P2)	1,912.87	643.78	2,681.69	5,238.34
Q	Total Capital Cost	10,083.96	8,564.82	13,338.32	31,987.11
R	NPV of Total Capital Cost	8,205.75	6,727.89	10,846.62	25,780.26



**Table 8: Revised cost for the Construction of the section of Varanasi-Ranchi-Kolkata Highway from Konki Village to Lerua village**

Construction of 6-lane Greenfield Varanasi-Ranchi-Kolkata Highway from Konki Village to Lerua village from Km 0+000 to Km 41+955 under NH (O) in the State of Bihar on Hybrid Annuity Mode		
Sl. No.	Description of Item	Amount
		(Rs. in Crore)
A1	Total Civil cost excluding GST	2558.83
A2	Utility Shifting Cost	77.47
A3	Seigniorage Charge	20.26
A4	Labour Cess (1%)	25.59
A	<b>Total Civil cost including Seigniorage and Labour Cess</b>	<b>2682.15</b>
B	IC/Pre-Operative Expenses @ 1% of Total EPC Cost mentioned at A	26.82
C	Financing Expenses	15.00
D	Interest During Construction (IDC)	173.19
E	<b>Estimated Project cost (including Financial centages)</b>	<b>2897.16</b>
F	<b>Estimated BPC</b>	<b>3223.60</b>
G	Contingencies @1% on Civil Cost (A)	25.59
H	Escalation during construction @ 9% of (A)	241.39
I	Maintenance charges including price escalation @ 15% of (E)	434.57
J	NPV of Maintenance charges including price escalation	143.58
K	Interest on annuity@ 50% of (E)	1448.58
L	NPV of Interest on annuity	472.55
M	Supervision charge including GST (1% of E)	28.97
N	GST= 18% of (F+G+H+I+K)	967.27
O	<b>LA &amp; Other Pre-Construction Charges</b>	<b>961.42</b>
P	<b>Total Capital Cost (P= F+G+H+I+K+L+M+N+O)</b>	<b>7331.40</b>
Q	<b>NPV of Total Capital Cost (Q= 1.18*(F+G+H+J+L)+M+O)</b>	<b>5836.31</b>

*Bu*

\*\*\*