F. No. 2/13/2026 -PIU
Government of India
Ministry of Finance
Department of Economic Affairs
Infrastructure Finance Secretariat
ISD Division
(PIU)
*****

4th Floor, STC Building,
Janpath New Delhi
Dated: 09 June 2026

Record of Discussion

Subject: Record of Discussion of the 146th meeting of the PPPAC for considering two road project proposals by Ministry of Road Transport and Highways (MoRTH) on PPP mode.

Reference: 146th meeting of the PPPAC held on 30th May 2026.

Sir/Madam,

The undersigned is directed to forward the Record of Discussion of the 146th meeting of the PPPAC held on 30th May 2026 under the chairmanship of Secretary (EA) for information and necessary action.

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

(Jai Patil)
Deputy Secretary
E-mail ID: jai.patil@gov.in

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 146th meeting of the PPPAC for considering the following two road project proposals:

i. **Development of Link / Connector Corridor between National Highway-19 (NH-19) and Varanasi Ring Road with Riverbank Connectivity along River Ganga for Decongestion of Varanasi City from Km 0+000 to Km 18+560 (Total Length is 46.039 Km MCW/FOB/loop/ramps/link road) in the state of Uttar Pradesh on HAM Mode.**

ii. **Construction of a Link / Connector Corridor connecting National Highway-31 (NH-31) and Varanasi Ring Road, along River Varuna for decongestion of Varanasi City from Km 0+000 to Km 19+420 (Total Length: 43.218 Km including MCW/Flyover/Loop/Ramps/Link Roads) in the State of Uttar Pradesh on HAM basis**

1. The 146th meeting of the PPPAC was held on 30th May 2026 at 10:45 AM to consider the above mentioned two proposals by Ministry of Road Transport & Highways (MoRTH) on PPP mode.

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. NHAI officials made detailed presentations on both projects at S. No. i and ii.

Project 1: Development of Link / Connector Corridor between National Highway-19 (NH-19) and Varanasi Ring Road with Riverbank Connectivity along River Ganga for Decongestion of Varanasi City from Km 0+000 to Km 18+560 (Total Length is 46.039 Km MCW/FOB/loop/ramps/link road) in the state of Uttar Pradesh on HAM Mode.

1. The details of the proposal are as given below:

SN	Item	Description
1.	Name of the Project	Development of Link / Connector Corridor between National Highway-19 (NH-19) and Varanasi Ring Road with Riverbank Connectivity along River Ganga for Decongestion of Varanasi City from Km 0+000 to Km 18+560 (Total Length is 46.039 Km MCW/FOB/loop/ramps/link road) in the state of Uttar Pradesh on HAM Mode. **Package-1:** From Km 0+00 to Km 7+926 (Total Length is 20.000 Km including MCW/Loop/Ramp/Link Road) in the state of Uttar Pradesh on HAM Mode. **Package-2:** Km 7+926 to Km 18+560 (Total Length is 26.039 Km including MCW/FOB/Loop/Ramp) in the state of Uttar Pradesh on HAM Mode.
2.	Type of PPP	Hybrid Annuity Mode (HAM)

<table>
<tr><th>SN</th><th>Item</th><th>Description</th></tr>
<tr><td></td><td>(BOT, BOOT, BOLT, OMT etc.)</td><td></td></tr>
<tr><td>3.</td><td>Location (State/District/Town)</td><td>State: Uttar Pradesh
Districts in State
1. Varanasi
2. Chandauli</td></tr>
<tr><td>4.</td><td>Sponsoring Authority</td><td>Ministry of Road Transport and Highways, Government of India</td></tr>
<tr><td>5.</td><td>Implementing Agency</td><td>National Highways Authority of India (NHAI)</td></tr>
<tr><td>6.</td><td>Details of structures</td><td>i. The instant project between National Highway-19 (NH-19) and Varanasi Ring Road is subdivided into 2 packages as follows:
<table>
<tr><th>S.N.</th><th>Stretch</th><th>Packages</th><th>Distance (Km.)</th><th>Status</th></tr>
<tr><td>1</td><td rowspan="2">National Highway-19 (NH-19) - Varanasi Ring Road from Km 0+000 to Km 18+560</td><td>Package 1 from Km 0+000 to Km 7+926</td><td>20
MCW 7.926
Loop & Ramp 9.06
SR 0.682
Link Road 2.332
Total Length 20.000</td><td rowspan="3">DPR Prepared & then pre-appraised from PATSC and administrative and financial approval is awaited.</td></tr>
<tr><td>2</td><td>Package 2 from Km 7+926 to Km 18+560</td><td>26.039
MCW 10.634
Loop & Ramp 14.085
FOB 1.32
Total Length 26.039</td></tr>
<tr><td></td><td>Total</td><td></td><td>46.039</td></tr>
</table>
ii. 6-laning of the Project starts from NH-19 near Existing Shastri Bridge (Ganga), providing riverbank connectivity between NH-19 and Varanasi Ring Road along Ganga River.
iii. Project starts from NH-19 near Existing Shastri Bridge (Ganga), providing riverbank connectivity between NH-19 and Varanasi Ring Road along Ganga River. The project begins with a trumpet Interchange at NH-19, followed by an elevated corridor, Connecting Link Road provides access towards IIT BHU on left side from Samne Ghat. Between Samne Ghat and Ramnagar, a multi-span Cable Stayed Bridge is proposed. Ramps are provided at Samne ghat and Ramnagar side to smoothen the traffic</td></tr>
</table>

<table>
<tr><th>S N</th><th>Item</th><th>Description</th></tr>
<tr><td></td><td></td><td>
flow. From Ramnagar to the Varanasi Ring Road, elevated Corridor, a foot overbridge (multi-span extradosed) connecting Kashi Vishwanath Temple, a ROB at Malviya Bridge, loop ramps for accessing the elevated corridor, and multilevel parking will be constructed by the State Govt., with the project ending in a trumpet loop ramp at the Varanasi Ring Road.

iv. This greenfield elevated project has 6-lane divided carriageway elevated corridor. However, at approaches of elevated structures and grade separators, 3-lanes carriageway elevated link and 4/2-lanes divided carriageway loops and ramps are provided.

v. This corridor will ensure faster, congestion-free transportation, providing seamless access to key religious, cultural, and institutional landmarks such as Kashi Vishwanath Temple, major Ganga river ghats, IIT-BHU, Namo Ghat, Kashi Railway Station, Ramnagar Fort, and the Varanasi Ring Road.

<table>
<tr><th>SN</th><th colspan="2">Description of Item</th><th>Unit</th><th>PKG-1</th><th>PKG-2</th></tr>
<tr><td rowspan="3">1</td><td rowspan="3">Length</td><td>Length of Project Highway</td><td>Km</td><td>7.926</td><td>10.634</td></tr>
<tr><td>Length of Eccentric Widening</td><td>Km</td><td>NIL</td><td>NIL</td></tr>
<tr><td>Length of Forest Section</td><td>Km</td><td>0.906</td><td>0.294</td></tr>
<tr><td rowspan="4">2</td><td rowspan="4">Lane Configuration & ROW</td><td>Lane Configuration</td><td></td><td>6 lane</td><td>6 lane</td></tr>
<tr><td>Width of Road</td><td>m</td><td>25.35</td><td>25.35</td></tr>
<tr><td>Width of Structure</td><td>m</td><td>25.35</td><td>25.35</td></tr>
<tr><td>Proposed ROW</td><td>m</td><td>MCW - 45 m, Ramps and Loops - 60 m to 80 m &</td><td>MCW - 45 m, Ramps and Loops - 60 m to 80 m</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>S N</th><th>Item</th><th>Description</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td></td><td></td><td></td><td>Link Road – 20 m</td><td></td></tr>
<tr><td></td><td></td><td>Existing ROW</td><td>m</td><td>15-20</td><td>N/A</td></tr>
<tr><td>3</td><td>Bypass & Realignments</td><td>Bypass Length</td><td>Km</td><td>NIL</td><td>NIL</td></tr>
<tr><td></td><td></td><td>Realignment Length</td><td>Km</td><td>NIL</td><td>NIL</td></tr>
<tr><td>4</td><td>Structures</td><td>Major Bridge</td><td>Nos</td><td>01 (0.910 km)</td><td>NIL</td></tr>
<tr><td></td><td></td><td>Foot over Bridge (MJB)</td><td>No</td><td>NIL</td><td>01 (1.32 Km)</td></tr>
<tr><td></td><td></td><td>No. of ROB</td><td>No</td><td>NIL</td><td>01</td></tr>
<tr><td>5</td><td>Facilities</td><td>Toll Plaza</td><td>No</td><td>NIL</td><td>NIL</td></tr>
<tr><td></td><td></td><td>WSA</td><td>Nos</td><td>NIL</td><td>NIL</td></tr>
<tr><td></td><td></td><td>View Point / Emergency Parking</td><td>Nos</td><td>03</td><td>02</td></tr>
<tr><td>6</td><td colspan="2">Bus Shelters</td><td>Nos</td><td>NIL</td><td>NIL</td></tr>
<tr><td>7</td><td colspan="2">Extra High-Tension Crossings (EHT)</td><td>Nos</td><td>01</td><td>05</td></tr>
<tr><td>8</td><td colspan="2">Length of SR/Loop & Ramps/ Link Road</td><td>Km</td><td>0.682 / 9.06 / 2.332</td><td>0.000 / 14.085 / 0.000</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>Estimated capital costs with break-up under major heads of expenditure.</td><td>
<table>
<tr><th>SN</th><th>Particulars</th><th>Pkg-1</th><th>Pkg-2</th><th>Total</th></tr>
<tr><td></td><td></td><td>Amount Rs. In Cr.</td><td>Amount Rs. In Cr.</td><td>(in Cr.)</td></tr>
<tr><td>1</td><td>Civil Construction Cost</td><td>2,876.90</td><td>3,160.95</td><td>6,037.85</td></tr>
<tr><td>2</td><td>Estimated Project Cost (EPC)</td><td>3,148.84</td><td>3,403.15</td><td>6,551.99</td></tr>
<tr><td>3</td><td>Total Capital Cost</td><td>7,058.57</td><td>7,389.07</td><td>14,447.64</td></tr>
</table>
</td></tr>
<tr><td>8.</td><td>Financial Viability</td><td>
<table>
<tr><th>Particulars</th><th>Package 1</th><th>Package 2</th></tr>
<tr><td>Equity IRR</td><td>12%</td><td>12%</td></tr>
<tr><td>Project IRR</td><td>9.68%</td><td>9.79%</td></tr>
</table>
</td></tr>
</table>

SN	Item	Description
9.	Land Acquisition status and other clearances	

Package	Total land required (Ha)	Total Govt. land Available (Ha)	Total private land required (Ha)	LA Status		3G Status
				3A	3D	3G
Pkg-1	73.15	13.54	59.61	Draft 3A Submitted to CALA Office	Stage yet to come	Stage yet to come
Pkg-2	77.71	3.62	74.09	Draft 3A Submitted to CALA Office	Stage yet to come	Stage yet to come

Sr. No.	Department	Required Clearance & Approvals	Status
1	Forest Department	Forest area identification and DFO (Divisional Forest Office) approvals	The forest area has been identified and site demarcation has been completed. Forest Department will confirm the actual land records as per the area identified jointly with the Revenue Department.
2	Railway Department	NOCs for crossing tracks/near railway land	JFR was re-conducted on 22.05.2026. The CAD plan has been requested and upon receipt of the same, the proposal will be forwarded by AEN (Railway) to Sr. DEN-III, Lucknow on 26.05.2026 for further action.
3	Utility Departments	NOCs for shifting power lines, water pipes, telecom lines	Domestic line estimates and HT draft estimates have been received. The Power Grid estimate is awaited. PIU has requested the concerned departments to submit the final utility shifting estimates at the earliest.

S N	Item	Description			
		4	Irrigation Department	Irrigation Data	NOC Received.
		5	Defence/ Cantonment Board	Cantonment area identification and approval for crossing the cantonment area	Field survey has been completed. The online processing of the proposal is currently under progress with the DEO, Prayagraj.
		6	IWAI / Central Water Commission (CWC)	Flood management, river training works, embankment design approvals	Joint site visit with Inland Waterways Authority of India (IWAI) officials done on 21.02.2026 and online NOC process will be initiated at the earliest by PIU office
		7	Ganga Pollution Prevention Unit	NOC to be taken	Letter issued from PIU Office. Required data and site visit are pending.
		8	NMCG (National Mission for Clean Ganga)	NOC to be taken	Online application started; documents upload are under Progress.
		9	Gail/IOCL/BPCL/HPCL	Gas pipe line data	Site visit completed with GAIL. Estimate will be provided if shifting is required.
		10	Environmental Impact Assessment (EIA)	Environmental data	Empanelled consultant for Environmental Clearance has been appointed: Mr. Sharad Verma (Mob: 9990542629). The process will be initiated after obtaining the NOC

S N	Item	Description			
					from the Forest Department.
		11	Archaeological Survey of India (ASI)	Formal NOC to be taken	Online application was submitted; however, Director, NMA informed PD Sir to submit the application in offline mode due to some glitch in the online process.
10.	Concession Agreement	The project is proposed to be implemented as per the latest HAM Model Concession Agreement uploaded on MoRTH web site.			
11.	Bidding process	Single Stage two-part system of bidding.			
12.	Bidding parameter	Lowest bid project cost.			

2. The Member, NHAI stated that the proposed Ganga Elevated Corridor Project has been conceived as a strategic urban mobility intervention to strengthen connectivity between National Highway-19 (NH-19), the Varanasi Ring Road, and key destinations along the Ganga riverfront. The primary objective of the project is to provide faster, congestion-free transportation and seamless access to major religious, cultural, educational, and transportation landmarks, including Kashi Vishwanath Temple, prominent ghats along the Ganga, IIT-BHU, Namo Ghat, Kashi Railway Station, Ramnagar Fort, and the Varanasi Ring Road. By creating a high-capacity, access-controlled corridor, the project aims to facilitate efficient movement of through traffic, reduce congestion on the existing urban road network, and support the city's growing tourism and economic activities. Considering the scale and strategic importance of the project, the corridor has been divided into two implementation packages comprising approximately 20.0 km and 26.04 km of six-lane elevated roadway, respectively.

3. The Member NHAI, further specified that the proposed, alignment originates near the Vishwa Sundari Bridge on NH-19 and traverses along the western and northern banks of the River Ganga through the urban core of Varanasi. The corridor incorporates grade-separated interchanges at critical traffic nodes, including BHU/Lanka Chowk, Ramnagar, and the Kashi Vishwanath Mandir Parking area, before connecting with the Malviya Bridge and ultimately terminating at the Varanasi Ring Road. The riverbank alignment has been carefully selected to minimize displacement of densely populated settlements while maximizing accessibility to the riverfront and key urban destinations. In addition to improving regional and intra-city mobility, the project is expected to enhance riverfront connectivity and

support broader urban development, tourism promotion, and economic growth initiatives within Varanasi.

4. The Member NHAI, explained that Comprehensive traffic and transportation studies, including Traffic Volume Counts (TVC), Turning Movement Counts (TMC), and Origin-Destination (OD) surveys, have been undertaken to assess the project's technical and economic viability. The base-year traffic demand for the project is estimated at approximately 27,623 Passenger Car Units (PCU) per day in 2026 and is projected to increase substantially to approximately 80,797 PCU per day by 2048, thereby justifying the proposed six-lane configuration. The study further establishes the requirement for supporting connector corridors and associated infrastructure to accommodate future demand, maintain desired levels of service, and meet long-term urban mobility objectives.

5. The Member NHAI, further noted that the project is proposed to be implemented under the Hybrid Annuity Model (HAM) with an estimated project cost of INR 6,551.99 crore for both packages combined, including pre-operative expenses, financing costs, and interest during construction. The concession period is proposed as 20 years for Package-I and 19 years for Package-II, inclusive of construction and operation phases. Package-I envisages a construction period of five years, while Package-II is proposed to be completed within four years, followed by an Operations and Maintenance (O&M) period of fifteen years for each package. The financial assessment undertaken for the project indicates a Project Internal Rate of Return (IRR) of 9.68% for Package-I and 9.79% for Package-II, demonstrating the project's financial viability under the proposed implementation framework.

6. After the detailed presentation, the Chair asked the PPPAC members for their observations. DoLA and Department of Expenditure supported the proposal and stated that there were no further comments to offer.

7. The observations raised by the **PD, NITI Aayog** and the responses therein by MoRTH / NHAI are given below:

i. **The proposed cable-stayed bridge appears to be a significant cost component of the project. Whether an alternative alignment along the existing NH-19 corridor have been adopted to avoid the need for the cable-stayed bridge?**

Response: The Ganga Corridor project has been designed as a riverfront-oriented infrastructure and tourism development initiative that seeks to enhance the experience and accessibility of the Ganga riverfront. The proposed alignment follows the river corridor while minimizing impacts on existing habitations and built-up areas. The cable-stayed bridge and associated infrastructure are intended to create a landmark riverfront asset, improve public access, and support tourism-related activities. The project also envisages designated viewpoints and visitor spaces where people can experience and engage with the riverfront environment, including views of the Ghats located on the opposite bank. Accordingly, the Ganga Corridor should be viewed not merely as a transportation project,

but as a tourism- and destination-oriented urban infrastructure initiative. The cable-stayed bridge is therefore a key element in achieving the project's broader objectives of riverfront enhancement, place-making, and tourism promotion, in addition to providing connectivity.

ii. **What is the rationale for dividing the project into two packages? It is possible that the same bidder may bid for both the packages and defeating the very purpose of wider bidder participation.**

Response: The rationale for dividing the project into two packages is not merely to increase the number of bidders, but also to unbundle and appropriately allocate the project's most complex engineering components. Each package presents distinct technical challenges that may require different categories of contractors based on their expertise and execution capabilities.

For instance, one package includes the cable-stayed bridge component, which requires specialized bridge engineering and construction expertise. Another particularly challenging component is the spur section, which involves elevated construction within heavily congested urban areas and constrained right-of-way conditions. Execution of this section will require careful traffic management, advanced construction methodologies, and the ability to minimize disruption in densely populated areas during the construction period.

By separating these components into different packages, the PSA aims to attract contractors with relevant specialized capabilities for each set of challenges. While it remains possible for the same entity to bid for and secure both packages, the likelihood may be lower given the differing technical requirements, resource commitments, and execution risks associated with each package.

iii. **The current qualification criteria do not appear to explicitly require prior experience in the construction of major bridge structures, particularly cable-stayed bridges, which form a critical component of the project. PSA may clarify whether specific bridge-related qualification requirements can be incorporated in the RFP to ensure that bidders possess the necessary expertise for executing such specialized structures.**

Response: Given the nature of the proposed structure, bidders will be required to demonstrate relevant experience in the construction of major bridge projects, including cable-stayed bridges in Package-I or Extradosed bridge in Package-II and/or suspension bridge structures. While cable-stayed bridge (Pkg-I)/ Extradosed bridge (Pkg-II) experience would be highly relevant, limiting eligibility exclusively to contractors with such experience could significantly reduce bidder participation due to the limited number of such projects executed in India. Accordingly, experience in suspension bridge construction may also be considered as an acceptable qualifying criterion.

The objective is therefore to strike an appropriate balance between ensuring that bidders possess proven expertise in complex bridge construction while maintaining adequate competition and market participation in the bidding process.

Accordingly, necessary required provisions in the RFP will be incorporated to include appropriate qualification requirements relating to bridge construction experience. The eligibility criteria will be aligned with the standard qualification framework adopted by MoRTH for projects involving specialized bridge infrastructure

iv. **How does the proposed project structure differ from the conventional Hybrid Annuity Model (HAM)?**

Response: The proposed project structure is broadly aligned with the Hybrid Annuity Model (HAM) framework, with the principal distinction being the absence of a tolling component. Apart from this aspect, the project retains the key features of the HAM structure, including the allocation of construction and maintenance responsibilities, performance obligations, and the overall concession framework.

This approach differs from the conventional EPC model, under which the Authority is required to fund the entire project cost upfront during construction. Under the proposed structure, only a part of the capital expenditure is paid upfront, with the remaining payments spread over the concession period. This enables the Authority to defer a portion of the financial burden while ensuring long-term accountability for asset quality, performance, and maintenance.

Accordingly, while the project may not incorporate toll-based revenue collection, it continues to retain the core contractual and financing characteristics associated with the HAM framework.

v. **As per the traffic projection, a significant proportion of the projected traffic comprises freight vehicles. What is the rationale for not proposing a tolling mechanism for such traffic?**

Response: The primary objective of the Ganga Corridor is not to serve as a freight movement corridor, but rather to function as an urban riverfront and tourism-oriented infrastructure project. Over time, freight traffic is expected to be minimal, as the corridor passes through the city and is not intended to operate as a major freight transit route.

From a network planning perspective, freight and long-distance commercial traffic are expected to be encouraged towards alternative routes and bypass facilities that are better suited for handling such movements.

However, suitable tolling mechanism can be adopted in the proposed project stretch.

vi. **The justification for the variation from normative project costs has been provided largely in qualitative terms. Given that a detailed Bill of Quantities (BoQ) and applicable unit rates are available, PSA may quantify the cost variations more explicitly.**

Response: While the project estimates are based on detailed engineering assessments, BoQs, and prevailing rates, it is important to recognize that certain components, such as

major bridge structures and associated foundation works, carry a higher degree of uncertainty during the planning and design stages.
In bridge construction, subsurface conditions, foundation requirements, river morphology, and other site-specific factors often reveal additional complexities during execution that may not be fully captured at the time of preparing preliminary estimates. Thus, variations in geotechnical conditions, pile depths, foundation treatments, or construction methodologies can have a significant impact on costs.
Accordingly, while the available BoQs and rates provide a robust basis for cost estimation, a degree of flexibility is considered necessary at this stage to accommodate potential uncertainties inherent in complex bridge and river-crossing infrastructure projects. This approach helps avoid situations where overly rigid cost assumptions at the planning stage result in substantial revisions or implementation challenges during construction.

vii. **It is indicated that the project design may require review and approval by institutions such as IITs or NITs. It may be more appropriate for NHAI/MoRTH to independently onboard such institutions rather than placing this responsibility on the Concessionaire.**

Response: The responsibility for preparing the detailed design will continue to rest with the Concessionaire. NHAI will appoint an independent design consultant to review and validate the designs prepared by the Concessionaire.
Wherever required, specialized inputs from premier technical institutions such as IITs, NITs, or other expert organizations/ personnels may also be sought by NHAI.

8. The observations made by **Joint Secretary (IFS), DEA** and the responses therein by MoRTH / NHAI are given below:

i. **What is the proposed tolling strategy for the project, and how is it expected to influence traffic distribution between the elevated corridor and the bypass network?**

Response: Appropriate tolling mechanism can adopted in the proposed project corridor. Since the tolling on elevated corridor is substantially high, tolling similar to nearby at grade road can be adopted.

ii. **The estimated project cost appears to be significantly higher than the normative benchmark cost for similar infrastructure projects. PSA may provide the key factors contributing to this cost differential.**

Response: The higher project cost is primarily attributable to the specialized structural and geotechnical requirements of the project.
Firstly, the project includes a cable-stayed bridge component, which is substantially more expensive than a conventional girder bridge. The design, construction methodology,

specialized materials, and engineering requirements associated with cable-stayed structures result in costs that can be several times higher than those of standard bridge configurations.

Secondly, the project requires significantly deeper and larger foundation systems due to site-specific geotechnical conditions. The proposed pile foundations have an approximate depth of 55 metres, compared to the typical pile depths of around 15 metres used in conventional bridge projects. In addition, the larger pile diameters and enhanced foundation requirements contribute significantly to the overall construction cost.

Accordingly, the project's cost estimate is higher than the normative costs applicable to conventional road or bridge infrastructure.

iii. **Are the required statutory approvals, clearances, No Objection Certificates (NOCs) been obtained? If not, what is the current status of these approvals?**

Response: The necessary statutory approvals and NOCs are currently being processed on priority. Divisional Commissioner, Varanasi, has already convened multiple coordination meetings with the concerned departments and stakeholders to expedite the approval process.

9. The observations raised by the **Chair** and the responses therein by MoRTH/NHAI are given below:

i. **The fundamental premise of the Hybrid Annuity Model (HAM) is the presence of a tolling mechanism, which is absent in the proposed project.**

Response: The tolling is not proposed mainly because it passes within the city and the tolls for elevated corridor is substantially high as compared to at grade road. There is already a tolled road is connecting the two locations. Therefore, if tolling is proposed on the elevated corridor, it can be equal to the nearby tolling rate only. In such scenario, tolling can be done on elevated corridor using MLFF method.

ii. **Given that the project comprises a mix of road, elevated corridor, and bridge infrastructure components, it presents a broader range of technical requirements than a conventional highway project. In view of these complexities, it is required to incorporate appropriate qualification criteria in the RFP that ensures bidders possess demonstrated expertise across the key project components, particularly in both bridge construction and road/elevated corridor development?**

Response: The RFP conditions are aimed at ensuring participation by firms with relevant experience in both major disciplines of the project. This may include requirements relating to: (i) significant bridge construction experience, and (ii) experience in the development of road and/or elevated corridor infrastructure.

Given the multidisciplinary nature of the project, it is important that the selected concessionaire possesses the technical capability to execute all critical components to the required standards. At the same time, the qualification framework will be designed to strike an appropriate balance between ensuring technical competence and maintaining adequate competition and bidder participation.

iii. **The proposed alignment appears to be complex, with multiple transitions and interchanges. The justification for such alignment and interchanges may be provided.**

Response: The alignment has been approved after considering the specific constraints and ground realities of the project corridor. A key factor influencing the alignment selection was the highly congested urban environment and the limited availability of Right-of-Way along the proposed route. Given the dense built-up areas and space constraints, the alignment had to be carefully designed to minimize land acquisition requirements, reduce displacement impacts, and maintain overall project feasibility.
Accordingly, while the alignment may appear complex from an engineering perspective, it represents a practical solution that balances technical, social, and land availability considerations within a constrained urban setting.

iv. **The project includes a second bridge across the Ganga that has been described as a foot over bridge. PSA may clarify whether this structure is intended to be motorable, and the facilities that are proposed as part of its design.**

Response: The proposed bridge is not intended for motorized vehicular traffic. The structure is being designed as a dedicated pedestrian mobility facility with an effective width equivalent to a four-lane configuration, providing adequate space for pedestrian movement and public access.
In addition to walkways, the bridge is proposed to include modern passenger convenience features such as travelators (moving walkways) to facilitate faster and more comfortable movement for users, particularly over longer distances. The objective is to enhance pedestrian connectivity across the river while providing a safe, efficient, and accessible crossing experience.

Recommendations

10. After detailed deliberations, the PPPAC unanimously recommended the proposal for "Development of Link / Connector Corridor between National Highway-19 (NH-19) and Varanasi Ring Road with Riverbank Connectivity along River Ganga for Decongestion of Varanasi City from Km 0+000 to Km 18+560 (Total Length is 46.039 Km MCW/FOB/loop/ramps/link road) in the state of Uttar Pradesh on HAM Mode" for consideration of the Competent Authority for giving Administrative Approval, subject to following recommendations:

i. The appraised Estimated Project Cost (EPC) excluding GST is Rs. 6,551.99 crore for both the packages. [The EPC for Package-I is Rs.3148.84 Cr and for Package-II is Rs.3403.15 Cr].

ii. The appraised Total Capital Cost of the project is Rs. 14,447.64 Cr. [The TCC for Package-I is Rs.7058.57 Cr and for Package-II is Rs.7389.07 Cr].

iii. The PPPAC recommends that the proposed corridor may be tolled for the traffic using the entire Main Carriageway (MCW) corridor from the starting point to the end point or vice-versa as per the tolling rates adopted for the nearby alternate at grade section.

iv. The project shall be taken up on HAM under NH(O).

v. The concession period is 20 years for Package-I and 19 years for Package-II including construction period. The construction period is 5 years for Package-I and 4 years for Package-II.

vi. MoRTH should take up bidding process in such a way that the same bidder shall not be awarded more than one package in the Ganga as well as the Varuna projects, considering the complexity and uniqueness of each package.

vii. The cost towards acquisition of land required for the spurs/ramps shall be borne by the State Government. The same has also been agreed by the representatives of the State Government present during the meeting.

viii. Environment Clearance and other necessary clearances to be obtained in a time bound manner before the bid due date as to avoid and delay in the project.

11. 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 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 MoRTH as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

Project 2: Development of a Link / Connector Corridor connecting National Highway-31 (NH-31) and Varanasi Ring Road, along River Varuna for decongestion of Varanasi City from Km 0+000 to Km 19+420 (Total Length: 43.218 Km including MCW/Flyover/Loop/Ramps/Link Roads) in the State of Uttar Pradesh on HAM basis.

1. The basic details of the project are given in Table-2 below:

Table-2: The details of the project

<table>
<tr><th>SN</th><th>Item</th><th>Description</th></tr>
<tr><td>1.</td><td>Name of the Project</td><td>Development of a Link / Connector Corridor connecting the National Highway-31 (NH-31), Varanasi Ring Road and the New National Highway along the River Varuna for Decongestion of Varanasi City from Km 0+000 to Km 19+420 (Total Length 43.218 Km including MCW/Flyover/Loop/Ramp-including) in the state of Uttar Pradesh on HAM Mode, is proposed in two packages.

Package-1: Package 1 from Km 0+000 to Km 11+744 (NH-31 to Phulwaria Junction). Total Length 28.498 Km including MCW/Flyover/Loop/Ramp.

Package-2: Package 2 from Km 7+926 to Km 18+560 (Phulwaria Junction to Kashi Railway Station). Total Length 14.720 Km including Loop/Ramp</td></tr>
<tr><td>2.</td><td>Type of PPP (BOT, BOOT, BOLT, OMT etc.)</td><td>Hybrid Annuity Mode (HAM)</td></tr>
<tr><td>3.</td><td>Location (State/District/Town)</td><td>State: Uttar Pradesh
Districts in State: Varanasi</td></tr>
<tr><td>4.</td><td>Sponsoring Authority</td><td>Ministry of Road Transport and Highways, Government of India</td></tr>
<tr><td>5.</td><td>Implementing Agency</td><td>National Highways Authority of India (NHAI)</td></tr>
<tr><td>6.</td><td>Details of structures</td><td>This corridor will offer seamless connectivity to major nodes including Lal Bahadur Shastri International Airport, Varanasi Junction, Varanasi Cantonment, Chauka Ghat, Sampurnanand Sanskrit Vishwavidyalaya, Kashi Railway Station.

Brief description of the project highway is as follows:
<table>
<tr><th>SN</th><th>Stretch</th><th>Packages</th><th colspan="2">Distance (Km.)</th><th>Status</th></tr>
<tr><td rowspan="3">1</td><td rowspan="3">Development of a Link / Connector</td><td rowspan="3">Package 1 from Km 0+000 to</td><td colspan="2">28.498</td><td rowspan="3">6-lane Greenfield</td></tr>
<tr><td>MCW</td><td>11.744</td></tr>
<tr><td>Start Ramp</td><td>3.454</td></tr>
</table></td></tr>
</table>

S N	Item	Description					
			Corridor connecting the National Highway-31 (NH-31), Varanasi Ring Road and the New National Highway along the River Varuna	Km 11+744	Loop & Ramp: 11.10 Flyover: 2.2		
		2		Package 2 from Km-11+744 to km-19+420	14.720 MCW: 7.676 Ramp: 7.044 (6-lane 4.106 Km & 4-lane 3.570)		6/4-lane Greenfield & Brownfield
			Total		43.218		

S N	Description of Item		Unit	Quantity (Pkg-I)	Quantity (Pkg-II)	Total
1	Length	Length of Project Highway	Km	11.744	7.676	19.42
		Length of Service Road (Both Sides)/ loop & Ramps	Km	14.554	7.044	21.598
		Flyover	Km	2.2	Nil	2.2
2	Lane Configuration & RoW	Lane Configuration	2/4/6	4 Lane	4 to 6 Lane	4 Lane
		Carriageway width	m	2x11.5 m	2x11.5/2x8m	2x11.5/2x8 m
		Length of Road – Green Field	Km	11.744	4.036	15.780
		Length of Road – Brown Field	Km	0	3.640	3.640

S N	Item	Description						
				Proposed RoW	m	45-60	30-80	30-80
		3	Grade Separated Structures	No. of Interchanges (At start point on NH-27)	Nos.	2	2	4
				VUP	Nos.	-	-	-
				LVUPs	Nos.	-	-	-
				MNB cum LVUP	Nos.	-	-	-
				SVUPs	Nos.	-	-	-
				MNB cum SVUP	Nos.	-	-	-
		4	ROB	ROB	No.	1	3	4
		5	Bridges & Culverts	No. of Major Bridges	Nos	2	3	5
				No. of Minor Bridges (MNB with varying spans)	Nos	-	-	-
				No. of Box Culverts (with varying Sizes)	Nos	-	-	-
				No. of Pipe Crossings (1x1.2m HPC at junction crossings)	Nos	-	-	-
		6	Facilities	Extension of Toll Plaza with 1 addition lane both side	Nos	-	-	-

SN	Item	Description						
				Minor Junctions	Nos	-	-	-
				Junctions below grade separators	Nos	-	-	-
				Bus Shelter (both sides put together)	Nos	-	-	-
		7	Protection Works	Toe/Retaining Wall length (both sides put together)	m	3.342 RS wall	1.210 RS wall	4.552 RS wall
				Thrie Beam Crash Barrier (Median side) (both sides put together)	Nos	-	-	-
				Boundary wall (both sides put together)	Nos	-	-	-

7.	Estimated capital costs with break-up under major heads of expenditure.

SN	Particulars	Pkg-1	Pkg-2	Total
		Amount In INR Cr.	Amount In INR Cr.	Amount (in INR Cr.)
1	Civil Construction Cost	2,833.74	1,731.59	4,565.33
2	Estimated Project Cost (EPC)	3,026.88	1,847.31	4,874.19
3	Bid Project Cost (BPC)	3,259.46	1,986.50	5,245.96
4	Total Capital Cost	6,784.53	4,213.79	10,998.32

S N	Item	Description
8.	Financial Viability	**Particulars** / **Package 1** / **Package 2** Equity IRR / 12% / 12% Project IRR / 9.62% / 9.52%
9.	Land Acquisition status and other clearances	

Package	Total land required (Ha)	Total Govt. land Available (Ha)	Total private land required (Ha)	LA Status		3G Status
				3A	3D	3G
Pkg-1	91.755	11.011	80.744	Draft 3A Submitted to CALA Office	Stage yet to come	Stage yet to come
Pkg-2	52.726	7.096	45.630	Draft 3A Submitted to CALA Office	Stage yet to come	Stage yet to come

SN	Department	Required Clearance & Approvals	Status
1	Forest Department	Divisional Forest Office	It has been concluded that no forest area comes along the project alignment.
2	Railway Department	NOCs for crossing tracks/near railway land	JFR was re-conducted on 22.05.2026. The CAD plan has been requested and upon receipt of the same, the proposal will be forwarded by AEN (Railway) to Sr. DEN-III, Lucknow on 26.05.2026 for further action.
3	Utility Departments	NOCs for shifting power lines, water pipes, telecom lines	Domestic line estimates and HT draft estimates have been received. PIU has requested the departments concerned to submit the final utility shifting estimates at the earliest.
4	Irrigation Department	For Irrigation	NOC received

S N	Item	Description			
		5	Defence/ Cantonment Board	Cantonment area identification and approval for crossing the cantonment area	Field survey has been completed. Online process going on with DEO, Prayagraj.
		6	IWAI / Central Water Commission (CWC)	Flood management, river training works, embankment design approvals	NOC not required as no piers is proposed in Varuna River.
		7	Ganga Pollution Prevention Unit	Sewer and drain water data	Initial Site visit has been carried out. Had Successful meeting Sh. Anup Singh (GM) Jal Nigam and requested for there official data on 07.02.2026
		8	NMCG (National Mission for Clean Ganga)	NOC to be taken	Letter issued from PIU Office. Required data and site visit are pending.
		9	Gail/IOCL/BPCL/HPCL	NOC to be taken	Online application started; documents upload are under Progress.
		10	Environmental Impact Assessment (EIA)	Gas pipe line data	Site visit has been completed with GAIL. Estimate has been provided for gas pipe line shifting.
		11	Archaeological Survey of India (ASI)	Environmental data	Empanelled consultant for environmental clearances appointed. The process will be initiated after obtaining NOC from the Forest Department.

S N	Item	Description			
		12	Archaeological Survey of India	Formal NOC to be taken	No area coming under ASI.
10.	Concession Agreement	The project is proposed to be implemented as per the latest HAM Model Concession Agreement uploaded on MoRTH web site			
11.	Bidding process	Single Stage two-part system of bidding			
12.	Bidding parameter	Lowest bid project cost			

2. The Member, NHAI, stated that the proposed Varuna Elevated Corridor Project involves the development of a link/connector corridor connecting National Highway-31 (NH-31), the Varanasi Ring Road, and the new National Highway along the River Varuna to facilitate decongestion of Varanasi city. The project is proposed to be implemented under the Hybrid Annuity Model (HAM) and comprises a total corridor length of 43.218 km, including the main carriageway, flyovers, loops, ramps, and link roads. The elevated corridor has been conceptualized as a high-capacity urban mobility solution to streamline traffic movement, reduce bottlenecks, minimize interference with at-grade traffic, and provide faster, congestion-free travel across densely populated areas of the city.
3. The Member, NHAI, further explained that the project has been divided into two implementation packages. Package-I extends from NH-31 to Phulwaria Junction from Km 0.000 to Km 11.744 and has a total project length of 28.498 km, comprising 11.744 km of six-lane main carriageway, 3.454 km of start ramps, 11.10 km of loops and ramps, and 2.20 km of flyovers. Package-II extends from Phulwaria Junction to Kashi Railway Station from Km 11.744 to Km 19.420 and has a total project length of 14.720 km, comprising 7.676 km of main carriageway and 7.044 km of ramps, including both six-lane and four-lane sections. The corridor will provide seamless connectivity to major transportation and institutional nodes, including Lal Bahadur Shastri International Airport, Varanasi Junction, Varanasi Cantonment, Chauka Ghat, Sampurnanand Sanskrit Vishwavidyalaya, and Kashi Railway Station.

4. The Member, NHAI, specified that comprehensive traffic studies and diversion analyses have been undertaken to assess the project's technical viability and future demand. The primary objective of the proposed highway is to ensure faster and congestion-free transportation while improving connectivity between key urban destinations. The base-year traffic projection for the project is estimated at approximately 24,782 Passenger Car Units (PCU) per day in 2026 and is expected to increase to approximately 72,484 PCU per day by 2048. Based on the projected traffic demand and level-of-service requirements,

a combination of four-lane and six-lane elevated carriageway sections has been recommended to accommodate future growth and ensure efficient traffic operations throughout the concession period.

5. The Member, NHAI, mentioned that the project is proposed to be implemented under an 18-year concession period for both Package-I and Package-II, comprising a construction period of three years followed by an Operations and Maintenance (O&M) period of fifteen years. The estimated project cost for both packages combined is INR 4,874.19 crore, including pre-operative expenses, financing costs, and interest during construction. The financial assessment carried out for the project indicates a Project Internal Rate of Return (IRR) of 9.62% for Package-I and 9.58% for Package-II, demonstrating the financial viability of the project under the proposed HAM framework.
6. After the detailed presentation, the Chair asked the PPPAC members for their observations. DoLA and Department of Expenditure supported the proposal and stated that there were no further comments to offer.

7. The observations raised by the **PD, NITI Aayog** and the responses therein by MoRTH / NHAI are given below:

   i. **Given that the Varuna Corridor does not include specific project complexities (as was the case with cable-stayed bridge component in the Ganga corridor project), the rationale for dividing the project into two packages instead of being implemented as a single package may be clarified by PSA.**
   Response: The project traverses' dense urban areas and involves extensive elevated construction. Execution of each foundation location requires significant coordination with traffic authorities, utility agencies, local stakeholders, and residents. As a result, the project management complexity is substantially higher than that of a conventional highway project.
   By dividing the corridor into two packages of approximately ₹3,000 crore and ₹2,000 crore respectively, PSA aims to facilitate parallel construction activities, accelerate project delivery, and reduce implementation risk. This approach is particularly important given the objective of minimizing construction-related disruption in a congested urban environment.
   Further, the package sizes remain sufficiently large to attract established infrastructure developers and contractors with the requisite technical and financial capacity. Accordingly, the packaging strategy is intended to improve execution efficiency while maintaining robust market competition.

   ii. **Given the size and scale of the project, the measures being considered by PSA to mitigate excessive concentration of project execution with a single bidder may be detailed.**

   Response: While it is possible for a single bidder to emerge as the lowest bidder across multiple packages, the likelihood of such scenario is considered relatively low

given the diverse scale, complexity, and resource requirements associated with these urban infrastructure projects.

Nevertheless, PSA recognizes the importance of diversifying execution risk and ensuring timely project delivery. Accordingly, suitable bid conditions are proposed to be incorporated in the RFP to prevent excessive concentration of awards with a single contractor.

Under the proposed framework, a bidder may be restricted from being awarded more than a specified number of packages. In the event that the same bidder emerges as the lowest bidder (L1) for multiple packages, provisions may be applied requiring the bidder to retain only one package, with the remaining package(s) being awarded in accordance with the prescribed bidding methodology.

Such an approach has precedent in other major national infrastructure projects and is intended to promote broader participation (7-8 bidders), reduce execution risk, ensure adequate deployment of resources across packages, and improve the overall likelihood of timely project completion.

iii. **In comparison to the Ganga Corridor which has been primarily conceived as a tourism-oriented and riverfront enhancement project, the Varuna Corridor appears to have a greater number of junctions and access points it being intended principally for traffic decongestion. PSA may explain reason for the same.**

Response: The difference in the number of junctions and access points is primarily a function of the land use characteristics and connectivity requirements along the respective corridors, rather than their overarching project objectives.

The Ganga Corridor traverses areas with relatively fewer habitations and development nodes along its alignment. Consequently, the requirement for intermediate junctions and access points is limited, allowing the corridor to function with fewer interruptions while preserving its intended character as a riverfront-oriented facility.

In contrast, the Varuna Corridor has been designed to address urban mobility and traffic decongestion objectives. As it serves areas with greater development intensity and interfaces with a larger number of existing road networks, a higher number of junctions and connectivity points are necessary to effectively distribute traffic and maximize the corridor's utility for local and through movements.

8. The observations raised by the **Chair** and the responses therein by MoRTH / NHAI are given below:

i. **The alignment of Package-I of the elevated corridor appears to follow a non-linear path, with sections running on both sides of the corridor before converging at a common point. PSA may explain the need for such alignment configuration.**

Response: For a significant portion of its length, the alignment follows the course of the Varuna River, which provides a logical and practical corridor for the proposed infrastructure. As the alignment approaches more densely developed urban areas, the availability of right-of-way becomes increasingly constrained. Consequently, the corridor has been routed through locations where sufficient space is available, while minimizing land acquisition requirements, impacts on existing developments, and disruption to urban activities.

In addition, the alignment has been designed to provide connectivity to important destinations along the corridor. For example, a dedicated spur connection has been incorporated to serve the Sampurnanand Sanskrit University area.

Accordingly, the alignment is based on the geographic, urban, and land-use constraints encountered along the corridor, while balancing connectivity, constructability, and implementation considerations.

ii. **Is tolling proposed for this project? If so, what is the expected tollable traffic for the project?**

Response: Tolling is at present not envisaged in this project. However, tolls can be collected near airport location from through traffic and from users seeking a faster and more efficient alternative to existing routes using MLFF method.

Recommendations

9. After detailed deliberations, the PPPAC unanimously recommended the proposal for "Development of a Link / Connector Corridor connecting National Highway-31 (NH-31) and Varanasi Ring Road, along River Varuna for decongestion of Varanasi City from Km 0+000 to Km 19+420 (Total Length: 43.218 Km including MCW/Flyover/Loop/Ramps/Link Roads) in the State of Uttar Pradesh on HAM basis" for consideration of the Competent Authority for giving Administrative Approval, subject to following recommendations:

   i. The appraised Estimated Project Cost excluding GST is Rs. 4,874.19 crore for both the packages. The EPC for Package-I is Rs.3026.88 Cr and for Package-II is Rs.1847.31 Cr.
   ii. The appraised Total Capital Project of the project is Rs. 10998.32 Cr. The TCC for Package-I is Rs.6784.53 Cr and for Package-II is Rs.4213.79 Cr.
   iii. The project should be taken up on HAM under NH(O).
   iv. Both the projects shall have a concession period of 18 years including three years construction period each.
   v. The PPPAC recommends that the proposed corridor may be tolled for the traffic using the entire Main Carriageway (MCW) corridor at Start/ end point of corridor as integrated tolling with Ring road at ratres applicable for given section of the ring road.

vi. MoRTH should take up bidding process in such a way that the same bidder shall not be awarded more than one package in the Ganga as well as the Varuna projects, considering the complexity and uniqueness of each package.

vii. The cost towards acquisition of land required for the spurs/ramps shall be borne by the State Government. The same has also been agreed by the representatives of the State Government present during the meeting.

viii. Environment Clearance and other necessary clearances to be obtained in a time bound manner before the bid due date as to avoid and delay in the project.

10. 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 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 MoRTH as the case may be, without any further need of revalidation by the PPPAC and shall proceed with the approval process accordingly.

Annexure-I

List of the attendees of the 146th meeting of the PPPAC for considering two road project proposals by Ministry of Road Transport & Highways.

a. Department of Economic Affairs

1. Ms. Anuradha Thakur, Secretary
2. Ms. Laya Madduri, Joint Secretary (ISD)
3. Ms. Arya BK, Joint Director (PIU)
4. Ms. Shraddha, Assistant Director (PIU)
5. Shri Shyam Shankar, SO (PIU
6. Shri Manjeet Yadav, ASO (PIU)
7. Shri Deepak Meena, ASO (PIU)

b. Department of Expenditure

1. Ms. Rashmi, DS *(joined via VC)*
2. Shri. Sumit Kumar, ASO

c. NITI Aayog

1. Sh. Partha Sarathi Reddy, Program Director

d. Department of Legal Affairs

1. Ms. Prerna, Assistant Legal Adviser

e. Ministry of Road Transport & Highways

1. Shri. V. Umashankar, Secretary
2. Shri. Puneet Aggarwal, AS&FA
3. Shri. Manoj Kumar, CE(BP&SP)

f. National Highway Authority of India

1. Shri. Vishal Chauhan, IAS – Member (Admin)
2. Shri. Navin Kumar – CGM (Tech.), UP/MP
3. Shri. Manoj Kumar Sharma – GM (Tech.), UP (East)
4. Shri. Piyush Kumar Srivastav – Manager (Tech.)

g. Government of Uttar Pradesh

1. Shri. Bhawani Singh Khangarot, IAS, Secretary to UP Government, Finance Dept.
2. Shri Ajay Chauhan, Principal Secretary, Public Works Department, UP *(joined via VC)*
3. Shri S. Rajalingam, Commissioner, Varanasi Division *(joined via VC)*

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