

**Prepared for:**  
**Highways Infrastructure Trust ("The Trust")**

**Highway Concessions One Private Limited**  
**("The Investment Manager")**

**Fair Enterprise Valuation**

**Valuation Date: 31<sup>st</sup> December 2024**

**Report Date: 25<sup>th</sup> January, 2025**

**Mr. S Sundararaman,**  
**Registered Valuer,**  
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**Phone No: +91 97909 28047**  
**GST No: 33AHUPS0102L1Z8**

RV/SSR/R/2025/25

Date: 25<sup>th</sup> January 2025**Highways Infrastructure Trust**

601-602, 6<sup>th</sup> Floor, Windsor House,  
Off CST Road, Kalina,  
Santacruz (East), Mumbai – 400 098

**Highway Concessions One Private Limited***(acting as the Investment Manager to Highways Infrastructure Trust)*

601-602, 6<sup>th</sup> Floor, Windsor House,  
Off CST Road, Kalina,  
Santacruz (East), Mumbai – 400 098

**Sub: Fair Enterprise Valuation of H.G. Rewari Bypass Private Limited**

Dear Sir(s)/ Madam(s),

I, Mr. S. Sundararaman ("**Registered Valuer**" or "**RV**" or "**I**" or "**My**" or "**Me**") bearing IBBI registration number IBBI/RV/06/2018/10238, have been appointed vide letter dated 20<sup>th</sup> September, 2024 as an independent valuer by **Highway Concessions One Private Limited** ("**HC One**" or "**the Investment Manager**") acting as the Investment manager for **Highways Infrastructure Trust** ("**the Trust**" or "**Highways InvIT**"), an infrastructure investment trust, registered with the **Securities Exchange Board of India** ("**SEBI**") with effect from 23<sup>rd</sup> December 2021, bearing registration number IN/InvIT/21-22/0019 and set up under the **SEBI (Infrastructure Investment Trusts) Regulations, 2014, as amended** ("**SEBI InvIT Regulations**") , for the purpose of the valuation of H.G. Rewari Bypass Private Limited (road asset in Haryana), a special purpose vehicle (hereinafter referred as "**the SPV**"). The SPV to be valued is proposed to be transferred to the Trust ("**Proposed Transaction**").

I am enclosing the Report providing opinion on the fair enterprise value of the SPV as defined hereinafter on a going concern basis as at 31<sup>st</sup> December 2024. ("**Valuation Date**").

Enterprise Value ("**EV**") is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash and cash equivalents to meet those liabilities. The attached Report details the valuation methodologies used, calculations performed and the conclusion reached with respect to this valuation.

I was further requested by the Investment Manager to provide the adjusted enterprise value of the SPV as at 31<sup>st</sup> December, 2024.

I have relied on explanations and information provided by the Investment Manager. Although, I have reviewed such data for consistency, those are not independently investigated or otherwise verified. My team and I have no present or planned future interest in the Trust, the SPV or the Investment Manager except to the extent of this appointment as an independent valuer and the fee for this Valuation Report ("**Report**") which is not contingent upon the values reported herein. The valuation analysis should not be construed as investment advice, specifically, I do not express any opinion on the suitability or otherwise of entering into any financial or other transaction with the Trust.

The analysis must be considered as a whole. Selecting portions of any analysis or the factors that are considered in this Report, without considering all factors and analysis together could create a misleading view of the process underlying the valuation conclusions. The preparation of a valuation is a complex process and is not necessarily susceptible to partial analysis or summary description. Any attempt to do so could lead to undue emphasis on any particular factor or analysis.

The Trust is proposing to undertake a fair enterprise valuation of the following SPV:

<b>Sr. No.</b>	<b>Name of the SPV</b>	<b>Abbreviation</b>	<b>Asset Type</b>	<b>PCOD</b>
1	H.G. Rewari Bypass Private Limited	HGRBPL	HAM	25 <sup>th</sup> May 2023

The information provided to me by the Investment Manager in relation to the SPV included but is not limited to historical financial statements, forecasts/projections, other statements and assumptions about future matters like forward-looking financial information prepared by the Investment Manager. The forecasts and projections as supplied to me are based upon assumptions about events and circumstances which are yet to occur.

By nature, valuation is based on estimates and it includes the risks and uncertainties relating to the events occurring in the future. Accordingly, the actual figures in future may differ from these estimates and may have a significant impact on the valuation of the SPV.

I have not tested individual assumptions or attempted to substantiate the veracity or integrity of such assumptions in relation to the forward-looking financial information, however, I have made sufficient enquiry to satisfy myself that such information has been prepared on a reasonable basis.

Notwithstanding anything above, I cannot provide any assurance that the forward looking financial information will be representative of the results which will actually be achieved during the cash flow forecast period. The valuation provided by RV and the valuation conclusion are included herein.

Please note that all comments in the Report must be read in conjunction with the caveats to the Report, which are contained in Section 10 of this Report. This letter, the Report and the summary of valuation included herein can be provided to Trust's advisors to the extent required for the Proposed Transaction only.

RV draws your attention to the limitation of liability clauses in Section 10 of this Report.

This letter should be read in conjunction with the attached Report.

Yours faithfully,

SWAMINATHA N  
SUNDARARAMAN  
AN

Digitally signed by  
SWAMINATHAN  
SUNDARARAMAN  
Date: 2025.01.25  
20:31:35 +05'30'

**S. Sundararaman**

Registered Valuer

IBBI Registration No.: IBBI/RV/06/2018/10238

Asset Class: Securities or Financial Assets

Place: Chennai

UDIN: 25028423BMOMWY6280

**Definition, abbreviation & glossary of terms**

Abbreviations	Meaning
Capex	Capital Expenditure
CCIL	Clearing Corporation of India Limited
CCM	Comparable Companies Multiples
COD	Commercial Operation Date
CTM	Comparable Transactions Multiples
DBOT	Design, Build, Operate and Transfer
DCF	Discounted Cash Flow
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ERP	Equity Risk Premium
EV	Enterprise Value
FCFF	Free Cash Flow to the Firm
FDI	Foreign Direct Investment
FY	Financial Year Ended 31 <sup>st</sup> March
GoG	Government of Gujarat
GQ	Golden Quadrilateral
HAM	Hybrid Annuity Mode
HGBRBPL	M/s H.G. Rewari Bypass Private Limited
INR	Indian Rupees
Investment Manager/HC One	Highway Concessions One Private Limited
IVS	ICAI Valuation Standards 2018
Kms	Kilometers
MoRTH	Ministry of Road Transport and Highways
MMR	Major Maintenance and Repairs
Mn	Million
NAV	Net Asset Value Method
NH	National Highway
NHAI	National Highways Authority of India
O&M	Operation & Maintenance
PCOD	Provisional Commercial Operations Date
PM	HC One Project Manager Private Limited
PPP	Public Private Partnership
RFID	Radio Frequency Identification
RV	Registered Valuer
SEBI	Securities and Exchange Board of India
SEBI InvIT Regulations	SEBI (Infrastructure Investment Trusts) Regulations, 2014, as amended
Sponsor/Galaxy	Galaxy Investments II Pte. Limited
SPV	Special Purpose Vehicle
Trustee	Axis Trustee Services Limited
Trust	Highways Infrastructure Trust
WACC	Weighted Average Cost of capital

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# 1. Executive Summary

## 1.1. Background

### The Trust

- 1.1.1. Highways Infrastructure Trust (**“the Trust” or “InvIT”**) was established on 3<sup>rd</sup> December 2021 as an irrevocable trust pursuant to the trust deed under the provisions of the Indian Trusts Act, 1882. The Trust is registered as an Indian infrastructure investment trust with the Securities and Exchange Board of India (**“SEBI”**) with effect from 23<sup>rd</sup> December 2021, bearing registration number IN/InvIT/21-22/0019, pursuant to the SEBI (Infrastructure Investment Trusts) Regulations, 2014, as amended from time to time (**“the SEBI InvIT Regulations”**).
- 1.1.2. The units of the Trust were listed on NSE in August 2022 by way of an initial offer of units consisting of a private placement. The object and purpose of the Trust, as described in the Trust Deed, is to carry on the activity of an infrastructure investment trust as permissible under the InvIT Regulations to raise funds through the Trust, to make investments in accordance with the InvIT Regulations and the investment strategy and to carry on the activities as may be required for operating the Trust, including incidental and ancillary matters thereto.
- 1.1.3. The InvIT is currently involved in owning, operating and maintaining a portfolio of 13 road projects (and 1 more expected to be closed in January 2025) in the Indian states of Gujarat, Madhya Pradesh, Andhra Pradesh, Telangana, Meghalaya, Haryana, Karnataka, Tamil Nadu and Rajasthan pursuant to the concessions granted by the National Highways Authority of India (**“NHAI”**), Ministry of Road Transport and Highways, Madhya Pradesh Road Development Corporation Limited (**“MPRDC”**), Government of Gujarat (**“GoG”**).
- 1.1.4. The unit holding of the Trust as on 31<sup>st</sup> December, 2024 is as follows :

Sr. No.	Particulars	No. of units	%
1	Galaxy Investments II Pte. Ltd.	42,05,86,295	52.21%
2	Nebula Asia Holdings II Pte. Ltd	18,06,06,060	22.42%
3	2452991 Ontario Limited	16,03,58,111	19.91%
4	Manipal Education and Medical Group India Private Limited	3,03,03,030	3.76%
5	Others	1,37,35,046	1.70%
<b>Total</b>		<b>80,55,88,542</b>	<b>100.00 %</b>

Source: Investment Manager

### The Sponsor

- 1.1.5. Galaxy Investments II Pte. Ltd., Singapore (**“the Sponsor” or “Galaxy”**) has sponsored an infrastructure investment trust under the SEBI InvIT Regulations called **“Highways Infrastructure Trust”** (**“Highways InvIT” or “the Trust”**). Galaxy was incorporated on 11<sup>th</sup> June 2021 in Singapore. Galaxy is involved in investment activities primarily with an objective of earning long term capital appreciation. Galaxy seeks to invest in companies incorporated in India that operate in the infrastructure sector.
- 1.1.6. Galaxy is a 100% subsidiary of Galaxy Investments Pte. Ltd., which is majorly owned and controlled by KKR Asia Pacific Infrastructure Holdings Pte. Ltd. (**“KKR”**) Galaxy is affiliated with funds, vehicles and/or entities managed and/or advised by affiliates of KKR.
- 1.1.7. Founded in 1976, KKR is a leading global investment firm that offers alternative asset management and capital markets and insurance solutions with approximately US\$ 624 billion of assets under management as of 30<sup>th</sup> September 2024 that offers alternative asset management as well as capital markets and insurance solutions.
- 1.1.8. Axis Trustee Services Limited (**“the Trustee”**) has been appointed as the Trustee of the Trust. Highway Concessions One Private Limited (**“HC One” or “the Investment Manager”**) has been appointed as the Investment Manager of the Trust by the Trustee and will be responsible to carry out the duties of such person as mentioned under the SEBI InvIT Regulations.

### The Investment Manager and the Project Manager

1.1.9. Highway Concessions One Private Limited is the current Investment Manager of the Trust. Simultaneously, the Trustee appointed HC One Project Manager Private Limited as the project manager of the Trust.

1.1.10. Shareholding Pattern of the Investment Manager as at 31<sup>st</sup> December, 2024 is as follows:

Sr. No.	Particulars	No. of shares	%
1	Galaxy Investments II Pte. Ltd.	3,76,47,288	60.50 %
2	Nebula Asia Holdings II Pte. Ltd.	1,24,45,385	20.00%
3	2743298 ONTARIO LIMITED	1,21,34,251	19.50%
4	Vidyadhar S. Dabholkar*	1	0.00 %
<b>Total</b>		<b>6,22,26,925</b>	<b>100.00 %</b>

*\*as a nominee of Galaxy Investments II Pte. Ltd.*

*Source: Investment Manager*

1.1.11. Shareholding Pattern of the Project Manager as at 31<sup>st</sup> December, 2024 is as follows:

Sr. No.	Particulars	No. of shares	%
1	Highway Concessions One Private Limited	99,999	100.00 %
2	Vidyadhar S. Dabholkar*	1	0.00 %
<b>Total</b>		<b>1,00,000</b>	<b>100.0 %</b>

*\* as a nominee of Highway Concessions One Private Limited*

*Source: Investment Manager*

1.1.12. I understand that the Investment Manager is proposing to undertake a fair enterprise valuation of the SPV's as on 31<sup>st</sup> December, 2024 for the purpose of acquiring HGRBPL. In this regards, I have been mandated to determine the fair enterprise value of the SPV as on 31<sup>st</sup> December, 2024.

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## Scope and Purpose of Valuation

### 1.2. Financial Asset to be Valued

The financial asset under consideration to be valued at Enterprise Value is the following:

Sr. No.	Name of the SPV	Abbreviation
1	H.G. Rewari Bypass Private Limited	HGRBPL

(Hereinafter referred to as "**the SPV**")

### 1.3. Purpose of Valuation

I understand that the Investment Manager is proposing to undertake a fair enterprise valuation of the SPV as on 31<sup>st</sup> December, 2024 for the purpose of their internal evaluation.

In this regard, the Investment Manager and the Trustee have appointed Mr. S. Sundararaman ("Registered Valuer" or "RV" or "I" or "My" or "Me") bearing IBBI registration number IBBI/RV/06/2018/10238 to undertake the fair valuation at the enterprise level of the SPV's as at 31<sup>st</sup> December, 2024.

Registered Valuer declares that:

- The RV is independent and has prepared the Valuation Report ("the Report") on a fair and unbiased basis;
- RV has valued the SPV's in accordance with Valuation Standards issued by the Institute of Chartered Accountants of India;

### 1.4. The valuation of the SPV is impartial, true and fair.

### 1.5. Nature of the Asset to be Valued

The RV has been mandated by the Investment Manager to arrive at the Enterprise Value ("EV") of the SPV's. Enterprise Value is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash and cash equivalents to meet those liabilities.

### 1.6. Valuation Base

Valuation Base means the indication of the type of value being used in an engagement. In the present case, I have determined the fair value of the SPV's at the enterprise level. Fair Value Bases defined as under:

#### Fair Value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the valuation date. It is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique. Fair value or Market value is usually synonymous to each other except in certain circumstances where characteristics of an asset translate into a special asset value for the party(ies) involved.

### 1.7. Valuation Date

Valuation Date is the specific date at which the value of the assets to be valued gets estimated or measured. Valuation is time specific and can change with the passage of time due to changes in the condition of the asset to be valued. Accordingly, valuation of an asset as at a particular date can be different from other date(s).

The management seeks to determine the fair enterprise valuation of the SPV as on 31<sup>st</sup> December, 2024 ("**Valuation Date**"). The attached Report is accordingly drawn up by reference to accounting and financial information as on 31<sup>st</sup> December, 2024. The RV is not aware of any other events having occurred since 31<sup>st</sup> December, 2024 till date of this Report which he deems to be significant for his valuation analysis.

### 1.8. Premise of Value

Premise of Value refers to the conditions and circumstances how an asset is deployed. In the present case, RV has determined the fair enterprise value of the SPV's on a Going Concern Value defined as under:

#### Going Concern Value

Going Concern value is the value of a business enterprise that is expected to continue to operate in the future. The intangible elements of going concern value result from factors such as having a trained work force, an operational plant, necessary licenses, systems, and procedures in place etc.



### 1.9. Summary of Valuation

I have assessed the fair enterprise value of the SPV's on a standalone basis by using the Discounted Cash Flow ("DCF") method under the income approach. Following table summarizes my explanation on the usage or non usage of different valuation methods:

Valuation Approach	Valuation Methodology	Used	Explanation
Cost Approach	Net Asset Value	No	NAV does not capture the future earning potential of the business. Hence, NAV method is considered only for background reference.
Income Approach	Discounted Cash Flow	Yes	The revenue of the SPV is mainly derived from the annuity fees and O&M payments that is typically pre-determined with the relevant government authority and cannot be modified to reflect prevailing circumstances, other than annual adjustments to account for inflation and interest rate changes as applicable, as specified in the concession agreement.  Accordingly, since the SPV is generating income based on pre-determined agreements / mechanism and since the Investment Manager has provided me the financial projections for the balance tenor of the concession agreement, DCF Method under the income approach has been considered as the appropriate method for the present valuation exercise.
Market Approach	Market Price	No	The equity shares of the SPV are not listed on any recognized stock exchange in India. Hence, I was unable to apply the market price method.
	Comparable Companies	No	In the absence of any exactly comparable listed companies with characteristics and parameters similar to that of the SPV, I am unable to consider this method for the current valuation.
	Comparable Transactions	No	In the absence of adequate details about the Comparable Transactions, I was unable to apply the CTM method.

Under the DCF Method, the Free Cash Flow to Firm ("FCFF") has been used for the purpose of valuation of the SPV. In order to arrive at the fair EV of the SPV under the DCF Method, I have relied on Provisional Financial Statements as at 31<sup>st</sup> December, 2024 prepared in accordance with the Indian Accounting Standards (Ind AS) and the financial projections of the SPV prepared by the Investment Manager as at the Valuation Date based on their best judgement.

The discount rate considered for the SPV for the purpose of this valuation exercise is based on the Weighted Average Cost of Capital ("WACC") for the SPV. As the SPV under consideration has an executed project under the HAM model, the operating rights of the underlying assets shall be transferred back to the appointing authority after the expiry of the concession period. At the end of the agreed concession period, the operating rights in relation to the roads, the obligation to maintain the road reverts to the government entity that granted the concession by the SPV. Accordingly, terminal period value i.e. value on account of cash flows to be generated after the expiry of concession period has not been considered. Based on the methodology and assumptions discussed further, RV has arrived at the fair enterprise value of the SPV as on the Valuation Date:

INR Mn				
Sr. No.	SPV	WACC	Enterprise Value	Adjusted Enterprise Value
1	HGRBPL	7.58%	3,252	3,478
<b>Total</b>			<b>3,252</b>	<b>3,478</b>

(Refer Appendix 1 & 2 for the detailed workings)

Enterprise Value ("EV") is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash or cash equivalents to meet those liabilities. The attached Report details the valuation methodologies used, calculations performed and the conclusion reached with respect to this valuation.

I was further requested by the Investment Manager to provide the adjusted enterprise value of the SPV as at 31<sup>st</sup> December 2024, where the adjusted enterprise value ("Adjusted EV") is derived as EV as defined above plus cash and current investments of the SPV as at 31<sup>st</sup> December, 2024.

- 1.10. The fair EV of the SPV is estimated using DCF method. The valuation requires Investment Manager to make certain assumptions about the model inputs including forecast cash flows, discount rate, and credit risk.
- 1.11. Valuation is based on estimates of future financial performance or opinions, which represent reasonable expectations at a particular point of time, but such information, estimates or opinions are not offered as predictions or as assurances that a particular level of income or profit will be achieved, a particular event will occur or that a particular price will be offered or accepted. Actual results achieved during the period covered by the prospective financial analysis will vary from these estimates and the variations may be material.
- 1.12. Accordingly, I have conducted sensitivity analysis on certain model inputs, the results of which are as indicated below:
  1. WACC by increasing / decreasing it by 0.5%
  2. WACC by increasing / decreasing it by 1.0%
  3. Expenses by increasing / decreasing it by 10%

#### Sensitivity Analysis of Enterprise Value

##### 1. Fair Enterprise Valuation Range based on WACC parameter (0.5%)

INR Mn							
Sr. No.	SPV	WACC +0.50%	EV	Base WACC	EV	WACC -0.50%	EV
1	HGRBPL	8.08%	3,183	7.58%	3,252	7.08%	3,323

##### 2. Fair Enterprise Valuation Range based on WACC parameter (1.0%)

INR Mn							
Sr. No.	SPV	WACC +1.00%	EV	Base WACC	EV	WACC -1.00%	EV
1	HGRBPL	8.58%	3,117	7.58%	3,252	6.58%	3,398

##### 3. Fair Enterprise Valuation Range based on Expenses parameter (10%)

INR Mn				
Sr. No.	SPV	EV at Expenses - 10%	EV at Base Expenses	EV at Expenses + 10%
1	HGRBPL	3,328	3,252	3,153

The above represents reasonable range of Fair Enterprise Valuation.

## 2. Procedures adopted for current valuation exercise

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- 2.1. I have performed the valuation analysis, to the extent applicable, in accordance with ICAI Valuation Standards 2018 (“**IVS**”) issued by the Institute of Chartered Accountants of India.
- 2.2. In connection with this analysis, I have adopted the following procedures to carry out the valuation analysis:
- 2.2.1. Requested and received financial and qualitative information relating to the SPV;
  - 2.2.2. Obtained and analyzed data available in public domain, as considered relevant by me;
  - 2.2.3. Discussions with the Investment Manager on:
    - Understanding of the business of the SPV – business and fundamental factors that affect its earning-generating capacity including strengths, weaknesses, opportunities and threats analysis and historical and expected financial performance;
  - 2.2.4. Undertook industry analysis:
    - Research publicly available market data including economic factors and industry trends that may impact the valuation;
    - Analysis of key trends and valuation multiples of comparable companies/comparable transactions, if any, using proprietary databases subscribed by me;
  - 2.2.5. Analysis of other publicly available information;
  - 2.2.6. Selection of valuation approach and valuation methodology/(ies), in accordance with IVS, as considered appropriate and relevant by me;
  - 2.2.7. Conducted physical site visit of the road stretch of the SPV;
  - 2.2.8. Determination of fair EV of the SPV on a going concern basis at the Valuation Date.

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### 3. Overview of InvIT and SPV

#### The Trust

- 3.1. Galaxy Investments II Pte. Ltd. is the Sponsor of the Trust. The Sponsor was incorporated on 11<sup>th</sup> June 2021 in Singapore. Galaxy is involved in investment activities primarily with an objective of earning long term capital appreciation. Galaxy seeks to invest in companies incorporated in India that operate in the “infrastructure” sector.
- 3.2. Galaxy is a 100% subsidiary of Galaxy Investments Pte. Ltd., which is majority owned and controlled by KKR Asia Pacific Infrastructure Holdings Pte. Ltd. Galaxy is affiliated with funds, vehicles and/or entities managed and/or advised by affiliates of KKR.
- 3.3. Founded in 1976, KKR is a leading global investment firm, with US\$624 billion in assets under management as of 30<sup>th</sup> September, 2024 that offers alternative asset management as well as capital markets and insurance solutions.
- 3.4. Following is the summary of the SPV, held under the trust including the date and cost of acquisition:

Sr. No.	SPV	Name	Stake Acquired	Acquisition Date	Acquisition Cost (INR Mn)
1	NBPL	Nirmal Private BOT Limited	100%	22 <sup>nd</sup> Aug, 2022	354
2	SEPL	Shillong Expressway Private Limited	100%	22 <sup>nd</sup> Aug, 2022	356
3	DBCPL	Dewas Bhopal Corridor Private Limited	100%	22 <sup>nd</sup> Aug, 2022	12,969
4	GEPL	Godhra Expressways Private Limited	100%	22 <sup>nd</sup> Aug, 2022	11,167
5	JPEPL	Jodhpur Pali Expressway Private Limited	100%	22 <sup>nd</sup> Aug, 2022	3,863
6	UEPL	Ulundurpet Expressways Private Limited	100%	22 <sup>nd</sup> Aug, 2022	3,005
7	UTPL	Udupi Tollway Private Limited	100%	02 <sup>nd</sup> Nov 2023	196
8	GRICL	Gujarat Road Infrastructure Company Limited	56.8%	24 <sup>th</sup> Jan, 2024	5,651*
9	STPL	Swarna Tollway Private Limited	100%	24 <sup>th</sup> Jan, 2024	20,727
10	BETPL	Bangalore Elevated Tollways Private Limited	100%	11 <sup>th</sup> Jun, 2024	119
11	GSHPL	Gurgaon Sohna Highway Private Limited	100%	21 <sup>st</sup> Nov 2023	844
12	RAHPL	Rewari Ateli Highway Private Limited	100%	21 <sup>st</sup> Nov 2023	758
13	ANHPL	Ateli Narnaul Highway Private Limited	100%	21 <sup>st</sup> Nov 2023	1,511
14	NTEPL	North Telangana Expressway Private Limited	100%	30 <sup>th</sup> Jan 2025*	66,610

*\*\*The Management has confirmed to me that the expected appointed date for NTEPL is 30<sup>th</sup> January, 2025.*

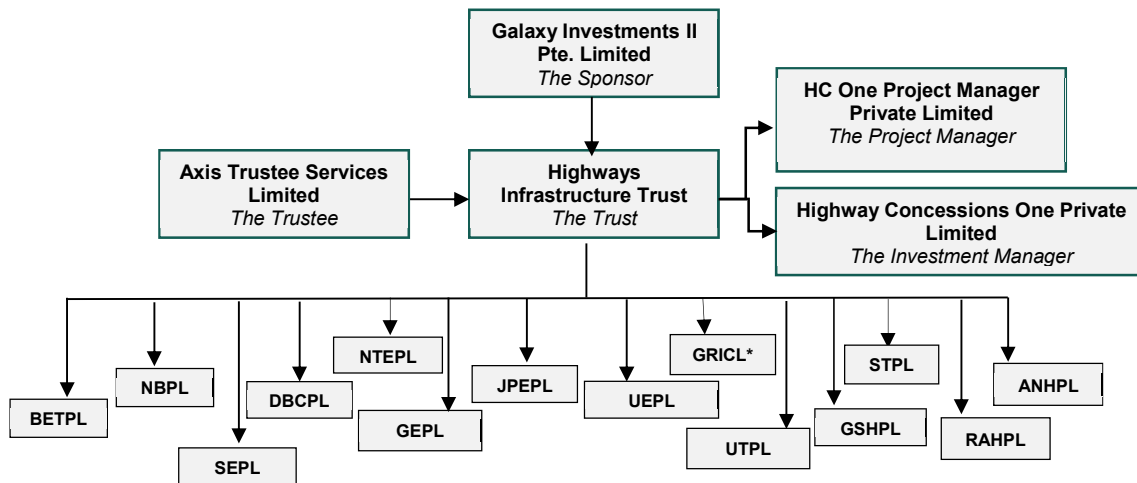
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3.5. Enterprise Valuation of the SPVs in the Previous Years (for existing projects of the InvIT):-

		INR Mn				
Sr. No.	SPVs	Mar-22	Mar-23	Mar-24	Sep-24	Nov-24
1	DBCPL	14,760	15,709	16,858	16,972	
2	GEPL	21,281	22,866	22,793	23,347	
3	JPEPL	8,628	8,018	5,565	5,607	
4	UEPL	5,423	4,484	3,533	3,493	
5	NBPL	1,362	1,104	944	1026	
6	SEPL	567	220	189	66	
7	UTPL			9,063	9,238	
8	GRICL *			12,312	12,873	
9	STPL			15,182	15,155	
10	ANHPL			4,485	4,160	
11	GSHPL			2,957	2,747	
12	RAHPL			2,743	2,529	
13	BETPL				2,276	
14	NTEPL					71,272
<b>Total</b>		<b>52,021</b>	<b>52,401</b>	<b>96,624</b>	<b>99,489</b>	<b>71,272</b>

\*The Trust holds 56.8% equity stake in GRICL

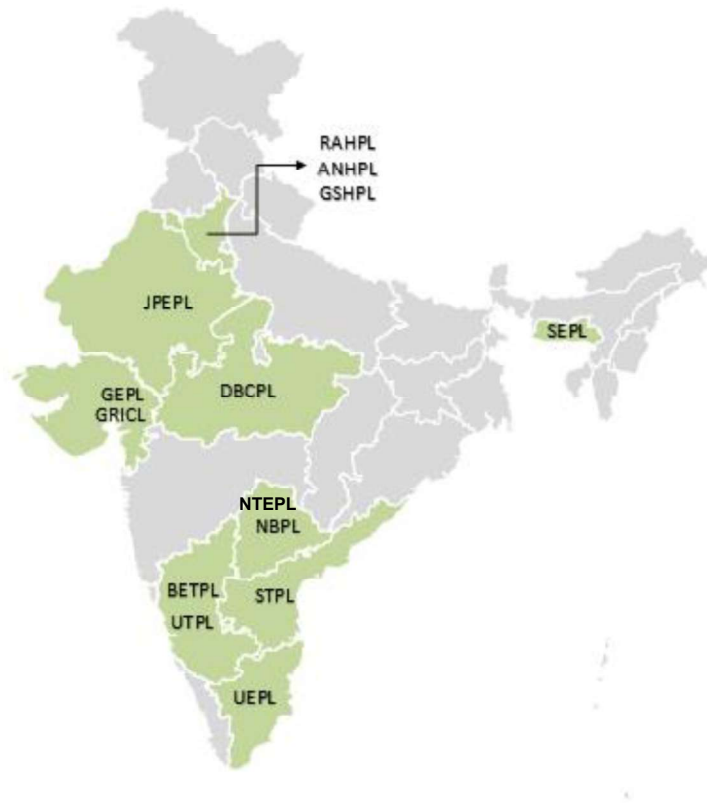
3.6. Following is the Structure of the Trust as on the report date.



\*The trust holds 56.8% equity stake in GRICL while the others are 100% held

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3.7. A map depicting the respective location of the existing projects of the Trust is provided below:



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## Background of the SPV

### H.G. Rewari Bypass Private Limited (“HGRBPL”)

- 3.8. H.G. Rewari Bypass Private Limited (HGRBPL) was incorporated on 1<sup>st</sup> May 2020. HGRBPL entered into a concession agreement dated 19<sup>th</sup> June, 2020 with NHAI. The HGRBPL project was awarded to HG Infra Engineering Limited by NHAI on 28<sup>th</sup> February, 2020 for 15 years of operation & maintenance period along with construction period of 730 days from the Appointed Date i.e. 15<sup>th</sup> January, 2021 of the HGRBPL Project.
- 3.9. The Project Road is a Section of NH-11 which is a Feeder Route for the Economic Corridor near Narnaul. The Project Road is a Bypass for the Rewari Town which starts from Design Ch. 0+000 and ends at Ch. 14+400. It consists of 2 nos. Interchange at design Ch. 0+000 & Ch. 14+390 and 2 nos. ROB at Ch. 8+543 & 12+627. The Project Road is a section which is heading towards the Industrial town of Narnaul. The Project Road has a length of 14.40 km.
- 3.10. The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

- 3.11. Summary of Project details of HGRBPL are as follows:

Parameters	Details
Total Length	14.4 Km
Nos. of Lanes	4
NH / SH	NH-11
State Covered	Haryana
Area (Start and End)	Rewari Bypass
Project Cost	INR 5,220 Mn
PPP Model	DBOT
Project Type	HAM
Concession Granted by	NHAI
PCOD Date	25 <sup>th</sup> May 2023
COD Date	N.A.
Concession Period	15 years from PCOD
Number of Annuities	30 bi-annual
Balance Completion Cost	INR 3,703 Mn
Operational period	15 years
Construction period	730 days

Source: Investment Manager

3.12. The salient features of the project are as follows:

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway with Flexible Pavement	14.4 Km
2	Total Length of Main Carriageway with Rigid Pavement	N.A.
3	Total length of Service Roads	7.4 Km
4	Toll Plaza	NIL
5	Bus Shelters	NIL
6	Bus Bays with Shelters	3
7	Truck Lay Bays	2
8	No of Rest Areas	NIL
9	Major Junction	NIL
10	Minor Junctions	NIL
11	No of Vehicular underpasses	5
12	No of Light Vehicular underpasses	3
13	No of Flyovers	4
14	Pedestrian/Cattle Underpass	10
15	Railway Over Bridge	2
16	Major Bridges	NIL
17	Minor Bridges	7
18	Box/Slab Culverts	NIL
19	Pipe Culverts	22

Source: Investment Manager

3.13. The shareholding of HGRBPL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	HG Infra Engineering Limited	14,38,065	100%
	<b>Total</b>	<b>14,38,065</b>	<b>100%</b>

Source: Investment Manager

I have been represented by the Investment Manager that there is no change in shareholding pattern from the Valuation Date till the date of this Report.

3.14. As represented by the Investment Manager, the Trust is contemplating to acquire 100% equity stake/ economic interest in the SPV from its present shareholder(s). Hence, , there is no related party transaction in accordance with Regulation 21(3) read with the applicable clause of Schedule V of the SEBI InvIT Regulations.

3.15. My team had conducted physical site visit for HGRBPL on 16<sup>th</sup> January, 2025. Following are the pictures of the plant site:





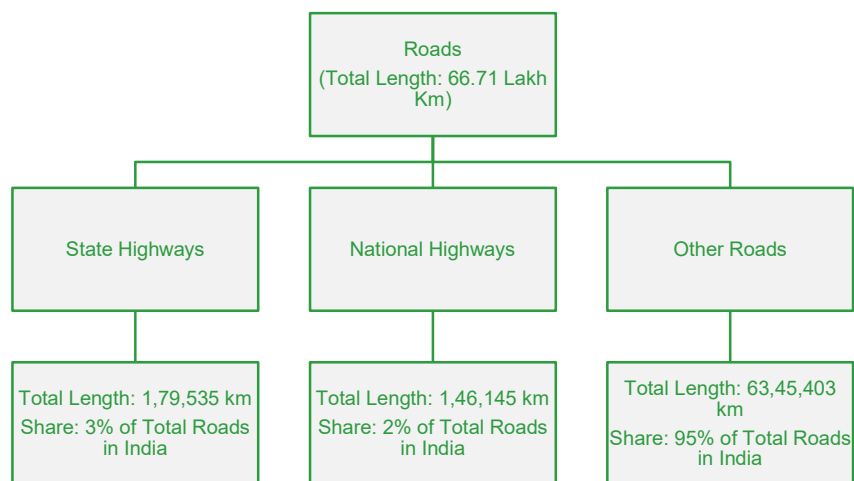
## 4. Overview of the Industry

### 4.1 Introduction

- 4.1.1 In the context of India's ambitious journey towards a 50,00,000 million dollar economy, the transport sector emerges as a pivotal player.
- 4.1.2 Creation and operation of quality road infrastructure continue to be major requirements for enabling overall growth and development of India in a sustained manner.
- 4.1.3 Bridging of existing infrastructure gaps and creating additional facilities to cater to the increasing population are equally important. Apart from providing connectivity in terms of enabling movement of passengers and freight, roads act as force multipliers in the economy.
- 4.1.4 Further, roads play a significant role in times of natural calamities, wars and other such events in terms of timely evacuation of the impacted population, carriage of relief material and other associated movements. Government takes cognisance of this requirement and road infrastructure remains to be a focus area.

### 4.2 Road Network in India

- 4.2.1 India has the second largest road network in the world, spanning over 6.67 million kms. Over 64.5% of all goods in the country are transported through roads, while 90% of the total passenger traffic uses road network to commute.



Source: MoRTH, Government of India

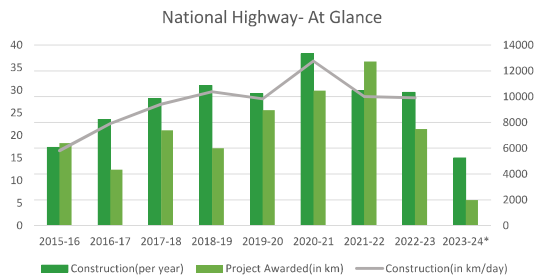
- 4.2.2 NHs constitute around 2 per cent of the total road network in the country but carry about 40% of the road traffic. The density of India's highway network at 1.89 km of roads per square kilometer of land – is similar to that of the France (1.98) and much greater than China's (0.49) or USA's (0.68).

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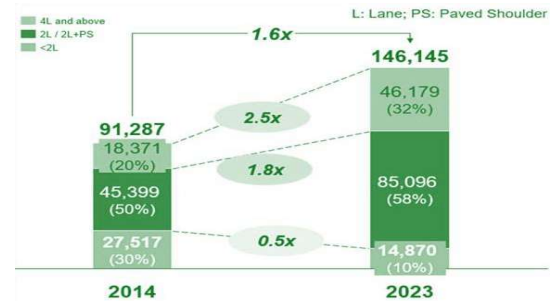
4.2.3 National Highway (NH) network increased by ~60% from 91,287 km in 2014 to 1,46,145 km in year 2024.

Year	Construction (per year)	Project Awarded (in km)	Construction (in km/day)
2015-16	6061	6397	16.6
2016-17	8231	4335	22.6
2017-18	9829	7400	26.9
2018-19	10855	6000	29.7
2019-20	10237	8948	28.1
2020-21	13327	10467	36.5
2021-22	10457	12731	28.6
2022-23	10331	7497	28.3
2023-24	~12,300	~2,500	34.0

Source: MoRTH, Government of India



Source: MoRTH, Government of India



### 4.3 Government Agencies for Road Development

- 4.3.1 The Ministry of Road Transport & Highway ("MoRTH") is responsible for development of Road Transport and Highways in general and construction & maintenance of National Highways.
- 4.3.2 The National Highways Authority of India ("NHAI") is an autonomous agency of the Government of India, set up in 1988 and is responsible for implementation of National Highways Development Project ("NHDP").
- 4.3.3 The NHDP in the context of NHs is nearing completion- in seven phases. Later, the other highway development programmes like Special Accelerated Road Development Programme for Development of Road Network in North Eastern States (SARDP- NE) and National Highways Interconnectivity Improvement Project (NHIIP) were also taken up by MoRTH. Further, Bharatmala Pariyojana is ongoing. For majority of the projects under NHDP and Bharatmala Pariyojana, NHAI is the implementation agency. Other NH related programmes/works are being implemented through agencies like National Highways Infrastructure Development Corporation Limited (NHIDCL), State Public Works Departments (PWDs), State Road Development Corporations and the Border Road Organization.
- 4.3.4 The National Highways Authority of India (NHAI) has made a big step towards improving the highway user experience, with the introduction of 'Rajmargyatra,' a citizen-centric unified mobile application. This user-friendly app provides travellers with in-depth knowledge of Indian National Highways as well as an effective procedure for filing complaints.
- 4.3.5 National Highways Authority of India (NHAI) has also recently introduced a 'Knowledge Sharing' platform for sharing of knowledge and innovative best practices. This effort, which is hosted on the NHAI website, will assist the authority in working with specialists and citizens who want to exchange knowledge and views about subjects including road design, construction, road safety, environmental sustainability, and related sectors. The platform will promote the exchange of best practices from all around the world and work to strengthen the nation's national highway system.

- 4.3.6 A total of 261 road projects under different Schemes of MoRTH with a total sanctioned cost of Rs. 1,02,594 crore (US\$ 12.33 billion) are under implementation through the National Highways Authority of India (NHAI), National Highways & Infrastructure Development Corporation Ltd. (NHIDCL), and State Public Works Departments (PWDs) in the North-Eastern States. The Ministry of Development of the North-Eastern Region, under the erstwhile North-East Road Sector Development Scheme (NERSDS) and the present North-East Special Infrastructure Development Scheme (NESIDS), has sanctioned a total of 77 road projects amounting to Rs. 3,372.58 crore (US\$ 405.5 million).
- 4.3.7 The Government of India has been consistently revising the Model Concession Agreement for BOT projects to plug delays by imposing a deadline on the NHAI and incentivising timely work by concessionaires. According to revised norms, the NHAI will have to hand over 90% of the project land (vacant and ready to build) to private developers, thus creating a more market-friendly sector and attracting more private players.
- 4.3.8 Roads in the jurisdiction of state governments are under different categories like State Highways ("SHs") and Major District Roads. They are being developed/ upgraded through State PWDs and State Road Development Corporations. Pradhan Mantri Gram Sadak Yojana is being implemented for rural roads through the Ministry of Rural Affairs with active participation by state governments. Further, roads within urban areas are maintained/ developed mostly with PWDs and Urban Local Bodies.
- 4.3.9 State Governments have a significant role to play in developing the SHs, Major District Roads, Other District Roads to ensure the last mile connectivity. States have varying levels of maturity in terms of road infrastructure development due to issues such as inadequate identification and prioritization of projects, funding shortfall, limited institutional capacity to implement projects, etc.

#### **4.4 Trend of Road and Highways Construction**

- 4.4.1 The current rate of road construction is almost three times that in 2007-08.
- 4.4.2 The launch of the Bharatmala Pariyojana in 2017 provided a big leap to construction activity, with the pace of construction doubling from 12 km per day in 2014-15 to 30 km per day in 2022-23, and peaking at 37 km per day in 2020-21.
- 4.4.3 Under Phase-I of Bharatmala Pariyojana, the Ministry has approved the implementation of 34,800 km of national highways in 5 years with an outlay of Rs. 5,35,000 crore (US\$ 76.55 billion). Under this scheme, 22 greenfield projects (8,000 km length) are being constructed; this is worth Rs. 3.26 lakh crore (US\$ 43.94 billion).
- 4.4.4 The government aims to take this up to 100 km per day in the next few years.
- 4.4.5 National Highway (NH) network increased by 60% from 91,287 km in 2014 to 1,46,145 km in year 2023
- 4.4.6 Length of 4 lanes and above NH increased by 2.5 times – 18,387 km (2014) to 46,179 km (Nov'23)
- 4.4.7 Length of less than 2 lane NH decreased from 30% (2014) to 10% (Nov'23)
- 4.4.8 Average pace of NH construction increased by 143% to 28.3 km/day from 2014
- 4.4.9 Expenditure is expected to increase by 9.4 times from 2014.
- 4.4.10 Out of 108 (3700 km) port connectivity road projects, 8 (294 km) are completed, 28 (1808 km) are awarded and DPR under-progress for 72 (1595 km) projects
- 4.4.11 With the Government permitting 100% Foreign Direct Investment (FDI) in the road sector, several foreign companies have formed partnerships with Indian players to capitalise on the sector's growth. Cumulative FDI inflows in construction development stood at US\$ 33.91 billion between April 2000 - March 2024.
- 4.4.12 The GST on construction equipment has been reduced to 18% from 28%, which is expected to give a boost to infrastructure development in the country.
- 4.4.13 The NHDP is a program to upgrade, rehabilitate and widen major highways in India to a higher standard. The project was started in 1998 to be implemented in 7 phases.
- 4.4.14 With the launch of Bharatmala project, 10,000 km of highway construction left under NHDP was merged with Phase I of the Bharatmala project.
- 4.4.15 The Indian government launched Gati Shakti-National Master Plan, which has consolidated a list of 81 high impact projects, out of which road infrastructure projects were the top priority. The major highway projects include the Delhi-Mumbai expressway (1,350 kilometres), Amritsar-Jamnagar expressway (1,257 kilometres) and Saharanpur-Dehradun expressway (210 kilometres).

- 4.4.16 The main aim of this program is a faster approval process by digitizing the process through a dedicated Gati shakti portal.
- 4.4.17 The development of market for roads and highways is projected to exhibit a CAGR of 36.16% during 2016-2025, on account of growing government initiatives to improve transportation infrastructure in the country.

#### 4.5 Implementation of important projects and expressways:

##### 4.5.1 Bharatmala Pariyojna

Bharatmala Pariyojana is a new umbrella program for the highways sector that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads and Green-field expressway.

The Bharatmala Pariyojana envisages development of about 26,000 km length of Economic Corridors, which along with Golden Quadrilateral (GQ) and North-South and East-West (NS-EW) Corridors are expected to carry majority of the Freight Traffic on roads.

In Bharatmala Pariyojana, 60% projects are on Hybrid Annuity Mode (HAM), 10% projects on BOT (Toll) Mode and 30% projects on EPC mode have been envisaged respectively.

Components under Bharatmala Pariyojana Phase-I are as given below:

Component	Length (Km)	Cost (INR Mn)
Economic corridors development	9,000	12,00,000
Inter-corridor & feeder roads	6,000	8,00,000
National Corridors Efficiency	5,000	10,00,000
Border & International connectivity	2,000	2,50,000
Coastal & port connectivity roads	2,000	2,00,000
Expressways	800	4,00,000
<b>Sub Total</b>	<b>24,800</b>	<b>38,50,000</b>
Other works - under NHDP	10,000	15,00,000
<b>Total</b>	<b>34,800</b>	<b>53,50,000</b>

Source: Ministry of Road Transport and Highways, Government of India

##### 4.5.2 Char Dham Vikas Mahamarg Pariyojna:

This project envisages development of easy access to the four dhams in India – Gangotri, Yamunotri, Kedarnath and Badrinath. Development of this route of 889 km route is expected at an estimated cost of INR 12,000 Crores.

##### 4.5.3 Eastern peripheral and western peripheral expressway

These two projects will connect NH-1 and NH-2 from western and eastern side of Delhi.

##### 4.5.4 NH-544G Bengaluru–Vijayawada Economic Corridor

Mr. Nitin Gadkari has recently approved the development of 32 km long 6-lane Access Controlled Greenfield Highway on NH-544G Bengaluru–Vijayawada Economic Corridor in Hybrid Annuity Mode in Andhra Pradesh worth US\$ 157 million (Rs. 1,292.65 crores).

##### 4.5.5 Setu Bharatam:

This project aims to replace crossings on NHs with Road Over Bridges and Road under Bridges. It is projected to construct 174 such structures.

##### 4.5.6 To further augment road infrastructure, more economic corridors are also being planned by Government of India.

- Prime Minister Mr. Narendra Modi has dedicated a six-lane Greenfield motorway part of the Amritsar-Jamnagar Economic Corridor and the first phase of the Inter-State Transmission Line for Green Energy Corridor.
- 1,100 km of National Highway works in the State of Kerala at an investment of INR 65,000 Crores including 600 km section of Mumbai Kanyakumari corridor in Kerala.

- c. 675 km of highway works in the state of West Bengal at a cost of INR 25,000 Crores including upgradation of existing road-Kolkata –Siliguri.
- d. In the Union Budget of 2024-25, the Government of India allocated Rs. 2.7 lakh crore (US\$ 32.68 Billion) to the Ministry of Road Transport and Highways.
- e. Up to FY24, the Ministry of Road Transport and National Highways had awarded a total length of 2,595 kms.

#### 4.6 Opportunities in road development & maintenance in India

- a. India has joined the league of 15 of global alliance which will work towards the ethical use of smart city technologies
- b. The Government aims to construct 65,000 kms of national highways at a cost of Rs. 53.5 lakh Mn (US\$ 741.51 billion).
- c. The government also aims to construct 23 new national highways by 2025.
- d. Road building in India is second least expensive in Asia.
- e. Andhra Pradesh will spend US\$ 296.05 million to build 8,970 kms of roads.

#### 4.7 Asset Monetisation

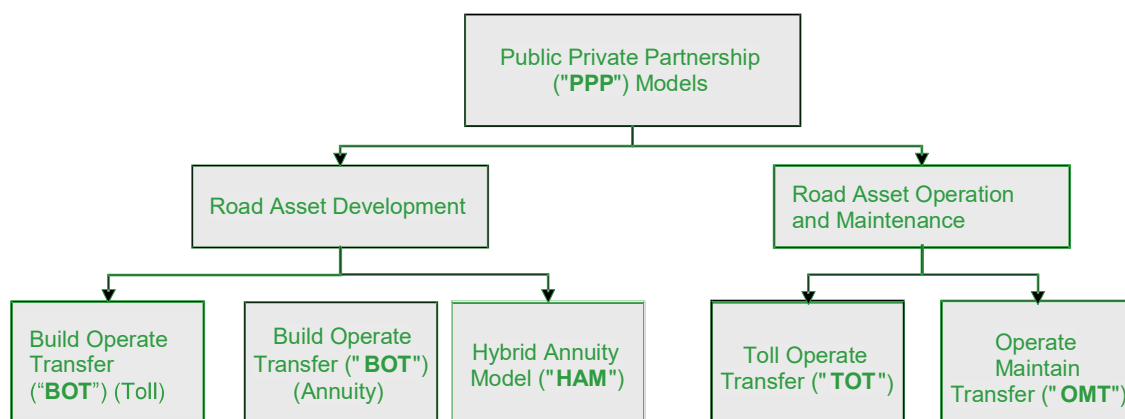
- 4.7.1 **TOT Model** – Under this model, the right of collection of user fee (toll) in respect of selected operational highways constructed through public funding are assigned through a concession agreement as a result of bidding for a specified period of 15-30 years to the Concessionaire against upfront payment of a lump-sum amount quoted to the Government/NHAI. During the concession period, the responsibility for operations and maintenance of the road assets rests with the Concessionaire.
- 4.7.2 **InvIT Model** – NHAI has set up an InvIT under the SEBI InvIT Regulations, 2014 which is a pooled investment vehicle that issues units to investors, while having three entities for management of the Trust – Trustee, Investment Manager and Project Manager. The three entities have defined roles and responsibilities under the SEBI Regulations.
- 4.7.3 **Securitization through SPV Model** – A SPV/DME (100% owned by NHAI), has been created by bundling road assets under consideration and securitizing the future user fee from the road assets. NHAI will collect tolls, maintain the road assets and periodically transfer payments to the SPV sufficient for servicing debt obligations at the SPV level. About Rs.3,70,000 Mn has already been raised through this method (DME- Delhi Mumbai Expressway) by NHAI so far.

#### 4.8 Utility Corridors

Working towards development of around 10,000 km of Optic Fibre Cables (OFC) infrastructure across the country by FY2024-25, National Highways Logistics Management Limited (NHLML), a fully owned Company of NHAI, is implementing the network of Digital Highways by developing integrated utility corridors along the National Highways to develop OFC infrastructure. Around 1,367 km on Delhi – Mumbai Expressway and 512 km on Hyderabad - Bangalore Corridor have been identified for the Digital Highway Development.

#### 4.9 Public Private Partnership (“PPP”) Models of road development and maintenance in India

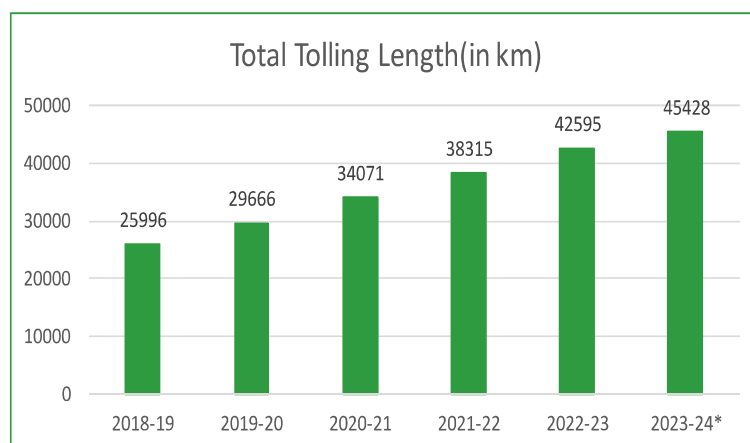
- 4.9.1 India has a well-developed framework for Public-Private-Partnerships (PPP) in the highway sector. PPP has been a major contributor to the success story of the roads and highway sector in India. With the emergence of private players over the last decade, the road construction market has become fragmented and competitive. Players bidding for projects also vary in terms of size. PPP modes have been used in India for both development and operation & maintenance of road assets.



#### 4.10 Road Asset Development Models

- BOT Toll**

In a BOT toll project, the concessionaire is responsible for designing, building, financing, operating, maintaining, tolling and transferring the project to the relevant authority at the end of the concession period. The concession period is project specific but is usually for 20-25 years. In BOT Toll model, the concessionaire earns revenue primarily in the form of toll revenue which in turns depends on the traffic on the road stretch. Toll rates are regulated by the government through rules.



- BOT Annuity**

Similar to a BOT Toll projects, is BOT Annuity project, the concessionaire is responsible for designing, building, financing, operating, maintaining, tolling and transferring the project to the relevant authority at the end of the concession period. However, in these projects, the right to collect toll on road stretch lies with the government. The concessionaire earns revenue in the form of pre-determined semi-annual annuity payments.

- HAM**

Similar to a BOT projects, in HAM project, the concessionaire is responsible for designing, building, financing, operating, maintaining and transferring the project to the relevant authority at the end of the concession period. However, in these projects, the right to collect toll on road stretch lies with the government. The construction period for HAM projects is project specific and a fixed operation period of 15 years.

#### 4.11 Major Events of 2023 and 2024

- In March 2024, Prime Minister Narendra Modi inaugurated and laid the foundation stone for 112 national highway projects across various states, with a total worth of approximately US\$ 12.04 billion (Rs. 1 lakh crore).
- The country's first elevated eight-lane access control Dwarka expressway of 29.6 km length is built at a cost of Rs. 1 lakh crore (US\$ 12.04 billion).
- In FY24 approximately 12,300 km of National Highways were constructed.
- Delhi-Vadodara Expressway: The Hon'ble Prime Minister dedicated to the nation 244.50 km long stretch of Delhi-Vadodara Expressway developed at a cost of about Rs. 1,18,950 Mn.
- The Hon'ble Prime Minister dedicated to the nation a road project 'four laning of 59 km long Suryapet to Khammam section of NH-365BB' built at a cost of about Rs.24,600 Mn.
- The Hon'ble Prime Minister laid the foundation stone of key road projects that are part of Nagpur -Vijayawada Economic Corridor.
- Foundation Stone laying for Karnataka Section of Six Lane Surat – Chennai Expressway (1270 Km)
- Hon'ble Prime Minister dedicated 118 km long Bengaluru-Mysuru Expressway to the nation and laid the foundation stone for the 92 km Mysuru-Kushalnagar 4-lane highway in Mandya, Karnataka
- Hon'ble Prime Minister inaugurated and laid the foundation stone of road projects worth about Rs.37,000 Mn at Chennai, Tamil Nadu.
- Hon'ble Prime Minister inaugurated and laid the foundation stones for upgradation of two lanes roads in Rajsamand and Udaipur.
- Foundation stones of five National Highway projects worth Rs. 64,000 Mn were laid in Raipur on 07<sup>th</sup> July 2023.

#### 4.12 Government Investment in the Sector

- 4.12.1 In the fiscal year 2024-25, the Indian government has allocated ₹2,78,000 crore to the Ministry of Road Transport and Highways, reflecting a commitment to enhancing the nation's road infrastructure. Of this, the National Highways Authority of India (NHAI) has been allocated ₹1,68,464 crore, maintaining the previous year's funding level. This substantial investment underscores the government's focus on expanding and upgrading the national highway network, including projects such as six-laning congested sections of the Golden Quadrilateral, developing roads in Naxal-affected areas, and improving last-mile connectivity through state Public Works Departments. These initiatives aim to boost economic growth, improve transportation efficiency, and enhance regional connectivity across the country.

#### 4.13 Growth Drivers

##### 4.13.1 Robust Demand :

Growing domestic trade flows have led to rise in commercial vehicles and freight movement; supported by rise in production of commercial vehicles which commands stronger road network in India. Higher individual discretionary spending has led to increased spending on two and four wheelers. Domestic sales of passenger vehicles, three-wheelers and two-wheelers, reached 3,069,499, 260,995, and 13,466,412 units, respectively. Road's traffic share of the total traffic in India has grown from 13.8% to 65% in freight traffic and from 32% to 90% in passenger traffic over 1951–2019.

##### 4.13.2 Increasing Investment :

Huge investment have been made in the sector with total investment increasing more than three times from 2014-15 to 2018-19. Plans are in place to raise up to INR 45,00,000 Mn through monetization, of which INR 3,00,000 Mn will be raised through ToT mode and INR1,50,000 Mn through InvITs. NHAI will bid out nearly 75% of new highway projects on PPP. Projects worth over INR 5000 Mn will preferably be executed through PPP mode.

##### 4.13.3 Policy Support :

100% FDI is allowed under automatic route subject to applicable laws and regulations, standardized process for bidding and tolling. Government of India has set up India Infrastructure Finance Company (IIFCL) to provide long-term funding for infrastructure projects.



#### **4.14 Challenges & Issues in the Sector**

##### **4.14.1 Land Acquisition Delays & Cost :**

- Land acquisition cost has increased more than 30% since 2017, primarily due to enhanced compensation payment requirements as per 'The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013'.
- Delay in pre-construction activities (such as land acquisition, relocation) affects project timelines. Land acquisition for road projects involves various stages. Each stage involves a number of stakeholders and regulatory bodies. Thus processes consume considerable time.

##### **4.14.2 Regulatory Approvals & Disputes :**

- Road development process requires a number of approvals such as environmental clearance, forest clearance, railways clearance, etc. Each of these activities takes considerable time and non-adherence to timelines result in cost overruns due to delays.
- Claims arising out of disputes between the concessionaire/ contractor and the government authorities are also a significant cost which can lead to large liabilities.

##### **4.14.3 Operational Issues :**

- Uncertainty of toll revenue collection and variation of collected toll revenue compared to projected levels as Actual traffic is much less than the anticipated traffic.
- Often unforeseen weather conditions require unplanned O&M, over and above the routine and periodic maintenance activities. This results in enhanced O&M expenses. The increase in O&M costs is also affecting the project returns.

##### **4.14.4 Financing road construction projects :**

- In the case of toll motorways, the challenge of financing construction projects is different but still remains. Traditionally, the construction of toll motorways is a profitable investment but in the times of recession, funding may be rare or nonexistent.
- Powerful national economies may be able to efficiently tackle the problem but weaker economies can hardly find the financing sources for road construction projects.

##### **4.14.5 Climate Change:**

- The road sector is vulnerable to climate change impacts. Climate change and extreme weather events pose a significant challenge to the safety, reliability, effectiveness and sustainability of road transportation systems. Tsunami waves, wildfires, floods and hurricanes constitute a big risk for passengers, vehicles and goods, as well as for the integrity of the transport infrastructure.
- Since reliable road transport is an essential driver of economic growth and social wellbeing worldwide, national road authorities and motorway operators must adapt the infrastructure to climate change and increase the resilience of road transport to extreme weather

##### **4.14.6 Economy and cost effectiveness:**

- Among all transport modes, road transport occupies a significant place in short- and medium distance travel operations. However, the unit cost of transportation (per ton × km), compared with other modes of transport, remains high and is getting higher and cost-ineffective as the travel distance increases.
- Road transport cost comprises direct costs (fuel, capital depreciation, maintenance, motorway tolls, ferry fares and wages) and external costs (noise, congestion, infrastructure damages, health and environmental issues).

#### **a. Recent Initiatives by Government**

##### **i. Bhoomi Rashi – Land Acquisition Portal**

The ministry has corroborated with the National Informatics Centre, to create Bhoomirashi, a web portal which digitises the cumbersome land acquisition process, and also helps in processing notifications relating to land acquisition online. Processing time, which was earlier two to three months has come down to one to two weeks now.



ii. Central Road and Infrastructure Fund (CRIF)

A majority of the Ministry's expenditure is managed through transfers from the CRIF. A portion of the cess collected on motor spirit and high-speed diesel is earmarked for the development of NHs and SHs, and the amount is transferred to the non-lapsable CRIF. This amount is eventually released to the NHAI, and to the state/UT governments for the development of road infrastructure, and other projects (such as ports, railway track, airports) in the country. For 2024-25, the transfer from CRIF towards the Ministry is estimated at Rs 3,46,400 Mn.

iii. National Investment Fund (NIF)

The NIF was created in 2005, and is credited with proceeds from disinvestments of public sector enterprises. The Ministry finances the Special Accelerated Road Development Programme in North East (SARDP-NE) with funds from the NIF.

iv. Investment in roads and other infrastructure

- CareEdge Ratings estimates that India will require additional infrastructure investment of US\$ 18-20 trillion in the next 25 years to become a US\$ 25-30 trillion economy by 2047.
- The Cabinet Committee on Economic Affairs, has given the approval for the development of eight key National High-Speed Corridor projects, spanning a total length of 936 km, with an investment of Rs. 50,655 crore (US\$ 6.09 billion) nationwide.

v. FASTag – Electronic Toll Collection

National Electronic Toll Collection (NETC) system, has been implemented on pan India basis in order to remove bottlenecks and ensure seamless movement of traffic and collection of user fee as per the notified rates, using passive Radio Frequency Identification (RFID) technology.

vi. Revival of languishing projects

Projects which were languishing for a number of years have been attempted to be revived, with the help of a number of policy measures taken by the government. Some of the policy measures like Premium deferment in stressed projects, extension of concession period for languishing projects to the extent of delay not attributable to concessionaires, One Time Capital Support for physical completion of languishing projects that have achieved at least 50 per cent physical progress, through one time fund infusion by NHAI, subject to adequate due diligence on a case to case basis.

vii. Rural development

The Central government launched the Pradhan Mantri Gram Sadak Yojana to provide all-weather road connectivity to the eligible unconnected habitations in rural areas. Over 7 lakh kilometres of roads have been constructed under the first and second phases of the scheme, which is currently in its third phase. Under the Union Budget 2024-25, the Government of India allocated Rs.1,90,000 Mn (US\$ 2,370 million) for Pradhan Mantri Gram Sadak Yojana (PMGSY).

viii. Improve safety standards

The Government of India has announced rules to improve road safety, such as fixed driving hours for commercial truck drivers and a mandate to install sleep detection sensors in commercial vehicles. A memorandum of understanding (MoU) has been signed with the National Highways Authority of India (NHAI) by Guru Nanak Dev University (GNDU) to conduct advanced research on various aspects, including highway architecture, protection and revitalisation. The GNDU will undertake studies on ~137 km length of the National Highways passing through Pathankot, Gurdaspur and Amritsar districts.

ix. Portfolios in roads & highways sector

The National Investment and Infrastructure Fund (NIIF) is constantly making progress towards integrating its road and highway portfolio. The NIIF has acquired Essel Devanahalli Tollway and Essel Dichpally Tollway through the NIIF master fund. These road infra-projects will be supported by Athaang Infrastructure, NIIF's

proprietary road network, assisted by a team of established professionals with diverse domain expertise in the transport field.

x. International Tie-ups

The Ministry of Road Transport and Highways signed a MoU with the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology of the Republic of Austria on technology cooperation in the road infrastructure sector.

xi. Encourage private funding to reduce finance constraints

- FDI inflows in construction development stood at US\$ 33.91 billion between April 2000 – March 2024.
- Indian Government and Asian Development Bank signed US\$ 500 million loan agreement to build the longest bridge across river Ganga, in Bihar.
- The Government of India and New Development Bank (NDB) recently signed two loan agreements for US\$ 646 million for upgrading the state highway and district road networks in Andhra Pradesh.

**b. Outlook**

- i. Development and maintenance of road infrastructure is a key Government priority, the sector has received strong budgetary support over the years. During the past years, the standardized processes for Public Private Partnership & public funded projects and a clear policy framework relating to bidding and tolling have also been developed.
- ii. The major initiatives undertaken by the Government such as National Infrastructure Pipeline (NIP) and the PM Gati Shakti National Master Plan will raise productivity, and accelerate economic growth and sustainable development.
- iii. The highways sector in India has been at the forefront of performance and innovation. The government is committed towards expanding the National Highway network to 2 lakh kilometers by 2025 emphasizing the construction of the World Class Road infrastructure in time bound & target oriented way. India has a well-developed framework for Public-Private-Partnerships (PPP) in the highway sector.
- iv. The Asian Development Bank ranked India at the first spot in PPP operational maturity and also designated India as a developed market for PPPs. The Hybrid Annuity Model (HAM) has balanced risk appropriated between private and public partners and boosted PPP activity in the sector.
- v. The Government of India has allocated Rs. 111 lakh crore (US\$ 1.4 trillion) under the National Infrastructure Pipeline for FY25. The roads sector is likely to account for 18% capital expenditure over FY25.

**c. Toll, Operate & Transfer Projects Overview**

- i. The TOT model has been developed to encourage private participation in the Highway sector. NHAI from time to time has awarded contracts for tolling, operation & maintenance of various National Highways stretches on a TOT basis.
- ii. In line with the National Monetization Plan, NHAI's total asset monetization program has crossed INR 1 lakh crore which includes INR 48,995 crore through TOT, INR 25,900 crore through InvIT and INR 42,000 crore through securitization.
- iii. Commenting on the award of the TOT Bundle-16 the same project under consideration in this report, NHAI Chairman Santosh Kumar Yadav said, "The success rate of TOT model in FY24 was 100 per cent and we have seen very encouraging response from the bidders."

*Sources: IBEF Roads Report, August 2024; KPMG Report - Roads and Highway Sector; ICRA reports, website of Ministry of Road Transport and Highways, Government of India*

## 5. Valuation Methodology and Approach

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- 5.1. The present valuation exercise is being undertaken in order to derive the fair EV and fair adjusted EV of the SPV.
- 5.2. The valuation exercise involves selecting a method suitable for the purpose of valuation, by exercise of judgment by the valuers, based on the facts and circumstances as applicable to the business of the company to be valued.
- 5.3. There are three generally accepted approaches to valuation:
  - a) "Cost" approach
  - b) "Market" approach
  - c) "Income" approach

### Cost Approach

- 5.4. The cost approach values the underlying assets of the business to determine the business value. This valuation method carries more weight with respect to holding companies than operating companies. Also, cost value approaches are more relevant to the extent that a significant portion of the assets are of a nature that could be liquidated readily if so desired.

### Net Asset Value ("NAV") Method

- 5.5. The NAV Method under Cost Approach considers the assets and liabilities, including intangible assets and contingent liabilities. The Net Assets, after reducing the dues to the preference shareholders, if any, represent the value of a company.

The NAV Method is appropriate in a case where the main strength of the business is its asset backing rather than its capacity or potential to earn profits. This valuation approach is also used in cases where the firm is to be liquidated, i.e. it does not meet the "Going Concern" criteria.

As an indicator of the total value of the entity, the NAV method has the disadvantage of only considering the status of the business at one point in time.

Additionally, NAV does not properly take into account the earning capacity of the business or any intangible assets that have no historical cost. In many aspects, NAV represents the minimum benchmark value of an operating business.

### Market Approach

- 5.6. Under the Market approach, the valuation is based on the market value of the company in case of listed companies, and comparable companies' trading or transaction multiples for unlisted companies. The Market approach generally reflects the investors' perception about the true worth of the company.

### Comparable Companies Multiples ("CCM") Method

- 5.7. The value is determined on the basis of multiples derived from valuations of comparable companies, as manifest in the stock market valuations of listed companies. This valuation is based on the principle that market valuations, taking place between informed buyers and informed sellers, incorporate all factors relevant to valuation. Relevant multiples need to be chosen carefully and adjusted for differences between the circumstances.

### Comparable Transactions Multiples ("CTM") Method

- 5.8. Under the CTM Method, the value is determined on the basis of multiples derived from valuations of similar transactions in the industry. Relevant multiples need to be chosen carefully and adjusted for differences between the circumstances. Few of such multiples are EV/Earnings before Interest, Taxes, Depreciation & Amortization ("EBITDA") multiple and EV/Revenue multiple.

### Market Price Method

- 5.9. Under this method, the market price of an equity share of the company as quoted on a recognized stock exchange is normally considered as the fair value of the equity shares of that company where such quotations are arising from the shares being regularly and freely traded. The market value generally reflects the investors' perception about the true worth of the company.

### Income Approach

- 5.10. The income approach is widely used for valuation under "Going Concern" basis. It focuses on the income generated by the company in the past as well as its future earning capability. The Discounted Cash Flow Method under the income approach seeks to arrive at a valuation based on the strength of future cash flows.

### DCF Method

- 5.11. Under DCF Method value of a company can be assessed using the Free Cash Flow to Firm Method ("FCFF") or Free Cash Flow to Equity Method ("FCFE"). Under the DCF method, the business is valued by discounting its free cash flows for the explicit forecast period and the perpetuity value thereafter. The free cash flows represent the cash available for distribution to both, the owners and creditors of the business. The free cash flows in the explicit period and those in perpetuity are discounted by the WACC. The WACC, based on an optimal vis-à-vis actual capital structure, is an appropriate rate of discount to calculate the present value of future cash flows as it considers equity-debt risk by incorporating debt-equity ratio of the firm.

The perpetuity (terminal) value is calculated based on the business' potential for further growth beyond the explicit forecast period. The "Constant Growth Model" is applied, which implies an expected constant level of growth for perpetuity in the cash flows over the last year of the forecast period.

The discounting factor (rate of discounting the future cash flows) reflects not only the time value of money, but also the risk associated with the business' future operations. The EV (aggregate of the present value of explicit period and terminal period cash flows) so derived, is further reduced by the value of debt, if any, (net of cash and cash equivalents) to arrive at value to the owners of the business.

### Conclusion on Cost Approach

- 5.12. The existing book value of EV of the SPV comprising of the value of its Net fixed assets, Net intangible assets and working capital based on the Provisional Financial Statements as at 31<sup>st</sup> December 2024 prepared as per Indian Accounting Standards (Ind AS) are as under :

SPV	Book EV (INR Mn)
HGRBPL	2,757

In the present case, the SPV operate and maintain the project facilities in accordance with the terms and conditions under the relevant concession agreement. During the concession period, the SPV operate and maintain the road asset and earn revenues through annuity payment that are pre-determined as per the concession agreement. In such scenario, the true worth of the business is reflected in its future earning capacity rather than the cost of the project. Accordingly, I have not considered the cost approach for the current valuation exercise

### Conclusion on Market Approach

- 5.13. The present valuation exercise is to undertake fair EV of the SPV engaged in the road infrastructure projects for a predetermined tenure. Further, the tariff revenue and expenses are very specific to the SPV depending on the nature of their geographical location, stage of project, terms of profitability. In the absence of any exactly comparable listed companies with characteristics and parameters similar to that of the SPV, I have not considered CCM method in the present case. In the absence of adequate details about the Comparable Transactions, I was unable to apply the CTM method. Currently, the equity shares of the SPV are not listed on any recognized stock exchange of India. Hence, I was unable to apply market price method.

### Conclusion on Income Approach

- 5.14. The SPV operates under a HAM based concession agreement with the relevant regulatory authorities. The revenue of the SPV is based on tenure, annuity payments, operations and other factors that are unique to the SPV. The revenue of the SPV is mainly derived from the annuity payments (annuity fees), interest income on balance annuity payments (which is linked to bank rate) and O&M payments (adjusted for inflation), that is defined under the respective Concession Agreement for the operation period.
- 5.15. The annuity fees are typically pre-determined with the relevant government authority (NHAI in this case) and cannot be modified to reflect prevailing circumstances. Interest on balance annuity payments are linked to bank rate, which is changed by RBI based on prevailing market conditions.
- 5.16. The rights in relation to underlying asset of the SPV shall be transferred after the expiry of the Concession Period. Accordingly, since the SPV is generating income based on pre-determined agreements / mechanism and since the Investment Manager has provided me with the financial projections of the SPV for the balance tenor of the concession agreements, DCF Method under the income approach has been considered as the appropriate method for the present valuation exercise.

## 6. Valuation of the SPV

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- 6.1. In the present exercise, my objective is to determine the Fair Enterprise Value of the SPV as per the DCF Method. EV is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash and cash equivalents to meet those liabilities. Accordingly, in the present case, I have considered it appropriate to consider cash flows at FCFF (Free Cash Flow to Firm) level i.e., cash flows that are available to all the providers of capital (equity shareholders, preference shareholders and lenders). Therefore, cash flows required to service lenders and preference shareholders such as interest, dividend, repayment of principal amount and even additional fund raising are not considered in the calculation of FCFF.
- 6.2. While carrying out this engagement, I have relied extensively on the information made available to me by the Investment Manager. I have considered projected financial statement of the SPV as provided by the Investment Manager. I have not tested individual assumptions or attempted to substantiate the veracity or integrity of such assumptions in relation to the forward-looking financial information. However, I have made sufficient enquiries to satisfy myself that such information has been prepared on a reasonable basis. Notwithstanding anything above, I cannot provide any assurance that the forward looking financial information will be representative of the results which will actually be achieved during the cash flow forecast period.
- 6.3. Following are the major steps I have considered in order to arrive at the EV of the SPV as per the DCF Method:
1. Determination of Free Cash Flows to Firm which included:
    - a) Obtaining the financial projections to determine the cash flows expected to be generated by the SPV from the Investment Manager;
    - b) Analyzed the projections and its underlying assumptions to assess the reasonableness of the cash flows;
  2. Determination of the discount rate for the explicit forecast period; and
  3. Applying the discount rate to arrive at the present value of the explicit period cash flows and for arriving at the terminal value.
- 6.4. The key assumptions of the projections provided to me by the Investment Manager are:

### Key Assumptions:

#### 6.5. Revenue cash flows for the HAM SPV:

The Cash flow for the SPV can be divided into two segments:

##### **Payment from NHAI during the Construction Period:**

The SPV is eligible to receive 40% of the Bid Project Cost (BPC), adjusted for the price index multiple, in 5 installments of 8% each during the construction period. I have been represented by the Investment Manager that the SPV has received the agreed portion of the inflation adjusted bid project cost (of 40%) as per the respective concession agreements.

**Payment by NHAI during the Operation Period:** Accordingly, the revenue of the SPV would mainly consist of the following receipts:

- a) **Annuity payments:** The Bid Project Cost remaining, adjusted for the price index multiple, to be paid in pursuance of the concession agreement (i.e. the Balance Completion Cost) is eligible to be received by the SPV by way of specified biannual installments as mentioned in its concession agreement for the balance period of operations. The Investment Manager has independently evaluated the amount of Balance Completion Cost [INR 3,703 Mn] which has been considered for the purpose of this Valuation.
- b) **Interest:** As per the concession agreement, the SPV is entitled to receive interest on reducing Balance Completion Cost equal to applicable Bank Rate (as decided by the Monetary Policy Committee and published by the Reserve Bank of India) + 3.00% spread. Such interest is due and payable along with each of the biannual installments as mentioned above; and
- c) **Operation and Maintenance Revenue:** In lieu of O&M expenses to be incurred by SPV, SPV is eligible for certain O&M income (as defined in the concession agreement) at each biannual installment date, duly adjusted for an appropriate inflation rate.

**Accrued Revenue:** We understand that there were some construction works pending with regard to the SPV due to which annuity has been received till date considering Balance Completion Cost (BCC) of INR 3,611 Mn instead of Final Balance Completion Cost (BCC) of INR 3,703 Mn. Such delayed approval of the Final BCC resulted in lesser receipts to the extent of INR 6.0 Mn in the past which is expected to be received with the fourth annuity.

#### 6.6. Operating and Maintenance Expenses:

Since the SPV is operational on the Valuation Date, following are the major costs incurred by the SPV:

##### **Operation and Maintenance Costs (Routine) ("O&M Costs")**

These are routine costs incurred every year. These costs are related to the normal wear and tear of the road and hence involve repairing the patches damaged mainly due to heavy traffic movement. O&M Costs also includes staff salaries, project management fees, professional fees, insurance, security expenses, electricity, etc. The primary purpose of these expenses is to maintain the road as per the specifications mentioned in the respective concession agreement. SPV are responsible for carrying out operation and maintenance activities at the road during their concession period. Within the scope of such operation and maintenance obligations, the SPV may be required to undertake routine maintenance of project roads, maintain and comply with safety standards to ensure safe traffic movement, deploy adequate human resources for incident management, maintain proper medical and sanitary arrangements for personnel deployed at the site, prevent any unauthorized entry to and exit from the projects as may be required.

Further, Operation & Maintenance Costs have been considered based on the Technical Due Diligence ("TDD") Reports prepared by Resotech Consultancy Services Pvt. Ltd. for the SPV as provided to me by the Investment Manager. Given the technical nature of this study, I have relied on the expert's report for these costs. Further, no payment schedule for O&M Costs was provided to me and hence to that extent I have relied on the management's estimate.

#### 6.7. Major Maintenance and Repairs Costs ("MMR Costs")

##### **Estimating the MMR Costs**

Major maintenance expenses will be incurred on periodic basis. These are the costs incurred to bring the road assets back to its earlier condition or keep the road assets in its normal condition as per the concession agreement terms. These expenses are primarily related to the construction or re-laying of the top layer of the road. Accordingly, such costs include considerable amounts of materials and labour.

Further, Major Maintenance Costs have been considered based on the Technical Due Diligence ("TDD") Report for the SPV prepared by Resotech Consultancy Services Pvt. Ltd. as provided to me by the Investment Manager. Given the technical nature of this study, I have relied on the expert's report for these costs.

**Capital Expenditure ("Capex"):** As represented by the Investment Manager, regarding the maintenance Capex, the same has already been considered in the Operation & Maintenance expenditure and Major Maintenance and Repairs expenditure for the projected period.

**Direct Taxes:** As per the discussions with the Investment Manager, the new provisions of Income Tax Act, 1961 (Section 115BAA) have been considered for the projected period of the SPV. The SPV has been filing its income tax returns on the basis of IND AS Income, adjusted for adjustments prescribed by Income Computation and Deduction Standards III i.e Revenue Recognition and ICDS III i.e. Construction Contracts which can be substantiated from the income tax returns and tax audit report of the SPV.

##### **Working Capital:**

The Investment Manager has provided projected Working Capital information for the SPV. I have relied on the same. Further, as represented by the Investment Manager, current asset of INR 366 Mn relating to accrued revenue receivable from NHAI against change of scope works is receivable in the upcoming period.

**GST Claim:** The Investment Manager has informed us that due to the changes in extant provision of the Goods & Services Tax ("GST") laws, the SPV is eligible to receive GST claims from NHAI which are as follows:

**6.7.1. On Annuity:** As per the Annexure IV of the Policy circular of Ministry of Road Transport & Highways as on 23rd December 2022, SPV is eligible to claim reimbursement of GST on annuity, considering change in law, after adjusting GST input credit lying with the SPV.

**6.7.2. On Interest on Annuity:** As per the Ministry of Finance circular dated 17th June 2021, GST will be applicable on annuity (deferred payments) paid for construction of roads i.e. annuity plus interest, additionally Ministry of Road Transport & Highways issued clarification dated 17th June 2021 that the SPV will be eligible to claim reimbursement of GST on interest.



**6.7.3. Change in GST Rates:** Ministry of Finance vide notification no. 03/2022 dated 13th July 2022, increased the GST rates applicable on road construction services from 12% to 18%. As per the Policy circular of Ministry of Road Transport & Highways as on 23rd December 2022, the above increase in GST rates are eligible for reimbursement from NHAI as it is considered as change in law (i.e. change of rate).

#### **Impact of Ongoing Litigations on Valuation**

As on 31<sup>st</sup> December 2024, the Investment Manager has confirmed to me that there are no ongoing Litigations with regards to the SPV.

#### **Calculation of Weighted Average Cost of Capital for the SPV**

##### **6.8. Cost of Equity:**

Cost of Equity (CoE) is a discounting factor to calculate the returns expected by the equity holders depending on the perceived level of risk associated with the business and the industry in which the business operates.

For this purpose, I have used the Capital Asset Pricing Model (CAPM), which is a commonly used model to determine the appropriate cost of equity for the SPV.

$$K(e) = R_f + [ERP \times \text{Beta}] + \text{CSRP}$$

Wherein:

$K(e)$  = cost of equity

$R_f$  = risk free rate

ERP = Equity Risk Premium

Beta = a measure of the sensitivity of assets to returns of the overall market

CSRP = Company Specific Risk Premium (In general, an additional company-specific risk premium will be added to the cost of equity calculated pursuant to CAPM).

For valuation exercise, I have arrived at adjusted cost of equity of the SPV based on the above calculation (Refer Appendix 2).

##### **6.9. Risk Free Rate:**

I have applied a risk free rate of return of 6.79% on the basis of the zero coupon yield curve as on 31<sup>st</sup> December, 2024 for government securities having a maturity period of 10 years, as quoted on the website of Clearing Corporation of India Limited.

##### **6.10. Equity Risk Premium ("ERP"):**

Equity Risk Premium is a measure of premium that investors require for investing in equity markets rather than bond or debt markets. The equity risk premium is estimated based on consideration of historical realised returns on equity investments over a risk-free rate as represented by 10 year government bonds. For my estimation of the ERP, I have considered rolling historical returns of 10, 15 & 20 year of Nifty 50 index from year 2000 to 2024. The 10 year rolling return, 15 year rolling return and the 20 year return for several periods were calculated. I have computed equity risk premium for each rolling period and accordingly I have arrived at ERP in the range of 6.2%, 6.4% & 8.1% which averages to ~7.0%. Based on the aforementioned, a 7% equity risk premium for India is considered appropriate.

##### **6.11. Debt – Equity Ratio:**

I have considered the target debt-equity ratio as per the industry standards. I have considered the industry benchmark since the cost of capital is a forward looking measure, and captures the cost of raising new funds to buy the asset at any valuation date (not the current actually deployed). Specifically, such benchmark is required to consider the nature of the asset class, and the comparative facts from the industry to arrive at the correct assumption.

Given the risk profile of HAM projects, and considering the leverage at 70-80% of the total project cost based on a rating agencies report available in public domain, and further considering the InvIT Regulations allowing in general upto 70% leverage in assets where AAA rating has been obtained, a debt-to-equity ratio of 70% for HAM asset was found to be appropriate.

##### **6.12. Beta:**

Beta is a measure of the sensitivity of a company's stock price to the movements of the overall market index. In the present case, I find it appropriate to consider the beta of companies in similar business/ industry to that of the SPV for an appropriate period namely IRB InvIT Fund and Power Grid Infrastructure Investment Trust.

The selected comparables were chosen for Beta computation due to their structural and operational similarity to the InvIT and the SPV. Both derive the majority of revenues from fixed agreements, similar to that of the SPV, ensuring revenue predictability and minimizing market risk, making them reliable benchmarks for risk assessment.

I have further unlevered the beta of such companies based on market debt-equity of the respective company using the following formula:

$$\text{Unlevered Beta} = \text{Levered Beta} / [1 + (\text{Debt} / \text{Equity}) * (1-T)]$$

Further I have re-levered it based on debt-equity at 70:30 based on the industry Debt: Equity ratio of BOT based projects using the following formula:

$$\text{Re-levered Beta} = \text{Unlevered Beta} * [1 + (\text{Debt} / \text{Equity}) * (1-T)]$$

Accordingly, as per above, I have arrived at re-levered betas of the SPV. (Refer Appendix 3)

**6.13. Company Specific Risk Premium (“CSRP”):**

Discount Rate is the return expected by a market participant from a particular investment and shall reflect not only the time value of money but also the risk inherent in the asset being valued as well as the risk inherent in achieving the future cash flows. In the present case, considering the counterparty risk for the SPV, considering the length of the explicit period for the SPV, and basis my discussion with Investment Manager, I found it appropriate to consider 0% CSRP for the SPV.

**6.14. Cost of Debt:**

The calculation of Cost of Debt post-tax can be defined as follows:

$$K(d) = K(d) \text{ pre-tax} * (1 - T)$$

Wherein:

K(d) = Cost of debt

T = tax rate as applicable

For valuation exercise, pre-tax cost of debt has been considered as 8.25% for the SPV, as represented by the Investment Manager based on the weighted average Cost of Debt of the SPV.

**6.15. Weighted Average Cost of Capital (WACC):**

The discount rate, or the WACC, is the weighted average of the expected return on equity and the cost of debt. The weight of each factor is determined based on the company's optimal capital structure.

Formula for calculation of WACC:

$$\text{WACC} = [K(d) * \text{Debt} / (\text{Debt} + \text{Equity})] + [K(e) * (1 - \text{Debt} / (\text{Debt} + \text{Equity}))]$$

Accordingly, as per above, I have arrived at the WACC for the explicit period of the SPV.

**6.16. Cash Accrual Factor (CAF) and Discounting Factor:**

Discounted cash flow require to forecast cash flows in future and discount them to the present in order to arrive at present value of the assets as on Valuation Date. To discount back the projections we use the Cash Accrual Factor (“CAF”). The Cash Accrual Factor refers to the duration between the Valuation date and the point at which each cash flow is expected to accrue.

In case of HAM Projects, the annuities are received bi-annually at a predetermined date and the concession agreement provides that the annuities would be realized in 15 days from the annuity date. Hence we have considered the annuity realizations date for the purpose of determination of the CAF Accordingly, the cash flows during each year of the projected period are discounted back from the respective annuity realization to Valuation Date.

Discounted cash flow is equal to sum of the cash flow in each period divided by present value factor, where the present value factor is determined by raising one plus discount rate (WACC) raised to the power of the CAF.

$$\text{DCF} = [\text{CF1} / (1+r)^{\text{CAF1}}] + [\text{CF2} / (1+r)^{\text{CAF2}}] + \dots + [\text{CFn} / (1+r)^{\text{CAFn}}]$$

Where,

CF = Cash Flows,

CAF = Cash accrual factor for particular period

r = Discount Rate (i.e. WACC)

- 6.17.** At the end of the agreed concession period, the rights in relation to the underlying assets, its operations, the obligation to maintain the road revert to the government authority that granted the concession. Hence, SPV are not expected to generate cash flow after the expiry of their respective concession agreements. Accordingly, I found it appropriate not to consider terminal period value, which represents the present value at the end of explicit forecast period of all subsequent cash flows to the end of the life of the assets or into perpetuity if the assets have an indefinite life, in this valuation exercise.



## 7. Valuation Conclusion

- 7.1. The current valuation has been carried out based on the discussed valuation methodology explained herein earlier. Further, various qualitative factors, the business dynamics and growth potential of the business, having regard to information base, management perceptions, key underlying assumptions and limitations were given due consideration.
- 7.2. I have been represented by the Investment Manager that there is no potential devolvement on account of the contingent liability as of valuation date; hence no impact has been factored in to arrive at fair EV of the SPV.
- 7.3. Based on the above analysis, the fair EV as on the Valuation Date of the SPV is as mentioned below:

				INR Mn
SPV	End of Projected Period	Projection Period (Balance Concession Period)	Enterprise Value	Adjusted Enterprise Value
HGRBPL	21 <sup>st</sup> May, 2038	~13 years 2 months	3,252	3,478
<i>(Refer Appendix 1 for detailed workings)</i>				

- 7.4. EV is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash and cash equivalents to meet those liabilities.
- 7.5. Adjusted Enterprise Value ("Adj. EV") is described as the Enterprise Value plus any closing cash or cash equivalents as at the date of valuation.
- 7.6. The fair EV of the SPV are estimated using DCF method. The valuation requires Investment Manager to make certain assumptions about the model inputs including forecast cash flows, discount rate, and credit risk.
- 7.7. Valuation is based on estimates of future financial performance or opinions, which represent reasonable expectations at a particular point of time, but such information, estimates or opinions are not offered as predictions or as assurances that a particular level of income or profit will be achieved, a particular event will occur or that a particular price will be offered or accepted. Actual results achieved during the period covered by the prospective financial analysis will vary from these estimates and the variations may be material.

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## 8. Additional Procedures to be complied with in accordance with InvIT regulations

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### 8.1. Scope of Work

The Schedule V of the SEBI InvIT Regulations prescribes the minimum set of mandatory disclosures to be made in the valuation report. In this reference, the minimum disclosures in valuation report may include following information as well, so as to provide the investors with the adequate information about the valuation and other aspects of the underlying assets of the InvIT.

The additional set of disclosures, as prescribed under Schedule V of InvIT Regulations, to be made in the valuation report of the SPV are as follows:

- List of one-time sanctions/approvals which are obtained or pending;
- List of up to date/overdue periodic clearances;
- Statement of assets;
- Estimates of already carried as well as proposed major repairs and improvements along with estimated time of completion;
- Revenue pendencies including local authority taxes associated with InvIT asset and compounding charges, if any;
- On-going material litigations including tax disputes in relation to the assets, if any;
- Vulnerability to natural or induced hazards that may not have been covered in town planning/ building control.

While the SEBI InvIT Regulations are not applicable in the present case, as a matter of prudence, I have made these additional disclosures in Para 8.3 below.

### 8.2. Limitations

This Report is based on the information provided by the representatives of the Investment Manager. The exercise has been restricted and kept limited to and based entirely on the documents, records, files, registers and information provided to me. I have not verified the information independently with any other external source.

I have assumed the genuineness of all signatures, the authenticity of all documents submitted to me as original, and the conformity of the copies or extracts submitted to me with that of the original documents.

I have assumed that the documents submitted to me by the representatives of Investment Manager in connection with any particular issue are the only documents related to such issue.

I have reviewed the documents and records from the limited perspective of examining issues noted in the scope of work and I do not express any opinion as to the legal or technical implications of the same.

### 8.3. Analysis of Additional Set of Disclosures for the SPV

#### A. List of one-time sanctions/approvals which are obtained or pending:

The list of sanctions/ approvals obtained by the SPV till the date of this Report is provided in Appendix 4. As informed by the Investment Manager, there are no applications for government sanctions/ licenses by the SPV for which approval is pending as on 31<sup>st</sup> December 2024. Further, I have been informed by the Investment Manager that any applicable approvals required for any works to be undertaken during the operation phase are obtained as and when necessary based on the nature or extent of such works.

#### B. List of up to date/ overdue periodic clearances:

The Investment Manager has confirmed that the SPV is not required to take any periodic clearances and hence there are no up to date/ overdue periodic clearances as on 31<sup>st</sup> December 2024.

C. Statement of assets included:

The details of assets of the SPV as at 31<sup>st</sup> December, 2024 are as mentioned below:

INR Mn					
Sr. No.	SPVs	Net Fixed Assets	Net Intangible Asset	Non-Current Assets	Current Assets
1	HGRBPL	-	-	1,913	1,185
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>1,913</b>	<b>1,185</b>

D. Estimates of already carried as well as proposed major repairs and improvements along with estimated time of completion:

I have been informed that maintenance is regularly carried out by SPV in order to maintain the working condition of the assets. Further, I have been represented by the Investment Manager, that no major repairs were undertaken with regards to the SPV till 31<sup>st</sup> December, 2024.

**Forecasted major repairs**

INR Mn							
SPVs	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32
HGBRPL	-	-	7	-	-	323	-

INR Mn							
SPVs	FY 33	FY 34	FY 35	FY 36	FY 37	FY 38	FY 39
HGBRPL	-	7	-	-	162	-	-

Source: Investment Manager

E. Revenue pendencies including local authority taxes associated with InvIT asset and compounding charges, if any:

Investment Manager has informed me that there are no material dues including local authority taxes (such as Municipal Tax, Property Tax, etc.) pending to be payable to the government authorities with respect to the SPV (InvIT assets).

F. On-going material litigations including tax disputes in relation to the assets, if any:

As informed by the Investment Manager, there are no litigations outstanding as at the Valuation Date, and hence I have relied on the same

G. Vulnerability to natural or induced hazards that may not have been covered in town planning/ building control:

Investment Manager has confirmed to me that there are no such natural or induced hazards which have not been considered in town planning/ building control.

## 9. Sources of Information

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- 9.1. For the Purpose of undertaking this valuation exercise, I have relied on the following sources of information provided by the Investment Manager:
- i. Audited Financial Statements of the SPV for Financial Year ("FY") ended 31<sup>st</sup> March 2022, 31<sup>st</sup> March 2023 and 31<sup>st</sup> March 2024;
  - ii. Provisional Financial Statements of the SPV for the period ended 31<sup>st</sup> December, 2024;
  - iii. Projected financial information for the remaining project life for the SPV;
  - iv. Details of projected Major Maintenance & Repairs (MMR) Expenditure;
  - v. Technical Due Diligence ("TDD") Report dated May 2023 prepared by M/s Resotech Consultancy Services Pvt. Ltd. for the SPV;
  - vi. Details of Written Down Value (WDV) (as per Income Tax Act) of assets as at Valuation Date;
  - vii. Concession Agreement of the SPV with the respective authority including the supplementary agreement;
  - viii. List of licenses / approvals, details of tax litigations, civil proceeding and arbitrations of the SPV;
  - ix. Shareholding pattern as on the report date of the SPV and other entities mentioned in this Report;
  - x. Management Representation Letter by the Investment Manager dated 24<sup>th</sup> January 2025;
  - xi. Relevant data and information about the SPV provided to us by the Investment Manager either in written or oral form or in the form of soft copy;
- 9.2. Information provided by leading database sources, market research reports and other published data.
- 9.3. The information provided to me by the Investment Manager in relation to the SPV included but not limited to historical financial statements, forecasts/projections, other statements and assumptions about future matters like forward-looking financial information prepared by the Investment Manager. The forecasts and projections as supplied to me are based upon assumptions about events and circumstances which are yet to occur.
- 9.4. I have not tested individual assumptions or attempted to substantiate the veracity or integrity of such assumptions in relation to the forward-looking financial information, however, I have made sufficient enquiries to satisfy myself that such information has been prepared on a reasonable basis.
- 9.5. Notwithstanding anything above, I cannot provide any assurance that the forward looking financial information will be representative of the results which will actually be achieved during the cash flow forecast period.

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## 10. Exclusions and Limitations

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- 10.1. My Report is subject to the limitations detailed hereinafter. This Report is to be read in totality, and not in parts, in conjunction with the relevant documents referred to herein.
- 10.2. Valuation analysis and results are specific to the purpose of valuation and is not intended to represent value at any time other than the valuation date of 31<sup>st</sup> December 2024 ("Valuation Date") mentioned in the Report and as per agreed terms of my engagement. It may not be valid for any other purpose or as at any other date. Also, it may not be valid if done on behalf of any other entity.
- 10.3. This Report, its contents and the results are specific to (i) the purpose of valuation agreed as per the terms of my engagements; (ii) the Valuation Date and (iii) are based on the financial information of the SPV till 31<sup>st</sup> December 2024. The Investment Manager has represented that the business activities of the SPV have been carried out in normal and ordinary course between 31<sup>st</sup> December 2024 and the Report Date and that no material changes have occurred in the operations and financial position between 31<sup>st</sup> December 2024 and the Report date.
- 10.4. The scope of my assignment did not involve me performing audit tests for the purpose of expressing an opinion on the fairness or accuracy of any financial or analytical information that was provided and used by me during the course of my work. The assignment did not involve me to conduct the financial or technical feasibility study. I have not done any independent technical valuation or appraisal or due diligence of the assets or liabilities of the SPV or any of other entity mentioned in this Report and have considered them at the value as disclosed by the SPV in their regulatory filings or in submissions, oral or written, made to me.
- 10.5. In addition, I do not take any responsibility for any changes in the information used by me to arrive at my conclusion as set out here in which may occur subsequent to the date of my Report or by virtue of fact that the details provided to me are incorrect or inaccurate.
- 10.6. I have assumed and relied upon the truth, accuracy and completeness of the information, data and financial terms provided to me or used by me; I have assumed that the same are not misleading and do not assume or accept any liability or responsibility for any independent verification of such information or any independent technical valuation or appraisal of any of the assets, operations or liabilities of the SPV or any other entity mentioned in the Report. Nothing has come to my knowledge to indicate that the material provided to me was misstated or incorrect or would not afford reasonable grounds upon which to base my Report.
- 10.7. This Report is intended for the sole use in connection with the purpose as set out above. It can however be relied upon and disclosed in connection with any statutory and regulatory filing in connection with the provision of SEBI InvIT Regulations. However, I will not accept any responsibility to any other party to whom this Report may be shown or who may acquire a copy of the Report, without my written consent.
- 10.8. It is clarified that this Report is not a fairness opinion under any of the stock exchange/ listing regulations. In case of any third party having access to this Report, please note this Report is not a substitute for the third party's own due diligence/ appraisal/ enquiries/ independent advice that the third party should undertake for his purpose.
- 10.9. Further, this Report is necessarily based on financial, economic, monetary, market and other conditions as in effect on, and the information made available to me or used by me up to, the date hereof. Subsequent developments in the aforementioned conditions may affect this Report and the assumptions made in preparing this Report and I shall not be obliged to update, revise or reaffirm this Report if information provided to me changes.
- 10.10. This Report is based on the information received from the sources as mentioned in Section 9 of this Report and discussions with the Investment Manager. I have assumed that no information has been withheld that could have influenced the purpose of my Report.
- 10.11. Valuation is not a precise science and the conclusions arrived at in many cases may be subjective and dependent on the exercise of individual judgment. There is, therefore, no indisputable single value. I have arrived at an indicative EV based on my analysis. While I have provided an assessment of the value based on an analysis of information available to me and within the scope of my engagement, others may place a different value on this business.
- 10.12. Any discrepancies in any table / appendix between the total and the sums of the amounts listed are due to rounding-off.
- 10.13. Valuation is based on estimates of future financial performance or opinions, which represent reasonable expectations at a particular point of time, but such information, estimates or opinions are not offered as predictions or as assurances that a particular level of income or profit will be achieved, a particular event will occur or that a particular price will be offered or accepted. Actual results achieved during the period covered by the prospective financial analysis will vary from these estimates and the variations may be material.

- 10.14. I do not carry out any validation procedures or due diligence with respect to the information provided/extracted or carry out any verification of the assets or comment on the achievability and reasonableness of the assumptions underlying the financial forecasts, save for satisfying ourselves to the extent possible that they are consistent with other information provided to me in the course of this engagement.
- 10.15. My conclusion assumes that the assets and liabilities of the SPV, reflected in their respective latest balance sheets remain intact as of the Report date.
- 10.16. Whilst all reasonable care has been taken to ensure that the factual statements in the Report are accurate, neither myself, nor any of my associates, officers or employees shall in any way be liable or responsible either directly or indirectly for the contents stated herein. Accordingly, I make no representation or warranty, express or implied, in respect of the completeness, authenticity or accuracy of such factual statements. I expressly disclaim any and all liabilities, which may arise based upon the information used in this Report. I am not liable to any third party in relation to the issue of this Report.
- 10.17. The scope of my work has been limited both in terms of the areas of the business & operations which I have reviewed and the extent to which I have reviewed them. There may be matters, other than those noted in this Report, which might be relevant in the context of the transaction and which a wider scope might uncover.
- 10.18. For the present valuation exercise, I have also relied on information available in public domain; however the accuracy and timelines of the same has not been independently verified by me.
- 10.19. In the particular circumstances of this case, my liability (in contract or under any statute or otherwise) for any economic loss or damage arising out of or in connection with this engagement, however the loss or damage caused, shall be limited to the amount of fees actually received by me from the Investment Manager, as laid out in the engagement letter for such valuation work.
- 10.20. In rendering this Report, I have not provided any legal, regulatory, tax, accounting or actuarial advice and accordingly I do not assume any responsibility or liability in respect thereof.
- 10.21. This Report does not address the relative merits of investing in InvIT as compared with any other alternative business transaction, or other alternatives, or whether or not such alternatives could be achieved or are available.
- 10.22. I am not an advisor with respect to legal, tax and regulatory matters for the proposed transaction. No investigation of the SPV's claim to title of assets has been made for the purpose of this Report and the SPV claim to such rights have been assumed to be valid. No consideration has been given to liens or encumbrances against the assets, beyond the loans disclosed in the accounts. Therefore, no responsibility is assumed for matters of a legal nature.
- 10.23. I have no present or planned future interest in the Trustee, Investment Manager or the SPV and the fee for this Report is not contingent upon the values reported herein. My valuation analysis should not be construed as investment advice; specifically, I do not express any opinion on the suitability or otherwise of entering into any financial or other transaction with the Investment Manager or SPV.
- 10.24. I have submitted the draft valuation report to the Trust and Investment Manager for confirmation of accuracy of the factual data used in my analysis and to prevent any error or inaccuracy in this Report.

#### **Limitation of Liabilities**

- 10.25. It is agreed that, having regard to the RV's interest in limiting the personal liability and exposure to litigation of its personnel, the Sponsor, the Investment Manager and the Trust will not bring any claim in respect of any damage against any of RV personally.
- 10.26. In no circumstances RV shall be responsible for any consequential, special, direct, indirect, punitive or incidental loss, damages or expenses (including loss of profits, data, business, opportunity cost, goodwill or indemnification) in connection with the performance of the services whether such damages are based on breach of contract, tort, strict liability, breach of warranty, negligence, or otherwise, even if the Investment Manager had contemplated and communicated to RV the likelihood of such damages. Any decision to act upon the deliverables (including this Report) is to be made by the Investment Manager and no communication by RV should be treated as an invitation or inducement to engage the Investment Manager to act upon the deliverable(s).
- 10.27. It is clarified that the Investment Manager will be solely responsible for any delays, additional costs, or other liabilities caused by or associated with any deficiencies in their responsibilities, misrepresentations, incorrect and incomplete information including information provided to determine the assumptions.
- 10.28. RV will not be liable if any loss arises due to the provision of false, misleading or incomplete information or documentation by the Investment Manager.

10.29. Further, this Report is necessarily based on financial, economic, monetary, market and other conditions as in effect on, and the information made available to me or used by me up to, the date hereof. Subsequent developments in the aforementioned conditions may affect this Report and the assumptions made in preparing this Report and I shall not be obliged to update, revise or reaffirm this Report if information provided to me changes.

Yours faithfully,

**SWAMINATHAN**  
**SUNDARARAMA**  
**N**

Digitally signed by  
SWAMINATHAN  
SUNDARARAMAN  
Date: 2025.01.25 20:30:42  
+05'30'

**S. Sundararaman**

Registered Valuer

IBBI Registration No.: IBBI/RV/06/2018/10238

Asset Class: Securities or Financial Assets

Place: Chennai

UDIN: 25028423BMOMWY6280

Appendix 1 – Valuation as on 31<sup>st</sup> December 2024 under the DCF Method

INR Mn																		
Date	Finance Income	Changes in Financial Asset										INR Mn						
	A	B	C	D	E	F	G	H	I	Tax	FCFF	CAF	WACC	DF	PVFCFF			
	J=A+B+C+D+E-F-G-H-I																	
21-May-25	366	(143)	41	6	34	-	-	-	(408)	44	599	0.43	7.58%	0.97	581			
21-Nov-25	163	79	23	33	33	-	-	-	(42)	40	235	0.93	7.58%	0.93	220			
21-May-26	159	78	25	36	36	-	-	-	(41)	38	229	1.43	7.58%	0.90	207			
21-Nov-26	153	85	25	36	36	-	-	-	(41)	37	230	1.93	7.58%	0.87	200			
21-May-27	148	78	33	38	38	7	-	-	(39)	35	218	2.43	7.58%	0.84	182			
21-Nov-27	143	91	26	38	38	-	-	-	(7)	35	194	2.93	7.58%	0.81	157			
21-May-28	136	92	28	40	40	-	-	-	-	33	184	3.43	7.58%	0.78	143			
21-Nov-28	129	99	27	39	39	-	-	-	-	32	185	3.93	7.58%	0.75	138			
21-May-29	123	100	29	41	41	-	-	-	-	30	181	4.43	7.58%	0.72	131			
21-Nov-29	116	108	29	41	41	-	-	-	-	29	182	4.93	7.58%	0.70	127			
21-May-30	109	(55)	194	43	43	161	-	-	-	28	16	5.43	7.58%	0.67	11			
21-Nov-30	112	(58)	194	43	43	161	-	-	-	27	17	5.93	7.58%	0.65	11			
21-May-31	117	96	32	45	45	-	-	-	-	24	175	6.43	7.58%	0.63	110			
21-Nov-31	111	102	32	45	45	-	-	-	-	23	176	6.93	7.58%	0.60	106			
21-May-32	104	104	34	48	48	-	-	-	-	21	173	7.43	7.58%	0.58	100			
21-Nov-32	96	111	34	47	47	-	-	-	-	20	173	7.94	7.58%	0.56	97			
21-May-33	89	112	36	50	50	-	-	-	-	18	169	8.43	7.58%	0.54	91			
21-Nov-33	81	112	43	50	50	7	-	-	-	17	163	8.94	7.58%	0.52	85			
21-May-34	74	120	38	52	52	-	-	-	-	14	166	9.43	7.58%	0.50	83			
21-Nov-34	65	128	38	52	52	-	-	-	-	13	166	9.94	7.58%	0.48	80			
21-May-35	57	130	40	55	55	-	-	-	-	11	162	10.43	7.58%	0.47	76			
21-Nov-35	48	135	40	55	55	-	-	-	-	9	160	10.94	7.58%	0.45	72			
21-May-36	39	135	42	58	58	-	-	-	-	7	152	11.44	7.58%	0.43	66			
21-Nov-36	30	(20)	206	57	57	162	-	-	0	5	-9	11.94	7.58%	0.42	-4			
21-May-37	31	142	45	60	60	-	-	-	(0)	3	155	12.44	7.58%	0.40	62			
21-Nov-37	22	145	44	60	60	-	-	-	-	0	151	12.94	7.58%	0.39	59			
21-May-38	12	187	4	5	5	-	-	-	35	2	162	13.44	7.58%	0.37	61			
Enterprise Value																		
3,252																		
(+ ) Closing cash or cash equivalents as at the Valuation Date																		
226																		
Adjusted Enterprise Value																		
3,478																		



## Appendix 2 – Weighted Average Cost of Capital of the HAM SPV as on 31<sup>st</sup> December 2024

Particulars	HGRBPL	Remarks
Risk free return (Rf)	6.79%	Risk Free Rate has been considered based on zero coupon yield curve as at 31 <sup>st</sup> December 2024 of Government Securities having maturity period of 10 years, as quoted on CCIL's website
Market Risk Premium (ERP)	7.00%	Based on historical realized returns on equity investments over a risk free rate represented by 10 years government bonds, a 7% equity risk premium is considered appropriate for India
Beta (Relevered)	0.58	Beta has been considered based on the beta of companies operating in the similar kind of business in India. (Refer Appendix 3 for detailed computation)
<b>Cost of Equity (Ke)</b>	<b>10.85%</b>	<b>Base Ke = Rf + (β x ERP)</b>
Company Specific Risk Premium (CSRP)	0.00%	Based on SPV specific risk(s)
<b>Revised Cost of Equity (Ke)</b>	<b>10.85%</b>	<b>Adjusted Ke = Rf + (β x ERP) + CSRP</b>
Pre-tax Cost of Debt (Kd)	8.25%	As represented by the Investment Manager
Tax rate of SPV	25.17%	Tax Rate Applicable to SPVs is considered
<b>Post-tax Cost of Debt (Kd)</b>	<b>6.17%</b>	<b>Effective cost of debt, Kd = Pre tax Kd * (1-Effective Tax Rate)</b>
Debt/(Debt+Equity)	70.00%	Debt : Equity ratio computed as [D/(D+E)]
<b>WACC</b>	<b>7.58%</b>	<b>WACC = [Ke * (1 - D/(D+E))] + [Kd * (1-t) * D/(D+E)]</b>

**Appendix 3 – Computation of Unlevered and Re-levered Beta**

Particulars	Raw Beta	Debt to Market Capitalisation	Effective Tax Rate (%)	Unlevered Beta
IRB InvIT Fund	0.40	77%	25.17%	0.25
PowerGrid Infrastructure Investment Trust	0.18	4%	25.17%	0.17
		Average		0.21

Particulars	HGRBPL
Unlevered Beta	0.21
Debt Equity Ratio Considered	2.33
Effective Tax rate of SPV	0.25
Relevered beta	0.58

Source: Information provided by database sources, market research, other published data and internal workings.

Appendix 4 – Summary of approval and licences

Sr. No.	Description of the permits	Date of issue	Validity/ Current status	Issuing Authority
1	Letter of Award	28-Feb-20		National Highway Authority of India
2	Appointed Date	15-Jan-21		National Highway Authority of India
3	Consent to Establish: 313298222REWCTO30667376	21-Nov-22	31-Dec-24	Haryana State Pollution Control Board
4	Permission to Extract Ground Water for Infrastructure Use	12-Dec-22		Haryana Water Resources Authority
5	Registration of commercial establishment	10-Mar-23		Rajasthan Shops And Commercial Establishments Acts, 1958

<< End of Report >>